# TECWERK

## The brand for achievers!



# THE BRAND FOR ACHIEVERS

Professisonals in construction, trades and industry deliver peak performance day after day. For over 35 years, they have relied on the exclusive brand TECWERK (formerly known as PROMAT).







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I'm a **TECWERKER** because I can find everything I need for my construction project: from safety helmets to wheelbarrows and bolt cutters. And the best thing is that my specialist dealer delivers directly to my construction site.








At **TECWERK**, we can find not only essential industrial products but also specialised chemical and technical solutions, as well as reliable work safety and operational needs – customised to our industry requirements.



I'm **tecwerking** now, because I'm highly impressed by the wide selection of hand tools, classic work safety products and well-designed operating equipment!

As a municipal principal, we need a reliable partner for tools we require to maintain public buildings like schools and administrative buildings. That is why we choose **TECWERK**.










# EXCLUSIVE BRAND WITH ADDED VALUE

## Top quality at a fair price

TECWERK stands for pure quality: with numerous product innovations and an extensive, attractive range of hand tools, precision tools, abrasives, personal protective equipment and industrial equipment, TECWERK offers outstanding value for money.

The TECWERK range comprises around **10,000 articles – from A as in Angle grinder to Z as in Zinc spray** – and is being expanded continuously.

TECWERK stands for quality and professionalism combined with results orientation and efficiency. Where people and technology work together, **exceptional results are created**.

**Exclusively developed for professionals** in construction, the skilled trades, industry and municipal authorities – and also for home users facing demanding DIY projects.

**Fast product availability**: Through the NORDWEST logistics centre in Alsfeld, the articles are delivered throughout Germany within 24 hours.


TECWERK
TECWERK
TECWERK
Kopf,- Augen-, Atem- und Gehörsc
ERSTE-HILF







# DELIVERY TO THE BUILDING SITE OR YOUR BUSINESS

## Optimum product availability

As a partner of the NORDWEST Handel AG trade association, we use the new 68,000 m² central warehouse in Alsfeld, with which NORDWEST is setting new benchmarks for a forward-looking, high-performance and sustainable supply chain. Ordering our exclusive brand via the new logistics centre means benefiting from a highly professional supply chain that offers speed, reliability and efficiency.

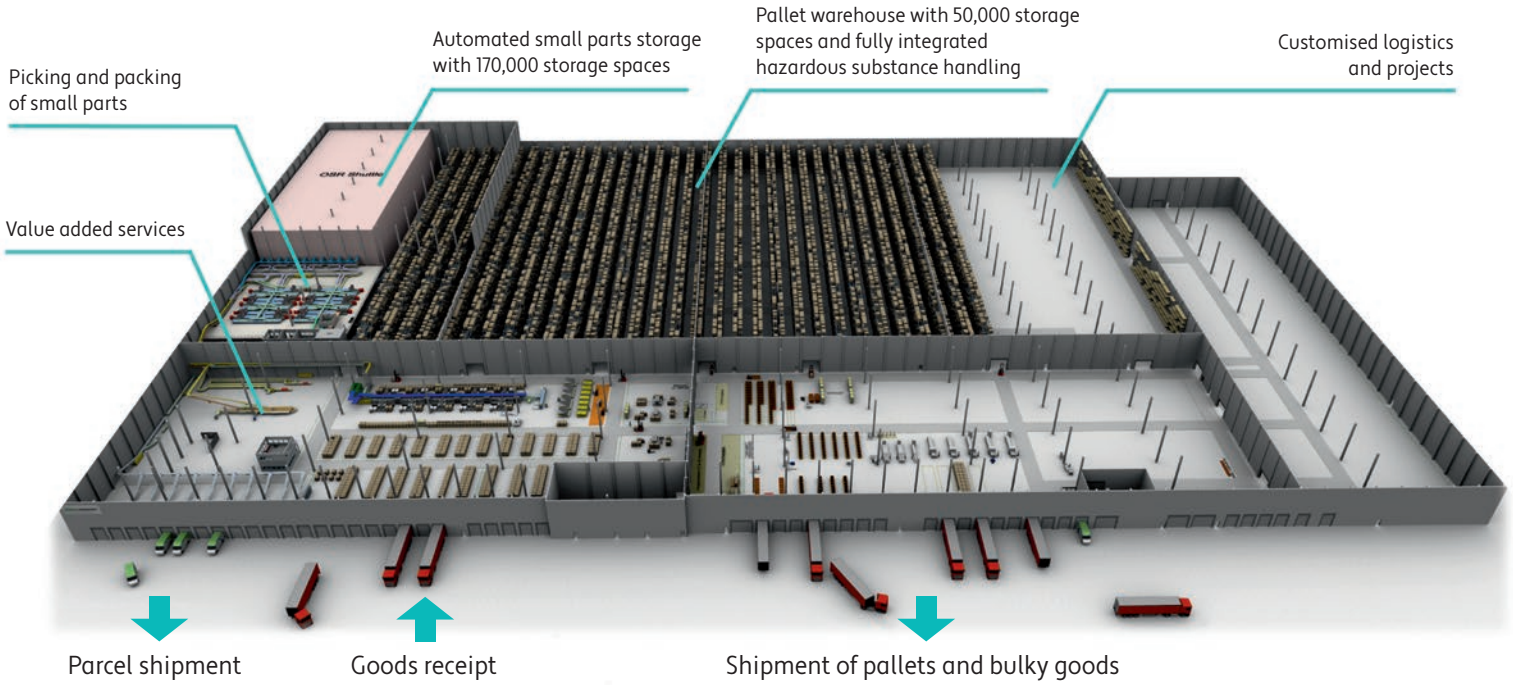
Delivery via the new NORDWEST central warehouse offers not only efficient and rapid supply, but also greater sustainability, maximum flexibility and top delivery quality.












## Your benefits at a glance:

**Faster delivery:** Thanks to automated warehouse technology, 170,000 storage spaces in small parts storage and 50,000 pallet spaces, your order can be dispatched the very same day.

**Optimal logistics for small and large orders:** Whether by parcel service or freight carrier, our logistics processes are precisely tailored to your needs. Thanks to the central location in the heart of Germany, we reach every destination quickly and efficiently.

**Sustainable packaging – no more air in the box:** An integrated, automated packaging machine measures each shipment individually via 3D scan and creates a precisely fitting shipping box. This eliminates unnecessary empty space – with no filler material or plastic film required.

**Sustainability & Innovation:** The new NORDWEST logistics centre meets the highest environmental standards (DGNB Gold certification) – featuring photovoltaic systems, heat pump technology, intelligent LED lighting and rainwater utilisation. Together, we help reduce your carbon footprint.

# ORDER NOW – HERE'S HOW

**To place your order, simply provide the 10-digit article number (article no.) and the quantity required.**

## Table layout:

| Width [mm] | Height [mm] | Length [mm] | Weight [kg] | PU | | Article no. | |
|---|---|---|---|---|---|---|---|
| **92** | 32 | 346 | 1.5 | 12 | + | **1234 567 890** | |
| **125** | 40 | 463 | 3.0 | 6 | + | **0123 456 789** | |
| **160** | 50 | 618 | 30 | | | **2345 678 901** | ▷ |
| **200** | 60 | 634 | 44 | | | **9876 543 210** | ● |

**Delivery information**
If not marked as delivered within 24 - 48 hours * /
▷ No stock item. Procurement takes place after receipt of order. Cancellation and return not possible.
● = delivery time on request

Article not suitable for parcel shipment. Delivery is made by freight carrier. Additional costs may apply.

**+ = handling surcharge**
For these articles, breaking the PU is possible. A 15 % surcharge applies.

**PU = packaging unit**
When ordering by PU, you receive the articles in their original packaging.

## LEGAL NOTICES

The indicated delivery times refer to estimated delivery times for deliveries within Germany. All deliveries within Germany are made free to the kerbside. Special conditions and longer delivery times apply to deliveries to islands or outside Germany.

The information contained in this catalogue reflects the status at the time of publication (May 2025). Subsequent changes cannot be taken into account for technical production reasons.
Any manufacturer warranties are clearly indicated next to the respective articles.

We reserve the right to make technical modifications without notice. Liability for printing errors and incorrect technical information and illustrations is excluded. Illustrations may vary, e.g. if the manufacturer redesigns the product.
Delivered without contents/accessories, unless otherwise indicated.

Our general terms and conditions apply, either printed in this catalogue or available for you to review upon conclusion of the contract.

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# 1. Cutting Tools



# Flexible and precise with the TECWERK brand




Twist drill set from page 19
Countersink set from page 32
Step drill set from page 36
Threading tool set from page 41
End mill set from page 72
Boring bar set from page 107

## TECWERK CUTTING TOOLS – PRECISION FOR THE HIGHEST DEMANDS

High-precision tools are the foundation for exact results in metal processing, manufacturing and mechanical engineering. TECWERK offers a comprehensive assortment for every machining task – from drilling and milling to thread cutting.

All tools are designed for maximum tool life, high cutting speeds and precise processing. Quality, repeat accuracy and cost-efficiency are the key factors – for results that speak for themselves.

## Efficiency by design

TECWERK cutting tools combine precision, stability and durability. Thanks to premium materials, precise geometries and modern coating technologies, they enable exact processing steps while ensuring excellent cost-effectiveness. This helps you reduce downtime, increase productivity and maintain consistent quality at every stage of production.

## Guaranteed quality

Our tools are manufactured from fine-grain carbide, HSS or HSS-Co and produced in line with strict industry standards such as DIN 338 or DIN 6527. With state-of-the-art grinding processes and precise coatings, TECWERK tools offer outstanding dimensional accuracy, optimum tool life and consistently clean results – even with demanding materials and high cutting speeds.

## Individuality as standard

Every production environment has its own requirements. That's why TECWERK offers a broad assortment of tools and accessories – from standard solutions to customised special tools. With coordinated tool concepts and versatile geometries, you can design your machining processes to be efficient, flexible and application-specific.

## Service & Advice

Our specialist dealers support you with expertise and experience – in everything from tool selection and use to process optimisation. Together, we develop practical solutions that simplify manufacturing processes and make them more efficient in the long term.

TECWERK – Machining, excellent quality, and tools that impress: precise, efficient, durable.

## For precise bores in all materials – made from HSS, HSS-Co or solid carbide.



### Twist drill set Page 19

25-part, DIN 338, HSS-Co: for rust-proof and heat-resistant steels
**Order no. 2000 861970**



### Countersink set Page 33

6-part, DIN 335 C, for countersinking and deburring bores
**Order no. 2000 865220**



### Step drill set Page 36

3-part, pitch: Ø 4–12=1 mm, Ø 4–20=2 mm, Ø 4–30=2 mm
**Order no. 2000 862088**



### Threading tool set Page 43

52-part, including handbook on thread cutting
**Order no. 2000 806022**

## For precise surfaces and optimum cutting values – even under high loads.



### End mill set Page 75

5-part, with cylinder shank according to DIN 6535 HB, unequal pitch
**Order no. 2000 866361**



### Boring bar set Page 107

4-part, for internal machining, with internal cooling
**Order no. 2000 859219**



2000 860 123 / 2000 860 124

HSS-Co



2000 860 127



2000 860 128

## Spot weld drill

**HSS-Co · Structural dimensions in accordance with DIN 1897 ·** Profile-ground · Right-hand cutting · With straight shank and self-cutting centring point · For the precise burr-free boring of welding points

| Nominal Ø [mm] HSS-Co | Shank design | Overall L [mm] | Article no. |
|---|---|---|---|
| **6** | 6 mm | 66 | **2000 860 123** |
| **8** | 8 mm | 79 | **2000 860 124** |
| **8** | Spotle drill | 40 | **2000 860 127** |
| **8** | Vario drill | 44 | **2000 860 128** |



HSS | DIN 333 | Form A | Nenn-Ø h9

## Centre drill bit

**HSS · DIN 333 · Shape A** · Countersink angle 60° · For producing centring holes according to DIN 332 without protective chamfer · For general use · < 1.0 mm = unilateral type

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2111 651 050 - Vc (m/min) | 40 | 30 | 10 | | | | 25 | 25 | 45 | | 80 | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | | Emulsion/oil | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Right-hand cutting | Article no. Left-hand cutting |
|---|---|---|---|---|---|
| **0.5** | 3.15 | 25 | 0,01 | **2111 651 050** | - |
| **0.8** | 3.15 | 25 | 0,01 | **2111 651 080** | - |
| **1** | 3.15 | 31.5 | 0,02 | **2000 861 802** | - |
| **1.25** | 3.15 | 31.5 | 0,02 | **2000 861 803** | - |
| **1.6** | 4 | 35.5 | 0,02 | **2000 861 804** | **2000 861 570** |
| **2** | 5 | 40 | 0,02 | **2000 861 805** | **2000 861 571** |
| **2.5** | 6.3 | 45 | 0,03 | **2000 861 806** | **2000 861 572** |
| **3.15** | 8 | 50 | 0,03 | **2000 861 807** | **2000 861 573** |
| **4** | 10 | 56 | 0,03 | **2000 861 808** | **2000 861 574** |
| **5** | 12.5 | 63 | 0,04 | **2000 861 809** | - |
| **6.3** | 16 | 71 | 0,05 | **2000 861 810** | - |
| **8** | 20 | 80 | 0,06 | **2111 651 800** | - |
| **10** | 25 | 100 | 0,09 | **2111 651 900** | - |
| **12.5** | 31.5 | 125 | 0,11 | **2111 651 925** | - |



HSS-TiN | DIN 333 | Form A

## Centre drill bit

**HSS · TiN-coated · DIN 333 · Shape A** · Right-hand cutting · Countersink angle 60° · For producing centring holes according to DIN 332 without protective chamfer · For general use

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 586 - Vc (m/min) | 45 | 33 | 25 | | | | | | 73 | 48 | 80 | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|
| **1** | 3.15 | 31.5 | 0,02 | **2000 861 586** |
| **1.25** | 3.15 | 31.5 | 0,02 | **2000 861 587** |
| **1.6** | 4 | 35.5 | 0,02 | **2000 861 588** |
| **2** | 5 | 40 | 0,02 | **2000 861 589** |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|
| **2.5** | 6.3 | 45 | 0,03 | **2000 861 590** |
| **3.15** | 8 | 50 | 0,03 | **2000 861 591** |
| **4** | 10 | 56 | 0,03 | **2000 861 592** |
| **5** | 12.5 | 63 | 0,04 | **2000 861 593** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request

You will find the explanation of the symbols before the index.

HSS | DIN 333 | Form R



## Centre drill bit

**HSS · DIN 333 · Shape R** · Right-hand cutting · Countersink angle 60° · For producing centring holes according to DIN 332 Sheet 1 shape R **(with radius)** without protective chamfer · For general use

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 948 - Vc (m/min) | 40 | 28 | 20 | | | | | | 68 | 43 | 75 | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 3.15 | 31.5 | 0,02 | **2000 861 948** |
| **1.25** | 3.15 | 31.5 | 0,02 | **2000 861 949** |
| **1.6** | 4 | 35.5 | 0,02 | **2000 861 950** |
| **2** | 5 | 40 | 0,02 | **2000 861 951** |
| **2.5** | 6.3 | 45 | 0,03 | **2000 861 952** |
| **3.15** | 8 | 50 | 0,03 | **2000 861 953** |
| **4** | 10 | 56 | 0,03 | **2000 861 954** |
| **5** | 12.5 | 63 | 0,04 | **2000 861 955** |

HSS | DIN 333 | Form B



## Centre drill bit

**HSS · DIN 333 · Shape B** · **With protective chamfer** · Right-hand cutting · Countersink angle 60/120° · For producing centring holes according to DIN 332 Sheet 1 shape B with protective chamfer · For general use

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 628 - Vc (m/min) | 40 | 28 | 20 | | | | | | 68 | 43 | 75 | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 4 | 35.5 | 0,02 | **2000 861 628** |
| **1.25** | 5 | 40 | 0,02 | **2000 861 629** |
| **1.6** | 6.3 | 45 | 0,02 | **2000 861 630** |
| **2** | 8 | 50 | 0,02 | **2000 861 631** |
| **2.5** | 10 | 56 | 0,03 | **2000 861 632** |
| **3.15** | 11.2 | 60 | 0,03 | **2000 861 633** |
| **4** | 14 | 67 | 0,03 | **2000 861 634** |
| **5** | 18 | 75 | 0,04 | **2000 861 635** |
| **6.3** | 20 | 80 | 0,05 | **2000 861 636** |

HSS-Co | DIN 333 | Form A



## Centre drill bit

**HSS-Co · DIN 333 · Shape A** · Right-hand cutting · Countersink angle 60° · For producing centring holes according to DIN 332 without protective chamfer · For the processing of materials with a strength of more than 800 N/mm² as well as rust-, acid-, and heat-resistant CrNi steels

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 577 - Vc (m/min) | 40 | 28 | 20 | | 10 | 6 | | | 68 | 43 | 75 | 6 | 4 | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | Emulsion/oil | Emulsion/oil | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | Emulsion/oil | Emulsion/oil | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 3.15 | 31.5 | 0,02 | **2000 861 577** |
| **1.25** | 3.15 | 31.5 | 0,02 | **2000 861 578** |
| **1.6** | 4 | 35.5 | 0,02 | **2000 861 579** |
| **2** | 5 | 40 | 0,02 | **2000 861 580** |
| **2.5** | 6.3 | 45 | 0,03 | **2000 861 581** |
| **3.15** | 8 | 50 | 0,03 | **2000 861 582** |
| **4** | 10 | 56 | 0,03 | **2000 861 583** |



HSS-Co | DIN 333 | Form A

## Centre drill bit

**HSS-Co · DIN 333 · Shape A · Extra-long type** · Right-hand cutting · Countersink angle 60° · For producing centring holes according to DIN 332 without protective chamfer · For general use

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 976 - Vc (m/min) | 40 | 28 | 20 | | | | | | 68 | 43 | 75 | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | | | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 4 | 120 | 0,02 | **2000 861 976** |
| **1.6** | 5 | 120 | 0,02 | **2000 861 977** |
| **2** | 6 | 120 | 0,02 | **2000 861 978** |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **2.5** | 8 | 120 | 0,03 | **2000 861 979** |
| **3.15** | 10 | 120 | 0,03 | **2000 861 980** |



VHM | DIN 333 | Form A

## Centre drill bit

**Solid carbide · DIN 333 · Shape A ·** Right-hand cutting · Countersink angle 60° · For producing centring holes according to DIN 332 · Without protective chamfer · For high-strength steels, cast steel, grey cast iron, chill casting, manganese hard steel, CrNi steels, alloyed and non-ferrous metals, as well as fibre-reinforced plastics and other duroplastics

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 988 - Vc (m/min) | 40–75 | 35–60 | 20–35 | | 20–35 | 15–28 | 50–70 | 40–60 | 100–150 | 80–120 | | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | Emulsion/oil | Emulsion/oil | Emulsion/oil | Emulsion/oil | Emulsion/oil | Emulsion/oil | | | | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 3.15 | 31.5 | 0,08 | **2000 861 988** |
| **1.25** | 3.15 | 31.5 | 0,08 | **2000 861 989** |
| **1.6** | 4 | 35.5 | 0,09 | **2000 861 990** |
| **2** | 5 | 40 | 0,09 | **2000 861 991** |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **2.5** | 6.3 | 45 | 0,1 | **2000 861 992** |
| **3.15** | 8 | 50 | 0,1 | **2000 861 993** |
| **4** | 10 | 56 | 0,11 | **2000 861 994** |



HSS | Nenn-Ø h8

## Double-ended drill

**(Body drill) · HSS · Profile-ground ·** With straight shank · Right-hand cutting · With split point · Short spiral · Ideal for drilling thin materials with hand drills, predominantly for sheet metal forming · Bright type

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Spiral L [mm] | Article no. |
|---|---|---|---|---|
| **3** | 3 | 46 | 9,5 | **2000 860 129** |
| **3.1** | 3.1 | 49 | 9,5 | **2000 860 130** |
| **3.2** | 3.2 | 49 | 9,5 | **2000 860 131** |
| **3.3** | 3.3 | 49 | 9,5 | **2000 860 133** |
| **4** | 4 | 55 | 13 | **2000 860 140** |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Spiral L [mm] | Article no. |
|---|---|---|---|---|
| **4.1** | 4.1 | 55 | 13 | **2000 860 141** |
| **4.2** | 4.2 | 55 | 13 | **2000 860 142** |
| **5** | 5 | 62 | 16 | **2000 860 150** |
| **5.2** | 5.2 | 62 | 16 | **2000 860 152** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HSS-Co | HSS-Co TiN | 90° | 120° | DIN 1835-A | Nenn-Ø h8

## NC spotting drill

**HSS-Co** · With straight shank in accordance with DIN 1835-A · Right-hand cutting · For position-accurate and fast drilling on NC machines and boring machines · For centring and chamfering of taps in a single operation


2000 860 103


2000 861 383


2000 860 083

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 103 - Vc (m/min) | 40 | 30 | 10 | 8 | 12 | 8 | | | 45 | | 80 | | | | |
| 2000 861 383 - Vc (m/min) | 50 | 37 | 12 | 10 | 15 | 10 | 31 | 31 | 56 | 50 | 100 | 10 | 6 | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | Emulsion/oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | Emulsion/oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated | Article no. TiN-coated |
|---|---|---|---|---|---|
| **Point angle 90 °** | | | | | |
| **3** | 46 | 12 | 0,03 | **2000 860 103** | **2000 861 383** |
| **4** | 55 | 12 | 0,03 | **2000 860 104** | **2000 861 384** |
| **5** | 62 | 14 | 0,04 | **2000 860 105** | **2000 861 385** |
| **6** | 66 | 16 | 0,05 | **2000 860 106** | **2000 861 386** |
| **8** | 79 | 21 | 0,07 | **2000 860 108** | **2000 861 388** |
| **10** | 89 | 25 | 0,09 | **2000 860 110** | **2000 861 390** |
| **12** | 102 | 30 | 0,1 | **2000 860 112** | **2000 861 392** |
| **16** | 115 | 38 | 0,11 | **2000 860 116** | **2000 861 396** |
| **20** | 131 | 45 | 0,12 | **2000 860 120** | **2000 861 400** |
| **Point angle 120 °** | | | | | |
| **3** | 46 | 12 | 0,03 | **2000 860 083** | - |
| **4** | 55 | 12 | 0,03 | **2000 860 084** | - |
| **5** | 62 | 14 | 0,04 | **2000 860 085** | - |
| **6** | 66 | 16 | 0,05 | **2000 860 086** | - |
| **8** | 79 | 21 | 0,07 | **2000 860 088** | - |
| **10** | 89 | 25 | 0,09 | **2000 860 090** | - |
| **12** | 102 | 30 | 0,1 | **2000 860 092** | - |
| **16** | 115 | 38 | 0,11 | **2000 860 096** | - |
| **20** | 131 | 45 | 0,12 | **2000 860 100** | - |

VHM | VHM TiAlN | 90° | 120° | DIN 6535-HA | Nenn-Ø h6

## NC spotting drill

**Solid carbide** · With straight shank in accordance with **DIN 6535 - HA** · Right-hand cutting · For position-accurate and fast drilling on NC machines and boring machines · For centring and chamfering of taps in a single operation · Especially suitable for high-strength steels, cast steel, grey cast iron, rust-free steels and non-ferrous metals


2000 865 801


2000 865 810


2000 865 820

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 801 - Vc (m/min) | 60–80 | 50–63 | 30–50 | | 20–30 | 15–25 | 70 | 50 | 180 | 170 | 160 | | | | |
| 2000 865 810 - Vc (m/min) | 70–90 | 45–80 | 35–60 | | 30–45 | 20–30 | 90 | 70 | 250 | 220 | 190 | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated | Article no. TiAlN-coated |
|---|---|---|---|---|---|
| **Point angle 90 °** | | | | | |
| **3** | 50 | 10 | 0,05 | **2000 865 801** | **2000 865 810** |
| **4** | 50 | 12 | 0,06 | **2000 865 802** | **2000 865 811** |
| **5** | 50 | 15 | 0,07 | **2000 865 803** | **2000 865 812** |
| **6** | 50 | 18 | 0,09 | **2000 865 804** | **2000 865 813** |
| **8** | 60 | 23 | 0,1 | **2000 865 805** | **2000 865 814** |
| **10** | 70 | 24 | 0,11 | **2000 865 806** | **2000 865 815** |
| **12** | 70 | 24 | 0,12 | **2000 865 807** | **2000 865 816** |
| **16** | 80 | 26 | 0,14 | **2000 865 808** | **2000 865 817** |
| **20** | 100 | 35 | 0,16 | **2000 865 809** | **2000 865 818** |
| **Point angle 120 °** | | | | | |
| **4** | 50 | 12 | 0,06 | **2000 865 820** | - |
| **5** | 50 | 15 | 0,07 | **2000 865 821** | - |
| **6** | 50 | 18 | 0,09 | **2000 865 822** | - |
| **8** | 60 | 23 | 0,1 | **2000 865 823** | - |
| **10** | 70 | 24 | 0,11 | **2000 865 824** | - |
| **12** | 70 | 24 | 0,12 | **2000 865 825** | - |
| **16** | 80 | 26 | 0,14 | **2000 865 826** | - |



VHM TiAlN | 142° | DIN 6535-HA | DIN 6535-HB | Nenn-Ø h6

## NC spotting drill

**Solid carbide · TiAlN-coated · Point angle 142 ° ·** With straight shank in accordance with **DIN 6535-HB,** article no. 2000 865 837, 2000 865 838 and 2000 865 839 according to **DIN 6535-HA** · Right-hand cutting · For position-accurate and fast drilling on NC machines and boring machines · For centring and chamfering of taps in a single operation · Especially suitable for high-strength steels, cast steel, grey cast iron, rust-free steels and non-ferrous metals · For the centring of solid carbide drill bits with a point angle of 120–140°

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 837 - Vc (m/min) | 70–90 | 45–80 | 35–60 | | 30–45 | 20–30 | 90 | 70 | 250 | 220 | 190 | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | Emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. TiAlN-coated |
|---|---|---|---|---|
| **3** | 50 | 10 | 0,05 | **2000 865 837** |
| **4** | 50 | 12 | 0,06 | **2000 865 838** |
| **5** | 50 | 15 | 0,07 | **2000 865 839** |
| **6** | 50 | 18 | 0,09 | **2000 865 840** |
| **8** | 60 | 23 | 0,1 | **2000 865 841** |
| **10** | 70 | 24 | 0,11 | **2000 865 842** |
| **12** | 70 | 24 | 0,12 | **2000 865 843** |
| **16** | 80 | 26 | 0,14 | **2000 865 844** |



HSS | DIN 1897 | Typ N | Nenn-Ø h8

## Twist drill

**HSS** · DIN 1897 · Type N · **Point angle 118°** · **Profile-ground with split point from Ø 3.0 mm** · With straight shank · Right-hand cutting · Drill bit in a very sturdy, short design for high loads · For use on automatic and hand-held drilling machines

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 010 - Vc (m/min) | 36 | 18–36 | | | | | 28–36 | 23–32 | 90 | 55–70 | 28–70 | | | | |
| Cooling | Emulsion | Emulsion/ oil | | | | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **1** | 26 | 6 | 0,02 | **2000 860 010** |
| **1.5** | 32 | 9 | 0,04 | **2000 860 015** |
| **2** | 38 | 12 | 0,06 | **2000 860 020** |
| **2.5** | 43 | 14 | 0,08 | **2000 860 025** |
| **3** | 46 | 16 | 0,1 | **2000 860 030** |
| **3.1** | 49 | 18 | 0,1 | **2000 860 031** |
| **3.2** | 49 | 18 | 0,1 | **2000 860 032** |
| **3.3** | 49 | 18 | 0,1 | **2000 860 033** |
| **3.4** | 52 | 20 | 0,11 | **2000 860 034** |
| **3.5** | 52 | 20 | 0,11 | **2000 860 035** |
| **3.6** | 52 | 20 | 0,11 | **2000 860 036** |
| **3.7** | 52 | 20 | 0,12 | **2000 860 037** |
| **3.8** | 55 | 22 | 0,12 | **2000 860 038** |
| **3.9** | 55 | 22 | 0,12 | **2000 860 039** |
| **4** | 55 | 22 | 0,13 | **2000 860 040** |
| **4.1** | 55 | 22 | 0,13 | **2000 860 041** |
| **4.2** | 55 | 22 | 0,13 | **2000 860 042** |
| **4.3** | 58 | 24 | 0,13 | **2000 860 043** |
| **4.4** | 58 | 24 | 0,13 | **2000 860 044** |
| **4.5** | 58 | 24 | 0,13 | **2000 860 045** |
| **4.6** | 58 | 24 | 0,13 | **2000 860 046** |
| **4.7** | 58 | 24 | 0,13 | **2000 860 047** |
| **4.8** | 62 | 26 | 0,13 | **2000 860 048** |
| **4.9** | 62 | 26 | 0,13 | **2000 860 049** |
| **5** | 62 | 26 | 0,13 | **2000 860 050** |
| **5.1** | 62 | 26 | 0,13 | **2000 860 051** |
| **5.2** | 62 | 26 | 0,13 | **2000 860 052** |
| **5.3** | 62 | 26 | 0,13 | **2000 860 053** |
| **5.4** | 66 | 28 | 0,14 | **2000 860 054** |
| **5.5** | 66 | 28 | 0,14 | **2000 860 055** |
| **5.6** | 66 | 28 | 0,14 | **2000 860 056** |
| **5.7** | 66 | 28 | 0,14 | **2000 860 057** |
| **5.8** | 66 | 28 | 0,15 | **2000 860 058** |
| **5.9** | 66 | 28 | 0,15 | **2000 860 059** |
| **6** | 66 | 28 | 0,15 | **2000 860 060** |
| **6.5** | 70 | 31 | 0,16 | **2000 860 065** |
| **6.8** | 74 | 34 | 0,17 | **2000 860 068** |
| **7** | 74 | 34 | 0,18 | **2000 860 070** |
| **7.5** | 74 | 34 | 0,19 | **2000 860 075** |
| **8** | 79 | 37 | 0,2 | **2000 860 080** |
| **8.5** | 79 | 37 | 0,21 | **2000 860 087** |
| **9** | 84 | 40 | 0,23 | **2000 860 091** |
| **9.5** | 84 | 40 | 0,24 | **2000 860 095** |
| **10** | 89 | 43 | 0,25 | **2000 860 200** |
| **10.2** | 89 | 43 | 0,25 | **2000 860 207** |
| **10.5** | 89 | 43 | 0,25 | **2000 860 201** |
| **11** | 95 | 47 | 0,25 | **2000 860 202** |
| **11.5** | 95 | 47 | 0,25 | **2000 860 203** |
| **12** | 102 | 51 | 0,25 | **2000 860 204** |
| **12.5** | 102 | 51 | 0,25 | **2000 860 205** |
| **13** | 102 | 51 | 0,26 | **2000 860 206** |

HSS-Co | DIN 1897 | Typ N | Nenn-Ø h8





## Twist drill

**HSS-Co** · DIN 1897 · Type N · **Point angle 130° · Profile-ground with split point from Ø 3.0 mm** · With straight shank · Right-hand cutting · Drill bit in a very sturdy, short design for high loads · For use on automatic and hand-held drilling machines

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 747 - Vc (m/min) | 15–35 | 10–28 | | | 6–10 | | 28–36 | 22–30 | 90 | 55–70 | 18–45 | 3–6 | | | |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| 1 | 26 | 6 | 0,01 | 2000 861 747 |
| 1.5 | 32 | 9 | 0,03 | 2000 861 749 |
| 2 | 38 | 12 | 0,04 | 2000 861 751 |
| 2.5 | 43 | 14 | 0,05 | 2000 861 754 |
| 3 | 46 | 16 | 0,06 | 2000 861 755 |
| 3.1 | 49 | 18 | 0,06 | 2000 861 756 |
| 3.2 | 49 | 18 | 0,06 | 2000 861 757 |
| 3.3 | 49 | 18 | 0,07 | 2000 861 758 |
| 3.4 | 52 | 20 | 0,07 | 2000 861 759 |
| 3.5 | 52 | 20 | 0,07 | 2000 861 760 |
| 3.6 | 52 | 20 | 0,07 | 2000 861 761 |
| 3.7 | 52 | 20 | 0,07 | 2000 861 762 |
| 3.8 | 55 | 22 | 0,08 | 2000 861 763 |
| 3.9 | 55 | 22 | 0,08 | 2000 861 764 |
| 4 | 55 | 22 | 0,08 | 2000 861 765 |
| 4.1 | 55 | 22 | 0,08 | 2000 861 766 |
| 4.2 | 55 | 22 | 0,08 | 2000 861 767 |
| 4.3 | 58 | 24 | 0,08 | 2000 861 768 |
| 4.4 | 58 | 24 | 0,08 | 2000 861 769 |
| 4.5 | 58 | 24 | 0,08 | 2000 861 770 |
| 4.6 | 58 | 24 | 0,08 | 2000 861 771 |
| 4.7 | 58 | 24 | 0,08 | 2000 861 772 |
| 4.8 | 62 | 26 | 0,08 | 2000 861 773 |
| 4.9 | 62 | 26 | 0,08 | 2000 861 774 |
| 5 | 62 | 26 | 0,08 | 2000 861 775 |
| 5.1 | 62 | 26 | 0,08 | 2000 861 776 |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| 5.2 | 62 | 26 | 0,08 | 2000 861 777 |
| 5.3 | 62 | 26 | 0,08 | 2000 861 778 |
| 5.4 | 66 | 28 | 0,09 | 2000 861 779 |
| 5.5 | 66 | 28 | 0,09 | 2000 861 780 |
| 5.6 | 66 | 28 | 0,09 | 2000 861 781 |
| 5.7 | 66 | 28 | 0,09 | 2000 861 782 |
| 5.8 | 66 | 28 | 0,09 | 2000 861 783 |
| 5.9 | 66 | 28 | 0,09 | 2000 861 784 |
| 6 | 66 | 28 | 0,1 | 2000 861 785 |
| 6.5 | 70 | 31 | 0,1 | 2000 861 786 |
| 6.8 | 74 | 34 | 0,11 | 2000 861 787 |
| 7 | 74 | 34 | 0,11 | 2000 861 788 |
| 7.5 | 74 | 34 | 0,12 | 2000 861 789 |
| 8 | 79 | 37 | 0,13 | 2000 861 790 |
| 8.5 | 79 | 37 | 0,13 | 2000 861 791 |
| 9 | 84 | 40 | 0,14 | 2000 861 792 |
| 9.5 | 84 | 40 | 0,15 | 2000 861 793 |
| 10 | 89 | 43 | 0,16 | 2000 861 794 |
| 10.2 | 89 | 43 | 0,16 | 2000 861 795 |
| 10.5 | 89 | 43 | 0,16 | 2000 861 796 |
| 11 | 95 | 47 | 0,16 | 2000 861 797 |
| 11.5 | 95 | 47 | 0,16 | 2000 861 798 |
| 12 | 102 | 51 | 0,16 | 2000 861 799 |
| 12.5 | 102 | 51 | 0,16 | 2000 861 800 |
| 13 | 102 | 51 | 0,17 | 2000 861 801 |

HSS-Co | HSS-Co TiN | DIN 1897 | UNI | Nenn-Ø h8



2000 862 431



2000 862 525

## Twist drill

**HSS-Co · DIN 1897 · Type UNI · For universal use** · Point angle 118° · With straight shank · Right-hand cutting · **Good self-centring behaviour · Pointed cross-cutting edge** · For non-ferrous metals, structural and carbon steels, high-alloy steels (e.g. V2A/V4A), tool steels, cast and cast alloys, magnesium alloys, plastics and aluminium

**Advantages:**

Special grinding and point thinning for low torque and smooth running · Round groove profile for optimal chip removal, even long chips from tough materials

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 862 431 - Vc (m/min) | 15–35 | 10–28 | 10–14 | | 10–14 | 5–7 | 28–36 | 22–30 | 90 | 55–70 | 18–45 | 10 | 6 | | |
| 2000 862 525 - Vc (m/min) | 20–40 | 15–35 | 12–15 | | 12–18 | 6–8 | 36–45 | 28–40 | 70 | 70–85 | 28–63 | 10 | 6 | | |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| 1 | 26 | 6 | 0,01 | 2000 862 431 | 0,02 | 2000 862 525 |
| 1.1 | 28 | 7 | 0,02 | 2000 862 432 | 0,03 | 2000 862 526 |
| 1.2 | 30 | 8 | 0,02 | 2000 862 433 | 0,03 | 2000 862 527 |
| 1.3 | 30 | 8 | 0,02 | 2000 862 434 | 0,03 | 2000 862 528 |
| 1.4 | 32 | 9 | 0,02 | 2000 862 435 | 0,03 | 2000 862 529 |
| 1.5 | 32 | 9 | 0,03 | 2000 862 436 | 0,04 | 2000 862 530 |

Continuation>

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| **1.6** | 34 | 10 | 0,03 | **2000 862 437** | 0,04 | **2000 862 531** |
| **1.7** | 34 | 10 | 0,03 | **2000 862 438** | 0,04 | **2000 862 532** |
| **1.8** | 36 | 11 | 0,03 | **2000 862 439** | 0,04 | **2000 862 533** |
| **1.9** | 36 | 11 | 0,04 | **2000 862 440** | 0,06 | **2000 862 534** |
| **2** | 38 | 12 | 0,04 | **2000 862 441** | 0,06 | **2000 862 535** |
| **2.1** | 38 | 12 | 0,04 | **2000 862 442** | 0,06 | **2000 862 536** |
| **2.2** | 40 | 13 | 0,04 | **2000 862 443** | 0,06 | **2000 862 537** |
| **2.3** | 40 | 13 | 0,05 | **2000 862 444** | 0,08 | **2000 862 538** |
| **2.4** | 43 | 14 | 0,05 | **2000 862 445** | 0,08 | **2000 862 539** |
| **2.5** | 43 | 14 | 0,05 | **2000 862 446** | 0,08 | **2000 862 540** |
| **2.6** | 43 | 14 | 0,05 | **2000 862 447** | 0,08 | **2000 862 541** |
| **2.7** | 46 | 16 | 0,05 | **2000 862 448** | 0,08 | **2000 862 542** |
| **2.8** | 46 | 16 | 0,06 | **2000 862 449** | 0,1 | **2000 862 543** |
| **2.9** | 46 | 16 | 0,06 | **2000 862 450** | 0,1 | **2000 862 544** |
| **3** | 46 | 16 | 0,06 | **2000 862 451** | 0,1 | **2000 862 545** |
| **3.1** | 49 | 18 | 0,06 | **2000 862 452** | 0,1 | **2000 862 546** |
| **3.2** | 49 | 18 | 0,06 | **2000 862 453** | 0,1 | **2000 862 547** |
| **3.3** | 49 | 18 | 0,07 | **2000 862 454** | 0,11 | **2000 862 548** |
| **3.4** | 52 | 20 | 0,07 | **2000 862 455** | 0,11 | **2000 862 549** |
| **3.5** | 52 | 20 | 0,07 | **2000 862 456** | 0,11 | **2000 862 550** |
| **3.6** | 52 | 20 | 0,07 | **2000 862 457** | 0,11 | **2000 862 551** |
| **3.7** | 52 | 20 | 0,07 | **2000 862 458** | 0,11 | **2000 862 552** |
| **3.8** | 55 | 22 | 0,08 | **2000 862 459** | 0,13 | **2000 862 553** |
| **3.9** | 55 | 22 | 0,08 | **2000 862 460** | 0,13 | **2000 862 554** |
| **4** | 55 | 22 | 0,08 | **2000 862 461** | 0,13 | **2000 862 555** |
| **4.1** | 55 | 22 | 0,08 | **2000 862 462** | 0,13 | **2000 862 556** |
| **4.2** | 55 | 22 | 0,08 | **2000 862 463** | 0,13 | **2000 862 557** |
| **4.3** | 58 | 24 | 0,08 | **2000 862 464** | 0,13 | **2000 862 558** |
| **4.4** | 58 | 24 | 0,08 | **2000 862 465** | 0,13 | **2000 862 559** |
| **4.5** | 58 | 24 | 0,08 | **2000 862 466** | 0,13 | **2000 862 560** |
| **4.6** | 58 | 24 | 0,08 | **2000 862 467** | 0,13 | **2000 862 561** |
| **4.7** | 58 | 24 | 0,08 | **2000 862 468** | 0,13 | **2000 862 562** |
| **4.8** | 62 | 26 | 0,08 | **2000 862 469** | 0,13 | **2000 862 563** |
| **4.9** | 62 | 26 | 0,08 | **2000 862 470** | 0,13 | **2000 862 564** |
| **5** | 62 | 26 | 0,08 | **2000 862 471** | 0,13 | **2000 862 565** |
| **5.1** | 62 | 26 | 0,08 | **2000 862 472** | 0,13 | **2000 862 566** |
| **5.2** | 62 | 26 | 0,08 | **2000 862 473** | 0,13 | **2000 862 567** |
| **5.3** | 62 | 26 | 0,08 | **2000 862 474** | 0,13 | **2000 862 568** |
| **5.4** | 66 | 28 | 0,09 | **2000 862 475** | 0,14 | **2000 862 569** |
| **5.5** | 66 | 28 | 0,09 | **2000 862 476** | 0,14 | **2000 862 570** |
| **5.6** | 66 | 28 | 0,09 | **2000 862 477** | 0,14 | **2000 862 571** |
| **5.7** | 66 | 28 | 0,09 | **2000 862 478** | 0,14 | **2000 862 572** |
| **5.8** | 66 | 28 | 0,09 | **2000 862 479** | 0,14 | **2000 862 573** |
| **5.9** | 66 | 28 | 0,09 | **2000 862 480** | 0,14 | **2000 862 574** |
| **6** | 66 | 28 | 0,1 | **2000 862 481** | 0,15 | **2000 862 575** |
| **6.1** | 70 | 31 | 0,1 | **2000 862 482** | 0,15 | **2000 862 576** |
| **6.2** | 70 | 31 | 0,1 | **2000 862 483** | 0,15 | **2000 862 577** |
| **6.3** | 70 | 31 | 0,1 | **2000 862 484** | 0,15 | **2000 862 578** |
| **6.4** | 70 | 31 | 0,1 | **2000 862 485** | 0,15 | **2000 862 579** |
| **6.5** | 70 | 31 | 0,1 | **2000 862 486** | 0,15 | **2000 862 580** |
| **6.6** | 70 | 31 | 0,1 | **2000 862 487** | 0,15 | **2000 862 581** |
| **6.7** | 70 | 31 | 0,11 | **2000 862 488** | 0,17 | **2000 862 582** |
| **6.8** | 74 | 34 | 0,11 | **2000 862 489** | 0,17 | **2000 862 583** |
| **6.9** | 74 | 34 | 0,11 | **2000 862 490** | 0,17 | **2000 862 584** |
| **7** | 74 | 34 | 0,11 | **2000 862 491** | 0,18 | **2000 862 585** |
| **7.1** | 74 | 34 | 0,11 | **2000 862 492** | 0,18 | **2000 862 586** |
| **7.2** | 74 | 34 | 0,11 | **2000 862 493** | 0,18 | **2000 862 587** |
| **7.3** | 74 | 34 | 0,11 | **2000 862 494** | 0,18 | **2000 862 588** |
| **7.4** | 74 | 34 | 0,12 | **2000 862 495** | 0,19 | **2000 862 589** |
| **7.5** | 74 | 34 | 0,12 | **2000 862 496** | 0,19 | **2000 862 590** |
| **7.6** | 79 | 37 | 0,12 | **2000 862 497** | 0,19 | **2000 862 591** |
| **7.7** | 79 | 37 | 0,12 | **2000 862 498** | 0,19 | **2000 862 592** |
| **7.8** | 79 | 37 | 0,12 | **2000 862 499** | 0,19 | **2000 862 593** |
| **7.9** | 79 | 37 | 0,12 | **2000 862 500** | 0,19 | **2000 862 594** |
| **8** | 79 | 37 | 0,13 | **2000 862 501** | 0,2 | **2000 862 595** |
| **8.1** | 79 | 37 | 0,13 | **2000 862 502** | 0,2 | **2000 862 596** |
| **8.2** | 79 | 37 | 0,13 | **2000 862 503** | 0,2 | **2000 862 597** |
| **8.3** | 79 | 37 | 0,13 | **2000 862 504** | 0,2 | **2000 862 598** |
| **8.4** | 79 | 37 | 0,13 | **2000 862 505** | 0,2 | **2000 862 599** |
| **8.5** | 79 | 37 | 0,13 | **2000 862 506** | 0,2 | **2000 862 600** |
| **8.8** | 84 | 40 | 0,14 | **2000 862 507** | 0,23 | **2000 862 601** |
| **9** | 84 | 40 | 0,14 | **2000 862 508** | 0,23 | **2000 862 602** |
| **9.3** | 84 | 40 | 0,15 | **2000 862 509** | 0,24 | **2000 862 603** |
| **9.5** | 84 | 40 | 0,15 | **2000 862 510** | 0,24 | **2000 862 604** |
| **9.8** | 89 | 43 | 0,16 | **2000 862 511** | 0,25 | **2000 862 605** |
| **10** | 89 | 43 | 0,16 | **2000 862 512** | 0,25 | **2000 862 606** |
| **10.2** | 89 | 43 | 0,16 | **2000 862 513** | 0,25 | **2000 862 607** |
| **10.5** | 89 | 43 | 0,16 | **2000 862 514** | 0,25 | **2000 862 608** |
| **11** | 95 | 47 | 0,16 | **2000 862 515** | 0,25 | **2000 862 609** |
| **11.5** | 95 | 47 | 0,16 | **2000 862 516** | 0,25 | **2000 862 610** |
| **12** | 102 | 51 | 0,16 | **2000 862 517** | 0,25 | **2000 862 611** |
| **12.5** | 102 | 51 | 0,16 | **2000 862 518** | 0,25 | **2000 862 612** |
| **13** | 102 | 51 | 0,17 | **2000 862 519** | 0,26 | **2000 862 613** |
| **13.5** | 107 | 54 | 0,17 | **2000 862 520** | 0,26 | **2000 862 614** |
| **14** | 107 | 54 | 0,18 | **2000 862 521** | 0,27 | **2000 862 615** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HSS | DIN 338 | Typ N | Nenn-Ø h8





## Twist drill

**HSS · DIN 338 · Type N** · Point angle 118° · Right-hand cutting · **Split point according to DIN 1412 C · With offset shank** · The fully ground twist drill has superior concentricity
**Applications**: For steel, alloyed and unalloyed cast steel (up to 900 N/mm² in strength), grey, malleable, spheroidal and die cast iron, sintered iron, nickel silver, graphite, short-chipping aluminium alloys, brass and bronze
**Ideally suited for drilling larger diameters for all standard drilling machines with a chuck up to 13.0 mm**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 153 - Vc (m/min) | 30–35 | 20–25 | 6–10 | | | | 15–25 | 5–15 | | 30–50 | 60–100 | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | | | | Air | Air | | Emulsion | Air/emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Shank Ø [mm] | Spiral L [mm] | Shank L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|---|
| **10.5** | 133 | 10 | 87 | 30 | 0,14 | **2000 860 153** |
| **11** | 142 | 10 | 94 | 30 | 0,14 | **2000 860 154** |
| **11.5** | 142 | 10 | 94 | 30 | 0,14 | **2000 860 155** |
| **12** | 151 | 10 | 101 | 30 | 0,14 | **2000 860 156** |
| **12.5** | 151 | 10 | 101 | 30 | 0,14 | **2000 860 157** |
| **13** | 151 | 10 | 101 | 30 | 0,14 | **2000 860 158** |
| **13.5** | 160 | 10 | 108 | 30 | 0,14 | **2000 860 159** |
| **14** | 160 | 10 | 108 | 30 | 0,14 | **2000 860 160** |
| **14.5** | 169 | 10 | 114 | 30 | 0,14 | **2000 860 161** |
| **15** | 169 | 10 | 114 | 30 | 0,14 | **2000 860 162** |

| Nominal Ø [mm] | Overall L [mm] | Shank Ø [mm] | Spiral L [mm] | Shank L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|---|
| **15.5** | 178 | 10 | 120 | 30 | 0,14 | **2000 860 163** |
| **16** | 178 | 10 | 120 | 30 | 0,14 | **2000 860 164** |
| **16.5** | 184 | 13 | 125 | 35 | 0,14 | **2000 860 165** |
| **17** | 184 | 13 | 125 | 35 | 0,14 | **2000 860 166** |
| **17.5** | 191 | 13 | 130 | 35 | 0,14 | **2000 860 167** |
| **18** | 191 | 13 | 130 | 35 | 0,14 | **2000 860 168** |
| **18.5** | 198 | 13 | 135 | 35 | 0,14 | **2000 860 169** |
| **19** | 198 | 13 | 135 | 35 | 0,14 | **2000 860 170** |
| **19.5** | 205 | 13 | 140 | 35 | 0,14 | **2000 860 171** |
| **20** | 205 | 13 | 140 | 35 | 0,14 | **2000 860 172** |

HSS | DIN 338 | Typ W | ALU | Nenn-Ø h8



## Twist drill

**HSS · DIN 338 · Type W** · Point angle 130° · **Profile-ground** · With straight shank · Right-hand cutting · For soft and long-chipping materials such as aluminium alloys (long-chipping), zinc, silumin, refinery copper, electron, zamak, plastics (soft), lead and wood

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 863 781 - Vc (m/min) | 20–25 | | | | | | | | 45–80 | 32–63 | 25–60 | | | | |
| Cooling | Emulsion | | | | | | | | Emulsion | Emulsion | Emulsion/ oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Al wrought alloy f. [mm/rev] | Article no. |
|---|---|---|---|---|
| **1** | 34 | 12 | 0,03 | **2000 863 781** |
| **1.5** | 40 | 18 | 0,04 | **2000 863 786** |
| **2** | 49 | 24 | 0,05 | **2000 863 791** |
| **2.5** | 57 | 30 | 0,06 | **2000 863 796** |
| **3** | 61 | 33 | 0,08 | **2000 863 801** |
| **3.1** | 61 | 33 | 0,08 | **2000 863 802** |
| **3.2** | 65 | 36 | 0,08 | **2000 863 803** |
| **3.3** | 65 | 36 | 0,08 | **2000 863 804** |
| **3.5** | 70 | 39 | 0,09 | **2000 863 806** |
| **4** | 75 | 43 | 0,1 | **2000 863 811** |
| **4.1** | 75 | 43 | 0,1 | **2000 863 812** |
| **4.2** | 75 | 43 | 0,11 | **2000 863 813** |
| **4.3** | 75 | 43 | 0,11 | **2000 863 814** |
| **4.5** | 80 | 47 | 0,11 | **2000 863 816** |
| **4.8** | 86 | 52 | 0,12 | **2000 863 819** |
| **5** | 86 | 52 | 0,13 | **2000 863 821** |
| **5.1** | 86 | 52 | 0,13 | **2000 863 822** |
| **5.2** | 86 | 52 | 0,13 | **2000 863 823** |
| **5.5** | 93 | 57 | 0,14 | **2000 863 826** |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Al wrought alloy f. [mm/rev] | Article no. |
|---|---|---|---|---|
| **5.8** | 93 | 57 | 0,15 | **2000 863 829** |
| **6** | 93 | 57 | 0,15 | **2000 863 831** |
| **6.5** | 101 | 63 | 0,16 | **2000 863 836** |
| **6.8** | 109 | 69 | 0,17 | **2000 863 839** |
| **7** | 109 | 69 | 0,18 | **2000 863 841** |
| **7.5** | 109 | 69 | 0,19 | **2000 863 846** |
| **8** | 117 | 75 | 0,2 | **2000 863 851** |
| **8.5** | 117 | 75 | 0,21 | **2000 863 856** |
| **9** | 125 | 81 | 0,23 | **2000 863 861** |
| **9.5** | 125 | 81 | 0,24 | **2000 863 866** |
| **10** | 133 | 87 | 0,25 | **2000 863 871** |
| **10.2** | 133 | 87 | 0,26 | **2000 863 872** |
| **10.5** | 133 | 87 | 0,26 | **2000 863 873** |
| **11** | 142 | 94 | 0,28 | **2000 863 874** |
| **11.5** | 142 | 94 | 0,29 | **2000 863 875** |
| **12** | 151 | 101 | 0,3 | **2000 863 876** |
| **12.5** | 151 | 101 | 0,31 | **2000 863 877** |
| **13** | 151 | 101 | 0,33 | **2000 863 878** |



2000 860 407



2000 862 110

HSS | HSS-TiN | DIN 338 | Typ N | Nenn-Ø h8

## Twist drill

**HSS · DIN 338 · Type N** · Point angle 118° · **Profile-ground** · Relieved cone · **TiN-coated type with split point from Ø 3 mm** · With straight shank · Right-hand cutting · For all standard drilling operations in steel and cast materials

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 407 - Vc (m/min) | 15–32 | 10–25 | | | | | 25–32 | 20–28 | 80 | 50–63 | 25–63 | | | | |
| 2000 862 110 - Vc (m/min) | 20–40 | 15–35 | | | | | 30–40 | 25–35 | | 70–80 | 25–50 | | | | |
| Cooling | Emulsion | Emulsion/ oil | | | | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated | Article no. TiN-coated |
|---|---|---|---|---|---|
| 0.7 | 28 | 9 | 0,01 | 2000 860 407 | - |
| 0.8 | 30 | 10 | 0,01 | 2000 860 408 | - |
| 0.9 | 32 | 11 | 0,01 | 2000 860 409 | - |
| 1 | 34 | 12 | 0,02 | 2000 860 410 | 2000 862 110 |
| 1.1 | 36 | 14 | 0,02 | 2000 860 411 | 2000 862 111 |
| 1.2 | 38 | 16 | 0,02 | 2000 860 412 | 2000 862 112 |
| 1.3 | 38 | 16 | 0,03 | 2000 860 413 | 2000 862 113 |
| 1.4 | 40 | 18 | 0,03 | 2000 860 414 | 2000 862 114 |
| 1.5 | 40 | 18 | 0,03 | 2000 860 415 | 2000 862 115 |
| 1.6 | 43 | 20 | 0,04 | 2000 860 416 | 2000 862 116 |
| 1.7 | 43 | 20 | 0,04 | 2000 860 417 | 2000 862 117 |
| 1.8 | 46 | 22 | 0,04 | 2000 860 418 | 2000 862 118 |
| 1.9 | 46 | 22 | 0,05 | 2000 860 419 | 2000 862 119 |
| 2 | 49 | 24 | 0,05 | 2000 860 420 | 2000 862 120 |
| 2.1 | 49 | 24 | 0,05 | 2000 860 421 | 2000 862 121 |
| 2.2 | 53 | 27 | 0,06 | 2000 860 422 | 2000 862 122 |
| 2.3 | 53 | 27 | 0,06 | 2000 860 423 | 2000 862 123 |
| 2.4 | 57 | 30 | 0,06 | 2000 860 424 | 2000 862 124 |
| 2.5 | 57 | 30 | 0,06 | 2000 860 425 | 2000 862 125 |
| 2.6 | 57 | 30 | 0,07 | 2000 860 426 | 2000 862 126 |
| 2.7 | 61 | 33 | 0,07 | 2000 860 427 | 2000 862 127 |
| 2.8 | 61 | 33 | 0,07 | 2000 860 428 | 2000 862 128 |
| 2.9 | 61 | 33 | 0,07 | 2000 860 429 | 2000 862 129 |
| 3 | 61 | 33 | 0,08 | 2000 860 430 | 2000 862 130 |
| 3.1 | 65 | 36 | 0,08 | 2000 860 431 | 2000 862 131 |
| 3.2 | 65 | 36 | 0,08 | 2000 860 432 | 2000 862 132 |
| 3.3 | 65 | 36 | 0,08 | 2000 860 433 | 2000 862 133 |
| 3.4 | 70 | 39 | 0,09 | 2000 860 434 | 2000 862 134 |
| 3.5 | 70 | 39 | 0,09 | 2000 860 435 | 2000 862 135 |
| 3.6 | 70 | 39 | 0,09 | 2000 860 436 | 2000 862 136 |
| 3.7 | 70 | 39 | 0,09 | 2000 860 437 | 2000 862 137 |
| 3.8 | 75 | 43 | 0,1 | 2000 860 438 | 2000 862 138 |
| 3.9 | 75 | 43 | 0,1 | 2000 860 439 | 2000 862 139 |
| 4 | 75 | 43 | 0,1 | 2000 860 440 | 2000 862 140 |
| 4.1 | 75 | 43 | 0,1 | 2000 860 441 | 2000 862 141 |
| 4.2 | 75 | 43 | 0,1 | 2000 860 442 | 2000 862 142 |
| 4.3 | 80 | 47 | 0,1 | 2000 860 443 | 2000 862 143 |
| 4.4 | 80 | 47 | 0,1 | 2000 860 444 | 2000 862 144 |
| 4.5 | 80 | 47 | 0,1 | 2000 860 445 | 2000 862 145 |
| 4.6 | 80 | 47 | 0,1 | 2000 860 446 | 2000 862 146 |
| 4.7 | 80 | 47 | 0,1 | 2000 860 447 | 2000 862 147 |
| 4.8 | 86 | 52 | 0,1 | 2000 860 448 | 2000 862 148 |
| 4.9 | 86 | 52 | 0,1 | 2000 860 449 | 2000 862 149 |
| 5 | 86 | 52 | 0,1 | 2000 860 450 | 2000 862 150 |
| 5.1 | 86 | 52 | 0,1 | 2000 860 451 | 2000 862 151 |
| 5.2 | 86 | 52 | 0,1 | 2000 860 452 | 2000 862 152 |
| 5.3 | 86 | 52 | 0,11 | 2000 860 453 | 2000 862 153 |
| 5.4 | 93 | 57 | 0,11 | 2000 860 454 | 2000 862 154 |
| 5.5 | 93 | 57 | 0,11 | 2000 860 455 | 2000 862 155 |
| 5.6 | 93 | 57 | 0,11 | 2000 860 456 | 2000 862 156 |
| 5.7 | 93 | 57 | 0,11 | 2000 860 457 | 2000 862 157 |
| 5.8 | 93 | 57 | 0,12 | 2000 860 458 | 2000 862 158 |
| 5.9 | 93 | 57 | 0,12 | 2000 860 459 | 2000 862 159 |
| 6 | 93 | 57 | 0,12 | 2000 860 460 | 2000 862 160 |
| 6.1 | 101 | 63 | 0,12 | 2000 860 461 | 2000 862 161 |
| 6.2 | 101 | 63 | 0,12 | 2000 860 462 | 2000 862 162 |
| 6.3 | 101 | 63 | 0,13 | 2000 860 463 | 2000 862 163 |
| 6.4 | 101 | 63 | 0,13 | 2000 860 464 | 2000 862 164 |
| 6.5 | 101 | 63 | 0,13 | 2000 860 465 | 2000 862 165 |
| 6.6 | 101 | 63 | 0,13 | 2000 860 466 | 2000 862 166 |
| 6.7 | 101 | 63 | 0,13 | 2000 860 467 | 2000 862 167 |
| 6.8 | 109 | 69 | 0,14 | 2000 860 468 | 2000 862 168 |
| 6.9 | 109 | 69 | 0,14 | 2000 860 469 | 2000 862 169 |
| 7 | 109 | 69 | 0,14 | 2000 860 470 | 2000 862 170 |
| 7.1 | 109 | 69 | 0,14 | 2000 860 471 | 2000 862 171 |

Continuation>

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated | Article no. TiN-coated |
|---|---|---|---|---|---|
| 7.2 | 109 | 69 | 0,14 | 2000 860 472 | 2000 862 172 |
| 7.3 | 109 | 69 | 0,15 | 2000 860 473 | 2000 862 173 |
| 7.4 | 109 | 69 | 0,15 | 2000 860 474 | 2000 862 174 |
| 7.5 | 109 | 69 | 0,15 | 2000 860 475 | 2000 862 175 |
| 7.6 | 117 | 75 | 0,15 | 2000 860 476 | 2000 862 176 |
| 7.7 | 117 | 75 | 0,15 | 2000 860 477 | 2000 862 177 |
| 7.8 | 117 | 75 | 0,16 | 2000 860 478 | 2000 862 178 |
| 7.9 | 117 | 75 | 0,16 | 2000 860 479 | 2000 862 179 |
| 8 | 117 | 75 | 0,16 | 2000 860 480 | 2000 862 180 |
| 8.1 | 117 | 75 | 0,16 | 2000 860 481 | 2000 862 181 |
| 8.2 | 117 | 75 | 0,16 | 2000 860 482 | 2000 862 182 |
| 8.3 | 117 | 75 | 0,17 | 2000 860 483 | 2000 862 183 |
| 8.4 | 117 | 75 | 0,17 | 2000 860 484 | 2000 862 184 |
| 8.5 | 117 | 75 | 0,17 | 2000 860 485 | 2000 862 185 |
| 8.6 | 125 | 81 | 0,17 | 2000 860 486 | 2000 862 186 |
| 8.7 | 125 | 81 | 0,17 | 2000 860 487 | 2000 862 187 |
| 8.8 | 125 | 81 | 0,18 | 2000 860 488 | 2000 862 188 |
| 8.9 | 125 | 81 | 0,18 | 2000 860 489 | 2000 862 189 |
| 9 | 125 | 81 | 0,18 | 2000 860 490 | 2000 862 190 |
| 9.1 | 125 | 81 | 0,18 | 2000 860 491 | 2000 862 191 |
| 9.2 | 125 | 81 | 0,18 | 2000 860 492 | 2000 862 192 |
| 9.3 | 125 | 81 | 0,19 | 2000 860 493 | 2000 862 193 |
| 9.4 | 125 | 81 | 0,19 | 2000 860 494 | 2000 862 194 |
| 9.5 | 125 | 81 | 0,19 | 2000 860 495 | 2000 862 195 |
| 9.6 | 133 | 87 | 0,19 | 2000 860 496 | 2000 862 196 |
| 9.7 | 133 | 87 | 0,19 | 2000 860 497 | 2000 862 197 |
| 9.8 | 133 | 87 | 0,2 | 2000 860 498 | 2000 862 198 |
| 9.9 | 133 | 87 | 0,2 | 2000 860 499 | 2000 862 199 |
| 10 | 133 | 87 | 0,2 | 2000 860 500 | 2000 862 200 |
| 10.2 | 133 | 87 | 0,2 | 2000 860 502 | 2000 862 202 |
| 10.5 | 133 | 87 | 0,2 | 2000 860 505 | 2000 862 205 |
| 11 | 142 | 94 | 0,2 | 2000 860 511 | 2000 862 211 |
| 11.5 | 142 | 94 | 0,2 | 2000 860 515 | 2000 862 215 |
| 12 | 151 | 101 | 0,2 | 2000 860 520 | 2000 862 220 |
| 12.5 | 151 | 101 | 0,2 | 2000 860 525 | 2000 862 225 |
| 13 | 151 | 101 | 0,21 | 2000 860 530 | 2000 862 230 |
| 13.5 | 160 | 108 | 0,21 | 2000 860 535 | 2000 862 235 |
| 14 | 160 | 108 | 0,22 | 2000 860 540 | 2000 862 240 |
| 14.5 | 169 | 114 | 0,23 | 2000 860 545 | 2000 862 245 |
| 15 | 169 | 114 | 0,24 | 2000 860 550 | 2000 862 250 |
| 15.5 | 178 | 120 | 0,24 | 2000 860 555 | 2000 862 255 |
| 16 | 178 | 120 | 0,25 | 2000 860 560 | 2000 862 260 |

HSS-TiN | DIN 338 | Typ N | Nenn-Ø h8







## Twist drill

**HSS** · **TiN-coated head** · **DIN 338** · **Type N** · Point angle 118° · **Profile-ground** · **From Ø 3 mm with split point** · 3-surface shank · **From 2.5 mm with step point** · Right-hand cutting · For steel up to 1000 N/mm², brass and plastic

**With straight shank: Up to nominal Ø 3.5 mm**
**With 3-surface shank: From nominal Ø 4 mm**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 862 293 - Vc (m/min) | 25–27 | 22–30 | 15–20 | 80–180 | 8–12 | 10–12 | 15–20 | 25–30 | 22–30 | 45–50 | 25–40 | | | | |
| Cooling | Emulsion | Emulsion | Emulsion/oil | Emulsion/oil | Emulsion | Emulsion | Emulsion | Emulsion | | | Emulsion/ oil | Oil | Emulsion/oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. TiN-coated head |
|---|---|---|---|---|
| 1 | 34 | 12 | 0,01 | 2000 862 293 |
| 1.5 | 40 | 18 | 0,01 | 2000 862 294 |
| 2 | 49 | 24 | 0,02 | 2000 862 295 |
| 2.5 | 57 | 30 | 0,02 | 2000 862 296 |
| 3 | 61 | 33 | 0,03 | 2000 862 297 |
| 3.1 | 61 | 36 | 0,03 | 2000 862 298 |
| 3.3 | 65 | 36 | 0,03 | 2000 862 299 |
| 3.5 | 70 | 39 | 0,03 | 2000 862 300 |
| 4 | 75 | 43 | 0,04 | 2000 862 301 |
| 4.1 | 75 | 43 | 0,04 | 2000 862 302 |
| 4.2 | 75 | 43 | 0,04 | 2000 862 303 |
| 4.5 | 80 | 47 | 0,04 | 2000 862 304 |
| 5 | 86 | 52 | 0,05 | 2000 862 305 |
| 5.1 | 86 | 57 | 0,05 | 2000 862 306 |
| 5.5 | 93 | 57 | 0,05 | 2000 862 307 |
| 6 | 93 | 57 | 0,06 | 2000 862 308 |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. TiN-coated head |
|---|---|---|---|---|
| 6.5 | 101 | 63 | 0,06 | 2000 862 309 |
| 6.8 | 109 | 69 | 0,06 | 2000 862 310 |
| 7 | 109 | 69 | 0,07 | 2000 862 311 |
| 7.5 | 109 | 69 | 0,07 | 2000 862 312 |
| 8 | 117 | 75 | 0,08 | 2000 862 313 |
| 8.5 | 117 | 75 | 0,08 | 2000 862 314 |
| 9 | 125 | 81 | 0,09 | 2000 862 315 |
| 9.5 | 125 | 81 | 0,09 | 2000 862 316 |
| 10 | 133 | 87 | 0,1 | 2000 862 317 |
| 10.2 | 133 | 87 | 0,1 | 2000 862 318 |
| 10.5 | 133 | 87 | 0,1 | 2000 862 319 |
| 11 | 142 | 94 | 0,1 | 2000 862 320 |
| 11.5 | 142 | 94 | 0,1 | 2000 862 321 |
| 12 | 151 | 101 | 0,12 | 2000 862 322 |
| 12.5 | 151 | 101 | 0,12 | 2000 862 323 |
| 13 | 151 | 101 | 0,12 | 2000 862 324 |



2000 860 610



2000 862 950

HSS-Co | DIN 338 | VA | Typ N | M 35 | M 42 | hochfest | Nenn-Ø h8

## Twist drill

**HSS-Co5** · DIN 338 · **Type VA** · Point angle 130° · **Profile-ground with split point from Ø 2.0 mm** · With straight shank · Right-hand cutting · For drilling rust-free steels, alloyed and unalloyed steels and cast steels with strengths above 800 N/mm², as well as tempered and case-hardened steels

**Industrial quality**

**Twist drill**

**HSS-Co8** · DIN 338 · **Type N** · Point angle 130° · **Profile-ground with split point from Ø 2.0 mm** · With straight shank · Right-hand cutting · Very sturdy, robust twist drill with exceptional heat resistance · Preferably used for processing solid and high-strength CrNi-based alloys, such as Hastelloy, Inconel, Monel, Nimonic, rust-, acid- and heat-resistant steels as well as wear-resistant sheet metal · Steels and bronzes with strengths up to approx. 1400 N/mm²

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 610 - Vc (m/min) | 15–35 | 10–28 | 10–14 | | 10–14 | | 28–36 | 22–30 | 90 | 55–70 | 22–45 | 10 | 6 | | |
| 2000 862 950- Vc (m/min) | 15–35 | 10–28 | 10–14 | | 10–14 | | 28–36 | 22–30 | 90 | 55–70 | 18–45 | 10 | 6 | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/oil | | Oil | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. HSS-Co5 | VA < 800 N f [mm/rev] | Article no. HSS-Co8 |
|---|---|---|---|---|---|---|
| **1** | 34 | 12 | 0,01 | **2000 860 610** | | - |
| **1.1** | 36 | 14 | 0,02 | **2000 860 611** | | - |
| **1.2** | 38 | 16 | 0,02 | **2000 860 612** | | - |
| **1.3** | 38 | 16 | 0,02 | **2000 860 613** | | - |
| **1.4** | 40 | 18 | 0,02 | **2000 860 614** | | - |
| **1.5** | 40 | 18 | 0,03 | **2000 860 615** | | - |
| **1.6** | 43 | 20 | 0,03 | **2000 860 616** | | - |
| **1.7** | 43 | 20 | 0,03 | **2000 860 617** | | - |
| **1.8** | 46 | 22 | 0,03 | **2000 860 618** | | - |
| **1.9** | 46 | 22 | 0,04 | **2000 860 619** | | - |
| **2** | 49 | 24 | 0,04 | **2000 860 620** | 0,04 | **2000 862 950** |
| **2.1** | 49 | 24 | 0,04 | **2000 860 621** | | - |
| **2.2** | 53 | 27 | 0,04 | **2000 860 622** | | - |
| **2.3** | 53 | 27 | 0,05 | **2000 860 623** | | - |
| **2.4** | 57 | 30 | 0,05 | **2000 860 624** | | - |
| **2.5** | 57 | 30 | 0,05 | **2000 860 625** | 0,05 | **2000 862 951** |
| **2.6** | 57 | 30 | 0,05 | **2000 860 626** | | - |
| **2.7** | 61 | 33 | 0,05 | **2000 860 627** | | - |
| **2.8** | 61 | 33 | 0,06 | **2000 860 628** | | - |
| **2.9** | 61 | 33 | 0,06 | **2000 860 629** | | - |
| **3** | 61 | 33 | 0,06 | **2000 860 630** | 0,06 | **2000 862 952** |
| **3.1** | 65 | 36 | 0,06 | **2000 860 631** | | - |
| **3.2** | 65 | 36 | 0,06 | **2000 860 632** | 0,06 | **2000 862 953** |
| **3.3** | 65 | 36 | 0,07 | **2000 860 633** | 0,07 | **2000 862 954** |
| **3.4** | 70 | 39 | 0,07 | **2000 860 634** | | - |
| **3.5** | 70 | 39 | 0,07 | **2000 860 635** | 0,07 | **2000 862 955** |
| **3.6** | 70 | 39 | 0,07 | **2000 860 636** | | - |
| **3.7** | 70 | 39 | 0,07 | **2000 860 637** | | - |
| **3.8** | 75 | 43 | 0,08 | **2000 860 638** | | - |
| **3.9** | 75 | 43 | 0,08 | **2000 860 639** | | - |
| **4** | 75 | 43 | 0,08 | **2000 860 640** | 0,08 | **2000 862 956** |
| **4.1** | 75 | 43 | 0,08 | **2000 860 641** | 0,08 | **2000 862 957** |
| **4.2** | 75 | 43 | 0,08 | **2000 860 642** | 0,08 | **2000 862 958** |
| **4.3** | 80 | 47 | 0,08 | **2000 860 643** | | - |
| **4.4** | 80 | 47 | 0,08 | **2000 860 644** | | - |

Continuation>

Continuation

| **Nominal Ø [mm]** | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | **Article no. HSS-Co5** | VA < 800 N f [mm/rev] | **Article no. HSS-Co8** |
|---|---|---|---|---|---|---|
| **4.5** | 80 | 47 | 0,08 | **2000 860 645** | 0,08 | **2000 862 959** |
| **4.6** | 80 | 47 | 0,08 | **2000 860 646** | | **-** |
| **4.7** | 80 | 47 | 0,08 | **2000 860 647** | | **-** |
| **4.8** | 86 | 52 | 0,08 | **2000 860 648** | 0,08 | **2000 862 960** |
| **4.9** | 86 | 52 | 0,08 | **2000 860 649** | | **-** |
| **5** | 86 | 52 | 0,08 | **2000 860 650** | 0,08 | **2000 862 961** |
| **5.1** | 86 | 52 | 0,08 | **2000 860 651** | 0,1 | **2000 862 972** |
| **5.2** | 86 | 52 | 0,08 | **2000 860 652** | | **-** |
| **5.3** | 86 | 52 | 0,08 | **2000 860 653** | | **-** |
| **5.4** | 93 | 57 | 0,09 | **2000 860 654** | | **-** |
| **5.5** | 93 | 57 | 0,09 | **2000 860 655** | 0,09 | **2000 862 962** |
| **5.6** | 93 | 57 | 0,09 | **2000 860 656** | | **-** |
| **5.7** | 93 | 57 | 0,09 | **2000 860 657** | | **-** |
| **5.8** | 93 | 57 | 0,09 | **2000 860 658** | | **-** |
| **5.9** | 93 | 57 | 0,09 | **2000 860 659** | | **-** |
| **6** | 93 | 57 | 0,1 | **2000 860 660** | 0,1 | **2000 862 963** |
| **6.1** | 101 | 63 | 0,1 | **2000 860 661** | | **-** |
| **6.2** | 101 | 63 | 0,1 | **2000 860 662** | | **-** |
| **6.3** | 101 | 63 | 0,1 | **2000 860 663** | | **-** |
| **6.4** | 101 | 63 | 0,1 | **2000 860 664** | | **-** |
| **6.5** | 101 | 63 | 0,1 | **2000 860 665** | 0,1 | **2000 862 964** |
| **6.6** | 101 | 63 | 0,1 | **2000 860 666** | | **-** |
| **6.7** | 101 | 63 | 0,11 | **2000 860 667** | | **-** |
| **6.8** | 109 | 69 | 0,11 | **2000 860 668** | 0,11 | **2000 862 965** |
| **6.9** | 109 | 69 | 0,11 | **2000 860 669** | | **-** |
| **7** | 109 | 69 | 0,11 | **2000 860 670** | 0,11 | **2000 862 966** |
| **7.1** | 109 | 69 | 0,11 | **2000 860 671** | | **-** |
| **7.2** | 109 | 69 | 0,11 | **2000 860 672** | | **-** |
| **7.3** | 109 | 69 | 0,11 | **2000 860 673** | | **-** |
| **7.4** | 109 | 69 | 0,12 | **2000 860 674** | | **-** |
| **7.5** | 109 | 69 | 0,12 | **2000 860 675** | 0,12 | **2000 862 967** |
| **7.6** | 117 | 75 | 0,12 | **2000 860 676** | | **-** |
| **7.7** | 117 | 75 | 0,12 | **2000 860 677** | | **-** |
| **7.8** | 117 | 75 | 0,12 | **2000 860 678** | | **-** |
| **7.9** | 117 | 75 | 0,12 | **2000 860 679** | | **-** |
| **8** | 117 | 75 | 0,13 | **2000 860 680** | 0,13 | **2000 862 968** |
| **8.1** | 117 | 75 | 0,13 | **2000 860 681** | | **-** |
| **8.2** | 117 | 75 | 0,13 | **2000 860 682** | | **-** |
| **8.3** | 117 | 75 | 0,13 | **2000 860 683** | | **-** |
| **8.4** | 117 | 75 | 0,13 | **2000 860 684** | | **-** |
| **8.5** | 117 | 75 | 0,13 | **2000 860 685** | 0,13 | **2000 862 969** |
| **8.6** | 125 | 81 | 0,14 | **2000 860 686** | | **-** |
| **8.7** | 125 | 81 | 0,14 | **2000 860 687** | | **-** |
| **8.8** | 125 | 81 | 0,14 | **2000 860 688** | | **-** |
| **8.9** | 125 | 81 | 0,14 | **2000 860 689** | | **-** |
| **9** | 125 | 81 | 0,14 | **2000 860 690** | 0,14 | **2000 862 970** |
| **9.1** | 125 | 81 | 0,14 | **2000 860 691** | | **-** |
| **9.2** | 125 | 81 | 0,15 | **2000 860 692** | | **-** |
| **9.3** | 125 | 81 | 0,15 | **2000 860 693** | | **-** |
| **9.4** | 125 | 81 | 0,15 | **2000 860 694** | | **-** |
| **9.5** | 125 | 81 | 0,15 | **2000 860 695** | 0,15 | **2000 862 971** |
| **9.6** | 133 | 87 | 0,15 | **2000 860 696** | | **-** |
| **9.7** | 133 | 87 | 0,15 | **2000 860 697** | | **-** |
| **9.8** | 133 | 87 | 0,16 | **2000 860 698** | | **-** |
| **9.9** | 133 | 87 | 0,16 | **2000 860 699** | | **-** |
| **10** | 133 | 87 | 0,16 | **2000 860 700** | 0,16 | **2000 862 973** |
| **10.2** | 133 | 87 | 0,16 | **2000 860 702** | 0,16 | **2000 862 974** |
| **10.5** | 133 | 87 | 0,16 | **2000 860 705** | 0,16 | **2000 862 975** |
| **11** | 142 | 94 | 0,16 | **2000 860 710** | 0,16 | **2000 862 976** |
| **11.5** | 142 | 94 | 0,16 | **2000 860 715** | | **-** |
| **11.8** | 142 | 94 | 0,16 | **2000 860 718** | | **-** |
| **12** | 151 | 101 | 0,16 | **2000 860 720** | 0,16 | **2000 862 977** |
| **12.5** | 151 | 101 | 0,16 | **2000 860 725** | | **-** |
| **13** | 151 | 101 | 0,17 | **2000 860 730** | 0,17 | **2000 862 978** |
| **13.5** | 160 | 108 | 0,17 | **2000 860 735** | | **-** |
| **14** | 160 | 108 | 0,18 | **2000 860 740** | | **-** |
| **14.5** | 169 | 114 | 0,18 | **2000 860 745** | | **-** |
| **15** | 169 | 114 | 0,19 | **2000 860 750** | | **-** |
| **15.5** | 178 | 120 | 0,19 | **2000 860 755** | | **-** |
| **16** | 178 | 120 | 0,2 | **2000 860 760** | | **-** |



HSS-Co | DIN 338 | VA | 5xD | Nenn-Ø h8

## Twist drill

**HSS-Co5** · Vapour-tempered · **DIN 338** · **Type VA** · Point angle 130° · **Profile-ground with split point** · Right-hand cutting · For drilling even at the highest temperature loads · **3-surface shank** prevents spinning in the drill chuck · For materials with increased alloy content and strength above 800 N/mm²

**With straight shank: Up to nominal Ø 3.5 mm**
**With 3-surface shank: From nominal Ø 4 mm**

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 862 279 - Vc (m/min) | 40 | 30 | 10 | 5 | 15 | 8 | 25 | 20 | 70 | 45 | 50 | - | - | - | - |
| Cooling | Emulsion | Emulsion | Emulsion/oil | Emulsion/oil | Emulsion | Emulsion | Dry/air | Emulsion | Emulsion | Emulsion | Emulsion/ oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Vapour-tempered |
|---|---|---|---|---|
| **1** | 34 | 12 | 0,05 | **2000 862 979** |
| **1.5** | 40 | 18 | 0,05 | **2000 862 980** |
| **2** | 49 | 24 | 0,05 | **2000 862 982** |
| **2.5** | 57 | 30 | 0,05 | **2000 862 983** |
| **3** | 61 | 33 | 0,05 | **2000 862 984** |
| **3.2** | 65 | 36 | 0,05 | **2000 862 985** |
| **3.3** | 65 | 36 | 0,05 | **2000 862 986** |
| **3.5** | 70 | 39 | 0,05 | **2000 862 987** |
| **4** | 75 | 43 | 0,05 | **2000 862 988** |
| **4.2** | 75 | 43 | 0,05 | **2000 862 989** |
| **4.5** | 80 | 47 | 0,05 | **2000 862 990** |
| **5** | 86 | 52 | 0,12 | **2000 862 991** |
| **5.2** | 86 | 52 | 0,12 | **2000 862 992** |
| **5.5** | 93 | 57 | 0,12 | **2000 862 993** |
| **6** | 93 | 57 | 0,12 | **2000 862 994** |
| **6.5** | 101 | 63 | 0,12 | **2000 862 995** |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Vapour-tempered |
|---|---|---|---|---|
| **6.8** | 109 | 69 | 0,12 | **2000 862 996** |
| **7** | 109 | 69 | 0,12 | **2000 862 997** |
| **7.5** | 109 | 69 | 0,12 | **2000 862 998** |
| **8** | 117 | 75 | 0,20 | **2000 862 999** |
| **8.5** | 117 | 75 | 0,20 | **2000 863 000** |
| **9** | 125 | 81 | 0,20 | **2000 863 001** |
| **9.5** | 125 | 81 | 0,20 | **2000 863 002** |
| **10** | 133 | 87 | 0,20 | **2000 863 003** |
| **10.2** | 133 | 87 | 0,20 | **2000 863 004** |
| **10.5** | 133 | 87 | 0,20 | **2000 863 005** |
| **11** | 142 | 94 | 0,20 | **2000 863 006** |
| **11.5** | 142 | 94 | 0,20 | **2000 863 007** |
| **12** | 151 | 101 | 0,25 | **2000 863 008** |
| **12.5** | 151 | 101 | 0,25 | **2000 863 009** |
| **13** | 151 | 101 | 0,25 | **2000 863 010** |



2000 862 620



2000 862 715

HSS-Co | HSS-Co TiN | DIN 338 | UNI | Nenn-Ø h8

## Twist drill

**HSS-Co5** · **DIN 338** · **Type UNI** · **For universal use** · Point angle 118° · **Profile-ground** · With straight shank · Right-hand cutting · **Good self-centring behaviour** · **Pointed cross-cutting edge** · For non-ferrous metals, structural and carbon steels, high-alloy steels (e.g. V2A/V4A), tool steels, cast and cast alloys, magnesium alloys, plastics and aluminium

**Advantages:**
Special grinding and point thinning for low torque and smooth running · Round groove profile for optimal chip removal, even long chips from tough materials

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 862 620 - Vc (m/min) | 15–35 | 10–28 | 10–14 | | 10–14 | 5–7 | 28–36 | 22–30 | 90 | 55–70 | 18–45 | 10 | 6 | | |
| 2000 862 715 - Vc (m/min) | 20–45 | 15–40 | 12–15 | | 12–18 | 6–8 | 36–45 | 28–40 | 70 | 70–85 | 28–63 | 10 | 6 | | |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| **1** | 34 | 12 | 0,01 | **2000 862 620** | 0,02 | **2000 862 715** |
| **1.5** | 40 | 18 | 0,03 | **2000 862 625** | 0,04 | **2000 862 720** |
| **2** | 49 | 24 | 0,04 | **2000 862 630** | 0,06 | **2000 862 725** |

Continuation>



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 800 N f [mm/rev] | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| **2.5** | 57 | 30 | 0,05 | **2000 862 635** | 0,08 | **2000 862 730** |
| **3** | 61 | 33 | 0,06 | **2000 862 640** | 0,1 | **2000 862 735** |
| **3.1** | 65 | 36 | 0,06 | **2000 862 641** | 0,1 | **2000 862 736** |
| **3.2** | 65 | 36 | 0,06 | **2000 862 642** | 0,1 | **2000 862 737** |
| **3.3** | 65 | 36 | 0,07 | **2000 862 643** | 0,1 | **2000 862 738** |
| **3.5** | 70 | 39 | 0,07 | **2000 862 645** | 0,11 | **2000 862 740** |
| **4** | 75 | 43 | 0,08 | **2000 862 650** | 0,13 | **2000 862 745** |
| **4.1** | 75 | 43 | 0,08 | **2000 862 651** | 0,13 | **2000 862 746** |
| **4.2** | 75 | 43 | 0,08 | **2000 862 652** | 0,13 | **2000 862 747** |
| **4.5** | 80 | 47 | 0,08 | **2000 862 655** | 0,13 | **2000 862 750** |
| **4.8** | 86 | 52 | 0,08 | **2000 862 658** | 0,13 | **2000 862 753** |
| **5** | 86 | 52 | 0,08 | **2000 862 660** | 0,13 | **2000 862 755** |
| **5.5** | 93 | 57 | 0,09 | **2000 862 665** | 0,14 | **2000 862 760** |
| **6** | 93 | 57 | 0,1 | **2000 862 670** | 0,15 | **2000 862 765** |
| **6.5** | 101 | 63 | 0,1 | **2000 862 675** | 0,16 | **2000 862 770** |
| **6.8** | 109 | 69 | 0,11 | **2000 862 678** | 0,17 | **2000 862 773** |
| **7** | 109 | 69 | 0,11 | **2000 862 680** | 0,18 | **2000 862 775** |
| **7.5** | 109 | 69 | 0,12 | **2000 862 685** | 0,19 | **2000 862 780** |
| **8** | 117 | 75 | 0,13 | **2000 862 690** | 0,2 | **2000 862 785** |
| **8.5** | 117 | 75 | 0,13 | **2000 862 695** | 0,21 | **2000 862 790** |
| **9** | 125 | 81 | 0,14 | **2000 862 697** | 0,23 | **2000 862 792** |
| **9.5** | 125 | 81 | 0,15 | **2000 862 699** | 0,24 | **2000 862 794** |
| **10** | 133 | 87 | 0,16 | **2000 862 701** | 0,25 | **2000 862 796** |
| **10.2** | 133 | 87 | 0,16 | **2000 862 702** | 0,25 | **2000 862 797** |
| **10.5** | 133 | 87 | 0,16 | **2000 862 703** | 0,25 | **2000 862 798** |
| **11** | 142 | 94 | 0,16 | **2000 862 704** | 0,25 | **2000 862 799** |
| **11.5** | 142 | 94 | 0,16 | **2000 862 705** | 0,25 | **2000 862 800** |
| **12** | 151 | 101 | 0,16 | **2000 862 706** | 0,25 | **2000 862 801** |
| **12.5** | 151 | 101 | 0,16 | **2000 862 707** | 0,25 | **2000 862 802** |
| **13** | 151 | 101 | 0,17 | **2000 862 708** | 0,26 | **2000 862 803** |

HSS-Co | DIN 338 | TFL | 8xD | Nenn-Ø h8



## Twist drill

**HSS-Co5 · Chamfer-nitrided (from Ø 3 mm) · DIN 338 · Type TFL** · Point angle 130° · **Profile-ground · Split point from Ø 2 mm** · With straight shank · Right-hand cutting · Very high thermal capacity · Thanks to special groove formation suitable in case of poor chip removal or for deeper drilling depths **up to 8xØ** · For drilling rust-free steels, alloyed and unalloyed steels (structural/machining/heat treated/case-hardened/nitrided/tool/high-speed and spring steels) up to 1300 N/mm², cast iron, copper, brass, aluminium and plastic

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 863 131 - Vc (m/min) | 30–50 | 25–35 | 8–12 | 6–10 | 10–20 | 6–10 | 20–30 | 25–35 | 40–100 | 30–60 | 40–60 | 3–8 | | | |
| Cooling | Emulsion | Emulsion/ oil | | | | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Shank Ø [mm] | Spiral L [mm] | Shank L [mm] | Steel < 800 N f [mm/rev] | Article no. Chamfer-nitrided |
|---|---|---|---|---|---|---|
| **1** | 34 | 1 | 12 | 22 | 0,04 | **2000 863 131** |
| **1.5** | 40 | 1.5 | 18 | 22 | 0,04 | **2000 863 132** |
| **1.6** | 43 | 1.6 | 20 | 23 | 0,04 | **2000 863 133** |
| **2** | 49 | 2 | 24 | 25 | 0,05 | **2000 863 134** |
| **2.5** | 57 | 2.5 | 30 | 27 | 0,05 | **2000 863 135** |
| **3** | 61 | 3 | 33 | 28 | 0,06 | **2000 863 136** |
| **3.3** | 65 | 3.3 | 36 | 29 | 0,06 | **2000 863 137** |
| **3.5** | 70 | 3.5 | 39 | 31 | 0,07 | **2000 863 138** |
| **4** | 75 | 4 | 43 | 32 | 0,08 | **2000 863 139** |
| **4.2** | 75 | 4.2 | 43 | 32 | 0,08 | **2000 863 140** |
| **4.5** | 80 | 4.5 | 47 | 33 | 0,09 | **2000 863 141** |
| **5** | 86 | 5 | 52 | 34 | 0,12 | **2000 863 142** |
| **5.5** | 93 | 5.5 | 57 | 36 | 0,12 | **2000 863 143** |
| **6** | 93 | 6 | 57 | 36 | 0,12 | **2000 863 144** |
| **6.5** | 101 | 6.5 | 63 | 38 | 0,13 | **2000 863 145** |
| **6.8** | 109 | 6.8 | 69 | 40 | 0,14 | **2000 863 146** |
| **7** | 109 | 7 | 69 | 40 | 0,15 | **2000 863 147** |
| **7.5** | 109 | 7.5 | 69 | 40 | 0,15 | **2000 863 148** |
| **7.8** | 117 | 7.8 | 75 | 42 | 0,16 | **2000 863 149** |
| **8** | 117 | 8 | 75 | 42 | 0,17 | **2000 863 150** |
| **8.5** | 117 | 8.5 | 75 | 42 | 0,17 | **2000 863 151** |
| **9** | 125 | 9 | 81 | 44 | 0,17 | **2000 863 152** |
| **9.5** | 125 | 9.5 | 81 | 44 | 0,17 | **2000 863 153** |
| **10** | 133 | 10 | 87 | 46 | 0,18 | **2000 863 154** |
| **10.2** | 133 | 10.2 | 87 | 46 | 0,18 | **2000 863 155** |
| **10.5** | 133 | 10.5 | 87 | 46 | 0,18 | **2000 863 156** |
| **11** | 142 | 11 | 94 | 48 | 0,19 | **2000 863 157** |
| **11.5** | 142 | 11.5 | 94 | 48 | 0,19 | **2000 863 158** |
| **12** | 151 | 12 | 101 | 50 | 0,19 | **2000 863 159** |
| **12.5** | 151 | 12.5 | 101 | 50 | 0,2 | **2000 863 160** |
| **13** | 151 | 13 | 101 | 50 | 0,2 | **2000 863 161** |



HSS-Co | DIN 338 | Typ N | Z 3 | Nenn-Ø h8

## Twist drill

**HSS-Co · DIN 338** · Type N · Point angle 130° · Profile-ground · With straight shank · **3 cutters** · Right-hand cutting · With split point · For all standard drilling operations in structural steels, unalloyed and alloyed steels up to 850 N/mm², cast materials, wrought aluminium alloys, cast aluminium alloys

**Advantages:**

· Particularly precise round bores similar to friction level (machine-dependent) of up to IT9
· Significantly higher feed rates of up to 60 % are possible thanks to the 3 cutting edges
· No slipping of the drill bit thanks to special tip geometry
· No snagging when drilling in existing bore holes
· Less wear and tear thanks to distribution of the work from 2 to 3 cutting edges

**3 cutting edges**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 863 600 - Vc (m/min) | 18–22 | 16–20 | 14–16 | 10 | 10 | 8 | 34–40 | 26–32 | 50 | 50–60 | 28–40 | | | | |
| Cooling | Emulsion | Emulsion-oil | Emulsion-oil | Emulsion-oil | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion-oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **3** | 61 | 33 | 0,1 | **2000 863 600** |
| **3.1** | 65 | 36 | 0,1 | **2000 863 601** |
| **3.2** | 65 | 36 | 0,1 | **2000 863 602** |
| **3.3** | 65 | 36 | 0,1 | **2000 863 603** |
| **3.4** | 70 | 36 | 0,1 | **2000 863 604** |
| **3.5** | 70 | 39 | 0,1 | **2000 863 605** |
| **3.6** | 70 | 39 | 0,1 | **2000 863 606** |
| **3.7** | 70 | 39 | 0,1 | **2000 863 607** |
| **3.8** | 75 | 43 | 0,1 | **2000 863 608** |
| **3.9** | 75 | 43 | 0,1 | **2000 863 609** |
| **4** | 75 | 43 | 0,12 | **2000 863 610** |
| **4.1** | 75 | 43 | 0,12 | **2000 863 611** |
| **4.2** | 75 | 43 | 0,12 | **2000 863 612** |
| **4.3** | 80 | 47 | 0,12 | **2000 863 613** |
| **4.4** | 80 | 47 | 0,12 | **2000 863 614** |
| **4.5** | 80 | 47 | 0,12 | **2000 863 615** |
| **4.6** | 80 | 47 | 0,12 | **2000 863 616** |
| **4.7** | 80 | 47 | 0,12 | **2000 863 617** |
| **4.8** | 86 | 52 | 0,12 | **2000 863 618** |
| **4.9** | 86 | 52 | 0,12 | **2000 863 619** |
| **5** | 86 | 52 | 0,14 | **2000 863 620** |
| **5.1** | 86 | 52 | 0,14 | **2000 863 621** |
| **5.2** | 86 | 52 | 0,14 | **2000 863 622** |
| **5.3** | 86 | 52 | 0,14 | **2000 863 623** |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **5.4** | 86 | 52 | 0,14 | **2000 863 624** |
| **5.5** | 93 | 57 | 0,14 | **2000 863 625** |
| **5.6** | 93 | 57 | 0,14 | **2000 863 626** |
| **5.7** | 93 | 57 | 0,14 | **2000 863 627** |
| **5.8** | 93 | 57 | 0,14 | **2000 863 628** |
| **5.9** | 93 | 57 | 0,16 | **2000 863 629** |
| **6** | 93 | 57 | 0,16 | **2000 863 630** |
| **6.5** | 101 | 63 | 0,16 | **2000 863 631** |
| **6.8** | 109 | 69 | 0,16 | **2000 863 632** |
| **7** | 109 | 69 | 0,18 | **2000 863 633** |
| **7.5** | 109 | 69 | 0,18 | **2000 863 634** |
| **8** | 117 | 75 | 0,2 | **2000 863 635** |
| **8.5** | 117 | 75 | 0,2 | **2000 863 636** |
| **9** | 125 | 81 | 0,2 | **2000 863 637** |
| **9.5** | 125 | 81 | 0,2 | **2000 863 638** |
| **10** | 133 | 87 | 0,25 | **2000 863 639** |
| **10.2** | 133 | 87 | 0,25 | **2000 863 640** |
| **10.5** | 133 | 87 | 0,25 | **2000 863 641** |
| **11** | 142 | 94 | 0,25 | **2000 863 642** |
| **11.5** | 142 | 94 | 0,25 | **2000 863 643** |
| **12** | 151 | 101 | 0,25 | **2000 863 644** |
| **12.5** | 151 | 101 | 0,25 | **2000 863 645** |
| **13** | 151 | 101 | 0,3 | **2000 863 646** |

HSS | DIN 338 | Typ W | ALU | Nenn-Ø h8

## Twist drill set

**HSS** · DIN 338 · **Type W** · Point angle 130° · **Profile-ground** · With straight shank · Right-hand cutting · For soft and long-chipping materials such as aluminium alloys (long-chipping), zinc, silumin, refinery copper, electron, zamak, plastics (soft), lead and wood

**Industrial quality**
**In an impact-resistant and break-proof plastic case**



2000 863 919

| Nominal Ø [mm] | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **1–10** | 0.5 | 19-part | **2000 863 918** |
| **1–13** | 0.5 | 25-part | **2000 863 919** |

HSS | HSS-TiN | HSS-Co | DIN 338 | Typ N | VA | Nenn-Ø h8

## Twist drill set

**DIN 338 · Profile-ground** · With straight shank · Right-hand cutting · For all standard drilling operations
**HSS:** For steel, cast iron, and non-ferrous metals
**HSS-Co:** For rust- and heat-resistant steels
**In an impact-resistant and break-proof plastic case**
Article no. 2000 861 961, 2000 861 942, 2000 861 965 with core hole dimensions 3.3 / 4.2 / 6.8 / 10.2 mm

**Industrial quality**



HSS | HSS-TiN | HSS-Co

| Nominal Ø [mm] | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **HSS Type N** | | | |
| **1 – 5.9** | 0.1 | 50-part | **2000 861 934** |
| **6 –10** | 0.1 | 41-part | **2000 861 935** |
| **1 –10** | 0.5 | 19-part | **2000 861 960** |
| **1 –10.5** | 0.5 | 24-part | **2000 861 961** |
| **1 –13** | 0.5 | 25-part | **2000 861 962** |
| **HSS TiN Type N** | | | |
| **1–5.9** | 0.1 | 50-part | **2000 861 938** |
| **6–10** | 0.1 | 41-part | **2000 861 939** |
| **1–10** | 0.5 | 19-part | **2000 861 972** |
| **1–10.5** | 0.5 | 24-part | **2000 861 942** |
| **1–13** | 0.5 | 25-part | **2000 861 944** |
| **HSS-Co Type Stainless steel** | | | |
| **1–5.9** | 0.1 | 50-part | **2000 861 936** |
| **6–10** | 0.1 | 41-part | **2000 861 937** |
| **1–10** | 0.5 | 19-part | **2000 861 963** |
| **1–10.5** | 0.5 | 24-part | **2000 861 965** |
| **1–13** | 0.5 | 25-part | **2000 861 970** |







HSS-TiN | DIN 338 | Typ N | Nenn-Ø h8

## Twist drill set

**HSS** · **TiN-coated head** · **DIN 338** · **Type N** · Point angle 118°· **Profile-ground** · With split point from Ø 3 mm · **3-surface shank** (up to Ø 3.5 mm with straight shank) · From 2.5 mm with step point · Right-hand cutting · For steel up to 1000 N/mm², brass and plastic
**In an impact-resistant and break-proof plastic case**

2000 861 974

| Nominal Ø [mm] | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **HSS TiN-coated head** | | | |
| **1–10** | 0.5 | 19-part | **2000 861 973** |
| **1–13** | 0.5 | 25-part | **2000 861 974** |

HSS-Co | HSS-Co TiN | DIN 338 | Nenn-Ø h8

## Twist drill set

DIN 338 · **Type UNI** · With straight shank · Right-hand cutting · For universal use
**In an impact-resistant and break-proof plastic case**



2000 861 998

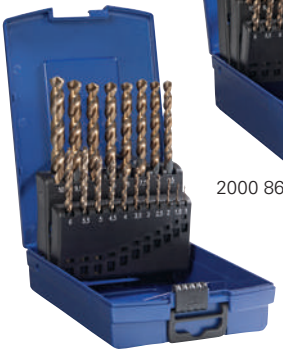


2000 862 000

| Nominal Ø [mm] | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **HSS-Co** | | | |
| **1–10** | 0.5 | 19-part | **2000 861 997** |
| **1–13** | 0.5 | 25-part | **2000 861 998** |
| **HSS-Co TiN** | | | |
| **1–10** | 0.5 | 19-part | **2000 861 999** |
| **1–13** | 0.5 | 25-part | **2000 862 000** |



2000 863 073





2000 863 072

HSS-Co | DIN 338 | VA | 5xD | Nenn-Ø h8

## Twist drill set

**HSS-Co5** · Vapour-tempered · DIN 338 · **Type VA** · Point angle 130° · **Profile ground with split point** · **With 3-surface shank** (up to Ø 3.5 mm with straight shank) · Right-hand cutting · 3-surface shank prevents spinning in the drill chuck · For materials with increased alloy content and strength above 800 N/mm²

**Industrial quality**
**In an impact-resistant and break-proof plastic case**

| Nominal Ø [mm] | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **HSS-Co5 Vapour-tempered** | | | |
| **1–10** | 0.5 | 19-part | **2000 863 072** |
| **1–13** | 0.5 | 25-part | **2000 863 073** |

HSS-Co | DIN 338 | TFL | 8xD | Nenn-Ø h8

## Twist drill set

**HSS-Co5 · Chamfer-nitrided (from Ø 3 mm)** · DIN 338 · **Type TFL** · Point angle 130° · **Profile ground with split point from Ø 2 mm** · With straight shank · Right-hand cutting · Very high thermal capacity · Thanks to special groove formation suitable in case of poor chip removal or for deeper drilling depths **up to 8xØ** · For drilling rust-free steels, alloyed and unalloyed steels (structural/machining/heat treated/case-hardened/nitrided/tool/high-speed and spring steels) up to 1300 N/mm², cast iron, copper, brass, aluminium and plastic

**Industrial quality**
**In an impact-resistant and break-proof plastic case**



2000 863 071



2000 863 070

**Extremely stable all-rounder and deep-hole drill for almost all materials**

| Nominal Ø [mm] HSS-Co5 Chamfer-nitrided | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **1–10** | 0.5 | 19-part | **2000 863 070** |
| **1–13** | 0.5 | 25-part | **2000 863 071** |

HSS-Co | DIN 338 | Typ N | Nenn-Ø h8

## Twist drill set

**HSS-Co5 · DIN 338** · Type N · Profile-ground · With straight shank · **3 cutters** · Right-hand cutting · With split point · For all standard drilling operations in structural steels, unalloyed and alloyed steels up to 850 N/mm², cast materials, wrought aluminium alloys, cast aluminium alloys

**Advantages:**
· Particularly precise round bores similar to friction level (machine-dependent) of up to IT9
· Significantly higher feed rates of up to 60 % are possible thanks to the 3 cutting edges
· No slipping of the drill bit thanks to special tip geometry
· No snagging when drilling in existing bore holes
· Less wear and tear thanks to distribution of the work from 2 to 3 cutting edges

**In an impact-resistant and break-proof plastic case**



2000 863 651



**3 cutting edges**

| Nominal Ø [mm] HSS-Co5 | Increasing by [mm] | Contents | Article no. |
|---|---|---|---|
| **1–10** | 0.5 | 19-part | **2000 863 650** |
| **1–13** | 0.5 | 25-part | **2000 863 651** |

## Empty cassette

For twist drill DIN 338 with straight shank

**Plastic case:** Impact and shatter resistant
Article no. 2000 861 919: With core hole dimensions 3.3 / 4.2 / 6.8 / 10.2 mm



| Dimensions [mm] | Increasing by [mm] | For content | Article no. |
|---|---|---|---|
| **1 – 5.9** | 0.1 | 50-part | **2000 861 916** |
| **6 –10** | 0.1 | 41-part | **2000 861 917** |
| **1 –10** | 0.5 | 19-part | **2000 861 918** |
| **1 –10.5** | 0.5 | 24-part | **2000 861 919** |
| **1 –13** | 0.5 | 25-part | **2000 861 920** |

HSS | DIN 340 | Typ N | Nenn-Ø h8

## Twist drill

**HSS · DIN 340 · Type N** · Point angle 118° · **Profile-ground with split point from Ø 3.0 mm** · With straight shank · Right-hand cutting · For deep holes and for drilling through drill bushes in steel and cast materials

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 005 - Vc (m/min) | 15–30 | 10–25 | | | | | 22–28 | 18–22 | | 45–55 | 22–34 | | | | |
| Cooling | Emulsion | Emulsion | | | | | Emulsion | Emulsion | | Emulsion | Emulsion/ oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| 0.5 | 32 | 12 | 0,02 | 2000 861 005 |
| 1 | 56 | 33 | 0,02 | 2000 861 010 |
| 1.5 | 70 | 45 | 0,03 | 2000 861 015 |
| 2 | 85 | 56 | 0,05 | 2000 861 020 |
| 2.1 | 85 | 56 | 0,05 | 2000 861 021 |
| 2.2 | 90 | 59 | 0,06 | 2000 861 022 |
| 2.3 | 90 | 59 | 0,06 | 2000 861 023 |
| 2.4 | 95 | 62 | 0,06 | 2000 861 024 |
| 2.5 | 95 | 62 | 0,06 | 2000 861 025 |
| 2.6 | 95 | 62 | 0,07 | 2000 861 026 |
| 2.7 | 100 | 66 | 0,07 | 2000 861 027 |
| 2.8 | 100 | 66 | 0,07 | 2000 861 028 |
| 2.9 | 100 | 66 | 0,07 | 2000 861 029 |
| 3 | 100 | 66 | 0,08 | 2000 861 030 |
| 3.1 | 106 | 69 | 0,08 | 2000 861 031 |
| 3.2 | 106 | 69 | 0,08 | 2000 861 032 |
| 3.3 | 106 | 69 | 0,08 | 2000 861 033 |
| 3.4 | 112 | 73 | 0,09 | 2000 861 034 |
| 3.5 | 112 | 73 | 0,09 | 2000 861 035 |
| 3.6 | 112 | 73 | 0,09 | 2000 861 036 |
| 3.7 | 112 | 73 | 0,09 | 2000 861 037 |
| 3.8 | 119 | 78 | 0,1 | 2000 861 038 |
| 3.9 | 119 | 78 | 0,1 | 2000 861 039 |
| 4 | 119 | 78 | 0,1 | 2000 861 040 |
| 4.1 | 119 | 78 | 0,1 | 2000 861 041 |
| 4.2 | 119 | 78 | 0,1 | 2000 861 042 |
| 4.3 | 126 | 82 | 0,1 | 2000 861 043 |
| 4.4 | 126 | 82 | 0,1 | 2000 861 044 |
| 4.5 | 126 | 82 | 0,1 | 2000 861 045 |
| 4.6 | 126 | 82 | 0,1 | 2000 861 046 |
| 4.7 | 126 | 82 | 0,1 | 2000 861 047 |
| 4.8 | 132 | 87 | 0,1 | 2000 861 048 |
| 4.9 | 132 | 87 | 0,1 | 2000 861 049 |
| 5 | 132 | 87 | 0,1 | 2000 861 050 |
| 5.1 | 132 | 87 | 0,1 | 2000 861 051 |
| 5.2 | 132 | 87 | 0,1 | 2000 861 052 |
| 5.3 | 132 | 87 | 0,11 | 2000 861 053 |
| 5.4 | 139 | 91 | 0,11 | 2000 861 054 |
| 5.5 | 139 | 91 | 0,11 | 2000 861 055 |
| 5.6 | 139 | 91 | 0,11 | 2000 861 056 |
| 5.7 | 139 | 91 | 0,11 | 2000 861 057 |
| 5.8 | 139 | 91 | 0,12 | 2000 861 058 |
| 5.9 | 139 | 91 | 0,12 | 2000 861 059 |
| 6 | 139 | 91 | 0,12 | 2000 861 060 |
| 6.1 | 148 | 97 | 0,12 | 2000 861 061 |
| 6.2 | 148 | 97 | 0,12 | 2000 861 062 |
| 6.3 | 148 | 97 | 0,13 | 2000 861 063 |
| 6.4 | 148 | 97 | 0,13 | 2000 861 064 |
| 6.5 | 148 | 97 | 0,13 | 2000 861 065 |
| 6.6 | 148 | 97 | 0,13 | 2000 861 066 |
| 6.7 | 148 | 97 | 0,13 | 2000 861 067 |
| 6.8 | 156 | 102 | 0,14 | 2000 861 068 |
| 6.9 | 156 | 102 | 0,14 | 2000 861 069 |
| 7 | 156 | 102 | 0,14 | 2000 861 070 |
| 7.2 | 156 | 102 | 0,14 | 2000 861 072 |
| 7.5 | 156 | 102 | 0,15 | 2000 861 075 |
| 7.8 | 165 | 109 | 0,15 | 2000 861 078 |
| 8 | 165 | 109 | 0,16 | 2000 861 080 |
| 8.2 | 165 | 109 | 0,16 | 2000 861 082 |
| 8.5 | 165 | 109 | 0,17 | 2000 861 085 |
| 9 | 175 | 115 | 0,18 | 2000 861 090 |
| 9.5 | 175 | 115 | 0,19 | 2000 861 095 |
| 9.8 | 184 | 121 | 0,19 | 2000 861 098 |
| 10 | 184 | 121 | 0,2 | 2000 861 100 |
| 10.2 | 184 | 121 | 0,2 | 2000 861 102 |
| 10.5 | 184 | 121 | 0,2 | 2000 861 105 |
| 11 | 195 | 128 | 0,2 | 2000 861 110 |
| 11.5 | 195 | 128 | 0,2 | 2000 861 115 |
| 12 | 205 | 134 | 0,2 | 2000 861 120 |
| 12.5 | 205 | 134 | 0,2 | 2000 861 125 |
| 13 | 205 | 134 | 0,21 | 2000 861 130 |
| 14 | 214 | 140 | 0,22 | 2000 861 128 |
| 15 | 220 | 144 | 0,24 | 2000 861 129 |



HSS-Co | DIN 340 | Typ GT | Nenn-Ø h8

## Twist drill

**HSS-Co5 · DIN 340 · Type GT** · Point angle 130° · **Profile-ground with split point from Ø 3.0 mm** · With straight shank · Right-hand cutting · For deep holes and for drilling steel and cast materials as well as rust- and acid-resistant steels with strengths above 800 N/mm²

**Industrial quality**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 862 261 - Vc (m/min) | 30–50 | 10–15 | | | 6–10 | 6–10 | 15–25 | 5–15 | 30–65 | 30–50 | | | | | |
| Cooling | Emulsion | Emulsion | | | Emulsion (oil) | Emulsion (oil) | Dry comp. air | Dry comp. air | Emulsion | Emulsion | | | | | |

Continuation>



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| 2 | 85 | 56 | 0,02 | 2000 862 261 |
| 2.5 | 95 | 62 | 0,02 | 2000 862 262 |
| 3 | 100 | 66 | 0,03 | 2000 862 263 |
| 3.1 | 106 | 69 | 0,03 | 2000 862 264 |
| 3.2 | 106 | 69 | 0,03 | 2000 862 265 |
| 3.3 | 106 | 69 | 0,03 | 2000 862 266 |
| 3.5 | 112 | 73 | 0,03 | 2000 862 267 |
| 3.8 | 119 | 78 | 0,03 | 2000 862 268 |
| 4 | 119 | 78 | 0,04 | 2000 862 269 |
| 4.1 | 119 | 78 | 0,04 | 2000 862 270 |
| 4.2 | 119 | 78 | 0,04 | 2000 862 271 |
| 4.5 | 126 | 82 | 0,04 | 2000 862 272 |
| 5 | 132 | 87 | 0,05 | 2000 862 273 |
| 5.2 | 132 | 87 | 0,05 | 2000 862 274 |
| 5.5 | 139 | 91 | 0,05 | 2000 862 275 |
| 6 | 139 | 91 | 0,06 | 2000 862 276 |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| 6.5 | 148 | 97 | 0,06 | 2000 862 277 |
| 6.8 | 156 | 102 | 0,06 | 2000 862 278 |
| 7 | 156 | 102 | 0,07 | 2000 862 279 |
| 7.5 | 156 | 102 | 0,07 | 2000 862 280 |
| 8 | 165 | 109 | 0,08 | 2000 862 281 |
| 8.5 | 165 | 109 | 0,08 | 2000 862 282 |
| 9 | 175 | 115 | 0,09 | 2000 862 283 |
| 9.5 | 175 | 115 | 0,09 | 2000 862 284 |
| 10 | 184 | 121 | 0,1 | 2000 862 285 |
| 10.2 | 184 | 121 | 0,1 | 2000 862 286 |
| 10.5 | 184 | 121 | 0,1 | 2000 862 287 |
| 11 | 195 | 128 | 0,1 | 2000 862 288 |
| 11.5 | 195 | 128 | 0,1 | 2000 862 289 |
| 12 | 205 | 134 | 0,12 | 2000 862 290 |
| 12.5 | 205 | 134 | 0,12 | 2000 862 291 |
| 13 | 205 | 134 | 0,12 | 2000 862 292 |

HSS | DIN 1869 | TS | Nenn-Ø h8


2000 861 193


2000 861 195


2000 861 108

## Deep-hole drill

**HSS** · DIN 1869 · Type TS · Point angle 130° · **Profile-ground with split point from Ø 2.0 mm** · With straight shank · Right-hand cutting · **Extra-long type** · Special drill for extremely deep bores · For drilling in all long-chipping materials e.g. steel up to approx. 1,000 N/mm², aluminium alloys, Al-Si alloys, electrolytic copper, tough brass, cast iron

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 193 - Vc (m/min) | 12–22 | 6–15 | | | 8 | | 18–22 | 14–20 | 55 | 36–45 | 18–45 | | | | |
| Cooling | Emulsion | Emulsion/ oil | | | Oil | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. |
|---|---|---|---|---|
| **Series 1** | | | | |
| 1 | 100 | 60 | 0,04 | 2000 861 193 |
| 1.5 | 100 | 60 | 0,04 | 2000 861 194 |
| 2 | 125 | 85 | 0,05 | 2000 861 131 |
| 2.5 | 140 | 95 | 0,06 | 2000 861 132 |
| 3 | 150 | 100 | 0,08 | 2000 861 133 |
| 3.2 | 155 | 105 | 0,08 | 2000 861 101 |
| 3.3 | 155 | 105 | 0,08 | 2000 861 134 |
| 3.5 | 165 | 115 | 0,09 | 2000 861 135 |
| 4 | 175 | 120 | 0,1 | 2000 861 136 |
| 4.2 | 175 | 120 | 0,1 | 2000 861 137 |
| 4.5 | 185 | 125 | 0,1 | 2000 861 138 |
| 5 | 195 | 135 | 0,1 | 2000 861 139 |
| 5.5 | 205 | 140 | 0,11 | 2000 861 140 |
| 6 | 205 | 140 | 0,12 | 2000 861 141 |
| 6.5 | 215 | 150 | 0,13 | 2000 861 142 |
| 6.8 | 225 | 155 | 0,14 | 2000 861 143 |
| 7 | 225 | 155 | 0,14 | 2000 861 144 |
| 7.5 | 225 | 155 | 0,15 | 2000 861 145 |
| 8 | 240 | 165 | 0,16 | 2000 861 146 |
| 8.5 | 240 | 165 | 0,17 | 2000 861 147 |
| 9 | 250 | 175 | 0,18 | 2000 861 148 |
| 9.5 | 250 | 175 | 0,19 | 2000 861 149 |
| 10 | 265 | 185 | 0,2 | 2000 861 150 |
| 10.2 | 265 | 185 | 0,2 | 2000 861 151 |
| 10.5 | 265 | 185 | 0,2 | 2000 861 152 |
| 11 | 280 | 195 | 0,2 | 2000 861 153 |
| 11.5 | 280 | 195 | 0,2 | 2000 861 154 |
| 12 | 295 | 205 | 0,2 | 2000 861 155 |
| **Series 2** | | | | |
| 1.5 | 150 | 100 | 0,04 | 2000 861 195 |
| 2 | 160 | 110 | 0,05 | 2000 861 196 |
| 2.5 | 180 | 120 | 0,06 | 2000 861 197 |
| 3 | 190 | 130 | 0,08 | 2000 861 156 |
| 3.2 | 200 | 135 | 0,08 | 2000 861 103 |
| 3.5 | 210 | 145 | 0,09 | 2000 861 157 |
| 4 | 220 | 150 | 0,1 | 2000 861 158 |
| 4.2 | 220 | 150 | 0,1 | 2000 861 104 |
| 4.5 | 235 | 160 | 0,1 | 2000 861 159 |
| 5 | 245 | 170 | 0,1 | 2000 861 160 |
| 5.5 | 260 | 180 | 0,11 | 2000 861 161 |
| 6 | 260 | 180 | 0,12 | 2000 861 162 |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 800 N f [mm/rev] | Article no. |
|---|---|---|---|---|
| **Series 2** | | | | |
| 6.5 | 275 | 190 | 0,13 | 2000 861 163 |
| 6.8 | 290 | 200 | 0,14 | 2000 861 106 |
| 7 | 290 | 200 | 0,14 | 2000 861 164 |
| 7.5 | 290 | 200 | 0,15 | 2000 861 165 |
| 8 | 305 | 210 | 0,16 | 2000 861 166 |
| 8.5 | 305 | 210 | 0,17 | 2000 861 167 |
| 9 | 320 | 220 | 0,18 | 2000 861 168 |
| 9.5 | 320 | 220 | 0,19 | 2000 861 169 |
| 10 | 340 | 235 | 0,2 | 2000 861 170 |
| 10.2 | 340 | 235 | 0,2 | 2000 861 107 |
| 10.5 | 340 | 235 | 0,2 | 2000 861 171 |
| 11 | 365 | 250 | 0,2 | 2000 861 172 |
| 11.5 | 365 | 250 | 0,2 | 2000 861 173 |
| 12 | 375 | 260 | 0,2 | 2000 861 174 |
| **Series 3** | | | | |
| 2 | 200 | 135 | 0,05 | 2000 861 108 |
| 2.5 | 225 | 150 | 0,06 | 2000 861 109 |
| 3 | 240 | 160 | 0,08 | 2000 861 198 |
| 3.2 | 250 | 170 | 0,08 | 2000 861 111 |
| 3.5 | 265 | 180 | 0,09 | 2000 861 175 |
| 4 | 280 | 190 | 0,1 | 2000 861 176 |
| 4.2 | 280 | 190 | 0,1 | 2000 861 112 |
| 4.5 | 295 | 200 | 0,1 | 2000 861 177 |
| 5 | 315 | 210 | 0,1 | 2000 861 178 |
| 5.5 | 330 | 225 | 0,11 | 2000 861 179 |
| 6 | 330 | 225 | 0,12 | 2000 861 180 |
| 6.5 | 350 | 235 | 0,13 | 2000 861 181 |
| 6.8 | 370 | 250 | 0,14 | 2000 861 113 |
| 7 | 370 | 250 | 0,14 | 2000 861 182 |
| 7.5 | 370 | 250 | 0,15 | 2000 861 183 |
| 8 | 390 | 265 | 0,16 | 2000 861 184 |
| 8.5 | 390 | 265 | 0,17 | 2000 861 185 |
| 9 | 410 | 280 | 0,18 | 2000 861 186 |
| 9.5 | 410 | 280 | 0,19 | 2000 861 187 |
| 10 | 430 | 295 | 0,2 | 2000 861 188 |
| 10.2 | 430 | 295 | 0,2 | 2000 861 114 |
| 10.5 | 430 | 295 | 0,2 | 2000 861 189 |
| 11 | 455 | 310 | 0,2 | 2000 861 190 |
| 11.5 | 455 | 310 | 0,2 | 2000 861 191 |
| 12 | 480 | 330 | 0,2 | 2000 861 192 |



2000 865 901



2000 865 927



2000 865 952

HSS-Co | DIN 1869 | TS

## Deep-hole drill

**HSS-Co** · DIN 1869 · Type TS · Point angle 130° · **Profile-ground with split point** · With straight shank · Right-hand cutting · **Extra-long type** · Special drill for extreme bore depth, with marked thermal hardness resistance and with large chip space · For boring under difficult conditions, with high thermal demand · For the processing of steels and steel castings of high strength, grey cast iron, malleable cast iron, spheroidal cast iron etc.

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 901 - Vc (m/min) | 12–35 | 10–28 | 10–14 | | 10–14 | | 28–36 | 22–30 | 60–90 | 55–70 | 18–45 | 6–10 | | | |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. |
|---|---|---|---|---|
| **Series 1** | | | | |
| **2** | 125 | 85 | 0,03 | **2000 865 901** |
| **2.5** | 140 | 95 | 0,04 | **2000 865 902** |
| **3** | 150 | 100 | 0,06 | **2000 865 903** |
| **3.2** | 155 | 105 | 0,06 | **2000 865 904** |
| **3.3** | 155 | 105 | 0,06 | **2000 865 905** |
| **3.5** | 165 | 115 | 0,07 | **2000 865 906** |
| **4** | 175 | 120 | 0,08 | **2000 865 907** |
| **4.2** | 175 | 120 | 0,08 | **2000 865 908** |
| **4.5** | 185 | 125 | 0,08 | **2000 865 909** |
| **5** | 195 | 135 | 0,08 | **2000 865 910** |
| **5.5** | 205 | 140 | 0,09 | **2000 865 911** |
| **6** | 205 | 140 | 0,1 | **2000 865 912** |
| **6.5** | 215 | 150 | 0,1 | **2000 865 913** |
| **6.8** | 225 | 155 | 0,11 | **2000 865 914** |
| **7** | 225 | 155 | 0,11 | **2000 865 915** |
| **7.5** | 225 | 155 | 0,12 | **2000 865 916** |
| **8** | 240 | 165 | 0,13 | **2000 865 917** |
| **8.5** | 240 | 165 | 0,13 | **2000 865 918** |
| **9** | 250 | 175 | 0,14 | **2000 865 919** |
| **9.5** | 250 | 175 | 0,15 | **2000 865 920** |
| **10** | 265 | 185 | 0,16 | **2000 865 921** |
| **10.2** | 265 | 185 | 0,16 | **2000 865 922** |
| **10.5** | 265 | 185 | 0,18 | **2000 865 923** |
| **11** | 280 | 195 | 0,2 | **2000 865 924** |
| **11.5** | 280 | 195 | 0,2 | **2000 865 925** |
| **12** | 295 | 205 | 0,2 | **2000 865 926** |
| **Series 2** | | | | |
| **2** | 160 | 110 | 0,03 | **2000 865 927** |
| **2.5** | 180 | 120 | 0,04 | **2000 865 928** |
| **3** | 190 | 130 | 0,06 | **2000 865 929** |
| **3.2** | 200 | 135 | 0,06 | **2000 865 930** |
| **3.5** | 210 | 145 | 0,07 | **2000 865 931** |
| **4** | 220 | 150 | 0,08 | **2000 865 932** |
| **4.2** | 220 | 150 | 0,08 | **2000 865 933** |
| **4.5** | 235 | 160 | 0,08 | **2000 865 934** |
| **5** | 245 | 170 | 0,08 | **2000 865 935** |
| **5.5** | 260 | 180 | 0,09 | **2000 865 936** |
| **6** | 260 | 180 | 0,1 | **2000 865 937** |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. |
|---|---|---|---|---|
| **Series 2** | | | | |
| **6.5** | 275 | 190 | 0,1 | **2000 865 938** |
| **6.8** | 290 | 200 | 0,11 | **2000 865 939** |
| **7** | 290 | 200 | 0,11 | **2000 865 940** |
| **7.5** | 290 | 200 | 0,12 | **2000 865 941** |
| **8** | 305 | 210 | 0,13 | **2000 865 942** |
| **8.5** | 305 | 210 | 0,13 | **2000 865 943** |
| **9** | 320 | 220 | 0,14 | **2000 865 944** |
| **9.5** | 320 | 220 | 0,15 | **2000 865 945** |
| **10** | 340 | 235 | 0,16 | **2000 865 946** |
| **10.2** | 340 | 235 | 0,16 | **2000 865 947** |
| **10.5** | 340 | 235 | 0,18 | **2000 865 948** |
| **11** | 365 | 250 | 0,2 | **2000 865 949** |
| **11.5** | 365 | 250 | 0,2 | **2000 865 950** |
| **12** | 375 | 260 | 0,2 | **2000 865 951** |
| **Series 3** | | | | |
| **3** | 240 | 160 | 0,06 | **2000 865 952** |
| **3.2** | 250 | 170 | 0,06 | **2000 865 953** |
| **3.5** | 265 | 180 | 0,07 | **2000 865 954** |
| **4** | 280 | 190 | 0,08 | **2000 865 955** |
| **4.2** | 280 | 190 | 0,08 | **2000 865 956** |
| **4.5** | 295 | 200 | 0,08 | **2000 865 957** |
| **5** | 315 | 210 | 0,08 | **2000 865 958** |
| **5.5** | 330 | 225 | 0,09 | **2000 865 959** |
| **6** | 330 | 225 | 0,1 | **2000 865 960** |
| **6.5** | 350 | 235 | 0,1 | **2000 865 961** |
| **6.8** | 370 | 250 | 0,11 | **2000 865 962** |
| **7** | 370 | 250 | 0,11 | **2000 865 963** |
| **7.5** | 370 | 250 | 0,12 | **2000 865 964** |
| **8** | 390 | 265 | 0,13 | **2000 865 965** |
| **8.5** | 390 | 265 | 0,13 | **2000 865 966** |
| **9** | 410 | 280 | 0,14 | **2000 865 967** |
| **9.5** | 410 | 280 | 0,15 | **2000 865 968** |
| **10** | 430 | 295 | 0,16 | **2000 865 969** |
| **10.2** | 430 | 295 | 0,16 | **2000 865 970** |
| **10.5** | 430 | 295 | 0,18 | **2000 865 971** |
| **11** | 455 | 310 | 0,2 | **2000 865 972** |
| **11.5** | 455 | 310 | 0,2 | **2000 865 973** |
| **12** | 480 | 330 | 0,2 | **2000 865 974** |

HSS | DIN 345 | Typ N | 5xD | Nenn-Ø h8





## Twist drill

**HSS · DIN 345** · Type N · **Point angle 118° · Groove milled from Ø 14 mm · Profile-ground chamfer and cutting edge · With Morse taper** · Right-hand cutting · With pointed cross-cutting edge according to DIN 1412 A · For all standard drilling operations in steel and cast materials

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 600 - Vc (m/min) | 20–32 | 15–30 | | | | | 25–32 | 20–28 | 80 | 50–63 | 25–63 | | | | |
| Cooling | Emulsion | Emulsion | | | | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/oil | | | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Size of shank | Steel < 800 N f [mm/rev] | Article no. |
|---|---|---|---|---|---|
| **10** | 168 | 87 | MK1 | 0,2 | **2000 861 600** |
| **10.25** | 168 | 87 | MK1 | 0,2 | **2000 861 602** |
| **10.5** | 168 | 87 | MK1 | 0,2 | **2000 861 605** |
| **10.75** | 175 | 94 | MK1 | 0,2 | **2000 861 607** |
| **11** | 175 | 94 | MK1 | 0,2 | **2000 861 610** |
| **11.25** | 175 | 94 | MK1 | 0,2 | **2000 861 612** |
| **11.5** | 175 | 94 | MK1 | 0,2 | **2000 861 615** |
| **11.75** | 175 | 94 | MK1 | 0,2 | **2000 861 617** |
| **12** | 182 | 101 | MK1 | 0,2 | **2000 861 620** |
| **12.25** | 182 | 101 | MK1 | 0,2 | **2000 861 622** |
| **12.5** | 182 | 101 | MK1 | 0,2 | **2000 861 625** |
| **12.75** | 182 | 101 | MK1 | 0,2 | **2000 861 627** |
| **13** | 182 | 101 | MK1 | 0,21 | **2000 861 641** |
| **13.25** | 189 | 108 | MK1 | 0,21 | **2000 861 642** |
| **13.5** | 189 | 108 | MK1 | 0,21 | **2000 861 644** |
| **13.75** | 189 | 108 | MK1 | 0,22 | **2000 861 646** |
| **14** | 189 | 108 | MK1 | 0,22 | **2000 861 647** |
| **14.25** | 212 | 114 | MK2 | 0,23 | **2000 861 648** |
| **14.5** | 212 | 114 | MK2 | 0,23 | **2000 861 649** |
| **14.75** | 212 | 114 | MK2 | 0,23 | **2000 861 650** |
| **15** | 212 | 114 | MK2 | 0,24 | **2000 861 651** |
| **15.25** | 218 | 120 | MK2 | 0,24 | **2000 861 652** |
| **15.5** | 218 | 120 | MK2 | 0,24 | **2000 861 653** |
| **15.75** | 218 | 120 | MK2 | 0,25 | **2000 861 654** |
| **16** | 218 | 120 | MK2 | 0,25 | **2000 861 655** |
| **16.25** | 223 | 125 | MK2 | 0,25 | **2000 861 656** |
| **16.5** | 223 | 125 | MK2 | 0,26 | **2000 861 657** |
| **16.75** | 223 | 125 | MK2 | 0,26 | **2000 861 658** |
| **17** | 223 | 125 | MK2 | 0,27 | **2000 861 659** |
| **17.25** | 228 | 130 | MK2 | 0,27 | **2000 861 660** |
| **17.5** | 228 | 130 | MK2 | 0,27 | **2000 861 661** |
| **17.75** | 228 | 130 | MK2 | 0,28 | **2000 861 662** |
| **18** | 228 | 130 | MK2 | 0,28 | **2000 861 663** |
| **18.25** | 233 | 135 | MK2 | 0,29 | **2000 861 664** |
| **18.5** | 233 | 135 | MK2 | 0,29 | **2000 861 665** |
| **18.75** | 233 | 135 | MK2 | 0,3 | **2000 861 666** |
| **19** | 233 | 135 | MK2 | 0,3 | **2000 861 667** |
| **19.25** | 238 | 140 | MK2 | 0,3 | **2000 861 668** |
| **19.5** | 238 | 140 | MK2 | 0,31 | **2000 861 669** |
| **19.75** | 238 | 140 | MK2 | 0,31 | **2000 861 670** |
| **20** | 238 | 140 | MK2 | 0,32 | **2000 861 671** |
| **20.25** | 243 | 145 | MK2 | 0,32 | **2000 861 672** |
| **20.5** | 243 | 145 | MK2 | 0,33 | **2000 861 673** |
| **20.75** | 243 | 145 | MK2 | 0,33 | **2000 861 674** |
| **21** | 243 | 145 | MK2 | 0,34 | **2000 861 675** |
| **21.25** | 248 | 150 | MK2 | 0,34 | **2000 861 676** |
| **21.5** | 248 | 150 | MK2 | 0,35 | **2000 861 677** |
| **21.75** | 248 | 150 | MK2 | 0,35 | **2000 861 678** |
| **22** | 248 | 150 | MK2 | 0,36 | **2000 861 679** |
| **22.25** | 248 | 150 | MK2 | 0,36 | **2000 861 680** |
| **22.5** | 253 | 155 | MK2 | 0,37 | **2000 861 681** |
| **22.75** | 253 | 155 | MK2 | 0,37 | **2000 861 682** |
| **23** | 253 | 155 | MK2 | 0,38 | **2000 861 683** |
| **23.25** | 276 | 155 | MK3 | 0,39 | **2000 861 684** |
| **23.5** | 276 | 155 | MK3 | 0,39 | **2000 861 685** |
| **23.75** | 281 | 160 | MK3 | 0,4 | **2000 861 686** |
| **24** | 281 | 160 | MK3 | 0,4 | **2000 861 687** |
| **24.25** | 281 | 160 | MK3 | 0,41 | **2000 861 688** |
| **24.5** | 281 | 160 | MK3 | 0,41 | **2000 861 689** |
| **24.75** | 281 | 160 | MK3 | 0,42 | **2000 861 690** |
| **25** | 281 | 160 | MK3 | 0,4 | **2000 861 691** |
| **25.25** | 281 | 160 | MK3 | 0,4 | **2000 861 692** |
| **25.5** | 286 | 165 | MK3 | 0,4 | **2000 861 693** |
| **25.75** | 286 | 165 | MK3 | 0,4 | **2000 861 694** |
| **26** | 286 | 165 | MK3 | 0,4 | **2000 861 695** |
| **26.25** | 286 | 165 | MK3 | 0,4 | **2000 861 696** |
| **26.5** | 286 | 165 | MK3 | 0,4 | **2000 861 697** |
| **26.75** | 291 | 170 | MK3 | 0,4 | **2000 861 698** |
| **27** | 291 | 170 | MK3 | 0,4 | **2000 861 699** |
| **27.25** | 291 | 170 | MK3 | 0,4 | **2000 861 700** |
| **27.5** | 291 | 170 | MK3 | 0,4 | **2000 861 701** |
| **27.75** | 291 | 170 | MK3 | 0,4 | **2000 861 702** |
| **28** | 291 | 170 | MK3 | 0,4 | **2000 861 703** |
| **28.25** | 296 | 175 | MK3 | 0,4 | **2000 861 704** |
| **28.5** | 296 | 175 | MK3 | 0,4 | **2000 861 705** |
| **28.75** | 296 | 175 | MK3 | 0,4 | **2000 861 706** |
| **29** | 296 | 175 | MK3 | 0,4 | **2000 861 707** |
| **29.25** | 296 | 175 | MK3 | 0,4 | **2000 861 708** |
| **29.5** | 296 | 175 | MK3 | 0,4 | **2000 861 709** |
| **29.75** | 296 | 175 | MK3 | 0,4 | **2000 861 710** |
| **30** | 296 | 175 | MK3 | 0,4 | **2000 861 711** |
| **30.5** | 301 | 180 | MK3 | 0,4 | **2000 861 713** |
| **31** | 301 | 180 | MK3 | 0,4 | **2000 861 714** |
| **31.5** | 301 | 180 | MK3 | 0,4 | **2000 861 715** |
| **32** | 334 | 185 | MK4 | 0,41 | **2000 861 716** |
| **32.5** | 334 | 185 | MK4 | 0,41 | **2000 861 717** |
| **33** | 334 | 185 | MK4 | 0,42 | **2000 861 718** |
| **33.5** | 334 | 185 | MK4 | 0,43 | **2000 861 719** |
| **34** | 339 | 190 | MK4 | 0,43 | **2000 861 720** |
| **34.5** | 339 | 190 | MK4 | 0,44 | **2000 861 721** |
| **35** | 339 | 190 | MK4 | 0,45 | **2000 861 722** |
| **35.5** | 339 | 190 | MK4 | 0,45 | **2000 861 723** |
| **36** | 344 | 195 | MK4 | 0,46 | **2000 861 724** |
| **36.5** | 344 | 195 | MK4 | 0,47 | **2000 861 725** |
| **37** | 344 | 195 | MK4 | 0,47 | **2000 861 726** |
| **37.5** | 344 | 195 | MK4 | 0,48 | **2000 861 727** |
| **38** | 349 | 200 | MK4 | 0,49 | **2000 861 728** |
| **38.5** | 349 | 200 | MK4 | 0,49 | **2000 861 729** |
| **39** | 349 | 200 | MK4 | 0,5 | **2000 861 730** |
| **39.5** | 349 | 200 | MK4 | 0,51 | **2000 861 731** |
| **40** | 349 | 200 | MK4 | 0,5 | **2000 861 732** |
| **41** | 354 | 205 | MK4 | 0,52 | **2000 861 734** |
| **42** | 354 | 205 | MK4 | 0,53 | **2000 861 736** |
| **43** | 359 | 210 | MK4 | 0,55 | **2000 861 738** |
| **44** | 359 | 210 | MK4 | 0,57 | **2000 861 740** |
| **45** | 359 | 210 | MK4 | 0,59 | **2000 861 742** |
| **46** | 364 | 215 | MK4 | 0,6 | **2000 861 744** |
| **47** | 364 | 215 | MK4 | 0,62 | **2000 861 746** |
| **48** | 369 | 220 | MK4 | 0,64 | **2000 861 748** |
| **49** | 369 | 220 | MK4 | 0,66 | **2000 861 750** |
| **50** | 369 | 220 | MK4 | 0,63 | **2000 861 752** |
| **60** | 422 | 235 | MK5 | 0,76 | **2000 861 753** |



HM | DIN 8037 | Typ N | Nenn-Ø h8

## Twist drill

**With carbide cutters · DIN 8037 ·** Type N · Point angle 118° · With straight shank · Right-hand cutting · For drilling spring band steel, white-cast iron, toughened bronzes, hard plastics and heavily abrasive materials

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 401 - Vc (m/min) | 80 | 50–80 | | | 25 | | 80–90 | 70–80 | 200 | 120–150 | 50–180 | 20 | 15 | 20 | 10 |
| Cooling | Emulsion | Emulsion/ oil | | | Oil | | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/oil | Oil | Oil |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **3** | 50 | 20 | 0,05 | **2000 861 401** |
| **3.2** | 56 | 25 | 0,05 | **2000 861 402** |
| **3.5** | 56 | 25 | 0,06 | **2000 861 403** |
| **4** | 56 | 25 | 0,06 | **2000 861 404** |
| **4.2** | 63 | 28 | 0,06 | **2000 861 405** |
| **4.5** | 63 | 28 | 0,06 | **2000 861 406** |
| **5** | 63 | 28 | 0,06 | **2000 861 407** |
| **5.5** | 71 | 32 | 0,07 | **2000 861 408** |
| **6** | 71 | 32 | 0,08 | **2000 861 409** |
| **6.5** | 71 | 32 | 0,08 | **2000 861 410** |
| **7** | 80 | 40 | 0,09 | **2000 861 411** |
| **7.5** | 80 | 40 | 0,09 | **2000 861 412** |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|
| **8** | 80 | 40 | 0,1 | **2000 861 413** |
| **8.5** | 90 | 50 | 0,11 | **2000 861 414** |
| **9** | 90 | 50 | 0,11 | **2000 861 415** |
| **9.5** | 90 | 50 | 0,12 | **2000 861 416** |
| **10** | 100 | 56 | 0,13 | **2000 861 417** |
| **10.5** | 100 | 56 | 0,13 | **2000 861 418** |
| **11** | 100 | 56 | 0,13 | **2000 861 419** |
| **12** | 112 | 63 | 0,13 | **2000 861 420** |
| **13** | 112 | 63 | 0,13 | **2000 861 421** |
| **14** | 125 | 71 | 0,14 | **2000 861 422** |
| **15** | 125 | 71 | 0,15 | **2000 861 423** |
| **16** | 140 | 80 | 0,16 | **2000 861 424** |



2000 860 867

VHM | VHM TiAlN | DIN 6539 | Typ N | Nenn-Ø h7



2000 860 873

## Twist drill

Solid carbide · **DIN 6539 ·** Type N · Point angle 118° · **With split point from Ø 2.0 mm** · With straight shank · Right-hand cutting · Extremely robust drill bits for drilling cast steel, grey cast iron, white cast iron, manganese, high-carbon steels, bronzes, light metals, non-ferrous heavy metals, fibre-reinforced plastics and other duroplastics

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 860 867 - Vc (m/min) | 60– 80 | 50–70 | 30–40 | | 20–30 | 10–20 | 80– 90 | 70– 80 | 200 | 120–150 | 50–180 | 12–15 | 8– 12 | 20 | 10 |
| 2000 860 873 - Vc (m/min) | 70–100 | 60–90 | 50–70 | | 25–40 | 15–20 | 120–160 | 95–120 | 200 | 140–170 | 45–210 | 15–25 | 10– 20 | 35 | 20 |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | Emulsion/ oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | Oil | Oil |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 1000 N f [mm/rev] | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|
| **1** | 26 | 6 | 0,02 | **2000 860 867** | 0,02 | **2000 860 873** |
| **1.5** | 32 | 9 | 0,03 | **2000 860 869** | 0,03 | **2000 860 874** |
| **2** | 38 | 12 | 0,05 | **2000 860 902** | 0,05 | **2000 860 952** |
| **2.5** | 43 | 14 | 0,06 | **2000 860 904** | 0,06 | **2000 860 954** |
| **3** | 46 | 16 | 0,08 | **2000 860 906** | 0,08 | **2000 860 956** |
| **3.2** | 49 | 18 | 0,08 | **2000 860 812** | 0,08 | **2000 861 312** |
| **3.3** | 49 | 18 | 0,08 | **2000 860 908** | 0,08 | **2000 860 958** |
| **3.5** | 52 | 20 | 0,09 | **2000 860 910** | 0,09 | **2000 860 960** |
| **4** | 55 | 22 | 0,1 | **2000 860 912** | 0,1 | **2000 860 962** |
| **4.2** | 55 | 22 | 0,1 | **2000 860 914** | 0,1 | **2000 860 964** |
| **4.5** | 58 | 24 | 0,1 | **2000 860 916** | 0,1 | **2000 860 966** |
| **5** | 62 | 26 | 0,1 | **2000 860 918** | 0,1 | **2000 860 968** |
| **5.2** | 62 | 26 | 0,1 | **2000 860 832** | 0,1 | **2000 861 332** |
| **5.5** | 66 | 28 | 0,11 | **2000 860 920** | 0,11 | **2000 860 970** |
| **6** | 66 | 28 | 0,12 | **2000 860 922** | 0,12 | **2000 860 972** |
| **6.5** | 70 | 31 | 0,13 | **2000 860 924** | 0,13 | **2000 860 974** |
| **6.8** | 74 | 34 | 0,14 | **2000 860 926** | 0,14 | **2000 860 976** |
| **7** | 74 | 34 | 0,14 | **2000 860 928** | 0,14 | **2000 860 978** |
| **7.2** | 74 | 34 | 0,14 | **2000 860 777** | 0,14 | **2000 860 851** |
| **7.5** | 74 | 34 | 0,15 | **2000 860 930** | 0,15 | **2000 860 980** |
| **8** | 79 | 37 | 0,16 | **2000 860 932** | 0,16 | **2000 860 982** |
| **8.5** | 79 | 37 | 0,17 | **2000 860 934** | 0,17 | **2000 860 984** |
| **8.8** | 84 | 40 | 0,18 | **2000 860 878** | 0,18 | **2000 861 368** |
| **9** | 84 | 40 | 0,18 | **2000 860 936** | 0,18 | **2000 860 986** |
| **9.5** | 84 | 40 | 0,19 | **2000 860 938** | 0,19 | **2000 860 988** |
| **10** | 89 | 43 | 0,2 | **2000 860 940** | 0,2 | **2000 860 990** |
| **10.2** | 89 | 43 | 0,2 | **2000 860 942** | 0,2 | **2000 860 992** |
| **10.5** | 89 | 43 | 0,2 | **2000 860 944** | 0,2 | **2000 860 994** |
| **11** | 95 | 47 | 0,2 | **2000 860 946** | 0,2 | **2000 860 996** |
| **11.5** | 95 | 47 | 0,2 | **2000 860 870** | 0,2 | **2000 860 875** |

Continuation>

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Steel < 1000 N f [mm/rev] | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|
| **12** | 102 | 51 | 0,2 | **2000 860 948** | 0,2 | **2000 860 998** |
| **12.5** | 102 | 51 | 0,21 | **2000 860 871** | 0,21 | **2000 860 876** |
| **13** | 102 | 51 | 0,21 | **2000 860 872** | 0,21 | **2000 860 877** |

VHM | VHM TiAlN | DIN 338 | Typ N | Nenn-Ø h8


2000 861 202


2000 861 252

## Twist drill

Solid carbide · **DIN 338** · Type N · Point angle 118° · **With split point** · With straight shank · Right-hand cutting · Extremely robust drill bits for drilling cast steel, grey cast iron, white cast iron, manganese, high-carbon steels, bronzes, light metals, non-ferrous heavy metals, fibre-reinforced plastics and other duroplastics

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 861 202 - Vc (m/min) | 60– 80 | 50–70 | 30–40 | | 20–30 | 10–20 | 80– 90 | 70– 80 | 200 | 120–150 | 50–180 | 12–15 | 8– 12 | | |
| 2000 861 252 - Vc (m/min) | 70–100 | 60–90 | 50–70 | | 25–40 | 15–20 | 120–160 | 95–120 | 200 | 140–170 | 45–210 | 15–25 | 10– 20 | | |
| Cooling | Emulsion | Emulsion/ oil | Emulsion/oil | | Oil | Emulsion/ oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion/ oil | Oil | Emulsion/ oil | | |

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Article no. TiAlN-coated |
|---|---|---|---|---|---|
| **2** | 49 | 24 | 0,05 | **2000 861 202** | **2000 861 252** |
| **2.1** | 49 | 24 | 0,05 | **2000 860 886** | **2000 860 989** |
| **2.2** | 53 | 27 | 0,05 | **2000 860 887** | **2000 860 991** |
| **2.3** | 53 | 27 | 0,05 | **2000 860 888** | **2000 860 993** |
| **2.4** | 57 | 30 | 0,05 | **2000 860 889** | **2000 860 995** |
| **2.5** | 57 | 30 | 0,06 | **2000 861 204** | **2000 861 254** |
| **2.6** | 57 | 30 | 0,06 | **2000 860 890** | **2000 860 997** |
| **2.7** | 61 | 33 | 0,06 | **2000 860 891** | **2000 860 999** |
| **2.8** | 61 | 33 | 0,07 | **2000 861 205** | **2000 861 255** |
| **2.9** | 61 | 33 | 0,07 | **2000 860 892** | **2000 861 000** |
| **3** | 61 | 33 | 0,08 | **2000 861 206** | **2000 861 256** |
| **3.1** | 65 | 36 | 0,07 | **2000 860 893** | **2000 861 001** |
| **3.2** | 65 | 36 | 0,07 | **2000 860 894** | **2000 861 002** |
| **3.3** | 65 | 36 | 0,08 | **2000 861 208** | **2000 861 258** |
| **3.4** | 70 | 39 | 0,08 | **2000 860 895** | **2000 861 003** |
| **3.5** | 70 | 39 | 0,09 | **2000 861 210** | **2000 861 260** |
| **3.6** | 70 | 39 | 0,09 | **2000 860 896** | **2000 861 004** |
| **3.7** | 70 | 39 | 0,09 | **2000 860 897** | **2000 861 006** |
| **3.8** | 75 | 43 | 0,1 | **2000 861 211** | **2000 861 261** |
| **3.9** | 75 | 43 | 0,1 | **2000 860 898** | **2000 861 007** |
| **4** | 75 | 43 | 0,1 | **2000 861 212** | **2000 861 262** |
| **4.1** | 75 | 43 | 0,1 | **2000 860 899** | **2000 861 008** |
| **4.2** | 75 | 43 | 0,1 | **2000 861 214** | **2000 861 264** |
| **4.3** | 80 | 47 | 0,1 | **2000 860 900** | **2000 861 009** |
| **4.4** | 80 | 47 | 0,1 | **2000 860 901** | **2000 860 561** |
| **4.5** | 80 | 47 | 0,1 | **2000 861 216** | **2000 861 266** |
| **4.6** | 80 | 47 | 0,1 | **2000 860 903** | **2000 860 562** |
| **4.7** | 80 | 47 | 0,1 | **2000 860 905** | **2000 860 563** |
| **4.8** | 86 | 52 | 0,1 | **2000 861 217** | **2000 861 267** |
| **4.9** | 86 | 52 | 0,1 | **2000 860 907** | **2000 860 564** |
| **5** | 86 | 52 | 0,1 | **2000 861 218** | **2000 861 268** |
| **5.1** | 86 | 52 | 0,1 | **2000 860 909** | **2000 860 565** |
| **5.2** | 86 | 52 | 0,1 | **2000 860 911** | **2000 860 566** |
| **5.3** | 86 | 52 | 0,1 | **2000 860 913** | **2000 860 567** |
| **5.4** | 93 | 57 | 0,1 | **2000 860 915** | **2000 860 568** |
| **5.5** | 93 | 57 | 0,11 | **2000 861 220** | **2000 861 270** |
| **5.6** | 93 | 57 | 0,11 | **2000 860 917** | **2000 860 569** |
| **5.7** | 93 | 57 | 0,11 | **2000 860 919** | **2000 860 570** |
| **5.8** | 93 | 57 | 0,12 | **2000 861 221** | **2000 860 571** |
| **5.9** | 93 | 57 | 0,12 | **2000 860 921** | **2000 860 572** |
| **6** | 93 | 57 | 0,12 | **2000 861 222** | **2000 861 272** |
| **6.1** | 101 | 63 | 0,12 | **2000 860 923** | **2000 860 573** |
| **6.2** | 101 | 63 | 0,12 | **2000 860 925** | **2000 860 574** |
| **6.3** | 101 | 63 | 0,12 | **2000 860 927** | **2000 860 575** |
| **6.4** | 101 | 63 | 0,12 | **2000 860 929** | **2000 860 576** |
| **6.5** | 101 | 63 | 0,13 | **2000 861 224** | **2000 861 274** |
| **6.6** | 101 | 63 | 0,13 | **2000 860 931** | **2000 860 577** |
| **6.7** | 101 | 63 | 0,13 | **2000 860 933** | **2000 860 578** |
| **6.8** | 109 | 69 | 0,14 | **2000 861 226** | **2000 861 276** |
| **6.9** | 109 | 69 | 0,14 | **2000 860 935** | **2000 860 579** |
| **7** | 109 | 69 | 0,14 | **2000 861 228** | **2000 861 278** |
| **7.1** | 109 | 69 | 0,14 | **2000 860 937** | **2000 860 580** |
| **7.2** | 109 | 69 | 0,14 | **2000 860 939** | **2000 860 581** |

Continuation>

Continuation

| Nominal Ø [mm] | Overall L [mm] | Spiral L [mm] | Steel < 1000 N f [mm/rev] | Article no. Uncoated | Article no. TiAlN-coated |
|---|---|---|---|---|---|
| 7.3 | 109 | 69 | 0,14 | 2000 860 941 | 2000 860 582 |
| 7.4 | 109 | 69 | 0,14 | 2000 860 943 | 2000 860 583 |
| 7.5 | 109 | 69 | 0,15 | 2000 861 230 | 2000 861 280 |
| 7.6 | 117 | 75 | 0,15 | 2000 860 945 | 2000 860 584 |
| 7.7 | 117 | 75 | 0,15 | 2000 860 947 | 2000 860 585 |
| 7.8 | 117 | 75 | 0,15 | 2000 860 949 | 2000 860 586 |
| 7.9 | 117 | 75 | 0,15 | 2000 860 950 | 2000 860 587 |
| 8 | 117 | 75 | 0,16 | 2000 861 232 | 2000 861 282 |
| 8.1 | 117 | 75 | 0,16 | 2000 860 951 | 2000 860 588 |
| 8.2 | 117 | 75 | 0,16 | 2000 860 953 | 2000 860 589 |
| 8.3 | 117 | 75 | 0,16 | 2000 860 955 | 2000 860 590 |
| 8.4 | 117 | 75 | 0,16 | 2000 860 957 | 2000 860 591 |
| 8.5 | 117 | 75 | 0,17 | 2000 861 234 | 2000 861 284 |
| 8.6 | 125 | 81 | 0,17 | 2000 860 959 | 2000 860 592 |
| 8.7 | 125 | 81 | 0,17 | 2000 860 961 | 2000 860 593 |
| 8.8 | 125 | 81 | 0,17 | 2000 860 963 | 2000 860 594 |
| 8.9 | 125 | 81 | 0,17 | 2000 860 965 | 2000 860 595 |
| 9 | 125 | 81 | 0,18 | 2000 861 236 | 2000 861 286 |
| 9.1 | 125 | 81 | 0,18 | 2000 860 967 | - |
| 9.2 | 125 | 81 | 0,18 | 2000 860 969 | - |
| 9.3 | 125 | 81 | 0,18 | 2000 860 971 | - |
| 9.4 | 125 | 81 | 0,18 | 2000 860 973 | - |
| 9.5 | 125 | 81 | 0,19 | 2000 861 238 | 2000 861 288 |
| 9.6 | 133 | 87 | 0,19 | 2000 860 975 | - |
| 9.7 | 133 | 87 | 0,19 | 2000 860 977 | - |
| 9.8 | 133 | 87 | 0,2 | 2000 861 239 | 2000 860 602 |
| 9.9 | 133 | 87 | 0,2 | 2000 860 979 | - |
| 10 | 133 | 87 | 0,2 | 2000 861 240 | 2000 861 290 |
| 10.2 | 133 | 87 | 0,2 | 2000 861 242 | 2000 861 292 |
| 10.5 | 133 | 87 | 0,2 | 2000 861 244 | 2000 861 294 |
| 10.8 | 142 | 94 | 0,2 | 2000 860 981 | 2000 860 604 |
| 11 | 142 | 94 | 0,2 | 2000 861 246 | 2000 861 296 |
| 11.5 | 142 | 94 | 0,2 | 2000 860 983 | 2000 860 605 |
| 12 | 151 | 101 | 0,2 | 2000 861 248 | 2000 861 298 |
| 12.5 | 151 | 101 | 0,2 | 2000 860 985 | 2000 860 606 |
| 13 | 151 | 101 | 0,2 | 2000 860 987 | 2000 860 607 |



2000 865 151



2000 865 189

HSS | HSS-TiN | DIN 335-C | 90°

## Countersink

**HSS · DIN 335 C ·** 3 cutters · Countersink angle 90° · Straight shank · For countersinking and deburring holes in steel, cast iron, and non-ferrous metals · The three blades afford a chatter-free cut

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 151 - Vc (m/min) | 30 | 28 | | | | | | | 35 | | 35 | | | | |
| 2000 865 189 - Vc (m/min) | 32 | 30 | | | 9 | | | | 35 | | 70 | | | | |
| Cooling | Emulsion | Emulsion | Emulsion | Cutting oil | Cutting oil | Cutting oil | Emulsion | Emulsion | Emulsion | | Emulsion | Cutting oil | Cutting oil | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| 4.3 | 1.3 | 4 | 40 | 0,07 | 2000 865 151 | 2000 865 189 |
| 5 | 1.5 | 4 | 40 | 0,07 | 2000 865 152 | - |
| 6 | 1.5 | 5 | 45 | 0,09 | 2000 865 155 | - |
| 6.3 | 1.5 | 5 | 45 | 0,09 | 2000 865 156 | 2000 865 190 |
| 7 | 1.8 | 6 | 50 | 0,09 | 2000 865 157 | - |
| 8 | 2 | 6 | 50 | 0,09 | 2000 865 159 | - |
| 8.3 | 2 | 6 | 50 | 0,09 | 2000 865 160 | 2000 865 191 |
| 10 | 2.5 | 6 | 50 | 0,12 | 2000 865 162 | 2000 865 192 |
| 10.4 | 2.5 | 6 | 50 | 0,12 | 2000 865 163 | 2000 865 193 |
| 11.5 | 2.8 | 8 | 56 | 0,14 | 2000 865 164 | - |
| 12.4 | 2.8 | 8 | 56 | 0,14 | 2000 865 165 | 2000 865 195 |
| 15 | 3.2 | 10 | 60 | 0,14 | 2000 865 167 | - |
| 16.5 | 3.2 | 10 | 60 | 0,14 | 2000 865 168 | 2000 865 198 |
| 19 | 3.5 | 10 | 63 | 0,14 | 2000 865 169 | - |
| 20.5 | 3.5 | 10 | 63 | 0,16 | 2000 865 170 | - |
| 20.5 | 3.5 | 10 | 63 | 0,2 | - | 2000 865 200 |
| 23 | 3.8 | 10 | 67 | 0,16 | 2000 865 171 | - |
| 25 | 3.8 | 10 | 67 | 0,2 | 2000 865 172 | 2000 865 202 |
| 31 | 4.2 | 12 | 71 | 0,22 | 2000 865 174 | 2000 865 204 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HSS-Co | HSS-TiAlN | DIN 335-C | VA | 90°

## Countersink

**DIN 335 C** · 3 cutters · Countersink angle 90° · Straight shank · For countersinking and deburring holes in steel, cast iron, and non-ferrous metals · The three blades afford a chatter-free cut
**HSS:** For steel, cast iron, and non-ferrous metals
**HSS-Co:** For steel, cast, non-ferrous metals and rust- and heat-resistant steels



2000 865 000



2000 865 222



**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 000 - Vc (m/min) | 30 | 28 | 8 | 4 | 7 | 7 | 15 | 15 | 35 | | 60 | 7 | 6 | | |
| 2000 865 222 - Vc (m/min) | 30 | 28 | 8 | 4 | 7 | 7 | 18 | 15 | 35 | | 60 | 7 | 6 | | |
| Cooling | Emulsion | Emulsion | Emulsion | Cutting oil | Cutting oil | Cutting oil | Com-pressed air | Com-pressed air | Emulsion | | Emulsion | Cutting oil | Cutting oil | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [ mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. HSS-Co - Uncoated | Article no. HSS - TiAlN-coated |
|---|---|---|---|---|---|---|
| **6.3** | 1.5 | 5 | 45 | 0,09 | **2000 865 000** | **2000 865 222** |
| **8.3** | 2 | 6 | 50 | 0,09 | **2000 865 002** | **2000 865 223** |
| **10.4** | 2.5 | 6 | 50 | 0,12 | **2000 865 004** | **2000 865 224** |
| **12.4** | 2.8 | 8 | 56 | 0,14 | **2000 865 006** | **2000 865 225** |
| **15** | 3.2 | 10 | 60 | 0,14 | **2000 865 008** | - |
| **16.5** | 3.2 | 10 | 60 | 0,14 | **2000 865 010** | **2000 865 226** |
| **20.5** | 3.5 | 10 | 63 | 0,2 | **2000 865 012** | **2000 865 227** |
| **25** | 3.8 | 10 | 67 | 0,2 | **2000 865 014** | **2000 865 228** |
| **31** | 4.2 | 12 | 71 | 0,22 | **2000 865 016** | **2000 865 229** |

HSS-Co TiAlN | DIN 335-C | 90°





## Countersink

**HSS-Co · TiAlN-coated** · DIN 335 C · 3 unequal convex cutting edges · **Spiral-fluted** · Countersink angle 90° · Straight shank · Right-hand cutting · For the processing of steel, rust- and heat-resistant steels, aluminium, brass and plastics
**Advantages**:
· Round, precise and chatter-free countersink
· 60 % lower feed force
· 50 % lower radial force
· Can be used in almost all materials
· Extremely long service life due to spiralled cutting edges/HSS-Co steel and TiAlN coating possible

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 290 - Vc (m/min) | 41 | 31 | 15 | 13 | 16 | 12 | 30 | 25 | 72 | 50 | 55 | 15 | 10 | | |
| Cooling | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. TiAlN-coated |
|---|---|---|---|---|
| **6.3** | 5 | 45 | 0,095 | **2000 865 290** |
| **8.3** | 6 | 50 | 0,105 | **2000 865 291** |
| **10.4** | 6 | 50 | 0,115 | **2000 865 292** |
| **12.4** | 8 | 56 | 0,120 | **2000 865 293** |

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. TiAlN-coated |
|---|---|---|---|---|
| **16.5** | 10 | 60 | 0,135 | **2000 865 294** |
| **20.5** | 10 | 63 | 0,150 | **2000 865 295** |
| **25** | 10 | 67 | 0,160 | **2000 865 296** |



HSS-Nano | DIN 335-C | 90°



Standard countersink drill bit



TECWERK nano-countersink drill bit



## Countersink

**HSS · Nano-coated · DIN 335 C** · 3 cutters · Countersink angle 90° · **Shank with 3 clamping areas from nominal Ø 8.3 mm** · Right-hand cutting · **Variable rear grinding** · For the processing of steel, rust- and heat-resistant steels, aluminium, brass and plastics

**Advantages**:

· Significantly less feed force required
· Up to 60 % higher service lives
· Up to 30 % faster lowering
· Extremely quiet running
· Optimised countersink
· Very high resistance to wear and heat hardness

**Through especially developed chip space parameters, variably running rear grinding and special nano-coating**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 175 - Vc (m/min) | 20 | 15 | 5 | | 8 | 5 | 15 | | 30 | 25 | 40 | 5 | | | |
| Cooling | Emulsion/oil | Emulsion/oil | Emulsion/oil | | Emulsion/oil | Emulsion/oil | Air | | Emulsion | Emulsion | Air/emulsion/oil | Emulsion/oil | | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Nano-coated |
|---|---|---|---|---|---|
| **6.3** | 1.5 | 5 | 45 | 0,15 | **2000 865 175** |
| **8.3** | 2 | 6 | 50 | 0,15 | **2000 865 176** |
| **10.4** | 2.5 | 6 | 50 | 0,15 | **2000 865 177** |
| **12.4** | 2.8 | 8 | 56 | 0,15 | **2000 865 178** |
| **15** | 3.2 | 10 | 60 | 0,15 | **2000 865 179** |
| **16.5** | 3.2 | 10 | 60 | 0,2 | **2000 865 180** |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 800 N f [mm/rev] | Article no. Nano-coated |
|---|---|---|---|---|---|
| **19** | 3.5 | 10 | 63 | 0,2 | **2000 865 181** |
| **20.5** | 3.5 | 10 | 63 | 0,2 | **2000 865 182** |
| **23** | 3.8 | 10 | 67 | 0,2 | **2000 865 183** |
| **25** | 3.8 | 10 | 67 | 0,2 | **2000 865 184** |
| **31** | 4.2 | 12 | 71 | 0,2 | **2000 865 185** |



HSS | DIN 335-C | 90° | überlang

## Countersink

**HSS · DIN 335 C · With extended shank** · 3 cutters · Countersink angle 90° · Straight shank · For countersinking and deburring holes in steel, cast iron, and non-ferrous metals · The 3 cutting edges afford a chatter-free cut

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 396 - Vc (m/min) | 30 | 28 | | | | | | | 35 | | 35 | | | | |
| Cooling | Emulsion | Emulsion | | | | | | | Emulsion | | Emulsion | | | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **6.3** | 1.5 | 5 | 85 | 0,09 | **2000 865 396** |
| **8.3** | 2 | 6 | 85 | 0,09 | **2000 865 397** |
| **10.4** | 2.5 | 6 | 88 | 0,12 | **2000 865 391** |
| **12.4** | 2.8 | 8 | 108 | 0,14 | **2000 865 392** |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **16.5** | 3.2 | 10 | 112 | 0,14 | **2000 865 393** |
| **20.5** | 3.5 | 10 | 115 | 0,2 | **2000 865 394** |
| **25** | 3.8 | 10 | 118 | 0,2 | **2000 865 395** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HSS | DIN 334-C | 60°



## Countersink

**HSS · DIN 334 C ·** 3 cutters · **Countersink angle 60° ·** Straight shank · Right-hand cutting · Ideal for burr-free and chatter-free countersinking, deburring, and countersinking in steel and cast iron as well as non-ferrous and light metals · Best results at low cutting speed

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 124 - Vc (m/min) | 30 | 28 | | | | | | | 35 | | 35 | | | | |
| Cooling | Emulsion | Emulsion | | | | | | | Emulsion | | Emulsion | | | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **6.3** | 1.6 | 5 | 45 | 0,09 | **2000 865 124** |
| **8** | 2 | 6 | 50 | 0,09 | **2000 865 125** |
| **10** | 2.5 | 6 | 50 | 0,12 | **2000 865 126** |
| **12.5** | 3.2 | 8 | 56 | 0,14 | **2000 865 127** |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **16** | 4 | 10 | 63 | 0,14 | **2000 865 128** |
| **20** | 5 | 10 | 67 | 0,2 | **2000 865 129** |
| **25** | 6.3 | 10 | 71 | 0,2 | **2000 865 130** |

HSS | 75°



## Countersink

**HSS · Form C ·** 3 cutters · **Countersink angle 75° ·** Straight shank · Right-hand cutting · Ideal for burr-free and chatter-free countersinking, deburring, and countersinking in steel and cast iron as well as non-ferrous and light metals · Best results at low cutting speed

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 131 - Vc (m/min) | 30 | 28 | | | | | | | 35 | | 35 | | | | |
| Cooling | Emulsion | Emulsion | | | | | | | Emulsion | | Emulsion | | | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **6.3** | 1.6 | 5 | 45 | 0,09 | **2000 865 131** |
| **8.3** | 2 | 6 | 50 | 0,09 | **2000 865 132** |
| **10.4** | 2.5 | 6 | 50 | 0,12 | **2000 865 133** |
| **12.4** | 3.2 | 8 | 56 | 0,14 | **2000 865 134** |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **16.5** | 4 | 10 | 63 | 0,14 | **2000 865 135** |
| **20.5** | 5 | 10 | 67 | 0,16 | **2000 865 136** |
| **25** | 6.3 | 10 | 71 | 0,2 | **2000 865 137** |

HSS | 120°



## Countersink

**HSS · Form C ·** 3 cutters · **Countersink angle 120° ·** Straight shank · Right-hand cutting · Ideal for burr-free and chatter-free countersinking, deburring, and countersinking in steel and cast iron as well as non-ferrous and light metals · Best results at low cutting speed

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 138 - Vc (m/min) | 30 | 28 | | | | | | | 35 | | 35 | | | | |
| Cooling | Emulsion | Emulsion | | | | | | | Emulsion | | Emulsion | | | | |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **6.3** | 1.5 | 5 | 45 | 0,09 | **2000 865 138** |
| **8.3** | 2 | 6 | 50 | 0,09 | **2000 865 139** |
| **10.4** | 2.5 | 6 | 50 | 0,12 | **2000 865 140** |
| **12.4** | 3 | 8 | 56 | 0,14 | **2000 865 141** |

| Nominal Ø [mm] | Small Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. Uncoated |
|---|---|---|---|---|---|
| **16.5** | 3.5 | 10 | 63 | 0,14 | **2000 865 142** |
| **20.5** | 4 | 10 | 67 | 0,2 | **2000 865 143** |
| **25** | 5 | 10 | 71 | 0,2 | **2000 865 144** |



2000 865 298

HSS-Co TiAlN | DIN 335-C | 90°

## Countersink set

**HSS-Co · TiAlN-coated ·** DIN 335 C · 3 unequal convex cutting edges · **Spiral-fluted ·** Countersink angle 90° · Right-hand cutting · For the processing of steel, rust- and heat-resistant steels, aluminium, brass and plastic

**Advantages:**

· Round, precise and chatter-free countersink
· 60 % lower feed force
· 50 % lower radial force
· Can be used in almost all materials
· Extremely long service life due to spiralled cutting edges/HSS-Co steel and TiAlN coating possible

**In an impact-resistant and break-proof plastic case**

| Contents | Ø [mm] | Article no. |
|---|---|---|
| **TiAlN-coated** | | |
| **6-part** | 6.3/ 8.3/10.4/ 12.4/ 16.5/ 20.5 | **2000 865 298** |
| **5-part** | 6.3/10.4/16.5/20.5/25 | **2000 865 299** |



2000 865 188

HSS-Nano | DIN 335-C | 90°

## Countersink set

HSS · **Nano-coated · DIN 335 C** · 3 cutters · Countersink angle 90° · **Shank with 3 clamping surfaces from nominal Ø 8.3 mm** · Right-hand cutting · **Variable rear grinding** · For the processing of steel, rust- and heat-resistant steels, aluminium, brass and plastics

**Advantages**:

· Significantly less feed force required
· Up to 60 % higher service lives
· Up to 30 % faster lowering
· Extremely quiet running
· Optimised countersink
· Very high resistance to wear and heat hardness

**Through especially developed chip space parameters, variably running rear grinding and special nano-coating**

**In an impact-resistant and break-proof plastic case**







| Contents | Ø [mm] | Article no. |
|---|---|---|
| **Nano-coated** | | |
| **5-part** | 6.3/ 10.4/ 16.5/ 20.5/ 25 | **2000 865 187** |
| **6-part** | 6.3/ 8.3/ 10.4/ 12.4/ 16.5/ 20.5 | **2000 865 188** |

HSS | HSS-TiN | HSS-TiAlN | HSS-Co | DIN 335-C | VA | 90°

## Countersink set

**DIN 335 C** · 3 cutters · Countersink angle 90° · For countersinking and deburring bores

**In plastic case**



HSS / HSS-Co, type VA



HSS-TiN



HSS-TiAlN

| Contents | Ø [mm] | Article no. |
|---|---|---|
| **HSS** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 208** |
| **HSS TiN** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 213** |
| **HSS TiAlN-coated** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 219** |
| **HSS-Co** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 218** |

HSS | HSS-TiN | HSS-Co | DIN 335-C | VA | 90°

## Countersink set

**DIN 335 C** · 3 cutters · Countersink angle 90° · For countersinking and deburring bores
**In an impact-resistant and break-proof plastic case**



HSS



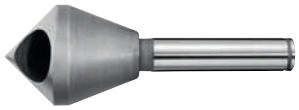
HSS-TiN



HSS-Co

| Contents | Ø [mm] | Article no. |
|---|---|---|
| **HSS** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 210** |
| **HSS TiN** | | |
| **5-part** | 6.3 / 10.4 / 16.5 / 20.5 / 25 | **2000 865 215** |
| **HSS-Co** | | |
| **6-part** | 6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5 | **2000 865 220** |

HSS-Co | 90°



## Cross-hole countersink

**HSS-Co · Countersink angle 90°** · With straight shank · Peeling cut · The chip-flow through the bore hole prevents the chips from jamming the work piece · Ideal for burr-free and chatter-free countersinking and deburring of steel and cast iron as well as non-ferrous and light metals · Best results at low cutting speed

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 145 - Vc (m/min) | 30 | 25 | | | 8 | | | | 35 | | | | | | |
| Cooling | Emulsion | Emulsion | | | Cutting oil | | | | Emulsion | | | | | | |

| Lowering range [mm] | Head Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. |
|---|---|---|---|---|---|
| **1– 4** | 6,35 | 6.35 | 45 | 0,07 | **2000 865 145** |
| **2– 5** | 10 | 6 | 45 | 0,07 | **2000 865 146** |
| **5–10** | 14 | 8 | 48 | 0,09 | **2000 865 147** |

| Lowering range [mm] | Head Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. |
|---|---|---|---|---|---|
| **10–15** | 21 | 10 | 65 | 0,14 | **2000 865 148** |
| **15–20** | 28 | 12 | 85 | 0,16 | **2000 865 149** |
| **20–25** | 35 | 12 | 102 | 0,2 | **2000 865 150** |

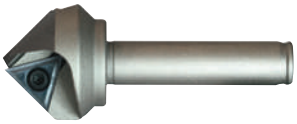
HSS-Co | 90°

## Cross-hole countersink set

**HSS-Co · Countersink angle 90°** · With straight shank · For easy and chatter-free deburring of bores · Peeling cut thanks to a favourable cutting geometry · The chips are discharged through the oblique bore in the shaft direction and therefore cannot damage the countersink · Especially suitable for soft, long-chipping materials
**In an impact-resistant and break-proof plastic case**




| Contents | Lowering range [mm] | Article no. |
|---|---|---|
| **4-part** | 2–5/5–10/10–15/15–20 | **2000 865 500** |

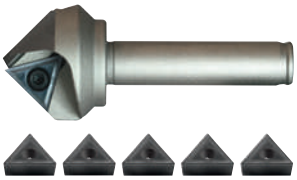


Supplied without insert

## Edging cutter TCGX

**45° · Nickel-plated type** · For indexable insert TCGX 1635 · 1st choice for processing with hand drills · Good guide due to precision-ground slide plates located on opposite sides
Supplied with clamp screw, without screwdriver (size T15)

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Small Ø [mm] | No. of cutters | Article no. |
|---|---|---|---|---|---|
| **25** | 12 | 78 | 5 | 1 | **2000 858 036** |
| **45** | 12 | 78 | 25 | 1 | **2000 858 037** |



## Edging cutter set TCGX

**45° · Nickel-plated type**
1st choice for processing with hand drills · Good guide due to slide plates located on opposite sides
**Contents:**
1 pc. edging cutter TCGX Ø 25 mm (article no.: 2000 858 036)
5 pc. indexable insert TCGX 163504 (article no.: 2000 858 039)
Supplied with clamp screw, without screwdriver (size T15)

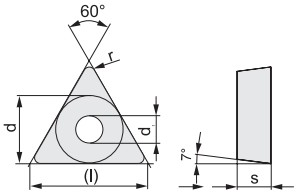
| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Small Ø [mm] | No. of cutters | Contents | Type | Article no. |
|---|---|---|---|---|---|---|---|
| **25** | 12 | 78 | 5 | 1 | 6-part | With 5 x WSP TCGX 163504 PMK40 | **2000 858 038** |



## Tensioning screw

Spare part for edging cutter TCGX

| Size | Thread | Article no. |
|---|---|---|
| **T15** | M4 | **2000 858 073** |




## Insert TCGX

For chamfering and countersinking · For edging cutters 45° TCGX

in material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | feed rate f (mm/rev) min<br>feed rate f (mm/rev) max | | | | | | cutting depth ap (mm) min<br>cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| TCGX-M | | | | | | | | | | | | | | | | | | |
| **2000 858 039** | 70<br>90 | 70<br>90 | 70<br>90 | - | - | - | 0.08<br>0.15 | 0.08<br>0.15 | 0.08<br>0.15 | - | - | - | 1<br>7.5 | 1<br>7.5 | 1<br>7.5 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **TCGX163504-M** | PMK40 | 17 | 9.44 | 4.6 | 5,67 | 0.4 | **2000 858 039** |



HSS | 90°

## Manual deburrer

**HSS** · With hand-held plastic power handle · 3 cutters · **Countersink angle 90°** · For the clean manual deburring of bores, especially for assembly work

| Nominal Ø [mm] | Small Ø [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **12.5** | 2.8 | 135 | **2000 865 230** |
| **16.5** | 3.2 | 135 | **2000 865 231** |
| **20.5** | 3.5 | 140 | **2000 865 232** |
| **25** | 3.8 | 140 | **2000 865 233** |

HSS | HSS-Co | HSS-TiN | VA

## Conical sheet metal bit

**Shank with 3 clamping areas** · With 2 cutters · Countersink angle 20° · Conically rising cutting edges are radially relief ground, thereby resulting in a peeling cut · Universal tool with a large area of application, especially suitable for sheet metal forming but also plastics · Can be used on any drill


HSS / HSS-Co


HSS-TiN



| Drilling range [mm] | Overall L [mm] | Shank Ø [mm] | Article no. HSS Uncoated | Article no. HSS-Co Uncoated | Article no. HSS TiN-coated |
|---|---|---|---|---|---|
| 3 –14 | 58 | 6 | 2000 862 031 | 2000 862 021 | 2000 862 041 |
| 4 –20 | 71 | 8 | 2000 862 032 | 2000 862 022 | 2000 862 042 |
| 16 –30.5 | 76 | 9 | 2000 862 033 | 2000 862 023 | 2000 862 043 |
| 24 –40 | 89 | 10 | 2000 862 034 | - | 2000 862 044 |
| 5 –31 | 103 | 9 | 2000 862 037 | 2000 862 027 | 2000 862 047 |

HSS | HSS-TiN | HSS-Co

## Conical sheet metal bit set

Shank with 3 clamping areas
**In an impact-resistant and break-proof plastic case**



| Contents | Ø [mm] | Article no. |
|---|---|---|
| **HSS** | | |
| 3-part | 3–14 / 4–20 / 16–30.5 | 2000 862 050 |
| **HSS-TiN** | | |
| 3-part | 3–14 / 4–20 / 16–30.5 | 2000 862 055 |
| **HSS-Co** | | |
| 3-part | 3–14 / 4–20 / 16–30.5 | 2000 862 053 |

HSS | Werks-norm



## Step drill

**HSS** · **Spiral-fluted** · **With split point** · 2 cutters · **Precision-made** · Point angle 118 ° · Step angle 90° ·
**Shank with 3 clamping areas**



| Drilling range [mm] | Ø [mm] | Overall L [mm] | Shank Ø [mm] | No. of steps | Shank L [mm] | Article no. Uncoated |
|---|---|---|---|---|---|---|
| 4–12 | 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12 | 79 | 6 | 9 | 22 | 2000 862 081 |
| 4–20 | 4/ 6/ 8/ 10/ 12/ 14/ 16/ 18/ 20 | 70 | 9 | 9 | 22 | 2000 862 082 |
| 4–30 | 4/ 6/ 8/ 10/ 12/ 14/ 16/ 18/ 20/ 22/ 24/ 26/ 28/ 30 | 100 | 10 | 14 | 24 | 2000 862 083 |

HSS



## Step drill

**HSS** · **Straight-fluted** · 2 cutters · **Precision-made** · Step angle 90° · **Shank with 3 clamping areas**



| Drilling range [mm] | Ø [mm] | Overall L [mm] | Shank Ø [mm] | No. of steps | Shank L [mm] | Article no. Uncoated |
|---|---|---|---|---|---|---|
| 12–20 | 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20 | 75 | 9 | 9 | 22 | 2000 862 084 |
| 20–30 | 20/ 21/ 22/ 23/ 24/ 25/ 26/ 27/ 28/ 29/ 30 | 88 | 12 | 11 | 22 | 2000 862 085 |
| 30–40 | 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40 | 98 | 13 | 11 | 25 | 2000 862 086 |



HSS

## Step drill set

HSS · Spiral-fluted · With split point · Shank with 3 clamping areas · Pitch: Ø 4–12=1 mm, Ø 4–20=2 mm, Ø 4–30=2 mm
**In an impact-resistant and break-proof plastic case**



| Contents | Ø [mm] | Article no. |
|---|---|---|
| **3-part** | 4–12/4–20/4–30 | **2000 862 088** |



HSS | DIN 373

## Counterbore

**HSS · DIN 373** · With straight shank and fixed guide pin · Countersink angle 180° · For making countersinks for cylinder head screws, hexagon screws and nuts · Ideal for burr and chatter-free sinks in **steel and cast iron as well as non-ferrous and light metals** · Best results at low cutting speed

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 865 331 - Vc (m/min) | 30 | 28 | | | | | 10 | | 32 | 30 | 30 | | | | |
| Cooling | Emulsion | Emulsion | | | | | Com-pressed air | | Emulsion | Emulsion | Emulsion | | | | |

| For thread | Head Ø [mm] | Spigot Ø [mm] | Shank Ø [mm] | Overall L [mm] | Steel < 500 N f [mm/rev] | Article no. |
|---|---|---|---|---|---|---|
| **Fine quality grade for through-hole** | | | | | | |
| **M3** | 6 | 3,2 | 5 | 71 | 0,14 | **2000 865 331** |
| **M4** | 8 | 4,3 | 5 | 71 | 0,16 | **2000 865 332** |
| **M5** | 10 | 5,3 | 8 | 80 | 0,16 | **2000 865 333** |
| **M6** | 11 | 6,4 | 8 | 80 | 0,2 | **2000 865 334** |
| **M8** | 15 | 8,4 | 12.5 | 100 | 0,2 | **2000 865 335** |
| **M10** | 18 | 10,5 | 12.5 | 100 | 0,2 | **2000 865 336** |
| **M12** | 20 | 13 | 12.5 | 100 | 0,2 | **2000 865 337** |
| **Medium quality grade for through-hole** | | | | | | |
| **M3** | 6 | 3,4 | 5 | 71 | 0,14 | **2000 865 338** |
| **M4** | 8 | 4,5 | 5 | 71 | 0,16 | **2000 865 339** |
| **M5** | 10 | 5,5 | 8 | 80 | 0,16 | **2000 865 340** |
| **M6** | 11 | 6,6 | 8 | 80 | 0,2 | **2000 865 341** |
| **M8** | 15 | 9 | 12.5 | 100 | 0,2 | **2000 865 342** |
| **M10** | 18 | 11 | 12.5 | 100 | 0,2 | **2000 865 343** |
| **M12** | 20 | 13,5 | 12.5 | 100 | 0,2 | **2000 865 344** |
| **For core hole** | | | | | | |
| **M3** | 6 | 2,5 | 5 | 71 | 0,14 | **2000 865 345** |
| **M4** | 8 | 3,3 | 5 | 71 | 0,16 | **2000 865 346** |
| **M5** | 10 | 4,2 | 8 | 80 | 0,16 | **2000 865 347** |
| **M6** | 11 | 5 | 8 | 80 | 0,2 | **2000 865 348** |
| **M8** | 15 | 6,8 | 12.5 | 100 | 0,2 | **2000 865 349** |
| **M10** | 18 | 8,5 | 12.5 | 100 | 0,2 | **2000 865 350** |
| **M12** | 20 | 10,2 | 12.5 | 100 | 0,2 | **2000 865 351** |



HSS | DIN 373

## Counterbore set

**HSS · DIN 373** · With 3 cutters · Spiral-fluted · With fixed guide pin · With straight shank
1 counterbore each for threads M3 / M4 / M5 / M6 / M8 and M10
**In an impact-resistant and break-proof plastic case**

| Contents<br>M3–M10 | Quality grade | Article no. |
|---|---|---|
| **6-part** | Fine for through-hole | **2000 865 330** |
| **6-part** | Medium for through-hole | **2000 865 360** |
| **6-part** | For core hole | **2000 865 390** |

HSS | DIN 206 | H7



## Hand reamer

**HSS · DIN 206 · Shape B · Tolerance H7** · Right-hand cutting · **Spiral-fluted** · Left twist · Long cut · With straight shank and square

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | | ● | ● | | | |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Square [mm] | Article no. Uncoated |
|---|---|---|---|---|---|
| **3** | 62 | 31 | 6 | 2.4 | **2000 865 701** |
| **4** | 76 | 38 | 6 | 3 | **2000 865 702** |
| **5** | 87 | 44 | 6 | 3.8 | **2000 865 703** |
| **6** | 93 | 47 | 6 | 4.9 | **2000 865 704** |
| **7** | 107 | 54 | 6 | 5.5 | **2000 865 705** |
| **8** | 115 | 58 | 6 | 6.2 | **2000 865 706** |
| **9** | 124 | 62 | 6 | 7 | **2000 865 707** |
| **10** | 133 | 66 | 6 | 8 | **2000 865 708** |
| **12** | 152 | 76 | 6 | 9 | **2000 865 709** |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Square [mm] | Article no. Uncoated |
|---|---|---|---|---|---|
| **14** | 163 | 81 | 8 | 11 | **2000 865 710** |
| **16** | 175 | 87 | 8 | 12 | **2000 865 711** |
| **18** | 188 | 93 | 8 | 14.5 | **2000 865 712** |
| **20** | 201 | 100 | 8 | 16 | **2000 865 713** |
| **22** | 215 | 107 | 8 | 18 | **2000 865 714** |
| **24** | 231 | 115 | 8 | 18 | **2000 865 715** |
| **25** | 231 | 115 | 8 | 20 | **2000 865 716** |
| **28** | 247 | 124 | 10 | 22 | **2000 865 718** |
| **30** | 247 | 124 | 10 | 24 | **2000 865 719** |

HSS-Co | DIN 212-3 | H7 | Schaft Ø h6



## NC machine reamer

**HSS-Co · DIN 212-3 · Shape B · Tolerance H7** · Right-hand cutting · **Spiral-fluted** · Left twist · With straight shank · Unequal partition · For blind holes and through holes in steel, GGG and non-ferrous metals · The combination of NC machine reamers and hydraulic expansion, high-precision and shrink fit chucks ensure maximum concentricity and process reliability when creating fits

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ● | ○ | | |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Shank Ø [mm] | Article no. Uncoated |
|---|---|---|---|---|---|
| **2.5** | 57 | 14 | 4 | 3 | **2000 865 301** |
| **3** | 61 | 15 | 6 | 3 | **2000 865 302** |
| **3.5** | 70 | 18 | 6 | 4 | **2000 865 303** |
| **4** | 75 | 19 | 6 | 4 | **2000 865 304** |
| **4.5** | 80 | 21 | 6 | 5 | **2000 865 305** |
| **5** | 86 | 23 | 6 | 5 | **2000 865 306** |
| **6** | 93 | 26 | 6 | 6 | **2000 865 307** |
| **7** | 109 | 31 | 6 | 8 | **2000 865 308** |
| **8** | 117 | 33 | 6 | 8 | **2000 865 309** |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Shank Ø [mm] | Article no. Uncoated |
|---|---|---|---|---|---|
| **9** | 125 | 36 | 6 | 10 | **2000 865 310** |
| **10** | 133 | 38 | 6 | 10 | **2000 865 311** |
| **11** | 142 | 41 | 6 | 10 | **2000 865 312** |
| **12** | 151 | 44 | 6 | 10 | **2000 865 313** |
| **13** | 151 | 44 | 6 | 10 | **2000 865 314** |
| **14** | 160 | 47 | 8 | 14 | **2000 865 315** |
| **15** | 162 | 50 | 8 | 14 | **2000 865 316** |
| **16** | 170 | 52 | 8 | 14 | **2000 865 317** |

HSS-Co | DIN 208 | H7



## Machine reamer

**HSS-Co · DIN 208 · Shape B · Tolerance H7** · Right-hand cutting · **Spiral-fluted** · Left twist · With Morse taper · For blind holes and through holes in steel and non-ferrous metals as well as plastics

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ● | ○ | | |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Size of shank | Article no. Uncoated |
|---|---|---|---|---|---|
| **10** | 168 | 38 | 6 | MK1 | **2000 865 760** |
| **12** | 182 | 44 | 6 | MK1 | **2000 865 761** |
| **14** | 189 | 47 | 8 | MK1 | **2000 865 762** |
| **16** | 210 | 52 | 8 | MK2 | **2000 865 763** |
| **18** | 219 | 56 | 8 | MK2 | **2000 865 764** |
| **20** | 228 | 60 | 8 | MK2 | **2000 865 765** |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Size of shank | Article no. Uncoated |
|---|---|---|---|---|---|
| **22** | 237 | 64 | 8 | MK2 | **2000 865 766** |
| **24** | 268 | 68 | 8 | MK3 | **2000 865 767** |
| **25** | 268 | 68 | 8 | MK3 | **2000 865 768** |
| **26** | 273 | 70 | 8 | MK3 | **2000 865 769** |
| **28** | 277 | 71 | 10 | MK3 | **2000 865 770** |
| **30** | 281 | 73 | 10 | MK3 | **2000 865 771** |



VHM | HM | DIN 8093 | H7 | Schaft Ø h9 | Schaft Ø h6

## Machine reamer

**DIN 8093 · Shape B · Tolerance H7** · Right-hand cutting · **Spiral-fluted** · Left twist · With straight shank · For steel, GGG, non-ferrous metals
**Up to Ø 9.0 mm made of solid carbide**
**From Ø 10.0 mm with carbide cutting discs**
**Shank tolerance to Ø 9 mm = h9**
**From Ø 10 mm = h6**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ● | ○ | ○ | |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Shank Ø [mm] | Article no. Uncoated |
|---|---|---|---|---|---|
| **2** | 49 | 11 | 4 | 2 | **2000 865 740** |
| **2.5** | 57 | 14 | 4 | 2.5 | **2000 865 741** |
| **3** | 61 | 15 | 6 | 3 | **2000 865 742** |
| **3.5** | 70 | 18 | 6 | 3.5 | **2000 865 743** |
| **4** | 75 | 19 | 6 | 4 | **2000 865 744** |
| **4.5** | 80 | 21 | 6 | 4.5 | **2000 865 745** |
| **5** | 86 | 23 | 6 | 5 | **2000 865 746** |
| **6** | 93 | 26 | 6 | 5.6 | **2000 865 747** |
| **7** | 109 | 31 | 6 | 7.1 | **2000 865 748** |
| **8** | 117 | 33 | 6 | 8 | **2000 865 749** |
| **9** | 125 | 36 | 6 | 9 | **2000 865 750** |
| **10** | 133 | 38 | 6 | 10 | **2000 865 751** |
| **11** | 142 | 41 | 6 | 10 | **2000 865 752** |
| **12** | 151 | 44 | 6 | 10 | **2000 865 753** |
| **13** | 151 | 44 | 6 | 10 | **2000 865 754** |
| **14** | 160 | 47 | 6 | 12 | **2000 865 755** |
| **15** | 162 | 50 | 6 | 12 | **2000 865 756** |
| **16** | 170 | 52 | 6 | 12 | **2000 865 757** |



HM | DIN 8094 | H7

## Machine reamer

**Carbide · DIN 8094 · Shape B · Tolerance H7** · Right-hand cutting · **Spiral-fluted** · Left twist · With Morse taper · For steel, GGG, non-ferrous metals

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ● | ○ | ○ | |

| Nominal Ø [mm] | Overall L [mm] | Cutting edge L [mm] | No. of cutters | Size of shank | Article no. Uncoated |
|---|---|---|---|---|---|
| **10** | 168 | 38 | 6 | MK1 | **2000 865 775** |
| **12** | 182 | 44 | 6 | MK1 | **2000 865 776** |
| **14** | 189 | 47 | 6 | MK1 | **2000 865 777** |
| **16** | 210 | 52 | 6 | MK2 | **2000 865 778** |
| **18** | 219 | 56 | 6 | MK2 | **2000 865 779** |
| **20** | 228 | 60 | 6 | MK2 | **2000 865 780** |
| **22** | 237 | 64 | 6 | MK2 | **2000 865 781** |
| **24** | 268 | 68 | 8 | MK3 | **2000 865 782** |
| **25** | 268 | 68 | 8 | MK3 | **2000 865 783** |
| **26** | 273 | 70 | 8 | MK3 | **2000 865 784** |
| **28** | 277 | 71 | 8 | MK3 | **2000 865 785** |
| **30** | 281 | 73 | 8 | MK3 | **2000 865 786** |



Roughing tap

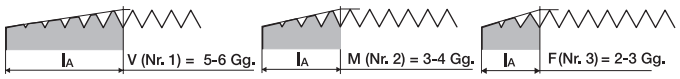


Second tap



Finish tap

M | 6H | 60° P | HSS




## Set of hand taps

**HSS · Metric ISO thread** · DIN 13 Sheet 1 · Right-hand cutting · Tolerance range **ISO2 (6H)** · For through-hole and blind-hole threads · For steels up to approx. 900 N/mm² in strength
**3-part set** comprising roughing tap, second tap, and finish tap

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 108 - Vc (m/min) | X | X | | | | | X | | X | X | X | | | | |
| Cooling | Oil | Oil | | | | | Oil | | Oil | Oil | Oil | | | | |

| Nominal thread Ø DIN 352 | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **M2** | 0,4 | 36 | 8 | 2.8 | 2.1 | 1,6 | **2000 867 108** |
| **M2,5** | 0,45 | 40 | 9 | 2.8 | 2.1 | 2,05 | **2000 867 109** |
| **M3** | 0,5 | 40 | 11 | 3.5 | 2.7 | 2,5 | **2000 867 110** |
| **M4** | 0,7 | 45 | 13 | 4.5 | 3.4 | 3,3 | **2000 867 111** |
| **M5** | 0,8 | 50 | 16 | 6 | 4.9 | 4,2 | **2000 867 112** |
| **M6** | 1 | 50 | 19 | 6 | 4.9 | 5 | **2000 867 113** |
| **M8** | 1,25 | 56 | 22 | 6 | 4.9 | 6,8 | **2000 867 115** |

Continuation>

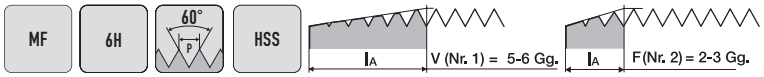


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Continuation

| Nominal thread Ø<br>DIN 352 | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **M10** | 1,5 | 70 | 24 | 7 | 5.5 | 8,5 | **2000 867 116** |
| **M12** | 1,75 | 75 | 29 | 9 | 7 | 10,2 | **2000 867 117** |
| **M14** | 2 | 80 | 30 | 11 | 9 | 12 | **2000 867 118** |
| **M16** | 2 | 80 | 32 | 12 | 9 | 14 | **2000 867 119** |
| **M18** | 2,5 | 95 | 40 | 14 | 11 | 15,5 | **2000 867 120** |
| **M20** | 2,5 | 95 | 40 | 16 | 12 | 17,5 | **2000 867 121** |
| **M22** | 2,5 | 100 | 40 | 18 | 14.5 | 19,5 | **2000 867 122** |
| **M24** | 3 | 110 | 50 | 20 | 14.5 | 21 | **2000 867 123** |
| **M27** | 3 | 110 | 50 | 22 | 16 | 24 | **2000 867 124** |
| **M30** | 3,5 | 125 | 56 | 18 | 18 | 26,5 | **2000 867 125** |

| Nominal thread Ø | Pitch [mm] | Article no. Roughing tap No. 1 | Article no. Second tap No. 2 | Article no. Finish tap No. 3 |
|---|---|---|---|---|
| **M3** | 0,5 | **2000 867 130** | **2000 867 150** | **2000 867 170** |
| **M4** | 0,7 | **2000 867 131** | **2000 867 151** | **2000 867 171** |
| **M5** | 0,8 | **2000 867 132** | **2000 867 152** | **2000 867 172** |
| **M6** | 1 | **2000 867 133** | **2000 867 153** | **2000 867 173** |
| **M8** | 1,25 | **2000 867 135** | **2000 867 155** | **2000 867 175** |
| **M10** | 1,5 | **2000 867 136** | **2000 867 156** | **2000 867 176** |
| **M12** | 1,75 | **2000 867 137** | **2000 867 157** | **2000 867 177** |
| **M14** | 2 | **2000 867 138** | **2000 867 158** | **2000 867 178** |
| **M16** | 2 | **2000 867 139** | **2000 867 159** | **2000 867 179** |
| **M20** | 2,5 | - | - | **2000 867 181** |
| **M24** | 3 | **2000 867 143** | **2000 867 163** | **2000 867 126** |
| **M30** | 3,5 | - | - | **2000 867 134** |





Roughing tap


Finish tap

## Set of hand taps

**HSS · Metric ISO fine thread MF** · DIN 13 · Right-hand cutting · Tolerance range **ISO2 (6H)** · For through-hole and blind-hole threads · For steels up to 900 N/mm² in strength
**2-part set,** comprising roughing tap and finish tap

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 056 - Vc (m/min) | X | X | | | | | X | | X | X | X | | | | |
| Cooling | Oil | Oil | | | | | Oil | | Oil | Oil | Oil | | | | |

| Nominal thread Ø<br>DIN 2181 | Pitch [ mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **MF6** | 0,75 | 50 | 14 | 6 | 4.9 | 5,25 | **2000 867 056** |
| **MF8** | 1 | 56 | 22 | 6 | 4.9 | 7 | **2000 867 058** |
| **MF10** | 1 | 63 | 20 | 7 | 5.5 | 9 | **2000 867 059** |
| **MF12** | 1 | 70 | 22 | 9 | 7 | 11 | **2000 867 060** |
| **MF12** | 1,5 | 70 | 22 | 9 | 7 | 10,5 | **2000 867 061** |
| **MF14** | 1,5 | 70 | 22 | 11 | 9 | 12,5 | **2000 867 062** |
| **MF16** | 1,5 | 70 | 22 | 12 | 9 | 14,5 | **2000 867 063** |
| **MF18** | 1,5 | 80 | 22 | 14 | 11 | 16,5 | **2000 867 064** |
| **MF20** | 1,5 | 80 | 22 | 16 | 12 | 18,5 | **2000 867 065** |
| **MF22** | 1,5 | 80 | 22 | 18 | 14.5 | 20,5 | **2000 867 066** |
| **MF24** | 1,5 | 90 | 22 | 18 | 14.5 | 22,5 | **2000 867 067** |

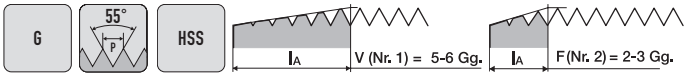
| Nominal thread Ø | Pitch [mm] | Article no. Finish tap no. 2 |
|---|---|---|
| **MF6** | 0,75 | **2000 867 080** |
| **MF8** | 1 | **2000 867 082** |
| **MF10** | 1 | **2000 867 083** |
| **MF12** | 1 | **2000 867 084** |
| **MF12** | 1,5 | **2000 867 085** |
| **MF14** | 1,5 | **2000 867 086** |
| **MF16** | 1,5 | **2000 867 087** |
| **MF18** | 1,5 | **2000 867 088** |
| **MF20** | 1,5 | **2000 867 089** |
| **MF22** | 1,5 | **2000 867 090** |
| **MF24** | 1,5 | **2000 867 091** |



N/A



Finish tap




## Set of hand taps

**HSS · Whitworth pipe thread G** · In accordance with DIN ISO 228 · Right-hand cutting · For through-hole and blind-hole threads · For steels up to 900 N/mm² in strength
**2-part set,** comprising roughing tap and finish tap

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 092 - Vc (m/min) | X | X | | | | | X | | X | X | X | | | | |
| Cooling | Oil | Oil | | | | | Oil | | Oil | Oil | Oil | | | | |

| Nominal thread Ø ["] DIN 5157 | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| G 1/8 | 28 | 63 | 20 | 7 | 5.5 | 8,8 | 2000 867 092 |
| G 1/4 | 19 | 70 | 20 | 11 | 9 | 11,8 | 2000 867 093 |
| G 3/8 | 19 | 70 | 22 | 12 | 9 | 15,3 | 2000 867 094 |
| G 1/2 | 14 | 80 | 22 | 16 | 12 | 19 | 2000 867 095 |
| G 3/4 | 14 | 90 | 22 | 20 | 16 | 24,5 | 2000 867 096 |
| G 1 | 11 | 100 | 25 | 25 | 20 | 30,5 | 2000 867 097 |

| Nominal thread Ø ["] | Gg/1" | Article no. Finish tap No. 2 |
|---|---|---|
| G 1/8 | 28 | 2000 867 104 |
| G 1/4 | 19 | 2000 867 105 |
| G 3/8 | 19 | 2000 867 106 |
| G 1/2 | 14 | 2000 867 107 |
| G 3/4 | 14 | 2000 867 146 |
| G 1 | 11 | 2000 867 147 |






## Short machine tap

**HSS-Co · Shape B** · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H) · With spiral point for through-hole threads** · For steels up to approx. 900 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 322 - Vc (m/min) | 10 | 8 | | | | | | | 23 | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø DIN 352 | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| M3 | 0,5 | 40 | 11 | 3.5 | 2.7 | 2,5 | 2000 867 322 |
| M4 | 0,7 | 45 | 13 | 4.5 | 3.4 | 3,3 | 2000 867 323 |
| M5 | 0,8 | 50 | 16 | 6 | 4.9 | 4,2 | 2000 867 324 |
| M6 | 1 | 56 | 19 | 6 | 4.9 | 5 | 2000 867 325 |
| M8 | 1,25 | 63 | 22 | 6 | 4.9 | 6,8 | 2000 867 326 |
| M10 | 1,5 | 70 | 24 | 7 | 5.5 | 8,5 | 2000 867 327 |
| M12 | 1,75 | 75 | 29 | 9 | 7 | 10,2 | 2000 867 328 |



## Metal box

**Empty** · For 3-part hand tap sets · **DIN 352 · M3–M12** · Made of robust sheet steel · Powder-coated

| Size | Contents | Article no. |
|---|---|---|
| M3–M12 | Empty | 2000 867 523 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

M HSS

## Tap set
**HSS · DIN 352 · Metric ISO thread**
**Comprising:**
Hand taps, DIN 352, 1 each of sizes: M3, M4, M5, M6, M8, M10, and M12
**In metal box**




| Nominal thread Ø | Contents | Article no. |
|---|---|---|
| M3-M12 | 21-part | 2000 867 522 |

M HSS

## Tap set
**HSS · DIN 352 · Metric ISO thread**
**Comprising:**
Set of hand taps DIN 352, 1 each of sizes: , M3, M4, M5, M6, M8, M10, and M12
HSS twist drill, DIN 338, 1 each of sizes: Ø 2.5/3.3/4.2/5.0/6.8/8.5 and 10.2 mm
1 adjustable tap wrench size 1 1/2
**In metal box**




| Nominal thread Ø | Contents | Article no. |
|---|---|---|
| M3-M12 | 29-part | 2000 867 550 |

M HSS

## Tap set
**HSS · DIN 352 · Metric ISO thread**
**Comprising:**
Short machine tap, 1 each of sizes: M3, M4, M5, M6, M8, M10, and M12
Twist drill, 1 each of sizes: Ø 2.5/ 3.3/ 4.2/ 5.0/ 6.8/ 8.5/ 10.2 mm
1 adjustable tap wrench size 1 1/2
**In metal box**




| Nominal thread Ø | Contents | Article no. |
|---|---|---|
| M3-M12 | 15-part | 2000 867 525 |

M HSS HSS-Co

## Thread tools complete set
**12-part professional 3-in-1 multibox** with twist drills, countersink drill bit and deburrers and machine taps for optimal metal processing
**Comprising:**
5 pc. machine taps, HSS-Co, shape B, M4, M5, M6, M8, M10
2 pc. countersink drill bit sand deburrers, HSS, 12.4/ 20.5 mm
5 pc. twist drills, HSS, Ø 3.3/ 4.2/ 5.0/ 6.8/ 8.5 mm

**In round plastic case**



| Contents | Article no. |
|---|---|
| 12-part | 2000 806 019 |



M HSS

## Metalworking set

**HSS · M3–M12**

**Starter kit** for drilling, countersinking and deburring, as well as for cutting internal and external threads

**Comprising:**

Short machine tap, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
Die, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
1 die holder 25 x 9
1 adjustable tap wrench size 1 1/2
Core removing twist drill, DIN 338 HSS-G, 1 pc. each of sizes: Ø 2.5 /3.3/ 4.2/ 5.0/ 6.8/ 8.5/ 10.2 mm
Countersink, 1 pc. each of sizes: Ø 6.3/ 8.3/ 10.4/ 12.4/ 16.5/ 20.5 mm
Step drill, 1 pc. each of sizes: Ø 4–12/ 4–20/ 6–30 mm
1 thread gauge
Including guides on "Thread cutting, drilling and countersinking"

**In an impact-resistant and break-proof plastic case**

**Advantages of the plastic case:**

· Tools do not fall out during transport
· Improved tool protection
· Case is slip-resistant and stackable
· Rubber-coated handle for safe transport
· Removable inlays

| Contents | Article no. |
|---|---|
| 33-part | 2000 806 023 |



M HSS

## Threading tool set

**HSS · M3–M12**

**Comprising:**

Hand taps, 1 set each of sizes: DIN 352 M3, M4, M5, M6, M8, M10, M12
Die, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
1 die holder 25 x 9
1 adjustable tap wrench size 1 1/2
1 screwdriver, 1 thread gauge

**In metal box**

| Contents | Article no. |
|---|---|
| 32-part | 2000 867 530 |



M HSS

## Threading tool set

**HSS · M3–M12**

**Comprising:**

1 set of hand taps, 3-part DIN 352 M3, M4, M5, M6, M8, M10, M12
Die, DIN 22568, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
Die holder, 1 pc. each of sizes: 20 x 5, 20 x 7, 25 x 9, 30 x 11, 38 x 14
1 adjustable tap wrench size 1 + 2
1 screwdriver, 1 thread gauge
Core removing twist drill, 1 pc. each of sizes: Ø 2.5/ 3.3/ 4.2/ 5.0/ 6.8/ 8.5/ 10.2 mm

**In an impact-resistant and break-proof plastic case**

**Advantages of the plastic case:**

· Tools do not fall out during transport
· Improved tool protection
· Case is slip-resistant and stackable
· Rubber-coated handle for safe transport
· Removable inlays

| Contents | Article no. |
|---|---|
| 44-part | 2000 867 548 |

M HSS

## Threading tool set
**HSS · M3–M12**
**Comprising:**
Hand tap, DIN 352, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
Die, DIN EN 22568, 1 pc. each of sizes: M3, M4. M5, M6, M8, M10, M12
Guide, DIN EN 22568, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12
Die holder, 1 pc. each of sizes: 20 x 5, 20 x 7, 25 x 9, 30 x 11, 38 x 14
1 adjustable tap wrench size 1 + 2

Core removing twist drill, DIN 338 HSS-G, 1 pc. each of sizes: Ø 2.5 /3.3/ 4.2/ 5.0/ 6.8/ 8.5/ 10.2 mm
1 tool holder, 1 screwdriver, 1 thread gauge
Including guide to thread cutting
**In an impact-resistant and break-proof plastic case**
**Advantages of the plastic case:**
· Tools do not fall out during transport
· Improved tool protection
· Case is slip-resistant and stackable
· Rubber-coated handle for safe transport
· Removable inlays



| Contents | Article no. |
|---|---|
| **52-part** | **2000 806 022** |

M HSS

## Threading tool set
**HSS · M3–M20**
**Comprising:**
1 set of hand taps, 3-part DIN 352 M3, M4, M5, M6, M8, M10, M12, M14, M16, M18, M20
Die, EN 22568, 1 pc. each of sizes: M3, M4, M5, M6, M8, M10, M12, M14, M16, M18, M20
Die holder, 1 pc. each of sizes: 20 x 5, 20 x 7, 25 x 9, 30 x 11, 38 x 14, 45 x 18
1 adjustable tap wrench size 1 + 3

1 screwdriver, 1 thread gauge
**In an impact-resistant and break-proof plastic case**
**Advantages of the plastic case:**
· Tools do not fall out during transport
· Improved tool protection
· Case is slip-resistant and stackable
· Rubber-coated handle for safe transport
· Removable inlays



| Contents | Article no. |
|---|---|
| **54-part** | **2000 867 579** |

M HSS HSS-Co VA

## Machine tap set
**M3–M12**
**Comprising:**
MGB, HSS-Co, DIN 371, 1 pc. each of sizes: M3/ M4/ M5/ M6/ M8/ M10
DIN 376 M12
Twist drill, 1 pc. each of sizes: Ø 2.5/ 3.3/ 4.2/ 5.0/ 6.8/ 8.5/ 10.2 mm
**In an impact-resistant and break-proof plastic case**



2000 867 537

| Type | Contents | Twist drill type | Article no. |
|---|---|---|---|
| **Shape B - for through-hole threads** | 14-part | DIN 338, HSS | **2000 867 536** |
| **Shape B - for through-hole threads - VA** | 14-part | DIN 338, HSS-Co | **2000 867 537** |
| **Shape C 35° RSP for blind hole threads** | 14-part | DIN 338, HSS | **2000 867 538** |
| **Shape C 35° RSP for blind hole threads - VA** | 14-part | DIN 338, HSS-Co | **2000 867 539** |

M HSS-Co vaporisiert UNI

## Machine tap set
**M3–M12**
HSS-Co · **Type UNIVERSAL** · **Steam-tempered** · Green ring · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals
**Comprising:**
MGB, 1 pc. each of sizes: DIN 371 M3/ M4/ M5/ M6/ M8/ M10
DIN 376 M12
**In an impact-resistant and break-proof plastic case**



2000 867 745



2000 867 747

| Type | Contents | Article no. |
|---|---|---|
| **Steam-tempered** | | |
| **Shape B - for through-hole threads** | 7-part | **2000 867 745** |
| **Shape C 40° RSP for blind hole threads** | 7-part | **2000 867 747** |

For more information, see page 44

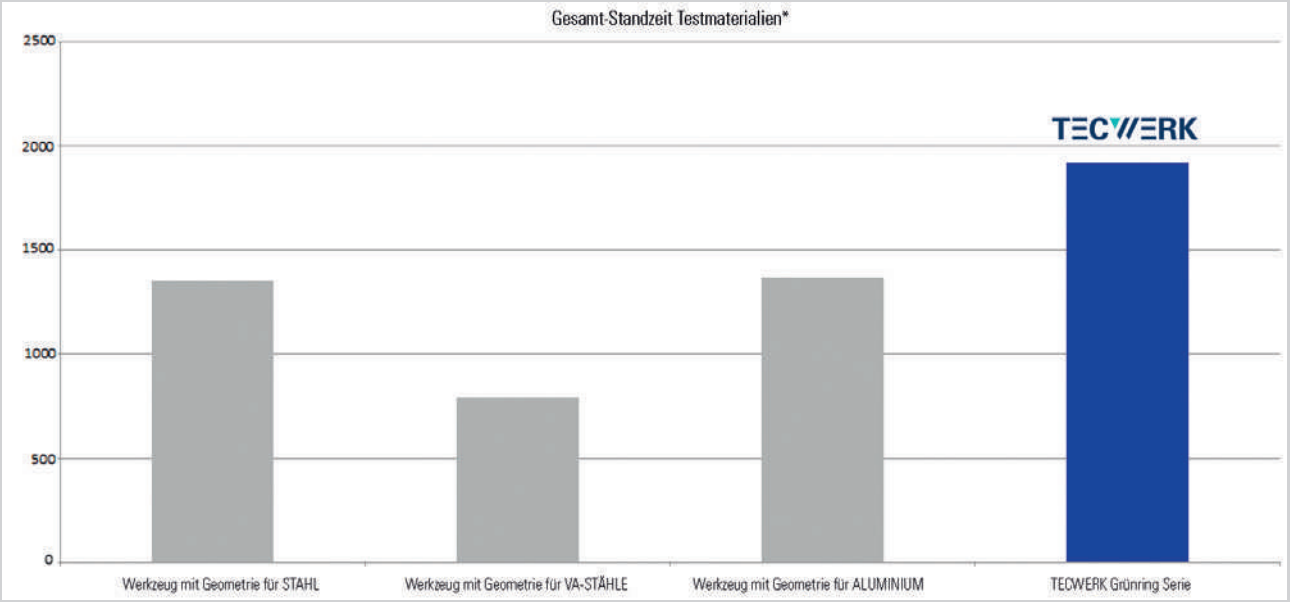
## TECWERK universal machine tap

The **new green ring series by TECWERK** is based on a HSS-Co substrate. The series is distinguished by its optimised cutting edge geometry and surface treatment for use as a **universal tool**. The geometry enables the processing of **easy-to-machine steels, rust-free steels, long-chipping cast materials and non-ferrous metals**. To further improve the service life, TECWERK provides a **vapour-treated surface** as well as a **titanium nitride coating (TiN)**. In addition, a longer runout of the grooves enables deeper blind holes **up to 2.5 x diam.**. In summary: A reduction in the number of different types required in manufacturing.



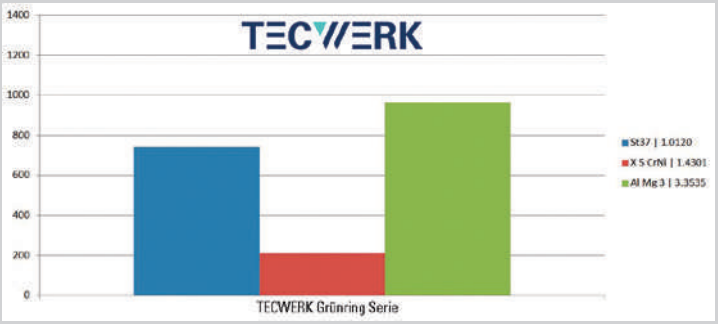
**The technical advantages**:

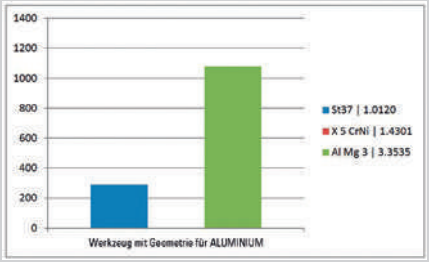
· Less wear
· Reduced nicks in a range of materials
· Optimised relationship between the threaded links and groove/ the concentricity of the threaded part
· Long service life across a wide range of tools

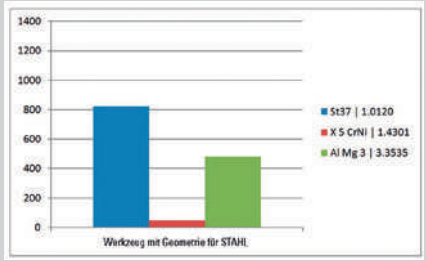


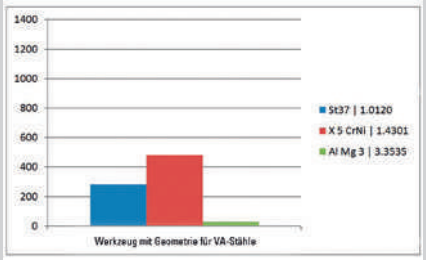

*Material: St37 / 1.4301 / AlMg3 / Cooling: Emulsion 9 % / application: Blind hole 2xdm / nominal Ø: M 8 – ISO2 / pre-drill diameter: 6.8 mm. All tools in the series have been PVD-coated (TiN, alternatively CrN)

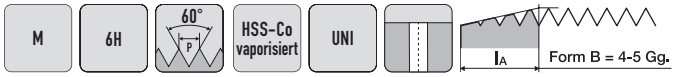
**Service life comparison: TECWERK green ring series compared to specific tools**







2000 867 678


2000 867 684



## Machine tap

HSS-Co · Shape B · **Type UNIVERSAL · Steam-tempered** · Green ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 678 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/ oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 Steam-tempered** | | | | | | | |
| **M3** | 0,5 | 56 | 11 | 3.5 | 2.7 | 2,5 | **2000 867 678** |
| **M4** | 0,7 | 63 | 13 | 4.5 | 3.4 | 3,3 | **2000 867 679** |
| **M5** | 0,8 | 70 | 15 | 6 | 4.9 | 4,2 | **2000 867 680** |
| **M6** | 1 | 80 | 17 | 6 | 4.9 | 5 | **2000 867 681** |
| **M8** | 1,25 | 90 | 20 | 8 | 6.2 | 6,8 | **2000 867 682** |
| **M10** | 1,5 | 100 | 22 | 10 | 8 | 8,5 | **2000 867 683** |
| **DIN 376 Steam-tempered** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 684** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 685** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 686** |

For more information, see page 44





2000 867 696


2000 867 702

## Machine tap

HSS-Co · Shape B · **Type UNIVERSAL · TiN-coated** · Green ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 696 - Vc (m/min) | 20 | 15 | | | 6 | | | 10 | 25 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/ oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 11 | 3.5 | 2.7 | 2,5 | **2000 867 696** |
| **M4** | 0,7 | 63 | 13 | 4.5 | 3.4 | 3,3 | **2000 867 697** |
| **M5** | 0,8 | 70 | 15 | 6 | 4.9 | 4,2 | **2000 867 698** |
| **M6** | 1 | 80 | 17 | 6 | 4.9 | 5 | **2000 867 699** |
| **M8** | 1,25 | 90 | 20 | 8 | 6.2 | 6,8 | **2000 867 700** |
| **M10** | 1,5 | 100 | 22 | 10 | 8 | 8,5 | **2000 867 701** |
| **DIN 376 TiN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 702** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 703** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 704** |

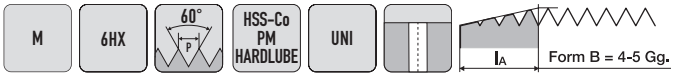
For more information, see page 44



2000 867 975



2000 867 983




## Machine tap

**HSS-Co PM** · Shape B · **Type UNIVERSAL** · **HARDLUBE coated** · Straight-fluted · Optimised edge rounding and cutting geometry · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **6HX** · **With spiral point for through-hole threads** · For universal use in steel, stainless steel, aluminium and copper alloys and cast materials

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 975 - Vc (m/min) | 23 | 15 | 8 | | 11 | 11 | 24 | 20 | 28 | 24 | 16 | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 HARDLUBE coated** | | | | | | | |
| **M2** | 0,4 | 45 | 8 | 2.8 | 2.1 | 1,6 | **2000 867 975** |
| **M2,5** | 0,45 | 50 | 9 | 2.8 | 2.1 | 2,05 | **2000 867 976** |
| **M3** | 0,5 | 56 | 11 | 3.5 | 2.7 | 2,5 | **2000 867 977** |
| **M4** | 0,7 | 63 | 13 | 4.5 | 3.4 | 3,3 | **2000 867 978** |
| **M5** | 0,8 | 70 | 16 | 6 | 4.9 | 4,2 | **2000 867 979** |
| **M6** | 1 | 80 | 19 | 6 | 4.9 | 5 | **2000 867 980** |
| **M8** | 1,25 | 90 | 22 | 8 | 6.2 | 6,8 | **2000 867 981** |
| **M10** | 1,5 | 100 | 24 | 10 | 8 | 8,5 | **2000 867 982** |
| **DIN 376 HARDLUBE coated** | | | | | | | |
| **M12** | 1,75 | 110 | 28 | 9 | 7 | 10,2 | **2000 867 983** |
| **M16** | 2 | 110 | 32 | 12 | 9 | 14 | **2000 867 984** |
| **M20** | 2,5 | 140 | 34 | 16 | 12 | 17,5 | **2000 867 985** |



2000 867 243



2000 867 342




## Machine tap

HSS-Co · Shape B · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steels up to approx. 900 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 243 - Vc (m/min) | 10 | 8 | | | | | | | 23 | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 9 | 3.5 | 2.7 | 2,5 | **2000 867 243** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 244** |
| **M5** | 0,8 | 70 | 13 | 6 | 4.9 | 4,2 | **2000 867 245** |
| **M6** | 1 | 80 | 15 | 6 | 4.9 | 5 | **2000 867 246** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 248** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 250** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 23 | 9 | 7 | 10,2 | **2000 867 342** |
| **M14** | 2 | 110 | 25 | 11 | 9 | 12 | **2000 867 344** |
| **M16** | 2 | 110 | 25 | 12 | 9 | 14 | **2000 867 346** |
| **M18** | 2,5 | 125 | 30 | 14 | 11 | 15,5 | **2000 867 348** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 350** |
| **M22** | 2,5 | 140 | 30 | 18 | 14.5 | 19,5 | **2000 867 340** |
| **M24** | 3 | 160 | 36 | 18 | 14.5 | 21 | **2000 867 341** |
| **M27** | 3 | 160 | 36 | 20 | 16 | 24 | **2000 867 291** |
| **M30** | 3,5 | 180 | 40 | 22 | 18 | 26,5 | **2000 867 292** |





2000 867 300


2000 867 306



## Machine tap

HSS-Co · Shape B · **TiN-coated** · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steels up to 1000 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 300 - Vc (m/min) | 10 | 8 | | | | | | | 23 | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 9 | 3.5 | 2.7 | 2,5 | **2000 867 300** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 301** |
| **M5** | 0,8 | 70 | 13 | 6 | 4.9 | 4,2 | **2000 867 302** |
| **M6** | 1 | 80 | 15 | 6 | 4.9 | 5 | **2000 867 303** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 304** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 305** |
| **DIN 376 TiN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 23 | 9 | 7 | 10,2 | **2000 867 306** |
| **M14** | 2 | 110 | 25 | 11 | 9 | 12 | **2000 867 307** |
| **M16** | 2 | 110 | 25 | 12 | 9 | 14 | **2000 867 308** |
| **M18** | 2,5 | 125 | 30 | 14 | 11 | 15,5 | **2000 867 309** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 310** |
| **M22** | 2,5 | 140 | 30 | 18 | 14.5 | 19,5 | **2000 867 461** |
| **M24** | 3 | 160 | 36 | 18 | 14.5 | 21 | **2000 867 462** |
| **M27** | 3 | 160 | 36 | 20 | 16 | 24 | **2000 867 463** |
| **M30** | 3,5 | 180 | 40 | 22 | 18 | 26,5 | **2000 867 464** |





2000 867 203


2000 867 352

## Machine tap

HSS-Co · Shape B · **Type VA · Nitrated and steam-tempered** · Blue ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For rust-, acid-, and heat-resistant steels >850 N/mm² in strength

**Stainless steel**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 203 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 16 | 16 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 Nitrated and steam-tempered** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 203** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 204** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 205** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 206** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 208** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 210** |
| **DIN 376 Nitrated and steam-tempered** | | | | | | | |
| **M12** | 1,75 | 110 | 22 | 9 | 7 | 10,2 | **2000 867 352** |
| **M14** | 2 | 110 | 24 | 11 | 9 | 12 | **2000 867 354** |
| **M16** | 2 | 110 | 24 | 12 | 9 | 14 | **2000 867 356** |
| **M18** | 2,5 | 125 | 30 | 14 | 11 | 15,5 | **2000 867 358** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 360** |
| **M22** | 2,5 | 140 | 30 | 18 | 14.5 | 19,5 | **2000 867 526** |
| **M24** | 3 | 160 | 36 | 18 | 21 | 21 | **2000 867 527** |
| **M30** | 3,5 | 180 | 40 | 22 | 26.5 | 26,5 | **2000 867 529** |



2000 867 516



2000 867 427




## Machine tap

HSS-Co · Shape B · **Type VA · TiCN-coated** · Blue ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For rust-, acid-, and heat-resistant steels up to 1,000 N/mm² in strength

**Stainless steel**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 516 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 16 | 16 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiCN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 516** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 517** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 518** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 519** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 520** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 521** |
| **DIN 376 TiCN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 22 | 9 | 7 | 10,2 | **2000 867 427** |
| **M14** | 2 | 110 | 24 | 11 | 9 | 12 | **2000 867 428** |
| **M16** | 2 | 110 | 24 | 12 | 9 | 14 | **2000 867 429** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 431** |



2000 867 213



2000 867 362




## Machine tap

HSS-Co · Shape B · **Type H** · Red ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steels **over 1,000 N/mm²** in strength that are difficult to machine

**High-strength steels**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 213 - Vc (m/min) | | | 10 | 8 | | | 18 | 14 | | | | 3 | | | |
| Cooling | | | Emulsion/oil | Emulsion/oil | | | Emulsion/oil | Emulsion/oil | | | | Emulsion/oil | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 213** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 214** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 215** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 216** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 218** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 220** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 22 | 9 | 7 | 10,2 | **2000 867 362** |
| **M14** | 2 | 110 | 24 | 11 | 9 | 12 | **2000 867 364** |
| **M16** | 2 | 110 | 24 | 12 | 9 | 14 | **2000 867 366** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 370** |





2000 867 223


2000 867 372



## Machine tap

HSS-Co · Shape B · **Type AL** · Yellow ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For long-chipping, soft materials




**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 223 - Vc (m/min) | | | | | | | | | 25 | 20 | 12 | | | | |
| Cooling | | | | | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 223** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 224** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 225** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 226** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 228** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 230** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 22 | 9 | 7 | 10,2 | **2000 867 372** |
| **M14** | 2 | 110 | 24 | 11 | 9 | 12 | **2000 867 374** |
| **M16** | 2 | 110 | 24 | 12 | 9 | 14 | **2000 867 376** |
| **M20** | 2,5 | 140 | 30 | 16 | 12 | 17,5 | **2000 867 380** |



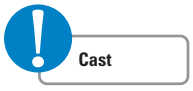


2000 867 421


2000 867 540

## Machine tap

HSS-Co · Form C · **Type GG · TiCN-coated** · White ring · Straight-fluted · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **6HX · For through-hole and blind-hole threads** · For grey cast iron, graphite castings, malleable cast iron




**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 421 - Vc (m/min) | | | | | | | 20 | 16 | | 24 | 16 | | | | |
| Cooling | | | | | | | Emulsion/ oil | Emulsion/ oil | | Emulsion/ oil | Emulsion/ oil | | | | |

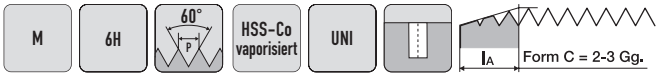
| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiCN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 5 | 3.5 | 2.7 | 2,5 | **2000 867 421** |
| **M4** | 0,7 | 63 | 7 | 4.5 | 3.4 | 3,3 | **2000 867 422** |
| **M5** | 0,8 | 70 | 8 | 6 | 4.9 | 4,2 | **2000 867 423** |
| **M6** | 1 | 80 | 10 | 6 | 4.9 | 5 | **2000 867 424** |
| **M8** | 1,25 | 90 | 13 | 8 | 6.2 | 6,8 | **2000 867 425** |
| **M10** | 1,5 | 100 | 15 | 10 | 8 | 8,5 | **2000 867 426** |
| **DIN 376 TiCN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 28 | 9 | 7 | 10,2 | **2000 867 540** |
| **M14** | 2 | 110 | 30 | 11 | 9 | 12 | **2000 867 541** |
| **M16** | 2 | 110 | 32 | 12 | 9 | 14 | **2000 867 542** |



2000 867 687



2000 867 693




## Machine tap

HSS-Co · Form C · **Type UNIVERSAL · Steam-tempered** · Green ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 687 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/ oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 Steam-tempered** | | | | | | | |
| **M3** | 0,5 | 56 | 7 | 3.5 | 2.7 | 2,5 | **2000 867 687** |
| **M4** | 0,7 | 63 | 8,5 | 4.5 | 3.4 | 3,3 | **2000 867 688** |
| **M5** | 0,8 | 70 | 10 | 6 | 4.9 | 4,2 | **2000 867 689** |
| **M6** | 1 | 80 | 13 | 6 | 4.9 | 5 | **2000 867 690** |
| **M8** | 1,25 | 90 | 15 | 8 | 6.2 | 6,8 | **2000 867 691** |
| **M10** | 1,5 | 100 | 18 | 10 | 8 | 8,5 | **2000 867 692** |
| **DIN 376 Steam-tempered** | | | | | | | |
| **M12** | 1,75 | 110 | 19 | 9 | 7 | 10,2 | **2000 867 693** |
| **M16** | 2 | 110 | 20 | 12 | 9 | 14 | **2000 867 694** |
| **M20** | 2,5 | 140 | 25 | 16 | 12 | 17,5 | **2000 867 695** |

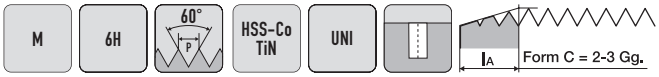
For more information, see page 44



2000 867 705



2000 867 711




## Machine tap

HSS-Co · Form C · **Type UNIVERSAL · TiN-coated** · Green ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

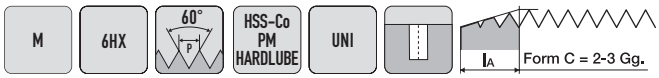
**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 705 - Vc (m/min) | 20 | 15 | | | 6 | | | 10 | 25 | | | | | | |
| Cooling | Emulsion/oil | Emulsion/oil | | | Emulsion/oil | | | Emulsion/oil | Emulsion/oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 7 | 3.5 | 2.7 | 2,5 | **2000 867 705** |
| **M4** | 0,7 | 63 | 8,5 | 4.5 | 3.4 | 3,3 | **2000 867 706** |
| **M5** | 0,8 | 70 | 10 | 6 | 4.9 | 4,2 | **2000 867 707** |
| **M6** | 1 | 80 | 13 | 6 | 4.9 | 5 | **2000 867 708** |
| **M8** | 1,25 | 90 | 15 | 8 | 6.2 | 6,8 | **2000 867 709** |
| **M10** | 1,5 | 100 | 18 | 10 | 8 | 8,5 | **2000 867 710** |
| **DIN 376 TiN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 19 | 9 | 7 | 10,2 | **2000 867 711** |
| **M16** | 2 | 110 | 20 | 12 | 9 | 14 | **2000 867 712** |
| **M20** | 2,5 | 140 | 25 | 16 | 12 | 17,5 | **2000 867 713** |

For more information, see page 44





2000 867 989


2000 867 997



## Machine tap

**HSS-Co PM** · Form C · **Type UNIVERSAL** · **HARDLUBE coated** · **With 40° right twist** · Optimised edge rounding and cutting geometry · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **6HX** · **For blind hole threads** · For universal use in steel, stainless steel, aluminium and copper alloys and cast materials

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 989 - Vc (m/min) | 23 | 12 | 8 | | 8 | 8 | 20 | | 28 | 24 | 16 | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | Emulsion/ oil | Emulsion/oil | Emulsion/ oil | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M2** | 0,4 | 45 | 8 | 2.8 | 2.1 | 1,6 | **2000 867 989** |
| **M2,5** | 0,45 | 50 | 9 | 2.8 | 2.1 | 2,05 | **2000 867 990** |
| **M3** | 0,5 | 56 | 5 | 3.5 | 2.7 | 2,5 | **2000 867 991** |
| **M4** | 0,7 | 63 | 7 | 4.5 | 3.4 | 3,3 | **2000 867 992** |
| **M5** | 0,8 | 70 | 8 | 6 | 4.9 | 4,2 | **2000 867 993** |
| **M6** | 1 | 80 | 10 | 6 | 4.9 | 5 | **2000 867 994** |
| **M8** | 1,25 | 90 | 13 | 8 | 6.2 | 6,8 | **2000 867 995** |
| **M10** | 1,5 | 100 | 15 | 10 | 8 | 8,5 | **2000 867 996** |
| **DIN 376 HARDLUBE coated** | | | | | | | |
| **M12** | 1,75 | 110 | 18 | 9 | 7 | 10,2 | **2000 867 997** |
| **M16** | 2 | 110 | 20 | 12 | 9 | 14 | **2000 867 998** |
| **M20** | 2,5 | 140 | 25 | 16 | 12 | 17,5 | **2000 867 999** |





2000 867 263


2000 867 382

## Machine tap

HSS-Co · Form C · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steels up to approx. 900 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 263 - Vc (m/min) | 10 | 7 | | | | | | | 20 | 16 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 263** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 264** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 265** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 266** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 268** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 270** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 382** |
| **M14** | 2 | 110 | 26 | 11 | 9 | 12 | **2000 867 384** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 386** |
| **M18** | 2,5 | 125 | 30 | 14 | 11 | 15,5 | **2000 867 388** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 390** |
| **M22** | 2,5 | 140 | 32 | 16 | 14.5 | 19,5 | **2000 867 393** |
| **M24** | 3 | 140 | 34 | 18 | 14.5 | 21 | **2000 867 395** |
| **M27** | 3 | 160 | 30 | 20 | 16 | 24 | **2000 867 391** |
| **M30** | 3,5 | 180 | 35 | 22 | 18 | 26,5 | **2000 867 392** |



2000 867 311



2000 867 317




## Machine tap

HSS-Co · Form C · **TiN-coated** · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steels up to 1000 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 311 - Vc (m/min) | 13 | 11 | | | | | | | | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 5 | 3.5 | 2.7 | 2,5 | **2000 867 311** |
| **M4** | 0,7 | 63 | 7 | 4.5 | 3.4 | 3,3 | **2000 867 312** |
| **M5** | 0,8 | 70 | 8 | 6 | 4.9 | 4,2 | **2000 867 313** |
| **M6** | 1 | 80 | 10 | 6 | 4.9 | 5 | **2000 867 314** |
| **M8** | 1,25 | 90 | 13 | 8 | 6.2 | 6,8 | **2000 867 315** |
| **M10** | 1,5 | 100 | 15 | 10 | 8 | 8,5 | **2000 867 316** |
| **DIN 376 TiN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 18 | 9 | 7 | 10,2 | **2000 867 317** |
| **M14** | 2 | 110 | 20 | 11 | 9 | 12 | **2000 867 318** |
| **M16** | 2 | 110 | 20 | 12 | 9 | 14 | **2000 867 319** |
| **M18** | 2,5 | 125 | 25 | 14 | 11 | 15,5 | **2000 867 320** |
| **M20** | 2,5 | 140 | 25 | 16 | 12 | 17,5 | **2000 867 321** |
| **M22** | 2,5 | 140 | 25 | 18 | 14.5 | 19 | **2000 867 896** |
| **M24** | 3 | 160 | 30 | 18 | 14.5 | 21 | **2000 867 897** |
| **M27** | 3 | 160 | 30 | 20 | 16 | 24 | **2000 867 898** |
| **M30** | 3,5 | 180 | 35 | 22 | 18 | 26,5 | **2000 867 899** |



2000 867 273



2000 867 412




## Machine tap

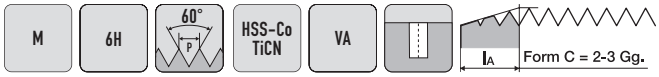
HSS-Co · Form C · **Type VA** · **Nitrated and steam-tempered** · Blue ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For rust-, acid-, and heat-resistant steels > 850 N/mm² in strength




**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 273 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 12 | 10 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 Nitrated and steam-tempered** | | | | | | | |
| **M3** | 0,5 | 56 | 6,5 | 3.5 | 2.7 | 2,5 | **2000 867 273** |
| **M4** | 0,7 | 63 | 8,5 | 4.5 | 3.4 | 3,3 | **2000 867 274** |
| **M5** | 0,8 | 70 | 9,5 | 6 | 4.9 | 4,2 | **2000 867 275** |
| **M6** | 1 | 80 | 11 | 6 | 4.9 | 5 | **2000 867 276** |
| **M8** | 1,25 | 90 | 13,5 | 8 | 6.2 | 6,8 | **2000 867 278** |
| **M10** | 1,5 | 100 | 16 | 10 | 8 | 8,5 | **2000 867 280** |
| **DIN 376 Nitrated and steam-tempered** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 412** |
| **M14** | 2 | 110 | 26 | 11 | 9 | 12 | **2000 867 414** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 416** |
| **M18** | 2,5 | 125 | 30 | 14 | 11 | 15,5 | **2000 867 418** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 420** |
| **M22** | 2,5 | 140 | 25 | 18 | 14.5 | 19,5 | **2000 867 561** |
| **M24** | 3 | 160 | 30 | 18 | 14.5 | 21 | **2000 867 562** |
| **M27** | 3 | 160 | 30 | 20 | 16 | 24 | **2000 867 563** |
| **M30** | 3,5 | 180 | 35 | 22 | 18 | 26,5 | **2000 867 564** |





2000 867 774


2000 867 396



## Machine tap

HSS-Co · Form C · **Type VA · TiCN-coated** · Blue ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For rust-, acid-, and heat-resistant steels up to 1,000 N/mm² in strength

**Stainless steel**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 774 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 12 | 10 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371 TiCN-coated** | | | | | | | |
| **M3** | 0,5 | 56 | 6,5 | 3.5 | 2.7 | 2,5 | **2000 867 774** |
| **M4** | 0,7 | 63 | 8,5 | 4.5 | 3.4 | 3,3 | **2000 867 775** |
| **M5** | 0,8 | 70 | 9,5 | 6 | 4.9 | 4,2 | **2000 867 776** |
| **M6** | 1 | 80 | 11 | 6 | 4.9 | 5 | **2000 867 777** |
| **M8** | 1,25 | 90 | 13,5 | 8 | 6.2 | 6,8 | **2000 867 778** |
| **M10** | 1,5 | 100 | 16 | 10 | 8 | 8,5 | **2000 867 779** |
| **DIN 376 TiCN-coated** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 396** |
| **M14** | 2 | 110 | 26 | 11 | 9 | 12 | **2000 867 397** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 398** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 400** |





2000 867 283


2000 867 432

## Machine tap

HSS-Co · Form C · **Type H** · Red ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steels over 1,000 N/mm² in strength that are difficult to machine

**High-strength steels**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 283 - Vc (m/min) | | | 8 | 7 | | | | | | | | | | | |
| Cooling | | | Emulsion/oil | Emulsion/oil | | | | | | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 6,5 | 3.5 | 2.7 | 2,5 | **2000 867 283** |
| **M4** | 0,7 | 63 | 8,5 | 4.5 | 3.4 | 3,3 | **2000 867 284** |
| **M5** | 0,8 | 70 | 9,5 | 6 | 4.9 | 4,2 | **2000 867 285** |
| **M6** | 1 | 80 | 11 | 6 | 4.9 | 5 | **2000 867 286** |
| **M8** | 1,25 | 90 | 13,5 | 8 | 6.2 | 6,8 | **2000 867 288** |
| **M10** | 1,5 | 100 | 16 | 10 | 8 | 8,5 | **2000 867 290** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 432** |
| **M14** | 2 | 110 | 26 | 11 | 9 | 12 | **2000 867 434** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 436** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 440** |



2000 867 293



2000 867 452




## Machine tap

HSS-Co · Form C · **Type AL** · Yellow ring · **With 45° right twist** · Flanks relief-ground · **Metric ISO thread** · DIN 13 Sheet 1 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For long-chipping, soft materials

**Non-ferrous metals**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 293 - Vc (m/min) | | | | | | | | | 22 | 18 | 10 | | | | |
| Cooling | | | | | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | |

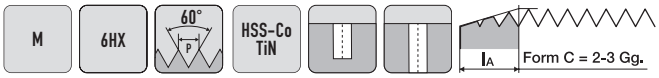
| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 371** | | | | | | | |
| **M3** | 0,5 | 56 | 10 | 3.5 | 2.7 | 2,5 | **2000 867 293** |
| **M4** | 0,7 | 63 | 12 | 4.5 | 3.4 | 3,3 | **2000 867 294** |
| **M5** | 0,8 | 70 | 14 | 6 | 4.9 | 4,2 | **2000 867 295** |
| **M6** | 1 | 80 | 16 | 6 | 4.9 | 5 | **2000 867 296** |
| **M8** | 1,25 | 90 | 18 | 8 | 6.2 | 6,8 | **2000 867 298** |
| **M10** | 1,5 | 100 | 20 | 10 | 8 | 8,5 | **2000 867 299** |
| **DIN 376** | | | | | | | |
| **M12** | 1,75 | 110 | 24 | 9 | 7 | 10,2 | **2000 867 452** |
| **M14** | 2 | 110 | 26 | 11 | 9 | 12 | **2000 867 454** |
| **M16** | 2 | 110 | 27 | 12 | 9 | 14 | **2000 867 456** |
| **M20** | 2,5 | 140 | 32 | 16 | 12 | 17,5 | **2000 867 460** |



2000 867 610



2000 867 616



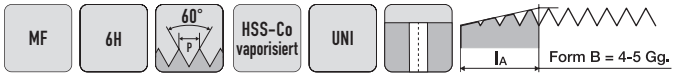

## Thread former

HSS-Co · Form C · **TiN-coated** · Straight-fluted · Flanks relief-ground · **Metric ISO medium thread** · Tolerance range **6HX** · **For through-hole and blind-hole threads** · In materials such as non-ferrous metals and steels with at least 10 % breaking strain

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 610 - Vc (m/min) | 25 | 15 | | | | | | | 25 | | 20 | 6 | 2 | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | | | Emulsion/ oil | | Emulsion/ oil | Oil | Oil | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 2174 (DIN 371) TiN-coated - No lubrication grooves** | | | | | | | |
| **M3** | 0,5 | 56 | 11 | 3.5 | 2.7 | 2,8 | **2000 867 610** |
| **M4** | 0,7 | 63 | 13 | 4.5 | 3.4 | 3,7 | **2000 867 611** |
| **M5** | 0,8 | 70 | 16 | 6 | 4.9 | 4,65 | **2000 867 612** |
| **M6** | 1 | 80 | 19 | 6 | 4.9 | 5,55 | **2000 867 613** |
| **M8** | 1,25 | 90 | 22 | 8 | 6.2 | 7,4 | **2000 867 614** |
| **M10** | 1,5 | 100 | 24 | 10 | 8 | 9,3 | **2000 867 615** |
| **DIN 2174 (DIN 371) TiN-coated - With lubrication grooves** | | | | | | | |
| **M3** | 0,5 | 56 | 11 | 3.5 | 2.7 | 2,8 | **2000 867 616** |
| **M4** | 0,7 | 63 | 13 | 4.5 | 3.4 | 3,7 | **2000 867 617** |
| **M5** | 0,8 | 70 | 16 | 6 | 4.9 | 4,65 | **2000 867 618** |
| **M6** | 1 | 80 | 19 | 6 | 4.9 | 5,55 | **2000 867 619** |
| **M8** | 1,25 | 90 | 22 | 8 | 6.2 | 7,4 | **2000 867 620** |
| **M10** | 1,5 | 100 | 24 | 10 | 8 | 9,3 | **2000 867 621** |






For universal use!

## Machine tap

HSS-Co · Shape B · **Type UNIVERSAL · Steam-tempered** · Green ring · Straight-fluted · Flanks relief-ground · **Metric ISO fine thread MF** · DIN 13 · Tolerance range **ISO2 (6H)** · **With spiral point for through-hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 650 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/ oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 374 Steam-tempered** | | | | | | | |
| **MF8** | 1 | 90 | 17 | 6 | 4.9 | 7 | **2000 867 650** |
| **MF10** | 1 | 90 | 18 | 7 | 5.5 | 9 | **2000 867 651** |
| **MF10** | 1,25 | 100 | 22 | 7 | 5.5 | 8,8 | **2000 867 652** |
| **MF12** | 1 | 100 | 18 | 9 | 7 | 11 | **2000 867 653** |
| **MF12** | 1,25 | 100 | 22 | 9 | 7 | 10,8 | **2000 867 654** |
| **MF12** | 1,5 | 100 | 22 | 9 | 7 | 10,5 | **2000 867 655** |
| **MF14** | 1,5 | 100 | 22 | 11 | 9 | 12,5 | **2000 867 656** |
| **MF16** | 1,5 | 100 | 22 | 12 | 9 | 14,5 | **2000 867 657** |

For more information, see page 44






## Machine tap

HSS-Co · Shape B · Straight-fluted · Flanks relief-ground · **Metric ISO fine thread MF** · DIN 13 · Tolerance range **6H** · **With spiral point for through-hole threads** · In steels up to approx. 1,000 N/mm² in strength, annealed cast iron, and long-chipping non-ferrous metals

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 219 - Vc (m/min) | 10 | 8 | | | | | 10 | 7 | 23 | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 374** | | | | | | | |
| **MF4** | 0,5 | 63 | 10 | 2.8 | 2.1 | 3,5 | **2000 867 219** |
| **MF5** | 0,5 | 70 | 12 | 3.5 | 2.7 | 4,5 | **2000 867 221** |
| **MF6** | 0,5 | 80 | 14 | 4.5 | 3.4 | 5,5 | **2000 867 222** |
| **MF6** | 0,75 | 80 | 14 | 4.5 | 3.4 | 5,2 | **2000 867 465** |
| **MF8** | 0,5 | 80 | 18 | 6 | 4.9 | 7,5 | **2000 867 227** |
| **MF8** | 0,75 | 80 | 18 | 6 | 4.9 | 7,2 | **2000 867 466** |
| **MF8** | 1 | 90 | 22 | 6 | 4.9 | 7 | **2000 867 467** |
| **MF10** | 0,75 | 90 | 20 | 7 | 5.5 | 9,2 | **2000 867 229** |
| **MF10** | 1 | 90 | 20 | 7 | 5.5 | 9 | **2000 867 468** |
| **MF10** | 1,25 | 100 | 24 | 7 | 5.5 | 8,8 | **2000 867 469** |
| **MF12** | 1 | 100 | 22 | 9 | 7 | 11 | **2000 867 470** |
| **MF12** | 1,25 | 100 | 22 | 9 | 7 | 10,8 | **2000 867 471** |
| **MF12** | 1,5 | 100 | 22 | 9 | 7 | 10,5 | **2000 867 472** |
| **MF14** | 1 | 100 | 22 | 11 | 9 | 13 | **2000 867 231** |
| **MF14** | 1,5 | 100 | 22 | 11 | 9 | 12,5 | **2000 867 473** |
| **MF16** | 1 | 100 | 22 | 12 | 9 | 15 | **2000 867 232** |
| **MF16** | 1,5 | 100 | 22 | 12 | 9 | 14,5 | **2000 867 474** |
| **MF18** | 1,5 | 110 | 25 | 14 | 11 | 16,5 | **2000 867 475** |
| **MF18** | 2 | 125 | 30 | 14 | 11 | 16 | **2000 867 237** |
| **MF20** | 1 | 125 | 25 | 16 | 12 | 19 | **2000 867 239** |
| **MF20** | 1,5 | 125 | 25 | 16 | 12 | 18,5 | **2000 867 476** |
| **MF20** | 2 | 140 | 34 | 16 | 12 | 18 | **2000 867 241** |
| **MF22** | 1,5 | 125 | 25 | 18 | 14.5 | 20,5 | **2000 867 477** |
| **MF22** | 2 | 140 | 34 | 18 | 14.5 | 20 | **2000 867 242** |
| **MF24** | 1,5 | 140 | 28 | 18 | 14.5 | 22,5 | **2000 867 478** |
| **MF24** | 2 | 140 | 28 | 18 | 14.5 | 22 | **2000 867 269** |
| **MF26** | 1,5 | 140 | 28 | 18 | 14.5 | 24,5 | **2000 867 271** |
| **MF27** | 1,5 | 140 | 28 | 20 | 16 | 25,5 | **2000 867 272** |
| **MF27** | 2 | 140 | 28 | 20 | 16 | 25 | **2000 867 277** |
| **MF28** | 1,5 | 140 | 28 | 20 | 16 | 26,5 | **2000 867 279** |
| **MF30** | 1,5 | 150 | 28 | 22 | 18 | 28,5 | **2000 867 281** |
| **MF30** | 2 | 150 | 28 | 22 | 18 | 28 | **2000 867 282** |
| **MF32** | 1,5 | 150 | 28 | 22 | 18 | 30,5 | **2000 867 287** |
| **MF36** | 1,5 | 170 | 30 | 28 | 22 | 34,5 | **2000 867 289** |



MF | 6H | 60° P | HSS-Co vaporisiert | UNI | $l_A$ Form C = 2-3 Gg.

## Machine tap

HSS-Co · Form C · **Type UNIVERSAL · Steam-tempered** · Green ring · **With 40° right twist** · Flanks relief-ground · **Metric ISO fine thread MF** · DIN 13 · Tolerance range **ISO2 (6H)** · **For blind hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**For universal use!**

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 921 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 374 Steam-tempered** | | | | | | | |
| **MF8** | 1 | 90 | 10 | 6 | 4.9 | 7 | **2000 867 921** |
| **MF10** | 1 | 90 | 10 | 7 | 5.5 | 9 | **2000 867 922** |
| **MF10** | 1,25 | 100 | 16 | 7 | 5.5 | 8,8 | **2000 867 923** |
| **MF12** | 1 | 100 | 11 | 9 | 7 | 11 | **2000 867 924** |
| **MF12** | 1,25 | 100 | 15 | 9 | 7 | 10,8 | **2000 867 925** |
| **MF12** | 1,5 | 100 | 15 | 9 | 7 | 10,5 | **2000 867 926** |
| **MF14** | 1,5 | 100 | 15 | 11 | 9 | 12,5 | **2000 867 927** |
| **MF16** | 1,5 | 100 | 15 | 12 | 9 | 14,5 | **2000 867 928** |

For more information, see page 44



MF | 6H | 60° P | HSS-Co | $l_A$ Form C = 2-3 Gg.

## Machine tap

HSS-Co · Form C · **With 40° right twist** · Flanks relief-ground · **Metric ISO fine thread MF** · DIN 13 · Tolerance range **6H** · **For blind hole threads** · In steels up to approx. 1,000 N/mm² in strength, annealed cast iron, and long-chipping non-ferrous metals

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 508 - Vc (m/min) | 10 | 7 | | | | | 10 | 7 | 20 | 16 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 374** | | | | | | | |
| **MF4** | 0,5 | 63 | 6 | 2.8 | 2.1 | 3,5 | **2000 867 508** |
| **MF5** | 0,5 | 70 | 7 | 3.5 | 2.7 | 4,5 | **2000 867 509** |
| **MF6** | 0,5 | 80 | 8 | 4.5 | 3.4 | 5,5 | **2000 867 524** |
| **MF6** | 0,75 | 80 | 14 | 4.5 | 3.4 | 5,2 | **2000 867 480** |
| **MF8** | 0,75 | 80 | 18 | 6 | 4.9 | 7,2 | **2000 867 481** |
| **MF8** | 1 | 90 | 22 | 6 | 4.9 | 7 | **2000 867 482** |
| **MF10** | 1 | 90 | 20 | 7 | 5.5 | 9 | **2000 867 483** |
| **MF10** | 1,25 | 100 | 24 | 7 | 5.5 | 8,8 | **2000 867 484** |
| **MF12** | 1 | 100 | 14 | 9 | 7 | 11 | **2000 867 535** |
| **MF12** | 1,25 | 100 | 22 | 9 | 7 | 10,8 | **2000 867 485** |
| **MF12** | 1,5 | 100 | 22 | 9 | 7 | 10,5 | **2000 867 486** |
| **MF14** | 1,5 | 100 | 22 | 11 | 9 | 12,5 | **2000 867 487** |
| **MF16** | 1,5 | 100 | 22 | 12 | 9 | 14,5 | **2000 867 488** |
| **MF18** | 1,5 | 110 | 25 | 14 | 11 | 16,5 | **2000 867 489** |
| **MF20** | 1,5 | 125 | 25 | 16 | 12 | 18,5 | **2000 867 490** |
| **MF22** | 1,5 | 125 | 25 | 18 | 14.5 | 20,5 | **2000 867 491** |
| **MF24** | 1,5 | 140 | 28 | 18 | 14.5 | 22,5 | **2000 867 492** |
| **MF26** | 1,5 | 140 | 24 | 18 | 15.5 | 24,5 | **2000 867 551** |
| **MF27** | 1,5 | 140 | 24 | 20 | 16 | 25,5 | **2000 867 552** |
| **MF30** | 1,5 | 150 | 28 | 22 | 18 | 28,5 | **2000 867 557** |
| **MF30** | 2 | 150 | 28 | 22 | 18 | 28 | **2000 867 559** |






For universal use!

## Machine tap

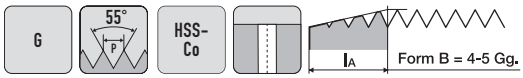
HSS-Co · Shape B · **Type UNIVERSAL · Steam-tempered** · Green ring · Straight-fluted · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **With spiral point for through-hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 941 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø ["] | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 5156 Steam-tempered** | | | | | | | |
| **G 1/8** | 28 | 90 | 20 | 7 | 5.5 | 8,7 | **2000 867 941** |
| **G 1/4** | 19 | 100 | 22 | 11 | 9 | 11,8 | **2000 867 942** |
| **G 3/8** | 19 | 100 | 22 | 12 | 9 | 15,25 | **2000 867 943** |
| **G 1/2** | 14 | 125 | 25 | 16 | 12 | 19 | **2000 867 944** |
| **G 3/4** | 14 | 140 | 28 | 20 | 16 | 24,5 | **2000 867 945** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 28,25 | **2000 867 946** |

For more information, see page 44






## Machine tap

HSS-Co · Shape B · Straight-fluted · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **For through-hole threads** · In steels up to approx. 1,000 N/mm² in strength and in annealed cast iron

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 500 - Vc (m/min) | 10 | 8 | | | | | 10 | 7 | 23 | 20 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø ["] DIN 5156 | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **G 1/8** | 28 | 90 | 20 | 7 | 5.5 | 8,8 | **2000 867 500** |
| **G 1/4** | 19 | 100 | 22 | 11 | 9 | 11,8 | **2000 867 501** |
| **G 3/8** | 19 | 100 | 22 | 12 | 9 | 15,2 | **2000 867 502** |
| **G 1/2** | 14 | 125 | 25 | 16 | 12 | 19 | **2000 867 503** |
| **G 3/4** | 14 | 140 | 28 | 20 | 16 | 24,5 | **2000 867 504** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 30,7 | **2000 867 505** |
| **G 1 1/4** | 11 | 170 | 30 | 32 | 24 | 39,5 | **2000 867 506** |
| **G 1 1/2** | 11 | 190 | 32 | 36 | 29 | 45 | **2000 867 507** |






Stainless steel

## Machine tap

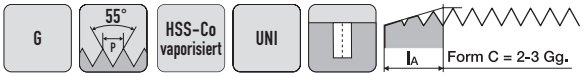
HSS-Co · Shape B · **Type VA · Nitrated and steam-tempered** · Blue ring · Straight-fluted · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **For through-hole threads** · For steels that are difficult to machine, e.g. rust-, acid-, and heat-resistant steels > 850 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 493 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 16 | 16 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø ["] | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 5156 Nitrated and steam-tempered** | | | | | | | |
| **G 1/8** | 28 | 90 | 20 | 7 | 5.5 | 8,8 | **2000 867 493** |
| **G 1/4** | 19 | 100 | 21 | 11 | 9 | 11,8 | **2000 867 494** |
| **G 3/8** | 19 | 100 | 21 | 12 | 9 | 15,25 | **2000 867 495** |
| **G 1/2** | 14 | 125 | 24 | 16 | 12 | 19 | **2000 867 496** |
| **G 5/8** | 14 | 125 | 24 | 18 | 14.5 | 21 | **2000 867 497** |
| **G 3/4** | 14 | 140 | 26 | 20 | 16 | 24,5 | **2000 867 498** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 30,75 | **2000 867 499** |






For universal use!

## Machine tap

HSS-Co · Form C · **Type UNIVERSAL · Steam-tempered** · Green ring · **With 40° right twist** · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **For blind hole threads** · For steel, rust-free steel, spheroidal cast iron and non-ferrous metals

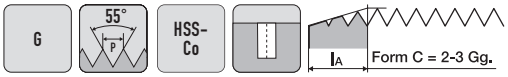
**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 953 - Vc (m/min) | 12 | 10 | | | 4 | | | 6 | 20 | | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | Emulsion/ oil | | | Emulsion/oil | Emulsion/ oil | | | | | | |

| Nominal thread Ø ["] | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 5156 Steam-tempered** | | | | | | | |
| **G 1/8** | 28 | 90 | 20 | 7 | 5.5 | 8,7 | **2000 867 953** |
| **G 1/4** | 19 | 100 | 22 | 11 | 9 | 11,8 | **2000 867 954** |
| **G 3/8** | 19 | 100 | 22 | 12 | 9 | 15,25 | **2000 867 955** |
| **G 1/2** | 14 | 125 | 25 | 16 | 12 | 19 | **2000 867 956** |
| **G 3/4** | 14 | 140 | 28 | 20 | 16 | 24,5 | **2000 867 957** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 28,25 | **2000 867 958** |

For more information, see page 44






## Machine tap

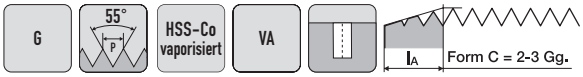
HSS-Co · Form C · **With 40° right twist** · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **For blind hole threads** · In steels up to approx. 1,000 N/mm² in strength and in annealed cast iron

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 510 - Vc (m/min) | 10 | 7 | | | | | 10 | 7 | 20 | 16 | | | | | |
| Cooling | Emulsion/ oil | Emulsion/ oil | | | | | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | Emulsion/ oil | | | | | |

| Nominal thread Ø ["] | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 5156** | | | | | | | |
| **G 1/8** | 28 | 90 | 20 | 7 | 5.5 | 8,8 | **2000 867 510** |
| **G 1/4** | 19 | 100 | 22 | 11 | 9 | 11,8 | **2000 867 511** |
| **G 3/8** | 19 | 100 | 22 | 12 | 9 | 15,2 | **2000 867 512** |
| **G 1/2** | 14 | 125 | 25 | 16 | 12 | 19 | **2000 867 513** |
| **G 3/4** | 14 | 140 | 28 | 20 | 16 | 24,5 | **2000 867 514** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 30,7 | **2000 867 515** |






Stainless steel

## Machine tap

HSS-Co · Form C · **Type VA · Nitrated and steam-tempered** · Blue ring · **With 40° right twist** · Flanks relief-ground · **Whitworth pipe thread G** · In accordance with DIN ISO 228 · **For blind hole threads** · For steels that are difficult to machine, e.g. rust-, acid-, and heat-resistant steels > 850 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 566 - Vc (m/min) | 16 | 14 | 5 | | 5 | 5 | 16 | 10 | 20 | 16 | 16 | 5 | 3 | | |
| Cooling | Emulsion | Emulsion | Oil | | Oil | Oil | Emulsion | Emulsion | Emulsion | Emulsion | Emulsion | Oil | Oil | | |

| Nominal thread Ø ["] | Gg/1" | Overall L [mm] | Thread L [mm] | Shank Ø [mm] | Square [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DIN 5156 Nitrated and steam-tempered** | | | | | | | |
| **G 1/8** | 28 | 90 | 12 | 7 | 5.5 | 8,8 | **2000 867 566** |
| **G 1/4** | 19 | 100 | 16 | 11 | 9 | 11,8 | **2000 867 567** |
| **G 3/8** | 19 | 100 | 16 | 12 | 9 | 15,25 | **2000 867 568** |
| **G 1/2** | 14 | 125 | 20 | 16 | 12 | 19 | **2000 867 569** |
| **G 5/8** | 14 | 125 | 20 | 18 | 14.5 | 21 | **2000 867 570** |
| **G 3/4** | 14 | 140 | 22 | 20 | 16 | 24,5 | **2000 867 571** |
| **G 1** | 11 | 160 | 30 | 25 | 20 | 30,75 | **2000 867 572** |

M

## Thread repair assortment

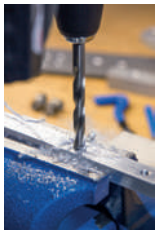
For repairs, maintenance and thread reinforcement

**Scope of supply:**

HSS-G tap, 1 each of sizes: M5, M6, M8, M10, M12
HSS twist drill, 1 each Ø 5.2 mm, 6.3 mm, 8.3 mm, 10.4 mm, 12.4 mm
Manual installation tool and pin breaker, 1 each of sizes: 8, 9, 11, 13, 15
25 pc. threaded inserts M5–M10, length 1.5xØ, in accordance with DIN 8140, continuous, made of stainless steel
10 pc. threaded inserts M12, length 1.5xØ, in accordance with DIN 8140, continuous, made of stainless steel

**In an impact-resistant and break-proof plastic case**





Step 1: Drill



Step 2: Cut thread



Step 3: Install threaded insert



Repaired thread= high capacity

| Dimensions | Size of set | Contents | Article no. |
|---|---|---|---|
| **M5–M12** | 1.5xØ | 130-part | **2000 867 715** |

HSS · M · 60° P · 6g



## Die

HSS · **DIN EN 22568** · Shape B · **Metric ISO thread DIN 13** · Tolerance range 6 g · For steels up to approx. 800 N/mm² in strength · Closed, pre-slit shape

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 733 - Vc (m/min) | X | X | | | | | | | | X | | | | | |
| Cooling | Oil | Oil | | | | | | | | Oil | | | | | |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| **M3** | 0,5 | 20 | 5 | **2000 867 733** |
| **M4** | 0,7 | 20 | 5 | **2000 867 734** |
| **M5** | 0,8 | 20 | 7 | **2000 867 735** |
| **M6** | 1 | 20 | 7 | **2000 867 736** |
| **M8** | 1,25 | 25 | 9 | **2000 867 738** |
| **M10** | 1,5 | 30 | 11 | **2000 867 740** |
| **M12** | 1,75 | 38 | 14 | **2000 867 742** |
| **M14** | 2 | 38 | 14 | **2000 867 744** |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| **M16** | 2 | 45 | 18 | **2000 867 746** |
| **M18** | 2,5 | 45 | 18 | **2000 867 748** |
| **M20** | 2,5 | 45 | 18 | **2000 867 750** |
| **M22** | 2,5 | 55 | 22 | **2000 867 752** |
| **M24** | 3 | 55 | 22 | **2000 867 754** |
| **M27** | 3 | 65 | 25 | **2000 867 737** |
| **M30** | 3,5 | 65 | 25 | **2000 867 739** |
| **M36** | 4 | 65 | 25 | **2000 867 743** |

HSS · M · 60° P · 6g



## Hexagonal die nut

HSS · **DIN 382** · **Metric ISO thread DIN 13** · Tolerance range 6 g · For steels up to approx. 800 N/mm² in strength

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 786 - Vc (m/min) | X | X | | | | | | | | X | | | | | |
| Cooling | Oil | Oil | | | | | | | | Oil | | | | | |

| Nominal thread Ø | Pitch [mm] | Width across flats [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| **M3** | 0,5 | 19 | 5 | **2000 867 786** |
| **M4** | 0,7 | 19 | 5 | **2000 867 787** |
| **M5** | 0,8 | 19 | 7 | **2000 867 788** |
| **M6** | 1 | 19 | 7 | **2000 867 789** |
| **M8** | 1,25 | 22 | 9 | **2000 867 790** |
| **M10** | 1,5 | 27 | 11 | **2000 867 791** |
| **M12** | 1,75 | 36 | 14 | **2000 867 792** |

| Nominal thread Ø | Pitch [mm] | Width across flats [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| **M14** | 2 | 36 | 14 | **2000 867 793** |
| **M16** | 2 | 41 | 18 | **2000 867 794** |
| **M18** | 2,5 | 41 | 18 | **2000 867 795** |
| **M20** | 2,5 | 41 | 18 | **2000 867 796** |
| **M22** | 2,5 | 50 | 22 | **2000 867 797** |
| **M24** | 3 | 50 | 22 | **2000 867 798** |



HSS-Co | M | 60° P | 6g | VA

## Die

HSS-Co · **DIN EN 22568** · Shape B · **Type VA** · **Metric ISO thread DIN 13** · Tolerance range 6 g · For difficult to machine materials · Rust-resistant, thermal-resistant and acid-resistant steels · Special alloys and steel up to 1,200 N/mm² in strength · Closed, pre-slit shape

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 840 - Vc (m/min) | X | X | X | | X | X | | | | | | | | | |
| Cooling | Oil | Oil | Oil | | Oil | Oil | | | | | | | | | |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| M3 | 0,5 | 20 | 5 | 2000 867 840 |
| M4 | 0,7 | 20 | 5 | 2000 867 841 |
| M5 | 0,8 | 20 | 7 | 2000 867 842 |
| M6 | 1 | 20 | 7 | 2000 867 843 |
| M8 | 1,25 | 25 | 9 | 2000 867 844 |
| M10 | 1,5 | 30 | 11 | 2000 867 845 |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| M12 | 1,75 | 38 | 14 | 2000 867 846 |
| M14 | 2 | 38 | 14 | 2000 867 847 |
| M16 | 2 | 45 | 18 | 2000 867 848 |
| M18 | 2,5 | 45 | 18 | 2000 867 849 |
| M20 | 2,5 | 45 | 18 | 2000 867 850 |



HSS | M | 60° P | 6g | LH

## Die

HSS · **DIN EN 22568** · Shape B · **Left-hand cutting** · **Metric ISO thread DIN 13** · Tolerance range 6 g · For steels up to approx. 800 N/mm² in strength · Closed, pre-slit shape

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 441 - Vc (m/min) | X | X | | | | | | | | X | | | | | |
| Cooling | Oil | Oil | | | | | | | | Oil | | | | | |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| M3 | 0,5 | 20 | 5 | 2000 867 441 |
| M4 | 0,7 | 20 | 5 | 2000 867 442 |
| M5 | 0,8 | 20 | 7 | 2000 867 443 |
| M6 | 1 | 20 | 7 | 2000 867 444 |
| M8 | 1,25 | 25 | 9 | 2000 867 445 |
| M10 | 1,5 | 30 | 11 | 2000 867 446 |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| M12 | 1,75 | 38 | 14 | 2000 867 447 |
| M14 | 2 | 38 | 14 | 2000 867 448 |
| M16 | 2 | 45 | 18 | 2000 867 449 |
| M18 | 2,5 | 45 | 18 | 2000 867 450 |
| M20 | 2,5 | 45 | 18 | 2000 867 451 |



HSS | MF | 60° P | 6g

## Die

HSS · **DIN EN 22568** · Shape B · **Metric ISO fine thread DIN 13 MF** · Tolerance range 6 g · For steels up to approx. 800 N/mm² in strength · Closed, pre-slit shape

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 760 - Vc (m/min) | X | X | | | | | | | | X | | | | | |
| Cooling | Oil | Oil | | | | | | | | Oil | | | | | |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| MF6 | 0,75 | 20 | 7 | 2000 867 760 |
| MF8 | 0,75 | 25 | 9 | 2000 867 761 |
| MF8 | 1 | 25 | 9 | 2000 867 762 |
| MF10 | 1 | 30 | 11 | 2000 867 763 |
| MF10 | 1,25 | 30 | 11 | 2000 867 764 |
| MF12 | 1 | 38 | 10 | 2000 867 765 |
| MF12 | 1,25 | 38 | 10 | 2000 867 766 |

| Nominal thread Ø | Pitch [mm] | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| MF12 | 1,5 | 38 | 10 | 2000 867 767 |
| MF14 | 1,5 | 38 | 10 | 2000 867 768 |
| MF16 | 1,5 | 45 | 14 | 2000 867 769 |
| MF18 | 1,5 | 45 | 14 | 2000 867 770 |
| MF20 | 1,5 | 45 | 14 | 2000 867 771 |
| MF22 | 1,5 | 55 | 16 | 2000 867 772 |
| MF24 | 1,5 | 55 | 16 | 2000 867 773 |

HSS | G | 55° P | A



## Die

HSS · **DIN EN 24231** · Shape B · **Whitworth pipe thread G according to DIN ISO 228** · Tolerance range A · For steels up to approx. 800 N/mm² in strength · Closed, pre-slit shape

**Recommended use**

| Material | Steel N/mm² | | | | Rust-free steel | | Cast | | Non-ferrous metals | | | Super alloy | | Hardened steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tensile strength | <500 | <800 | <1200 (<HRC38) | <1600 (<HRC48) | <800 | <1200 | GG | GGG | Al wrought alloy | Al Si<10 % | Cu,Ms | Ti/Ni/Co <900 | 900–1500 | HRC 48–57 | HRC 58–63 |
| 2000 867 780 - Vc (m/min) | X | X | | | | | | | | X | | | | | |
| Cooling | Oil | Oil | | | | | | | | Oil | | | | | |

| Nominal thread Ø [“] | Gg/1“ | External Ø [mm] | Height [mm] | Article no. |
|---|---|---|---|---|
| G 1/8 | 28 | 30 | 11 | 2000 867 780 |
| G 1/4 | 19 | 38 | 10 | 2000 867 781 |
| G 3/8 | 19 | 45 | 14 | 2000 867 782 |
| G 1/2 | 14 | 45 | 14 | 2000 867 783 |
| G 3/4 | 14 | 55 | 16 | 2000 867 784 |
| G 1 | 11 | 65 | 18 | 2000 867 785 |

## Thread crown

Tools for removing broken taps · The damaged tool is removed by turning in the direction opposite to the thread

**Type 3 - for taps with 3 grooves**



| Size [“] | Article no. |
|---|---|
| Size 0 for M3 or 4/32 | 2000 867 800 |
| Size 1 for M4 or 5/32 | 2000 867 801 |
| Size 2 for M5 or 3/16 | 2000 867 802 |
| Size 3 for M6 or 1/4 | 2000 867 803 |
| Size 4 for M8 or 5/16 | 2000 867 804 |
| Size 5 for M10 or 3/8 | 2000 867 805 |
| Size 6 for M12 or 1/2 | 2000 867 806 |
| Size 7 for M14 or 9/16 | 2000 867 807 |
| Size 8 for M16 or 5/8 | 2000 867 808 |
| Size 9 for M20 or 3/4 | 2000 867 809 |

VHM TiN | Werks-norm



## Tap destroying tool

**Solid carbide · TiN-coated** · With straight shank · Self-centring · Straight-fluted · For drilling bored HSS and HSS-Co taps · Revolution speed 1500–3500 rpm

Operating instruc-tions

| Thread | Core hole Ø [mm] | Shank Ø [mm] | Overall L [mm] | Chip groove L [mm] | No. of teeth | Article no. TiN-coated |
|---|---|---|---|---|---|---|
| M4 | 3,3 | 6 | 50 | 15 | 3 | 2000 867 716 |
| M5 | 4,2 | 6 | 50 | 15 | 3 | 2000 867 717 |
| M6 | 5 | 6 | 50 | 15 | 3 | 2000 867 718 |
| M8 | 6,8 | 8 | 60 | 20 | 3 | 2000 867 719 |
| M10 | 8,5 | 10 | 70 | 25 | 3 | 2000 867 720 |
| M12 | 10,2 | 12 | 75 | 30 | 3 | 2000 867 721 |
| M16 | 14 | 14 | 100 | 40 | 3 | 2000 867 723 |
| M20 | 17,5 | 18 | 100 | 50 | 3 | 2000 867 725 |

M



## Thread file

For reworking and cleaning external and internal threads · Length 230 mm

| Pitch [mm] For metric thread | Article no. |
|---|---|
| 0,80 - 1,00 - 1,25 - 1,50 - 1,75 - 2,00 - 2,50 - 3,00 | 2000 867 838 |

G



## Thread file

For reworking and cleaning external and internal threads · Length 230 mm

| Gg/1“ For inch threads (G-BSW) | Article no. |
|---|---|
| 24 - 20 - 18 - 16 - 14 - 12 - 11 - 10 | 2000 867 839 |

## Tap wrench

**Adjustable · DIN 1814** · With a screw-in handle to mount taps and reamers, with hardened clamping jaws





| Size | For DIN 10 square [mm] | For M | For BSW ["] | For G ["] | Overall L [mm] | Article no. |
|---|---|---|---|---|---|---|
| **Material: Die-cast zinc** | | | | | | |
| **0** | 2,0 - 5,0 | 1 - 8 | 1/16 - 1/4 | - | 125 | **2000 867 860** |
| **1** | 2,0 - 6,3 | 1 - 10 | 1/16 - 3/8 | - 1/8 | 180 | **2000 867 861** |
| **1 1/2** | 2,1 - 8,0 | 1 - 12 | 1/16 - 1/2 | - 1/8 | 200 | **2000 867 862** |
| **2** | 3,0 - 7,0 | 3,5 - 12 | 5/32 - 1/2 | - 1/8 | 280 | **2000 867 863** |
| **3** | 4,9 - 12,0 | 5 - 20 | 7/32 - 3/4 | 1/8 - 1/2 | 375 | **2000 867 864** |
| **4** | 5,5 - 16,0 | 9 - 27 | 3/8 - 1 | 1/4 - 3/4 | 500 | **2000 867 865** |
| **5** | 7,0 - 20,0 | 12 - 32 | 1/2 - 1 1/4 | 1/4 - 1 | 750 | **2000 867 866** |
| **Material: Steel** | | | | | | |
| **0** | 2,0 - 5,0 | 1 - 8 | 1/16 - 1/4 | - | 125 | **2000 867 853** |
| **1** | 2,0 - 6,3 | 1 - 10 | 1/16 - 3/8 | - 1/8 | 180 | **2000 867 854** |
| **1 1/2** | 2,1 - 8,0 | 1 - 12 | 1/16 - 1/2 | - 1/8 | 200 | **2000 867 855** |
| **2** | 3,0 - 7,0 | 3,5 - 12 | 5/32 - 1/2 | - 1/8 | 280 | **2000 867 856** |
| **3** | 4,9 - 12,0 | 5 - 20 | 7/32 - 3/4 | 1/8 - 1/2 | 375 | **2000 867 857** |
| **4** | 5,5 - 16,0 | 9 - 27 | 3/8 - 1 | 1/4 - 3/4 | 500 | **2000 867 858** |
| **5** | 7,0 - 20,0 | 12 - 32 | 1/2 - 1 1/4 | 1/4 - 1 | 750 | **2000 867 859** |
| **6** | 11,0 - 24,0 | 18 - 42 | 9/16 - 1 5/8 | 1/2 - 1 1/4 | 1000 | **2000 867 868** |

## Tool holder

**With ratchet** · For right and left-handed operation as well as for rigid use · For clamping taps and reamers with square shank · With two-jaw chuck and sliding T-handle



Short type



Long type

| Size | Clamping range | Clamping range G/BSW ["] | Square [mm] | Overall L [mm] | Article no. |
|---|---|---|---|---|---|
| **Type: Short** | | | | | |
| **1** | M3–M10 | 1/8–3/8 | 2.4–5.5 | 85 | **2000 867 890** |
| **2** | M5–M12 | 3/16–1/2 | 4.9–7.0 | 100 | **2000 867 891** |
| **Type: Long** | | | | | |
| **3** | M3–M10 | 1/8–3/8 | 2.4–5.5 | 250 | **2000 867 892** |
| **4** | M5–M12 | 3/16–1/2 | 4.9–7.0 | 300 | **2000 867 893** |

## Die holder

**DIN 225** · With screws and a screw-in handle for mounting closed and slitted dies





| Ø [mm] | Height [mm] | For M | For MF | For BSW ["] | For G ["] | Overall L [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Material: Die-cast zinc** | | | | | | | |
| **16** | 5 | M1 - 2,6 | MF2 - 2,5 | 1/16 - 3/32 | - | 160 | **2000 867 870** |
| **20** | 5 | M3 - 4 | MF3 - 6 | 1/8 - 5/32 | - | 200 | **2000 867 871** |
| **20** | 7 | M4,5 - 6 | MF5 - 6 | 3/16 - 1/4 | - | 200 | **2000 867 872** |
| **25** | 9 | M7 - 9 | MF7 - 9 | 5/16 | - | 220 | **2000 867 873** |
| **30** | 11 | M10 - 11 | MF10 - 11 | 3/8 - 7/16 | 1/8 | 270 | **2000 867 874** |
| **38** | 10 | - | MF12 - 14 | 1/8 - 1/4 | 1/4 | 315 | **2000 867 875** |
| **38** | 14 | M12 - 14 | - | 1/2 - 9/16 | - | 315 | **2000 867 876** |
| **45** | 14 | - | MF16 - 20 | 3/8 - 1/2 | 3/8 - 1/2 | 450 | **2000 867 877** |
| **45** | 18 | M16 - 20 | - | 5/8 - 3/4 | - | 450 | **2000 867 878** |
| **55** | 16 | - | MF22 - 24 | 5/8 - 3/4 | 5/8 - 3/4 | 495 | **2000 867 879** |
| **55** | 22 | M22 - 24 | - | 7/8 - 1 | - | 560 | **2000 867 880** |
| **65** | 18 | - | MF26 - 35 | 7/8 - 1 | 7/8 - 1 | 620 | **2000 867 881** |
| **65** | 25 | M27 - 36 | - | 1 1/8 - 1 3/8 | - | 630 | **2000 867 882** |
| **Material: Steel** | | | | | | | |
| **75** | 30 | M39 - 42 | - | 1 1/2 - 1 5/8 | - | 800 | **2000 867 884** |
| **90** | 36 | M45 - 52 | - | 1 3/4 - 2 | - | 900 | **2000 867 886** |
| **105** | 22 | M55 - 62 | - | - | 1 3/4 - 2 | 1000 | **2000 867 888** |



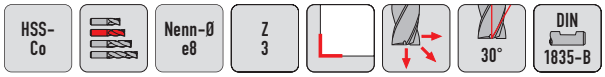
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Tool extension

**DIN 377** · For hand taps and hand reamers · Galvanised · Square according to DIN 10 and ISO



| Square [mm] | For M | For BSW ["] | For G ["] | Overall L [mm] | Article no. |
|---|---|---|---|---|---|
| **2.1** | M1-2,6 | 1/16 - 3/32 | - | 60 | **2000 867 900** |
| **2.7** | M3 | 1/8 | - | 80 | **2000 867 902** |
| **3** | M3,5 | - | - | 90 | **2000 867 903** |
| **3.4** | M4 | 5/32 | - | 95 | **2000 867 904** |
| **3.8** | - | - | - | 100 | **2000 867 905** |
| **4.3** | - | - | - | 105 | **2000 867 906** |
| **4.9** | M4,5-8 | 3/16 - 5/16 | - | 110 | **2000 867 907** |
| **5.5** | M9-10 | 3/8 | 1/8 | 115 | **2000 867 908** |
| **6.2** | M11 | 7/16 | - | 120 | **2000 867 909** |
| **7** | M12 | 1/2 | - | 125 | **2000 867 910** |
| **8** | - | - | - | 125 | **2000 867 911** |
| **9** | M13-16 | 9/16 - 5/8 | 1/4 - 3/8 | 130 | **2000 867 912** |
| **10** | - | - | - | 140 | **2000 867 913** |
| **11** | M18 | 11/16 - 3/4 | - | 150 | **2000 867 914** |
| **12** | M20 | - | 1/2 | 155 | **2000 867 915** |
| **14.5** | M22-24 | 7/8 - 15/16 | 5/8 | 175 | **2000 867 917** |
| **16** | M27 | 1 | 3/4 | 180 | **2000 867 918** |
| **18** | M30 | 1 1/8 | 7/8 | 200 | **2000 867 919** |





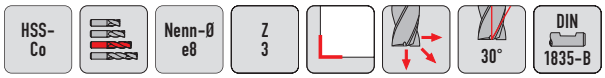

## Mini spiral flute router bit

HSS-Co8 · Three-flute cutter · **Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm²

**Cutting values, see table 1 on page 78**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Shank Ø [mm] | No. of cutters | Article no. Uncoated |
|---|---|---|---|---|---|
| **2** | 4 | 35 | 6 | 3 | **2000 866 000** |
| **2.5** | 5 | 36 | 6 | 3 | **2000 866 002** |
| **3** | 5 | 36 | 6 | 3 | **2000 866 004** |
| **4** | 7 | 38 | 6 | 3 | **2000 866 008** |
| **5** | 8 | 39 | 6 | 3 | **2000 866 012** |
| **6** | 8 | 39 | 6 | 3 | **2000 866 016** |






## Mini spiral flute router bit

HSS-Co8 · Three-flute cutter · **Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm²

**Cutting values, see table 1 on page 78**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Shank Ø [mm] | No. of cutters | Article no. Uncoated |
|---|---|---|---|---|---|
| **2** | 7 | 38 | 6 | 3 | **2000 866 040** |
| **2.5** | 8 | 39 | 6 | 3 | **2000 866 042** |
| **3** | 8 | 39 | 6 | 3 | **2000 866 044** |
| **4** | 11 | 42 | 6 | 3 | **2000 866 048** |
| **5** | 13 | 44 | 6 | 3 | **2000 866 052** |
| **6** | 13 | 44 | 6 | 3 | **2000 866 056** |



HSS-Co TiCN | DIN 327D | Typ N | Nenn-Ø e8 | Z 2 | 30° | DIN 1835-B

## Drill groove milling cutter

HSS-Co8 · TiCN-coated · **DIN 327 D** · Type N · **Two-flute cutter · Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 1000 N/mm² · For milling narrow and form-fitting clearances as well as feather key grooves with greater depth

**Cutting values, see table 2 on page 78, (< Ø 4 mm see table 1 on page 78)**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiCN-coated | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|
| **2** | 4 | 48 | 4 | 6 | - | 2 | **2000 866 104** |
| **3** | 5 | 49 | 5 | 6 | - | 2 | **2000 866 106** |
| **4** | 7 | 51 | 7 | 6 | - | 2 | **2000 866 108** |
| **5** | 8 | 52 | 8 | 6 | - | 2 | **2000 866 110** |
| **6** | 8 | 52 | 14 | 6 | 5,5 | 2 | **2000 866 112** |
| **8** | 11 | 61 | 17 | 10 | 7,5 | 2 | **2000 866 114** |
| **10** | 13 | 63 | 21 | 10 | 9,5 | 2 | **2000 866 116** |
| **12** | 16 | 73 | 26 | 12 | 11,5 | 2 | **2000 866 118** |
| **14** | 16 | 73 | 26 | 12 | 11,5 | 2 | **2000 866 120** |
| **16** | 19 | 79 | 29 | 16 | 15 | 2 | **2000 866 122** |
| **18** | 19 | 79 | 29 | 16 | 15 | 2 | **2000 866 124** |
| **20** | 22 | 88 | 36 | 20 | 19 | 2 | **2000 866 126** |



HSS-Co TiCN | Typ N | Nenn-Ø e8 | Z 2 | 30° | DIN 1835-B

## Drill groove milling cutter

HSS-Co8 · TiCN-coated · Type N · **Two-flute cutter · Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 1000 N/mm²

**Cutting values, see table 2 on page 78, (< Ø 4 mm see table 1 on page 78)**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiCN-coated | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|
| **3** | 8 | 56 | 13 | 6 | 2,9 | 2 | **2000 866 152** |
| **4** | 11 | 63 | 21 | 6 | 3,9 | 2 | **2000 866 154** |
| **5** | 13 | 68 | 27 | 6 | 4,9 | 2 | **2000 866 156** |
| **6** | 13 | 68 | 30 | 6 | 5,35 | 2 | **2000 866 158** |
| **8** | 19 | 88 | 44 | 10 | 7,35 | 2 | **2000 866 160** |
| **10** | 22 | 95 | 53 | 10 | 9,35 | 2 | **2000 866 162** |
| **12** | 26 | 110 | 63 | 12 | 11,5 | 2 | **2000 866 164** |



2000 866 176



2000 866 200

HSS-Co | HSS-Co TiCN | DIN 327 | Typ N | Nenn-Ø e8 | Z 3 | 30° | DIN 1835-B

## Drill groove milling cutter

HSS-Co8 · **DIN 327** · Type N · **Three-flute cutter · Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm², with uncoated tool and 1,000 N/mm² with coated tool · For milling feather key grooves with greater depth for face and circumferential milling

**Cutting values, see table 5 on page 79**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |
| TiCN-coated | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 5 | 49 | 5 | 6 | - | 3 | **2000 866 176** | **2000 866 200** |
| **4** | 7 | 51 | 7 | 6 | - | 3 | **2000 866 178** | **2000 866 202** |
| **5** | 8 | 52 | 8 | 6 | - | 3 | **2000 866 180** | **2000 866 204** |
| **6** | 8 | 52 | 14 | 6 | 5,5 | 3 | **2000 866 182** | **2000 866 206** |
| **8** | 11 | 61 | 17 | 10 | 7,5 | 3 | **2000 866 184** | **2000 866 208** |
| **10** | 13 | 63 | 21 | 10 | 9,5 | 3 | **2000 866 186** | **2000 866 210** |
| **12** | 16 | 73 | 26 | 12 | 11,5 | 3 | **2000 866 188** | **2000 866 212** |
| **14** | 16 | 73 | 26 | 12 | 11,5 | 3 | **2000 866 190** | **2000 866 214** |
| **16** | 19 | 79 | 29 | 16 | 15 | 3 | **2000 866 192** | **2000 866 216** |
| **18** | 19 | 79 | 29 | 16 | 15 | 3 | **2000 866 194** | **2000 866 218** |
| **20** | 22 | 88 | 36 | 20 | 19 | 3 | **2000 866 196** | **2000 866 220** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request

You will find the explanation of the symbols before the index.





2000 866 222


2000 866 244



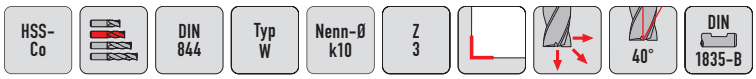
## Drill groove milling cutter

HSS-Co8 · **DIN 844** · Type N · **Three-flute cutter** · **Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm², with uncoated tool and 1,000 N/mm² with coated tool · Nominal Ø 9, 11, 13, 15 mm = tolerance h10, rest = e8

**Cutting values, see table 5 on page 79**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |
| TiCN-coated | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 8 | 52 | 8 | 6 | - | 3 | **2000 866 222** | **2000 866 244** |
| **4** | 11 | 55 | 11 | 6 | - | 3 | **2000 866 224** | **2000 866 246** |
| **5** | 13 | 57 | 13 | 6 | - | 3 | **2000 866 226** | **2000 866 248** |
| **6** | 13 | 57 | 19 | 6 | 5,5 | 3 | **2000 866 228** | **2000 866 250** |
| **7** | 16 | 66 | 22 | 10 | 6,5 | 3 | **-** | **2000 866 021** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 3 | **2000 866 230** | **2000 866 252** |
| **9** | 19 | 69 | 26 | 10 | 8,5 | 3 | **-** | **2000 866 023** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 3 | **2000 866 232** | **2000 866 254** |
| **11** | 22 | 79 | 30 | 12 | 10,5 | 3 | **-** | **2000 866 025** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 3 | **2000 866 234** | **2000 866 256** |
| **13** | 26 | 83 | 36 | 12 | 11,5 | 3 | **-** | **2000 866 027** |
| **14** | 26 | 83 | 36 | 12 | 11,5 | 3 | **2000 866 236** | **2000 866 258** |
| **15** | 26 | 83 | 36 | 12 | 11,5 | 3 | **-** | **2000 866 029** |
| **16** | 32 | 92 | 42 | 16 | 15 | 3 | **2000 866 238** | **2000 866 260** |
| **18** | 32 | 92 | 42 | 16 | 15 | 3 | **2000 866 240** | **2000 866 262** |
| **20** | 38 | 104 | 52 | 20 | 19 | 3 | **2000 866 242** | **2000 866 264** |





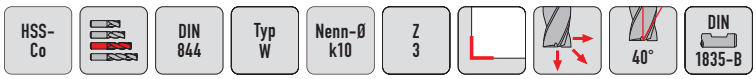

## Drill groove milling cutter

HSS-Co8 · **DIN 844** · **Type W** · **Three-flute cutter** · **Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · **40° angle of twist** · For machining long-chipping **aluminium and non-ferrous metals**

**Cutting values, see table 6 on page 79**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | | | | ● | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated |
|---|---|---|---|---|---|---|---|
| **2** | 7 | 51 | 7 | 6 | - | 3 | **2000 866 270** |
| **3** | 8 | 52 | 8 | 6 | - | 3 | **2000 866 272** |
| **4** | 11 | 55 | 11 | 6 | - | 3 | **2000 866 274** |
| **5** | 13 | 57 | 13 | 6 | - | 3 | **2000 866 276** |
| **6** | 13 | 57 | 19 | 6 | 5,5 | 3 | **2000 866 278** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 3 | **2000 866 280** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 3 | **2000 866 282** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 3 | **2000 866 284** |
| **14** | 26 | 83 | 36 | 12 | 11,5 | 3 | **2000 866 286** |
| **16** | 32 | 92 | 42 | 16 | 15 | 3 | **2000 866 288** |
| **18** | 32 | 92 | 42 | 16 | 15 | 3 | **2000 866 290** |
| **20** | 38 | 104 | 52 | 20 | 19 | 3 | **2000 866 292** |






## Drill groove milling cutter

HSS-Co8 · **DIN 844** · **Type W** · **Three-flute cutter** · **Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · **40° angle of twist** · For machining long-chipping **aluminium and non-ferrous metals**

**Cutting values, see table 6 on page 79**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | | | | ● | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated |
|---|---|---|---|---|---|---|---|
| **3** | 12 | 56 | 12 | 6 | - | 3 | **2000 866 294** |
| **4** | 19 | 63 | 19 | 6 | - | 3 | **2000 866 296** |
| **5** | 24 | 68 | 24 | 6 | - | 3 | **2000 866 298** |
| **6** | 24 | 68 | 30 | 6 | 5,5 | 3 | **2000 866 300** |
| **8** | 38 | 88 | 44 | 10 | 7,5 | 3 | **2000 866 302** |
| **10** | 45 | 95 | 53 | 10 | 9,5 | 3 | **2000 866 304** |
| **12** | 53 | 110 | 63 | 12 | 11,5 | 3 | **2000 866 306** |
| **14** | 53 | 110 | 63 | 12 | 11,5 | 3 | **2000 866 308** |
| **16** | 63 | 123 | 73 | 16 | 15 | 3 | **2000 866 310** |
| **20** | 75 | 141 | 89 | 20 | 19 | 3 | **2000 866 314** |



2000 866 320

HSS-Co | HSS-Co TiCN | DIN 844 | Typ N | Nenn-Ø k10 | Z 4 | 30° | DIN 1835-B



2000 866 344

## End mill

HSS-Co8 · **DIN 844** · **Type N** · **Four-tipped core drill** · **Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm², with uncoated tool and 1,000 N/mm² with coated tool

**Cutting values, see table 7 on page 80**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **Uncoated** | ● | ○ | ● | ○ | | | |
| **TiCN-coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **2** | 7 | 51 | 7 | 6 | - | 4 | **2000 866 320** | **2000 866 344** |
| **3** | 8 | 52 | 8 | 6 | - | 4 | **2000 866 322** | **2000 866 346** |
| **4** | 11 | 55 | 11 | 6 | - | 4 | **2000 866 324** | **2000 866 348** |
| **5** | 13 | 57 | 13 | 6 | - | 4 | **2000 866 326** | **2000 866 350** |
| **6** | 13 | 57 | 19 | 6 | 5,5 | 4 | **2000 866 328** | **2000 866 352** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 4 | **2000 866 330** | **2000 866 354** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 4 | **2000 866 332** | **2000 866 356** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 334** | **2000 866 358** |
| **14** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 336** | **2000 866 360** |
| **16** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 338** | **2000 866 362** |
| **18** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 340** | **2000 866 364** |
| **20** | 38 | 104 | 52 | 20 | 19 | 4 | **2000 866 342** | **2000 866 366** |



PM ALCRONA | DIN 844 | Typ N | INOX | Nenn-Ø k10 | Z 4 | 30° | DIN 1835-B

## End mil

**HSS-Co PM** · ALCRONA coated · **DIN 844** · **Type N** · Four-tipped core drill · **Short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 1,000 N/mm² · **Vibration reduction by unequally divided cutters** · **Improved tool stiffness by conical chip groove base**

**Cutting values, see table 8 on page 80**

**Powder metal**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **ALCRONA coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. ALCRONA coated |
|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 19 | 6 | 5,5 | 4 | **2000 866 031** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 4 | **2000 866 033** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 4 | **2000 866 035** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 036** |
| **16** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 037** |
| **20** | 38 | 104 | 52 | 20 | 19 | 4 | **2000 866 038** |



2000 866 370

HSS-Co | HSS-Co TiCN | DIN 844 | Typ N | Nenn-Ø k10 | Z 4 | 30° | DIN 1835-B



2000 866 392

## End mill

HSS-Co8 · **DIN 844** · **Type N** · Four-tipped core drill · **Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm², with uncoated tool and 1200 N/mm² with coated tool

**Cutting values, see table 7 on page 80**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **Uncoated** | ● | ○ | ● | ○ | | | |
| **TiCN-coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 12 | 56 | 12 | 6 | - | 4 | **2000 866 370** | **2000 866 392** |
| **4** | 19 | 63 | 19 | 6 | - | 4 | **2000 866 372** | **2000 866 394** |
| **5** | 24 | 68 | 24 | 6 | - | 4 | **2000 866 374** | **2000 866 396** |
| **6** | 24 | 68 | 30 | 6 | 5,5 | 4 | **2000 866 376** | **2000 866 398** |
| **8** | 38 | 88 | 44 | 10 | 7,5 | 4 | **2000 866 378** | **2000 866 400** |
| **10** | 45 | 95 | 53 | 10 | 9,5 | 4 | **2000 866 380** | **2000 866 402** |
| **12** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 382** | **2000 866 404** |
| **14** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 384** | **2000 866 406** |
| **16** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 386** | **2000 866 408** |
| **18** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 388** | **2000 866 410** |
| **20** | 75 | 141 | 89 | 20 | 19 | 4 | **2000 866 390** | **2000 866 412** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

PM ALCRONA | DIN 844 | Typ N | INOX | Nenn-Ø k10 | Z 4 | 30° | DIN 1835-B



## End mill

**HSS-Co PM** · ALCRONA coated · **DIN 844** · **Type N** · Four-tipped core drill · **Long** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 1,000 N/mm² · **Vibration reduction by unequally divided cutters** · **Improved tool stiffness by conical chip groove base**
**Cutting values, see table 8 on page 80**

**Powder metal**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **ALCRONA coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. ALCRONA coated |
|---|---|---|---|---|---|---|---|
| **6** | 24 | 68 | 30 | 6 | 5,5 | 4 | **2000 866 041** |
| **8** | 38 | 88 | 44 | 10 | 7,5 | 4 | **2000 866 043** |
| **10** | 45 | 95 | 53 | 10 | 9,5 | 4 | **2000 866 045** |
| **12** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 047** |
| **16** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 049** |
| **20** | 75 | 141 | 89 | 20 | 19 | 4 | **2000 866 051** |

HSS-Co | HSS-Co TiCN | DIN 844 | Typ NR | Nenn-Ø k12 | Z 3-4 | 45° | 30° | DIN 1835-B



2000 866 463



2000 866 467

## End mill

HSS-Co5 · **DIN 844** · **Type NR** · Multiple cutter · **Short** · **45° protective chamfer** · Centre cut · **Relief ground knurl profile** · Straight shank with pulling face · Right-hand cutting · For milling low- and medium strength materials up to approx. 800 N/mm², with uncoated tool and 1,000 N/mm² with coated tool
**Cutting values, see table 10 on page 81**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **Uncoated** | ● | | ● | ○ | | | |
| **TiCN-coated** | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 19 | 6 | 5,5 | 3 | **2000 866 463** | **2000 866 467** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 3 | **2000 866 465** | **2000 866 469** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 4 | **2000 866 424** | **2000 866 440** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 426** | **2000 866 442** |
| **14** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 428** | **2000 866 444** |
| **16** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 430** | **2000 866 446** |
| **18** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 432** | **2000 866 448** |
| **20** | 38 | 104 | 52 | 20 | 19 | 4 | **2000 866 434** | **2000 866 450** |
| **25** | 45 | 121 | 63 | 25 | 24 | 4 | **-** | **2000 866 079** |

HSS-Co | HSS-Co TiCN | DIN 844 | Typ HR | Nenn-Ø k12 | Z 4 | 45° | 30° | DIN 1835-B



2000 866 490



2000 866 506

## End mill

HSS-Co5 · **DIN 844** · **Type HR** · Four-tipped core drill · **Short** · **45° protective chamfer** · Centre cut · **Relief ground fine knurl profile** · Straight shank with pulling face · Right-hand cutting · For the milling of materials with strength to approx. 800 N/mm² with uncoated tool and 1,200 N/mm² with coated tool
**Cutting values, see table 10 on page 81**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **Uncoated** | ● | | ● | ○ | | | |
| **TiCN-coated** | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 19 | 6 | 5,5 | 4 | **2000 866 490** | **2000 866 506** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 4 | **2000 866 492** | **2000 866 508** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 4 | **2000 866 494** | **2000 866 510** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 496** | **2000 866 512** |
| **14** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 498** | **2000 866 514** |
| **16** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 500** | **2000 866 516** |
| **18** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 502** | **2000 866 518** |
| **20** | 38 | 104 | 52 | 20 | 19 | 4 | **2000 866 504** | **2000 866 520** |
| **25** | 45 | 121 | 63 | 25 | 24 | 4 | **-** | **2000 866 083** |



PM ALCRONA · DIN 844 · Typ HR · INOX · Nenn-Ø k10 · Z 4 · 45° · 30° · DIN 1835-B

## End mill

**HSS-Co PM** · ALCRONA coated · **DIN 844** · **Type HR** · Four-tipped core drill · **Short** · **45° protective chamfer** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling materials with a strength up to approx. 1400 N/mm² · **Improved tool stiffness by conical chip groove base**

**Cutting values, see table 11 on page 81**

**Powder metal**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **ALCRONA coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. ALCRONA coated |
|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 19 | 6 | 5,5 | 4 | **2000 866 055** |
| **8** | 19 | 69 | 25 | 10 | 7,5 | 4 | **2000 866 057** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 4 | **2000 866 059** |
| **12** | 26 | 83 | 36 | 12 | 11,5 | 4 | **2000 866 061** |
| **16** | 32 | 92 | 42 | 16 | 15 | 4 | **2000 866 063** |
| **20** | 38 | 104 | 52 | 20 | 19 | 4 | **2000 866 065** |



HSS-Co TiCN · DIN 844 · Typ HR · Nenn-Ø k12 · Z 4 · 45° · 30° · DIN 1835-B

## End mill

HSS-Co5 · TiCN-coated · **DIN 844** · **Type HR** · Four-tipped core drill · **Long** · **45° protective chamfer** · Centre cut · **Relief ground fine knurl profile** · Straight shank with pulling face · Right-hand cutting · For milling materials with a strength up to approx. 1200 N/mm²

**Cutting values, see table 10 on page 81**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **TiCN-coated** | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|
| **6** | 24 | 68 | 30 | 6 | 5,5 | 4 | **2000 866 546** |
| **8** | 38 | 88 | 44 | 10 | 7,5 | 4 | **2000 866 548** |
| **10** | 45 | 95 | 53 | 10 | 9,5 | 4 | **2000 866 550** |
| **12** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 552** |
| **14** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 554** |
| **16** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 556** |
| **18** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 558** |
| **20** | 75 | 141 | 89 | 20 | 19 | 4 | **2000 866 560** |
| **25** | 90 | 166 | 108 | 25 | 24 | 4 | **2000 866 085** |



PM ALCRONA · DIN 844 · Typ HR · INOX · Nenn-Ø k10 · Z 4 · 45° · 30° · DIN 1835-B

## End mill

**HSS-Co PM** · ALCRONA coated · **DIN 844** · **Type HR** · Four-tipped core drill · **Long** · **45° protective chamfer** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling materials with a strength up to approx. 1400 N/mm² · **Improved tool stiffness by conical chip groove base**

**Cutting values, see table 11 on page 81**

**Powder metal**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **ALCRONA coated** | ● | ● | ● | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. ALCRONA coated |
|---|---|---|---|---|---|---|---|
| **6** | 24 | 68 | 30 | 6 | 5,5 | 4 | **2000 866 069** |
| **8** | 38 | 88 | 44 | 10 | 7,5 | 4 | **2000 866 071** |
| **10** | 45 | 95 | 53 | 10 | 9,5 | 4 | **2000 866 073** |
| **12** | 53 | 110 | 63 | 12 | 11,5 | 4 | **2000 866 075** |
| **16** | 63 | 123 | 73 | 16 | 15 | 4 | **2000 866 076** |
| **20** | 75 | 141 | 89 | 20 | 19 | 4 | **2000 866 077** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



## Full radius milling tool

HSS-Co8 · TiCN-coated · Factory standard · **Two-flute cutter** · **Extra-short** · Centre cut · Straight shank with pulling face · Right-hand cutting · For milling in materials up to approx. 1200 N/mm² in strength

**Cutting values, see table 12 on page 82**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiCN-coated | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Radius [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiCN-coated |
|---|---|---|---|---|---|---|---|---|
| **2** | 1 | 4 | 48 | 10 | 6 | - | 2 | **2000 866 594** |
| **4** | 2 | 7 | 51 | 13 | 6 | - | 2 | **2000 866 598** |
| **6** | 3 | 8 | 52 | 14 | 6 | 5,5 | 2 | **2000 866 602** |
| **8** | 4 | 11 | 61 | 17 | 10 | 7,5 | 2 | **2000 866 604** |
| **10** | 5 | 13 | 63 | 21 | 10 | 9,5 | 2 | **2000 866 606** |
| **12** | 6 | 16 | 73 | 26 | 12 | 11,5 | 2 | **2000 866 608** |
| **16** | 8 | 19 | 79 | 29 | 16 | 15 | 2 | **2000 866 612** |

## Shell end mill

HSS-Co5 · **DIN 1880** · **Type N** · With lengthwise and transverse grooves according to DIN 138 · Right-hand cutting · For milling structural steels, feed steels, and tempering steels as well as short-chipping non-ferrous metals

**Cutting values, see table 13 on page 82**



2000 866 620 2000 866 628

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |
| TiCN-coated | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Width [mm] | Bore Ø [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|
| **40** | 32 | 16 | 8 | **2000 866 620** | **2000 866 628** |
| **50** | 36 | 22 | 8 | **2000 866 622** | **2000 866 630** |
| **63** | 40 | 27 | 8 | **2000 866 624** | **2000 866 632** |
| **80** | 45 | 27 | 10 | **2000 866 626** | **2000 866 634** |

## Shell end mill

HSS-Co5 · **DIN 1880** · **Type NR** · Relief ground knurl profile · With lengthwise and transverse grooves according to DIN 138 · Right-hand cutting · For milling structural steels, feed steels, and tempering steels as well as short-chipping non-ferrous metals

**Cutting values, see table 13 on page 82**



2000 866 640 2000 866 648

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | | ● | ○ | | | |
| TiCN-coated | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Width [mm] | Bore Ø [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|
| **40** | 32 | 16 | 7 | **2000 866 640** | **2000 866 648** |
| **50** | 36 | 22 | 8 | **2000 866 642** | **2000 866 650** |
| **63** | 40 | 27 | 8 | **2000 866 644** | **2000 866 652** |
| **80** | 45 | 27 | 10 | **2000 866 646** | **2000 866 654** |

## Shell end mill

HSS-Co5 · **DIN 1880** · **Type HR** · Relief ground knurl profile · With lengthwise and transverse grooves according to DIN 138 · Right-hand cutting · For milling structural steels, feed steels, and tempering steels as well as short-chipping non-ferrous metals

**Cutting values, see table 13 on page 82**



2000 866 660 2000 866 668

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | ● | ○ | ● | ○ | | | |
| TiCN-coated | ● | ○ | ● | ○ | ○ | | |

| Nominal Ø [mm] | Width [mm] | Bore Ø [mm] | No. of cutters | Article no. Uncoated | Article no. TiCN-coated |
|---|---|---|---|---|---|
| **40** | 32 | 16 | 7 | **2000 866 660** | **2000 866 668** |
| **50** | 36 | 22 | 8 | **2000 866 662** | **2000 866 670** |
| **63** | 40 | 27 | 8 | **2000 866 664** | **2000 866 672** |
| **80** | 45 | 27 | 10 | **2000 866 666** | **2000 866 674** |



VHM TiAlN | Z 4 | DIN 6535-HA | Nenn-Ø h10 | Schaft Ø h6

## Forward/backward deburrer

Solid carbide · TiAlN-coated · Factory standard · Four-tipped core drill · **45° angle · Extra long** · Straight shank · For forward and backward deburring and chamfering

**Cutting values, see table 46 on page 85**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ● | ● | | | |

| Nominal Ø [mm] | Overall L [mm] | Free grinding [mm] | Shank Ø [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|
| **4** | 100 | 10 | 6 | 4 | **2000 866 611** |
| **6** | 100 | 15 | 6 | 4 | **2000 866 613** |
| **8** | 100 | - | 6 | 4 | **2000 866 615** |
| **10** | 100 | - | 6 | 4 | **2000 866 617** |
| **12** | 100 | - | 6 | 4 | **2000 866 618** |
| **16** | 100 | - | 10 | 4 | **2000 866 619** |



VHM TiAlN | 60° | 90° | 120° | Z 4-6 | DIN 6535-HB

## Deburring cutter

Solid carbide · Universal finest grain · TiAlN-coated · With straight shank in accordance with DIN 6535 HB · For chamfering and deburring

**Cutting values, see table 20 on page 83**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ● | ● | | | |

| Nominal Ø [mm] | Overall L [mm] | Shank Ø [mm] | No. of cutters | Article no. 60 ° TiAlN-coated | Article no. 90 ° TiAlN-coated | Article no. 120 ° TiAlN-coated |
|---|---|---|---|---|---|---|
| **4** | 54 | 4 | 4 | **2000 866 601** | **2000 866 635** | **2000 866 743** |
| **6** | 57 | 6 | 4 | **2000 866 603** | **2000 866 636** | **2000 866 745** |
| **8** | 63 | 8 | 5 | **2000 866 605** | **2000 866 637** | **2000 866 747** |
| **10** | 72 | 10 | 6 | **2000 866 607** | **2000 866 638** | **2000 866 749** |
| **12** | 83 | 12 | 6 | **2000 866 609** | **2000 866 639** | **2000 866 751** |



VHM | Werks-norm | Typ W | ALU | Nenn-Ø h10 | Z 1 | 25° | DIN 6535-HA | Schaft Ø h6

## Single-tooth mill

Solid carbide · Universal finest grain · Factory standard · **Type W · Long** · With straight shank in accordance with DIN 6535 HA · 25° angle of twist · Right-hand cutting · For the processing of thin-walled workpieces, such as e.g. Profiles of **non-ferrous metals and plastics,** for aluminium alloys with a silicon content to 7 %

**Cutting values, see table 37 on page 85**

**For profiles of non-ferrous metal / plastic, and other materials**

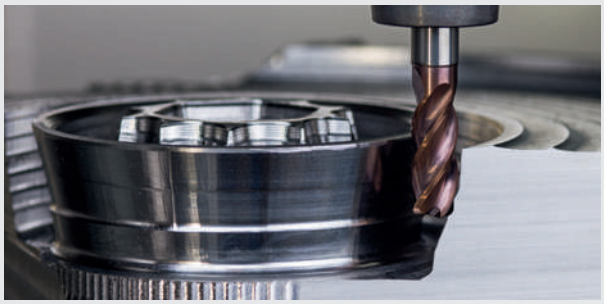
| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| Uncoated | | | | ● | | | |

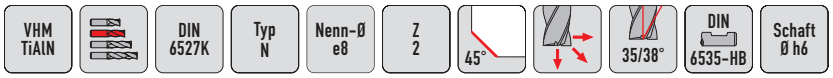
| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Shank Ø [mm] | No. of cutters | Article no. Uncoated |
|---|---|---|---|---|---|
| **3** | 12 | 40 | 3 | 1 | **2000 806 611** |
| **4** | 15 | 40 | 4 | 1 | **2000 806 612** |
| **5** | 16 | 50 | 5 | 1 | **2000 806 613** |
| **6** | 20 | 60 | 6 | 1 | **2000 806 614** |
| **8** | 22 | 63 | 8 | 1 | **2000 806 615** |
| **10** | 25 | 72 | 10 | 1 | **2000 806 616** |
| **12** | 30 | 83 | 12 | 1 | **2000 806 617** |

## Universal roughing/finishing cutter TECWERK from solid carbide

**Advantages:**
- Multi-functional high-performance tool
- Optimum alignment of geometry, carbide substrate and coating
- German brand product
- With innovative geometry for vibration-free processing
- Optimised insertion depth with released shank
- Suitable for roughing and finishing
- Universal milling tool, use with almost all materials

**Available in a diameter range of 3 – 20 mm**








### End mill

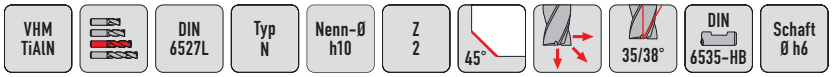
Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 K** · Type N · **Two-flute cutter · Short · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Dynamic pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 64 on page 86**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 4 | 50 | 7 | 6 | 2,9 | 0.07 | 2 | **2000 866 151** |
| **4** | 5 | 54 | 9 | 6 | 3,8 | 0.07 | 2 | **2000 866 153** |
| **5** | 6 | 54 | 11 | 6 | 4,8 | 0.12 | 2 | **2000 866 155** |
| **6** | 7 | 54 | 16 | 6 | 5,8 | 0.12 | 2 | **2000 866 157** |
| **8** | 9 | 58 | 20 | 8 | 7,7 | 0.12 | 2 | **2000 866 159** |
| **10** | 11 | 66 | 24 | 10 | 9,5 | 0.2 | 2 | **2000 866 161** |
| **12** | 12 | 73 | 26 | 12 | 11,5 | 0.2 | 2 | **2000 866 163** |
| **14** | 14 | 75 | 28 | 14 | 13,5 | 0.2 | 2 | **2000 866 165** |
| **16** | 16 | 82 | 32 | 16 | 15,5 | 0.2 | 2 | **2000 866 167** |
| **18** | 18 | 84 | 34 | 18 | 17,5 | 0.2 | 2 | **2000 866 169** |
| **20** | 20 | 92 | 40 | 20 | 19,5 | 0.3 | 2 | **2000 866 171** |

For more information, see page 71






### End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L** · Type N · **Two-flute cutter · Long · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Dynamic pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 64 on page 86**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 7 | 57 | 10 | 6 | 2,9 | 0.07 | 2 | **2000 866 193** |
| **4** | 8 | 57 | 12 | 6 | 3,8 | 0.07 | 2 | **2000 866 195** |
| **5** | 10 | 57 | 15 | 6 | 4,8 | 0.12 | 2 | **2000 866 197** |
| **6** | 10 | 57 | 20 | 6 | 5,8 | 0.12 | 2 | **2000 866 198** |
| **8** | 16 | 63 | 25 | 8 | 7,7 | 0.12 | 2 | **2000 866 199** |
| **10** | 19 | 72 | 30 | 10 | 9,5 | 0.2 | 2 | **2000 866 201** |
| **12** | 22 | 83 | 35 | 12 | 11,5 | 0.2 | 2 | **2000 866 203** |
| **16** | 26 | 92 | 40 | 16 | 15,5 | 0.2 | 2 | **2000 866 205** |
| **20** | 32 | 104 | 50 | 20 | 19,5 | 0.3 | 2 | **2000 866 207** |

For more information, see page 71



VHM Spezial | DIN 6527L | Typ W | ALU | Nenn-Ø h10 | Z 2–3 | 45° | 45° | 38/40° | DIN 6535-HB | Schaft Ø h6

## End mill

Solid carbide · Special coating · **DIN 6527 L · Type W** · Multiple cutter · **Long · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **45° angle of twist (Z.2) · 38/40° angle of twist (Z.3)** · Right-hand cutting · **Neck free grinding** · Suitable for roughing and smoothing aluminium, copper and other non-ferrous metals · The special coating prevents sticking of the cutters · Z.3 with uneven twist pitch for low-vibration operation and high quality of finish

**Cutting values, see table 15 on page 83**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **Special coating** | | | | ● | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. Special coating |
|---|---|---|---|---|---|---|---|---|
| **2** | 6 | 57 | 10 | 6 | 1,9 | 0.06 | 2 | **2000 806 561** |
| **3** | 7 | 57 | 14 | 6 | 2,9 | 0.1 | 2 | **2000 806 562** |
| **4** | 8 | 57 | 18 | 6 | 3,8 | 0.1 | 2 | **2000 806 563** |
| **6** | 13 | 57 | 20 | 6 | 5,8 | 0.125 | 3 | **2000 806 565** |
| **8** | 19 | 63 | 25 | 8 | 7,7 | 0.125 | 3 | **2000 806 566** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 0.2 | 3 | **2000 806 567** |
| **12** | 26 | 83 | 35 | 12 | 11,5 | 0.2 | 3 | **2000 806 568** |
| **16** | 32 | 92 | 40 | 16 | 15,5 | 0.2 | 3 | **2000 806 569** |
| **20** | 38 | 104 | 50 | 20 | 19,5 | 0.3 | 3 | **2000 806 570** |



VHM TiSiN | DIN 6527K | Typ N | Nenn-Ø h10 | Z 3 | 45° | DIN 6535-HA | Schaft Ø h6

## End mill

Solid carbide · **Mini**-end mill · TiSiN-coated · DIN 6527 K · Type N · **Three-flute cutter** · **Extra-short** · With straight shank in accordance with **DIN 6535 HA** · 45° angle of twist · Right-hand cutting · For universal use for milling in steel, cast iron, non-ferrous metals and more

**Cutting values, see table 116 on page 90**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **TiSiN-coated** | ● | ○ | ○ | ● | ○ | ○ | ○ |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | No. of cutters | Article no. TiSiN-coated |
|---|---|---|---|---|---|---|
| **1** | 3 | 50 | 3 | 4 | 3 | **2000 806 200** |
| **1.5** | 4 | 50 | 4 | 4 | 3 | **2000 806 201** |
| **2** | 6 | 50 | 6 | 4 | 3 | **2000 806 202** |
| **3** | 8 | 50 | 8 | 4 | 3 | **2000 806 203** |
| **4** | 11 | 50 | 11 | 4 | 3 | **2000 806 204** |



VHM TiSiN | DIN 6527K | Typ N | Nenn-Ø h10 | Z 3 | 45° | DIN 6535-HA | Schaft Ø h6

## End mill set

Solid carbide · **Mini**-end mill · TiSiN-coated · DIN 6527 K · Type N · **Three-flute cutter** · **Extra-short** · With straight shank in accordance with **DIN 6535 HA** · 45° angle of twist · Right-hand cutting · For universal use for milling in steel, cast iron, non-ferrous metals and more

**Contents**: 10 pc. each nominal Ø x cutting edge L x overall L x shank Ø
1.0 x 3 x 50 x 4 mm
1.5 x 4 x 50 x 4 mm
2.0 x 6 x 50 x 4 mm
3.0 x 8 x 50 x 4 mm
4.0 x 11 x 50 x 4 mm

**In professional box**

**Cutting values, see table 116 on page 90**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| **TiSiN-coated** | ● | ○ | ● | ● | ○ | ○ | ○ |

| Contents | Article no. |
|---|---|
| **TiSiN-coated** | |
| **50-part** | **2000 806 205** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

VHM TiAlN | DIN 6527K | Typ N | Nenn-Ø h10 | Z 3 | 45° | 34/36/38° | DIN 6535-HB | Schaft Ø h6



## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 K** · Type N · **Three-flute cutter · Short · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 65 on page 87**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 4 | 50 | 7 | 6 | 2,9 | 0.07 | 3 | **2000 866 233** |
| **4** | 5 | 54 | 9 | 6 | 3,8 | 0.07 | 3 | **2000 866 237** |
| **5** | 6 | 54 | 11 | 6 | 4,8 | 0.12 | 3 | **2000 866 241** |
| **6** | 7 | 54 | 16 | 6 | 5,8 | 0.12 | 3 | **2000 866 245** |
| **8** | 9 | 58 | 20 | 8 | 7,7 | 0.12 | 3 | **2000 866 247** |
| **10** | 11 | 66 | 24 | 10 | 9,5 | 0.2 | 3 | **2000 866 251** |
| **12** | 12 | 73 | 26 | 12 | 11,5 | 0.2 | 3 | **2000 866 255** |
| **16** | 16 | 82 | 32 | 16 | 15,5 | 0.2 | 3 | **2000 866 257** |
| **20** | 20 | 92 | 40 | 20 | 19,5 | 0.3 | 3 | **2000 866 259** |

For more information, see page 71

VHM TiAlN | DIN 6527L | Typ N | Nenn-Ø h10 | Z 3 | 45° | 34/36/38° | DIN 6535-HB | Schaft Ø h6



## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L** · Type N · **Three-flute cutter · Long · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 65 on page 87**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 7 | 57 | 10 | 6 | 2,9 | 0.07 | 3 | **2000 866 279** |
| **4** | 8 | 57 | 12 | 6 | 3,8 | 0.07 | 3 | **2000 866 281** |
| **5** | 10 | 57 | 15 | 6 | 4,8 | 0.12 | 3 | **2000 866 283** |
| **6** | 10 | 57 | 20 | 6 | 5,8 | 0.12 | 3 | **2000 866 285** |
| **8** | 16 | 63 | 25 | 8 | 7,7 | 0.12 | 3 | **2000 866 287** |
| **10** | 19 | 72 | 30 | 10 | 9,5 | 0.2 | 3 | **2000 866 289** |
| **12** | 22 | 83 | 35 | 12 | 11,5 | 0.2 | 3 | **2000 866 291** |
| **16** | 26 | 92 | 40 | 16 | 15,5 | 0.2 | 3 | **2000 866 293** |
| **20** | 32 | 104 | 50 | 20 | 19,5 | 0.3 | 3 | **2000 866 295** |

For more information, see page 71

VHM TiAlN | Werks-norm | Typ N | Nenn-Ø h10 | Z 4 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6 | HPC



## End mill

Solid carbide · Ultra-fine grain · TiAlN-coated · Factory standard · **Type N/HPC** · Four-tipped core drill · **Extra-short · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · Short, stable type and soft cut (10°) · Suitable for low-vibration processing, roughing, finishing and groove processing in steel up to 45 HRC, stainless steel, grey cast iron, copper, brass and aluminium.
Advantages: Thanks to proven HPC geometry with non-uniformity and TiAlN coating, it is universally applicable, for high quality of finish.

**Cutting values, see table 115 on page 90**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ● | ○ | | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Shank Ø [mm] | Protective chamfer [°] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|
| **4** | 6 | 40 | 6 | 0.2 | 4 | **2000 866 413** |
| **6** | 8 | 40 | 6 | 0.2 | 4 | **2000 866 414** |
| **8** | 12 | 50 | 8 | 0.2 | 4 | **2000 866 415** |
| **10** | 13 | 50 | 10 | 0.2 | 4 | **2000 866 416** |
| **12** | 15 | 55 | 12 | 0.2 | 4 | **2000 866 417** |



VHM TiAlN | Werks-norm | Typ N | Nenn-Ø h10 | Z 4 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6 | HPC

## End mill set

Solid carbide · Ultra-fine grain · TiAlN-coated · Factory standard · **Type N/HPC** · Four-tipped core drill · **Extra-short** · **45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · Short, stable type and soft cut (10°) · Suitable for low-vibration processing, roughing, finishing and groove processing in steel up to 45 HRC, stainless steel, grey cast iron, copper, brass and aluminium.
Advantages: Thanks to proven HPC geometry with non-uniformity and TiAlN coating, it is universally applicable, for high quality of finish.
Contents: 1 pc. each of Ø 4.0 - 6.0 - 8.0 - 10.0 - 12.0 mm
**In an impact-resistant and break-proof plastic case**
**Cutting values, see table 115 on page 90**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ● | ○ | | | |

| Contents | Article no. |
|---|---|
| TiAlN-coated | |
| 5-part | 2000 866 418 |



VHM TiAlN | DIN 6527K | Typ N | Nenn-Ø h10 | Z 4 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6 | HPC

## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 K · Type N/HPC · Four-tipped core drill · Short · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials
**Cutting values, see table 66 on page 88**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 5 | 50 | 9 | 6 | 2,9 | 0.07 | 4 | **2000 866 331** |
| **4** | 8 | 54 | 12 | 6 | 3,8 | 0.07 | 4 | **2000 866 333** |
| **5** | 9 | 54 | 16 | 6 | 4,8 | 0.07 | 4 | **2000 866 335** |
| **6** | 10 | 54 | 16 | 6 | 5,8 | 0.12 | 4 | **2000 866 484** |
| **8** | 12 | 58 | 20 | 8 | 7,7 | 0.12 | 4 | **2000 866 485** |
| **10** | 15 | 66 | 24 | 10 | 9,5 | 0.2 | 4 | **2000 866 486** |
| **12** | 18 | 73 | 26 | 12 | 11,5 | 0.2 | 4 | **2000 866 487** |
| **16** | 24 | 82 | 32 | 16 | 15,5 | 0.2 | 4 | **2000 866 488** |
| **18** | 27 | 84 | 34 | 18 | 17,5 | 0.2 | 4 | **2000 866 491** |
| **20** | 30 | 92 | 40 | 20 | 19,5 | 0.3 | 4 | **2000 866 489** |

For more information, see page 71



VHM TiAlN | DIN 6527L | Typ N | Nenn-Ø h10 | Z 4 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6 | HPC

## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L · Type N/HPC · Four-tipped core drill · Long · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials
**Cutting values, see table 66 on page 88**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 8 | 57 | 14 | 6 | 2,9 | 0.07 | 4 | **2000 866 521** |
| **4** | 11 | 57 | 18 | 6 | 3,8 | 0.07 | 4 | **2000 866 522** |
| **5** | 13 | 57 | 19 | 6 | 4,8 | 0.12 | 4 | **2000 866 523** |
| **6** | 13 | 57 | 20 | 6 | 5,8 | 0.12 | 4 | **2000 866 524** |
| **8** | 19 | 63 | 25 | 8 | 7,7 | 0.12 | 4 | **2000 866 525** |
| **10** | 22 | 72 | 30 | 10 | 9,5 | 0.2 | 4 | **2000 866 526** |
| **12** | 26 | 83 | 35 | 12 | 11,5 | 0.2 | 4 | **2000 866 527** |
| **14** | 26 | 83 | 35 | 14 | 13,5 | 0.2 | 4 | **2000 866 531** |
| **16** | 32 | 92 | 40 | 16 | 15,5 | 0.2 | 4 | **2000 866 528** |
| **18** | 32 | 100 | 50 | 18 | 17,5 | 0.2 | 4 | **2000 866 533** |
| **20** | 38 | 104 | 50 | 20 | 19,5 | 0.3 | 4 | **2000 866 529** |

For more information, see page 71

VHM TiAlN | DIN 6527L | Typ N | Nenn-Ø h10 | Z 4 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6 | HPC

## End mill set

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L** · **Type N/HPC** · **Four-tipped core drill** · **Long** · **45° protective chamfer** · **Centre cut** · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content and abrasive materials
Contents: 1 pc. each of 6.0–8.0–10.0–12.0–16.0 mm
**In plastic box**
**Cutting values, see table 66 on page 88**



**For universal use**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | ● | |

| Contents | Article no. |
|---|---|
| TiAlN-coated | |
| 5-part | 2000 866 361 |

For more information, see page 71

VHM TiAlN | DIN 6527L | Typ N | Nenn-Ø h10 | Z 6–8 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6



## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L** · Type N · Multiple cutter · **Long** · **45° protective chamfer** · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials
**Cutting values, see table 30 on page 84**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 20 | 6 | 5,8 | 0.12 | 6 | **2000 866 936** |
| **8** | 19 | 63 | 25 | 8 | 7,7 | 0.12 | 6 | **2000 866 937** |
| **10** | 22 | 72 | 30 | 10 | 9,7 | 0.2 | 6 | **2000 866 938** |
| **12** | 26 | 83 | 35 | 12 | 11,6 | 0.2 | 6 | **2000 866 939** |
| **16** | 32 | 92 | 40 | 16 | 15,5 | 0.2 | 6 | **2000 866 940** |
| **20** | 38 | 104 | 50 | 20 | 19,5 | 0.3 | 8 | **2000 866 941** |

VHM TiAlN | DIN 6527L | Typ NF | UNI | Nenn-Ø h10 | Z 4 | 45° | DIN 6535-HB | Schaft Ø h6



## End mill

**With chip cuttings divider and unequal partition** · Solid carbide · TiAlN-coated · **DIN 6527 L** · **Type NF** · Four-tipped core drill · **Long** · With straight shank in accordance with DIN 6535 HB · **45°** angle of twist
**Product advantages: Highest stability** of the tool thanks to the special configuration of the cutter geometry, **universal application**, ideally suited for roughing or finishing with outstanding quality of finish, (multi-layer TiAlN coating) with optimum protection against wear and temperature stability
**Cutting values, see table 29 on page 83**

**Type UNI with chip cuttings divider**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ○ | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Shank Ø [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|
| **4** | 11 | 57 | 6 | 4 | **2000 866 681** |
| **5** | 13 | 57 | 6 | 4 | **2000 866 683** |
| **6** | 13 | 57 | 6 | 4 | **2000 866 685** |
| **8** | 19 | 63 | 8 | 4 | **2000 866 687** |
| **10** | 22 | 72 | 10 | 4 | **2000 866 689** |
| **12** | 26 | 83 | 12 | 4 | **2000 866 691** |
| **16** | 32 | 92 | 16 | 4 | **2000 866 693** |



VHM TiAlN | DIN 6527L | Typ NR | UNI | Nenn-Ø h11 | Z 4 | 45° | 45° | DIN 6535-HB | Schaft Ø h6

## End mill

Solid carbide · Universal finest grain · TiAlN-coated · **DIN 6527 L · Type NR** · Four-tipped core drill · **Long · 45° protective chamfer** · With straight shank in accordance with DIN 6535 HB · 45° angle of twist · Right-hand cutting · **Neck free grinding** · Positive clamping angle for higher flexibility of use · Cutting design with special roughing profile · Enables **low-vibration processing**

**Cutting values, see table 29 on page 83**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ● | ● | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|
| **6** | 13 | 57 | 20 | 6 | 5,8 | 4 | **2000 866 113** |
| **8** | 19 | 63 | 25 | 8 | 7,7 | 4 | **2000 866 115** |
| **10** | 22 | 72 | 30 | 10 | 9,7 | 4 | **2000 866 117** |
| **12** | 26 | 83 | 35 | 12 | 11,6 | 4 | **2000 866 119** |
| **14** | 26 | 83 | 35 | 14 | 13,6 | 4 | **2000 866 121** |
| **16** | 32 | 92 | 40 | 16 | 15,5 | 4 | **2000 866 123** |
| **20** | 38 | 104 | 50 | 20 | 19,5 | 4 | **2000 866 125** |



VHM TiAlN | DIN 6527L | Typ HR | Nenn-Ø h10 | Z 4-6 | 45° | DIN 6535-HB | Schaft Ø h6

## End mill

Solid carbide · TiAlN-coated · **DIN 6527 L · Type HR** · Multiple cutter · **Long** · Centre cut · With straight shank in accordance with DIN 6535 HB · 45° angle of twist · Right-hand cutting · Universal application, preferably in stainless and alloyed steels

**Cutting values, see table 29 on page 83**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ○ | ○ | ○ | ○ | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|
| **6** | 16 | 57 | - | 6 | - | 4 | **2000 866 621** |
| **8** | 19 | 63 | - | 8 | - | 4 | **2000 866 623** |
| **10** | 22 | 72 | - | 10 | - | 4 | **2000 866 625** |
| **12** | 26 | 83 | 38 | 12 | 11,4 | 4 | **2000 866 627** |
| **16** | 32 | 92 | 44 | 16 | 15,4 | 5 | **2000 866 629** |
| **20** | 38 | 104 | 54 | 20 | 19,4 | 6 | **2000 866 631** |



VHM TiAlN | Werks-norm | Typ N | 3xD | Nenn-Ø h10 | Z 4-5 | 45° | 39/42° | DIN 6535-HB | Schaft Ø h6

## End mill

Solid carbide · Universal finest grain · TiAlN-coated · Factory standard · Type N · Multiple cutter · **Extra long · 3xØ length of cutting edge · 45° protective chamfer** · Centre cut · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 95 on page 90**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 9 | 62 | 12 | 6 | 2,9 | 0.07 | 4 | **2000 866 561** |
| **4** | 12 | 62 | 16 | 6 | 3,8 | 0.07 | 4 | **2000 866 562** |
| **5** | 15 | 62 | 20 | 6 | 4,8 | 0.12 | 4 | **2000 866 563** |
| **6** | 18 | 62 | 25 | 6 | 5,8 | 0.12 | 4 | **2000 866 564** |
| **8** | 24 | 68 | 30 | 8 | 7,7 | 0.12 | 5 | **2000 866 565** |
| **10** | 30 | 80 | 35 | 10 | 9,5 | 0.2 | 5 | **2000 866 566** |
| **12** | 36 | 93 | 45 | 12 | 11,5 | 0.2 | 5 | **2000 866 567** |
| **16** | 48 | 112 | 60 | 16 | 15,5 | 0.2 | 5 | **2000 866 568** |
| **20** | 60 | 130 | 75 | 20 | 19,5 | 0.3 | 5 | **2000 866 569** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

VHM TiAlN | Werks-norm | Typ N | Nenn-Ø h10 | Z 6–8 | 45° | 35/38° | DIN 6535-HB | Schaft Ø h6





## End mill

Solid carbide · Universal finest grain · TiAlN-coated · Factory standard · Type N · Multiple cutter · **Extra long · 45° protective chamfer** · With straight shank in accordance with DIN 6535 HB · **Unequal pitch** · Right-hand cutting · **Neck free grinding** · For low-vibration processing, suitable for roughing and finishing · As a result of newly developed geometry and coating, can be used universally for milling in steel, cast steel, grey cast iron, malleable cast iron, Cr-Ni steels, non-ferrous metals, aluminium with silicon content, and abrasive materials

**Cutting values, see table 30 on page 84**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | | |

| Nominal Ø [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | Protective chamfer [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **6** | 18 | 62 | 25 | 6 | 5,8 | 0.12 | 6 | **2000 866 329** |
| **8** | 24 | 68 | 30 | 8 | 7,7 | 0.12 | 6 | **2000 866 878** |
| **10** | 30 | 80 | 35 | 10 | 9,7 | 0.2 | 6 | **2000 866 879** |
| **12** | 36 | 93 | 45 | 12 | 11,6 | 0.2 | 6 | **2000 866 996** |
| **16** | 48 | 108 | 55 | 16 | 15,5 | 0.2 | 6 | **2000 866 998** |
| **20** | 60 | 126 | 70 | 20 | 19,5 | 0.3 | 8 | **2000 866 999** |

VHM TiAlN | Werks-norm | Typ N | Nenn-Ø h10 | Z 2 | 30° | DIN 6535-HB | Schaft Ø h6



## Full radius milling tool

Solid carbide · Universal finest grain · TiAlN-coated · Factory standard · Type N · Two-flute cutter · **Short** · Centre cut · With straight shank in accordance with DIN 6535 HB · 30° angle of twist · Right-hand cutting · For milling steel and cast steel, grey cast iron, annealed cast iron, Cr/Ni steels, bronze, brass, copper, aluminium with silicon content, and abrasive plastics

for milling steel and cast steel, grey cast iron, annealed cast iron, Cr-Ni steels, bronze, brass, copper, aluminium with silicon content, and abrasive plastics

**Cutting values, see table 31 on page 84**

| | P | M | K | N | S | H | K |
|---|---|---|---|---|---|---|---|
| TiAlN-coated | ● | ● | ● | ● | ● | | |

| Nominal Ø [mm] | Radius [mm] | Cutting edge L [mm] | Overall L [mm] | Insert L [mm] | Shank Ø [mm] | Free grinding [mm] | No. of cutters | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|---|
| **3** | 1.5 | 5 | 50 | 9 | 6 | 2,9 | 2 | **2000 866 929** |
| **4** | 2 | 8 | 54 | 12 | 6 | 3,8 | 2 | **2000 866 971** |
| **5** | 2.5 | 9 | 54 | 16 | 6 | 4,8 | 2 | **2000 866 972** |
| **6** | 3 | 10 | 54 | 16 | 6 | 5,8 | 2 | **2000 866 973** |
| **8** | 4 | 12 | 58 | 20 | 8 | 7,7 | 2 | **2000 866 974** |
| **10** | 5 | 14 | 66 | 24 | 10 | 9,7 | 2 | **2000 866 975** |
| **12** | 6 | 16 | 73 | 26 | 12 | 11,6 | 2 | **2000 866 976** |
| **16** | 8 | 22 | 82 | 32 | 16 | 15,5 | 2 | **2000 866 978** |
| **18** | 9 | 24 | 84 | 34 | 18 | 17,5 | 2 | **2000 866 990** |
| **20** | 10 | 26 | 92 | 40 | 20 | 19,5 | 2 | **2000 866 991** |

1 

## Mini spiral flute router bit HSS-Co Z3 coated

Full grooves Ap 0.5 x diam. ≤4 0.3 x diam.

*The feed rates must be adapted to the overall length! Specifications are for DIN short!

| Material | | D/Z | 2 | Z3 | 3 | Z3 | 4 | Z3 | 5 | Z3 | 6 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 27 | 0.012 | 28 | 0.020 | 28 | 0.028 | 28 | 0.032 | 30 | 0.038 |
| | | N/Vf | 4297 | 155 | 2971 | 178 | 2228 | 187 | 1783 | 171 | 1592 | 181 |
| | <800 | VC/fz | 22 | 0.009 | 22 | 0.012 | 22 | 0.02 | 23 | 0.024 | 24 | 0.036 |
| | | N/Vf | 3501 | 95 | 2334 | 84 | 1751 | 105 | 1464 | 105 | 1273 | 138 |
| | <1200 (<HRC38) | VC/fz | 18 | 0.008 | 18 | 0.011 | 19 | 0.018 | 20 | 0.021 | 21 | 0.034 |
| | | N/Vf | 2865 | 69 | 1910 | 63 | 1512 | 82 | 1273 | 80 | 1114 | 114 |
| | <1600 (<HRC48) | VC/fz | 16 | 0.008 | 16 | 0.010 | 16 | 0.014 | 17 | 0.02 | 18 | 0.031 |
| | | N/Vf | 2546 | 61 | 1698 | 51 | 1273 | 53 | 1082 | 65 | 955 | 89 |
| M | Rust-free steels <800 | VC/fz | 16 | 0.005 | 16 | 0.007 | 16 | 0.009 | 17 | 0.015 | 18 | 0.024 |
| | | N/Vf | 2546 | 38 | 1698 | 36 | 1273 | 34 | 1082 | 49 | 955 | 69 |
| | <1200 | VC/fz | 7 | 0.004 | 7 | 0.005 | 7 | 0.008 | 7 | 0.012 | 8 | 0.02 |
| | | N/Vf | 1114 | 13 | 743 | 11 | 557 | 13 | 446 | 16 | 424 | 25 |
| K | Grey cast iron | VC/fz | 22 | 0.008 | 23 | 0.011 | 23 | 0.014 | 23 | 0.022 | 25 | 0.036 |
| | | N/Vf | 3501 | 84 | 2440 | 81 | 1830 | 77 | 1464 | 97 | 1326 | 143 |
| | GGG | VC/fz | 17 | 0.008 | 17 | 0.011 | 17 | 0.014 | 17 | 0.022 | 18 | 0.036 |
| | | N/Vf | 2706 | 65 | 1804 | 60 | 1353 | 57 | 1082 | 71 | 955 | 103 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 50 | 0.023 | 50 | 0.028 | 50 | 0.035 | 60 | 0.046 | 60 | 0.051 |
| | | N/Vf | 7958 | 549 | 5305 | 446 | 3979 | 418 | 3820 | 527 | 3183 | 487 |
| | Al Si <10% | VC/fz | 30 | 0.017 | 30 | 0.020 | 35 | 0.023 | 40 | 0.035 | 40 | 0.05 |
| | | N/Vf | 4775 | 244 | 21916 | 1315 | 2785 | 192 | 2546 | 267 | 2122 | 318 |
| | Cu, Ms | VC/fz | 40 | 0.007 | 40 | 0.010 | 45 | 0.014 | 45 | 0.022 | 50 | 0.038 |
| | | N/Vf | 6366 | 134 | 4244 | 127 | 3581 | 150 | 2865 | 189 | 2653 | 302 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 10 | 0.012 | 10 | 0.014 | 10 | 0.019 | 12 | 0.025 | 12 | 0.038 |
| | | N/Vf | 1592 | 57 | 1061 | 45 | 796 | 45 | 764 | 57 | 637 | 73 |
| | 900–1500 | VC/fz | 5 | 0.008 | 5 | 0.010 | 5 | 0.014 | 6 | 0.02 | 6 | 0.032 |
| | | N/Vf | 796 | 19 | 531 | 16 | 398 | 17 | 382 | 23 | 318 | 31 |

2 

## Spiral flute router bit HSS-Co + PM Z2 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

Full grooves Ap 0.5 x diam. ≤6 0.3 x diam.

*The feed rates must be adapted to the overall length! Specifications are for DIN short!

| Material | | D/Z | 4 | Z2 | 6 | Z2 | 8 | Z2 | 10 | Z2 | 12 | Z2 | 16 | Z2 | 20 | Z2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 28 | 0.028 | 30 | 0.038 | 30 | 0.047 | 30 | 0.053 | 30 | 0.071 | 32 | 0.092 | 33 | 0.12 |
| | | N/Vf | 2228 | 125 | 1592 | 121 | 1194 | 112 | 955 | 101 | 796 | 113 | 637 | 117 | 525 | 126 |
| | <800 | VC/fz | 20 | 0.014 | 20 | 0.02 | 20 | 0.024 | 22 | 0.036 | 22 | 0.05 | 22 | 0.07 | 23 | 0.1 |
| | | N/Vf | 1592 | 45 | 1061 | 42 | 796 | 38 | 700 | 50 | 584 | 58 | 438 | 61 | 366 | 73 |
| | <1200 (<HRC38) | VC/fz | 18 | 0.016 | 18 | 0.018 | 18 | 0.023 | 18 | 0.034 | 18 | 0.04 | 20 | 0.06 | 20 | 0.09 |
| | | N/Vf | 1432 | 46 | 955 | 34 | 716 | 33 | 573 | 39 | 477 | 38 | 398 | 48 | 318 | 57 |
| | <1600 (<HRC48) | VC/fz | 15 | 0.014 | 15 | 0.017 | 15 | 0.022 | 15 | 0.03 | 15 | 0.04 | 16 | 0.06 | 17 | 0.08 |
| | | N/Vf | 1194 | 33 | 796 | 27 | 597 | 26 | 477 | 29 | 398 | 32 | 318 | 38 | 271 | 43 |
| M | Rust-free steels <800 | VC/fz | 16 | 0.009 | 17 | 0.011 | 17 | 0.014 | 17 | 0.02 | 18 | 0.03 | 18 | 0.04 | 19 | 0.05 |
| | | N/Vf | 1273 | 23 | 902 | 20 | 676 | 19 | 541 | 22 | 477 | 29 | 358 | 29 | 302 | 30 |
| | <1200 | VC/fz | 10 | 0.006 | 10 | 0.008 | 10 | 0.012 | 13 | 0.02 | 13 | 0.025 | 14 | 0.035 | 14 | 0.05 |
| | | N/Vf | 796 | 10 | 531 | 8 | 398 | 10 | 414 | 17 | 345 | 17 | 279 | 19 | 223 | 22 |
| K | Grey cast iron | VC/fz | 21 | 0.014 | 21 | 0.02 | 21 | 0.025 | 21 | 0.04 | 23 | 0.05 | 23 | 0.07 | 25 | 0.1 |
| | | N/Vf | 1671 | 47 | 1114 | 45 | 836 | 42 | 668 | 53 | 610 | 61 | 458 | 64 | 398 | 80 |
| | GGG | VC/fz | 17 | 0.014 | 18 | 0.02 | 18 | 0.03 | 20 | 0.04 | 20 | 0.05 | 24 | 0.07 | 26 | 0.1 |
| | | N/Vf | 1353 | 38 | 955 | 38 | 716 | 43 | 637 | 51 | 531 | 53 | 477 | 67 | 414 | 83 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 80 | 0.035 | 80 | 0.05 | 80 | 0.07 | 100 | 0.08 | 100 | 0.1 | 100 | 0.12 | 100 | 0.14 |
| | | N/Vf | 6366 | 446 | 4244 | 424 | 3183 | 446 | 3183 | 509 | 2653 | 531 | 1989 | 477 | 1592 | 446 |
| | Al Si <10% | VC/fz | 60 | 0.023 | 60 | 0.035 | 60 | 0.05 | 80 | 0.06 | 85 | 0.075 | 85 | 0.08 | 85 | 0.1 |
| | | N/Vf | 4775 | 220 | 3183 | 223 | 2387 | 239 | 2546 | 306 | 2255 | 338 | 1691 | 271 | 1353 | 271 |
| | Cu, Ms | VC/fz | 100 | 0.02 | 100 | 0.04 | 100 | 0.05 | 100 | 0.05 | 110 | 0.07 | 110 | 0.08 | 110 | 0.1 |
| | | N/Vf | 7958 | 318 | 5305 | 424 | 3979 | 398 | 3183 | 318 | 2918 | 408 | 2188 | 350 | 1751 | 350 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 16 | 0.01 | 17 | 0.01 | 17 | 0.014 | 17 | 0.02 | 18 | 0.03 | 18 | 0.04 | 19 | 0.05 |
| | | N/Vf | 1273 | 25 | 902 | 18 | 676 | 19 | 541 | 22 | 477 | 29 | 358 | 29 | 302 | 30 |
| | 900–1500 | VC/fz | 8 | 0.01 | 8 | 0.01 | 8 | 0.014 | 8 | 0.02 | 10 | 0.03 | 10 | 0.04 | 10 | 0.05 |
| | | N/Vf | 637 | 13 | 424 | 8 | 318 | 9 | 255 | 10 | 265 | 16 | 199 | 16 | 159 | 16 |

83

## End mill HSS-Co Z3 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

5 

Full grooves Ap 0.5 x diam. ≤6 0.3 x diam.

*The feed rates must be adapted to the overall length! Specifications are for DIN long

| Material | | D/Z | 3/4 | Z3 | 5/6 | Z3 | 8 | Z3 | 10 | Z3 | 12 | Z3 | 16 | Z3 | 20 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 30 | 0.03 | 32 | 0.04 | 32 | 0.05 | 32 | 0.06 | 32 | 0.07 | 34 | 0.09 | 35 | 0.12 |
| | | N/Vf | 2387 | 215 | 1698 | 204 | 1273 | 191 | 1019 | 183 | 849 | 178 | 676 | 183 | 557 | 201 |
| | <800 | VC/fz | 22 | 0.02 | 22 | 0.03 | 22 | 0.03 | 22 | 0.036 | 22 | 0.045 | 25 | 0.07 | 25 | 0.1 |
| | | N/Vf | 1751 | 105 | 1167 | 105 | 875 | 79 | 700 | 76 | 584 | 79 | 497 | 104 | 398 | 119 |
| | <1200 (<HRC38) | VC/fz | 20 | 0.02 | 20 | 0.02 | 20 | 0.025 | 20 | 0.035 | 20 | 0.045 | 22 | 0.07 | 22 | 0.1 |
| | | N/Vf | 1592 | 95 | 1061 | 64 | 796 | 60 | 637 | 67 | 531 | 72 | 438 | 92 | 350 | 105 |
| | <1600 (<HRC48) | VC/fz | 15 | 0.015 | 15 | 0.018 | 15 | 0.02 | 15 | 0.03 | 15 | 0.04 | 16 | 0.06 | 18 | 0.09 |
| | | N/Vf | 1194 | 54 | 796 | 43 | 597 | 36 | 477 | 43 | 398 | 48 | 318 | 57 | 286 | 77 |
| M | Rust-free steels <800 | VC/fz | 16 | 0.01 | 16 | 0.012 | 16 | 0.015 | 16 | 0.022 | 16 | 0.025 | 18 | 0.04 | 18 | 0.06 |
| | | N/Vf | 1273 | 38 | 849 | 31 | 637 | 29 | 509 | 34 | 424 | 32 | 358 | 43 | 286 | 52 |
| | <1200 | VC/fz | 12 | 0.006 | 12 | 0.008 | 12 | 0.012 | 14 | 0.016 | 14 | 0.02 | 14 | 0.035 | 14 | 0.05 |
| | | N/Vf | 955 | 17 | 637 | 15 | 477 | 17 | 446 | 21 | 371 | 22 | 279 | 29 | 223 | 33 |
| K | Grey cast iron | VC/fz | 25 | 0.014 | 25 | 0.02 | 25 | 0.025 | 25 | 0.03 | 28 | 0.045 | 28 | 0.06 | 28 | 0.09 |
| | | N/Vf | 1989 | 84 | 1326 | 80 | 995 | 75 | 796 | 72 | 743 | 100 | 557 | 100 | 446 | 120 |
| | GGG | VC/fz | 20 | 0.014 | 20 | 0.02 | 20 | 0.025 | 22 | 0.03 | 22 | 0.04 | 25 | 0.05 | 25 | 0.08 |
| | | N/Vf | 1592 | 67 | 1061 | 64 | 796 | 60 | 700 | 63 | 584 | 70 | 497 | 75 | 398 | 95 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 80 | 0.04 | 80 | 0.055 | 80 | 0.07 | 100 | 0.1 | 100 | 0.12 | 100 | 0.14 | 100 | 0.14 |
| | | N/Vf | 6366 | 764 | 4244 | 700 | 3183 | 668 | 3183 | 955 | 2653 | 955 | 1989 | 836 | 1592 | 668 |
| | Al Si <10% | VC/fz | 60 | 0.025 | 60 | 0.04 | 80 | 0.05 | 80 | 0.06 | 85 | 0.08 | 85 | 0.09 | 85 | 0.11 |
| | | N/Vf | 4775 | 358 | 3183 | 382 | 3183 | 477 | 2546 | 458 | 2255 | 541 | 1691 | 457 | 1353 | 446 |
| | Cu, Ms | VC/fz | 100 | 0.025 | 100 | 0.04 | 110 | 0.05 | 110 | 0.06 | 110 | 0.07 | 120 | 0.09 | 110 | 0.12 |
| | | N/Vf | 7958 | 597 | 5305 | 637 | 4377 | 657 | 3501 | 630 | 2918 | 613 | 2387 | 645 | 1751 | 630 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 16 | 0.01 | 16 | 0.012 | 16 | 0.015 | 16 | 0.022 | 16 | 0.025 | 18 | 0.04 | 18 | 0.06 |
| | | N/Vf | 1273 | 38 | 849 | 31 | 637 | 29 | 509 | 34 | 424 | 32 | 358 | 43 | 286 | 52 |
| | 900–1500 | VC/fz | 8 | 0.006 | 8 | 0.008 | 8 | 0.012 | 8 | 0.016 | 10 | 0.02 | 10 | 0.035 | 10 | 0.05 |
| | | N/Vf | 637 | 11 | 424 | 10 | 318 | 11 | 255 | 12 | 265 | 16 | 199 | 21 | 159 | 24 |

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## End mill HSS-Co Type W (ALU) uncoated

Full grooves Ap 0.5 x diam. ≤6 0.3 x diam.

6 

For Ø 2/3: fz = 0.025

*The feed rates must be adapted to the overall length! Specifications are for DIN 844 short!

| Material | | D/Z | 4 | Z3 | 6 | Z3 | 8 | Z3 | 10 | Z3 | 12 | Z3 | 16 | Z3 | 20 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | Non-ferrous metal Al wrought alloy | VC/fz | 180 | 0.045 | 180 | 0.068 | 180 | 0.089 | 180 | 0.1 | 180 | 0.11 | 180 | 0.126 | 180 | 0.14 |
| | | N/Vf | 14324 | 1934 | 9549 | 1948 | 7162 | 1912 | 5730 | 1719 | 4775 | 1576 | 3581 | 1354 | 2865 | 1203 |
| | Al Si <10% | VC/fz | 80 | 0.03 | 80 | 0.04 | 80 | 0.05 | 80 | 0.06 | 80 | 0.07 | 80 | 0.09 | 80 | 0.1 |
| | | N/Vf | 6366 | 573 | 4244 | 509 | 3183 | 477 | 2546 | 458 | 2122 | 446 | 1592 | 430 | 1273 | 382 |
| | Cu, Ms | VC/fz | 120 | 0.025 | 120 | 0.04 | 120 | 0.05 | 120 | 0.06 | 120 | 0.07 | 120 | 0.09 | 120 | 0.1 |
| | | N/Vf | 9549 | 716 | 6366 | 764 | 4775 | 716 | 3820 | 688 | 3183 | 668 | 2387 | 645 | 1910 | 573 |

7




## End mill HSS-Co Z4 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

Trimming Ap 1.5 x diam. Ae 0.1 x diam.

For Ø 2/3: fz = 0.02

*The feed rates must be adapted to the overall length! Specifications are for DIN 844 short!

*For the extra-long type, reduce the ap and fz values by 25–50 %, note number of cutters Z4–6!

| Material | | D/Z | 4 | Z4 | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 28 | 0.03 | 31 | 0.05 | 31 | 0.063 | 32 | 0.071 | 32 | 0.077 | 34 | 0.089 | 35 | 0.1 |
| | | N/Vf | 2228 | 267 | 1645 | 329 | 1233 | 311 | 1019 | 289 | 849 | 261 | 676 | 241 | 557 | 223 |
| | <800 | VC/fz | 20 | 0.03 | 20 | 0.045 | 21 | 0.06 | 21 | 0.066 | 22 | 0.07 | 24 | 0.08 | 24 | 0.1 |
| | | N/Vf | 1592 | 191 | 1061 | 191 | 836 | 201 | 668 | 176 | 584 | 163 | 477 | 153 | 382 | 153 |
| | <1200 (<HRC38) | VC/fz | 17 | 0.025 | 17 | 0.04 | 17 | 0.05 | 18 | 0.06 | 18 | 0.065 | 21 | 0.07 | 21 | 0.09 |
| | | N/Vf | 1353 | 135 | 902 | 144 | 676 | 135 | 573 | 138 | 477 | 124 | 418 | 117 | 334 | 120 |
| | <1600 (<HRC48) | VC/fz | 14 | 0.025 | 14 | 0.04 | 14 | 0.05 | 16 | 0.06 | 16 | 0.065 | 17 | 0.07 | 17 | 0.09 |
| | | N/Vf | 1114 | 111 | 743 | 119 | 557 | 111 | 509 | 122 | 424 | 110 | 338 | 95 | 271 | 97 |
| M | Rust-free steels <800 | VC/fz | 17 | 0.02 | 17 | 0.038 | 18 | 0.056 | 18 | 0.063 | 19 | 0.077 | 19 | 0.085 | 20 | 0.1 |
| | | N/Vf | 1353 | 108 | 902 | 137 | 716 | 160 | 573 | 144 | 504 | 155 | 378 | 129 | 318 | 127 |
| | <1200 | VC/fz | 9 | 0.013 | 9 | 0.022 | 10 | 0.04 | 10 | 0.055 | 10 | 0.07 | 11 | 0.08 | 11 | 0.1 |
| | | N/Vf | 716 | 37 | 1341 | 118 | 4719 | 755 | 318 | 70 | 265 | 74 | 219 | 70 | 175 | 70 |
| K | Grey cast iron | VC/fz | 20 | 0.035 | 22 | 0.048 | 22 | 0.055 | 23 | 0.062 | 23 | 0.077 | 24 | 0.09 | 24 | 0.11 |
| | | N/Vf | 1592 | 223 | 1167 | 224 | 875 | 193 | 732 | 182 | 610 | 188 | 477 | 172 | 382 | 168 |
| | GGG | VC/fz | 18 | 0.03 | 20 | 0.04 | 20 | 0.05 | 22 | 0.06 | 22 | 0.065 | 22 | 0.07 | 22 | 0.09 |
| | | N/Vf | 1432 | 172 | 1061 | 170 | 796 | 159 | 700 | 168 | 584 | 152 | 438 | 123 | 350 | 126 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 100 | 0.03 | 100 | 0.054 | 100 | 0.063 | 120 | 0.071 | 120 | 0.085 | 120 | 0.09 | 120 | 0.12 |
| | | N/Vf | 7958 | 955 | 5305 | 1146 | 3979 | 1003 | 3820 | 1085 | 3183 | 1082 | 2387 | 859 | 1910 | 917 |
| | Al Si <10% | VC/fz | 70 | 0.03 | 70 | 0.05 | 80 | 0.055 | 80 | 0.06 | 90 | 0.07 | 100 | 0.08 | 100 | 0.1 |
| | | N/Vf | 5570 | 668 | 3714 | 743 | 3183 | 700 | 2546 | 611 | 2387 | 668 | 1989 | 637 | 1592 | 637 |
| | Cu, Ms | VC/fz | 100 | 0.03 | 100 | 0.045 | 105 | 0.05 | 105 | 0.055 | 110 | 0.062 | 110 | 0.07 | 120 | 0.09 |
| | | N/Vf | 7958 | 955 | 5305 | 955 | 4178 | 836 | 3342 | 735 | 2918 | 724 | 2188 | 613 | 1910 | 688 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 17 | 0.02 | 17 | 0.038 | 18 | 0.056 | 18 | 0.063 | 19 | 0.077 | 19 | 0.085 | 20 | 0.1 |
| | | N/Vf | 1353 | 108 | 902 | 137 | 716 | 160 | 573 | 144 | 504 | 155 | 378 | 129 | 318 | 127 |
| | 900–1500 | VC/fz | 8 | 0.013 | 8 | 0.022 | 10 | 0.04 | 10 | 0.055 | 10 | 0.07 | 10 | 0.08 | 10 | 0.1 |
| | | N/Vf | 637 | 33 | 424 | 37 | 398 | 64 | 318 | 70 | 265 | 74 | 199 | 64 | 159 | 64 |

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8




## End mill HSS Co PM Z4 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

Trimming Ap 1.5 x diam. Ae 0.1 x diam.

*For the extra-long type, reduce the ap and fz values by 25–50 %, note number of cutters Z4–6!

| Material | | D/Z | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 | 25 | Z5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 50 | 0.03 | 55 | 0.04 | 60 | 0.04 | 60 | 0.05 | 60 | 0.07 | 60 | 0.08 | 60 | 0.1 |
| | | N/Vf | 2653 | 318 | 2188 | 350 | 1910 | 306 | 1592 | 318 | 1194 | 334 | 955 | 306 | 764 | 382 |
| | <800 | VC/fz | 40 | 0.03 | 40 | 0.04 | 45 | 0.04 | 45 | 0.05 | 45 | 0.07 | 45 | 0.08 | 45 | 0.1 |
| | | N/Vf | 2122 | 255 | 1592 | 255 | 1432 | 229 | 1194 | 239 | 895 | 251 | 716 | 229 | 573 | 286 |
| | <1200 (<HRC38) | VC/fz | 25 | 0.03 | 28 | 0.035 | 28 | 0.04 | 28 | 0.045 | 28 | 0.06 | 28 | 0.07 | 28 | 0.08 |
| | | N/Vf | 1326 | 159 | 1114 | 156 | 891 | 143 | 743 | 134 | 557 | 134 | 446 | 125 | 357 | 143 |
| | <1600 (<HRC48) | VC/fz | 18 | 0.025 | 18 | 0.03 | 20 | 0.035 | 20 | 0.04 | 20 | 0.05 | 20 | 0.06 | 20 | 0.07 |
| | | N/Vf | 955 | 95 | 716 | 86 | 637 | 89 | 531 | 85 | 398 | 80 | 318 | 76 | 255 | 89 |
| M | Rust-free steels <800 | VC/fz | 20 | 0.03 | 22 | 0.04 | 25 | 0.04 | 25 | 0.05 | 25 | 0.07 | 25 | 0.08 | 25 | 0.1 |
| | | N/Vf | 1061 | 127 | 875 | 140 | 796 | 127 | 663 | 133 | 497 | 139 | 398 | 127 | 318 | 159 |
| | <1200 | VC/fz | 12 | 0.025 | 15 | 0.03 | 15 | 0.04 | 15 | 0.04 | 15 | 0.055 | 15 | 0.07 | 15 | 0.08 |
| | | N/Vf | 637 | 64 | 597 | 72 | 477 | 76 | 398 | 64 | 298 | 66 | 239 | 67 | 191 | 76 |
| K | Grey cast iron | VC/fz | 50 | 0.03 | 55 | 0.04 | 60 | 0.04 | 60 | 0.05 | 60 | 0.07 | 60 | 0.08 | 60 | 0.1 |
| | | N/Vf | 2653 | 318 | 2188 | 350 | 1910 | 306 | 1592 | 318 | 1194 | 334 | 955 | 306 | 764 | 382 |
| | GGG | VC/fz | 40 | 0.03 | 40 | 0.04 | 45 | 0.04 | 45 | 0.05 | 45 | 0.07 | 45 | 0.08 | 45 | 0.1 |
| | | N/Vf | 2122 | 255 | 1592 | 255 | 1432 | 229 | 1194 | 239 | 895 | 251 | 716 | 229 | 573 | 286 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 17 | 0.02 | 17 | 0.038 | 18 | 0.056 | 18 | 0.063 | 19 | 0.077 | 19 | 0.085 | 20 | 0.1 |
| | | N/Vf | 902 | 72 | 676 | 103 | 573 | 128 | 477 | 120 | 378 | 116 | 302 | 103 | 255 | 127 |
| | 900–1500 | VC/fz | 8 | 0.013 | 8 | 0.022 | 10 | 0.04 | 10 | 0.055 | 10 | 0.07 | 10 | 0.08 | 10 | 0.1 |
| | | N/Vf | 424 | 22 | 318 | 28 | 318 | 51 | 265 | 58 | 199 | 56 | 159 | 51 | 127 | 64 |

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▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Roughing cutter NO/H R/AF HSS-Co Z4 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

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Full grooves Ap 1 x diam. <6 Ap 0.5 x diam.

*The feed rates must be adapted to the overall length! Specifications are for DIN 844 short!

*For tool diameter >20, note number of cutters Z4-6!

| Material | | D/Z | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 | 25 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 27 | 0.02 | 27 | 0.02 | 27 | 0.03 | 28 | 0.04 | 28 | 0.06 | 28 | 0.08 | 28 | 0.08 |
| | | N/Vf | 1432 | 115 | 1074 | 86 | 859 | 103 | 743 | 119 | 557 | 134 | 446 | 143 | 357 | 114 |
| | <800 | VC/fz | 18 | 0.015 | 20 | 0.02 | 22 | 0.03 | 24 | 0.04 | 24 | 0.06 | 24 | 0.08 | 24 | 0.08 |
| | | N/Vf | 955 | 57 | 796 | 64 | 700 | 84 | 637 | 102 | 477 | 115 | 382 | 122 | 306 | 98 |
| | <1200 (<HRC38) | VC/fz | 16 | 0.015 | 16 | 0.02 | 18 | 0.025 | 18 | 0.03 | 18 | 0.05 | 21 | 0.06 | 21 | 0.07 |
| | | N/Vf | 849 | 51 | 637 | 51 | 573 | 57 | 477 | 57 | 358 | 72 | 334 | 80 | 267 | 75 |
| | <1600 (<HRC48) | VC/fz | 14 | 0.01 | 14 | 0.02 | 16 | 0.025 | 16 | 0.03 | 16 | 0.04 | 18 | 0.06 | 18 | 0.07 |
| | | N/Vf | 743 | 30 | 557 | 45 | 509 | 51 | 424 | 51 | 318 | 51 | 286 | 69 | 229 | 64 |
| M | Rust-free steels <800 | VC/fz | 18 | 0.01 | 20 | 0.02 | 22 | 0.024 | 22 | 0.03 | 22 | 0.04 | 23 | 0.05 | 23 | 0.05 |
| | | N/Vf | 955 | 38 | 796 | 64 | 700 | 67 | 584 | 70 | 438 | 70 | 366 | 73 | 293 | 59 |
| | <1200 | VC/fz | 10 | 0.008 | 10 | 0.014 | 10 | 0.018 | 10 | 0.025 | 10 | 0.035 | 10 | 0.04 | 10 | 0.04 |
| | | N/Vf | 531 | 17 | 398 | 22 | 318 | 23 | 265 | 27 | 199 | 28 | 159 | 25 | 127 | 20 |
| K | Grey cast iron | VC/fz | 28 | 0.017 | 28 | 0.032 | 28 | 0.04 | 28 | 0.048 | 30 | 0.062 | 30 | 0.077 | 30 | 0.077 |
| | | N/Vf | 1485 | 101 | 1114 | 143 | 891 | 143 | 743 | 143 | 597 | 148 | 477 | 147 | 382 | 118 |
| | GGG | VC/fz | 26 | 0.015 | 26 | 0.028 | 26 | 0.035 | 26 | 0.04 | 28 | 0.05 | 28 | 0.062 | 28 | 0.07 |
| | | N/Vf | 1379 | 83 | 1035 | 116 | 828 | 116 | 690 | 110 | 557 | 111 | 446 | 111 | 357 | 100 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 80 | 0.05 | 80 | 0.054 | 100 | 0.06 | 100 | 0.072 | 120 | 0.08 | 120 | 0.084 | 120 | 0.09 |
| | | N/Vf | 4244 | 849 | 3183 | 688 | 3183 | 764 | 2653 | 764 | 2387 | 764 | 1910 | 642 | 1528 | 550 |
| | Al Si <10% | VC/fz | 60 | 0.02 | 60 | 0.024 | 80 | 0.032 | 80 | 0.038 | 90 | 0.042 | 100 | 0.05 | 100 | 0.06 |
| | | N/Vf | 3183 | 255 | 2387 | 229 | 2546 | 326 | 2122 | 323 | 1790 | 301 | 1592 | 318 | 1273 | 306 |
| | Cu, Ms | VC/fz | 80 | 0.025 | 80 | 0.033 | 80 | 0.04 | 80 | 0.045 | 90 | 0.05 | 100 | 0.055 | 100 | 0.06 |
| | | N/Vf | 4244 | 424 | 3183 | 420 | 2546 | 407 | 2122 | 382 | 1790 | 358 | 1592 | 350 | 1273 | 306 |

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## Roughing cutter HR HSS Co PM coated

Full grooves Ap 1 x diam. <6 Ap 0.5 x diam.

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*The feed rates must be adapted to the overall length! Specifications are for DIN 844 short!

| Material | | D/Z | 6 | Z3 | 8 | Z3 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 | 25 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 40 | 0.025 | 40 | 0.03 | 42 | 0.035 | 45 | 0.04 | 45 | 0.06 | 45 | 0.08 | 45 | 0.1 |
| | | N/Vf | 2122 | 159 | 1592 | 143 | 1337 | 187 | 1194 | 191 | 895 | 215 | 716 | 229 | 573 | 229 |
| | <800 | VC/fz | 30 | 0.025 | 30 | 0.03 | 32 | 0.035 | 35 | 0.04 | 35 | 0.06 | 35 | 0.08 | 35 | 0.1 |
| | | N/Vf | 1592 | 119 | 1194 | 107 | 1019 | 143 | 928 | 149 | 696 | 167 | 557 | 178 | 446 | 178 |
| | <1200 (<HRC38) | VC/fz | 20 | 0.02 | 20 | 0.025 | 22 | 0.03 | 22 | 0.035 | 22 | 0.55 | 22 | 0.065 | 22 | 0.08 |
| | | N/Vf | 1061 | 64 | 796 | 60 | 700 | 84 | 584 | 82 | 438 | 963 | 350 | 91 | 280 | 90 |
| | <1600 (<HRC48) | VC/fz | 14 | 0.015 | 16 | 0.02 | 16 | 0.025 | 16 | 0.03 | 16 | 0.45 | 16 | 0.06 | 16 | 0.07 |
| | | N/Vf | 743 | 33 | 637 | 38 | 509 | 51 | 424 | 51 | 318 | 573 | 255 | 61 | 204 | 57 |
| M | Rust-free steels <800 | VC/fz | 20 | 0.02 | 25 | 0.03 | 25 | 0.035 | 25 | 0.04 | 25 | 0.55 | 25 | 0.07 | 25 | 0.08 |
| | | N/Vf | 1061 | 64 | 995 | 90 | 796 | 111 | 663 | 106 | 497 | 1094 | 398 | 111 | 318 | 102 |
| | <1200 | VC/fz | 14 | 0.015 | 15 | 0.02 | 15 | 0.025 | 15 | 0.035 | 15 | 0.05 | 15 | 0.06 | 15 | 0.07 |
| | | N/Vf | 743 | 33 | 597 | 36 | 477 | 48 | 398 | 56 | 298 | 60 | 239 | 57 | 191 | 53 |
| K | Grey cast iron | VC/fz | 35 | 0.025 | 38 | 0.03 | 40 | 0.035 | 40 | 0.04 | 40 | 0.06 | 40 | 0.08 | 40 | 0.1 |
| | | N/Vf | 1857 | 139 | 1512 | 136 | 1273 | 178 | 1061 | 170 | 796 | 191 | 637 | 204 | 509 | 204 |
| | GGG | VC/fz | 28 | 0.02 | 30 | 0.025 | 32 | 0.035 | 32 | 0.04 | 32 | 0.055 | 32 | 0.065 | 32 | 0.08 |
| | | N/Vf | 1485 | 89 | 1194 | 90 | 1019 | 143 | 849 | 136 | 637 | 140 | 509 | 132 | 407 | 130 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 12 | 0.02 | 14 | 0.03 | 16 | 0.035 | 16 | 0.04 | 16 | 0.055 | 16 | 0.07 | 16 | 0.08 |
| | | N/Vf | 637 | 38 | 557 | 50 | 509 | 71 | 424 | 68 | 318 | 70 | 255 | 71 | 204 | 65 |
| | 900–1500 | VC/fz | 8 | 0.15 | 8 | 0.02 | 10 | 0.025 | 10 | 0.035 | 10 | 0.045 | 10 | 0.065 | 10 | 0.07 |
| | | N/Vf | 424 | 191 | 318 | 19 | 318 | 32 | 265 | 37 | 199 | 36 | 159 | 41 | 127 | 36 |

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## Radius cutter HSS-Co Z2 coated

Uncoated HSS-Co cutters reduce the VC/N values by 40 %

Finishing Ap 0. 3 x diam. Ae 0. 3 x diam.

*The feed rates must be adapted to the overall length! Specifications are for DIN short!

* Reduce the Ap and Ae values by 50 % for extra-long

| Material | | D/Z | 2 | Z2 | 4 | Z2 | 6 | Z2 | 8 | Z2 | 10 | Z2 | 12 | Z2 | 16 | Z2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 46 | 0.022 | 46 | 0.032 | 48 | 0.044 | 50 | 0.06 | 50 | 0.07 | 50 | 0.1 | 50 | 0.12 |
| | | N/Vf | 7321 | 322 | 3661 | 234 | 2546 | 224 | 1989 | 239 | 1592 | 223 | 1326 | 265 | 995 | 239 |
| | <800 | VC/fz | 46 | 0.02 | 46 | 0.03 | 48 | 0.042 | 50 | 0.055 | 50 | 0.065 | 50 | 0.9 | 50 | 0.11 |
| | | N/Vf | 7321 | 293 | 3661 | 220 | 2546 | 214 | 1989 | 219 | 1592 | 207 | 1326 | 2387 | 995 | 219 |
| | <1200 (<HRC38) | VC/fz | 46 | 0.016 | 46 | 0.028 | 48 | 0.04 | 50 | 0.05 | 50 | 0.06 | 50 | 0.08 | 50 | 0.1 |
| | | N/Vf | 7321 | 234 | 3661 | 205 | 2546 | 204 | 1989 | 199 | 1592 | 191 | 1326 | 212 | 995 | 199 |
| | <1600 (<HRC48) | VC/fz | 30 | 0.01 | 30 | 0.02 | 30 | 0.04 | 30 | 0.05 | 30 | 0.06 | 30 | 0.08 | 30 | 0.1 |
| | | N/Vf | 4775 | 95 | 2387 | 95 | 1592 | 127 | 1194 | 119 | 955 | 115 | 796 | 127 | 597 | 119 |
| M | Rust-free steels <800 | VC/fz | 32 | 0.012 | 32 | 0.03 | 32 | 0.034 | 35 | 0.038 | 35 | 0.042 | 35 | 0.06 | 38 | 0.08 |
| | | N/Vf | 5093 | 122 | 2546 | 153 | 1698 | 115 | 1393 | 106 | 1114 | 94 | 928 | 111 | 756 | 121 |
| | <1200 | VC/fz | 17 | 0.01 | 17 | 0.02 | 17 | 0.024 | 17 | 0.029 | 17 | 0.035 | 17 | 0.05 | 17 | 0.07 |
| | | N/Vf | 2706 | 54 | 1353 | 54 | 902 | 43 | 676 | 39 | 541 | 38 | 451 | 45 | 338 | 47 |
| K | Grey cast iron | VC/fz | 40 | 0.022 | 40 | 0.038 | 40 | 0.05 | 40 | 0.063 | 40 | 0.077 | 44 | 0.084 | 44 | 0.12 |
| | | N/Vf | 6366 | 280 | 3183 | 242 | 2122 | 212 | 1592 | 201 | 1273 | 196 | 1167 | 196 | 875 | 210 |
| | GGG | VC/fz | 40 | 0.018 | 40 | 0.03 | 40 | 0.04 | 40 | 0.058 | 40 | 0.07 | 40 | 0.088 | 40 | 0.1 |
| | | N/Vf | 6366 | 229 | 3183 | 191 | 15279 | 1222 | 1592 | 185 | 1273 | 178 | 1061 | 187 | 796 | 159 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 220 | 0.03 | 220 | 0.07 | 220 | 0.09 | 220 | 0.12 | 220 | 0.15 | 220 | 0.19 | 220 | 0.23 |
| | | N/Vf | 35014 | 2101 | 17507 | 2451 | 11671 | 2101 | 8754 | 2101 | 7003 | 2101 | 5836 | 2218 | 4377 | 2013 |
| | Al Si <10% | VC/fz | 120 | 0.012 | 120 | 0.05 | 120 | 0.07 | 120 | 0.09 | 120 | 0.11 | 120 | 0.13 | 120 | 0.15 |
| | | N/Vf | 19099 | 458 | 9549 | 955 | 6366 | 891 | 4775 | 859 | 3820 | 840 | 3183 | 828 | 2387 | 716 |
| | Cu, Ms | VC/fz | 160 | 0.04 | 160 | 0.048 | 160 | 0.054 | 170 | 0.063 | 170 | 0.081 | 170 | 0.1 | 170 | 0.1 |
| | | N/Vf | 25465 | 2037 | 12732 | 1222 | 8488 | 917 | 6764 | 852 | 5411 | 877 | 4509 | 902 | 3382 | 676 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 32 | 0.012 | 32 | 0.03 | 32 | 0.034 | 35 | 0.038 | 35 | 0.042 | 35 | 0.06 | 38 | 0.08 |
| | | N/Vf | 5093 | 122 | 2546 | 153 | 1698 | 115 | 1393 | 106 | 1114 | 94 | 928 | 111 | 756 | 121 |
| | 900–1500 | VC/fz | 16 | 0.01 | 16 | 0.025 | 16 | 0.03 | 16 | 0.033 | 18 | 0.038 | 20 | 0.05 | 20 | 0.07 |
| | | N/Vf | 2546 | 51 | 1273 | 64 | 849 | 51 | 637 | 42 | 573 | 44 | 531 | 53 | 398 | 56 |

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## HSS shell end mill/ shape disc miss uncoated

Cutting values for coated HSS-Co shell end mill can be increased by 50 %

For Ø 4.5–10.5: Vc = 25 m/min

| Material | | D/Z | 12.5 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | | N/Vf | 764 | 597 | 477 | 382 | 298 | 239 | 191 | 152 | 119 | 95 | 76 | 60 |
| | <800 | VC/fz | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | N/Vf | 637 | 497 | 398 | 318 | 249 | 199 | 159 | 126 | 99 | 80 | 64 | 50 |
| | <1200 (<HRC38) | VC/fz | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | | N/Vf | 382 | 298 | 239 | 191 | 149 | 119 | 95 | 76 | 60 | 48 | 38 | 30 |
| | <1600 (<HRC48) | VC/fz | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | N/Vf | 204 | 159 | 127 | 102 | 80 | 64 | 51 | 40 | 32 | 25 | 20 | 16 |
| M | Rust-free steels <800 | VC/fz | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| | | N/Vf | 255 | 199 | 159 | 127 | 99 | 80 | 64 | 51 | 40 | 32 | 25 | 20 |
| | <1200 | VC/fz | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | N/Vf | 204 | 159 | 127 | 102 | 80 | 64 | 51 | 40 | 32 | 25 | 20 | 16 |
| K | Grey cast iron | VC/fz | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | N/Vf | 637 | 497 | 398 | 318 | 249 | 199 | 159 | 126 | 99 | 80 | 64 | 50 |
| | GGG | VC/fz | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | | N/Vf | 382 | 298 | 239 | 191 | 149 | 119 | 95 | 76 | 60 | 48 | 38 | 30 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| | | N/Vf | 3820 | 2984 | 2387 | 1910 | 1492 | 1194 | 955 | 758 | 597 | 477 | 382 | 298 |
| | Al Si <10% | VC/fz | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| | | N/Vf | 2292 | 1790 | 1432 | 1146 | 895 | 716 | 573 | 455 | 358 | 286 | 229 | 179 |
| | Cu, Ms | VC/fz | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | | N/Vf | 1528 | 1194 | 955 | 764 | 597 | 477 | 382 | 303 | 239 | 191 | 153 | 119 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## End mill Z2/Z3 solid carbide Typ W

The cutting data apply for a maximum feed of Ap= 1.0 x diam. and Ae=1.3 x diam.

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| Material | | D/Z | Ø2 | Z2 | Ø3 | Z2 | Ø4 | Z2 | Ø5 | Z2 | Ø6 | Z3 | Ø8 | Z3 | Ø10 | Z3 | Ø12 | Z3 | Ø16 | Z3 | Ø20 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | Non-ferrous metal Al wrought alloy | VC/fz | 430 | 0.01 | 430 | 0.015 | 430 | 0.02 | 430 | 0.025 | 430 | 0.03 | 430 | 0.04 | 430 | 0.05 | 430 | 0.06 | 430 | 0.08 | 430 | 0.1 |
| | | N/Vf | 68436 | 1368 | 45624 | 1368 | 34218 | 1368 | 27374 | 1368 | 22812 | 2053 | 17109 | 2053 | 13687 | 2053 | 11406 | 2053 | 8554 | 2053 | 6843 | 2053 |
| | Al Si <10% | VC/fz | 270 | 0.01 | 270 | 0.015 | 270 | 0.02 | 270 | 0.025 | 270 | 0.03 | 270 | 0.04 | 270 | 0.05 | 270 | 0.06 | 270 | 0.08 | 270 | 0.1 |
| | | N/Vf | 42971 | 860 | 28647 | 860 | 21485 | 860 | 17188 | 860 | 14323 | 1289 | 10742 | 1289 | 8594 | 1289 | 7161 | 1289 | 5371 | 1289 | 4297 | 1289 |
| | Cu, Ms | VC/fz | 100 | 0.01 | 100 | 0.015 | 100 | 0.02 | 100 | 0.025 | 100 | 0.03 | 100 | 0.04 | 100 | 0.05 | 100 | 0.06 | 100 | 0.08 | 100 | 0.1 |
| | | N/Vf | 15915 | 318 | 10610 | 318 | 7957 | 318 | 6366 | 318 | 5305 | 477 | 3978 | 477 | 3183 | 477 | 2652 | 477 | 1989 | 477 | 1591 | 477 |

## Deburring and edging cutter solid carbide coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %

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| Material | | D/Z | 4 | Z4 | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 80 | 0.01 | 80 | 0.015 | 80 | 0.02 | 80 | 0.03 | 80 | 0.04 | 80 | 0.05 | 80 | 0.07 |
| | | N/Vf | 6366 | 255 | 4244 | 255 | 3183 | 255 | 2546 | 306 | 2122 | 340 | 1592 | 318 | 1273 | 357 |
| | <800 | VC/fz | 60 | 0.01 | 60 | 0.015 | 60 | 0.02 | 60 | 0.03 | 60 | 0.04 | 60 | 0.05 | 60 | 0.07 |
| | | N/Vf | 4775 | 191 | 3183 | 191 | 2387 | 191 | 1910 | 229 | 1592 | 255 | 1194 | 239 | 955 | 267 |
| | <1200 (<HRC38) | VC/fz | 35 | 0.01 | 35 | 0.015 | 35 | 0.02 | 35 | 0.02 | 35 | 0.03 | 35 | 0.05 | 35 | 0.06 |
| | | N/Vf | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 89 | 928 | 111 | 696 | 139 | 557 | 134 |
| | <1600 (<HRC48) | VC/fz | 30 | 0.01 | 30 | 0.01 | 30 | 0.02 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 |
| | | N/Vf | 2387 | 95 | 1592 | 64 | 1194 | 95 | 955 | 76 | 796 | 95 | 597 | 95 | 477 | 95 |
| M | Rust-free steels <800 | VC/fz | 35 | 0.01 | 35 | 0.015 | 35 | 0.02 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.07 |
| | | N/Vf | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 89 | 928 | 111 | 696 | 111 | 557 | 156 |
| | <1200 | VC/fz | 30 | 0.01 | 30 | 0.01 | 30 | 0.02 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.06 |
| | | N/Vf | 2387 | 95 | 1592 | 64 | 1194 | 95 | 955 | 76 | 796 | 95 | 597 | 95 | 477 | 115 |
| K | Grey cast iron | VC/fz | 35 | 0.01 | 35 | 0.015 | 35 | 0.02 | 35 | 0.02 | 35 | 0.04 | 35 | 0.05 | 35 | 0.06 |
| | | N/Vf | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 89 | 928 | 149 | 696 | 139 | 557 | 134 |
| | GGG | VC/fz | 30 | 0.01 | 30 | 0.015 | 30 | 0.02 | 30 | 0.02 | 30 | 0.04 | 30 | 0.05 | 30 | 0.06 |
| | | N/Vf | 2387 | 95 | 1592 | 95 | 1194 | 95 | 955 | 76 | 796 | 127 | 597 | 119 | 477 | 115 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 110 | 0.01 | 110 | 0.02 | 110 | 0.025 | 110 | 0.03 | 110 | 0.04 | 110 | 0.05 | 110 | 0.07 |
| | | N/Vf | 8754 | 350 | 5836 | 467 | 4377 | 438 | 3501 | 420 | 2918 | 467 | 2188 | 438 | 1751 | 490 |
| | Al Si <10% | VC/fz | 90 | 0.01 | 90 | 0.015 | 90 | 0.02 | 90 | 0.03 | 90 | 0.04 | 90 | 0.05 | 90 | 0.06 |
| | | N/Vf | 7162 | 286 | 4775 | 286 | 3581 | 286 | 2865 | 344 | 2387 | 382 | 1790 | 358 | 1432 | 344 |
| | Cu, Ms | VC/fz | 90 | 0.01 | 90 | 0.02 | 90 | 0.025 | 90 | 0.03 | 90 | 0.04 | 90 | 0.05 | 90 | 0.06 |
| | | N/Vf | 7162 | 286 | 4775 | 382 | 3581 | 358 | 2865 | 344 | 2387 | 382 | 1790 | 358 | 1432 | 344 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 35 | 0.01 | 35 | 0.015 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.05 | 35 | 0.06 |
| | | N/Vf | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 134 | 928 | 149 | 696 | 139 | 557 | 134 |
| | 900–1500 | VC/fz | 30 | 0.01 | 30 | 0.01 | 30 | 0.02 | 30 | 0.025 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 |
| | | N/Vf | 2387 | 95 | 1592 | 64 | 1194 | 95 | 955 | 95 | 796 | 95 | 597 | 95 | 477 | 95 |

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## Roughing cutter NR/HPC solid carbide coated

Full grooves Ap 1 x diam. Ae 1 x diam. ≤ 6 Ap 0.5 x diam.

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*The feed rates must be adapted to the overall length! Specifications are for long type!

*For tool diameters >15 adapt the feed rate of the number of cutters Z5/6!

| Material | | D/Z | 4 | Z4 | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 100 | 0.02 | 100 | 0.03 | 110 | 0.04 | 120 | 0.05 | 130 | 0.06 | 160 | 0.08 | 160 | 0.1 |
| | | N/Vf | 7958 | 637 | 5305 | 637 | 4377 | 700 | 3820 | 764 | 3448 | 828 | 3183 | 1019 | 2546 | 1019 |
| | <800 | VC/fz | 80 | 0.02 | 85 | 0.03 | 90 | 0.04 | 100 | 0.05 | 110 | 0.06 | 130 | 0.08 | 130 | 0.1 |
| | | N/Vf | 6366 | 509 | 4509 | 541 | 3581 | 573 | 3183 | 637 | 2918 | 700 | 2586 | 828 | 2069 | 828 |
| | <1200 (<HRC38) | VC/fz | 60 | 0.016 | 65 | 0.024 | 70 | 0.032 | 80 | 0.04 | 80 | 0.048 | 100 | 0.064 | 100 | 0.08 |
| | | N/Vf | 4775 | 306 | 3448 | 331 | 2785 | 357 | 2546 | 407 | 2122 | 407 | 1989 | 509 | 1592 | 509 |
| | <1600 (<HRC48) | VC/fz | 50 | 0.016 | 55 | 0.024 | 60 | 0.032 | 60 | 0.04 | 65 | 0.048 | 70 | 0.064 | 75 | 0.08 |
| | | N/Vf | 3979 | 255 | 2918 | 280 | 2387 | 306 | 1910 | 306 | 1724 | 331 | 1393 | 357 | 1194 | 382 |
| M | Rust-free steels <800 | VC/fz | 40 | 0.01 | 40 | 0.015 | 60 | 0.02 | 60 | 0.03 | 60 | 0.04 | 60 | 0.05 | 60 | 0.06 |
| | | N/Vf | 3183 | 127 | 2122 | 127 | 2387 | 191 | 1910 | 229 | 1592 | 255 | 1194 | 239 | 955 | 229 |
| | <1200 | VC/fz | 25 | 0.01 | 25 | 0.012 | 30 | 0.02 | 40 | 0.025 | 40 | 0.035 | 40 | 0.05 | 40 | 0.06 |
| | | N/Vf | 1989 | 80 | 1326 | 64 | 1194 | 95 | 1273 | 127 | 1061 | 149 | 796 | 159 | 637 | 153 |
| K | Grey cast iron | VC/fz | 100 | 0.02 | 110 | 0.03 | 115 | 0.05 | 120 | 0.06 | 120 | 0.08 | 130 | 0.1 | 135 | 0.12 |
| | | N/Vf | 7958 | 637 | 5836 | 700 | 4576 | 915 | 3820 | 917 | 3183 | 1019 | 2586 | 1035 | 2149 | 1031 |
| | GGG | VC/fz | 80 | 0.018 | 85 | 0.025 | 90 | 0.045 | 95 | 0.06 | 100 | 0.07 | 105 | 0.1 | 110 | 0.12 |
| | | N/Vf | 6366 | 458 | 4509 | 451 | 3581 | 645 | 3024 | 726 | 2653 | 743 | 2089 | 836 | 1751 | 840 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 220 | 0.02 | 220 | 0.03 | 240 | 0.04 | 240 | 0.06 | 260 | 0.08 | 280 | 0.1 | 300 | 0.14 |
| | | N/Vf | 17507 | 1401 | 11671 | 1401 | 9549 | 1528 | 7639 | 1833 | 6897 | 2207 | 5570 | 2228 | 4775 | 2674 |
| | Al Si <10% | VC/fz | 220 | 0.02 | 225 | 0.03 | 230 | 0.04 | 235 | 0.06 | 240 | 0.08 | 245 | 0.1 | 250 | 0.14 |
| | | N/Vf | 17507 | 1401 | 11937 | 1432 | 9151 | 1464 | 7480 | 1795 | 6366 | 2037 | 4874 | 1950 | 3979 | 2228 |
| | Cu, Ms | VC/fz | 120 | 0.016 | 120 | 0.024 | 125 | 0.03 | 128 | 0.04 | 130 | 0.05 | 135 | 0.06 | 140 | 0.08 |
| | | N/Vf | 9549 | 611 | 6366 | 611 | 4974 | 597 | 4074 | 652 | 3448 | 690 | 2686 | 645 | 2228 | 713 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 25 | 0.012 | 28 | 0.018 | 30 | 0.024 | 32 | 0.03 | 34 | 0.036 | 36 | 0.048 | 38 | 0.06 |
| | | N/Vf | 1989 | 95 | 1485 | 107 | 1194 | 115 | 1019 | 122 | 902 | 130 | 716 | 138 | 605 | 145 |
| | 900–1500 | VC/fz | 20 | 0.01 | 24 | 0.015 | 25 | 0.02 | 28 | 0.025 | 30 | 0.03 | 30 | 0.04 | 33 | 0.05 |
| | | N/Vf | 1592 | 64 | 1273 | 76 | 995 | 80 | 891 | 89 | 796 | 95 | 597 | 95 | 525 | 105 |

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## Multiple cutter smoothing cutter solid carbide coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %

Trimming Ap 1.5 x diam. Ae 0.02D

*The feed rates must be adapted to the overall length! Specifications are for long type!

| Material | | D/Z | 5 | Z6 | 6 | Z6 | 8 | Z6 | 10 | Z6 | 12 | Z6 | 16 | Z6 | 20 | Z8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 190 | 0.03 | 190 | 0.035 | 190 | 0.04 | 190 | 0.05 | 190 | 0.06 | 190 | 0.08 | 190 | 0.09 |
| | | N/Vf | 12096 | 2177 | 10080 | 2117 | 7560 | 1814 | 6048 | 1814 | 5040 | 1814 | 3780 | 1814 | 3024 | 2177 |
| | <800 | VC/fz | 170 | 0.03 | 170 | 0.035 | 170 | 0.04 | 170 | 0.05 | 170 | 0.06 | 170 | 0.08 | 170 | 0.09 |
| | | N/Vf | 10823 | 1948 | 9019 | 1894 | 6764 | 1623 | 5411 | 1623 | 4509 | 1623 | 3382 | 1623 | 2706 | 1948 |
| | <1200 (<HRC38) | VC/fz | 120 | 0.025 | 120 | 0.03 | 120 | 0.035 | 120 | 0.04 | 120 | 0.05 | 120 | 0.07 | 120 | 0.08 |
| | | N/Vf | 7639 | 1146 | 6366 | 1146 | 4775 | 1003 | 3820 | 917 | 3183 | 955 | 2387 | 1003 | 1910 | 1222 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.02 | 100 | 0.025 | 100 | 0.03 | 100 | 0.03 | 100 | 0.04 | 100 | 0.06 | 100 | 0.07 |
| | | N/Vf | 6366 | 764 | 5305 | 796 | 3979 | 716 | 3183 | 573 | 2653 | 637 | 1989 | 716 | 1592 | 891 |
| M | Rust-free steels <800 | VC/fz | 80 | 0.025 | 80 | 0.03 | 80 | 0.04 | 80 | 0.045 | 80 | 0.055 | 80 | 0.07 | 80 | 0.08 |
| | | N/Vf | 5093 | 764 | 4244 | 764 | 3183 | 764 | 2546 | 688 | 2122 | 700 | 1592 | 668 | 1273 | 815 |
| | <1200 | VC/fz | 60 | 0.02 | 60 | 0.025 | 60 | 0.03 | 60 | 0.04 | 60 | 0.045 | 60 | 0.055 | 60 | 0.07 |
| | | N/Vf | 3820 | 458 | 3183 | 477 | 2387 | 430 | 1910 | 458 | 1592 | 430 | 1194 | 394 | 955 | 535 |
| K | Grey cast iron | VC/fz | 160 | 0.03 | 160 | 0.035 | 160 | 0.04 | 160 | 0.05 | 160 | 0.06 | 160 | 0.08 | 160 | 0.09 |
| | | N/Vf | 10186 | 1833 | 8488 | 1783 | 6366 | 1528 | 5093 | 1528 | 4244 | 1528 | 3183 | 1528 | 2546 | 1833 |
| | GGG | VC/fz | 140 | 0.025 | 140 | 0.03 | 140 | 0.035 | 140 | 0.045 | 140 | 0.05 | 140 | 0.07 | 140 | 0.08 |
| | | N/Vf | 8913 | 1337 | 7427 | 1337 | 5570 | 1170 | 4456 | 1203 | 3714 | 1114 | 2785 | 1170 | 2228 | 1426 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 350 | 0.035 | 350 | 0.045 | 350 | 0.05 | 350 | 0.055 | 350 | 0.06 | 350 | 0.08 | 350 | 0.12 |
| | | N/Vf | 22282 | 4679 | 18568 | 5013 | 13926 | 4178 | 11141 | 3676 | 9284 | 3342 | 6963 | 3342 | 5570 | 5348 |
| | Al Si <10% | VC/fz | 220 | 0.03 | 220 | 0.04 | 220 | 0.045 | 220 | 0.05 | 220 | 0.055 | 220 | 0.07 | 220 | 0.1 |
| | | N/Vf | 14006 | 2521 | 11671 | 2801 | 8754 | 2363 | 7003 | 2101 | 5836 | 1926 | 4377 | 1838 | 3501 | 2801 |
| | Cu, Ms | VC/fz | 240 | 0.03 | 240 | 0.035 | 240 | 0.04 | 240 | 0.045 | 240 | 0.5 | 240 | 0.06 | 240 | 0.08 |
| | | N/Vf | 15279 | 2750 | 12732 | 2674 | 9549 | 2292 | 7639 | 2063 | 6366 | 19099 | 4775 | 1719 | 3820 | 2445 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.02 | 60 | 0.025 | 60 | 0.03 | 60 | 0.04 | 60 | 0.045 | 60 | 0.055 | 60 | 0.07 |
| | | N/Vf | 3820 | 458 | 3183 | 477 | 2387 | 430 | 1910 | 458 | 1592 | 430 | 1194 | 394 | 955 | 535 |
| | 900–1500 | VC/fz | 40 | 0.016 | 40 | 0.02 | 40 | 0.024 | 40 | 0.032 | 40 | 0.036 | 40 | 0.044 | 40 | 0.056 |
| | | N/Vf | 2546 | 244 | 2122 | 255 | 1592 | 229 | 1273 | 244 | 1061 | 229 | 796 | 210 | 637 | 285 |

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## Radius form end mill Z2/Z3/Z4 solid carbide coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %

Finishing ap 0.05D ae 0.1D >48HRC Ap 0.02 x diam. Ae 0.02 x diam.

*The feed rate values must be adapted to the diameter and the overall length!

*Specifications must be adapted for the short version, for Z4 feed rate x1.5–2

| Material | | D/Z | 2 | Z2 | 4 | Z2 | 6 | Z2 | 8 | Z2 | 10 | Z2 | 12 | Z2 | 16 | Z2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 180 | 0.01 | 180 | 0.03 | 180 | 0.06 | 180 | 0.072 | 180 | 0.1 | 180 | 0.12 | 180 | 0.15 |
| | | N/Vf | 28648 | 573 | 14324 | 859 | 9549 | 1146 | 7162 | 1031 | 5730 | 1146 | 4775 | 1146 | 3581 | 1074 |
| | <800 | VC/fz | 160 | 0.01 | 160 | 0.028 | 160 | 0.055 | 160 | 0.066 | 160 | 0.09 | 160 | 0.11 | 160 | 0.014 |
| | | N/Vf | 25465 | 509 | 12732 | 700 | 8488 | 934 | 6366 | 840 | 5093 | 917 | 4244 | 934 | 3183 | 89 |
| | <1200 (<HRC38) | VC/fz | 110 | 0.007 | 110 | 0.02 | 110 | 0.04 | 110 | 0.048 | 110 | 0.066 | 110 | 0.08 | 110 | 0.1 |
| | | N/Vf | 17507 | 245 | 8754 | 350 | 5836 | 467 | 4377 | 420 | 3501 | 462 | 2918 | 467 | 2188 | 438 |
| | <1600 (<HRC48) | VC/fz | 70 | 0.006 | 70 | 0.018 | 70 | 0.035 | 70 | 0.042 | 70 | 0.06 | 70 | 0.07 | 70 | 0.09 |
| | | N/Vf | 11141 | 134 | 5570 | 201 | 3714 | 260 | 2785 | 234 | 2228 | 267 | 1857 | 260 | 1393 | 251 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.009 | 70 | 0.027 | 70 | 0.055 | 70 | 0.066 | 70 | 0.09 | 70 | 0.11 | 70 | 0.14 |
| | | N/Vf | 11141 | 201 | 5570 | 301 | 3714 | 408 | 2785 | 368 | 2228 | 401 | 1857 | 408 | 1393 | 390 |
| | <1200 | VC/fz | 35 | 0.008 | 35 | 0.025 | 35 | 0.05 | 35 | 0.06 | 35 | 0.083 | 35 | 0.1 | 35 | 0.125 |
| | | N/Vf | 5570 | 89 | 2785 | 139 | 1857 | 186 | 1393 | 167 | 1114 | 185 | 928 | 186 | 696 | 174 |
| K | Grey cast iron | VC/fz | 150 | 0.009 | 150 | 0.027 | 150 | 0.055 | 150 | 0.066 | 150 | 0.09 | 150 | 0.11 | 150 | 0.14 |
| | | N/Vf | 23873 | 430 | 11937 | 645 | 7958 | 875 | 5968 | 788 | 4775 | 859 | 3979 | 875 | 2984 | 836 |
| | GGG | VC/fz | 110 | 0.009 | 110 | 0.027 | 110 | 0.055 | 110 | 0.066 | 110 | 0.09 | 110 | 0.11 | 110 | 0.14 |
| | | N/Vf | 17507 | 315 | 8754 | 473 | 5836 | 642 | 4377 | 578 | 3501 | 630 | 2918 | 642 | 2188 | 613 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 300 | 0.015 | 300 | 0.045 | 300 | 0.095 | 300 | 0.114 | 300 | 0.015 | 300 | 0.19 | 300 | 0.23 |
| | | N/Vf | 47746 | 1432 | 23873 | 2149 | 15915 | 3024 | 11937 | 2722 | 9549 | 286 | 7958 | 3024 | 5968 | 2745 |
| | Al Si <10% | VC/fz | 250 | 0.012 | 250 | 0.04 | 250 | 0.08 | 250 | 0.096 | 250 | 0.013 | 250 | 0.16 | 250 | 0.2 |
| | | N/Vf | 39789 | 955 | 19894 | 1592 | 13263 | 2122 | 9947 | 1910 | 7958 | 207 | 6631 | 2122 | 4974 | 1989 |
| | Cu, Ms | VC/fz | 230 | 0.009 | 230 | 0.03 | 230 | 0.06 | 230 | 0.072 | 230 | 0.01 | 230 | 0.12 | 230 | 0.15 |
| | | N/Vf | 36606 | 659 | 18303 | 1098 | 12202 | 1464 | 9151 | 1318 | 7321 | 146 | 6101 | 1464 | 4576 | 1373 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.008 | 60 | 0.025 | 60 | 0.05 | 60 | 0.06 | 60 | 0.083 | 60 | 0.1 | 60 | 0.125 |
| | | N/Vf | 9549 | 153 | 4775 | 239 | 3183 | 318 | 2387 | 286 | 1910 | 317 | 1592 | 318 | 1194 | 298 |
| | 900–1500 | VC/fz | 40 | 0.006 | 40 | 0.02 | 40 | 0.04 | 40 | 0.048 | 40 | 0.066 | 40 | 0.08 | 40 | 0.1 |
| | | N/Vf | 6366 | 76 | 3183 | 127 | 2122 | 170 | 1592 | 153 | 1273 | 168 | 1061 | 170 | 796 | 159 |
| H | Hardened steel HRC 48–57 | VC/fz | 120 | 0.006 | 120 | 0.02 | 120 | 0.028 | 120 | 0.046 | 120 | 0.064 | 120 | 0.077 | 120 | 0.1 |
| | | N/Vf | 19099 | 229 | 9549 | 382 | 6366 | 357 | 4775 | 439 | 3820 | 489 | 3183 | 490 | 2387 | 477 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## VHM single-tooth mill for ALU/Plas. Z1 uncoated

Full grooves 1 x diam.

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| Material | | D/Z | 3 | Z1 | 4 | Z1 | 5 | Z1 | 6 | Z1 | 8 | Z1 | 10 | Z1 | 12 | Z1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | Non-ferrous metal Al wrought alloy | VC/fz | 300 | 0.030 | 300 | 0.040 | 300 | 0.045 | 400 | 0.050 | 400 | 0.070 | 400 | 0.08 | 400 | 0.100 |
| | | N/Vf | 31831 | 955 | 23873 | 955 | 19099 | 859 | 21221 | 1061 | 15915 | 1114 | 12732 | 1019 | 10610 | 1061 |
| | Al Si <10% | VC/fz | 220 | 0.030 | 220 | 0.035 | 220 | 0.040 | 220 | 0.05 | 220 | 0.060 | 220 | 0.06 | 220 | 0.080 |
| | | N/Vf | 23343 | 700 | 17507 | 613 | 14006 | 560 | 11671 | 584 | 8754 | 525 | 7003 | 420 | 5836 | 467 |
| | Cu, Ms | VC/fz | 200 | 0.030 | 200 | 0.035 | 200 | 0.040 | 200 | 0.05 | 200 | 0.060 | 200 | 0.06 | 200 | 0.080 |
| | | N/Vf | 21221 | 637 | 15915 | 557 | 12732 | 509 | 10610 | 531 | 7958 | 477 | 6366 | 382 | 5305 | 424 |
| S | Super alloy TI/Ni/Co <900 | VC/fz | 150 | 0.030 | 150 | 0.035 | 150 | 0.040 | 150 | 0.05 | 150 | 0.070 | 150 | 0.06 | 150 | 0.080 |
| | | N/Vf | 15915 | 477 | 11937 | 418 | 9549 | 382 | 7958 | 398 | 5968 | 418 | 4775 | 286 | 3979 | 318 |

## Deburring and edging cutter solid carbide coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %

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*Guideline values, which must be adapted to the general conditions on site

| Material | | D/Z | 1 | Z4 | 2 | Z4 | 4 | Z4 | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 | 16 | Z4 | 20 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 65 | 0005 | 80 | 0007 | 80 | 0.01 | 80 | 0015 | 80 | 0.02 | 80 | 0.03 | 80 | 0.04 | 80 | 0.05 | 80 | 0.07 |
| | | N/Vf | 20690 | 414 | 12732 | 357 | 6366 | 255 | 4244 | 255 | 3183 | 255 | 2546 | 306 | 2122 | 340 | 1592 | 318 | 1273 | 357 |
| | <800 | VC/fz | 60 | 0005 | 60 | 0007 | 60 | 0.01 | 60 | 0015 | 60 | 0.02 | 60 | 0.03 | 60 | 0.04 | 60 | 0.05 | 60 | 0.07 |
| | | N/Vf | 19099 | 382 | 9549 | 267 | 4775 | 191 | 3183 | 191 | 2387 | 191 | 1910 | 229 | 1592 | 255 | 1194 | 239 | 955 | 267 |
| | <1200 (<HRC38) | VC/fz | 35 | 0005 | 35 | 0007 | 35 | 0.01 | 35 | 0015 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.05 | 35 | 0.07 |
| | | N/Vf | 11141 | 223 | 5570 | 156 | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 134 | 928 | 149 | 696 | 139 | 557 | 156 |
| | <1600 (<HRC48) | VC/fz | 30 | 0005 | 30 | 0007 | 30 | 0.01 | 30 | 0015 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 | 30 | 0.07 |
| | | N/Vf | 9549 | 191 | 4775 | 134 | 2387 | 95 | 1592 | 95 | 1194 | 95 | 955 | 115 | 796 | 127 | 597 | 119 | 477 | 134 |
| M | Rust-free steels <800 | VC/fz | 35 | 0005 | 35 | 0007 | 35 | 0.01 | 35 | 0015 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.05 | 35 | 0.07 |
| | | N/Vf | 11141 | 223 | 5570 | 156 | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 134 | 928 | 149 | 696 | 139 | 557 | 156 |
| | <1200 | VC/fz | 30 | 0005 | 30 | 0007 | 30 | 0.01 | 30 | 0015 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 | 30 | 0.07 |
| | | N/Vf | 9549 | 191 | 4775 | 134 | 2387 | 95 | 1592 | 95 | 1194 | 95 | 955 | 115 | 796 | 127 | 597 | 119 | 477 | 134 |
| K | Grey cast iron | VC/fz | 35 | 0005 | 35 | 0007 | 35 | 0.01 | 35 | 0015 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.05 | 35 | 0.07 |
| | | N/Vf | 11141 | 223 | 5570 | 156 | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 134 | 928 | 149 | 696 | 139 | 557 | 156 |
| | GGG | VC/fz | 30 | 0005 | 30 | 0007 | 30 | 0.01 | 30 | 0015 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 | 30 | 0.07 |
| | | N/Vf | 9549 | 191 | 4775 | 134 | 2387 | 95 | 1592 | 95 | 1194 | 95 | 955 | 115 | 796 | 127 | 597 | 119 | 477 | 134 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 110 | 0005 | 110 | 0007 | 110 | 0.01 | 110 | 0015 | 110 | 0.02 | 110 | 0.03 | 110 | 0.04 | 110 | 0.05 | 110 | 0.07 |
| | | N/Vf | 35014 | 700 | 17507 | 490 | 8754 | 350 | 5836 | 350 | 4377 | 350 | 3501 | 420 | 2918 | 467 | 2188 | 438 | 1751 | 490 |
| | Al Si <10% | VC/fz | 90 | 0005 | 90 | 0007 | 90 | 0.01 | 90 | 0015 | 90 | 0.02 | 90 | 0.03 | 90 | 0.04 | 90 | 0.05 | 90 | 0.07 |
| | | N/Vf | 28648 | 573 | 14324 | 401 | 7162 | 286 | 4775 | 286 | 3581 | 286 | 2865 | 344 | 2387 | 382 | 1790 | 358 | 1432 | 401 |
| | Cu, Ms | VC/fz | 90 | 0005 | 90 | 0007 | 90 | 0.01 | 90 | 0015 | 90 | 0.02 | 90 | 0.03 | 90 | 0.04 | 90 | 0.05 | 90 | 0.07 |
| | | N/Vf | 28648 | 573 | 14324 | 401 | 7162 | 286 | 4775 | 286 | 3581 | 286 | 2865 | 344 | 2387 | 382 | 1790 | 358 | 1432 | 401 |
| S | Super alloy TI/Ni/Co <900 | VC/fz | 35 | 0005 | 35 | 0007 | 35 | 0.01 | 35 | 0015 | 35 | 0.02 | 35 | 0.03 | 35 | 0.04 | 35 | 0.05 | 35 | 0.07 |
| | | N/Vf | 11141 | 223 | 5570 | 156 | 2785 | 111 | 1857 | 111 | 1393 | 111 | 1114 | 134 | 928 | 149 | 696 | 139 | 557 | 156 |
| | 900–1500 | VC/fz | 30 | 0005 | 30 | 0007 | 30 | 0.01 | 30 | 0015 | 30 | 0.02 | 30 | 0.03 | 30 | 0.04 | 30 | 0.05 | 30 | 0.07 |
| | | N/Vf | 9549 | 191 | 4775 | 134 | 2387 | 95 | 1592 | 95 | 1194 | 95 | 955 | 115 | 796 | 127 | 597 | 119 | 477 | 134 |

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## Solid carbide end mill, short and long, Z2, coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %.
Full grooves ap 1.0 x diam. ae 1.0 x diam.

| Material | | D/Z | 2 | Z2 | 3 | Z2 | 4 | Z2 | 5 | Z2 | 6 | Z2 | 7 | Z2 | 8 | Z2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.008 | 170 | 0.014 | 170 | 0.02 | 170 | 0.025 | 170 | 0.03 | 170 | 0.035 | 170 | 0.04 |
| | | N/Vf | 27056 | 433 | 18038 | 505 | 13528 | 541 | 10823 | 541 | 9019 | 541 | 7730 | 541 | 6764 | 541 |
| | <800 | VC/fz | 150 | 0.008 | 150 | 0.014 | 150 | 0.02 | 150 | 0.025 | 150 | 0.03 | 150 | 0.035 | 150 | 0.04 |
| | | N/Vf | 23873 | 382 | 15915 | 446 | 11937 | 477 | 9549 | 477 | 7958 | 477 | 6821 | 477 | 5968 | 477 |
| | <1200 (<HRC38) | VC/fz | 130 | 0.008 | 130 | 0.014 | 130 | 0.02 | 130 | 0.025 | 130 | 0.03 | 130 | 0.035 | 130 | 0.04 |
| | | N/Vf | 20690 | 331 | 13793 | 386 | 10345 | 413 | 8276 | 414 | 6897 | 414 | 5911 | 414 | 5173 | 414 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.007 | 100 | 0.013 | 100 | 0.018 | 100 | 0.022 | 100 | 0.028 | 100 | 0.032 | 100 | 0.04 |
| | | N/Vf | 15915 | 223 | 10610 | 382 | 7958 | 286 | 6366 | 280 | 5305 | 297 | 4547 | 291 | 3979 | 318 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.006 | 70 | 0.009 | 70 | 0.012 | 70 | 0.016 | 70 | 0.02 | 70 | 0.027 | 70 | 0.035 |
| | | N/Vf | 11141 | 133 | 7427 | 401 | 5570 | 134 | 4456 | 143 | 3714 | 149 | 3183 | 172 | 2785 | 195 |
| | <1200 | VC/fz | 50 | 0.006 | 50 | 0.009 | 50 | 0.012 | 50 | 0.016 | 50 | 0.02 | 50 | 0.027 | 50 | 0.035 |
| | | N/Vf | 7958 | 95 | 5305 | 265 | 3979 | 398 | 3183 | 102 | 2653 | 106 | 2274 | 123 | 1989 | 139 |
| K | Grey cast iron | VC/fz | 160 | 0.01 | 160 | 0.012 | 160 | 0.015 | 160 | 0.018 | 160 | 0.023 | 160 | 0.03 | 160 | 0.037 |
| | | N/Vf | 25465 | 510 | 16977 | 917 | 12732 | 382 | 10186 | 377 | 8488 | 390 | 7276 | 437 | 6366 | 472 |
| | GGG | VC/fz | 110 | 0.01 | 110 | 0.01 | 110 | 0.013 | 110 | 0.017 | 110 | 0.022 | 110 | 0.029 | 110 | 0.036 |
| | | N/Vf | 17507 | 350 | 11671 | 630 | 8754 | 228 | 7003 | 238 | 5836 | 257 | 5002 | 290 | 4377 | 315 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.016 | 400 | 0.025 | 400 | 0.03 | 400 | 0.04 | 400 | 0.05 | 400 | 0.063 | 400 | 0.072 |
| | | N/Vf | 63662 | 2037 | 42441 | 3820 | 31831 | 1910 | 25465 | 2037 | 21221 | 2122 | 18189 | 2292 | 15915 | 2292 |
| | Al Si <10% | VC/fz | 250 | 0.014 | 250 | 0.025 | 250 | 0.028 | 250 | 0.03 | 250 | 0.042 | 250 | 0.06 | 250 | 0.07 |
| | | N/Vf | 39789 | 1114 | 26526 | 1326 | 19894 | 1114 | 15915 | 955 | 13263 | 1114 | 11368 | 1364 | 9947 | 1393 |
| | Cu, Ms | VC/fz | 230 | 0.012 | 230 | 0.022 | 230 | 0.028 | 230 | 0.03 | 230 | 0.04 | 230 | 0.05 | 230 | 0.06 |
| | | N/Vf | 36606 | 879 | 24404 | 1074 | 18303 | 1025 | 14642 | 879 | 12202 | 976 | 10459 | 1046 | 9151 | 1098 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.006 | 60 | 0.01 | 60 | 0.012 | 60 | 0.015 | 60 | 0.02 | 60 | 0.028 | 60 | 0.032 |
| | | N/Vf | 9549 | 115 | 6366 | 127 | 4775 | 115 | 3820 | 115 | 3183 | 127 | 2728 | 153 | 2387 | 13 |
| | 900–1500 | VC/fz | 40 | 0.006 | 40 | 0.01 | 40 | 0.012 | 40 | 0.015 | 40 | 0.02 | 40 | 0.028 | 40 | 0.032 |
| | | N/Vf | 6366 | 76 | 4244 | 85 | 3183 | 76 | 2546 | 76 | 2122 | 85 | 1819 | 102 | 1592 | 102 |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.006 | 80 | 0.01 | 80 | 0.012 | 80 | 0.015 | 80 | 0.02 | 80 | 0.028 | 80 | 0.032 |
| | | N/Vf | 12732 | 153 | 8488 | 170 | 6366 | 153 | 5093 | 153 | 4244 | 170 | 3638 | 204 | 3183 | 204 |

| Material | | D/Z | 10 | Z2 | 12 | Z2 | 14 | Z2 | 16 | Z2 | 18 | Z2 | 20 | Z2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.05 | 170 | 0.06 | 170 | 0.07 | 170 | 0.08 | 170 | 0.09 | 170 | 0.1 | | |
| | | N/Vf | 5414 | 541 | 4512 | 541 | 3867 | 541 | 3384 | 541 | 3008 | 541 | 2707 | 541 | | |
| | <800 | VC/fz | 150 | 0.05 | 150 | 0.06 | 150 | 0.07 | 150 | 0.08 | 150 | 0.09 | 150 | 0.1 | | |
| | | N/Vf | 4777 | 478 | 3980 | 478 | 3412 | 478 | 2986 | 478 | 2654 | 478 | 2388 | 478 | | |
| | <1200 (<HRC38) | VC/fz | 130 | 0.045 | 130 | 0.052 | 130 | 0.06 | 130 | 0.07 | 130 | 0.08 | 130 | 0.09 | | |
| | | N/Vf | 4140 | 373 | 3450 | 359 | 2957 | 355 | 2588 | 362 | 2300 | 368 | 2070 | 372 | | |
| | <1600 (<HRC48) | VC/fz | 100 | 0.045 | 100 | 0.052 | 100 | 0.06 | 100 | 0.07 | 100 | 0.08 | 100 | 0.09 | | |
| | | N/Vf | 3185 | 287 | 2654 | 276 | 2275 | 273 | 1990 | 279 | 1769 | 283 | 1592 | 287 | | |
| M | Rust-free steels <800 | VC/fz | 70 | 0.04 | 70 | 0.05 | 70 | 0.058 | 70 | 0.067 | 70 | 0.075 | 70 | 0.08 | | |
| | | N/Vf | 2230 | 178 | 1858 | 186 | 1592 | 185 | 1393 | 187 | 1238 | 186 | 1115 | 178 | | |
| | <1200 | VC/fz | 50 | 0.035 | 50 | 0.042 | 50 | 0.05 | 50 | 0.06 | 50 | 0.07 | 50 | 0.075 | | |
| | | N/Vf | 1600 | 112 | 1327 | 111 | 1137 | 114 | 995 | 120 | 884 | 124 | 796 | 120 | | |
| K | Grey cast iron | VC/fz | 160 | 0.05 | 160 | 0.06 | 160 | 0.07 | 160 | 0.08 | 160 | 0.09 | 160 | 0.1 | | |
| | | N/Vf | 5100 | 510 | 4246 | 510 | 3640 | 510 | 3185 | 510 | 2830 | 510 | 2547 | 510 | | |
| | GGG | VC/fz | 110 | 0.045 | 110 | 0.054 | 110 | 0.062 | 110 | 0.07 | 110 | 0.08 | 110 | 0.09 | | |
| | | N/Vf | 3500 | 315 | 2919 | 315 | 2502 | 310 | 2189 | 306 | 1946 | 311 | 1751 | 315 | | |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.09 | 400 | 0.11 | 400 | 0.12 | 400 | 0.14 | 400 | 0.15 | 400 | 0.18 | | |
| | | N/Vf | 12739 | 2293 | 10616 | 2335 | 9099 | 2184 | 7962 | 2230 | 7077 | 2123 | 6369 | 2292 | | |
| | Al Si <10% | VC/fz | 250 | 0.09 | 250 | 0.11 | 250 | 0.12 | 250 | 0.14 | 250 | 0.15 | 250 | 0.18 | | |
| | | N/Vf | 7962 | 1433 | 6635 | 1460 | 5687 | 1365 | 4976 | 1393 | 4423 | 1327 | 3980 | 1433 | | |
| | Cu, Ms | VC/fz | 230 | 0.08 | 230 | 0.095 | 230 | 0.11 | 230 | 0.125 | 230 | 0.14 | 230 | 0.155 | | |
| | | N/Vf | 7324 | 1172 | 6104 | 1160 | 5232 | 1151 | 4578 | 1145 | 4069 | 1139 | 3662 | 1135 | | |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.04 | 60 | 0.045 | 60 | 0.48 | 60 | 0.052 | 60 | 0.06 | 60 | 0.07 | | |
| | | N/Vf | 1910 | 153 | 1592 | 143 | 1365 | 1310 | 1194 | 125 | 1062 | 127 | 955 | 134 | | |
| | 900–1500 | VC/fz | 40 | 0.04 | 40 | 0.045 | 40 | 0.048 | 40 | 0.052 | 40 | 0.06 | 40 | 0.07 | | |
| | | N/Vf | 1274 | 102 | 1062 | 96 | 910 | 87 | 796 | 83 | 708 | 85 | 637 | 89 | | |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.035 | 80 | 0.045 | 80 | 0.048 | 80 | 0.052 | 80 | 0.06 | 80 | 0.07 | | |
| | | N/Vf | 2548 | 178 | 2123 | 191 | 1820 | 175 | 1592 | 166 | 1415 | 170 | 1273 | 178 | | |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Solid carbide end mill short, long and over-long, Z3, coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %.
The cutting data apply for a maximum feed of Ap=1 x diam. and Ae=0.5 x diam.
For the length of cutting edge 3XD, the cutting speed must be reduced by 25 %.

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| Material | | D/Z | 2 | Z3 | 3 | Z3 | 4 | Z3 | 5 | Z3 | 6 | Z3 | 7 | Z3 | 8 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.012 | 170 | 0.018 | 170 | 0.024 | 170 | 0.03 | 170 | 0.036 | 170 | 0.042 | 170 | 0.048 |
| | | N/Vf | 27056 | 974 | 18038 | 970 | 13528 | 975 | 10823 | 975 | 9019 | 974 | 7730 | 975 | 6764 | 975 |
| | <800 | VC/fz | 150 | 0.01 | 150 | 0.016 | 150 | 0.02 | 150 | 0.025 | 150 | 0.03 | 150 | 0.035 | 150 | 0.04 |
| | | N/Vf | 23873 | 716 | 15915 | 764 | 11937 | 716 | 9549 | 716 | 7958 | 716 | 6821 | 716 | 5968 | 716 |
| | <1200 (<HRC38) | VC/fz | 130 | 0.01 | 130 | 0.016 | 130 | 0.02 | 130 | 0.025 | 130 | 0.03 | 130 | 0.035 | 130 | 0.04 |
| | | N/Vf | 20690 | 621 | 13793 | 662 | 10345 | 620 | 8276 | 620 | 6897 | 620 | 5911 | 620 | 5173 | 620 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.007 | 100 | 0.013 | 100 | 0.018 | 100 | 0.022 | 100 | 0.025 | 100 | 0.03 | 100 | 0.035 |
| | | N/Vf | 15915 | 334 | 10610 | 413 | 7958 | 429 | 6366 | 420 | 5305 | 400 | 4547 | 410 | 3979 | 415 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.006 | 70 | 0.009 | 70 | 0.012 | 70 | 0.016 | 70 | 0.02 | 70 | 0.027 | 70 | 0.035 |
| | | N/Vf | 11141 | 200 | 7427 | 200 | 5570 | 200 | 4456 | 213 | 3714 | 220 | 3183 | 250 | 2785 | 290 |
| | <1200 | VC/fz | 50 | 0.006 | 50 | 0.009 | 50 | 0.012 | 50 | 0.016 | 50 | 0.02 | 50 | 0.027 | 50 | 0.035 |
| | | N/Vf | 7958 | 143 | 5305 | 143 | 3979 | 143 | 3183 | 152 | 2653 | 160 | 2274 | 180 | 1989 | 220 |
| K | Grey cast iron | VC/fz | 160 | 0.01 | 160 | 0.012 | 160 | 0.015 | 160 | 0.018 | 160 | 0.023 | 160 | 0.03 | 160 | 0.037 |
| | | N/Vf | 25465 | 763 | 16977 | 611 | 12732 | 572 | 10186 | 550 | 8488 | 580 | 7276 | 654 | 6366 | 700 |
| | GGG | VC/fz | 110 | 0.01 | 110 | 0.01 | 110 | 0.013 | 110 | 0.017 | 110 | 0.022 | 110 | 0.029 | 110 | 0.036 |
| | | N/Vf | 17507 | 525 | 11671 | 350 | 8754 | 340 | 7003 | 350 | 5836 | 370 | 5002 | 430 | 4377 | 470 |
| N | Non-ferrous metals, Al wrought alloy | VC/fz | 400 | 0.022 | 400 | 0.033 | 400 | 0.044 | 400 | 0.055 | 400 | 0.66 | 400 | 0.077 | 400 | 0.088 |
| | | N/Vf | 63662 | 4200 | 42441 | 4200 | 31831 | 4201 | 25465 | 4200 | 21221 | 4200 | 18189 | 4200 | 15915 | 4200 |
| | Al Si <10% | VC/fz | 250 | 0.018 | 250 | 0.027 | 250 | 0.036 | 250 | 0.045 | 250 | 0.054 | 250 | 0.063 | 250 | 0.072 |
| | | N/Vf | 39789 | 2148 | 26526 | 2150 | 19894 | 2148 | 15915 | 2145 | 13263 | 2148 | 11368 | 2148 | 9947 | 2150 |
| | Cu, Ms | VC/fz | 230 | 0.012 | 230 | 0.022 | 230 | 0.028 | 230 | 0.03 | 230 | 0.04 | 230 | 0.05 | 230 | 0.06 |
| | | N/Vf | 36606 | 1317 | 24404 | 1610 | 18303 | 1537 | 14642 | 1320 | 12202 | 1460 | 10459 | 1560 | 9151 | 1640 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.006 | 60 | 0.01 | 60 | 0.012 | 60 | 0.015 | 60 | 0.02 | 60 | 0.028 | 60 | 0.032 |
| | | N/Vf | 9549 | 171 | 6366 | 190 | 4775 | 172 | 3820 | 172 | 3183 | 190 | 2728 | 229 | 2387 | 229 |
| | 900–1500 | VC/fz | 40 | 0.006 | 40 | 0.01 | 40 | 0.012 | 40 | 0.015 | 40 | 0.02 | 40 | 0.028 | 40 | 0.032 |
| | | N/Vf | 6366 | 114 | 4244 | 127 | 3183 | 114 | 2546 | 114 | 2122 | 127 | 1819 | 152 | 1592 | 153 |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.006 | 80 | 0.01 | 80 | 0.012 | 80 | 0.015 | 80 | 0.02 | 80 | 0.028 | 80 | 0.032 |
| | | N/Vf | 12732 | 229 | 8488 | 254 | 6366 | 230 | 5093 | 230 | 4244 | 255 | 3638 | 305 | 3183 | 305 |

| Material | | D/Z | 10 | Z3 | 12 | Z3 | 14 | Z3 | 16 | Z3 | 18 | Z3 | 20 | Z3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.06 | 170 | 0.072 | 170 | 0.084 | 170 | 0.096 | 170 | 0.108 | 170 | 0.12 | | |
| | | N/Vf | 5414 | 975 | 4512 | 975 | 3867 | 975 | 3384 | 975 | 3008 | 975 | 2707 | 975 | | |
| | <800 | VC/fz | 150 | 0.05 | 150 | 0.06 | 150 | 0.07 | 150 | 0.08 | 150 | 0.09 | 150 | 0.1 | | |
| | | N/Vf | 4777 | 716 | 3980 | 716 | 3412 | 716 | 2986 | 716 | 2654 | 716 | 2388 | 716 | | |
| | <1200 (<HRC38) | VC/fz | 130 | 0.05 | 130 | 0.06 | 130 | 0.07 | 130 | 0.08 | 130 | 0.09 | 130 | 0.1 | | |
| | | N/Vf | 4140 | 621 | 3450 | 621 | 2957 | 620 | 2588 | 621 | 2300 | 621 | 2070 | 621 | | |
| | <1600 (<HRC48) | VC/fz | 100 | 0.04 | 100 | 0.052 | 100 | 0.06 | 100 | 0.07 | 100 | 0.077 | 100 | 0.08 | | |
| | | N/Vf | 3185 | 382 | 2654 | 414 | 2275 | 410 | 1990 | 418 | 1769 | 408 | 1592 | 385 | | |
| M | Rust-free steels <800 | VC/fz | 70 | 0.04 | 70 | 0.05 | 70 | 0.058 | 70 | 0.067 | 70 | 0.075 | 70 | 0.08 | | |
| | | N/Vf | 2230 | 267 | 1858 | 278 | 1592 | 277 | 1393 | 280 | 1238 | 278 | 1115 | 268 | | |
| | <1200 | VC/fz | 50 | 0.035 | 50 | 0.042 | 50 | 0.05 | 50 | 0.06 | 50 | 0.07 | 50 | 0.075 | | |
| | | N/Vf | 1600 | 168 | 1327 | 167 | 1137 | 170 | 995 | 180 | 884 | 185 | 796 | 179 | | |
| K | Grey cast iron | VC/fz | 160 | 0.05 | 160 | 0.06 | 160 | 0.07 | 160 | 0.08 | 160 | 0.09 | 160 | 0.1 | | |
| | | N/Vf | 5100 | 765 | 4246 | 764 | 3640 | 764 | 3185 | 764 | 2830 | 764 | 2547 | 764 | | |
| | GGG | VC/fz | 110 | 0.045 | 110 | 0.054 | 110 | 0.062 | 110 | 0.07 | 110 | 0.08 | 110 | 0.09 | | |
| | | N/Vf | 3500 | 472 | 2919 | 472 | 2502 | 465 | 2189 | 460 | 1946 | 467 | 1751 | 472 | | |
| N | Non-ferrous metals, Al wrought alloy | VC/fz | 400 | 0.11 | 400 | 0.13 | 400 | 0.15 | 400 | 0.17 | 400 | 0.19 | 400 | 0.22 | | |
| | | N/Vf | 12739 | 4203 | 10616 | 4140 | 9099 | 4090 | 7962 | 4060 | 7077 | 4033 | 6369 | 4200 | | |
| | Al Si <10% | VC/fz | 250 | 0.09 | 250 | 0.108 | 250 | 0.12 | 250 | 0.13 | 250 | 0.145 | 250 | 0.18 | | |
| | | N/Vf | 7962 | 2149 | 6635 | 2150 | 5687 | 2050 | 4976 | 1940 | 4423 | 1925 | 3980 | 2150 | | |
| | Cu, Ms | VC/fz | 230 | 0.08 | 230 | 0.095 | 230 | 0.11 | 230 | 0.125 | 230 | 0.13 | 230 | 0.155 | | |
| | | N/Vf | 7324 | 1757 | 6104 | 1740 | 5232 | 1726 | 4578 | 1716 | 4069 | 1587 | 3662 | 1700 | | |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 60 | 0.04 | 60 | 0.045 | 60 | 0.048 | 60 | 0.052 | 60 | 0.06 | 60 | 0.07 | | |
| | | N/Vf | 1910 | 229 | 1592 | 214 | 1365 | 196 | 1194 | 187 | 1062 | 191 | 955 | 200 | | |
| | 900–1500 | VC/fz | 40 | 0.04 | 40 | 0.045 | 40 | 0.048 | 40 | 0.052 | 40 | 0.06 | 40 | 0.07 | | |
| | | N/Vf | 1274 | 153 | 1062 | 144 | 910 | 131 | 796 | 124 | 708 | 128 | 637 | 133 | | |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.035 | 80 | 0.045 | 80 | 0.048 | 80 | 0.052 | 80 | 0.06 | 80 | 0.07 | | |
| | | N/Vf | 2548 | 267 | 2123 | 286 | 1820 | 262 | 1592 | 248 | 1415 | 254 | 1273 | 267 | | |

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## Solid carbide end mill, short and long, Z4, coated

Uncoated solid carbide cutters reduce the VC/N values by 40 %.
The cutting data apply for a maximum feed of Ap=1 x diam. and Ae=0.3 x diam.

| Material | | D/Z | 3 | Z4 | 4 | Z4 | 5 | Z4 | 6 | Z4 | 7 | Z4 | 8 | Z4 | 10 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.018 | 170 | 0.024 | 170 | 0.03 | 170 | 0.036 | 170 | 0.042 | 170 | 0.048 | 170 | 0.06 |
| | | N/Vf | 18038 | 1290 | 13528 | 1298 | 10823 | 1298 | 9019 | 1298 | 7730 | 1298 | 6764 | 1298 | 5414 | 1300 |
| | <800 | VC/fz | 150 | 0.016 | 150 | 0.02 | 150 | 0.025 | 150 | 0.03 | 150 | 0.035 | 150 | 0.04 | 150 | 0.05 |
| | | N/Vf | 15915 | 1016 | 11937 | 952 | 9549 | 952 | 7958 | 952 | 6821 | 952 | 5968 | 952 | 4777 | 950 |
| | <1200 (<HRC38) | VC/fz | 130 | 0.016 | 130 | 0.02 | 130 | 0.025 | 130 | 0.03 | 130 | 0.035 | 130 | 0.04 | 130 | 0.05 |
| | | N/Vf | 13793 | 880 | 10345 | 825 | 8276 | 825 | 6897 | 825 | 5911 | 825 | 5173 | 825 | 4140 | 825 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.013 | 100 | 0.018 | 100 | 0.022 | 100 | 0.025 | 100 | 0.03 | 100 | 0.035 | 100 | 0.04 |
| | | N/Vf | 10610 | 550 | 7958 | 570 | 6366 | 555 | 5305 | 532 | 4547 | 545 | 3979 | 550 | 3185 | 509 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.009 | 70 | 0.012 | 70 | 0.016 | 70 | 0.02 | 70 | 0.027 | 70 | 0.035 | 70 | 0.04 |
| | | N/Vf | 7427 | 266 | 5570 | 266 | 4456 | 283 | 3714 | 283 | 3183 | 330 | 2785 | 385 | 2230 | 355 |
| | <1200 | VC/fz | 50 | 0.009 | 50 | 0.012 | 50 | 0.016 | 50 | 0.02 | 50 | 0.027 | 50 | 0.035 | 50 | 0.035 |
| | | N/Vf | 5305 | 190 | 3979 | 190 | 3183 | 200 | 2653 | 212 | 2274 | 235 | 1989 | 290 | 1600 | 220 |
| K | Grey cast iron | VC/fz | 160 | 0.012 | 160 | 0.015 | 160 | 0.018 | 160 | 0.023 | 160 | 0.03 | 160 | 0.037 | 160 | 0.05 |
| | | N/Vf | 16977 | 810 | 12732 | 760 | 10186 | 731 | 8488 | 770 | 7276 | 870 | 6366 | 930 | 5100 | 1015 |
| | GGG | VC/fz | 110 | 0.01 | 110 | 0.013 | 110 | 0.017 | 110 | 0.022 | 110 | 0.029 | 110 | 0.036 | 110 | 0.045 |
| | | N/Vf | 11671 | 460 | 8754 | 453 | 7003 | 460 | 5836 | 490 | 5002 | 570 | 4377 | 625 | 3500 | 630 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.033 | 400 | 0.044 | 400 | 0.055 | 400 | 0.66 | 400 | 0.077 | 400 | 0.088 | 400 | 0.11 |
| | | N/Vf | 42441 | 5600 | 31831 | 5600 | 25465 | 5600 | 21221 | 5600 | 18189 | 5600 | 15915 | 5600 | 12739 | 5600 |
| | Al Si <10% | VC/fz | 250 | 0.027 | 250 | 0.036 | 250 | 0.045 | 250 | 0.054 | 250 | 0.063 | 250 | 0.072 | 250 | 0.09 |
| | | N/Vf | 26526 | 2860 | 19894 | 2860 | 15915 | 2860 | 13263 | 2860 | 11368 | 2860 | 9947 | 2860 | 7962 | 2860 |
| | Cu, Ms | VC/fz | 230 | 0.022 | 230 | 0.028 | 230 | 0.03 | 230 | 0.04 | 230 | 0.05 | 230 | 0.06 | 230 | 0.08 |
| | | N/Vf | 24404 | 2140 | 18303 | 2050 | 14642 | 1760 | 12202 | 1950 | 10459 | 2070 | 9151 | 2180 | 7324 | 2340 |
| S | Super alloy TI/Ni/Co <900 | VC/fz | 60 | 0.01 | 60 | 0.012 | 60 | 0.015 | 60 | 0.02 | 60 | 0.028 | 60 | 0.032 | 60 | 0.04 |
| | | N/Vf | 6366 | 252 | 4775 | 230 | 3820 | 230 | 3183 | 250 | 2728 | 305 | 2387 | 305 | 1910 | 300 |
| | 900–1500 | VC/fz | 40 | 0.01 | 40 | 0.012 | 40 | 0.015 | 40 | 0.02 | 40 | 0.028 | 40 | 0.032 | 40 | 0.04 |
| | | N/Vf | 4244 | 168 | 3183 | 151 | 2546 | 151 | 2122 | 168 | 1819 | 200 | 1592 | 200 | 1274 | 203 |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.01 | 80 | 0.012 | 80 | 0.015 | 80 | 0.02 | 80 | 0.028 | 80 | 0.032 | 80 | 0.035 |
| | | N/Vf | 8488 | 335 | 6366 | 300 | 5093 | 300 | 4244 | 330 | 3638 | 400 | 3183 | 400 | 2548 | 350 |

| Material | | D/Z | 12 | Z4 | 14 | Z4 | 16 | Z4 | 18 | Z4 | 20 | Z4 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.072 | 170 | 0.084 | 170 | 0.096 | 170 | 0.108 | 170 | 0.12 | | | | |
| | | N/Vf | 4512 | 1295 | 3867 | 1295 | 3384 | 1295 | 3008 | 1295 | 2707 | 1295 | | | | |
| | <800 | VC/fz | 150 | 0.06 | 150 | 0.07 | 150 | 0.08 | 150 | 0.09 | 150 | 0.1 | | | | |
| | | N/Vf | 3980 | 950 | 3412 | 950 | 2986 | 950 | 2654 | 950 | 2388 | 950 | | | | |
| | <1200 (<HRC38) | VC/fz | 130 | 0.06 | 130 | 0.07 | 130 | 0.08 | 130 | 0.09 | 130 | 0.1 | | | | |
| | | N/Vf | 3450 | 825 | 2957 | 825 | 2588 | 825 | 2300 | 825 | 2070 | 825 | | | | |
| | <1600 (<HRC48) | VC/fz | 100 | 0.052 | 100 | 0.06 | 100 | 0.07 | 100 | 0.077 | 100 | 0.08 | | | | |
| | | N/Vf | 2654 | 550 | 2275 | 550 | 1990 | 550 | 1769 | 443 | 1592 | 512 | | | | |
| M | Rust-free steels <800 | VC/fz | 70 | 0.05 | 70 | 0.058 | 70 | 0.067 | 70 | 0.075 | 70 | 0.08 | | | | |
| | | N/Vf | 1858 | 369 | 1592 | 369 | 1393 | 369 | 1238 | 369 | 1115 | 369 | | | | |
| | <1200 | VC/fz | 50 | 0.042 | 50 | 0.05 | 50 | 0.06 | 50 | 0.07 | 50 | 0.075 | | | | |
| | | N/Vf | 1327 | 222 | 1137 | 225 | 995 | 239 | 884 | 240 | 796 | 240 | | | | |
| K | Grey cast iron | VC/fz | 160 | 0.06 | 160 | 0.07 | 160 | 0.08 | 160 | 0.09 | 160 | 0.1 | | | | |
| | | N/Vf | 4246 | 1015 | 3640 | 1015 | 3185 | 1015 | 2830 | 1015 | 2547 | 1015 | | | | |
| | GGG | VC/fz | 110 | 0.054 | 110 | 0.062 | 110 | 0.07 | 110 | 0.08 | 110 | 0.09 | | | | |
| | | N/Vf | 2919 | 620 | 2502 | 620 | 2189 | 620 | 1946 | 620 | 1751 | 620 | | | | |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.13 | 400 | 0.15 | 400 | 0.17 | 400 | 0.19 | 400 | 0.22 | | | | |
| | | N/Vf | 10616 | 5500 | 9099 | 5450 | 7962 | 5450 | 7077 | 5400 | 6369 | 5550 | | | | |
| | Al Si <10% | VC/fz | 250 | 0.108 | 250 | 0.12 | 250 | 0.13 | 250 | 0.145 | 250 | 0.18 | | | | |
| | | N/Vf | 6635 | 2860 | 5687 | 2730 | 4976 | 2590 | 4423 | 2560 | 3980 | 2800 | | | | |
| | Cu, Ms | VC/fz | 230 | 0.095 | 230 | 0.11 | 230 | 0.125 | 230 | 0.13 | 230 | 0.155 | | | | |
| | | N/Vf | 6104 | 2300 | 5232 | 2300 | 4578 | 2270 | 4069 | 2115 | 3662 | 2250 | | | | |
| S | Super alloy TI/Ni/Co <900 | VC/fz | 60 | 0.045 | 60 | 0.048 | 60 | 0.052 | 60 | 0.06 | 60 | 0.07 | | | | |
| | | N/Vf | 1592 | 285 | 1365 | 260 | 1194 | 250 | 1062 | 254 | 955 | 266 | | | | |
| | 900–1500 | VC/fz | 40 | 0.045 | 40 | 0.048 | 40 | 0.052 | 40 | 0.06 | 40 | 0.07 | | | | |
| | | N/Vf | 1062 | 190 | 910 | 175 | 796 | 165 | 708 | 170 | 637 | 177 | | | | |
| H | Hardened steel HRC 48–57 | VC/fz | 80 | 0.045 | 80 | 0.048 | 80 | 0.052 | 80 | 0.06 | 80 | 0.07 | | | | |
| | | N/Vf | 2123 | 380 | 1820 | 350 | 1592 | 330 | 1415 | 338 | 1273 | 355 | | | | |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Solid carbide end mill HPC, short and long, Z4, coated

Full grooves Ap = 0.5 x diam. and Ae = 1.0 x diam.

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| Material | | D/Z | 3 | Z4 | 4 | Z4 | 5 | Z4 | 6 | Z4 | 7 | Z4 | 8 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.018 | 170 | 0.024 | 170 | 0.03 | 170 | 0.036 | 170 | 0.036 | 170 | 0.04 |
| | | N/Vf | 18038 | 1299 | 13528 | 1299 | 10823 | 1299 | 9019 | 1299 | 7730 | 1113 | 6764 | 1082 |
| | <800 | VC/fz | 150 | 0.016 | 150 | 0.02 | 150 | 0.025 | 150 | 0.03 | 150 | 0.035 | 150 | 0.04 |
| | | N/Vf | 15915 | 1019 | 11937 | 955 | 9549 | 955 | 7958 | 955 | 6821 | 955 | 5968 | 955 |
| | <1200 (<HRC38) | VC/fz | 130 | 0.013 | 130 | 0.018 | 130 | 0.022 | 130 | 0.025 | 130 | 0.027 | 130 | 0.03 |
| | | N/Vf | 13793 | 717 | 10345 | 745 | 8276 | 728 | 6897 | 690 | 5911 | 638 | 5173 | 621 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.01 | 100 | 0.016 | 100 | 0.02 | 100 | 0.022 | 100 | 0.025 | 100 | 0.027 |
| | | N/Vf | 10610 | 424 | 7958 | 509 | 6366 | 509 | 5305 | 467 | 4547 | 455 | 3979 | 430 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.01 | 70 | 0.012 | 70 | 0.016 | 70 | 0.02 | 70 | 0.027 | 70 | 0.03 |
| | | N/Vf | 7427 | 297 | 5570 | 267 | 4456 | 285 | 3714 | 297 | 3183 | 344 | 2785 | 334 |
| | <1200 | VC/fz | 50 | 0.01 | 50 | 0.012 | 50 | 0.016 | 50 | 0.02 | 50 | 0.027 | 50 | 0.03 |
| | | N/Vf | 5305 | 212 | 3979 | 191 | 3183 | 204 | 2653 | 212 | 2274 | 246 | 1989 | 239 |
| K | Grey cast iron | VC/fz | 160 | 0.012 | 160 | 0.015 | 160 | 0.018 | 160 | 0.023 | 160 | 0.03 | 160 | 0.037 |
| | | N/Vf | 16977 | 815 | 12732 | 764 | 10186 | 733 | 8488 | 781 | 7276 | 873 | 6366 | 942 |
| | GGG | VC/fz | 110 | 0.01 | 110 | 0.013 | 110 | 0.017 | 110 | 0.022 | 110 | 0.029 | 110 | 0.036 |
| | | N/Vf | 11671 | 467 | 8754 | 455 | 7003 | 476 | 5836 | 514 | 5002 | 580 | 4377 | 630 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.033 | 400 | 0.044 | 400 | 0.055 | 400 | 0.066 | 400 | 0.077 | 400 | 0.088 |
| | | N/Vf | 42441 | 5602 | 31831 | 5602 | 25465 | 5602 | 21221 | 5602 | 18189 | 5602 | 15915 | 5602 |
| | Al Si <10% | VC/fz | 340 | 0.027 | 340 | 0.036 | 340 | 0.045 | 340 | 0.054 | 340 | 0.06 | 340 | 0.064 |
| | | N/Vf | 36075 | 3896 | 27056 | 3896 | 21645 | 3896 | 18038 | 3896 | 15461 | 3711 | 13528 | 3463 |
| | Cu, Ms | VC/fz | 230 | 0.018 | 230 | 0.022 | 230 | 0.03 | 230 | 0.04 | 230 | 0.045 | 230 | 0.05 |
| | | N/Vf | 24404 | 1757 | 18303 | 1611 | 14642 | 1757 | 12202 | 1952 | 10459 | 1883 | 9151 | 1830 |

| Material | | D/Z | 10 | Z4 | 12 | Z4 | 14 | Z4 | 16 | Z4 | 18 | Z4 | 20 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 170 | 0.048 | 170 | 0.05 | 170 | 0.06 | 170 | 0.072 | 170 | 0.084 | 170 | 0.096 |
| | | N/Vf | 5411 | 1039 | 4509 | 902 | 3865 | 928 | 3382 | 974 | 3006 | 1010 | 2706 | 1039 |
| | <800 | VC/fz | 150 | 0.045 | 150 | 0.05 | 150 | 0.06 | 150 | 0.07 | 150 | 0.08 | 150 | 0.09 |
| | | N/Vf | 4775 | 860 | 3979 | 796 | 3410 | 818 | 2984 | 836 | 2653 | 849 | 2387 | 859 |
| | <1200 (<HRC38) | VC/fz | 130 | 0.04 | 130 | 0.05 | 130 | 0.055 | 130 | 0.06 | 130 | 0.07 | 130 | 0.08 |
| | | N/Vf | 4138 | 662 | 3448 | 690 | 2956 | 650 | 2586 | 621 | 2299 | 644 | 2069 | 662 |
| | <1600 (<HRC48) | VC/fz | 100 | 0.035 | 100 | 0.045 | 100 | 0.05 | 100 | 0.055 | 100 | 0.06 | 100 | 0.07 |
| | | N/Vf | 3183 | 446 | 2653 | 478 | 2274 | 455 | 1989 | 438 | 1768 | 424 | 1592 | 446 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.035 | 70 | 0.04 | 70 | 0.045 | 70 | 0.05 | 70 | 0.055 | 70 | 0.06 |
| | | N/Vf | 2228 | 312 | 1857 | 297 | 1592 | 287 | 1393 | 279 | 1238 | 272 | 1114 | 267 |
| | <1200 | VC/fz | 50 | 0.03 | 50 | 0.035 | 50 | 0.04 | 50 | 0.045 | 50 | 0.05 | 50 | 0.055 |
| | | N/Vf | 1592 | 191 | 1326 | 186 | 1137 | 182 | 995 | 179 | 884 | 177 | 796 | 175 |
| K | Grey cast iron | VC/fz | 160 | 0.05 | 160 | 0.06 | 160 | 0.07 | 160 | 0.08 | 160 | 0.09 | 160 | 0.1 |
| | | N/Vf | 5093 | 1019 | 4244 | 1019 | 3638 | 1019 | 3183 | 1019 | 2829 | 1018 | 2546 | 1018 |
| | GGG | VC/fz | 110 | 0.045 | 110 | 0.054 | 110 | 0.062 | 110 | 0.07 | 110 | 0.08 | 110 | 0.09 |
| | | N/Vf | 3501 | 630 | 2918 | 630 | 2501 | 620 | 2188 | 613 | 1945 | 622 | 1751 | 630 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 400 | 0.11 | 400 | 0.13 | 400 | 0.15 | 400 | 0.17 | 400 | 0.19 | 400 | 0.22 |
| | | N/Vf | 12732 | 5602 | 10610 | 5517 | 9095 | 5457 | 7958 | 5411 | 7074 | 5376 | 6366 | 5602 |
| | Al Si <10% | VC/fz | 340 | 0.08 | 340 | 0.09 | 340 | 0.11 | 340 | 0.13 | 340 | 0.14 | 340 | 0.15 |
| | | N/Vf | 10823 | 3463 | 9019 | 3247 | 7730 | 3401 | 6764 | 3517 | 6013 | 3367 | 5411 | 3246 |
| | Cu, Ms | VC/fz | 230 | 0.055 | 230 | 0.06 | 230 | 0.07 | 230 | 0.09 | 230 | 0.1 | 230 | 0.11 |
| | | N/Vf | 7321 | 1611 | 6101 | 1464 | 5229 | 1464 | 4576 | 1647 | 4067 | 1627 | 3661 | 1611 |

## Solid carbide end mill HPC Stainless, long, Z4, coated

Full grooves Ap = 1.0 x diam. and Ae = 1.0 x diam.

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| Material | | D/Z | 3 | Z4 | 4 | Z4 | 5 | Z4 | 6 | Z4 | 7 | Z4 | 8 | Z4 | 10 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | Rust-free steels <800 | VC/fz | 70 | 0.011 | 70 | 0.013 | 70 | 0.016 | 70 | 0.019 | 70 | 0.023 | 70 | 0.025 | 70 | 0.030 |
| | | N/Vf | 7427 | 327 | 5570 | 290 | 4456 | 285 | 3714 | 282 | 3183 | 293 | 2785 | 279 | 2228 | 267 |
| | <1200 | VC/fz | 60 | 0.008 | 60 | 0.010 | 60 | 0.013 | 60 | 0.015 | 60 | 0.018 | 60 | 0.019 | 60 | 0.024 |
| | | N/Vf | 6366 | 204 | 4775 | 191 | 3820 | 199 | 3183 | 191 | 2728 | 196 | 2387 | 181 | 1910 | 183 |
| S | Super alloy TI/Ni/ Co <900 | VC/fz | 40 | 0.007 | 40 | 0.013 | 40 | 0.015 | 40 | 0.018 | 40 | 0.02 | 40 | 0.023 | 40 | 0.028 |
| | | N/Vf | 4244 | 119 | 3183 | 166 | 2546 | 153 | 2122 | 153 | 1819 | 146 | 1592 | 146 | 1273 | 143 |
| | 900–1500 | VC/fz | 25 | 0.006 | 25 | 0.011 | 25 | 0.013 | 25 | 0.016 | 25 | 0.018 | 25 | 0.02 | 25 | 0.025 |
| | | N/Vf | 2653 | 64 | 1989 | 88 | 1592 | 83 | 1326 | 85 | 1137 | 82 | 995 | 80 | 796 | 80 |

| Material | | D/Z | 12 | Z4 | 14 | Z4 | 16 | Z4 | 18 | Z4 | 20 | Z4 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | Rust-free steels <800 | VC/fz | 70 | 0.035 | 70 | 0.040 | 70 | 0.044 | 70 | 0.048 | 70 | 0.051 | | | | |
| | | N/Vf | 1857 | 260 | 1592 | 255 | 1393 | 245 | 1238 | 238 | 1114 | 227 | | | | |
| | <1200 | VC/fz | 60 | 0.028 | 60 | 0.033 | 60 | 0.035 | 60 | 0.039 | 60 | 0.041 | | | | |
| | | N/Vf | 1592 | 178 | 1364 | 180 | 1194 | 167 | 1061 | 166 | 955 | 157 | | | | |
| S | Super alloy TI/Ni/ Co <900 | VC/fz | 40 | 0.032 | 40 | 0.036 | 40 | 0.04 | 40 | 0.043 | 40 | 0.047 | | | | |
| | | N/Vf | 1061 | 136 | 909 | 131 | 796 | 127 | 707 | 122 | 637 | 120 | | | | |
| | 900–1500 | VC/fz | 25 | 0.029 | 25 | 0.032 | 25 | 0.036 | 25 | 0.038 | 25 | 0.041 | | | | |
| | | N/Vf | 663 | 77 | 568 | 73 | 497 | 72 | 442 | 67 | 398 | 65 | | | | |

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## End mill Z4/Z5 solid carbide coated extra long

Trimming Ap = 3 x diam. - Ae = 0. 10 x diam.

| Material | | D/Z | 3 | Z4 | 4 | Z4 | 5 | Z4 | 6 | Z4 | 8 | Z5 | 10 | Z5 | 12 | Z5 | 14 | Z5 | 16 | Z5 | 20 | Z5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 120 | 0.015 | 120 | 0.02 | 120 | 0.025 | 120 | 0.025 | 120 | 0.01 | 120 | 0.05 | 120 | 0.06 | 120 | 0.07 | 120 | 0.08 | 120 | 0.1 |
| | | N/Vf | 12735 | 764 | 9552 | 765 | 7641 | 764 | 6368 | 637 | 4776 | 239 | 3821 | 956 | 3184 | 956 | 2729 | 956 | 2388 | 956 | 1911 | 956 |
| | <800 | VC/fz | 110 | 0.012 | 110 | 0.016 | 110 | 0.02 | 110 | 0.024 | 110 | 0.032 | 110 | 0.04 | 110 | 0.048 | 110 | 0.056 | 110 | 0.064 | 110 | 0.08 |
| | | N/Vf | 11674 | 560 | 8756 | 561 | 7005 | 560 | 5837 | 561 | 4378 | 701 | 3503 | 701 | 2919 | 701 | 2502 | 701 | 2189 | 700 | 1752 | 701 |
| | <1200 (<HRC38) | VC/fz | 70 | 0.009 | 70 | 0.012 | 70 | 0.015 | 70 | 0.018 | 70 | 0.024 | 70 | 0.03 | 70 | 0.036 | 70 | 0.042 | 70 | 0.048 | 70 | 0.06 |
| | | N/Vf | 7429 | 268 | 5572 | 268 | 4458 | 268 | 3715 | 267 | 2786 | 334 | 2229 | 334 | 1858 | 334 | 1592 | 334 | 1393 | 334 | 1115 | 335 |
| | <1600 (<HRC48) | VC/fz | 60 | 0.009 | 60 | 0.012 | 60 | 0.015 | 60 | 0.018 | 60 | 0.024 | 60 | 0.03 | 60 | 0.036 | 60 | 0.042 | 60 | 0.048 | 60 | 0.06 |
| | | N/Vf | 6368 | 229 | 4776 | 230 | 3821 | 229 | 3184 | 229 | 2388 | 287 | 1911 | 287 | 1592 | 287 | 1365 | 287 | 1194 | 287 | 956 | 287 |
| M | Rust-free steels <800 | VC/fz | 70 | 0.009 | 70 | 0.012 | 70 | 0.015 | 70 | 0.018 | 70 | 0.024 | 70 | 0.03 | 70 | 0.036 | 70 | 0.042 | 70 | 0.048 | 70 | 0.06 |
| | | N/Vf | 7429 | 268 | 5572 | 268 | 4458 | 268 | 3715 | 267 | 2786 | 334 | 2229 | 334 | 1858 | 334 | 1592 | 334 | 1393 | 334 | 1115 | 335 |
| | <1200 | VC/fz | 50 | 0.009 | 50 | 0.012 | 50 | 0.015 | 50 | 0.018 | 50 | 0.024 | 50 | 0.03 | 50 | 0.036 | 50 | 0.042 | 50 | 0.048 | 50 | 0.06 |
| | | N/Vf | 5307 | 191 | 3980 | 192 | 3184 | 191 | 2654 | 191 | 1990 | 239 | 1592 | 239 | 1327 | 239 | 1138 | 239 | 995 | 239 | 796 | 239 |
| K | Grey cast iron | VC/fz | 120 | 0.015 | 120 | 0.02 | 120 | 0.025 | 120 | 0.03 | 120 | 0.04 | 120 | 0.05 | 120 | 0.06 | 120 | 0.07 | 120 | 0.08 | 120 | 0.1 |
| | | N/Vf | 12735 | 764 | 9552 | 765 | 7641 | 764 | 6368 | 764 | 4776 | 955 | 3821 | 956 | 3184 | 956 | 2729 | 956 | 2388 | 956 | 1911 | 956 |
| | GGG | VC/fz | 100 | 0.012 | 100 | 0.016 | 100 | 0.02 | 100 | 0.024 | 100 | 0.032 | 100 | 0.04 | 100 | 0.048 | 100 | 0.056 | 100 | 0.064 | 100 | 0.08 |
| | | N/Vf | 10613 | 510 | 7960 | 510 | 6368 | 510 | 5307 | 510 | 3980 | 64 | 3184 | 637 | 2654 | 637 | 2275 | 637 | 1990 | 637 | 1592 | 637 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 360 | 0.024 | 360 | 0.032 | 360 | 0.04 | 360 | 0.048 | 360 | 0.064 | 360 | 0.08 | 360 | 0.096 | 360 | 0.11 | 360 | 0.13 | 360 | 0.16 |
| | | N/Vf | 38205 | 3669 | 28654 | 3668 | 22923 | 3669 | 19103 | 3669 | 14327 | 4586 | 11462 | 4586 | 9552 | 4586 | 8187 | 4504 | 7164 | 4658 | 5731 | 4586 |
| | Al Si <10% | VC/fz | 230 | 0.021 | 230 | 0.028 | 230 | 0.035 | 230 | 0.042 | 230 | 0.056 | 230 | 0.07 | 230 | 0.084 | 230 | 0.098 | 230 | 0.12 | 230 | 0.14 |
| | | N/Vf | 24409 | 2051 | 18307 | 2051 | 14646 | 2051 | 12205 | 2051 | 9154 | 2564 | 7323 | 2564 | 6103 | 2564 | 5231 | 2564 | 4577 | 2747 | 3662 | 2563 |
| | Cu, Ms | VC/fz | 110 | 0.015 | 110 | 0.02 | 110 | 0.025 | 110 | 0.03 | 110 | 0.01 | 110 | 0.05 | 110 | 0.06 | 110 | 0.07 | 110 | 0.08 | 110 | 0.1 |
| | | N/Vf | 11674 | 701 | 8756 | 701 | 7005 | 701 | 5837 | 701 | 4378 | 219 | 3503 | 876 | 2919 | 876 | 2502 | 876 | 2189 | 876 | 1752 | 876 |
| S | Super alloy Ti/Ni/Co <900 | VC/fz | 70 | 0.009 | 70 | 0.012 | 70 | 0.015 | 70 | 0.018 | 70 | 0.024 | 70 | 0.03 | 70 | 0.036 | 70 | 0.042 | 70 | 0.048 | 70 | 0.06 |
| | | N/Vf | 7429 | 268 | 5572 | 268 | 4458 | 268 | 3715 | 267 | 2786 | 334 | 2229 | 334 | 1858 | 334 | 1592 | 334 | 1393 | 334 | 1115 | 335 |
| | 900–1500 | VC/fz | 30 | 0.009 | 30 | 0.012 | 30 | 0.015 | 30 | 0.018 | 30 | 0.024 | 30 | 0.03 | 30 | 0.036 | 30 | 0.042 | 30 | 0.048 | 30 | 0.06 |
| | | N/Vf | 3184 | 115 | 2388 | 115 | 1911 | 115 | 1592 | 115 | 1194 | 143 | 956 | 143 | 796 | 143 | 683 | 143 | 597 | 143 | 478 | 143 |

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## End mill Z4 solid carbide coated extra short

Trimming ap = 1 x D - ae = 0.25 x D
Full grooves ap = 1 x D - ae = 1 x D

| Material | | D/Z | 4 | Z4 | 6 | Z4 | 8 | Z4 | 10 | Z4 | 12 | Z4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Steel N/mm² <500 | VC/fz | 220 | 0,025 | 220 | 0,037 | 220 | 0,048 | 220 | 0,06 | 220 | 0,075 |
| | | N/Vf | 17500 | 1750 | 11800 | 1770 | 8870 | 1700 | 7100 | 1700 | 5900 | 1770 |
| | <800 | VC/fz | 180 | 0,019 | 180 | 0,029 | 180 | 0,038 | 180 | 0,053 | 180 | 0,063 |
| | | N/Vf | 14400 | 1100 | 9600 | 1110 | 7200 | 1100 | 5700 | 1230 | 4800 | 1210 |
| | <1200 (<HRC38) | VC/fz | 147 | 0,019 | 147 | 0,029 | 147 | 0,038 | 147 | 0,048 | 147 | 0,058 |
| | | N/Vf | 11700 | 900 | 7800 | 900 | 5850 | 900 | 4700 | 900 | 3900 | 900 |
| M | Stainless steels <800 | VC/fz | 124 | 0,019 | 124 | 0,029 | 124 | 0,038 | 124 | 0,053 | 124 | 0,063 |
| | | N/Vf | 9870 | 750 | 6580 | 760 | 4930 | 750 | 3950 | 840 | 3290 | 830 |
| | <1200 | VC/fz | 71 | 0,019 | 71 | 0,029 | 71 | 0,038 | 71 | 0,048 | 71 | 0,058 |
| | | N/Vf | 5650 | 430 | 3770 | 435 | 2825 | 435 | 2260 | 435 | 1880 | 435 |
| K | GG cast iron | VC/fz | 100 | 0,024 | 100 | 0,034 | 100 | 0,038 | 100 | 0,048 | 100 | 0,06 |
| | | N/Vf | 7950 | 750 | 5300 | 730 | 3980 | 613 | 3180 | 612 | 2650 | 635 |
| | GGG | VC/fz | 90 | 0,024 | 90 | 0,034 | 90 | 0,038 | 90 | 0,048 | 90 | 0,06 |
| | | N/Vf | 7180 | 680 | 4775 | 635 | 3580 | 550 | 2865 | 550 | 2380 | 570 |
| N | Non-ferrous metals Al wrought alloy | VC/fz | 360 | 0,04 | 360 | 0,062 | 360 | 0,076 | 360 | 0,09 | 360 | 0,109 |
| | | N/Vf | 28650 | 4580 | 19000 | 4740 | 14300 | 4350 | 11450 | 4125 | 9550 | 4160 |
| | Al Si <10% | VC/fz | 275 | 0,04 | 275 | 0,062 | 275 | 0,076 | 275 | 0,09 | 275 | 0,109 |
| | | N/Vf | 21960 | 3480 | 14640 | 3620 | 10980 | 3340 | 8785 | 3170 | 7320 | 3200 |
| | Cu, MS | VC/fz | 175 | 0,025 | 175 | 0,034 | 175 | 0,051 | 175 | 0,06 | 175 | 0,071 |
| | | N/Vf | 14000 | 1390 | 9285 | 1260 | 7000 | 1420 | 5570 | 1340 | 4650 | 1320 |

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## Solid carbide (mini) end mill, extra short, Z3, coated

The cutting data applies to a maximum feed of Ap=1xD and Ae= 0.2xD

| Material | | D/Z | 1 | Z3 | 1,5 | Z3 | 2 | Z3 | 3 | Z3 | 4 | Z3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | <800 | VC/fz | 55 | 0,0027 | 59 | 0,004 | 61 | 0,0054 | 65 | 0,010 | 68 | 0,0156 |
| | | N/Vf | 17500 | 144 | 12500 | 144 | 9700 | 156 | 6900 | 204 | 5400 | 252 |
| | <1200 (<HRC38) | VC/fz | 39 | 0,0029 | 42 | 0,004 | 44 | 0,0051 | 50 | 0,008 | 53 | 0,0119 |
| | | N/Vf | 12500 | 108 | 8900 | 108 | 7000 | 108 | 5300 | 120 | 4200 | 150 |
| | <1600 (<HRC48) | VC/fz | 35 | 0,0024 | 37 | 0,003 | 40 | 0,0044 | 41 | 0,007 | 44 | 0,0103 |
| | | N/Vf | 11000 | 78 | 7900 | 78 | 6300 | 84 | 4400 | 90 | 3500 | 108 |
| N | Non-ferrous metal Al wrought alloy | VC/fz | 149 | 0,003 | 151 | 0,004 | 151 | 0,005 | 151 | 0,010 | 151 | 0,015 |
| | | N/Vf | 47500 | 420 | 32000 | 384 | 24000 | 372 | 16000 | 480 | 12000 | 540 |
| | Al Si <10% | VC/fz | 149 | 0,003 | 151 | 0,004 | 151 | 0,005 | 151 | 0,010 | 151 | 0,015 |
| | | N/Vf | 47500 | 420 | 32000 | 384 | 24000 | 372 | 16000 | 480 | 12000 | 540 |
| | Cu, MS | VC/fz | 149 | 0,003 | 151 | 0,004 | 151 | 0,005 | 151 | 0,010 | 151 | 0,015 |
| | | N/Vf | 47500 | 420 | 32000 | 384 | 24000 | 372 | 16000 | 480 | 12000 | 540 |
| H | Hardened steel HRC 48–57 | VC/fz | 35 | 0,002 | 37 | 0,003 | 40 | 0,004 | 41 | 0,007 | 44 | 0,010 |
| | | N/Vf | 11000 | 78 | 7900 | 78 | 6300 | 84 | 4400 | 90 | 3500 | 108 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HM

## Milling pin

**Carbide** · With cross toothing (according to DIN MX) · **Shank Ø 6 mm**

| Ø [mm] Shape ZYA | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 58 | Cross | **2000 868 641** |
| **8** | 18 | 60 | Cross | **2000 868 642** |
| **10** | 20 | 60 | Cross | **2000 868 643** |
| **12** | 25 | 65 | Cross | **2000 868 644** |


Cylindrical shape without spur toothing

| Ø [mm] Shape WRC | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 56 | Cross | **2000 868 661** |
| **8** | 18 | 56 | Cross | **2000 868 662** |
| **10** | 20 | 60 | Cross | **2000 868 663** |
| **12** | 25 | 65 | Cross | **2000 868 664** |


Round roller shape

| Ø [mm] Shape RBF | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 58 | Cross | **2000 868 681** |
| **8** | 18 | 60 | Cross | **2000 868 683** |
| **10** | 20 | 60 | Cross | **2000 868 684** |
| **12** | 25 | 65 | Cross | **2000 868 682** |


Round elbow shape

| Ø [mm] Shape SPG | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 58 | Cross | **2000 868 701** |
| **10** | 20 | 60 | Cross | **2000 868 702** |
| **12** | 25 | 65 | Cross | **2000 868 703** |


Pointed elbow shape/ bullet shape

| Ø [mm] Shape KUD | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 5 | 56 | Cross | **2000 868 721** |
| **8** | 7 | 47 | Cross | **2000 868 722** |
| **10** | 9 | 49 | Cross | **2000 868 723** |
| **12** | 11 | 51 | Cross | **2000 868 724** |


Spherical

| Ø [mm] Shape SKM | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 13 | 58 | Cross | **2000 868 761** |
| **12** | 25 | 65 | Cross | **2000 868 762** |


Pointed conical shape

| Ø [mm] Shape KEL | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **8** | 25 | 70 | Cross | **2000 868 741** |
| **10** | 20 | 65 | Cross | **2000 868 742** |
| **12** | 32 | 77 | Cross | **2000 868 743** |


Round conical shape

HM

## Milling pin set

**Carbide** · With cross toothing (according to DIN MX) · **Shank Ø 6 mm**
**Each comprising 1 milling pin:**
Cylindrical shape without spur toothing 6 x 18, 10 x 20
Round roller shape 10 x 20 mm, 12 x 25 mm
Round elbow shape 10 x 20 mm, 12 x 25 mm
Spherical shape 10 x 9.0 mm
Round conical shape 12 x 32 mm
Pointed conical shape 12 x 25 mm
Pointed elbow shape 12 x 25 mm
**In plastic case**



| Contents | Shape | Article no. |
|---|---|---|
| **10-part** | Cross | **2000 868 788** |

HM | VA

## Milling pin

**Carbide** · With standard toothing · **Type stainless steel · Shank Ø 6 mm** · For use in stainless steel as well as ferritic, austenitic and martensitic materials

**Stainless steel**



Cylindrical shape without spur toothing

| Ø [mm] Shape ZYA | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Normal, fine | **2000 868 053** |
| **8** | 20 | 65 | Normal, fine | **2000 868 054** |
| **10** | 20 | 65 | Normal, fine | **2000 868 055** |
| **12** | 25 | 70 | Normal, fine | **2000 868 056** |



Round roller shape

| Ø [mm] Shape WRC | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Normal, fine | **2000 868 057** |
| **8** | 20 | 65 | Normal, fine | **2000 868 058** |
| **10** | 20 | 65 | Normal, fine | **2000 868 059** |
| **12** | 25 | 70 | Normal, fine | **2000 868 060** |



Round conical shape

| Ø [mm] Shape KEL | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **8** | 20 | 65 | Normal, fine | **2000 868 061** |
| **10** | 20 | 65 | Normal, fine | **2000 868 062** |
| **12** | 25 | 70 | Normal, fine | **2000 868 063** |



Round elbow shape

| Ø [mm] Shape RBF | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 50 | Normal, fine | **2000 868 064** |
| **8** | 18 | 63 | Normal, fine | **2000 868 065** |
| **10** | 20 | 65 | Normal, fine | **2000 868 066** |
| **12** | 25 | 70 | Normal, fine | **2000 868 067** |



Pointed elbow shape

| Ø [mm] Shape SPG | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Normal, fine | **2000 868 068** |
| **8** | 20 | 65 | Normal, fine | **2000 868 069** |
| **10** | 20 | 65 | Normal, fine | **2000 868 070** |
| **12** | 25 | 70 | Normal, fine | **2000 868 071** |

HM



## Milling pin

**Carbide** · With cross toothing · **Shank Ø 6 mm** · Roughing tool with special geometry for exceptional cutting performance and **high material removal** for steel and cast items

**Special steel**

| Ø [mm] Shape ZYA-S | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Cross | **2000 868 763** |
| **8** | 20 | 65 | Cross | **2000 868 764** |
| **10** | 20 | 65 | Cross | **2000 868 765** |
| **12** | 25 | 70 | Cross | **2000 868 766** |



Cylindrical shape with spur toothing

| Ø [mm] Shape WRC | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Cross | **2000 868 767** |
| **8** | 20 | 65 | Cross | **2000 868 768** |
| **10** | 20 | 65 | Cross | **2000 868 769** |
| **12** | 25 | 70 | Cross | **2000 868 770** |



Round roller shape

| Ø [mm] Shape KEL | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **10** | 20 | 65 | Cross | **2000 868 771** |
| **12** | 25 | 70 | Cross | **2000 868 772** |



Round conical shape

| Ø [mm] Shape RBF | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 18 | 50 | Cross | **2000 868 773** |
| **8** | 18 | 63 | Cross | **2000 868 774** |
| **10** | 20 | 65 | Cross | **2000 868 775** |
| **12** | 25 | 70 | Cross | **2000 868 776** |



Round elbow shape

| Ø [mm] Shape SPG | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **6** | 16 | 50 | Cross | **2000 868 777** |
| **8** | 20 | 65 | Cross | **2000 868 778** |
| **10** | 20 | 65 | Cross | **2000 868 779** |
| **12** | 25 | 70 | Cross | **2000 868 780** |



Pointed elbow shape

HM

## Milling pin
**Carbide · Shank Ø 3 mm**



Cross toothing (according to DIN MX)



Standard toothing, fine (according to DIN MY)



Cylindrical shape without spur toothing

| Ø [mm] Shape ZYA | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **2** | 10 | 38 | Cross | **2000 868 300** |
| **3** | 14 | 38 | Cross | **2000 868 301** |
| **6** | 13 | 43 | Cross | **2000 868 302** |
| **2** | 10 | 38 | Normal, fine | **2000 868 303** |
| **3** | 14 | 38 | Normal, fine | **2000 868 304** |
| **6** | 13 | 43 | Normal, fine | **2000 868 305** |



Round roller shape

| Ø [mm] Shape WRC | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **3** | 14 | 38 | Cross | **2000 868 307** |
| **6** | 14 | 43 | Cross | **2000 868 309** |
| **3** | 14 | 38 | Normal, fine | **2000 868 311** |
| **6** | 14 | 43 | Normal, fine | **2000 868 313** |



Round elbow shape

| Ø [mm] Shape RBF | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **3** | 12 | 38 | Cross | **2000 868 315** |
| **6** | 13 | 43 | Cross | **2000 868 317** |
| **3** | 12 | 38 | Normal, fine | **2000 868 319** |
| **6** | 13 | 43 | Normal, fine | **2000 868 321** |



Pointed elbow shape

| Ø [mm] Shape SPG | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **3** | 12 | 38 | Cross | **2000 868 323** |
| **5** | 12 | 43 | Cross | **2000 868 324** |
| **3** | 12 | 38 | Normal, fine | **2000 868 325** |
| **6** | 13 | 43 | Normal, fine | **2000 868 327** |



Pointed conical shape

| Ø [mm] Shape SKM | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **3** | 12 | 38 | Cross | **2000 868 329** |
| **6** | 13 | 43 | Cross | **2000 868 331** |
| **3** | 12 | 38 | Normal, fine | **2000 868 333** |
| **6** | 13 | 43 | Normal, fine | **2000 868 335** |



Spherical

| Ø [mm] Shape KUD | Head L [mm] | Overall L [mm] | Serration | Article no. |
|---|---|---|---|---|
| **3** | 2.5 | 38 | Cross | **2000 868 337** |
| **6** | 5 | 35 | Cross | **2000 868 339** |
| **3** | 2.5 | 38 | Normal, fine | **2000 868 341** |
| **6** | 5 | 35 | Normal, fine | **2000 868 343** |



HM

## Small milling pin set
**Carbide · Small type** · With cross toothing (according to DIN MX) · **Shank Ø 3 mm**

**Each comprising 1 milling pin:**
Cylindrical shape with spur toothing 3 x 14 mm
Cylindrical shape without spur toothing 3 x 14 mm
Round roller shape 3 x 14 mm
Spherical shape 3 x 2.7 mm
Pointed conical shape 3 x 11 mm
Round elbow shape 3 x 13 mm
Pointed elbow shape 3 x 13 mm
Flame shape 3 x 6 mm
Conical shape 3 x 3 mm
Angle shape 3 x 5 mm
**In plastic case**

| Contents | Serration | Article no. |
|---|---|---|
| **10-part** | Cross | **2000 868 789** |

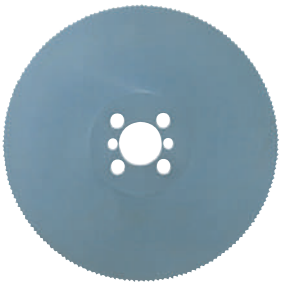


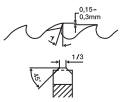
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

HSS vaporisiert | C | BW

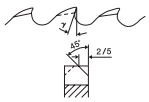
## Circular metal-cutting saw blade

**HSS** · Vapour-treated as protection against material weld-on · For iron and steelwork materials
**Tooth profile C:** Parabolic tooth with pre-cutter and post-cutter
**Tooth profile BW:** Parabolic tooth with two-way chamfer
**Bore Ø: 32 mm**
With 2 secondary holes 11/63 mm, 4 secondary holes 9/50 mm and 2 secondary holes 8/45 · For Berg- & - Schmid, Mep, Pedrazzoli, Kasto, Thomas circular saws
**Bore Ø: 40 mm**
With 2 secondary holes 8/55 mm and 4 secondary holes 12/64 · For Eisele, Ulmia, Trennjäger, Record and Ultra circular saws





Tooth profile BW:



Tooth profile C:

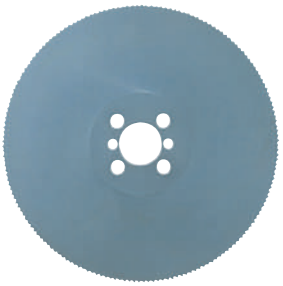
| Saw blade Ø [mm] | Width [mm] | No. of teeth | Bore Ø [mm] | Tooth profile | Serration [mm] | Article no. |
|---|---|---|---|---|---|---|
| **225** | 2,0 | 120 | 32 | C | 6 | **2000 814 242** |
| **225** | 2,0 | 180 | 32 | BW | 4 | **2000 814 241** |
| **250** | 2,0 | 100 | 32 | C | 8 | **2000 814 245** |
| **250** | 2,0 | 128 | 32 | C | 6 | **2000 814 244** |
| **250** | 2,0 | 128 | 40 | C | 6 | **2000 814 165** |
| **250** | 2,0 | 160 | 40 | BW | 5 | **2000 814 163** |
| **250** | 2,0 | 200 | 32 | BW | 4 | **2000 814 243** |
| **250** | 2,0 | 200 | 40 | BW | 4 | **2000 814 159** |
| **250** | 2,5 | 128 | 32 | C | 6 | **2000 814 193** |
| **250** | 2,5 | 128 | 40 | C | 6 | **2000 814 160** |
| **250** | 2,5 | 160 | 32 | BW | 5 | **2000 814 194** |
| **250** | 2,5 | 160 | 40 | BW | 5 | **2000 814 162** |
| **250** | 2,5 | 200 | 32 | BW | 4 | **2000 814 196** |
| **250** | 2,5 | 200 | 40 | BW | 4 | **2000 814 166** |
| **275** | 2,0 | 110 | 32 | C | 8 | **2000 814 248** |
| **275** | 2,0 | 144 | 32 | C | 6 | **2000 814 247** |
| **275** | 2,0 | 220 | 32 | BW | 4 | **2000 814 246** |
| **275** | 2,5 | 84 | 40 | C | 10 | **2000 814 167** |
| **275** | 2,5 | 110 | 32 | C | 8 | **2000 814 197** |
| **275** | 2,5 | 110 | 40 | C | 8 | **2000 814 168** |
| **275** | 2,5 | 144 | 32 | C | 6 | **2000 814 198** |
| **275** | 2,5 | 144 | 40 | C | 6 | **2000 814 170** |
| **275** | 2,5 | 180 | 32 | BW | 5 | **2000 814 199** |
| **275** | 2,5 | 180 | 40 | BW | 5 | **2000 814 172** |

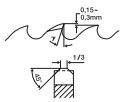
| Saw blade Ø [mm] | Width [mm] | No. of teeth | Bore Ø [mm] | Tooth profile | Serration [mm] | Article no. |
|---|---|---|---|---|---|---|
| **275** | 2,5 | 220 | 32 | BW | 4 | **2000 814 200** |
| **275** | 2,5 | 220 | 40 | BW | 4 | **2000 814 174** |
| **300** | 2,5 | 120 | 32 | C | 8 | **2000 814 201** |
| **300** | 2,5 | 120 | 40 | C | 8 | **2000 814 176** |
| **300** | 2,5 | 160 | 32 | C | 6 | **2000 814 202** |
| **300** | 2,5 | 160 | 40 | C | 6 | **2000 814 178** |
| **300** | 2,5 | 200 | 32 | BW | 4.7 | **2000 814 203** |
| **300** | 2,5 | 200 | 40 | BW | 5 | **2000 814 180** |
| **300** | 2,5 | 220 | 32 | BW | 4.5 | **2000 814 204** |
| **300** | 2,5 | 220 | 40 | BW | 4.5 | **2000 814 182** |
| **315** | 2,5 | 120 | 32 | C | 8 | **2000 814 205** |
| **315** | 2,5 | 120 | 40 | C | 8 | **2000 814 184** |
| **315** | 2,5 | 160 | 32 | C | 6 | **2000 814 207** |
| **315** | 2,5 | 160 | 40 | C | 6 | **2000 814 188** |
| **315** | 2,5 | 250 | 32 | BW | 4 | **2000 814 208** |
| **315** | 2,5 | 250 | 40 | BW | 4 | **2000 814 190** |
| **350** | 3,0 | 140 | 32 | C | 8 | **2000 814 213** |
| **350** | 3,0 | 140 | 40 | C | 8 | **2000 814 185** |
| **350** | 3,0 | 160 | 40 | C | 7 | **2000 814 187** |
| **350** | 3,0 | 180 | 32 | C | 6 | **2000 814 210** |
| **350** | 3,0 | 180 | 40 | C | 6 | **2000 814 189** |
| **350** | 3,0 | 220 | 32 | BW | 5 | **2000 814 209** |
| **350** | 3,0 | 280 | 40 | BW | 4 | **2000 814 191** |

HSS-Co vaporisiert | C | BW

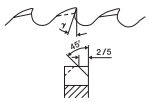
## Circular metal-cutting saw blade

**HSS-Co** · Vapour-treated as protection against material weld-on · **For stainless material and other high-strength steels**
**Tooth profile C:** Parabolic tooth with pre-cutter and post-cutter
**Tooth profile BW:** Parabolic tooth with two-way chamfer
**Bore Ø: 32 mm**
With 2 secondary holes 11/63 mm, 4 secondary holes 9/50 mm and 2 secondary holes 8/45 · For Berg- & - Schmid, Mep, Pedrazzoli, Kasto, Thomas circular saws
**Bore Ø: 40 mm**
With 2 secondary holes 8/55 mm and 4 secondary holes 12/64 · For Eisele, Ulmia, Trennjäger, Record and Ultra circular saws





Tooth profile BW:



Tooth profile C:

| Saw blade Ø [mm] | Width [mm] | No. of teeth | Bore Ø [mm] | Tooth profile | Serration [mm] | Article no. |
|---|---|---|---|---|---|---|
| **250** | 2,0 | 128 | 32 | C | 6 | **2000 814 231** |
| **250** | 2,0 | 160 | 32 | BW | 5 | **2000 814 230** |
| **250** | 2,0 | 200 | 32 | BW | 4 | **2000 814 206** |
| **275** | 2,5 | 144 | 40 | C | 6 | **2000 814 216** |
| **275** | 2,5 | 180 | 40 | BW | 5 | **2000 814 215** |
| **275** | 2,5 | 220 | 40 | BW | 4 | **2000 814 214** |
| **315** | 2,5 | 120 | 32 | C | 8 | **2000 814 219** |
| **315** | 2,5 | 120 | 40 | C | 8 | **2000 814 222** |
| **315** | 2,5 | 160 | 32 | C | 6 | **2000 814 218** |
| **315** | 2,5 | 160 | 40 | C | 6 | **2000 814 221** |

| Saw blade Ø [mm] | Width [mm] | No. of teeth | Bore Ø [mm] | Tooth profile | Serration [mm] | Article no. |
|---|---|---|---|---|---|---|
| **315** | 2,5 | 220 | 32 | BW | 4.5 | **2000 814 217** |
| **315** | 2,5 | 220 | 40 | BW | 4.5 | **2000 814 220** |
| **350** | 3,0 | 110 | 32 | C | 10 | **2000 814 225** |
| **350** | 3,0 | 110 | 40 | C | 10 | **2000 814 228** |
| **350** | 3,0 | 140 | 32 | C | 8 | **2000 814 224** |
| **350** | 3,0 | 140 | 40 | C | 8 | **2000 814 227** |
| **350** | 3,0 | 180 | 32 | C | 6 | **2000 814 229** |
| **350** | 3,0 | 180 | 40 | C | 6 | **2000 814 236** |
| **350** | 3,0 | 220 | 32 | BW | 5 | **2000 814 223** |
| **350** | 3,0 | 220 | 40 | BW | 5 | **2000 814 226** |




## Power saw blade

**HSS bi-metal** · Vacuum-hardened power saw blade for sawing almost any material · Set teeth · Length = hole distance · Standard toothing, 0° cutting angle
**Type Kasto:** With offset clamping holes (only suitable for Kasto machines)

| Length [mm] | Width [mm] | Thickness [mm] | Hole Ø [mm] | Teeth per inch | Type | Article no. |
|---|---|---|---|---|---|---|
| **300** | 25 | 1.6 | 8.5 | 8 | - | **2000 814 481** |
| **300** | 25 | 1.6 | 8.5 | 10 | - | **2000 814 120** |
| **300** | 25 | 1.6 | 8.5 | 14 | - | **2000 814 122** |
| **350** | 25 | 1.25 | 8.5 | 10 | - | **2000 814 482** |
| **350** | 32 | 1.6 | 8.5 | 6 | - | **2000 814 124** |
| **350** | 32 | 1.6 | 8.5 | 8 | - | **2000 814 118** |
| **350** | 32 | 1.6 | 8.5 | 10 | - | **2000 814 126** |
| **350** | 32 | 1.6 | 8.5 | 14 | - | **2000 814 119** |
| **350** | 32 | 2 | 8.5 | 4 | - | **2000 814 121** |
| **350** | 32 | 2 | 8.5 | 6 | - | **2000 814 483** |
| **350** | 32 | 2 | 8.5 | 10 | - | **2000 814 484** |
| **350** | 35 | 2 | 8.5 | 6 | - | **2000 814 486** |
| **350** | 35 | 2 | 8.5 | 8 | - | **2000 814 487** |
| **400** | 25 | 1.25 | 8.5 | 10 | - | **2000 814 488** |
| **400** | 25 | 1.25 | 8.5 | 14 | - | **2000 814 489** |
| **400** | 32 | 1.6 | 8.5 | 6 | - | **2000 814 128** |
| **400** | 32 | 1.6 | 8.5 | 8 | - | **2000 814 130** |
| **400** | 32 | 1.6 | 8.5 | 10 | - | **2000 814 132** |
| **400** | 32 | 1.6 | 8.5 | 14 | - | **2000 814 134** |
| **400** | 32 | 1.6 | 8.5 | 24 | - | **2000 814 136** |
| **400** | 32 | 2 | 8.5 | 4 | - | **2000 814 123** |
| **400** | 32 | 2 | 8.5 | 6 | - | **2000 814 490** |
| **400** | 32 | 2 | 8.5 | 8 | - | **2000 814 491** |
| **400** | 32 | 2 | 8.5 | 10 | - | **2000 814 492** |
| **400** | 32 | 2 | 8.5 | 14 | - | **2000 814 493** |
| **400** | 35 | 2 | 10.5 | 4 | - | **2000 814 494** |
| **400** | 35 | 2 | 10.5 | 6 | - | **2000 814 495** |
| **400** | 35 | 2 | 10.5 | 8 | - | **2000 814 496** |
| **400** | 35 | 2 | 10.5 | 10 | - | **2000 814 497** |
| **450** | 32 | 2 | 10.5 | 4 | - | **2000 814 125** |
| **450** | 32 | 2 | 10.5 | 6 | - | **2000 814 498** |

| Length [mm] | Width [mm] | Thickness [mm] | Hole Ø [mm] | Teeth per inch | Type | Article no. |
|---|---|---|---|---|---|---|
| **450** | 32 | 2 | 10.5 | 8 | - | **2000 814 127** |
| **450** | 32 | 2 | 10.5 | 10 | - | **2000 814 129** |
| **450** | 36 | 2 | 8.5 | 4 | Kasto | **2000 814 499** |
| **450** | 36 | 2 | 8.5 | 6 | Kasto | **2000 814 500** |
| **450** | 38 | 2 | 10.5 | 6 | - | **2000 814 144** |
| **450** | 38 | 2 | 10.5 | 4 | - | **2000 814 142** |
| **450** | 38 | 2 | 8.5 | 4 | Kasto | **2000 814 138** |
| **450** | 38 | 2 | 8.5 | 6 | Kasto | **2000 814 140** |
| **450** | 38 | 2 | 8.5 | 8 | Kasto | **2000 814 131** |
| **450** | 38 | 2 | 10.5 | 8 | - | **2000 814 501** |
| **450** | 38 | 2 | 8.5 | 10 | Kasto | **2000 814 502** |
| **450** | 38 | 2 | 10.5 | 10 | - | **2000 814 506** |
| **500** | 38 | 2 | 10.5 | 6 | - | **2000 814 133** |
| **500** | 38 | 2 | 10.5 | 10 | - | **2000 814 135** |
| **500** | 38 | 2 | 10.5 | 4 | - | **2000 814 507** |
| **500** | 50 | 2.5 | 10.5 | 4 | - | **2000 814 146** |
| **500** | 50 | 2.5 | 10.5 | 6 | - | **2000 814 508** |
| **550** | 45 | 2.25 | 10.5 | 4 | Kasto | **2000 814 148** |
| **550** | 45 | 2.25 | 13 | 6 | - | **2000 814 137** |
| **550** | 45 | 2.25 | 10.5 | 6 | Kasto | **2000 814 150** |
| **575** | 50 | 2.5 | 10.5 | 4 | Kasto | **2000 814 152** |
| **575** | 50 | 2.5 | 10.5 | 6 | Kasto | **2000 814 139** |
| **600** | 50 | 2.5 | 13 | 4 | - | **2000 814 154** |
| **600** | 50 | 2.5 | 13 | 6 | - | **2000 814 141** |
| **600** | 50 | 2.5 | 10.5 | 4 | Kasto | **2000 814 156** |
| **600** | 50 | 2.5 | 10.5 | 6 | Kasto | **2000 814 509** |
| **650** | 50 | 2.5 | 13 | 4 | - | **2000 814 157** |
| **650** | 55 | 2.5 | 10.5 | 4 | Kasto | **2000 814 510** |
| **650** | 55 | 2.5 | 10.5 | 6 | Kasto | **2000 814 511** |
| **700** | 50 | 2.5 | 10.5 | 4 | Kasto | **2000 814 512** |
| **700** | 50 | 2.5 | 10.5 | 6 | Kasto | **2000 814 143** |



## Metal band saw blade M42

Especially wear-resistant bi-metallic saw band in HSS M42 quality · **With variable serration** · Suitable for sawing work in materials of different quality
**Recommended use:**
**Serration 5/8, 6/10, 8/12, 10/14 and 14/18 with 0° cutting angle,** particularly suitable for vibration sensitive sawing, for profile and pipe sections of smaller and medium thickness of wall, for construction, tool and stainless steels
**Serration 3/4 and 4/6 with positive cutting angle** for high cutting performance, **universally applicable,** for standard, tool and high-speed steel as well as non-ferrous metals, solid material and stronger profiles

| Belt L [mm] | Belt W [mm] | Belt th. [mm] | Teeth per inch | Article no. |
|---|---|---|---|---|
| **687** | 13 | 0.51 | 10–14 | **2000 814 013** |
| **687** | 13 | 0.51 | 14–18 | **2000 814 014** |
| **730** | 13 | 0.51 | 10–14 | **2000 814 015** |
| **730** | 13 | 0.51 | 14–18 | **2000 814 016** |
| **733** | 13 | 0.51 | 10–14 | **2000 814 017** |
| **733** | 13 | 0.51 | 14–18 | **2000 814 018** |
| **835** | 13 | 0.51 | 10–14 | **2000 814 019** |
| **835** | 13 | 0.51 | 14–18 | **2000 814 020** |
| **1140** | 13 | 0.51 | 10–14 | **2000 814 021** |
| **1140** | 13 | 0.51 | 14–18 | **2000 814 022** |
| **1140** | 13 | 0.65 | 10–14 | **2000 814 023** |
| **1140** | 13 | 0.65 | 14–18 | **2000 814 024** |
| **1335** | 13 | 0.65 | 6–10 | **2000 813 999** |
| **1335** | 13 | 0.65 | 8–12 | **2000 814 000** |
| **1335** | 13 | 0.65 | 10–14 | **2000 814 001** |
| **1440** | 13 | 0.65 | 8–12 | **2000 814 025** |
| **1440** | 13 | 0.65 | 10–14 | **2000 814 026** |
| **1440** | 13 | 0.65 | 14–18 | **2000 814 027** |
| **1638** | 13 | 0.65 | 10–14 | **2000 813 962** |
| **1735** | 13 | 0.90 | 6–10 | **2000 814 028** |
| **1735** | 13 | 0.90 | 8–12 | **2000 814 029** |
| **1735** | 13 | 0.90 | 10–14 | **2000 814 030** |
| **2360** | 20 | 0.90 | 6–10 | **2000 813 963** |
| **2360** | 20 | 0.90 | 10–14 | **2000 813 964** |

| Belt L [mm] | Belt W [mm] | Belt th. [mm] | Teeth per inch | Article no. |
|---|---|---|---|---|
| **2450** | 27 | 0.90 | 5– 8 | **2000 814 002** |
| **2450** | 27 | 0.90 | 6–10 | **2000 813 965** |
| **2480** | 27 | 0.90 | 5– 8 | **2000 813 966** |
| **2480** | 27 | 0.90 | 6–10 | **2000 813 967** |
| **2700** | 27 | 0.90 | 5– 8 | **2000 813 968** |
| **2700** | 27 | 0.90 | 6–10 | **2000 813 969** |
| **2750** | 27 | 0.90 | 5– 8 | **2000 814 003** |
| **2750** | 27 | 0.90 | 6–10 | **2000 813 970** |
| **2750** | 27 | 0.90 | 10–14 | **2000 813 971** |
| **2825** | 27 | 0.90 | 4– 6 | **2000 813 972** |
| **2825** | 27 | 0.90 | 6–10 | **2000 813 973** |
| **2950** | 27 | 0.90 | 4– 6 | **2000 814 004** |
| **2950** | 27 | 0.90 | 5– 8 | **2000 813 974** |
| **3010** | 27 | 0.90 | 4– 6 | **2000 813 975** |
| **3320** | 27 | 0.90 | 4– 6 | **2000 813 976** |
| **3660** | 27 | 0.90 | 4– 6 | **2000 814 005** |
| **3660** | 27 | 0.90 | 5– 8 | **2000 814 006** |
| **3660** | 27 | 0.90 | 6–10 | **2000 813 977** |
| **3660** | 27 | 0.90 | 10–14 | **2000 814 007** |
| **3770** | 27 | 0.90 | 4– 6 | **2000 813 978** |
| **3770** | 27 | 0.90 | 5– 8 | **2000 813 979** |
| **3770** | 27 | 0.90 | 6–10 | **2000 813 980** |
| **3830** | 27 | 0.90 | 3– 4 | **2000 814 008** |
| **3830** | 27 | 0.90 | 4– 6 | **2000 814 009** |

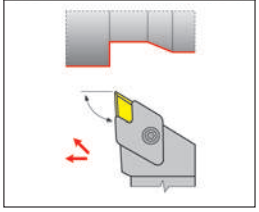


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

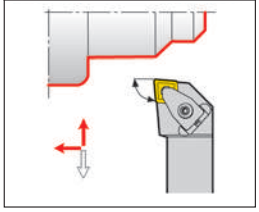
| Size | Calculation formula | Unit | Remark |
|---|---|---|---|
| **Revolution speed** | $n = \frac{v_c \cdot 1000}{D \cdot \pi}$ | [U.min$^{-1}$] | **n** Revolution speed [U.min$^{-1}$]<br>**D** Diameter (of the tool or the workpiece) [U.min$^{-1}$]<br>**$v_c$** Cutting speed [m.min$^{-1}$]<br>**$f_{ot}$** Advance-feed per rotational motion [mm.U$^{-1}$]<br>**$f_{min}$** Minute advance-feed (sometimes designated as rate of feed) [mm.min$^{-1}$]<br>**$f_z$** Tooth advance-feed [mm.Zahn$^{-1}$]<br>**z** Number of teeth [1] |
| **Cutting speed** | $v_c = \frac{\pi \cdot D \cdot n}{1000}$ | [m.min$^{-1}$] | |
| **Advance-feed per rotational motion** | $f_{ot} = \frac{f_{min}}{n} = f_z \cdot z$ | [mm.U$^{-1}$] | |
| **Minute advance-feed** (rate of feed) | $f_{min} = v_f = f_{ot} \cdot n = f_z \cdot z \cdot n$ | [mm.min$^{-1}$] | |
| **Tooth advance-feed** | $f_z = \frac{f_{ot}}{z} = \frac{f_{min}}{n \cdot z}$ | [mm.Zahn$^{-1}$] | |
| **Chip cutting cross-section** | $A = f_z \cdot a_p$ | [mm$^2$] | **A** Chip cutting cross-section [mm$^2$]<br>**$f_{ot}$** Advance-feed per rotational motion [mm.U$^{-1}$]<br>**$a_p$** Axial depth of cut [mm]<br>**$a_e$** Radial depth of cut [mm]<br>**$\kappa_r$** Adjusting angle of the cutting edge [°]<br>**h** Chip cutting thickness [mm]<br>**$v_c$** Cutting speed [m.min$^{-1}$]<br>**$f_{ot}$** Advance-feed per rotational motion [mm.U$^{-1}$]<br>**$f_{min}$** Minute advance-feed (rate of feed) [mm.min$^{-1}$]<br>**$f_z$** Tooth advance-feed [mm.Zahn$^{-1}$]<br>**Q** Removal volume per 1 minute [cm$^3$.min$^{-1}$] |
| **Chip cutting thickness** (for WSP with straight cutting edge) | $h = f \cdot \sin \kappa_r$ | [mm] | |
| **Chip cutting thickness** (for WSP with round cutting edge) | $h = f_z \cdot \sqrt{\frac{a_p}{D}}$ | [mm] | |
| **Removal formulae** | $Q = \frac{a_p \cdot a_e \cdot f_{min}}{1000}$ | [cm$^3$.min$^{-1}$] | |
| **Power requirement** | $P_c = \frac{a_p \cdot a_e \cdot f_{min}}{60 \cdot 10^6 \cdot x \cdot \eta} = k_c \cdot k_\gamma$ | [kW] | **$p_c$** Power input [kW]<br>**$a_p$** Axial depth of cut [mm]<br>**$a_e$** Radial depth of cut [mm]<br>**f** Advance-feed [mm.U$^{-1}$]<br>**$k_c$** Specific main cutting power [MPa]<br>**$k_\gamma$** Factor which includes the angle influence γ0 [°]<br>**η** Efficiency of the milling machine usually η = 0.75 [-]<br>**x** Factor which includes the influence of the material to be processed [cm$^3$.min$^{-1}$] |
| **Approximate power requirement** | $P_c = \frac{a_p \cdot a_e \cdot f}{x}$ | [kW] | |

| Material | Steel | Cast | Alu |
|---|---|---|---|
| Faktor **X** | 24000 | 30000 | 12000 |

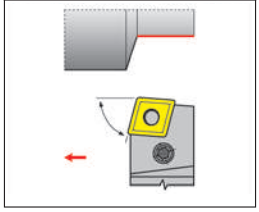
CKJNR/L page 100



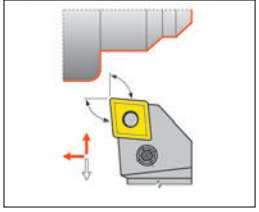
DCLNR/L page 100



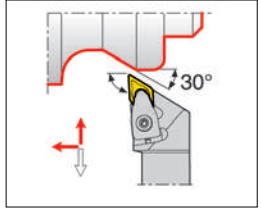
PCBNR page 100



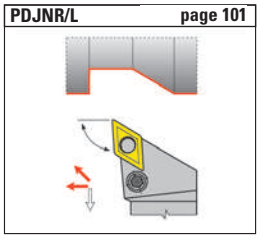
PCLNR/L page 100



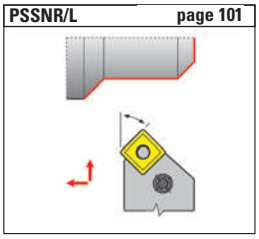
DDJNR/L page 101



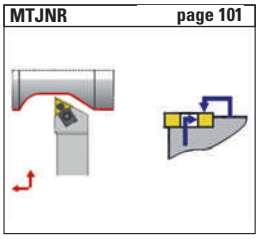

PDJNR/L page 101



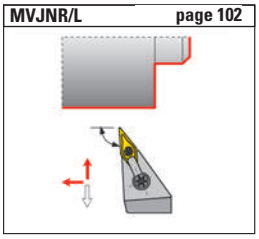
PSSNR/L page 101



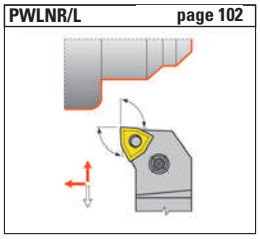
MTJNR page 101



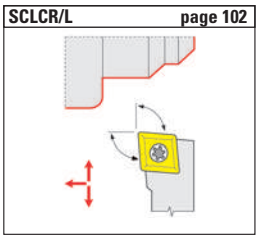
MVJNR/L page 102



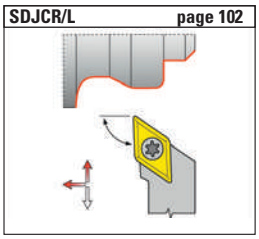
PWLNR/L page 102



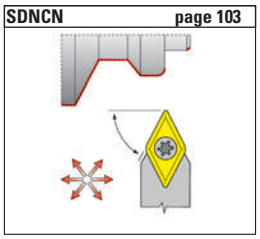
SCLCR/L page 102



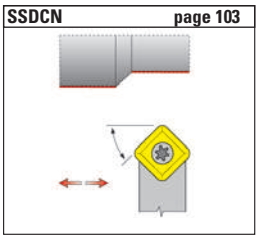
SDJCR/L page 102



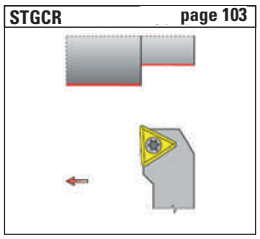
SDNCN page 103



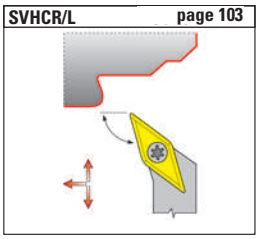
SSDCN page 103



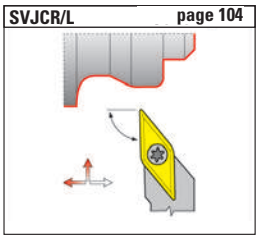
STGCR page 103



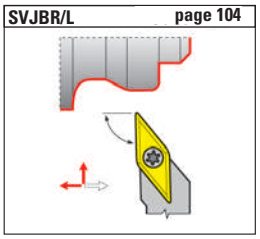
SVHCR/L page 103



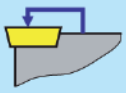
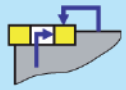
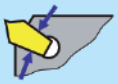
SVJCR/L page 104



SVJBR/L page 104



## 1 Fastening system

| | |
|---|---|
| C |  |
| P |  |
| M |  |
| S |  |
| X |  |
| G |  |

## 2 Fastening system

| | |
|---|---|
| S | C 80° |
| T | D 55° |
| R | K 55° |
| W 80° | V 35° |
| L | X Special |

## 3 Holder shape - Adjusting angle

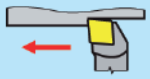
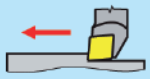
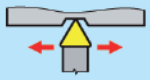
| | | | | |
|---|---|---|---|---|
| A 90° | B 75° | C 90° | D 45° | D |
| E 60° | F 90° | G 90° | H 107°30´ | J 93° |
| K 75° | L 95° | M 50° | N 62°30´ | P 117°30´ |
| Q 107°30´ | R 75° | S 45° | S | T 60° |
| U 93° | V 72°30´ | W 60° | X Special | Y 85° |
| Z K | | | | |

## 4 Relief angle



| N | C | P |
|---|---|---|
| $\alpha_n$=0° | $\alpha_n$=7° | $\alpha_n$=11° |

## 5 Cutting direction

| | |
|---|---|
| R |  |
| L |  |
| N |  |

| 1 | 2 | 3 | 4 | 5 | | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| C | K | J | N | R | - | 32 | 25 | L | 19 | - |
| | | | | | | | | | | S |

## 6 Shank height (mm)



| | | | | | |
|---|---|---|---|---|---|
| 08 | 10 | 12 | 16 | 20 | 25 |
| 32 | 38 | 40 | 45 | 50 | |

## 7 Shank width (mm)

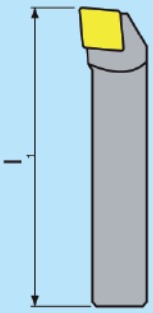


| | | | | | |
|---|---|---|---|---|---|
| 08 | 10 | 12 | 16 | 20 | 25 |
| 32 | 38 | 40 | 45 | 50 | |

## 10 Specifications of the manufacturer

| | |
|---|---|
| M | Clamping system "S" with underlay plate |
| S | With locking screws |

## 8 Length of tool



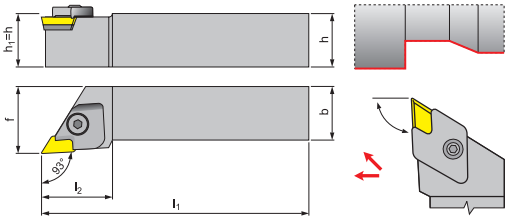
| | $l_1$ [mm] |
|---|---|
| D | 60 |
| E | 70 |
| F | 80 |
| H | 100 |
| J | 110 |
| K | 125 |
| L | 140 |
| M | 150 |
| N | 160 |
| P | 170 |
| Q | 180 |
| R | 200 |
| S | 250 |
| T | 300 |
| U | 350 |
| V | 400 |
| W | 450 |
| X | Spec. |
| Y | 500 |

## 9 Cutting edge length

| d [mm] | S | C | D | V | K | W | T | R |
|---|---|---|---|---|---|---|---|---|
| 6,00 | | | | | | | | 06 |
| 6,35 | | 06 | 07 | 11 | | | 11 | |
| 8,00 | | | | | | | | 08 |
| 9,525 | 09 | 09 | 11 | 16 | 19 | 06 | 16 | |
| 10,00 | | | | | | | | 10 |
| 12,00 | | | | | | | | 12 |
| 12,70 | 12 | 12 | 15 | | | 08 | 22 | 12 |
| 15,875 | 15 | 16 | | | | | 27 | 15 |
| 16,00 | | | | | | | | 16 |
| 19,05 | 19 | 19 | | | | | | 19 |
| 20,00 | | | | | | | | 20 |
| 25,00 | | | | | | | | 25 |
| 25,40 | 25 | 25 | | | | | | 25 |



Supplied without insert



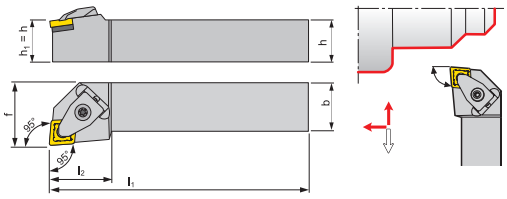

## Rotating tool holder CKJN

Negative · Clamp lever clamping · For external rotation
Matching indexable inserts from page 126, spare parts on page 111, 127

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **CKJNR2525M16** | KNUX 1604.. | R | 25 | 25 | 32 | 150 | 34 | **2484 001 303** |
| **Left** | | | | | | | | |
| **CKJNL2525M16** | KNUX 1604.. | L | 25 | 25 | 32 | 150 | 34 | **2484 001 304** |



Supplied without insert



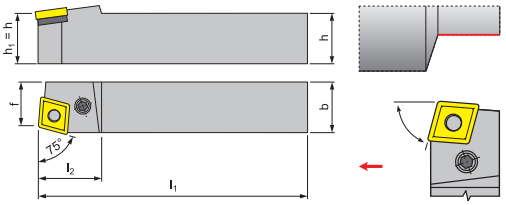

## Rotating tool holder DCLN

Negative · Clamp lever clamping · For external rotation
Matching indexable inserts from page 118, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **DCLNR2020K12** | CN..1204.. | DC 12 | 20 | 20 | 27 | 125 | 30 | **2484 003 699** |
| **DCLNR2525M12** | CN..1204.. | DC 12 | 25 | 25 | 32 | 150 | 30 | **2484 003 701** |
| **Left** | | | | | | | | |
| **DCLNL2020K12** | CN..1204.. | DC 12 | 20 | 20 | 27 | 125 | 30 | **2484 003 700** |
| **DCLNL2525M12** | CN..1204.. | DC 12 | 25 | 25 | 32 | 150 | 30 | **2484 003 702** |



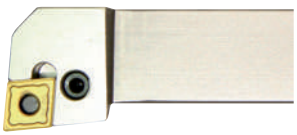
Supplied without insert



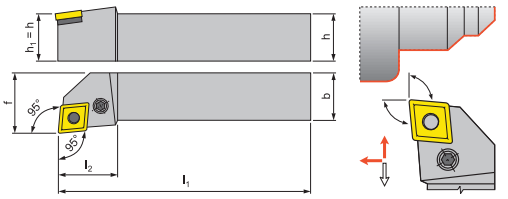

## Rotating tool holder PCBN

Negative · Pin clamping · For external rotation
Matching indexable inserts from page 118, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **PCBNR2020K12** | CN..1204.. | PC 12 | 20 | 20 | 17 | 125 | 36 | **2484 001 995** |
| **PCBNR2525M12** | CN..1204.. | PC 12 | 25 | 25 | 22 | 150 | 36 | **2484 001 357** |



Supplied without insert



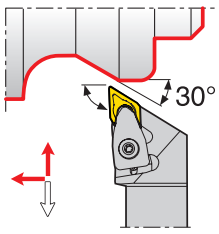

## Rotating tool holder PCLN

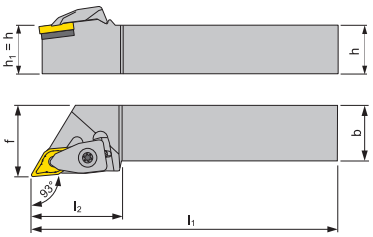
Negative · Pin clamping · For external rotation
Matching indexable inserts from page 118, spare parts on page 111

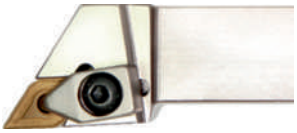
| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **PCLNR2020K12** | CN..1204.. | PC 12 | 20 | 20 | 25 | 125 | 32 | **2000 859 231** |
| **PCLNR2525M12** | CN..1204.. | PC 12 | 25 | 25 | 32 | 150 | 32 | **2000 859 233** |
| **PCLNR3232P12** | CN..1204.. | PC 12 | 32 | 32 | 40 | 170 | 32 | **2484 001 169** |
| **Left** | | | | | | | | |
| **PCLNL2020K12** | CN..1204.. | PC 12 | 20 | 20 | 25 | 125 | 32 | **2000 859 230** |
| **PCLNL2525M12** | CN..1204.. | PC 12 | 25 | 25 | 32 | 150 | 32 | **2000 859 232** |
| **PCLNL3232P12** | CN..1204.. | PC 12 | 32 | 32 | 40 | 170 | 32 | **2484 001 054** |

## Rotating tool holder DDJN

Negative · Clamp lever clamping ·
For external rotation
Matching indexable inserts from page 123, spare parts on page 111



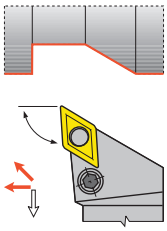



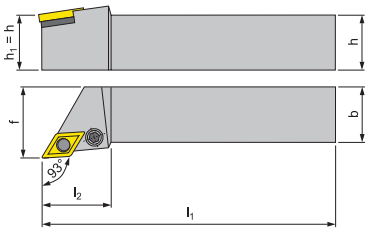
Supplied without insert

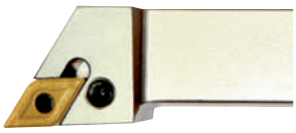
| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **DDJNR2020K15** | DN..1506.. | DD 15 | 20 | 20 | 25 | 125 | 40 | **2484 003 711** |
| **DDJNR2525M15** | DN..1506.. | DD 15 | 25 | 25 | 32 | 150 | 40 | **2484 003 713** |
| **Left** | | | | | | | | |
| **DDJNL2020K15** | DN..1506.. | DD 15 | 20 | 20 | 25 | 125 | 40 | **2484 003 712** |
| **DDJNL2525M15** | DN..1506.. | DD 15 | 25 | 25 | 32 | 150 | 40 | **2484 003 714** |

## Rotating tool holder PDJN

Negative · Pin clamping · For external rotation
Matching indexable inserts from page 123, spare parts on page 111





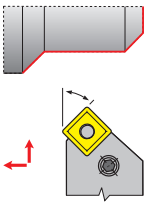



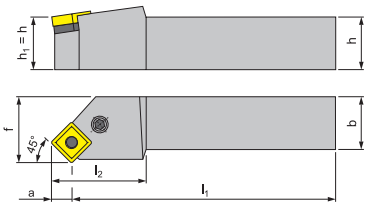
Supplied without insert

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **PDJNR1616H11** | DN..1104.. | PD 11 | 16 | 16 | 20 | 100 | 29 | **2484 001 030** |
| **PDJNR2020K11** | DN..1104.. | PD 11 | 20 | 20 | 25 | 125 | 29 | **2484 001 066** |
| **PDJNR2525M11** | DN..1104.. | PD 11 | 25 | 25 | 32 | 150 | 35 | **2484 001 067** |
| **PDJNR2020K15** | DN..1506.. | PD 15 | 20 | 20 | 25 | 125 | 35 | **2000 859 251** |
| **PDJNR2525M15** | DN..1506.. | PD 15 | 25 | 25 | 32 | 150 | 35 | **2000 859 253** |
| **Left** | | | | | | | | |
| **PDJNL2020K11** | DN..1104.. | PD 11 | 20 | 20 | 25 | 125 | 29 | **2484 001 063** |
| **PDJNL2020K15** | DN..1506.. | PD 15 | 20 | 20 | 25 | 125 | 35 | **2000 859 250** |
| **PDJNL2525M15** | DN..1506.. | PD 15 | 25 | 25 | 32 | 150 | 35 | **2000 859 252** |

## Rotating tool holder PSSN

Negative · Pin clamping · For external rotation
Matching indexable inserts from page 127, spare parts on page 111





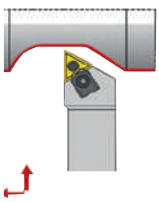


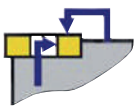

Supplied without insert

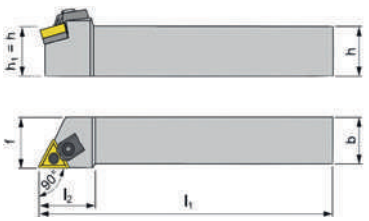
| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | a [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **PSSNR2020K12** | SN.. 1204.. | PS 12 | 20 | 20 | 25 | 125 | 8.3 | 36 | **2484 001 321** |
| **PSSNR2525M12** | SN.. 1204.. | PS 12 | 25 | 25 | 32 | 150 | 8.3 | 36 | **2484 001 307** |
| **Left** | | | | | | | | | |
| **PSSNL2020K12** | SN.. 1204.. | PS 12 | 20 | 20 | 25 | 125 | 8.3 | 36 | **2484 001 800** |
| **PSSNL2525M12** | SN.. 1204.. | PS 12 | 25 | 25 | 32 | 150 | 8.3 | 36 | **2484 001 570** |

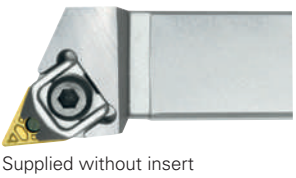
## Rotating tool holder MTJN

Negative · Clamp lever/pin clamping ·
**Very low vibration** ·
For external rotation
Matching indexable inserts from page 129, spare parts on page 111







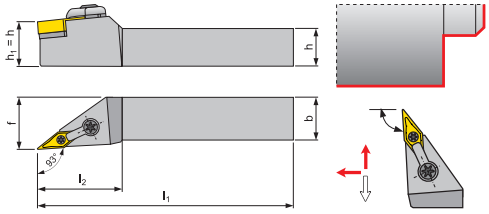



Supplied without insert

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **MTJNR2020K16** | TN.. 1604.. | MT 16 | 20 | 20 | 25 | 125 | 32 | **2000 858 729** |
| **MTJNR2525M16** | TN.. 1604.. | MT 16 | 25 | 25 | 32 | 150 | 32 | **2000 858 730** |



Supplied without insert



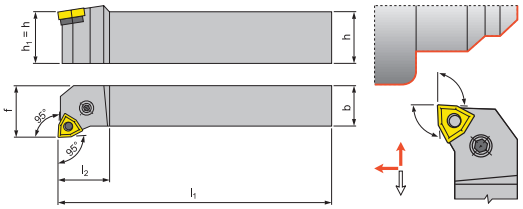

## Rotating tool holder MVJN

Negative · Clamp lever/pin clamping · **Very low vibration** · For external rotation
Matching indexable inserts from page 131,
spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **MVJNR2020K16** | VN.. 1604.. | MV 2 | 20 | 20 | 25 | 125 | 32 | **2484 001 080** |
| **MVJNR2525M16** | VN.. 1604.. | MV 2 | 25 | 25 | 32 | 150 | 32 | **2484 001 081** |
| **Left** | | | | | | | | |
| **MVJNL2020K16** | VN.. 1604.. | MV 2 | 20 | 20 | 25 | 125 | 32 | **2484 001 078** |



Supplied without insert



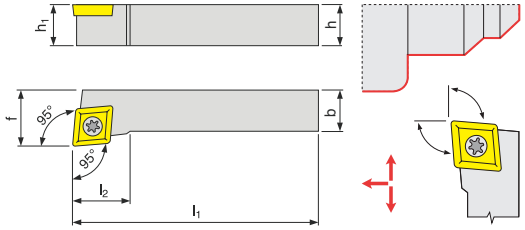

## Rotating tool holder PWLN

Negative · Pin clamping · For external rotation
Matching indexable inserts from page 131,
spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **PWLNR1616H06** | WN.. 0604.. | PW 06 | 16 | 16 | 20 | 100 | 20 | **2484 001 872** |
| **PWLNR2020K06** | WN.. 0604.. | PW 06 | 20 | 20 | 25 | 125 | 20 | **2484 000 900** |
| **PWLNR2020K08** | WN.. 0804.. | PW 08 | 20 | 20 | 25 | 125 | 29 | **2000 859 221** |
| **PWLNR2525M08** | WN.. 0804.. | PW 08 | 25 | 25 | 32 | 150 | 33 | **2000 859 223** |
| **Left** | | | | | | | | |
| **PWLNL1616H06** | WN.. 0604.. | PW 06 | 16 | 16 | 20 | 100 | 20 | **2484 001 566** |
| **PWLNL2020K06** | WN.. 0604.. | PW 06 | 20 | 20 | 25 | 125 | 20 | **2484 001 567** |
| **PWLNL2020K08** | WN.. 0804.. | PW 08 | 20 | 20 | 25 | 125 | 29 | **2000 859 220** |
| **PWLNL2525M08** | WN.. 0804.. | PW 08 | 25 | 25 | 32 | 150 | 33 | **2000 859 222** |



Supplied without insert



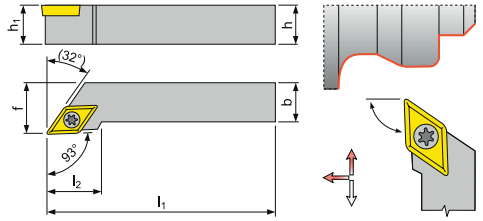

## Rotating tool holder SCLC

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 115,
spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SCLCR1010E06** | CC.. 0602.. | SC 06 | 10 | 10 | 12 | 70 | 11 | **2484 001 061** |
| **SCLCR1212F09** | CC.. 09T3.. | SC 09 | 12 | 12 | 16 | 80 | 20 | **2000 859 158** |
| **SCLCR1616H09** | CC.. 09T3.. | SC 09 | 16 | 16 | 20 | 100 | 20 | **2000 859 160** |
| **SCLCR2020K09** | CC.. 09T3.. | SC 09 | 20 | 20 | 25 | 125 | 20 | **2484 001 250** |
| **SCLCR2020K12** | CC.. 1204.. | SC 12 | 20 | 20 | 25 | 125 | 29 | **2000 859 162** |
| **SCLCR2525M12** | CC.. 1204.. | SC 12 | 25 | 25 | 32 | 150 | 29 | **2000 859 164** |
| **Left** | | | | | | | | |
| **SCLCL1010E06** | CC.. 0602.. | SC 06 | 10 | 10 | 12 | 70 | 11 | **2484 001 280** |
| **SCLCL1212F09** | CC.. 09T3.. | SC 09 | 12 | 12 | 16 | 80 | 20 | **2000 859 157** |
| **SCLCL1616H09** | CC.. 09T3.. | SC 09 | 16 | 16 | 20 | 100 | 20 | **2000 859 159** |
| **SCLCL2020K09** | CC.. 09T3.. | SC 09 | 20 | 20 | 25 | 125 | 20 | **2484 001 252** |
| **SCLCL2020K12** | CC.. 1204.. | SC 12 | 20 | 20 | 25 | 125 | 29 | **2000 859 161** |
| **SCLCL2525M12** | CC.. 1204.. | SC 12 | 25 | 25 | 32 | 150 | 29 | **2000 859 163** |



Supplied without insert



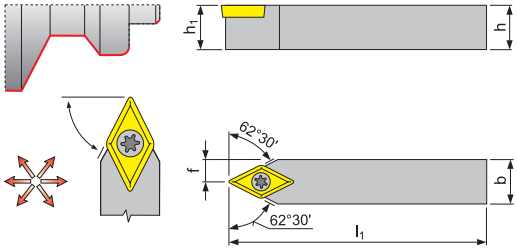

## Rotating tool holder SDJC

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 121,
spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SDJCR1010E07** | DC.. 0702.. | SD 07 | 10 | 10 | 12 | 70 | 14 | **2484 001 284** |
| **SDJCR1212F11** | DC.. 11T3.. | SD 11 | 12 | 12 | 16 | 80 | 14 | **2484 001 084** |
| **SDJCR1616H11** | DC.. 11T3.. | SD 11 | 16 | 16 | 20 | 100 | 20 | **2484 001 309** |
| **SDJCR2020K11** | DC.. 11T3.. | SD 11 | 20 | 20 | 25 | 125 | 20 | **2000 859 201** |
| **SDJCR2525M11** | DC.. 11T3.. | SD 11 | 25 | 25 | 32 | 150 | 20 | **2000 859 203** |
| **Left** | | | | | | | | |
| **SDJCL1010E07** | DC.. 0702.. | SD 07 | 10 | 10 | 12 | 70 | 14 | **2484 001 336** |
| **SDJCL1212F11** | DC.. 11T3.. | SD 11 | 12 | 12 | 16 | 80 | 14 | **2484 001 126** |
| **SDJCL1616H11** | DC.. 11T3.. | SD 11 | 16 | 16 | 20 | 100 | 20 | **2484 001 283** |
| **SDJCL2020K11** | DC.. 11T3.. | SD 11 | 20 | 20 | 25 | 125 | 20 | **2000 859 200** |
| **SDJCL2525M11** | DC.. 11T3.. | SD 11 | 25 | 25 | 32 | 150 | 20 | **2000 859 202** |

## Rotating tool holder SDNCN

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 121,
spare parts on page 111



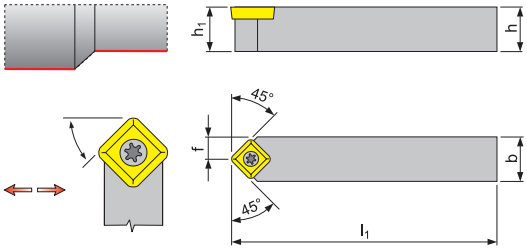



Supplied without insert

| ISO designation | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **SDNCN1616H11** | DC.. 11T3.. | SD 11 | 16 | 16 | 8 | 100 | **2484 001 301** |
| **SDNCN2020K11** | DC.. 11T3.. | SD 11 | 20 | 20 | 10 | 125 | **2484 000 790** |
| **SDNCN2525M11** | DC.. 11T3.. | SD 11 | 25 | 25 | 12.5 | 150 | **2484 000 791** |

## Rotating tool holder SSDCN

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 126,
spare parts on page 111



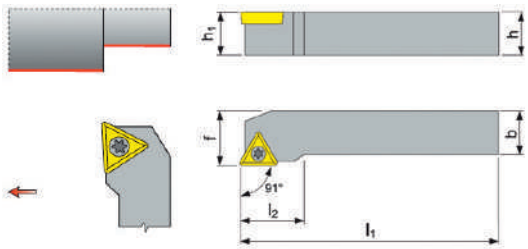



Supplied without insert

| ISO designation | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **SSDCN1212F09** | SC.. 09T3.. | SS 09 | 12 | 12 | 6 | 80 | **2484 001 170** |
| **SSDCN1616H09** | SC.. 09T3.. | SS 09 | 16 | 16 | 8 | 100 | **2484 001 134** |
| **SSDCN2020K12** | SC.. 1204.. | SS 12 | 20 | 20 | 10 | 125 | **2484 000 806** |
| **SSDCN2525M12** | SC.. 1204.. | SS 12 | 25 | 25 | 12.5 | 150 | **2484 000 807** |

## Rotating tool holder STGCR

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 127,
spare parts on page 111



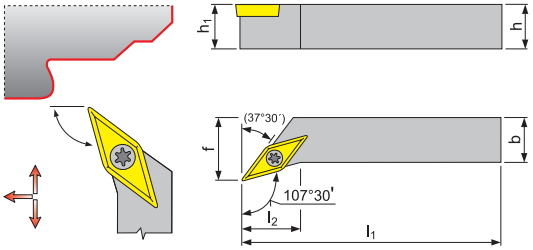



Supplied without insert

| ISO designation<br>Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **STGCR1616H11** | TC.. 1102.. | SD 07 | 16 | 16 | 20 | 100 | 18 | **2484 001 138** |
| **STGCR2020K16** | TC.. 16T3.. | ST 16 | 20 | 20 | 25 | 125 | 25 | **2484 000 819** |

## Rotating tool holder SVHC

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 130,
spare parts on page 111



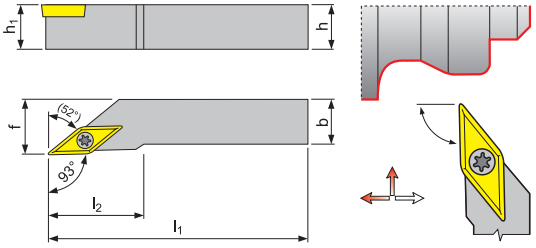



Supplied without insert

| ISO designation<br>Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SVHCR2020K16** | VC.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 20 | **2484 000 823** |
| **SVHCR2525M16** | VC.. 1604.. | SV 16 | 25 | 25 | 32 | 150 | 20 | **2484 000 824** |
| **Left** | | | | | | | | |
| **SVHCL2020K16** | VC.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 20 | **2484 000 821** |
| **SVHCL2525M16** | VC.. 1604.. | SV 16 | 25 | 25 | 32 | 150 | 20 | **2484 000 822** |



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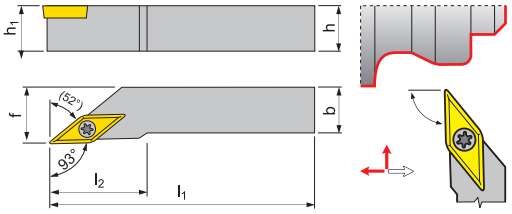

## Rotating tool holder SVJC

Positive · Screw clamping · For external rotation
Matching indexable inserts from page 130,
spare parts on page 111

| ISO designation<br>Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SVJCR1616H11** | VC.. 1103.. | SD 07 | 16 | 16 | 20 | 100 | 20 | **2484 001 085** |
| **SVJCR2020K11** | VC.. 1103.. | SD 07 | 20 | 20 | 25 | 125 | 28 | **2484 001 087** |
| **SVJCR2020K16** | VC.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 28 | **2484 000 828** |
| **SVJCR2525M16** | VC.. 1604.. | SV 16 | 25 | 25 | 32 | 150 | 32 | **2484 000 829** |
| **Left** | | | | | | | | |
| **SVJCL1616H11** | VC.. 1103.. | SD 07 | 16 | 16 | 20 | 100 | 20 | **2484 001 434** |
| **SVJCL2020K11** | VC.. 1103.. | SD 07 | 20 | 20 | 25 | 125 | 28 | **2484 001 435** |
| **SVJCL2020K16** | VC.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 28 | **2484 000 825** |
| **SVJCL2525M16** | VC.. 1604.. | SV 16 | 25 | 25 | 32 | 150 | 32 | **2484 000 826** |



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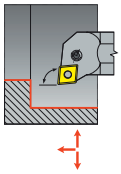



## Rotating tool holder SVJB

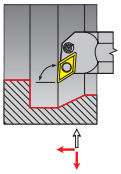
Positive · Screw clamping · For external rotation
Matching indexable inserts from page 129,
spare parts on page 111

| ISO designation<br>Right | Indexable insert | Spare parts | h=h1 [mm] | b [mm] | F [mm] | l1 [mm] | l2 max. [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SVJBR2020K16** | VB.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 36 | **2483 999 996** |
| **SVJBR2525M16** | VB.. 1604.. | SV 16 | 25 | 25 | 21 | 150 | 36 | **2483 999 997** |
| **Left** | | | | | | | | |
| **SVJBL2020K16** | VB.. 1604.. | SV 16 | 20 | 20 | 25 | 125 | 36 | **2483 999 998** |
| **SVJBL2525M16** | VB.. 1604.. | SV 16 | 25 | 25 | 21 | 150 | 36 | **2483 999 999** |

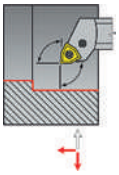
**PCLNR/L** Page 106



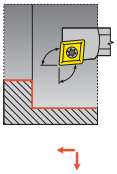
**PDUNR** Page 106



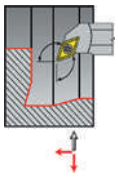
**PWLNR/L** Page 106



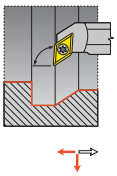
**SCLCR/L** Page 106



**SDQCR/L** Page 108



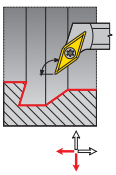
**SDUCR/L** Page 109



**STFCR** Page 110



**SVQCR** Page 110





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## 1 Shank

| | |
|---|---|
| S | Steel shank |
| A | Steel shank with inner coolant supply |

## 2 Shank Ø (mm)

| | | | | |
|---|---|---|---|---|
| 08 | 10 | 12 | 16 | 20 |
| 25 | 32 | 40 | 50 | 60 |

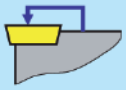
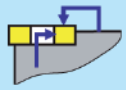
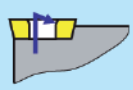
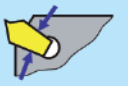
| 1 | 2 | 3 | | 4 | 5 | 6 | 7 | 8 | 9 | | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 40 | T | - | P | C | L | N | L | 12 | - | X |

## 3 Length of tool



| | $l_1$ [mm] |
|---|---|
| D | 60 |
| E | 70 |
| F | 80 |
| H | 100 |
| J | 110 |
| K | 125 |
| L | 140 |
| M | 150 |
| N | 160 |
| P | 170 |
| Q | 180 |
| R | 200 |
| S | 250 |
| T | 300 |
| U | 350 |
| V | 400 |
| W | 450 |
| X | Spec. |
| Y | 500 |

## 4 Fastening system

| | |
|---|---|
| C |  |
| P |  |
| M |  |
| S |  |
| X |  |
| G |  |

## 5 Plate form

| | |
|---|---|
| S | C 80° |
| T | D 55° |
| R | K 55° |
| W 80° | V 35° |
| L | X SPECIAL |

## 6 Holder shape - Adjusting angle

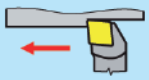
| | | | | |
|---|---|---|---|---|
| A 90° | B 75° | C 90° | D 45° | D |
| E 60° | F 90° | G 90° | H 107°30´ | J 93° |
| K 75° | L 95° | M 50° | N 62°30´ | P 117°30´ |
| Q 107°30´ | R 75° | S 45° | S | T 60° |
| U 93° | V 72°30´ | W 60° | X Special | Y 85° |
| Z κ | | | | |

## 7 Relief angle



| N | C | P |
|---|---|---|
| $\alpha_n$=0° | $\alpha_n$=7° | $\alpha_n$=11° |

## 8 Cutting direction

| | |
|---|---|
| R |  |
| L |  |

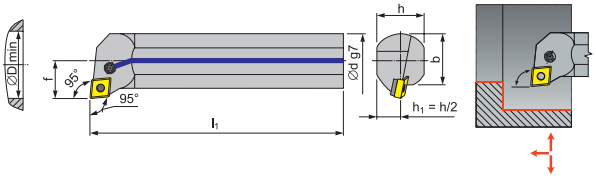
## 9 Cutting edge length

| d [mm] | S | C | D | V | K | W | T | R |
|---|---|---|---|---|---|---|---|---|
| 6,00 | | | | | | | | 06 |
| 6,35 | | 06 | 07 | 11 | | | 11 | |
| 8,00 | | | | | | | | 08 |
| 9,525 | 09 | 09 | 11 | 16 | 19 | 06 | 16 | |
| 10,00 | | | | | | | | 10 |
| 12,00 | | | | | | | | 12 |
| 12,70 | 12 | 12 | 15 | | | 08 | 22 | 12 |
| 15,875 | 15 | 16 | | | | | 27 | 15 |
| 16,00 | | | | | | | | 16 |
| 19,05 | 19 | 19 | | | | | | 19 |
| 20,00 | | | | | | | | 20 |
| 25,00 | | | | | | | | 25 |
| 25,40 | 25 | 25 | | | | | | 25 |

## 10 Specifications of the manufacturer

| | |
|---|---|
| X | Special shank shape |
| . | Adjusting angle κ with holder shape „Z“ |
| . | |
| 87 | |
| 90 | |
| 93 | |
| . | |
| . | |



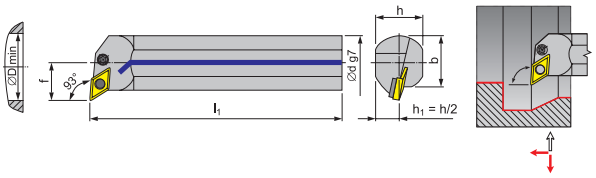



## Boring bar PCLN

Negative · Pin clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 118, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A25S-PCLNR 12** | CN..1204.. | PC 13 | 25 | 17 | 250 | 23 | 23 | 32 | **2484 001 364** |
| **A32S-PCLNR 12** | CN..1204.. | PC 13 | 32 | 22 | 250 | 30 | 30 | 40 | **2484 001 942** |
| **A40T-PCLNR 12** | CN..1204.. | PC 13 | 40 | 27 | 300 | 38 | 38 | 50 | **2484 001 710** |
| **Left** | | | | | | | | | |
| **A25R-PCLNL 12** | CN..1204.. | PC 13 | 25 | 17 | 200 | 23 | 23 | 32 | **2484 001 699** |
| **A32S-PCLNL 12** | CN..1204.. | PC 13 | 32 | 22 | 250 | 30 | 30 | 40 | **2484 001 963** |
| **A40T-PCLNL 12** | CN..1204.. | PC 13 | 40 | 27 | 300 | 38 | 38 | 50 | **2484 001 777** |





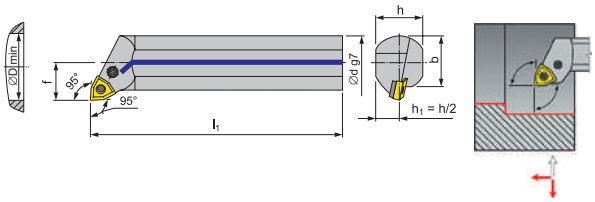

## Boring bar PDUN

Negative · Pin clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 123, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A20Q-PDUNR 11** | DN..1104.. | PD 11 | 20 | 14 | 180 | 23 | 23 | 30 | **2483 999 986** |
| **A25R-PDUNR 11** | DN..1104.. | PD 11 | 25 | 17 | 200 | 23 | 23 | 32 | **2483 999 987** |
| **A32S-PDUNR 15** | DN..1506.. | PD 12 | 32 | 22 | 250 | 30 | 30 | 40 | **2484 001 985** |
| **A40T-PDUNR 15** | DN..1506.. | PD 12 | 40 | 27 | 300 | 38 | 38 | 50 | **2484 001 888** |



Supplied without insert



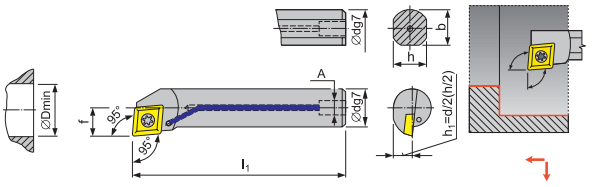

## Boring bar PWLN

Negative · Pin clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 131, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A25R-PWLNR 08** | WN.. 0804.. | PW 09 | 25 | 17 | 200 | 23 | 23 | 32 | **2000 859 149** |
| **Left** | | | | | | | | | |
| **A25R-PWLNL 08** | WN.. 0804.. | PW 09 | 25 | 17 | 200 | 23 | 23 | 32 | **2000 859 000** |



Supplied without insert




## Boring bar SCLC

Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 115, spare parts on page 111

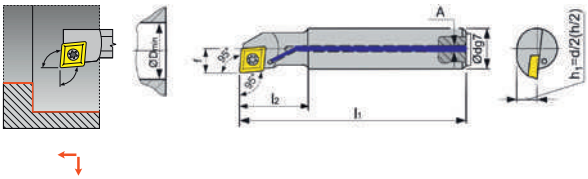
| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A08F-SCLCR 06** | CC.. 0602.. | SC 06 | 8 | 6 | 80 | 7.2 | 7.6 | 11 | **2000 859 125** |
| **A10H-SCLCR 06** | CC.. 0602.. | SC 06 | 10 | 7 | 100 | 9.0 | - | 13 | **2000 859 108** |
| **A12K-SCLCR 06** | CC.. 0602.. | SC 06 | 12 | 9 | 125 | 11.0 | - | 16 | **2000 859 114** |
| **A16M-SCLCR 09** | CC.. 09T3.. | SC 08 | 16 | 11 | 150 | 14.5 | - | 20 | **2000 859 136** |
| **A20Q-SCLCR 09** | CC.. 09T3.. | SC 08 | 20 | 13 | 180 | 18.0 | - | 25 | **2000 859 138** |
| **A25Q-SCLCR 09** | CC.. 09T3.. | SC 08 | 25 | 17 | 180 | 23.0 | 23 | 32 | **2484 001 258** |
| **Left** | | | | | | | | | |
| **A08F-SCLCL 06** | CC.. 0602.. | SC 06 | 8 | 6 | 80 | 7.2 | 7.6 | 11 | **2000 859 126** |
| **A10H-SCLCL 06** | CC.. 0602.. | SC 06 | 10 | 7 | 100 | 9.0 | - | 13 | **2000 859 109** |
| **A12K-SCLCL 06** | CC.. 0602.. | SC 06 | 12 | 9 | 125 | 11.0 | - | 16 | **2000 859 135** |
| **A16M-SCLCL 09** | CC.. 09T3.. | SC 08 | 16 | 11 | 150 | 14.5 | - | 20 | **2000 859 137** |
| **A20Q-SCLCL 09** | CC.. 09T3.. | SC 08 | 20 | 13 | 180 | 18.0 | - | 25 | **2000 859 139** |
| **A25Q-SCLCL 09** | CC.. 09T3.. | SC 08 | 25 | 17 | 180 | 23.0 | 23 | 32 | **2484 001 262** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Boring bar SCLC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 115, spare parts on page 111





Supplied without insert

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | l2 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A0608H-SCLCR 06** | CC.. 0602.. | SC 06 | 8 | 4 | 100 | 25 | 7 | 9 | **2000 859 215** |
| **A0810J-SCLCR 06** | CC.. 0602.. | SC 10 | 10 | 6 | 110 | 32 | 9 | 12 | **2000 859 216** |
| **A1012K-SCLCR 06** | CC.. 0602.. | SC 10 | 12 | 7 | 125 | 38 | 11 | 14 | **2000 859 217** |
| **A1216M-SCLCR 06** | CC.. 0602.. | SC 10 | 16 | 9 | 150 | 50 | 15 | 18 | **2000 859 218** |
| **Left** | | | | | | | | | |
| **A0608H-SCLCL 06** | CC.. 0602.. | SC 06 | 8 | 4 | 100 | 25 | 7 | 9 | **2000 859 256** |
| **A0810J-SCLCL 06** | CC.. 0602.. | SC 10 | 10 | 6 | 110 | 32 | 9 | 12 | **2000 859 257** |
| **A1012K-SCLCL 06** | CC.. 0602.. | SC 10 | 12 | 7 | 125 | 38 | 11 | 14 | **2000 859 258** |
| **A1216M-SCLCL 06** | CC.. 0602.. | SC 10 | 16 | 9 | 150 | 50 | 15 | 18 | **2000 859 259** |

## Boring bar set SCLC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

**Contents:**
1 pc. each of A0608H-SCLC 06
A0810J-SCLC 06
A1012K-SCLC 06
A1216M-SCLC 06
Matching indexable inserts from page 115, spare parts on page 111

**SCLC offset shank**



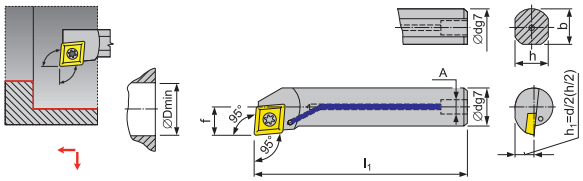
Supplied without insert

| Type | Contents | Article no. |
|---|---|---|
| **SCLC-R 06** | 4-part | **2000 859 219** |
| **SCLC-L 06** | 4-part | **2000 859 224** |

VHM

## Boring bar SCLC

**Solid carbide** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 115, spare parts on page 111





Supplied without insert

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **E08K-SCLCR 06** | CC.. 0602.. | SC 06 | 8 | 4.8 | 125 | 7 | 12 | **2000 858 982** |
| **E10K-SCLCR 06** | CC.. 0602.. | SC 06 | 10 | 5.8 | 125 | 9 | 14 | **2000 858 983** |
| **E12M-SCLCR 06** | CC.. 0602.. | SC 06 | 12 | 7 | 150 | 11 | 18 | **2000 858 984** |
| **E16R-SCLCR 09** | CC.. 09T3.. | SC 08 | 16 | 10 | 200 | 8 | 22 | **2000 858 753** |
| **Left** | | | | | | | | |
| **E08K-SCLCL 06** | CC.. 0602.. | SC 06 | 8 | 4.8 | 125 | 7 | 12 | **2000 858 985** |
| **E10K-SCLCL 06** | CC.. 0602.. | SC 06 | 10 | 5.8 | 125 | 9 | 14 | **2000 858 986** |
| **E12M-SCLCL 06** | CC.. 0602.. | SC 06 | 12 | 7 | 150 | 11 | 18 | **2000 858 987** |
| **E16R-SCLCL 09** | CC.. 09T3.. | SC 08 | 16 | 10 | 200 | 8 | 22 | **2000 858 754** |

VHM

## Boring bar set SCLC

**Solid carbide** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

**Contents:**
1 pc. each of E08K-SCLC 06
E10K-SCLC 06
E12M-SCLC 06
Matching indexable inserts from page 115, spare parts on page 111

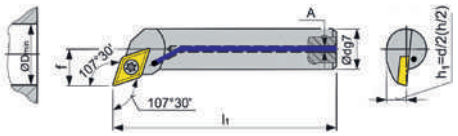


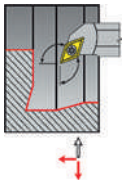
Supplied without insert

| Type | Contents | Article no. |
|---|---|---|
| **SCLC-R 06** | 3-part | **2000 858 854** |
| **SCLC-L 06** | 3-part | **2000 858 897** |



Supplied without insert



## Boring bar SDQC

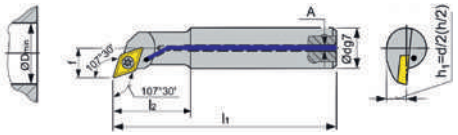
Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

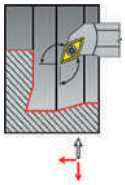
Matching indexable inserts from page 121, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **A12K-SDQCR 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 11 | 18 | **2000 859 976** |
| **A16M-SDQCR 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 15 | 22 | **2000 859 977** |
| **A20Q-SDQCR 11** | DC.. 11T3.. | SC 08 | 20 | 13 | 180 | 18 | 26 | **2000 859 979** |
| **A25Q-SDQCR 11** | DC.. 11T3.. | SC 08 | 25 | 17 | 180 | 23 | 34 | **2000 859 980** |
| **Left** | | | | | | | | |
| **A12K-SDQCL 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 11 | 18 | **2000 859 981** |
| **A16M-SDQCL 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 15 | 22 | **2000 859 982** |
| **A20Q-SDQCL 11** | DC.. 11T3.. | SC 08 | 20 | 13 | 180 | 18 | 26 | **2000 859 984** |
| **A25Q-SDQCL 11** | DC.. 11T3.. | SC 08 | 25 | 17 | 180 | 23 | 34 | **2000 859 985** |



Supplied without insert



## Boring bar SDQC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

Matching indexable inserts from page 121, spare parts on page 111

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | l2 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A0810H-SDQCR 07** | DC.. 0702.. | SC 06 | 10 | 7 | 100 | 22 | 9 | 13 | **2000 859 986** |
| **A1012K-SDQCR 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 28 | 11 | 16 | **2000 859 987** |
| **A1216M-SDQCR 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 36 | 15 | 20 | **2000 859 988** |



Supplied without insert

## Boring bar set SDQC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

**Contents:**

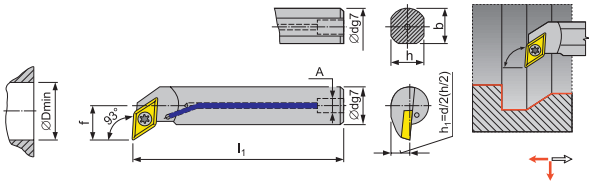
1 pc. each of A0810H-SDQC 07
A1012K-SDQC 07
A1216M-SDQC 07

Matching indexable inserts from page 121, spare parts on page 111

| Type | Contents | Article no. |
|---|---|---|
| **SDQC-R 07** | 3-part | **2000 859 249** |
| **SDQC-L 07** | 3-part | **2000 859 254** |

## Boring bar SDUC

Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 121, spare parts on page 111



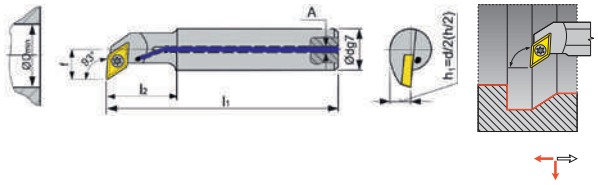



Supplied without insert

| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A10H-SDUCR 07** | DC.. 0702.. | SC 06 | 10 | 7 | 100 | 9.0 | 9.5 | 13 | **2000 859 196** |
| **A12K-SDUCR 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 11.0 | 11.5 | 18 | **2000 859 205** |
| **A16M-SDUCR 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 14.5 | 15.0 | 22 | **2000 859 207** |
| **A20Q-SDUCR 11** | DC.. 11T3.. | SC 08 | 20 | 13 | 180 | 18.0 | 18.5 | 26 | **2000 859 209** |
| **A25Q-SDUCR 11** | DC.. 11T3.. | SC 08 | 25 | 17 | 180 | 23.0 | 23.0 | 34 | **2000 859 212** |
| **Left** | | | | | | | | | |
| **A10H-SDUCL 07** | DC.. 0702.. | SC 06 | 10 | 7 | 100 | 9.0 | 9.5 | 13 | **2000 859 195** |
| **A12K-SDUCL 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 11.0 | 11.5 | 18 | **2000 859 204** |
| **A16M-SDUCL 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 14.5 | 15.0 | 22 | **2000 859 206** |
| **A20Q-SDUCL 11** | DC.. 11T3.. | SC 08 | 20 | 13 | 180 | 18.0 | 18.5 | 26 | **2000 859 208** |
| **A25Q-SDUCL 11** | DC.. 11T3.. | SC 08 | 25 | 17 | 180 | 23.0 | 23.0 | 34 | **2000 859 210** |

## Boring bar SDUC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 121, spare parts on page 111






| ISO designation Right | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | l2 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A0810H-SDUCR 07** | DC.. 0702.. | SC 06 | 10 | 7 | 110 | 22 | 9 | 13 | **2000 859 234** |
| **A1012K-SDUCR 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 28 | 11 | 16 | **2000 859 235** |
| **A1216M-SDUCR 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 36 | 15 | 20 | **2000 859 236** |
| **Left** | | | | | | | | | |
| **A0810H-SDUCL 07** | DC.. 0702.. | SC 06 | 10 | 7 | 110 | 22 | 9 | 13 | **2000 859 237** |
| **A1012K-SDUCL 07** | DC.. 0702.. | SC 06 | 12 | 9 | 125 | 28 | 11 | 16 | **2000 859 238** |
| **A1216M-SDUCL 07** | DC.. 0702.. | SC 06 | 16 | 11 | 150 | 36 | 15 | 20 | **2000 859 239** |

## Boring bar set SDUC

**With offset shank** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

**Contents:**
1 pc. each of A0810H-SDUC 07
A1012K-SDUC 07
A1216M-SDUC 07
Matching indexable inserts from page 121, spare parts on page 111

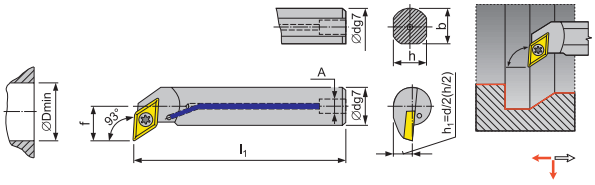


Supplied without insert

| Type | Contents | Article no. |
|---|---|---|
| **SDUC-R 07** | 3-part | **2000 859 227** |
| **SDUC-L 07** | 3-part | **2000 859 229** |



Supplied without insert

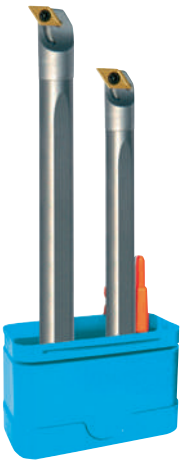



VHM

## Boring bar SDUC

**Solid carbide** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 121, spare parts on page 111

| ISO designation | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **Right** | | | | | | | | |
| **E10K-SDUCR 07** | DC.. 0702.. | SC 06 | 10 | 6.8 | 125 | 9.0 | 13 | **2000 858 918** |
| **Left** | | | | | | | | |
| **E10K-SDUCL 07** | DC.. 0702.. | SC 06 | 10 | 6.8 | 125 | 9.0 | 13 | **2000 858 920** |



Supplied without insert

VHM

## Boring bar set SDUC

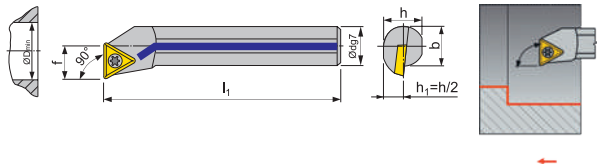
**Solid carbide** · Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling

**Contents:**
1 pc. each of E10K-SDUC 07
E12M-SDUC 07
Matching indexable inserts from page 121, spare parts on page 111

| Type | Contents | Article no. |
|---|---|---|
| **SDUC-R 07** | 2-part | **2000 858 898** |
| **SDUC-L 07** | 2-part | **2000 858 899** |



Supplied without insert



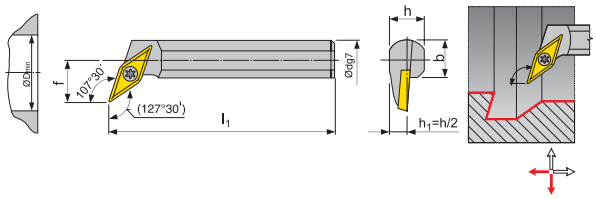

## Boring bar STFC

Positive · Screw clamping · For internal machining · Nickel-plated type · With internal cooling
Matching indexable inserts from page 127, spare parts on page 111

| ISO designation | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Right** | | | | | | | |
| **A16M-STFCR 11** | TC.. 1102.. | SC 10 | 16 | 11 | 150 | 22 | **2484 001 037** |
| **A20R-STFCR 16** | TC.. 16T3.. | SC 08 | 20 | 13 | 200 | 26 | **2484 001 038** |
| **A25S-STFCR 16** | TC.. 16T3.. | SC 08 | 25 | 17 | 250 | 34 | **2484 001 039** |



N/A




## Boring bar SVQC

Positive · Screw clamping · For internal machining
Matching indexable inserts from page 130, spare parts on page 111

| ISO designation | Indexable insert | Spare parts | Ø d g7 [mm] | F [mm] | l1 [mm] | h [mm] | b [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **Right** | | | | | | | | | |
| **S25T-SVQCR 16** | VC.. 1604.. | SO 4 | 25 | 17 | 300 | 23 | 23 | 32 | **2484 001 182** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Tensioning screw
Spare part for clamp mountings / boring bars



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DC 12 | 2484 004 305 | - | 2480 006 700 | - | - | 2484 003 739 | - |
| DD15 | 2484 004 305 | - | 2480 006 703 | - | - | 2484 003 739 | - |
| L | 2484 000 272 | - | 2480 002 003 | - | - | 2484 000 271 | - |
| MT 16 | - | - | 2000 858 757 | - | - | 2000 858 759 | 2000 858 758 |
| MV 2 | - | - | 2480 005 333 | - | - | 2484 001 225 | 2000 858 758 |
| PC 12 | 2000 859 225 | - | 2000 859 228 | 2000 859 175 | 2000 859 173 | - | - |
| PC 13 | 2000 859 347 | - | 2000 859 228 | 2000 859 175 | 2000 859 173 | - | - |
| PD 11 | 2480 261 779 | - | 2481 110 379 | 2484 002 873 | 2484 002 740 | - | - |
| PD 12 | 2000 859 347 | - | 2000 859 255 | 2000 859 175 | 2000 859 260 | - | - |
| PD 15 | 2000 859 225 | - | 2000 859 255 | 2000 859 175 | 2000 859 260 | - | - |
| PS 12 | 2000 859 225 | - | 2481 210 279 | 2000 859 175 | 2000 859 173 | - | - |
| PW 06 | 2480 261 779 | - | 2480 002 047 | 2484 002 873 | 2484 002 740 | - | - |
| PW 08 | 2000 859 225 | - | 2000 859 174 | 2000 859 175 | 2000 859 173 | - | - |
| PW 09 | 2000 859 347 | - | 2000 859 174 | 2000 859 175 | 2000 859 173 | - | - |
| R | 2480 000 272 | - | 2480 002 004 | - | - | 2484 000 270 | - |
| SC 06 | 2000 859 111 | - | - | - | - | - | - |
| SC 08 | 2480 141 079 | - | - | - | - | - | - |
| SC 09 | 2000 859 112 | 2000 859 213 | 2480 910 679 | - | - | - | - |
| SC 10 | 2000 859 110 | - | - | - | - | - | - |
| SC 12 | 2480 151 279 | 2000 859 124 | 2000 859 123 | - | - | - | - |
| SD 07 | 2000 859 110 | - | - | - | - | - | - |
| SD 11 | 2000 859 112 | 2000 859 213 | 2000 859 211 | - | - | - | - |
| SO 1 | 2000 859 111 | - | - | - | - | - | - |
| SO 2 | 2000 859 110 | - | - | - | - | - | - |
| SO 4 | 2000 859 112 | - | - | - | - | - | - |
| SS 09 | 2480 141 079 | - | - | - | - | - | - |
| SS 12 | 2480 151 279 | 2000 859 124 | 2481 210 779 | - | - | - | - |
| ST 10 | 2000 859 112 | 2000 859 213 | 2480 005 454 | - | - | - | - |
| ST 16 | 2000 859 112 | 2000 859 213 | 2481 610 879 | - | - | - | - |
| SV 16 | 2000 859 112 | 2000 859 213 | 2481 612 679 | - | - | - | - |

## Support
Spare part for clamp mountings / boring bars

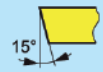
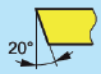
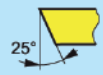
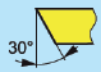
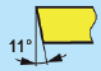
| Spare parts | Article no. |
|---|---|
| A-MPTN 16 | 2000 858 757 |
| M0517-S2.5 | 2000 858 758 |
| MTN 16 | 2000 858 759 |
| US2506-T8 | 2000 859 110 |
| Tensioning screw US2505-T8 | 2000 859 111 |
| Tensioning screw M3.5 x 10 | 2000 859 112 |
| A-SPCC 12 | 2000 859 123 |
| MS0508-S5 | 2000 859 124 |
| K2 | 2000 859 173 |
| A-SPWN 08 | 2000 859 174 |
| R2-SP02 | 2000 859 175 |
| A-SPDC 11 | 2000 859 211 |
| MS3510-S3.5 | 2000 859 213 |
| KH0821-S3 | 2000 859 225 |
| A-SPCN 12 | 2000 859 228 |
| A-SPDN 15 | 2000 859 255 |
| K5 | 2000 859 260 |
| KH0818-S3 | 2000 859 347 |
| KNN 16L | 2480 002 003 |
| KNN16R | 2480 002 004 |
| A-SPWN 06 | 2480 002 047 |

| Spare parts | Article no. |
|---|---|
| A-MPMV 16 | 2480 005 333 |
| STN 16 | 2480 005 454 |
| Z-SPCN 12 | 2480 006 700 |
| Z-SPDN 15 | 2480 006 703 |
| WS0410-T15 | 2480 141 079 |
| WS0512-T20 | 2480 151 279 |
| KH0617-S3 | 2480 261 779 |
| A-SPCC 09 | 2480 910 679 |
| A-SPDN 11 | 2481 110 379 |
| A-SPSN 12 | 2481 210 279 |
| KNN190412R | 2481 210 779 |
| A-SPTC 16 | 2481 610 879 |
| A-SPVC 16 | 2481 612 679 |
| KN-SP R | 2484 000 270 |
| KN-SP L | 2484 000 271 |
| WS0621-S4 | 2484 000 272 |
| MVN 16 | 2484 001 225 |
| K1 | 2484 002 740 |
| R5-SP05 | 2484 002 873 |
| D-SP | 2484 003 739 |
| WS0620-S4 | 2484 004 305 |

## 1 Plate form

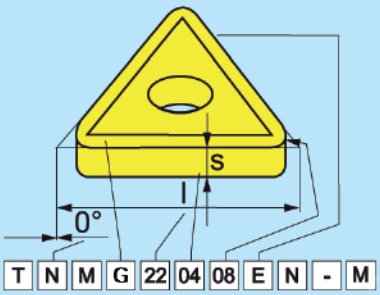
| | | | |
|---|---|---|---|
|  H |  O |  P |  R |
|  S |  T |   C |   D |
|   E |   M |   V |   W |
|  L |   A |   B |   K |

## 2 Relief angle

| | |
|---|---|
|   A |   B |
|   C |   D |
|   E |   F |
|   G |   N |
|   P | Special O |

## 4 Platform

| | |
|---|---|
|  N |  R |
|  F |  A |
|  M |  G |
|  W |  T |
|  Q | Special X |




**ISO code**

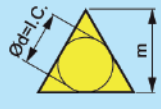
| 1 | 2 | 3 | 4 |
|---|---|---|---|
| T | N | U | N |
| T | N | M | G |

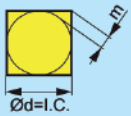
**ANSI code**

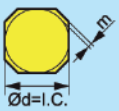
| 1 | 2 | 3 | 4 |
|---|---|---|---|
| T | N | U | |
| T | N | M | G |

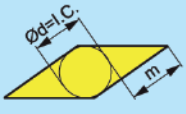
## 3 Tolerances

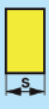
| Symbol | Tolerances [mm] | | | Tolerances [inch] | | |
|---|---|---|---|---|---|---|
| | m (±) | s (±) | d = I.C. (±) | m (±) | s (±) | d = I.C. (±) |
| A | 0,005 | 0,025 | 0,025 | 0,0002 | 0,001 | 0,0010 |
| F | 0,005 | 0,025 | 0,013 | 0,0002 | 0,001 | 0,0005 |
| C | 0,013 | 0,025 | 0,025 | 0,0005 | 0,001 | 0,0010 |
| H | 0,013 | 0,025 | 0,013 | 0,0005 | 0,001 | 0,0005 |
| E | 0,025 | 0,025 | 0,025 | 0,0010 | 0,001 | 0,0010 |
| G | 0,025 | 0,130 | 0,025 | 0,0010 | 0,005 | 0,0010 |
| J | 0,005 | 0,025 | 0,05 ÷ 0,13 | 0,0002 | 0,001 | 0,002 ÷ 0,005 |
| K | 0,013 | 0,025 | 0,05 ÷ 0,13 | 0,0005 | 0,001 | 0,002 ÷ 0,005 |
| L | 0,025 | 0,025 | 0,05 ÷ 0,13 | 0,0010 | 0,001 | 0,002 ÷ 0,005 |
| M | 0,08 ÷ 0,18 | 0,130 | 0,05 ÷ 0,13 | 0,003 ÷ 0,007 | 0,005 | 0,002 ÷ 0,005 |
| N | 0,08 ÷ 0,18 | 0,025 | 0,05 ÷ 0,13 | 0,003 ÷ 0,007 | 0,001 | 0,002 ÷ 0,005 |
| U | 0,05 ÷ 0,38 | 0,130 | 0,08 ÷ 0,25 | 0,005 ÷ 0,015 | 0,005 | 0,003 ÷ 0,010 |











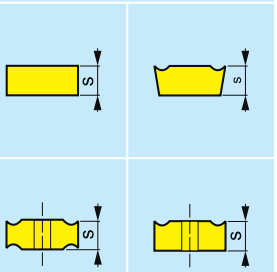



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## 5 Cut width

| d=I.C. mm | d=I.C. inch | R | S | T | C | D | V | W |
|---|---|---|---|---|---|---|---|---|
| 3,97 | 5/32" | | | 06 | | | | |
| 5,00 | | 05 | | | | | | |
| 5,56 | 7/32" | | | 09 | | | | 03 |
| 6,00 | | 06 | | | | | | |
| 6,35 | 1/4" | | | 11 | 06 | 07 | | 04 |
| 8,00 | | 08 | | | | | | |
| 9,525 | 3/8" | 09 | 09 | 16 | 09 | 11 | 16 | 06 |
| 10,0 | | 10 | | | | | | |
| 12,0 | | 12 | | | | | | |
| 12,7 | 1/2" | 12 | 12 | 22 | 12 | 15 | | 08 |
| 15,875 | 5/8" | 15 | 15 | 27 | 16 | | | |
| 16,0 | | 16 | | | | | | |
| 19,05 | 3/4" | 19 | 19 | 33 | 19 | | | |
| 20,0 | | 20 | | | | | | |
| 25,0 | | 25 | | | | | | |
| 25,4 | 1" | 25 | 25 | | 25 | | | |
| 31,75 | 1 1/4" | 31 | | | | | | |
| 32,0 | | 32 | | | | | | |

## 6 Relief angle



| Symb. | s mm | s inch |
|---|---|---|
| 01 | 1,59 | 1/16" |
| T1 | 1,98 | |
| 02 | 2,38 | 3/32" |
| 03 | 3,18 | 1/8" |
| T3 | 3,97 | 5/32" |
| 04 | 4,76 | 3/16" |
| 05 | 5,56 | |
| 06 | 6,35 | 1/4" |
| 07 | 7,94 | 5/16" |
| 09 | 9,52 | 3/8" |

## 7 Corner radius

| Symb. | $r_\varepsilon$ mm | $r_\varepsilon$ inch |
|---|---|---|
| 00 | 0 | 0" |
| 02 | 0,2 | |
| 04 | 0,4 | 1/64" |
| 08 | 08 | 1/32" |
| 12 | 1,2 | 3/64" |
| 16 | 1,6 | 1/16" |
| 24 | 2,4 | 3/32" |
| 32 | 3,2 | 1/8" |



### Round panel

| d=I.C. | Symbol |
|---|---|
| inch | 00 |
| mm | M0 |

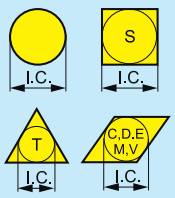


| 5 | 6 | 7 | 8 | 9 | | 10 |
|---|---|---|---|---|---|---|
| 22 | 04 | 08 | | | | |
| 22 | 04 | 08 | E | N | - | M |

| 5A | 6A | 7A | 8 | 9 | | 10 |
|---|---|---|---|---|---|---|
| 4 | 3 | 2 | | | | |
| 4 | 3 | 2 | E | N | - | M |

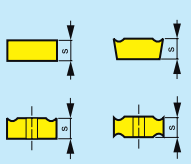
## ANSI code

### Inner circle



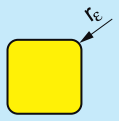

| Symb. | d = I.C. mm | d = I.C. inch |
|---|---|---|
| 1 | 3,175 | 1/8" |
| (1.2) | 3,969 | 5/32" |
| (1.5) | 4,763 | 3/16" |
| (1.8) | 5,556 | 7/32" |
| 2 | 6,350 | 1/4" |
| (2.5) | 7,938 | 5/16" |
| 3 | 9,525 | 3/8" |
| 4 | 12,700 | 1/2" |
| 5 | 15,875 | 5/8" |
| 6 | 19,050 | 3/4" |
| 7 | 22,225 | 7/8" |
| 8 | 25,400 | 1" |
| 10 | 31,750 | 1-1/4" |

### Thickness



| Symb. | s mm | s inch |
|---|---|---|
| 1 | 1,588 | 1/16" |
| (1.2) | 1,984 | 5/64" |
| (1.5) | 2,381 | 3/32" |
| 2 | 3,175 | 1/8" |
| (2.5) | 3,969 | 5/32" |
| 3 | 4,763 | 3/16" |
| (3.5) | 5,556 | 7/32" |
| 4 | 6,350 | 1/4" |
| 5 | 7,938 | 5/16" |
| 6 | 9,525 | 3/8" |
| 7 | 11,113 | 7/16" |
| 8 | 12,700 | 1/2" |
| 9 | 14,288 | 9/16" |
| 10 | 15,875 | 5/8" |

### Corner radius

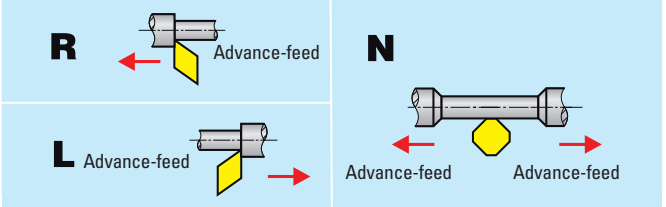


| Symb. | $r_\varepsilon$ mm | $r_\varepsilon$ inch |
|---|---|---|
| 0 | 0,050 | 1/512" |
| (0.2) | 0,099 | 1/256" |
| (0.5) | 0,198 | 1/128" |
| 1 | 0,397 | 1/64" |
| 2 | 0,794 | 1/32" |
| 3 | 1,191 | 3/64" |
| 4 | 1,588 | 1/16" |
| 5 | 1,984 | 5/64" |
| 6 | 2,381 | 3/32" |
| 7 | 2,778 | 7/64" |
| 8 | 3,175 | 1/8" |
| 10 | 3,969 | 5/32" |
| 12 | 4,763 | 3/16" |
| 14 | 5,556 | 7/32" |
| 16 | 6,350 | 1/4" |
| x | ostatní | |

## 8 Cutting edges type

| | | | |
|---|---|---|---|
| F | Sharp edge | E | Rounded edge |
| T | Edges with cutting bevel | S | Rounded edge with cutting bevel |
| K | Edge with double cutting bevel | P | Rounded edge with double bevel |

## 9 Advance direction




## 10 Form designation of the deflection shoulder

TECWERK

With the selection of the tool and the cutting appropriate conditions, the stipulation of the material to be processed is one of the most important decisions. For simplification, we subdivide the materials to be processed into six base groups, according to the standard ISO 513. Materials are collated in these groups which require a qualitatively similar type of cutting edge loading (demand) and therefore also a similar type of wear.

The first step is therefore the subdivision of the workpiece material into one of the 6 groups- see the following **Table No. 1.**

**Table No. 1**

| | |
|---|---|
| **P** | Carbon steels- unalloyed (St33.1, IOS20, C45)<br>Carbon-rich cast steel (GS-52)<br>Carbon-rich tool steels (Cl 05W1)<br>Low-alloy steels (StE360.7)<br>Alloyed steels (16MnCr5, 42CrV6, 36CrNiM04)<br>Medium-alloyed steels (60Si7)<br>Low and medium-alloyed steel castings (Gs-20Mn5)<br>Alloyed tool steels (X38CrMoV5.1)<br>Ferritic and martensitic stainless steel and steel castings (G-X22CrNi17) |
| **M** | Austenitic and ferritic-austenitic stainless steel, heat-resistant<br>and heat-compatible steels<br>Non-magnetic and wear-resistant steels (Xl 2CrNi188) |
| **K** | Alloyed and unalloyed grey cast iron (GG 25)<br>Spheroidal cast iron (GGG 60)<br>Malleable cast iron (GTS 55) |
| **N** | Non-ferrous metals<br>Aluminium alloys<br>Copper alloys |
| **S** | Special heat resistant alloys on the basis of Ni, Co, Fe and Ti<br>NIMONIC NiCr20 TiAl<br>INCOLOY 800HT- X8NiCrAl Ti3321<br>INCONEL 617- NiCr23Co12Mo |
| **H** | Bloomed steels with HRC 48- 60<br>Hardened ingot mould castings with HSh 55- 85 |
| **O** | Thermoplastic, duroplastic, GRP, CFRP, carbon fibre composites, hard rubber |

## Material description and recommended application

| | |
|---|---|
| …05<br>…10<br>…15<br>…25<br>…30<br>…35<br>…40 | very hard panel<br>↓<br>very ductile panel |
| Hard: | very wear-resistant; for high cutting speeds, with continuous cut |
| Ductile: | for low cutting speeds and difficult processing conditions |
| Feedstock<br>P M K | Effective range<br>25 |

## Chip breaker geometry

- **- AL** Geometry for the NE processing
- **- HP** Geometry for very light and soft cut for thin-walled material
- **- F** Geometry for the finish machining
- **- M** Geometry for the medium processing
- **- MV** Geometry for the medium processing - first selection for stainless
- **- R** Geometry for the roughing work

**Cutting conditions**

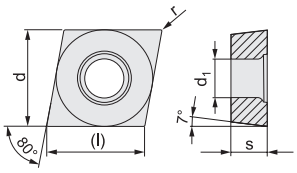
: For continuous cut

: For normal conditions with cut interruptions

: For the most difficult conditions, severe cut interruptions, vibrations

## Insert CCGT

For the processing of aluminium



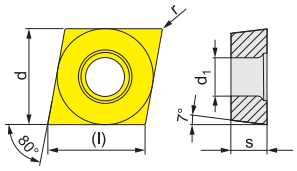

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | Feed f (mm/rev) min<br>Feed f (mm/rev) max | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max |
|---|---|---|---|
| **Uncoated, highly polished** | | | |
| CCGT-AL | | | |
| **2000 859 153** | -<br>- | 170<br>715 | 0.06<br>0.15 | 0.3<br>3 |
| **2000 859 154** | -<br>- | 135<br>610 | 0.1<br>0.3 | 0.4<br>3.5 |
| **2480 005 384** | -<br>- | 165<br>595 | 0.1<br>0.15 | 0.3<br>4 |
| **2000 859 155** | -<br>- | 135<br>610 | 0.1<br>0.3 | 0.4<br>4.5 |
| **2000 859 156** | -<br>- | 120<br>575 | 0.15<br>0.6 | 0.8<br>5 |
| **2000 859 151** | -<br>- | 120<br>610 | 0.1<br>0.3 | 0.4<br>7 |
| **2000 859 152** | -<br>- | 110<br>575 | 0.15<br>0.6 | 0.8<br>7 |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | |
| **CCGT060202-AL** | N20 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2000 859 153** |
| **CCGT060204-AL** | N20 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 154** |
| **CCGT09T302-AL** | N20 | 9,7 | 9.53 | 4.4 | 3,97 | 0.2 | **2480 005 384** |
| **CCGT09T304-AL** | N20 | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2000 859 155** |
| **CCGT09T308-AL** | N20 | 9,7 | 9.53 | 4.4 | 3,97 | 0.8 | **2000 859 156** |
| **CCGT120404-AL** | N20 | 12,9 | 12.7 | 5.5 | 4,76 | 0.4 | **2000 859 151** |
| **CCGT120408-AL** | N20 | 12,9 | 12.7 | 5.5 | 4,76 | 0.8 | **2000 859 152** |

## Insert CCGT

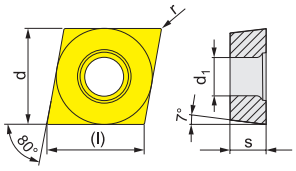
For a very light and soft cut for thin, long shafts and thin-walled material




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | Feed f (mm/rev) min<br>Feed f (mm/rev) max | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max |
|---|---|---|---|
| **TiN-coated** | | | |
| CCGT-HP left | | | |
| **2480 006 154** | 200<br>230 | 100<br>140 | 40<br>45 | 0.15<br>0.17 | 0.09<br>0.11 | 0.07<br>0.1 | 0.4<br>0.8 | 0.4<br>0.8 | 0.4<br>0.6 |
| **2480 006 155** | 200<br>230 | 80<br>125 | 40<br>45 | 0.1<br>0.12 | 0.11<br>0.15 | 0.1<br>0.15 | 0.4<br>0.8 | 0.4<br>0.8 | 0.4<br>0.6 |
| CCGT-HP right | | | |
| **2480 005 387** | 200<br>230 | 100<br>140 | 40<br>45 | 0.15<br>0.17 | 0.09<br>0.11 | 0.07<br>0.1 | 0.4<br>0.8 | 0.4<br>0.8 | 0.4<br>0.6 |
| **2480 005 388** | 200<br>230 | 80<br>125 | 40<br>45 | 0.1<br>0.12 | 0.11<br>0.15 | 0.1<br>0.15 | 0.4<br>0.8 | 0.4<br>0.8 | 0.4<br>0.6 |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated Left** | | | | | | | |
| **CCGT060204L-HP** | UNI35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 006 154** |
| **CCGT09T304L-HP** | UNI35 | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2480 006 155** |
| **TiN-coated Right** | | | | | | | |
| **CCGT060204R-HP** | UNI35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 005 387** |
| **CCGT09T304R-HP** | UNI35 | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2480 005 388** |




## Insert CCMT

For finishing = F

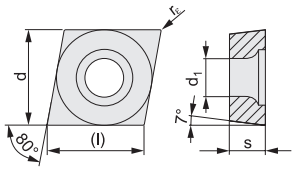
In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| CCMT-F | | | | | | | | | | | | | | | | | | |
| **2480 000 094** | 95 | 100 | - | - | 45 | - | 0.08 | 0.07 | - | - | 0.07 | - | 0.5 | 0.5 | - | - | 0.5 | - |
| | 170 | 140 | - | - | 85 | - | 0.15 | 0.11 | - | - | 0.1 | - | 3 | 2 | - | - | 2 | - |
| **2480 000 095** | 95 | 100 | - | - | 45 | - | 0.07 | 0.07 | - | - | 0.07 | - | 0.5 | 0.5 | - | - | 0.5 | - |
| | 170 | 140 | - | - | 85 | - | 0.2 | 0.2 | - | - | 0.2 | - | 3 | 2 | - | - | 2 | - |
| **2480 000 096** | 95 | 100 | - | - | 40 | - | 0.08 | 0.07 | - | - | 0.07 | - | 0.5 | 0.5 | - | - | 0.5 | - |
| | 170 | 140 | - | - | 80 | - | 0.2 | 0.12 | - | - | 0.12 | - | 3 | 2 | - | - | 2 | - |
| **2480 000 097** | 95 | 100 | - | - | 40 | - | 0.08 | 0.09 | - | - | 0.09 | - | 0.5 | 0.8 | - | - | 0.8 | - |
| | 170 | 140 | - | - | 80 | - | 0.25 | 0.15 | - | - | 0.15 | - | 3 | 2.3 | - | - | 2.3 | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| **2480 002 402** | 180 | 105 | 170 | 270 | - | - | 0.05 | 0.06 | 0.05 | 0.05 | - | - | 0.2 | 0.2 | 0.2 | 0.2 | - | - |
| | 270 | 160 | 255 | 945 | - | - | 0.13 | 0.12 | 0.13 | 0.16 | - | - | 1 | 1 | 1 | 1 | - | - |
| **2000 859 140** | 200 | 110 | 165 | 275 | - | - | 0.05 | 0.06 | 0.05 | 0.05 | - | - | 0.2 | 0.2 | 0.2 | 0.2 | - | - |
| | 345 | 185 | 280 | 1100 | - | - | 0.13 | 0.12 | 0.13 | 0.16 | - | - | 1 | 1 | 1 | 1 | - | - |
| **2000 859 141** | 175 | 95 | 140 | 240 | - | - | 0.08 | 0.09 | 0.08 | 0.08 | - | - | 0.3 | 0.3 | 0.3 | 0.3 | - | - |
| | 290 | 155 | 235 | 925 | - | - | 0.2 | 0.18 | 0.2 | 0.24 | - | - | 1.5 | 1.5 | 1.5 | 1.5 | - | - |
| **2480 001 365** | 140 | 75 | 115 | 195 | - | - | 0.1 | 0.11 | 0.1 | 0.1 | - | - | 0.3 | 0.3 | 0.3 | 0.3 | - | - |
| | 245 | 135 | 200 | 785 | - | - | 0.26 | 0.23 | 0.26 | 0.31 | - | - | 3 | 3 | 3 | 3 | - | - |
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| **2480 011 706** | 270 | - | 255 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.3 | - | 0.3 | - | - | - |
| | 340 | - | 320 | - | - | - | 0.2 | - | 0.2 | - | - | - | 1.5 | - | 1.5 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| **2000 859 142** | 195 | 115 | 185 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 285 | 170 | 270 | - | 85 | - | 0.3 | 0.23 | 0.3 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 143** | 230 | 135 | 215 | - | 45 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 315 | 185 | 295 | - | 90 | - | 0.35 | 0.26 | 0.35 | - | 0.21 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 144** | 190 | 110 | 180 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 285 | 170 | 270 | - | 85 | - | 0.3 | 0.23 | 0.3 | - | 0.18 | - | 4 | 3 | 4 | - | 2.4 | - |
| **2000 859 145** | 220 | 130 | 205 | - | 40 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 315 | 185 | 295 | - | 90 | - | 0.35 | 0.26 | 0.35 | - | 0.21 | - | 4 | 3 | 4 | - | 2.4 | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **CCMT060204-F** | UNI | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 000 094** |
| **CCMT060208-F** | UNI | 6,4 | 6.35 | 2.8 | 2,38 | 0.8 | **2480 000 095** |
| **CCMT09T304-F** | UNI | 9,7 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 000 096** |
| **CCMT09T308-F** | UNI | 9,7 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 000 097** |
| **TiN-coated** | | | | | | | |
| **CCMT060202-F** | PMK10 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 002 402** |
| **CCMT060202-F** | PMK35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2000 859 140** |
| **CCMT060204-F** | PMK35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 141** |
| **CCMT09T304-F** | PMK35 | 9,7 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 001 365** |
| **Multi-coated** | | | | | | | |
| **CCMT060204-F** | PMK10 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 011 706** |
| **TiAlN-coated** | | | | | | | |
| **CCMT09T304-F** | PMK30 | 9,7 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 142** |
| **CCMT09T308-F** | PMK30 | 9,7 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 859 143** |
| **CCMT120404-F** | PMK30 | 12,9 | 12.7 | 5.5 | 4,76 | 0.4 | **2000 859 144** |
| **CCMT120408-F** | PMK30 | 12,9 | 12.7 | 5.5 | 4,76 | 0.8 | **2000 859 145** |

## Insert CCMT

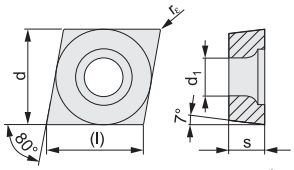
For medium processing = M






| Article no. | In material P / M / K / N / S / H<br>Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| CCMT-M | | | | | | | | | | | | | | | | | | |
|  **2000 858 934** | 105 | 60 | 95 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 160 | 95 | 150 | - | - | - | 0.15 | 0.11 | 0.15 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 935** | 95 | 55 | 90 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 170 | 100 | 160 | - | - | - | 0.25 | 0.19 | 0.25 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 936** | 115 | 65 | 105 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.8 | 0.5 | 0.8 | - | - | - |
| | 195 | 115 | 185 | - | - | - | 0.25 | 0.19 | 0.25 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 799** | 115 | 65 | 105 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 195 | 115 | 185 | - | - | - | 0.25 | 0.19 | 0.25 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
|  **2480 007 958** | 145 | 85 | 135 | - | - | - | 0.08 | 0.09 | 0.08 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 190 | 110 | 180 | - | - | - | 0.13 | 0.12 | 0.13 | - | - | - | 2 | 2 | 2 | - | - | - |
|  **2480 010 455** | 105 | 60 | 95 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 160 | 95 | 150 | - | - | - | 0.15 | 0.11 | 0.15 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 859 146** | 150 | 85 | 120 | - | - | - | 0.12 | 0.1 | 0.12 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 175 | 95 | 140 | - | - | - | 0.15 | 0.14 | 0.15 | - | - | - | 1 | 0.8 | 1 | - | - | - |
| **2000 859 047** | 150 | 80 | 120 | - | - | - | 0.12 | 0.11 | 0.12 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 175 | 100 | 150 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 1 | 1 | 1 | - | - | - |
| **2000 859 048** | 115 | 60 | 90 | - | - | - | 0.08 | 0.09 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 275 | 150 | 225 | - | - | - | 0.5 | 0.45 | 0.5 | - | - | - | 3 | 3 | 3 | - | - | - |
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
|  **2480 011 707** | 205 | - | 190 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.4 | - | 0.4 | - | - | - |
| | 285 | - | 270 | - | - | - | 0.26 | - | 0.26 | - | - | - | 2 | - | 2 | - | - | - |
| **2480 011 710** | 205 | - | 190 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.4 | - | 0.4 | - | - | - |
| | 285 | - | 270 | - | - | - | 0.26 | - | 0.26 | - | - | - | 2 | - | 2 | - | - | - |
| **2480 011 733** | 190 | - | 180 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 320 | - | 300 | - | - | - | 0.5 | - | 0.5 | - | - | - | 3 | - | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
|  **2480 009 281** | 205 | 120 | 190 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 275 | 165 | 260 | - | - | - | 0.13 | 0.12 | 0.13 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 008 409** | 160 | 95 | 150 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 230 | 135 | 215 | - | - | - | 0.26 | 0.26 | 0.26 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2000 859 148** | 160 | 95 | 150 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 230 | 135 | 215 | - | - | - | 0.26 | 0.26 | 0.26 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2000 859 150** | 140 | 80 | 130 | - | - | - | 0.15 | 0.17 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 260 | 155 | 245 | - | - | - | 0.5 | 0.45 | 0.5 | - | - | - | 3 | 3 | 3 | - | - | - |
| **2000 859 179** | 155 | 90 | 145 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 225 | 135 | 210 | - | - | - | 0.26 | 0.26 | 0.26 | - | - | - | 3 | 3 | 3 | - | - | - |
| **2000 859 177** | 135 | 80 | 125 | - | - | - | 0.15 | 0.17 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 255 | 150 | 240 | - | - | - | 0.5 | 0.45 | 0.5 | - | - | - | 4 | 4 | 4 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **CCMT060204-M** | UNI | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 858 934** |
| **CCMT09T304-M** | UNI | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2000 858 935** |
| **CCMT09T308-M** | UNI | 9,7 | 9.53 | 4.4 | 3,97 | 0.8 | **2000 858 936** |
| **CCMT120408-M** | UNI | 12,9 | 12.7 | 5.5 | 4,76 | 0.8 | **2000 858 799** |
| **TiN-coated** | | | | | | | |
| **CCMT060202-M** | PMK10 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 007 958** |
| **CCMT060202-M** | UNI35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 010 455** |
| **CCMT060204-M** | UNI35 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 146** |
| **CCMT09T304-M** | UNI35 | 9,7 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 047** |
| **CCMT09T308-M** | UNI35 | 9,7 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 859 048** |
| **Multi-coated** | | | | | | | |
| **CCMT060204-M** | PMK10 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 011 707** |
| **CCMT09T304-M** | PMK10 | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2480 011 710** |
| **CCMT09T308-M** | PMK10 | 9,7 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 011 733** |
| **TiAlN-coated** | | | | | | | |
| **CCMT060202-M** | PMK30 | 6,4 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 009 281** |
| **CCMT060204-M** | PMK30 | 6,4 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 008 409** |
| **CCMT09T304-M** | PMK30 | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2000 859 148** |
| **CCMT09T308-M** | PMK30 | 9,7 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 859 150** |
| **CCMT120404-M** | PMK30 | 12,9 | 12.7 | 5.5 | 4,76 | 0.4 | **2000 859 179** |
| **CCMT120408-M** | PMK30 | 12,9 | 12.7 | 5.5 | 4,76 | 0.8 | **2000 859 177** |



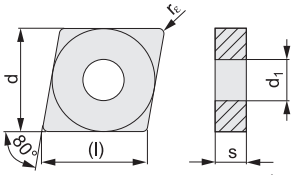

## Insert CCMW

For heavy-duty and cast processing

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCMW | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  **2480 007 460** | - | - | - | 165 | - | - | 35 | - | - | 0.1 | - | - | 0.1 | - | - | 0.4 | - | - | 0.2 | | | | | | | | |
| | - | - | - | 240 | - | - | 50 | - | - | 0.2 | - | - | 0.2 | - | - | 4.2 | - | - | 0.5 | | | | | | | | |
| **2480 007 461** | - | - | - | 160 | - | - | 30 | - | - | 0.1 | - | - | 0.1 | - | - | 0.4 | - | - | 0.2 | | | | | | | | |
| | - | - | - | 230 | - | - | 45 | - | - | 0.2 | - | - | 0.2 | - | - | 6.3 | - | - | 0.5 | | | | | | | | |
| **2480 007 467** | - | - | - | 140 | - | - | 30 | - | - | 0.1 | - | - | 0.1 | - | - | 0.8 | - | - | 0.4 | | | | | | | | |
| | - | - | - | 270 | - | - | 55 | - | - | 0.4 | - | - | 0.22 | - | - | 8.4 | - | - | 1 | | | | | | | | |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **CCMW060204** | KH05 | 6,4 | 6.350 | 2.8 | 2,38 | 0.4 | **2480 007 460** |
| **CCMW09T304** | KH05 | 9,7 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 007 461** |
| **CCMW120408** | KH05 | 12,9 | 12.700 | 5.5 | 4,76 | 0.8 | **2480 007 467** |



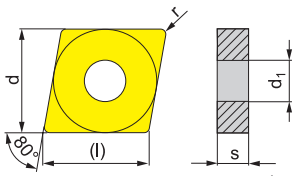

## Insert CNKG

For the processing of aluminium

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CNKG-AL | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  **2000 858 992** | - | - | - | 110 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.8 | - | - | | | | | | | | | |
| | - | - | - | 575 | - | - | - | - | - | 0.4 | - | - | - | - | - | 4.5 | - | - | | | | | | | | | |
| **2000 858 993** | - | - | - | 110 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.8 | - | - | | | | | | | | | |
| | - | - | - | 575 | - | - | - | - | - | 0.4 | - | - | - | - | - | 4.5 | - | - | | | | | | | | | |

| ISO designation<br>Uncoated, highly polished | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **CNKG120404-AL** | Aluminium | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 858 992** |
| **CNKG120408-AL** | Aluminium | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 858 993** |




## Insert CNMG

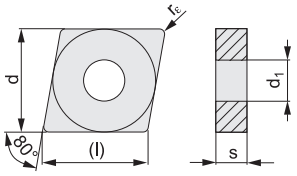
For finishing = F

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | | | |
| CNMG-F | | | | | | | | | | | | | | | | | | | | | |
|  **2480 012 093** | 230 | 135 | - | - | 45 | - | | 0.15 | 0.15 | - | - | 0.15 | - | | 0.5 | 0.5 | - | - | 0.5 | - | |
| | 325 | 195 | - | - | 95 | - | | 0.3 | 0.23 | - | - | 0.18 | - | | 3 | 2.3 | - | - | 1.8 | - | |
| **2480 012 095** | 155 | 85 | 130 | - | 25 | - | | 0.15 | 0.17 | 0.15 | - | 0.15 | - | | 0.8 | 0.8 | 0.8 | - | 0.8 | - | |
| | 280 | 150 | 230 | - | 70 | - | | 0.45 | 0.41 | 0.45 | - | 0.36 | - | | 3 | 3 | 3 | - | 2.4 | - | |
| **Multi-coated** | | | | | | | | | | | | | | | | | | | | | |
|  **2480 011 667** | 255 | - | 240 | - | - | - | | 0.15 | - | 0.15 | - | - | - | | 0.5 | - | 0.5 | - | - | - | |
| | 355 | - | 335 | - | - | - | | 0.26 | - | 0.26 | - | - | - | | 3 | - | 3 | - | - | - | |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | | | |
|  **2000 859 240** | 245 | 145 | 230 | - | 45 | - | | 0.2 | 0.2 | 0.2 | - | 0.2 | - | | 0.8 | 0.8 | 0.8 | - | 0.8 | - | |
| | 370 | 220 | 350 | - | 110 | - | | 0.5 | 0.38 | 0.5 | - | 0.3 | - | | 5 | 3.8 | 5 | - | 3 | - | |
| **2480 011 571** | 240 | 140 | 225 | - | 45 | - | | 0.15 | 0.15 | 0.15 | - | 0.15 | - | | 0.8 | 0.8 | 0.8 | - | 0.8 | - | |
| | 355 | 210 | 335 | - | 105 | - | | 0.45 | 0.34 | 0.45 | - | 0.27 | - | | 3 | 2.3 | 3 | - | 1.8 | - | |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **CNMG120404-F** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 012 093** |
| **CNMG120408-F** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 012 095** |
| **Multi-coated** | | | | | | | |
| **CNMG120404-F** | PMK10 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 011 667** |
| **TiAlN-coated** | | | | | | | |
| **CNMG120404-F** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 859 240** |
| **CNMG120408-F** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 011 571** |

## Insert CNMG
For medium processing = M

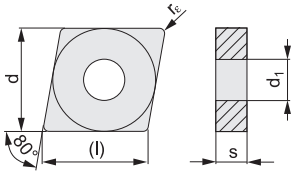



In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| CNMG-M | | | | | | | | | | | | | | | | | | | |
| **2000 858 943** | | 120 | 70 | 110 | - | - | - | 0.1 | 0.1 | 0.1 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 220 | 130 | 205 | - | - | - | 0.3 | 0.23 | 0.3 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 944** | | 130 | 75 | 120 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 210 | 125 | 195 | - | - | - | 0.45 | 0.34 | 0.45 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2480 011 741** | | 220 | - | 205 | - | - | 40 | 0.17 | - | 0.17 | - | - | 0.11 | 0.8 | - | 0.8 | - | - | 0.2 |
| | | 285 | - | 270 | - | - | 55 | 0.26 | - | 0.26 | - | - | 0.17 | 6 | - | 6 | - | - | 0.5 |
| **2480 011 742** | | 200 | - | 190 | - | - | 40 | 0.17 | - | 0.17 | - | - | 0.11 | 0.8 | - | 0.8 | - | - | 0.4 |
| | | 340 | - | 320 | - | - | 65 | 0.52 | - | 0.52 | - | - | 0.26 | 6 | - | 6 | - | - | 1 |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2000 859 089** | | 170 | - | 160 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 230 | - | 215 | - | - | - | 0.26 | - | 0.26 | - | - | - | 6 | - | 6 | - | - | - |
| **2000 859 241** | | 150 | - | 140 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 275 | - | 260 | - | - | - | 0.52 | - | 0.52 | - | - | - | 6 | - | 6 | - | - | - |
| **2480 011 278** | | 130 | - | - | - | - | - | 0.17 | - | - | - | - | - | 0.8 | - | - | - | - | - |
| | | 235 | - | - | - | - | - | 0.52 | - | - | - | - | - | 6 | - | - | - | - | - |
| **2000 859 242** | | 135 | - | 125 | - | - | - | 0.17 | - | 0.17 | - | - | - | 1.2 | - | 1.2 | - | - | - |
| | | 290 | - | 275 | - | - | - | 0.78 | - | 0.78 | - | - | - | 6 | - | 6 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **CNMG120404-M** | UNI | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 858 943** |
| **CNMG120408-M** | UNI | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 858 944** |
| **CNMG120404-M** | PMK10 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 011 741** |
| **CNMG120408-M** | PMK10 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 011 742** |
| **TiAlN-coated** | | | | | | | |
| **CNMG120404-M** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 859 089** |
| **CNMG120408-M** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 241** |
| **CNMG120408-M** | PMK35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 011 278** |
| **CNMG120412-M** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 1.2 | **2000 859 242** |

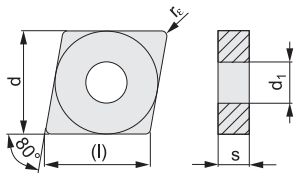
## Insert CNMG
For roughing = R




In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| CNMG-R | | | | | | | | | | | | | | | | | | | |
| **2480 000 023** | | 185 | 110 | 145 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - | 1 | 1 | 1 | - | - | - |
| | | 280 | 165 | 230 | - | - | - | 0.5 | 0.38 | 0.5 | - | - | - | 7 | 5.3 | 7 | - | - | - |
| **2480 000 024** | | 175 | 105 | 145 | - | - | - | 0.25 | 0.25 | 0.25 | - | - | - | 1.5 | 1.5 | 1.5 | - | - | - |
| | | 270 | 160 | 230 | - | - | - | 0.7 | 0.53 | 0.7 | - | - | - | 7 | 5.3 | 7 | - | - | - |
| **2480 012 350** | | 185 | 110 | - | - | - | - | 0.2 | 0.2 | - | - | - | - | 1 | 1 | - | - | - | - |
| | | 280 | 165 | - | - | - | - | 0.5 | 0.38 | - | - | - | - | 7 | 5.3 | - | - | - | - |
| **2000 859 244** | | 215 | 125 | 200 | - | 40 | - | 0.25 | 0.25 | 0.25 | - | 0.25 | - | 1.5 | 1.5 | 1.5 | - | 1.5 | - |
| | | 320 | 190 | 300 | - | 95 | - | 0.7 | 0.53 | 0.7 | - | 0.42 | - | 7 | 5.3 | 7 | - | 4.2 | - |
| **2480 012 356** | | 175 | 105 | - | - | - | - | 0.25 | 0.25 | - | - | - | - | 1.5 | 1.5 | - | - | - | - |
| | | 270 | 160 | - | - | - | - | 0.7 | 0.53 | - | - | - | - | 7 | 5.3 | - | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **CNMG120404-R** | UNI | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 000 023** |
| **CNMG120408-R** | UNI | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 000 024** |
| **CNMG120408-R** | PMK35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 012 350** |
| **CNMG120412-R** | PMK30 | 12,9 | 12.7 | 5.16 | 4,76 | 1.2 | **2000 859 244** |
| **CNMG120412-R** | PMK35 | 12,9 | 12.7 | 5.16 | 4,76 | 1.2 | **2480 012 356** |



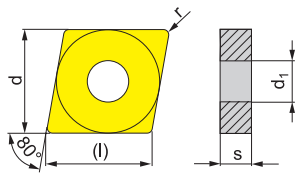

## Insert CNMG

**Gold standard for VA** · For medium processing = M

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | | | |
| CNMG-MV | | | | | | | | | | | | | | | | | | | | | |
| **2480 008 463** | 230 | 135 | 215 | - | 45 | - | | 0.15 | 0.15 | 0.15 | - | 0.15 | - | | 0.5 | 0.5 | 0.5 | - | 0.5 | - | |
| | 325 | 195 | 305 | - | 95 | - | | 0.3 | 0.23 | 0.3 | - | 0.18 | - | | 3 | 2.3 | 3 | - | 1.8 | - | |
| **2480 008 231** | 255 | 150 | 240 | - | 50 | - | | 0.2 | 0.2 | 0.2 | - | 0.2 | - | | 0.8 | 0.8 | 0.8 | - | 0.8 | - | |
| | 340 | 200 | 320 | - | 100 | - | | 0.4 | 0.3 | 0.4 | - | 0.24 | - | | 3 | 2.3 | 3 | - | 1.8 | - | |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **CNMG120404-MV** | VA35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 008 463** |
| **CNMG120408-MV** | VA35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 008 231** |




## Insert CNMG

For a very light and soft cut for thin, long shafts and thin-walled material

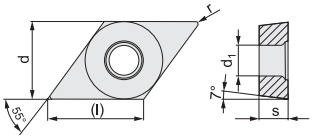
In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | | | |
| CNMG-HP left | | | | | | | | | | | | | | | | | | | | | |
| **2000 859 247** | 180 | 95 | - | 245 | 30 | - | | 0.17 | 0.18 | - | 0.17 | 0.18 | - | | 0.8 | 0.8 | - | 0.8 | 0.8 | - | |
| | 240 | 130 | - | 770 | 60 | - | | 0.26 | 0.23 | - | 0.31 | 0.23 | - | | 5 | 5 | - | 5 | 4 | - | |
| **2000 859 248** | 155 | 85 | - | 215 | 25 | - | | 0.2 | 0.22 | - | 0.2 | 0.22 | - | | 0.8 | 0.8 | - | 0.8 | 0.8 | - | |
| | 260 | 140 | - | 840 | 65 | - | | 0.5 | 0.45 | - | 0.6 | 0.35 | - | | 5 | 5 | - | 5 | 4 | - | |
| CNMG-HP right | | | | | | | | | | | | | | | | | | | | | |
| **2000 859 245** | 180 | 95 | - | 245 | 30 | - | | 0.17 | 0.18 | - | 0.17 | 0.18 | - | | 0.8 | 0.8 | - | 0.8 | 0.8 | - | |
| | 240 | 130 | - | 770 | 60 | - | | 0.26 | 0.23 | - | 0.31 | 0.23 | - | | 5 | 5 | - | 5 | 4 | - | |
| **2000 859 246** | 155 | 85 | - | 215 | 25 | - | | 0.2 | 0.22 | - | 0.2 | 0.22 | - | | 0.8 | 0.8 | - | 0.8 | 0.8 | - | |
| | 260 | 140 | - | 840 | 65 | - | | 0.5 | 0.45 | - | 0.6 | 0.35 | - | | 5 | 5 | - | 5 | 4 | - | |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated Left** | | | | | | | |
| **CNMG120404L-HP** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 859 247** |
| **CNMG120408L-HP** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 248** |
| **TiN-coated Right** | | | | | | | |
| **CNMG120404R-HP** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 859 245** |
| **CNMG120408R-HP** | UNI35 | 12,9 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 246** |

## Insert DCGT

For the processing of aluminium



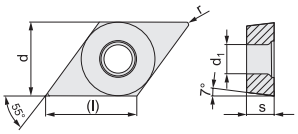

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | |
|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | |
| DCGT-AL | | | | | | | | | |
| **2480 004 966** | - | - | - | 150 | - | - | 0.06 | - | - | 0.3 | - | - |
| | - | - | - | 575 | - | - | 0.12 | - | - | 2.1 | - | - |
| **2000 859 120** | - | - | - | 125 | - | - | 0.1 | - | - | 0.4 | - | - |
| | - | - | - | 490 | - | - | 0.24 | - | - | 2.1 | - | - |
| **2480 004 968** | - | - | - | 140 | - | - | 0.06 | - | - | 0.3 | - | - |
| | - | - | - | 575 | - | - | 0.12 | - | - | 3.3 | - | - |
| **2000 859 121** | - | - | - | 120 | - | - | 0.1 | - | - | 0.4 | - | - |
| | - | - | - | 490 | - | - | 0.24 | - | - | 3.3 | - | - |
| **2480 004 970** | - | - | - | 105 | - | - | 0.15 | - | - | 0.8 | - | - |
| | - | - | - | 455 | - | - | 0.48 | - | - | 3.3 | - | - |
| **TiC/C-coated** | | | | | | | | | |
| **2480 004 967** | - | - | - | 240 | - | - | 0.06 | - | - | 0.3 | - | - |
| | - | - | - | 770 | - | - | 0.12 | - | - | 2.1 | - | - |
| **2480 001 863** | - | - | - | 195 | - | - | 0.1 | - | - | 0.4 | - | - |
| | - | - | - | 665 | - | - | 0.24 | - | - | 2.1 | - | - |
| **2480 004 969** | - | - | - | 230 | - | - | 0.06 | - | - | 0.3 | - | - |
| | - | - | - | 750 | - | - | 0.12 | - | - | 3.3 | - | - |
| **2480 001 865** | - | - | - | 180 | - | - | 0.1 | - | - | 0.4 | - | - |
| | - | - | - | 645 | - | - | 0.24 | - | - | 3.3 | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | |
| **DCGT070202-AL** | N20 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 004 966** |
| **DCGT070204-AL** | N20 | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 120** |
| **DCGT11T302-AL** | N20 | 11,6 | 9.525 | 4.4 | 3,97 | 0.2 | **2480 004 968** |
| **DCGT11T304-AL** | N20 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 121** |
| **DCGT11T308-AL** | N20 | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 004 970** |
| **TiC/C-coated** | | | | | | | |
| **DCGT070202-AL** | UNI10 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 004 967** |
| **DCGT070204-AL** | UNI10 | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 001 863** |
| **DCGT11T302-AL** | UNI10 | 11,6 | 9.525 | 4.4 | 3,97 | 0.2 | **2480 004 969** |
| **DCGT11T304-AL** | UNI10 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 001 865** |

## Insert DCMT

For finishing = F



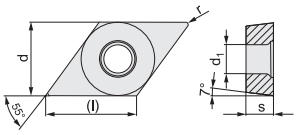

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | |
|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | |
| DCMT-F | | | | | | | | | |
| **2480 000 098** | 125 | 75 | - | - | 25 | - | 0.08 | 0.08 | - | - | 0.08 | - | 0.4 | 0.4 | - | - | 0.4 | - |
| | 185 | 110 | - | - | 55 | - | 0.24 | 0.18 | - | - | 0.14 | - | 1 | 0.8 | - | - | 0.6 | - |
| **2480 000 099** | 125 | 75 | - | - | 25 | - | 0.08 | 0.08 | - | - | 0.08 | - | 0.8 | 0.8 | - | - | 0.8 | - |
| | 185 | 110 | - | - | 55 | - | 0.3 | 0.25 | - | - | 0.2 | - | 1.5 | 1.5 | - | - | 1 | - |
| **2480 000 100** | 95 | 100 | - | - | 20 | - | 0.08 | 0.09 | - | - | 0.05 | - | 0.5 | 0.8 | - | - | 0.4 | - |
| | 170 | 140 | - | - | 60 | - | 0.25 | 0.15 | - | - | 0.14 | - | 3 | 2.3 | - | - | 1.2 | - |
| **2480 000 101** | 95 | 100 | - | - | 20 | - | 0.08 | 0.08 | - | - | 0.05 | - | 0.8 | 0.8 | - | - | 0.8 | - |
| | 170 | 140 | - | - | 60 | - | 0.48 | 0.36 | - | - | 0.18 | - | 2 | 1.5 | - | - | 1.5 | - |
| **Multi-coated** | | | | | | | | | |
| **2480 011 843** | 200 | - | 190 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.3 | - | 0.3 | - | - | - |
| | 255 | - | 240 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | |
| **2000 859 115** | 205 | 120 | 190 | - | 40 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - |
| | 230 | 135 | 215 | - | 65 | - | 0.12 | 0.12 | 0.12 | - | 0.12 | - | 1 | 0.8 | 1 | - | 0.6 | - |
| **2000 859 116** | 170 | 100 | 160 | - | 30 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 225 | 135 | 210 | - | 65 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 2 | 1.5 | 2 | - | 1.2 | - |
| **2000 859 117** | 165 | 95 | 155 | - | 30 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 225 | 135 | 210 | - | 65 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 118** | 185 | 110 | 175 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 255 | 150 | 240 | - | 75 | - | 0.3 | 0.23 | 0.3 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |

Continuation>

Continuation

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **DCMT070204-F** | UNI | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 000 098** |
| **DCMT070208-F** | UNI | 7,8 | 6.35 | 2.8 | 2,38 | 0.8 | **2480 000 099** |
| **DCMT11T304-F** | UNI | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 000 100** |
| **DCMT11T308-F** | UNI | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 000 101** |
| **Multi-coated** | | | | | | | |
| **DCMT11T304-F** | PMK10 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 011 843** |
| **TiAlN-coated** | | | | | | | |
| **DCMT070202-F** | PMK30 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2000 859 115** |
| **DCMT070204-F** | PMK30 | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 116** |
| **DCMT11T304-F** | PMK30 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 117** |
| **DCMT11T308-F** | PMK30 | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 859 118** |




## Insert DCMT

For medium processing = M

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| DCMT-M | | | | | | | | | | | | | | | | | | |
| **2000 858 946** | 85 | 50 | 80 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 150 | 90 | 140 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 2 | 1.5 | 2 | - | - | - |
| **2000 858 947** | 85 | 50 | 80 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 150 | 90 | 140 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 2 | 1.5 | 2 | - | - | - |
| **2000 858 948** | 80 | 45 | 75 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 165 | 95 | 155 | - | - | - | 0.48 | 0.36 | 0.48 | - | - | - | 2 | 1.5 | 2 | - | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| **2480 007 962** | 135 | 80 | 125 | - | - | - | 0.05 | 0.06 | 0.05 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 180 | 105 | 170 | - | - | - | 0.1 | 0.09 | 0.1 | - | - | - | 1 | 1 | 1 | - | - | - |
| **2480 009 198** | 205 | 120 | 190 | - | 40 | - | 0.12 | 0.12 | 0.12 | - | 0.12 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - |
| | 230 | 135 | 215 | - | 65 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 1 | 0.8 | 1 | - | 0.6 | - |
| **2000 859 053** | 165 | 95 | 155 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 215 | 125 | 200 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 009 202** | 210 | 125 | 195 | - | - | - | 0.07 | 0.07 | 0.07 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 290 | 170 | 275 | - | - | - | 0.1 | 0.09 | 0.1 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2000 859 054** | 165 | 95 | 155 | - | 30 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 225 | 135 | 210 | - | 65 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 062** | 185 | 110 | 175 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 255 | 150 | 240 | - | 75 | - | 0.3 | 0.23 | 0.3 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| **2480 011 844** | 180 | - | 170 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.4 | - | 0.4 | - | - | - |
| | 225 | - | 210 | - | - | - | 0.2 | - | 0.2 | - | - | - | 2 | - | 2 | - | - | - |
| **2480 011 865** | 170 | - | 160 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 265 | - | 250 | - | - | - | 0.4 | - | 0.4 | - | - | - | 2 | - | 2 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| **2480 009 216** | 195 | 115 | 185 | - | - | - | 0.07 | 0.07 | 0.07 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 265 | 155 | 250 | - | - | - | 0.1 | 0.09 | 0.1 | - | - | - | 1 | 1 | 1 | - | - | - |
| **2480 009 218** | 145 | 85 | 135 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 185 | 110 | 175 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 009 219** | 180 | 105 | 170 | - | - | - | 0.07 | 0.07 | 0.07 | - | - | - | 0.2 | 0.2 | 0.2 | - | - | - |
| | 250 | 150 | 235 | - | - | - | 0.1 | 0.09 | 0.1 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 008 302** | 145 | 85 | 135 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 185 | 110 | 175 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 008 303** | 125 | 75 | 115 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 215 | 125 | 200 | - | - | - | 0.4 | 0.36 | 0.4 | - | - | - | 2 | 2 | 2 | - | - | - |

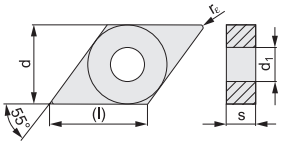
Continuation>

Continuation

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **DCMT070204-M** | UNI | 7,8 | 6.35 | 2.8 | 2,8 | 0.4 | **2000 858 946** |
| **DCMT11T304-M** | UNI | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 858 947** |
| **DCMT11T308-M** | UNI | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 858 948** |
| **TiN-coated** | | | | | | | |
| **DCMT070202-M** | PMK10 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 007 962** |
| **DCMT070202-M** | UNI35 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 009 198** |
| **DCMT070204-M** | UNI35 | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 859 053** |
| **DCMT11T302-M** | UNI35 | 11,6 | 9.525 | 4.4 | 3,97 | 0.2 | **2480 009 202** |
| **DCMT11T304-M** | UNI35 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 054** |
| **DCMT11T308-M** | UNI35 | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 859 062** |
| **Multi-coated** | | | | | | | |
| **DCMT11T304-M** | PMK10 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 011 844** |
| **DCMT11T308-M** | PMK10 | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 011 865** |
| **TiAlN-coated** | | | | | | | |
| **DCMT070202-M** | PMK30 | 7,8 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 009 216** |
| **DCMT070204-M** | PMK30 | 7,8 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 009 218** |
| **DCMT11T302-M** | PMK30 | 11,6 | 9.525 | 4.4 | 3,97 | 0.2 | **2480 009 219** |
| **DCMT11T304-M** | PMK30 | 11,6 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 008 302** |
| **DCMT11T308-M** | PMK30 | 11,6 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 008 303** |

## Insert DNKG

For the processing of aluminium



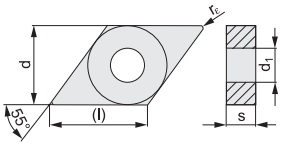

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | | | |
| DNKG-AL | | | | | | | | | | | | | | | | | | | | |
| **2000 858 949** | - | - | - | 110 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.8 | - | - |
| | - | - | - | 575 | - | - | - | - | - | 0.4 | - | - | - | - | - | 5 | - | - |
| **2000 858 950** | - | - | - | 110 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.8 | - | - |
| | - | - | - | 575 | - | - | - | - | - | 0.4 | - | - | - | - | - | 5 | - | - |

| ISO designation<br>Uncoated, highly polished | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **DNKG150604-AL** | Aluminium | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 858 949** |
| **DNKG150608-AL** | Aluminium | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 858 950** |

## Insert DNMG

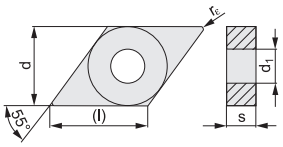
For finishing = F




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | | |
| DNMG-F | | | | | | | | | | | | | | | | | | | | |
| **2480 011 697** | 225 | - | 210 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.5 | - | 0.5 | - | - | - |
| | 285 | - | 270 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **2480 011 698** | 210 | - | 195 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 330 | - | 310 | - | - | - | 0.4 | - | 0.4 | - | - | - | 3 | - | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | | |
| **2480 011 572** | 185 | 110 | 175 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - |
| | 250 | 150 | 235 | - | 75 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 270** | 185 | 110 | 175 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.5 | 0.5 | - | 0.5 | - |
| | 245 | 145 | 230 | - | 70 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 271** | 190 | 110 | 180 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 280 | 165 | 265 | - | 80 | - | 0.45 | 0.34 | 0.45 | - | 0.27 | - | 3 | 2.3 | 3 | - | 1.8 | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **DNMG150604-F** | PMK10 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2480 011 697** |
| **DNMG150608-F** | PMK10 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2480 011 698** |
| **TiAlN-coated** | | | | | | | |
| **DNMG110404-F** | PMK30 | 11,6 | 9.53 | 3.81 | 4,76 | 0.4 | **2480 011 572** |
| **DNMG150604-F** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 859 270** |
| **DNMG150608-F** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 859 271** |



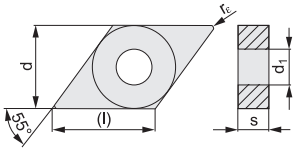

## Insert DNMG

For medium processing = M

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| DNMG-M | | | | | | | | | | | | | | | | | | |
| **2000 858 832** | 105 | 60 | 95 | - | - | - | 0.1 | 0.1 | 0.1 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 175 | 105 | 165 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 833** | 100 | 60 | 95 | - | - | - | 0.15 | 0.15 | 0.1 | - | - | - | 0.8 | 0.8 | 0.5 | - | - | - |
| | 170 | 100 | 165 | - | - | - | 0.45 | 0.34 | 0.24 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 834** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| **2480 008 377** | 160 | - | 150 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 205 | - | 190 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **2480 008 378** | 140 | - | 130 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 245 | - | 230 | - | - | - | 0.4 | - | 0.4 | - | - | - | 3 | - | 3 | - | - | - |
| **2000 859 085** | 160 | - | 150 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 195 | - | 185 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **2000 859 272** | 140 | - | 130 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | 235 | - | 220 | - | - | - | 0.4 | - | 0.4 | - | - | - | 4.5 | - | 4.5 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **DNMG150604-M** | UNI | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 858 832** |
| **DNMG150608-M** | UNI | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 858 833** |
| **DNMG150612-M** | UNI | 15,5 | 12.7 | 5.16 | 6,35 | 1.2 | **2000 858 834** |
| **TiAlN-coated** | | | | | | | |
| **DNMG110404-M** | PMK30 | 11,6 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 008 377** |
| **DNMG110408-M** | PMK30 | 11,6 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 008 378** |
| **DNMG150604-M** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 859 085** |
| **DNMG150608-M** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 859 272** |




## Insert DNMG

For roughing = R

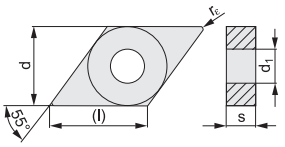
In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | | | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| DNMG-R | | | | | | | | | | | | | | | | | | |
| **2000 859 274** | 185 | 110 | 175 | - | 35 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 270 | 160 | 255 | - | 80 | - | 0.48 | 0.36 | 0.48 | - | 0.29 | - | 4.5 | 3.4 | 4.5 | - | 2.7 | - |
| **2480 012 981** | 155 | 90 | - | - | - | - | 0.2 | 0.2 | - | - | - | - | 1 | 1 | - | - | - | - |
| | 225 | 135 | - | - | - | - | 0.48 | 0.36 | - | - | - | - | 4.5 | 3.4 | - | - | - | - |
| **2000 859 275** | 150 | 75 | 140 | - | - | - | 0.3 | 0.25 | 0.3 | - | - | - | 1.2 | 1.2 | 2 | - | - | - |
| | 170 | 100 | 160 | - | - | - | 0.4 | 0.36 | 0.4 | - | - | - | 3 | 3 | 3 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **DNMG150608-R** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 859 274** |
| **DNMG150608-R** | PMK35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2480 012 981** |
| **DNMG150612-R** | PMK30 | 15,5 | 12.7 | 5.16 | 6,35 | 1.2 | **2000 859 275** |

## Insert DNMG

**Gold standard for VA** · For medium processing = M



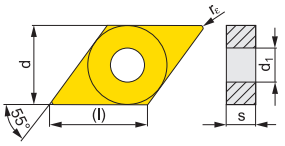

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| DNMG-MV | | | | | | | | | | | | | | | | | | |
| **2480 008 495** | 195 | 115 | 185 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 260 | 155 | 245 | - | 75 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2480 008 497** | 205 | 120 | 190 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 0.8 | 0.8 | 0.8 | - | 0.5 | - |
| | 275 | 165 | 260 | - | 80 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2480 008 499** | 195 | 115 | 185 | - | 35 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 260 | 155 | 245 | - | 75 | - | 0.24 | 0.18 | 0.24 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2480 008 234** | 205 | 120 | 190 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 275 | 165 | 260 | - | 80 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 3 | 2.3 | 3 | - | 1.8 | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **DNMG110404-MV** | VA35 | 11,6 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 008 495** |
| **DNMG110408-MV** | VA35 | 11,6 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 008 497** |
| **DNMG150604-MV** | VA35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2480 008 499** |
| **DNMG150608-MV** | VA35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2480 008 234** |

## Insert DNMG

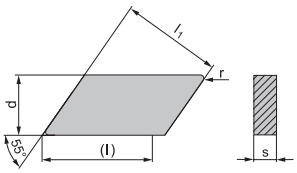
For very light and soft cut for thin, long shafts and thin-walled material




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| DNMG-HP left | | | | | | | | | | | | | | | | | | |
| **2000 859 278** | 200 | 120 | 190 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 250 | 150 | 235 | - | 75 | - | 0.24 | 0.24 | 0.24 | - | 0.24 | - | 4.5 | 3.4 | 4.5 | - | 2.7 | - |
| **2000 859 279** | 175 | 105 | - | - | 30 | - | 0.2 | 0.22 | - | - | 0.22 | - | 0.8 | 0.8 | - | - | 0.8 | - |
| | 260 | 155 | - | - | 70 | - | 0.4 | 0.36 | - | - | 0.28 | - | 4.5 | 4.5 | - | - | 3.6 | - |
| DNMG-HP right | | | | | | | | | | | | | | | | | | |
| **2000 859 276** | 200 | 120 | 190 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | 250 | 150 | 235 | - | 75 | - | 0.24 | 0.24 | 0.24 | - | 0.24 | - | 4.5 | 3.4 | 4.5 | - | 2.7 | - |
| **2000 859 277** | 175 | 105 | - | - | 30 | - | 0.2 | 0.22 | - | - | 0.22 | - | 0.8 | 0.8 | - | - | 0.8 | - |
| | 260 | 155 | - | - | 70 | - | 0.4 | 0.36 | - | - | 0.28 | - | 4.5 | 4.5 | - | - | 3.6 | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated Left** | | | | | | | |
| **DNMG150604L-HP** | UNI35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 859 278** |
| **DNMG150608L-HP** | UNI35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 859 279** |
| **TiN-coated Right** | | | | | | | |
| **DNMG150604R-HP** | UNI35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.4 | **2000 859 276** |
| **DNMG150608R-HP** | UNI35 | 15,5 | 12.7 | 5.16 | 6,35 | 0.8 | **2000 859 277** |



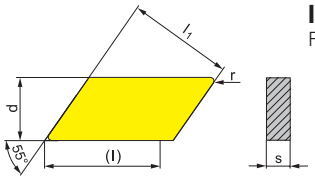

## Insert KNUX

For finishing = F

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| KNUX-F | | | | | | | | | | | | | | | | | | |
| **2480 009 290** | 210 | 125 | 195 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 285 | 170 | 270 | - | - | - | 0.23 | 0.17 | 0.23 | - | - | - | 4 | 3 | 4 | - | - | - |
| **2480 009 291** | 210 | 125 | 195 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | 285 | 170 | 270 | - | - | - | 0.23 | 0.17 | 0.23 | - | - | - | 4 | 3 | 4 | - | - | - |

| ISO designation | Type | l [mm] | l1 [mm] | d [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **KNUX160405EL-F** | PMK30 | 19,5 | 16.15 | 9.525 | 4,76 | 0.5 | **2480 009 290** |
| **KNUX160405ER-F** | PMK30 | 19,5 | 16.15 | 9.525 | 4,76 | 0.5 | **2480 009 291** |



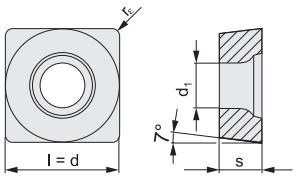

## Insert KNUX

For medium processing = M

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| KNUX-M | | | | | | | | | | | | | | | | | | |
| **2480 001 798** | 125 | 75 | 115 | - | 25 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 230 | 135 | 215 | - | 65 | - | 0.6 | 0.45 | 0.6 | - | 0.36 | - | 4.8 | 3.6 | 4.8 | - | 2.9 | - |
| **2480 001 802** | 125 | 75 | 115 | - | 25 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 230 | 135 | 215 | - | 65 | - | 0.6 | 0.45 | 0.6 | - | 0.36 | - | 4.8 | 3.6 | 4.8 | - | 2.9 | - |

| ISO designation | Type | l [mm] | l1 [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | |
| **KNUX160410SL-M** | PMK40 | 19,5 | 16.15 | 9.525 | 4.76 | 4,76 | 1.0 | **2480 001 798** |
| **KNUX160410SR-M** | PMK40 | 19,5 | 16.15 | 9.525 | 4.76 | 4,76 | 1.0 | **2480 001 802** |




## Insert SCMT

For medium processing = M

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | |
| SCMT-M | | | | | | | | | | | | | | | | | | |
| **2480 000 006** | 205 | 120 | 190 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 295 | 175 | 280 | - | - | - | 0.3 | 0.23 | 0.3 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2480 000 007** | 240 | 140 | 225 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 335 | 200 | 315 | - | - | - | 0.35 | 0.26 | 0.35 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| **2480 008 520** | 175 | 105 | 165 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | 235 | 140 | 220 | - | - | - | 0.22 | 0.22 | 0.22 | - | - | - | 3 | 3 | 3 | - | - | - |
| **2480 008 521** | 155 | 90 | 145 | - | - | - | 0.15 | 0.17 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 275 | 165 | 260 | - | - | - | 0.44 | 0.4 | 0.44 | - | - | - | 3 | 3 | 3 | - | - | - |
| **2480 008 525** | 145 | 85 | 135 | - | - | - | 0.15 | 0.17 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | 265 | 155 | 250 | - | - | - | 0.44 | 0.4 | 0.44 | - | - | - | 4 | 4 | 4 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **SCMT09T304-M** | UNI | 9,7 | 9.53 | 4.4 | 3,97 | 0.4 | **2480 000 006** |
| **SCMT09T308-M** | UNI | 9,7 | 9.53 | 4.4 | 3,97 | 0.8 | **2480 000 007** |
| **TiAlN-coated** | | | | | | | |
| **SCMT09T304-M** | PMK30 | 9,525 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 008 520** |
| **SCMT09T308-M** | PMK30 | 9,525 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 008 521** |
| **SCMT120408-M** | PMK30 | 12,7 | 12.7 | 5.5 | 4,76 | 0.8 | **2480 008 525** |

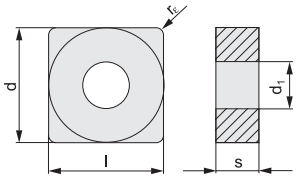


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request

You will find the explanation of the symbols before the index.

## Insert SNMG

For medium processing = M



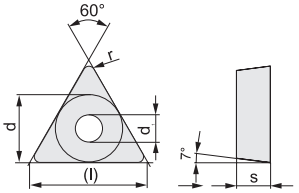

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | Feed f (mm/rev) min / Feed f (mm/rev) max | Cutting depth ap (mm) min / Cutting depth ap (mm) max |
|---|---|---|---|
| **Multi-coated** | | | |
| SNMG-M | | | |
| **2480 000 013** | 125 / 230 | 0.1 / 0.3 | 0.5 / 3 |
| | 75 / 135 | 0.1 / 0.23 | 0.5 / 2.3 |
| | 115 / 215 | 0.1 / 0.3 | 0.5 / 3 |
| **2480 000 014** | 135 / 220 | 0.15 / 0.45 | 0.8 / 3 |
| | 80 / 130 | 0.15 / 0.34 | 0.8 / 2.3 |
| | 125 / 205 | 0.15 / 0.45 | 0.8 / 3 |
| **2480 011 933** | 225 / 370 | 0.15 / 0.44 | 0.8 / 6 |
| | - / - | - / - | - / - |
| | 210 / 350 | 0.15 / 0.44 | 0.8 / 6 |
| | - / - | - / - | - / - |
| | 45 / 70 | 0.11 / 0.22 | 0.4 / 1 |
| **2480 011 940** | 210 / 375 | 0.17 / 0.66 | 1.2 / 6 |
| | - / - | - / - | - / - |
| | 195 / 355 | 0.17 / 0.66 | 1.2 / 6 |
| | - / - | - / - | - / - |
| | 40 / 75 | 0.11 / 0.33 | 0.6 / 1.5 |
| **TiAlN-coated** | | | |
| **2480 008 281** | 165 / 300 | 0.15 / 0.44 | 0.8 / 6 |
| | - / - | - / - | - / - |
| | 155 / 285 | 0.15 / 0.44 | 0.8 / 6 |
| | - / - | - / - | - / - |
| **2480 008 305** | 150 / 300 | 0.17 / 0.66 | 1.2 / 6 |
| | - / - | - / - | - / - |
| | 140 / 285 | 0.17 / 0.66 | 1.2 / 6 |
| | - / - | - / - | - / - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **SNMG120404-M** | UNI | 12,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 000 013** |
| **SNMG120408-M** | UNI | 12,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 000 014** |
| **SNMG120408-M** | PMK10 | 12,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 011 933** |
| **SNMG120412-M** | PMK10 | 12,7 | 12.7 | 5.16 | 4,76 | 1.2 | **2480 011 940** |
| **TiAlN-coated** | | | | | | | |
| **SNMG120408-M** | PMK30 | 12,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 008 281** |
| **SNMG120412-M** | PMK30 | 12,7 | 12.7 | 5.16 | 4,76 | 1.2 | **2480 008 305** |

## Insert TCGT

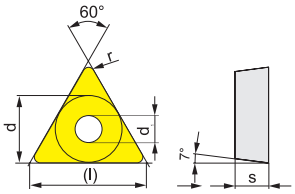
For the processing of aluminium




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min / Vc (m/min) max | Feed f (mm/rev) min / Feed f (mm/rev) max | Cutting depth ap (mm) min / Cutting depth ap (mm) max |
|---|---|---|---|
| **Uncoated, highly polished** | | | |
| TCGT-aluminium | | | |
| **2480 000 270** | - / - | - / - | - / - |
| | - / - | - / - | - / - |
| | 155 / 610 | 0.06 / 0.12 | 0.3 / 3.6 |
| **2480 000 271** | - / - | - / - | - / - |
| | - / - | - / - | - / - |
| | 125 / 525 | 0.1 / 0.24 | 0.4 / 3.6 |
| **2480 000 272** | - / - | - / - | - / - |
| | - / - | - / - | - / - |
| | 120 / 525 | 0.08 / 0.18 | 0.3 / 5.3 |
| **2480 000 273** | - / - | - / - | - / - |
| | - / - | - / - | - / - |
| | 120 / 525 | 0.1 / 0.24 | 0.4 / 5.3 |

| ISO designation<br>Uncoated, highly polished | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TCGT110202-ALU** | Aluminium | 11 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 000 270** |
| **TCGT110204-ALU** | Aluminium | 11 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 000 271** |
| **TCGT16T302-ALU** | Aluminium | 16,5 | 9.525 | 4.4 | 3,97 | 0.2 | **2480 000 272** |
| **TCGT16T304-ALU** | Aluminium | 16,5 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 000 273** |



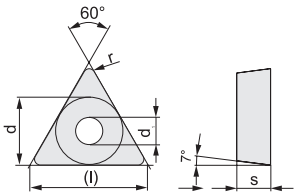

## Insert TCMT

For finishing = F

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| TCMT-F | | | | | | | | | | | | | | | | | | | |
| **2480 002 615** | | 180 | 95 | 145 | 245 | - | - | 0.08 | 0.09 | 0.08 | 0.08 | - | - | 0.2 | 0.2 | 0.2 | 0.2 | - | - |
| | | 225 | 120 | 185 | 715 | - | - | 0.1 | 0.09 | 0.1 | 0.12 | - | - | 2 | 2 | 2 | 2 | - | - |
| **2480 001 470** | | 140 | 75 | 115 | 195 | - | - | 0.08 | 0.09 | 0.08 | 0.08 | - | - | 0.2 | 0.2 | 0.2 | 2 | - | - |
| | | 240 | 130 | 195 | 770 | - | - | 0.2 | 0.18 | 0.2 | 0.24 | - | - | 2 | 2 | 2 | 0.2 | - | - |
| **2480 001 478** | | 135 | 75 | 110 | 185 | - | - | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.3 | 0.3 | 0.3 | 0.3 | - | - |
| | | 210 | 115 | 175 | 680 | - | - | 0.2 | 0.18 | 0.2 | 0.24 | - | - | 3 | 3 | 3 | 3 | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **TCMT110202-F** | PMK35 | 11 | 6.35 | 2.8 | 2,38 | 0.2 | **2480 002 615** |
| **TCMT110204-F** | PMK35 | 11 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 001 470** |
| **TCMT16T304-F** | PMK35 | 16,5 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 001 478** |




## Insert TCMT

For medium processing = M

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| TCMT-M | | | | | | | | | | | | | | | | | | | |
| **2000 858 910** | | 85 | 50 | 80 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 145 | 85 | 135 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 849** | | 85 | 50 | 80 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 145 | 85 | 135 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 814** | | 95 | 55 | 90 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 175 | 105 | 165 | - | - | - | 0.3 | 0.23 | 0.3 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 011 293** | | 120 | 65 | 95 | - | - | - | 0.08 | 0.09 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 230 | 125 | 185 | - | - | - | 0.3 | 0.27 | 0.3 | - | - | - | 3 | 3 | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 009 270** | | 150 | 90 | 140 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 195 | 115 | 185 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 009 271** | | 145 | 85 | 135 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 190 | 110 | 180 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 3 | 3 | 3 | - | - | - |
| **2480 008 522** | | 145 | 85 | 135 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 220 | 130 | 205 | - | - | - | 0.3 | 0.27 | 0.3 | - | - | - | 3 | 3 | 3 | - | - | - |

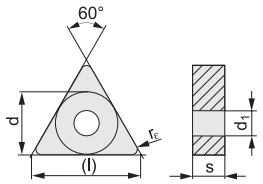
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **TCMT110204-M** | UNI | 11 | 6.35 | 2.8 | 2,38 | 0.4 | **2000 858 910** |
| **TCMT16T304-M** | UNI | 16,5 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 858 849** |
| **TCMT16T308-M** | UNI | 16,5 | 9.525 | 4.4 | 3,97 | 0.8 | **2000 858 814** |
| **TiN-coated** | | | | | | | |
| **TCMT16T308-M** | UNI35 | 16,5 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 011 293** |
| **TiAlN-coated** | | | | | | | |
| **TCMT110204-M** | PMK30 | 11 | 6.35 | 2.8 | 2,38 | 0.4 | **2480 009 270** |
| **TCMT16T304-M** | PMK30 | 16,5 | 9.525 | 4.4 | 3,97 | 0.4 | **2480 009 271** |
| **TCMT16T308-M** | PMK30 | 16,5 | 9.525 | 4.4 | 3,97 | 0.8 | **2480 008 522** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Insert TNMG

For medium processing = M



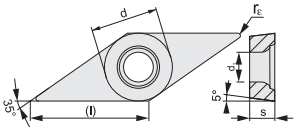

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| TNMG-M | | | | | | | | | | | | | | | | | | | |
| **2000 858 733** | | 130 | 75 | 120 | - | - | - | 0.1 | 0.1 | 0.1 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 200 | 120 | 190 | - | - | - | 0.24 | 0.18 | 0.24 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 734** | | 130 | 75 | 120 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 205 | 120 | 190 | - | - | - | 0.45 | 0.34 | 0.45 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2480 011 977** | | 235 | - | 220 | - | - | 35 | 0.15 | - | 0.17 | - | - | 0.11 | 0.8 | - | 0.8 | - | - | 0.2 |
| | | 300 | - | 285 | - | - | 60 | 0.2 | - | 0.2 | - | - | 0.14 | 3 | - | 3 | - | - | 0.5 |
| **2480 011 978** | | 190 | - | 180 | - | - | 35 | 0.15 | - | 0.15 | - | - | 0.11 | 0.8 | - | 0.8 | - | - | 0.4 |
| | | 310 | - | 290 | - | - | 60 | 0.4 | - | 0.4 | - | - | 0.2 | 5 | - | 5 | - | - | 1 |
| **2480 011 981** | | 175 | - | 165 | - | - | 35 | 0.17 | - | 0.17 | - | - | 0.11 | 1.2 | - | 1.2 | - | - | 0.6 |
| | | 310 | - | 290 | - | - | 60 | 0.6 | - | 0.6 | - | - | 0.3 | 5.3 | - | 5.3 | - | - | 1.4 |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 009 208** | | 170 | - | 160 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 205 | - | 190 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **2480 008 296** | | 145 | - | 135 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 250 | - | 235 | - | - | - | 0.4 | - | 0.4 | - | - | - | 5 | - | 5 | - | - | - |
| **2480 009 283** | | 125 | - | 115 | - | - | - | 0.17 | - | 0.17 | - | - | - | 1.2 | - | 1.2 | - | - | - |
| | | 245 | - | 230 | - | - | - | 0.6 | - | 0.6 | - | - | - | 5.3 | - | 5.3 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **TNMG160404-M** | UNI | 16,5 | 9.525 | 3.81 | 4,76 | 0.4 | **2000 858 733** |
| **TNMG160408-M** | UNI | 16,5 | 9.525 | 3.81 | 4,76 | 0.8 | **2000 858 734** |
| **TNMG160404-M** | PMK10 | 16,5 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 011 977** |
| **TNMG160408-M** | PMK10 | 16,5 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 011 978** |
| **TNMG160412-M** | PMK10 | 16,5 | 9.525 | 3.81 | 4,76 | 1.2 | **2480 011 981** |
| **TiAlN-coated** | | | | | | | |
| **TNMG160404-M** | PMK30 | 16,5 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 009 208** |
| **TNMG160408-M** | PMK30 | 16,5 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 008 296** |
| **TNMG160412-M** | PMK30 | 16,5 | 9.525 | 3.81 | 4,76 | 1.2 | **2480 009 283** |

## Insert VBMT

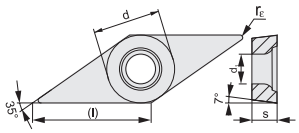
For medium processing = M




In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| VBMT-M | | | | | | | | | | | | | | | | | | | |
| **2000 858 776** | | 85 | 50 | 80 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 135 | 80 | 125 | - | - | - | 0.2 | 0.15 | 0.2 | - | - | - | 2 | 1.5 | 2 | - | - | - |
| **2000 858 777** | | 75 | 45 | 70 | - | - | - | 0.08 | 0.08 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 150 | 90 | 140 | - | - | - | 0.4 | 0.3 | 0.4 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 009 205** | | 110 | 60 | 90 | - | - | - | 0.08 | 0.09 | 0.08 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 180 | 95 | 145 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |
| **2480 009 206** | | 100 | 55 | 85 | - | - | - | 0.08 | 0.09 | 0.08 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 200 | 110 | 165 | - | - | - | 0.3 | 0.27 | 0.3 | - | - | - | 3 | 3 | 3 | - | - | - |
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 011 994** | | 165 | - | 155 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.4 | - | 0.4 | - | - | - |
| | | 210 | - | 195 | - | - | - | 0.2 | - | 0.2 | - | - | - | 2 | - | 2 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 008 276** | | 130 | 75 | 120 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 170 | 100 | 160 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | 2 | 2 | 2 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **VBMT160404-M** | UNI | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2000 858 776** |
| **VBMT160408-M** | UNI | 16,6 | 9.525 | 4.4 | 4,76 | 0.8 | **2000 858 777** |
| **TiN-coated** | | | | | | | |
| **VBMT160404-M** | UNI35 | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2480 009 205** |
| **VBMT160408-M** | UNI35 | 16,6 | 9.525 | 4.4 | 4,76 | 0.8 | **2480 009 206** |
| **Multi-coated** | | | | | | | |
| **VBMT160404-M** | PMK10 | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2480 011 994** |
| **TiAlN-coated** | | | | | | | |
| **VBMT160404-M** | PMK30 | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2480 008 276** |



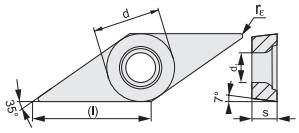

## Insert VCGT

For the processing of aluminium

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | Feed f (mm/rev) min<br>Feed f (mm/rev) max | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max |
|---|---|---|---|
| **Uncoated, highly polished** | | | |
| VCGT-AL | | | |
| **2480 005 233** | - / - | - / - | - / - |
| | - / - | 140 / 505 | 0.06 / 0.1 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.3 / 2.8 |
| **2480 002 222** | - / - | - / - | - / - |
| | - / - | 110 / 420 | 0.1 / 0.2 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.4 / 2.8 |
| **2480 004 816** | - / - | - / - | - / - |
| | - / - | 105 / 420 | 0.1 / 0.2 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.4 / 4 |
| **2480 002 224** | - / - | - / - | - / - |
| | - / - | 105 / 420 | 0.1 / 0.2 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.4 / 4 |
| **TiC/C-coated** | | | |
| **2480 005 396** | - / - | - / - | - / - |
| | - / - | 200 / 665 | 0.06 / 0.12 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.3 / 2.8 |
| **2480 002 221** | - / - | - / - | - / - |
| | - / - | 165 / 575 | 0.1 / 0.24 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.4 / 2.8 |
| **2480 004 817** | - / - | - / - | - / - |
| | - / - | 195 / 630 | 0.06 / 0.12 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.3 / 4 |
| **2480 002 223** | - / - | - / - | - / - |
| | - / - | 155 / 560 | 0.1 / 0.24 |
| | - / - | - / - | - / - |
| | - / - | - / - | 0.4 / 4 |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | |
| **VCGT110302-AL** | N20 | 11,1 | 6.35 | 2.8 | 3,18 | 0.2 | **2480 005 233** |
| **VCGT110304-AL** | N20 | 11,1 | 6.35 | 2.8 | 3,18 | 0.4 | **2480 002 222** |
| **VCGT160402-AL** | N20 | 16,6 | 9.525 | 4.4 | 4,76 | 0.2 | **2480 004 816** |
| **VCGT160404-AL** | N20 | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2480 002 224** |
| **TiC/C-coated** | | | | | | | |
| **VCGT110302-AL** | UNI10 | 11,1 | 6.35 | 2.8 | 3,18 | 0.2 | **2480 005 396** |
| **VCGT110304-AL** | UNI10 | 11,1 | 6.35 | 2.8 | 3,18 | 0.4 | **2480 002 221** |
| **VCGT160402-AL** | UNI10 | 16,6 | 9.525 | 4.4 | 4,76 | 0.2 | **2480 004 817** |
| **VCGT160404-AL** | UNI10 | 16,6 | 9.525 | 4.4 | 4,76 | 0.4 | **2480 002 223** |




## Insert VCMT

For medium processing = M

In material P / M / K / N / S / H

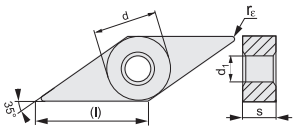
| Article no. | Vc (m/min) min<br>Vc (m/min) max | Feed f (mm/rev) min<br>Feed f (mm/rev) max | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max |
|---|---|---|---|
| **Multi-coated** | | | |
| VCMT-M | | | |
| **2000 858 696** | 70 / 120 | 40 / 70 | 65 / 110 |
| | | 0.08 / 0.16 | 0.08 / 0.1 |
| | | 0.08 / 0.16 | - / - |
| | | - / - | 0.3 / 2.1 |
| | | 0.3 / 1.8 | 0.3 / 2.1 |
| | | - / - | - / - |
| **2000 858 739** | 70 / 120 | 40 / 70 | 65 / 110 |
| | | 0.08 / 0.2 | 0.08 / 0.15 |
| | | 0.08 / 0.2 | - / - |
| | | - / - | 0.5 / 2.8 |
| | | 0.5 / 2.1 | 0.5 / 2.8 |
| | | - / - | - / - |
| **2000 858 697** | 70 / 120 | 40 / 70 | 65 / 110 |
| | | 0.08 / 0.28 | 0.08 / 0.19 |
| | | 0.08 / 0.28 | - / - |
| | | - / - | 0.8 / 3.8 |
| | | 0.8 / 2.9 | 0.8 / 3.8 |
| | | - / - | - / - |
| **2000 858 778** | 70 / 120 | 40 / 70 | 65 / 110 |
| | | 0.08 / 0.2 | 0.08 / 0.15 |
| | | 0.08 / 0.2 | - / - |
| | | - / - | 0.5 / 3 |
| | | 0.5 / 2.3 | 0.5 / 3 |
| | | - / - | - / - |
| **2000 858 779** | 80 / 135 | 45 / 80 | 75 / 125 |
| | | 0.08 / 0.25 | 0.08 / 0.19 |
| | | 0.08 / 0.25 | - / - |
| | | - / - | 0.8 / 3 |
| | | 0.8 / 2.3 | 0.8 / 3 |
| | | - / - | - / - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **VCMT110302-M** | UNI | 11,1 | 6.35 | 2.8 | 3,18 | 0.2 | **2000 858 696** |
| **VCMT110304-M** | UNI | 11,1 | 6.35 | 2.8 | 3,18 | 0.4 | **2000 858 739** |
| **VCMT110308-M** | UNI | 11,1 | 6.35 | 2.8 | 3,18 | 0.8 | **2000 858 697** |
| **VCMT160404-M** | UNI | 16,6 | 9.525 | 4.5 | 4,76 | 0.4 | **2000 858 778** |
| **VCMT160408-M** | UNI | 16,6 | 9.525 | 4.5 | 4,76 | 0.8 | **2000 858 779** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

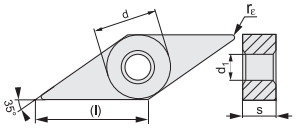
## Insert VNMG
For finishing = F




| Article no. | In material P / M / K / N / S / H | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| VNMG-F | | | | | | | | | | | | | | | | | | | |
| **2480 011 655** | | 195 | - | 185 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.5 | - | 0.5 | - | - | - |
| | | 245 | - | 230 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |
| **2480 011 656** | | 190 | - | 180 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 290 | - | 275 | - | - | - | 0.35 | - | 0.35 | - | - | - | 3 | - | 3 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **VNMG160404-F** | PMK10 | 16,6 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 011 655** |
| **VNMG160408-F** | PMK10 | 16,6 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 011 656** |

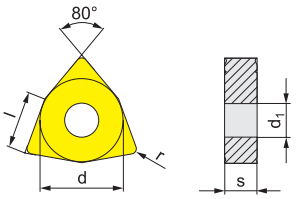
## Insert VNMG
For medium processing = M




| Article no. | In material P / M / K / N / S / H | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| VNMG-M | | | | | | | | | | | | | | | | | | | |
| **2480 000 474** | | 100 | 60 | 95 | - | - | - | 0.1 | 0.1 | 0.1 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 150 | 90 | 140 | - | - | - | 0.2 | 0.15 | 0.2 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2480 000 475** | | 95 | 55 | 90 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 145 | 85 | 135 | - | - | - | 0.35 | 0.26 | 0.35 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 008 284** | | 140 | - | 130 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 180 | - | 170 | - | - | - | 0.2 | - | 0.2 | - | - | - | 3 | - | 3 | - | - | - |

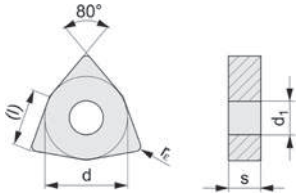
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **VNMG160404-M** | UNI | 16,6 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 000 474** |
| **VNMG160408-M** | UNI | 16,6 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 000 475** |
| **TiAlN-coated** | | | | | | | |
| **VNMG160404-M** | PMK30 | 16,6 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 008 284** |

## Insert WNMG
For finishing = F




| Article no. | In material P / M / K / N / S / H | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| WNMG-F | | | | | | | | | | | | | | | | | | | |
| **2480 012 146** | | 155 | 85 | 130 | - | 25 | - | 0.1 | 0.11 | 0.1 | - | 0.11 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | | 280 | 150 | 230 | - | 70 | - | 0.26 | 0.23 | 0.26 | - | 0.18 | - | 3 | 3 | 3 | - | 2.4 | - |
| **2480 012 147** | | 155 | 85 | 130 | - | 25 | - | 0.15 | 0.17 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | | 280 | 150 | 230 | - | 70 | - | 0.45 | 0.41 | 0.45 | - | 0.36 | - | 3 | 3 | 3 | - | 2.4 | - |
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| **2480 011 662** | | 255 | - | 240 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.5 | - | 0.5 | - | - | - |
| | | 355 | - | 335 | - | - | - | 0.26 | - | 0.26 | - | - | - | 3 | - | 3 | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| **2000 859 180** | | 220 | 130 | 205 | - | 40 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | | 310 | 185 | 290 | - | 90 | - | 0.3 | 0.23 | 0.3 | - | 0.18 | - | 3 | 2.3 | 3 | - | 1.8 | - |
| **2000 859 181** | | 240 | 140 | 225 | - | 45 | - | 0.15 | 0.15 | 0.15 | - | 0.15 | - | 0.8 | 0.8 | 0.8 | - | 0.8 | - |
| | | 355 | 210 | 335 | - | 105 | - | 0.45 | 0.34 | 0.45 | - | 0.27 | - | 3 | 2.3 | 3 | - | 1.8 | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **WNMG080404-F** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 012 146** |
| **WNMG080408-F** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 012 147** |
| **Multi-coated** | | | | | | | |
| **WNMG080404-F** | PMK10 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 011 662** |
| **TiAlN-coated** | | | | | | | |
| **WNMG080404-F** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 859 180** |
| **WNMG080408-F** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 181** |



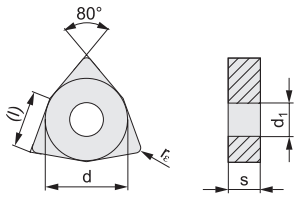

## Insert WNMG

For medium processing = M

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | | | | | | | | | | | | | |
| WNMG-M | | | | | | | | | | | | | | | | | | | |
|  **2000 858 726** | | 120 | 70 | 110 | - | - | - | 0.1 | 0.1 | 0.1 | - | - | - | 0.5 | 0.5 | 0.5 | - | - | - |
| | | 220 | 130 | 205 | - | - | - | 0.3 | 0.23 | 0.3 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 727** | | 130 | 75 | 120 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 210 | 125 | 195 | - | - | - | 0.45 | 0.34 | 0.45 | - | - | - | 3 | 2.3 | 3 | - | - | - |
| **2000 858 912** | | 130 | 75 | 120 | - | - | - | 0.15 | 0.15 | 0.15 | - | - | - | 0.8 | 0.8 | 0.8 | - | - | - |
| | | 210 | 125 | 195 | - | - | - | 0.45 | 0.34 | 0.45 | - | - | - | 3 | 2.3 | 3 | - | - | - |
|  **2480 012 065** | | 205 | - | 190 | - | - | 40 | 0.17 | - | 0.17 | - | - | 0.11 | 0.8 | - | 0.8 | - | - | 0.4 |
| | | 345 | - | 325 | - | - | 65 | 0.52 | - | 0.52 | - | - | 0.26 | 5.6 | - | 5.6 | - | - | 1 |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
|  **2480 009 141** | | 180 | - | 170 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 260 | - | 245 | - | - | - | 0.26 | - | 0.26 | - | - | - | 3 | - | 3 | - | - | - |
| **2480 009 150** | | 155 | - | 145 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 285 | - | 270 | - | - | - | 0.52 | - | 0.52 | - | - | - | 4 | - | 4 | - | - | - |
| **2480 009 244** | | 180 | - | 170 | - | - | - | 0.15 | - | 0.15 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 260 | - | 245 | - | - | - | 0.26 | - | 0.26 | - | - | - | 3 | - | 3 | - | - | - |
| **2000 859 182** | | 150 | - | 140 | - | - | - | 0.17 | - | 0.17 | - | - | - | 0.8 | - | 0.8 | - | - | - |
| | | 275 | - | 260 | - | - | - | 0.52 | - | 0.52 | - | - | - | 5.6 | - | 5.6 | - | - | - |
| **2000 859 183** | | 135 | - | 125 | - | - | - | 0.17 | - | 0.17 | - | - | - | 1.2 | - | 1.2 | - | - | - |
| | | 290 | - | 275 | - | - | - | 0.78 | - | 0.78 | - | - | - | 5.6 | - | 5.6 | - | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Multi-coated** | | | | | | | |
| **WNMG080404-M** | UNI | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2000 858 726** |
| **WNMG080408-M** | UNI | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 858 727** |
| **WNMG080412-M** | UNI | 8,7 | 12.7 | 5.16 | 4,76 | 1.2 | **2000 858 912** |
| **WNMG080408-M** | PMK10 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 012 065** |
| **TiAlN-coated** | | | | | | | |
| **WNMG060404-M** | PMK30 | 6,5 | 9.525 | 3.81 | 4,76 | 0.4 | **2480 009 141** |
| **WNMG060408-M** | PMK30 | 6,5 | 9.525 | 3.81 | 4,76 | 0.8 | **2480 009 150** |
| **WNMG080404-M** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 009 244** |
| **WNMG080408-M** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 182** |
| **WNMG080412-M** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 1.2 | **2000 859 183** |




## Insert WNMG

For roughing = R

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| WNMG-R | | | | | | | | | | | | | | | | | | | |
|  **2000 859 184** | | 225 | 135 | 210 | - | 45 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | | 335 | 200 | 315 | - | 100 | - | 0.55 | 0.41 | 0.55 | - | 0.33 | - | 5 | 3.8 | 5 | - | 3 | - |
| **2480 013 059** | | 185 | 110 | - | - | - | - | 0.2 | 0.2 | - | - | - | - | 1 | 1 | - | - | - | - |
| | | 280 | 165 | - | - | - | - | 0.55 | 0.41 | - | - | - | - | 5 | 3.8 | - | - | - | - |
| **2000 859 185** | | 220 | 130 | 205 | - | 40 | - | 0.25 | 0.25 | 0.25 | - | 0.25 | - | 1.5 | 1.5 | 1.5 | - | 1.5 | - |
| | | 320 | 190 | 300 | - | 95 | - | 0.7 | 0.53 | 0.7 | - | 0.42 | - | 5 | 3.8 | 5 | - | 3 | - |

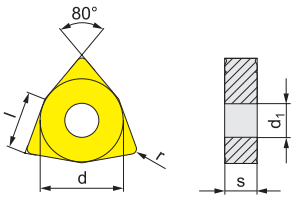
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **WNMG080408-R** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2000 859 184** |
| **WNMG080408-R** | PMK35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 013 059** |
| **WNMG080412-R** | PMK30 | 8,7 | 12.7 | 5.16 | 4,76 | 1.2 | **2000 859 185** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Insert WNMG

For a very light and soft cut for thin, long shafts and thin-walled material





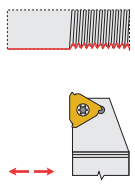

In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed f (mm/rev) min<br>Feed f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| WNMG-HP left | | | | | | | | | | | | | | | | | | | |
|  **2480 006 580** | | 155 | 85 | - | 215 | 25 | - | 0.2 | 0.22 | - | 0.2 | 0.22 | - | 0.8 | 0.8 | - | 0.8 | 0.8 | - |
| | | 260 | 140 | - | 840 | 65 | - | 0.5 | 0.45 | - | 0.6 | 0.35 | - | 5 | 5 | - | 5 | 4 | - |
| **2480 005 726** | | 180 | 95 | - | 245 | 30 | - | 0.17 | 0.18 | - | 0.17 | 0.18 | - | 0.8 | 0.8 | - | 0.8 | 0.8 | - |
| | | 240 | 130 | - | 770 | 60 | - | 0.26 | 0.23 | - | 0.31 | 0.23 | - | 5 | 5 | - | 5 | 4 | - |
| WNMG-HP right | | | | | | | | | | | | | | | | | | | |
|  **2480 006 577** | | 180 | 95 | - | 245 | 30 | - | 0.17 | 0.18 | - | 0.17 | 0.18 | - | 0.8 | 0.8 | - | 0.8 | 0.8 | - |
| | | 240 | 130 | - | 770 | 60 | - | 0.26 | 0.23 | - | 0.31 | 0.23 | - | 5 | 5 | - | 5 | 4 | - |
| **2480 005 724** | | 155 | 85 | - | 215 | 25 | - | 0.2 | 0.22 | - | 0.2 | 0.22 | - | 0.8 | 0.8 | - | 0.8 | 0.8 | - |
| | | 260 | 140 | - | 840 | 65 | - | 0.5 | 0.45 | - | 0.6 | 0.35 | - | 5 | 5 | - | 5 | 4 | - |

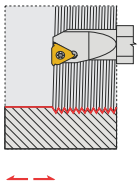
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated Left** | | | | | | | |
| **WNMG080404L-HP** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 006 580** |
| **WNMG080408L-HP** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 005 726** |
| **TiN-coated Right** | | | | | | | |
| **WNMG080404R-HP** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.4 | **2480 006 577** |
| **WNMG080408R-HP** | UNI35 | 8,7 | 12.7 | 5.16 | 4,76 | 0.8 | **2480 005 724** |

## Thread Cutting

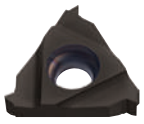
**SE R** page 134



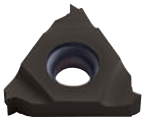
**SI R** page 135



**External thread** page 134



**Internal thread** page 135



## Pricking

**GFN GH** page 136



**GFN-S** page 136

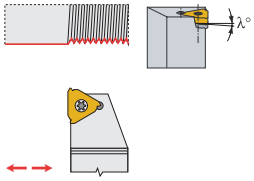


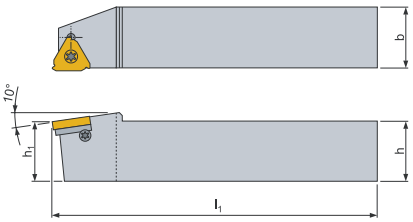
**GFN** page 137





Supplied without insert





## Rotating tool holder SE R

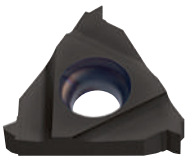
**For external threading · For indexable insert 16 ER 1.5°**

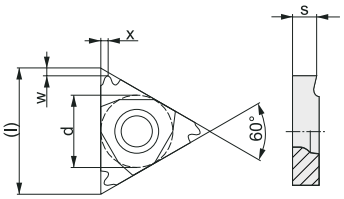
Supplied with base plate

| ISO designation Right | Indexable insert | Tensioning screw [mm] | h=h1 [mm] | b [mm] | l1 [mm] | Article no. |
|---|---|---|---|---|---|---|
| **SER 1212 F16** | 16 ER... | M3,5 x 8 | 12 | 12 | 80 | **2000 604 850** |
| **SER 1616 H16** | 16 ER... | M3,5 x 10 | 16 | 16 | 100 | **2000 604 851** |
| **SER 2020 K16** | 16 ER... | M3,5 x 10 | 20 | 20 | 125 | **2000 604 852** |
| **SER 2525 M16** | 16 ER... | M3,5 x 10 | 25 | 25 | 150 | **2000 604 853** |

Spare parts for clamp mounting SE R

| Spare parts | Article no. |
|---|---|
| **Tensioning screw M3.5 x 8** | **2000 604 858** |
| **Tensioning screw M3.5 x 10** | **2000 859 112** |
| **Clamp screw M3 x 0.6** | **2000 604 860** |
| **Support right** | **2000 604 861** |



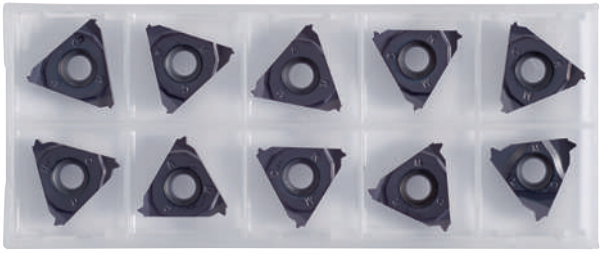


## Insert

For external threading · TiAlN-coated

**PU = pack of 2**

| ISO designation Right | Type | Thread pitch [mm] | l [mm] | d [mm] | s [mm] | x [mm] | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|
| **16ER075 ISO** | PK30 | 0.75 | 16,5 | 9.525 | 3,47 | 0.5 | **2000 604 881** |
| **16ER100 ISO** | PK30 | 1 | 16,5 | 9.525 | 3,47 | 0.7 | **2000 604 883** |
| **16ER125 ISO** | PK30 | 1.25 | 16,5 | 9.525 | 3,47 | 0.9 | **2000 604 885** |
| **16ER150 ISO** | PK30 | 1.5 | 16,5 | 9.525 | 3,47 | 1 | **2000 604 887** |
| **16ER175 ISO** | PK30 | 1.75 | 16,5 | 9.525 | 3,47 | 1.2 | **2000 604 889** |
| **16ER200 ISO** | PK30 | 2 | 16,5 | 9.525 | 3,47 | 1.3 | **2000 604 891** |
| **16ER250 ISO** | PK30 | 2.5 | 16,5 | 9.525 | 3,47 | 1.5 | **2000 604 893** |
| **16ER300 ISO** | PK30 | 3 | 16,5 | 9.525 | 3,47 | 1.6 | **2000 604 895** |



## Indexable insert set 16ER

For external threading · TiAlN-coated

**Contents:**

16 ER...PK30 (2x0.75 / 2x1.00 / 2x1.25 / 2x1.50 / 1x1.75 / 1x2.00 mm)

| Contents | Article no. TiAlN-coated |
|---|---|
| **10-part** | **2000 604 913** |

| External thread | Feeds | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thread pitch | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0.50 | 0.1 | 0.08 | 0.07 | 0.06 | 0.31 | | | | | | | | | |
| 0.75 | 0.16 | 0.13 | 0.1 | 0.07 | 0.46 | | | | | | | | | |
| 1.00 | 0.18 | 0.15 | 0.13 | 0.09 | 0.07 | 0.62 | | | | | | | | |
| 1.25 | 0.2 | 0.16 | 0.14 | 0.11 | 0.09 | 0.07 | 0.77 | | | | | | | |
| 1.50 | 0.2 | 0.17 | 0.15 | 0.13 | 0.11 | 0.09 | 0.07 | 0.92 | | | | | | |
| 1.75 | 0.22 | 0.19 | 0.16 | 0.14 | 0.11 | 0.1 | 0.09 | 0.07 | 1.08 | | | | | |
| 2.00 | 0.24 | 0.21 | 0.17 | 0.15 | 0.12 | 0.1 | 0.09 | 0.08 | 0.07 | 1.23 | | | | |
| 2.50 | 0.27 | 0.22 | 0.2 | 0.16 | 0.13 | 0.12 | 0.11 | 0.1 | 0.09 | 0.08 | 0.07 | 1.54 | | |
| 3.00 | 0.29 | 0.24 | 0.22 | 0.18 | 0.15 | 0.12 | 0.11 | 0.1 | 0.1 | 0.09 | 0.09 | 0.08 | 0.07 | 1.84 |
| | | | | | | | | | | | | | | |
| | 0.1 | Max. feed in mm | | | | 0.05 | Min. feed in mm | | | | | 1.01 | Overall feed in mm | |



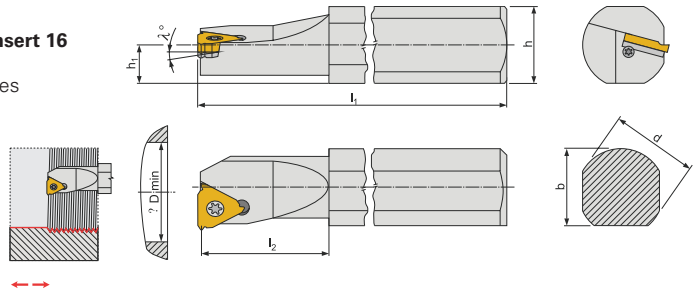
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request

You will find the explanation of the symbols before the index.

## Boring bar SI R

**For internal threading · For indexable insert 16 IR 1.5° · With internal cooling**

Supplied with base plate 1.5° in some cases






Supplied without insert

| ISO designation Right | Indexable insert | Tensioning screw [mm] | Support | Ø d g7 [mm] | l1 [mm] | l2 [mm] | h [mm] | Ø D min [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **A1216M-SIR16** | 16 IR... | M3,5 x 8 | - | 15 | 150 | 36 | 14 | 16 | **2000 604 865** |
| **A16P-SIR16** | 16 IR... | M3,5 x 8 | - | 15 | 170 | 34 | 14 | 19 | **2000 604 866** |
| **A20P-SIR16** | 16 IR... | M3,5 x 8 | Left | 18 | 170 | 34 | 18 | 24 | **2000 604 867** |
| **A25R-SIR16** | 16 IR... | M3,5 x 10 | Left | 23 | 200 | 34 | 23 | 29 | **2000 604 868** |

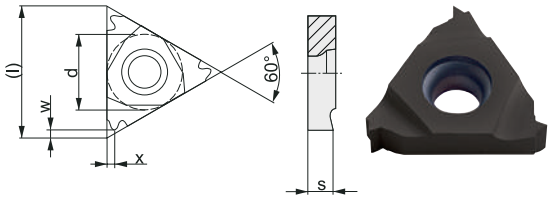
Spare parts for boring bar SI R

| Spare parts | Article no. |
|---|---|
| **Tensioning screw M3.5 x 8** | **2000 604 858** |
| **Tensioning screw M3.5 x 10** | **2000 859 112** |
| **Clamp screw M3 x 0.6** | **2000 604 860** |
| **Support left** | **2000 604 862** |

## Insert

For internal threading · TiAlN-coated

**PU = pack of 2**



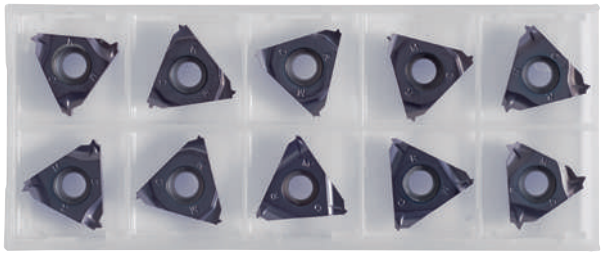

| ISO designation Right | Type | Thread pitch [mm] | l [mm] | d [mm] | s [mm] | x [mm] | Article no. TiAlN-coated |
|---|---|---|---|---|---|---|---|
| **16IR075 ISO** | PK30 | 0.75 | 16,5 | 9.525 | 3,47 | 0.5 | **2000 604 924** |
| **16IR100 ISO** | PK30 | 1 | 16,5 | 9.525 | 3,47 | 0.7 | **2000 604 926** |
| **16IR125 ISO** | PK30 | 1.25 | 16,5 | 9.525 | 3,47 | 0.9 | **2000 604 928** |
| **16IR150 ISO** | PK30 | 1.5 | 16,5 | 9.525 | 3,47 | 1 | **2000 604 930** |
| **16IR175 ISO** | PK30 | 1.75 | 16,5 | 9.525 | 3,47 | 1.2 | **2000 604 932** |
| **16IR200 ISO** | PK30 | 2 | 16,5 | 9.525 | 3,47 | 1.3 | **2000 604 934** |
| **16IR250 ISO** | PK30 | 2.5 | 16,5 | 9.525 | 3,47 | 1.5 | **2000 604 936** |
| **16IR300 ISO** | PK30 | 3 | 16,5 | 9.525 | 3,47 | 1.6 | **2000 604 938** |

## Indexable insert set 16IR

For internal threading · TiAlN-coated

**Contents:**

16IR... PK30 (2x0.75 / 2x1.00 / 2x1.25 / 2x1.50 / 1x1.75 / 1x2.00 mm)



| Contents | Article no. TiAlN-coated |
|---|---|
| **10-part** | **2000 604 967** |

| Internal thread | Feeds | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thread pitch | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 0.50 | 0.08 | 0.06 | 0.05 | 0.05 | 0.05 | 0.29 | | | | | | | | | | |
| 0.75 | 0.1 | 0.08 | 0.08 | 0.07 | 0.05 | 0.05 | 0.43 | | | | | | | | | |
| 1.00 | 0.13 | 0.11 | 0.1 | 0.08 | 0.06 | 0.05 | 0.05 | 0.58 | | | | | | | | |
| 1.25 | 0.15 | 0.12 | 0.1 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 | 0.72 | | | | | | | |
| 1.50 | 0.17 | 0.14 | 0.1 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.05 | 0.05 | 0.87 | | | | | |
| 1.75 | 0.19 | 0.16 | 0.13 | 0.1 | 0.08 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 1.01 | | | | |
| 2.00 | 0.22 | 0.17 | 0.13 | 0.1 | 0.09 | 0.08 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 1.16 | | | |
| 2.50 | 0.25 | 0.21 | 0.17 | 0.13 | 0.11 | 0.1 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 1.44 | | |
| 3.00 | 0.27 | 0.22 | 0.19 | 0.15 | 0.12 | 0.11 | 0.1 | 0.09 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.06 | 0.05 | 1.73 |
| | | | | | | | | | | | | | | | | |
| | 0.1 | Max. feed in mm | | | | 0.05 | Min. feed in mm | | | | | 1.01 | Overall feed in mm | | | |



## Cut-off tool set GH20-26 J3.1 / GH25-32 J3.1

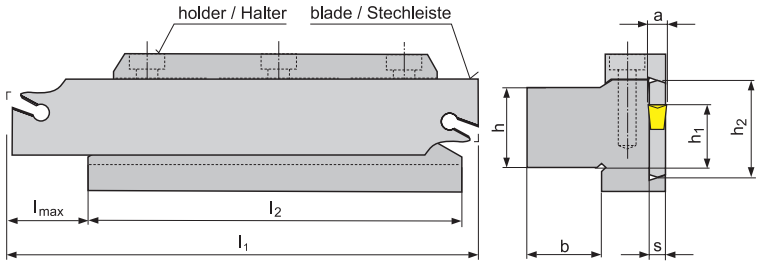
Article no. 2000 859 370 comprising: 1 x basic holder (GFN GH 20-26) 2000 859 040, 1 x plunge blade (GFN-S 26 J3.1) 2000 859 051, 10 tool inserts (GFN 3.1 PK 30) 2000 858 786
Article no. 2000 859 371 comprising: 1 x basic holder (GFN GH 25-32) 2000 859 041, 1 x plunge blade (GFN-S 32 J3.1) 2000 859 066, 10 tool inserts (GFN 3.1 PK 30) 2000 858 786

| Contents | Set comprising | Article no. |
|---|---|---|
| **12-part** | 1xGH20–26 / 1xGFN-S 26 J3.1 / 10xGFN3.1 | **2000 859 370** |
| **12-part** | 1xGH25–32 / 1xGFN-S 32 J3.1 / 10xGFN3.1 | **2000 859 371** |

## Basic holder

Supplied with tensioning wedge, clamping bolts and Hex key






| ISO designation | Suitable for | h [mm] | b [mm] | l2 [mm] | h2 [mm] | Article no. |
|---|---|---|---|---|---|---|
| **GFN GH 20–26** | Plunge blade GFN-S 26J | 20 | 20 | 90 | 26 | **2000 859 040** |
| **GFN GH 25–26** | Plunge blade GFN-S 26J | 25 | 25 | 90 | 26 | **2000 858 781** |
| **GFN GH 20–32** | Plunge blade GFN-S 32J | 20 | 20 | 110 | 32 | **2000 858 782** |
| **GFN GH 25–32** | Plunge blade GFN-S 32J | 25 | 25 | 110 | 32 | **2000 859 041** |

Spare parts for basic holder/plunge blade

| Article | Width across flats [mm] | Article no. |
|---|---|---|
| **Tensioning screw M6x20** | 5 | **2000 859 045** |
| **Ejector drift KV** | - | **2000 859 046** |

## Plunge blade

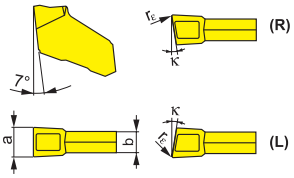
Nickel-plated



Supply without cutting tip

| ISO designation | Basic holder | Cutting tip | h1 [mm] | l1 [mm] | h2 [mm] | s [mm] | l max [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **GF-S 26 J2.2** | GFN GH 20/26 | GF 2.2 | 20 | 110 | 26 | 2,2 | 38 | **2000 859 050** |
| **GF-S 26 J3.1** | GFN GH 20/26 | GF 3.1 | 20 | 110 | 26 | 3,1 | 42 | **2000 859 051** |
| **GF-S 26 J4.1** | GFN GH 20/26 | GF 4.1 | 20 | 110 | 26 | 4,1 | 45 | **2000 859 052** |
| **GF-S 32 J2.2** | GFN GH 20/32 | GF 2.2 | 25 | 150 | 32 | 2,2 | 38 | **2000 859 065** |
| **GF-S 32 J3.1** | GFN GH 20/32 | GF 3.1 | 25 | 150 | 32 | 3,1 | 42 | **2000 859 066** |
| **GF-S 32 J4.1** | GFN GH 20/32 | GF 4.1 | 25 | 150 | 32 | 4,1 | 45 | **2000 859 067** |

## Cutting tip GF
For slicing off and cutting






In material P / M / K / N / S / H

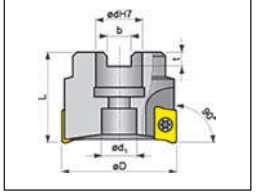
| Article no. | Vc (m/min) min / Vc (m/min) max | | | | Feed f (mm/rev) min / Feed f (mm/rev) max | | | | Cutting depth ap (mm) min / Cutting depth ap (mm) max | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | |
| GFN-AL | | | | | | | | | | | | | | | | | | |
| **2000 858 783** | - | - | - | 140 | - | - | - | - | - | 0.08 | - | - | - | - | - | - | - | - |
| | - | - | - | 630 | - | - | - | - | - | 0.17 | - | - | - | - | - | - | - | - |
| **2000 858 784** | - | - | - | 140 | - | - | - | - | - | 0.08 | - | - | - | - | - | - | - | - |
| | - | - | - | 630 | - | - | - | - | - | 0.18 | - | - | - | - | - | - | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| GFN-P | | | | | | | | | | | | | | | | | | |
| **2000 858 785** | 95 | 55 | 90 | 140 | 15 | 15 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.1 | - | - | - | - | - | - |
| | 280 | 105 | 170 | 630 | 50 | 35 | 0.15 | 0.13 | 0.17 | 0.17 | 0.1 | 0.2 | - | - | - | - | - | - |
| **2000 858 786** | 95 | - | 90 | - | - | - | 0.08 | - | 0.08 | - | - | - | - | - | - | - | - | - |
| | 280 | - | 210 | - | - | - | 0.17 | - | 0.18 | - | - | - | - | - | - | - | - | - |
| **2000 858 787** | 95 | - | 90 | - | - | - | 0.08 | - | 0.08 | - | - | - | - | - | - | - | - | - |
| | 280 | - | 210 | - | - | - | 0.22 | - | 0.22 | - | - | - | - | - | - | - | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| GFN-M | | | | | | | | | | | | | | | | | | |
| **2000 858 788** | 90 | 55 | - | - | 15 | - | 0.05 | 0.05 | - | - | 0.05 | - | - | - | - | - | - | - |
| | 180 | 105 | - | - | 50 | - | 0.15 | 0.11 | - | - | 0.09 | - | - | - | - | - | - | - |
| **2000 858 789** | 95 | 55 | - | - | 15 | - | 0.05 | 0.05 | - | - | 0.05 | - | - | - | - | - | - | - |
| | 180 | 105 | - | - | 50 | - | 0.17 | 0.15 | - | - | 0.12 | - | - | - | - | - | - | - |
| **2000 858 790** | 90 | 55 | - | - | 15 | - | 0.08 | 0.08 | - | - | 0.08 | - | - | - | - | - | - | - |
| | 180 | 105 | - | - | 50 | - | 0.2 | 0.17 | - | - | 0.13 | - | - | - | - | - | - | - |
| GFR-M2 | | | | | | | | | | | | | | | | | | |
| **2000 859 096** | 70 | 40 | 65 | - | - | - | 0.05 | 0.06 | 0.05 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.14 | 0.13 | 0.14 | - | - | - | - | - | - | - | - | - |
| **2000 859 097** | 70 | 40 | 65 | - | - | - | 0.07 | 0.08 | 0.07 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.16 | 0.14 | 0.16 | - | - | - | - | - | - | - | - | - |
| GFL-M2 | | | | | | | | | | | | | | | | | | |
| **2000 859 098** | 70 | 40 | 65 | - | - | - | 0.05 | 0.06 | 0.05 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.14 | 0.13 | 0.14 | - | - | - | - | - | - | - | - | - |
| **2000 859 099** | 70 | 40 | 65 | - | - | - | 0.07 | 0.08 | 0.07 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.16 | 0.14 | 0.16 | - | - | - | - | - | - | - | - | - |
| GFR-M2 | | | | | | | | | | | | | | | | | | |
| **2480 008 119** | 70 | 40 | 65 | - | - | - | 0.07 | 0.08 | 0.07 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | - | - | - | - | - | - |
| GFL-M2 | | | | | | | | | | | | | | | | | | |
| **2480 008 117** | 70 | 40 | 65 | - | - | - | 0.07 | 0.08 | 0.07 | - | - | - | - | - | - | - | - | - |
| | 130 | 75 | 120 | - | - | - | 0.2 | 0.18 | 0.2 | - | - | - | - | - | - | - | - | - |

| ISO designation | Type | a [mm] | tol. a +/- [mm] | b [mm] | re [mm] | Article no. |
|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | |
| **GFN 2.2** | Aluminium | 2.2 | 0,03 | 1.6 | 0,16 | **2000 858 783** |
| **GFN 3.1** | Aluminium | 3.1 | 0,04 | 2.6 | 0,2 | **2000 858 784** |
| **TiAlN-coated** | | | | | | |
| **GFN.2.2** | PK30 | 2.2 | 0,03 | 1.6 | 0,16 | **2000 858 785** |
| **GFN 3.1** | PK30 | 3.1 | 0,04 | 2.6 | 0,2 | **2000 858 786** |
| **GFN 4.1** | PK30 | 4.1 | 0,04 | 3.6 | 0,2 | **2000 858 787** |
| **TiN-coated** | | | | | | |
| **GFN 2.2** | MS35 | 2.2 | 0,03 | 1.6 | 0,16 | **2000 858 788** |
| **GFN 3.1** | MS35 | 3.1 | 0,04 | 2.6 | 0,2 | **2000 858 789** |
| **GFN 4.1** | MS35 | 4.1 | 0,04 | 3.6 | 0,2 | **2000 858 790** |
| **GFR 2.00-0.16R6-M2** | UNI35 | 2 | 0,03 | 1.6 | 0,16 | **2000 859 096** |
| **GFR 3.10-0.20R8-M2** | UNI35 | 3.1 | 0,04 | 2.6 | 0,2 | **2000 859 097** |
| **GFL 2.00-0.16L6-M2** | UNI35 | 2 | 0,03 | 1.6 | 0,16 | **2000 859 098** |
| **GFL 3.10-0.20L8-M2** | UNI35 | 3.1 | 0,04 | 2.6 | 0,2 | **2000 859 099** |
| **GFR 4.10-0.20R8-M2** | UNI35 | 4.1 | 0,04 | 3.6 | 0,2 | **2480 008 119** |
| **GFL 4.10-0.20L8-M2** | UNI35 | 4.1 | 0,04 | 3.6 | 0,2 | **2480 008 117** |

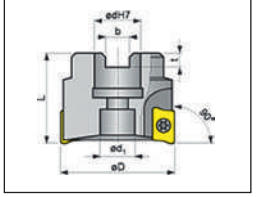
[1] price per pc.

## Corner cutters/facing cutters

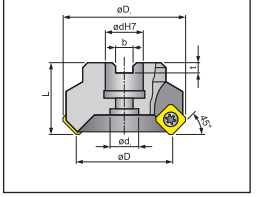
| APKT...-10 | page 142 |
|---|---|



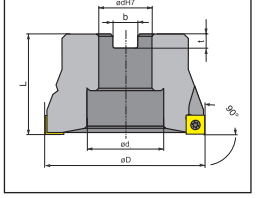
| APKT...-16 | page 143 |
|---|---|



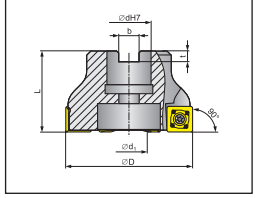
| SE... | page 144 |
|---|---|



| SOMT... | page 145 |
|---|---|

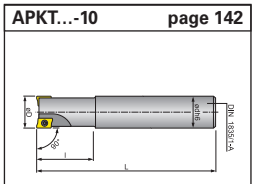


| SDMT... | page 146 |
|---|---|

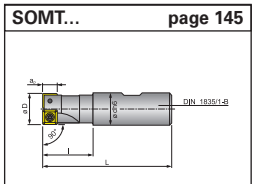


## End mills

| APKT...-10 | page 142 |
|---|---|

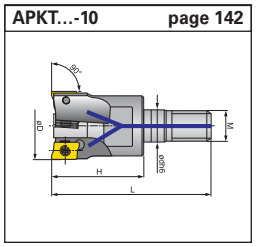


| SOMT... | page 145 |
|---|---|



## Screw-type mills

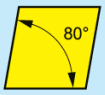
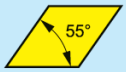
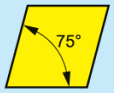
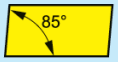
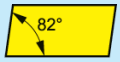
| APKT...-10 | page 142 |
|---|---|





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## 1 Plate form

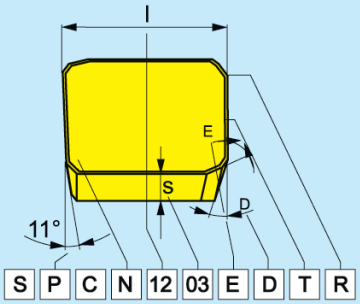
| | | | |
|---|---|---|---|
|  |  |  |  |
| H | O | P | R |
|  |  |   |   |
| S | T | C | D |
|   |   |   |   |
| E | M | V | W |
|  |   |   |   |
| L | A | B | K |

## 2 Relief angle

| | |
|---|---|
|   |   |
| A | B |
|   |   |
| C | D |
|   |   |
| E | F |
|   |   |
| G | N |
|   | Special |
| P | O |

## 4 Platform

| | |
|---|---|
|  |  |
| N | R |
|  |  |
| F | A |
|  |  |
| M | G |
|  |  |
| W | T |
|  | Special |
| Q | X |




**ISO**

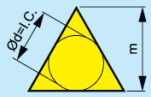
| 1 | 2 | 3 | 4 |
|---|---|---|---|
| S | P | G | N |
| S | P | K | N |

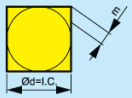
**ANSI**

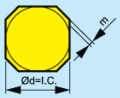
| 1 | 2 | 3 | 4 |
|---|---|---|---|
| S | P | G | |
| S | P | K | N |

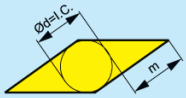
## 3 Tolerances

| Symbol | Tolerances [mm] | | | Tolerances [inch] | | |
|---|---|---|---|---|---|---|
| | m ( ± ) | s ( ± ) | d = I.C. ( ± ) | m ( ± ) | s ( ± ) | d = I.C. ( ± ) |
| **A** | 0,005 | 0,025 | 0,025 | 0,0002 | 0,001 | 0,0010 |
| **F** | 0,005 | 0,025 | 0,013 | 0,0002 | 0,001 | 0,0005 |
| **C** | 0,013 | 0,025 | 0,025 | 0,0005 | 0,001 | 0,0010 |
| **H** | 0,013 | 0,025 | 0,013 | 0,0005 | 0,001 | 0,0005 |
| **E** | 0,025 | 0,025 | 0,025 | 0,0010 | 0,001 | 0,0010 |
| **G** | 0,025 | 0,130 | 0,025 | 0,0010 | 0,005 | 0,0010 |
| **J** | 0,005 | 0,025 | 0,05 ÷ 0,13 | 0,0002 | 0,001 | 0,002 ÷ 0,005 |
| **K** | 0,013 | 0,025 | 0,05 ÷ 0,13 | 0,0005 | 0,001 | 0,002 ÷ 0,005 |
| **L** | 0,025 | 0,025 | 0,05 ÷ 0,13 | 0,0010 | 0,001 | 0,002 ÷ 0,005 |
| **M** | 0,08 ÷ 0,18 | 0,130 | 0,05 ÷ 0,13 | 0,003 ÷ 0,007 | 0,005 | 0,002 ÷ 0,005 |
| **N** | 0,08 ÷ 0,18 | 0,025 | 0,05 ÷ 0,13 | 0,003 ÷ 0,007 | 0,001 | 0,002 ÷ 0,005 |
| **U** | 0,05 ÷ 0,38 | 0,130 | 0,08 ÷ 0,25 | 0,005 ÷ 0,015 | 0,005 | 0,003 ÷ 0,010 |







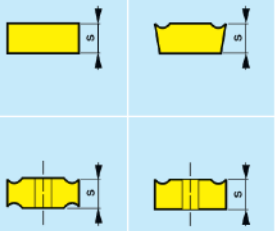




## 5 Cutting edge length

| d=I.C. | | R | S | T | C | D | V | W |
|---|---|---|---|---|---|---|---|---|
| mm | Palce | | | | | | | |
| 3,97 | 5/32" | | | 06 | | | | |
| 5,00 | - | 05 | | | | | | |
| 5,56 | 7/32" | | | 09 | | | | 03 |
| 6,00 | - | 06 | | | | | | |
| 6,35 | 1/4" | | | 11 | 06 | 07 | | 04 |
| 8,00 | - | 08 | | | | | | |
| 9,525 | 3/8" | 09 | 09 | 16 | 09 | 11 | 16 | 06 |
| 10,0 | - | 10 | | | | | | |
| 12,0 | - | 12 | | | | | | |
| 12,7 | 1/2" | 12 | 12 | 22 | 12 | 15 | | 08 |
| 15,875 | 5/8" | 15 | 15 | 27 | 16 | | | |
| 16,0 | - | 16 | | | | | | |
| 19,05 | 3/4" | 19 | 19 | 33 | 19 | | | |
| 20,0 | - | 20 | | | | | | |
| 25,0 | - | 25 | | | | | | |
| 25,4 | 1" | 25 | 25 | | 25 | | | |
| 31,75 | 1 1/4" | 31 | | | | | | |
| 32,0 | - | 32 | | | | | | |

## 6 Thickness



| Symb. | s | |
|---|---|---|
| | mm | Inch/Inch |
| 01 | 1,59 | 1/16" |
| T1 | 1,98 | 5/64" |
| 02 | 2,38 | 3/32" |
| 03 | 3,18 | 1/8" |
| T3 | 3,97 | 5/32" |
| 04 | 4,76 | 3/16" |
| 05 | 5,56 | 7/32" |
| 06 | 6,35 | 1/4" |
| 07 | 7,94 | 5/16" |
| 09 | 9,52 | 3/8" |

## 7

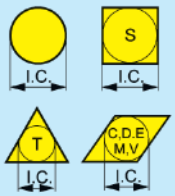
| Corner radius | | Relief angle | |
|---|---|---|---|
| | $\chi$ | | $\alpha'$ |
| A | 45° | A | 3° |
| D | 60° | B | 5° |
| E | 75° | C | 7° |
| F | 85° | D | 15° |
| P | 90° | E | 20° |
| Z | Special | F | 25° |
| | | G | 30° |
| | | N | 0° |
| | | P | 11° |
| | | Z | Special |
| ZZ-Special | | | |

| 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|
| 12 | 03 | 08 | | |
| 12 | 03 | ED | S | R |

| 5A | 6A | 7A | 8 | 9 |
|---|---|---|---|---|
| 4 | 2 | 2 | | |
| 4 | 2 | ED | S | R |

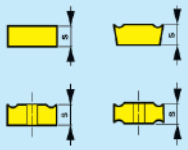
## ANSI

### Inner circle



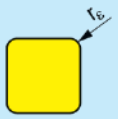

| Symb. | d = I.C. | |
|---|---|---|
| | mm | Inch/Inch |
| 1 | 3,175 | 1/8" |
| (1.2) | 3,969 | 5/32" |
| (1.5) | 4,763 | 3/16" |
| (1.8) | 5,556 | 7/32" |
| 2 | 6,350 | 1/4" |
| (2.5) | 7,938 | 5/16" |
| 3 | 9,525 | 3/8" |
| 4 | 12,700 | 1/2" |
| 5 | 15,875 | 5/8" |
| 6 | 19,050 | 3/4" |
| 7 | 22,225 | 7/8" |
| 8 | 25,400 | 1" |
| 10 | 31,750 | 1-1/4" |

### Thickness



| Symb. | s | |
|---|---|---|
| | mm | Inch/Inch |
| 1 | 1,588 | 1/16" |
| (1.2) | 1,984 | 5/64" |
| (1.5) | 2,381 | 3/32" |
| 2 | 3,175 | 1/8" |
| (2.5) | 3,969 | 5/32" |
| 3 | 4,763 | 3/16" |
| (3.5) | 5,556 | 7/32" |
| 4 | 6,350 | 1/4" |
| 5 | 7,938 | 5/16" |
| 6 | 9,525 | 3/8" |
| 7 | 11,113 | 7/16" |
| 8 | 12,700 | 1/2" |
| 9 | 14,288 | 9/16" |
| 10 | 15,875 | 5/8" |

### Corner radius



| Symb. | $r_\varepsilon$ | |
|---|---|---|
| | mm | Inch/Inch |
| 0 | 0,050 | 1/512" |
| (0.2) | 0,099 | 1/256" |
| (0.5) | 0,198 | 1/128" |
| 1 | 0,397 | 1/64" |
| 2 | 0,794 | 1/32" |
| 3 | 1,191 | 3/64" |
| 4 | 1,588 | 1/16" |
| 5 | 1,984 | 5/64" |
| 6 | 2,381 | 3/32" |
| 7 | 2,778 | 7/64" |
| 8 | 3,175 | 1/8" |
| 10 | 3,969 | 5/32" |
| 12 | 4,763 | 3/16" |
| 14 | 5,556 | 7/32" |
| 16 | 6,350 | 1/4" |
| x | Others | |

## 8 Cutting edge type

| | | | |
|---|---|---|---|
| F | Sharp edge | E | Rounded edge |
| T | Edges with cutting bevel | S | Rounded edges with bevel |
| K | Edges with double cutting bevel | P | Rounded edges with double bevel |

## 9 Advance direction

| | | | |
|---|---|---|---|
| R | | | Advance-feed |
| L | Advance-feed | | |
| N | Advance-feed | | Advance-feed |



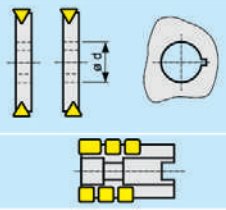
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## ARBOR CUTTERS ISO 7406-88 DIN 8029/1

**2** Milling cutter type and type, and/or size of the tool holder

| | | | |
|---|---|---|---|
| A | ISO 6462/A DIN 8030/A ČSN 22 2301/A | B | ISO 6462/B DIN 8030/B ČSN 22 2301/B |
| C | ISO 6462/C DIN 8030/C ČSN 22 2301/C | | |

| | |
|---|---|
| F | ø d = 27 |
| G | ø d = 32 |
| H | ø d = 40 |
| J | ø d = 50 |
| K | ø d = 60 |
| M | ø d = 80 |
| T | |



**6** Adjusting angle

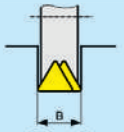
| | |
|---|---|
| κ 90° | |
| κ 75° | |
| κ 60° | |
| κ 45° | |
| κ MO | ø D [mm] |

**10** Relief angle of the plane cutting

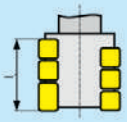


| | | | |
|---|---|---|---|
| N | α'p = 0° | E | α'p = 20° |
| P | α'p = 11° | F | α'p = 25° |
| D | α'p = 15° | | |

**11** Length of cutting edge (width)



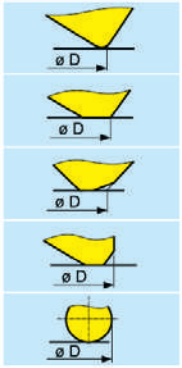
B [mm]



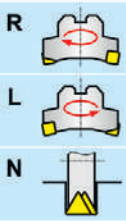
l1 [mm]

| 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 160 | H | 05 | N | | F | 90 | T | P | 16 | P | 22 |
| 250 | C | 16 | R | – | W | 45 | S | E | 12 | F | |

**1** Milling cutter diameter



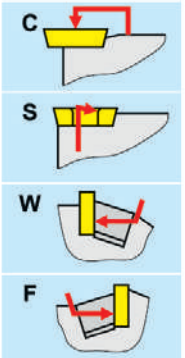
**4** Cutting direction



| | |
|---|---|
| R | |
| L | |
| N | |

**3** Fastening system

**5** Effective number of cutters



| | |
|---|---|
| C | |
| S | |
| W | |
| F | |

**7** Plate shape



| | | | |
|---|---|---|---|
| S | | C | |
| T | | W | |
| R | | A | |

**8** Normal relief angle



| | | | |
|---|---|---|---|
| N | αn = 0° | D | αn = 15° |
| C | αn = 7° | E | αn = 20° |
| P | αn = 11° | F | αn = 25° |

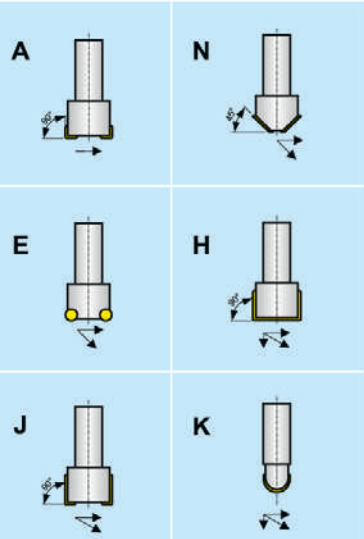
**9** Size of the indexable inserts (cutting length)

| d [mm] | S | C | T | W | R | A |
|---|---|---|---|---|---|---|
| 6,35 | | | | | | 09/11 |
| 7,94 | | | | 05 | | |
| 8,00 | | | | | 08 | |
| 9,525 | 09 | 09 | 16 | 06 | | 12 |
| 10,00 | | | | | 10 | |
| 12,00 | | | | | 12 | |
| 12,70 | 12 | 12 | 22 | 08 | | 15 |
| 15,875 | 15 | | | | | |
| 16,00 | | | | | 16 | |
| 25,00 | | | | | 25 | |
| 25,40 | 25 | | | | | |

## END MILLS ISO 7548-86 DIN 8029/2

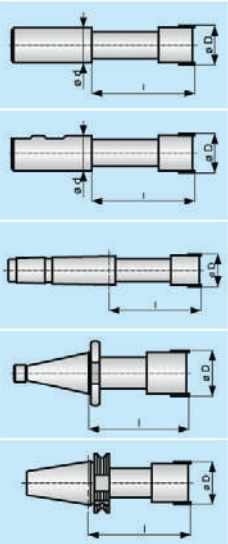
| 1 | 1a | 3 | 4 | 2a | 3a | 4a | | 5 | 7 | 8 | 9 (11) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | J | 4 | R | 150 | H | 50 | | S | SA | P | 95 |
| 32 | A | 3 | R | 040 | B | 32 | – | S | A | D | 12 |

**1a** Milling cutter type and adjusting angle



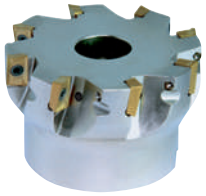
| | | | |
|---|---|---|---|
| A | | N | |
| E | | H | |
| J | | K | |

**2a** Projecting length



**3a** Shank shape

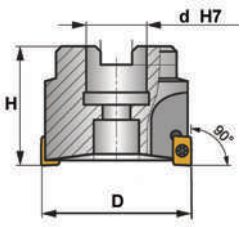
| | | 4a Shank size | |
|---|---|---|---|
| A | DIN 1835/1-A | ø D | ø d |
| | | 08 ÷ 32 | 10 ÷ 32 |
| B | ISO 3338/B DIN 1835/1-B ČSN 22 0412 | ø D | ø d |
| | | 10; 12; 16<br>20<br>25<br>32; 40 | 16<br>20<br>25<br>32 |
| E | ISO 296 DIN 228/A ČSN 22 0420 | ø D | MORSE No. |
| | | 10; 12; 16<br>20; 25; 32<br>40 | 02<br>03<br>04 |
| G | ISO 297 DIN 2080/1 ČSN 22 0430 | ø D | 7:24 No. |
| | | 32; 40<br>(50; 63) | 40 |
| X | ČSN 22 0432 | 50; 63; 80 | 50 |
| H | ISO 7388/1 DIN 69871/A ČSN 22 0434 | ø D | 7:24 No. |
| | | 32; 40 | 40 |
| | | 50; 63; 80 | 50 |



Supplied without insert

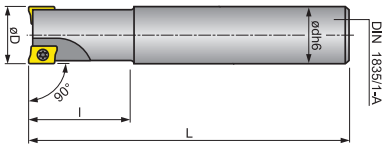
## Corner cutter

**90° · Nickel-plated type · With internal cooling** · For light to medium machining · For cutting corners and grooves, circular and peripheral milling · For indexable insert APKT-10
Supplied with tightening screw, clamp screw, without screwdriver (size T8)




| D [mm] | Ø d H7 [mm] | d1 [mm] | L [mm] | b [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|---|
| **40** | 16 | 13.5 | 40 | 8.4 | 6 | APKT-10 | **2000 859 070** |
| **50** | 22 | 17.5 | 40 | 10.4 | 7 | APKT-10 | **2483 999 985** |
| **63** | 22 | 17.5 | 40 | 10.4 | 8 | APKT-10 | **2000 859 072** |
| **80** | 27 | 38 | 50 | 12.4 | 11 | APKT-10 | **2000 859 087** |



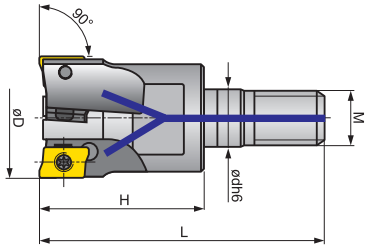



## End mill

**90° · Nickel-plated type · With internal cooling** · For indexable insert APKT-10
Supplied with clamp screw, without screwdriver (size T8)

| D [mm] | L [mm] | l [mm] | d h6 [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|
| **12** | 75 | 27 | 16 | 1 | APKT-10 | **2000 859 076** |
| **16** | 80 | 32 | 16 | 2 | APKT-10 | **2000 859 078** |
| **20** | 82 | 32 | 20 | 3 | APKT-10 | **2000 859 030** |
| **25** | 98 | 42 | 25 | 4 | APKT-10 | **2000 859 080** |






## Screw-type mill

**90° · Nickel-plated type · With internal cooling** · For indexable insert APKT-10
Supplied with clamp screw, without screwdriver (size T8)

| D [mm] | H [mm] | d2 [mm] | No. of cutters | Thread | Indexable insert | Article no. |
|---|---|---|---|---|---|---|
| **20** | 30 | 18 | 3 | M10 | APKT-10 | **2483 999 983** |
| **25** | 35 | 21 | 4 | M12 | APKT-10 | **2483 999 982** |
| **32** | 43 | 29 | 5 | M16 | APKT-10 | **2483 999 981** |

Spare part for corner cutter/end mill/screw-type mill 90°

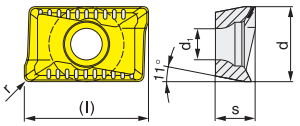
| Article | Size | Article no. |
|---|---|---|
| **Tensioning screw US2505-T8** | T8 | **2000 859 111** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Insert APKT

Chip breaker geometry M = for medium processing
Chip breaker geometry AL = for aluminium processing




In material P / M / K / N / S / H

| Article no. | | Vc (m/min) min<br>Vc (m/min) max | | | feed rate f (mm/rev) min<br>feed rate f (mm/rev) max | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | | |
| APKT-M | | | | | | | | | | | | | | | | | | | |
|  **2000 859 063** | | 205<br>305 | 120<br>180 | 190<br>285 | -<br>- | -<br>- | -<br>- | 0.1<br>0.25 | 0.1<br>0.19 | 0.1<br>0.25 | -<br>- | -<br>- | -<br>- | 1<br>9 | 1<br>6.8 | 1<br>9 | -<br>- | -<br>- | -<br>- |
|  **2000 859 036** | | 205<br>305 | 120<br>180 | 190<br>285 | -<br>- | 40<br>90 | -<br>- | 0.1<br>0.25 | 0.1<br>0.19 | 0.1<br>0.25 | -<br>- | 0.1<br>0.15 | -<br>- | 1<br>9 | 1<br>6.8 | 1<br>9 | -<br>- | 1<br>5.4 | -<br>- |
| **2000 859 037** | | 185<br>255 | 110<br>150 | 175<br>240 | -<br>- | 35<br>75 | -<br>- | 0.1<br>0.25 | 0.1<br>0.19 | 0.1<br>0.25 | -<br>- | 0.1<br>0.15 | -<br>- | 1<br>9 | 1<br>6.8 | 1<br>9 | -<br>- | 1<br>5.4 | -<br>- |
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | | |
| APKT-AL | | | | | | | | | | | | | | | | | | | |
|  **2000 859 038** | | -<br>- | -<br>- | -<br>- | 125<br>560 | -<br>- | -<br>- | -<br>- | -<br>- | -<br>- | 0.05<br>0.3 | -<br>- | -<br>- | -<br>- | -<br>- | -<br>- | 0.8<br>9 | -<br>- | -<br>- |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | | |
| APKT-M | | | | | | | | | | | | | | | | | | | |
|  **2480 000 056** | | 220<br>320 | 130<br>190 | 205<br>300 | -<br>- | 40<br>95 | -<br>- | 0.1<br>0.25 | 0.1<br>0.19 | 0.1<br>0.25 | -<br>- | 0.1<br>0.15 | -<br>- | 1<br>9 | 1<br>9 | 1<br>9 | -<br>- | 1<br>7.2 | -<br>- |

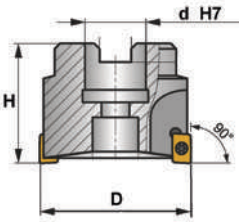
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **APKT100305PDSR-M** | UNI | 11 | 6.7 | 2.88 | 3,5 | 0.5 | **2000 859 063** |
| **APKT 1003PDER-M** | PMK30 | 11 | 6.7 | 2.88 | 3,5 | 0.5 | **2000 859 036** |
| **APKT100305PDER-M** | PMK40 | 11 | 6.7 | 2.88 | 3,5 | 0.5 | **2000 859 037** |
| **Uncoated, highly polished** | | | | | | | |
| **APKT100305PDFR-AL** | N20 | 11 | 6.7 | 2.88 | 3,5 | 0.5 | **2000 859 038** |
| **TiAlN-coated** | | | | | | | |
| **APKT100305PDER-M** | KNH10 | 11 | 6.7 | 2.88 | 3,5 | 0.5 | **2480 000 056** |

## Corner cutter

**90° · Nickel-plated type · With internal cooling** · With unequal partition for medium to strong rough processing ·
For indexable insert APKT-16
Supplied with tightening screw, clamp screw, without screwdriver (size T15)



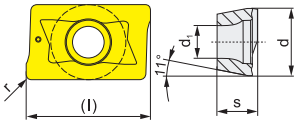
Supplied without insert




| D [mm] | Ø d H7 [mm] | d1 [mm] | L [mm] | b [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|---|
| **40** | 16 | 18 | 40 | 8.4 | 4 | APKT-16 | **2000 859 039** |
| **50** | 22 | 18 | 40 | 10.4 | 5 | APKT-16 | **2000 859 016** |
| **63** | 22 | 18 | 40 | 10.4 | 6 | APKT-16 | **2000 859 017** |
| **80** | 27 | 38 | 50 | 12.4 | 7 | APKT-16 | **2000 859 018** |

Spare part for corner cutter 90°

| Article | Size | Article no. |
|---|---|---|
| **Tensioning screw US 4011** | T15 | **2000 859 019** |




## Insert APKT 1604

Chip breaker geometry AL = for aluminium processing
Chip breaker geometry M = for medium processing
Chip breaker geometry R = for roughing

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | feed rate f (mm/rev) min<br>feed rate f (mm/rev) max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| APKT-M | | | | | | | | | | | | | | | | | | |
| **2000 859 064** | 190<br>285 | 110<br>170 | 170<br>270 | -<br>- | 35<br>85 | -<br>- | 0.15<br>0.3 | 0.15<br>0.23 | 0.15<br>0.3 | -<br>- | 0.15<br>0.18 | -<br>- | 1<br>13 | 1<br>9.8 | 1<br>13 | -<br>- | 1<br>7.8 | -<br>- |
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | |
| APKT-AL | | | | | | | | | | | | | | | | | | |
| **2000 859 026** | -<br>- | -<br>- | -<br>- | 105<br>525 | -<br>- | -<br>- | -<br>- | -<br>- | -<br>- | 0.05<br>0.4 | -<br>- | -<br>- | -<br>- | -<br>- | -<br>- | 0.8<br>15 | -<br>- | -<br>- |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| APKT-M | | | | | | | | | | | | | | | | | | |
| **2480 008 682** | 190<br>285 | 110<br>170 | 170<br>270 | -<br>- | 35<br>85 | -<br>- | 0.15<br>0.3 | 0.15<br>0.23 | 0.15<br>0.3 | -<br>- | 0.15<br>0.18 | -<br>- | 1<br>13 | 1<br>9.8 | 1<br>13 | -<br>- | 1<br>7.8 | -<br>- |
| **2480 008 746** | 175<br>250 | 105<br>150 | -<br>- | -<br>- | 35<br>75 | -<br>- | 0.15<br>0.3 | 0.15<br>0.23 | -<br>- | -<br>- | 0.15<br>0.18 | -<br>- | 1<br>13 | 1<br>9.8 | -<br>- | -<br>- | 1<br>7.8 | -<br>- |
| APKT-R | | | | | | | | | | | | | | | | | | |
| **2000 859 069** | 185<br>270 | 110<br>160 | 175<br>255 | -<br>- | 35<br>80 | -<br>- | 0.2<br>0.35 | 0.2<br>0.26 | 0.2<br>0.35 | -<br>- | 0.2<br>0.21 | -<br>- | 1<br>13 | 1<br>9.8 | 1<br>13 | -<br>- | 1<br>7.8 | -<br>- |
| **2000 859 025** | 175<br>245 | 105<br>145 | -<br>- | -<br>- | 35<br>70 | -<br>- | 0.2<br>0.35 | 0.2<br>0.26 | -<br>- | -<br>- | 0.2<br>0.21 | -<br>- | 1<br>13 | 1<br>9.8 | -<br>- | -<br>- | 1<br>7.8 | -<br>- |

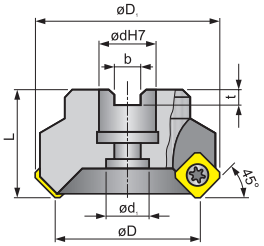
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiAlN-coated** | | | | | | | |
| **APKT160408PDR-M** | UNI | 17 | 9.44 | 4.5 | 5,67 | 0.8 | **2000 859 064** |
| **Uncoated, highly polished** | | | | | | | |
| **APKT160408FR-AL** | N20 | 17 | 9.6 | 4.5 | 4,76 | 0.8 | **2000 859 026** |
| **TiN-coated** | | | | | | | |
| **APKT 1604PDR-GM** | PMK30 | 17 | 9.44 | 4.5 | 5,67 | 0.8 | **2480 008 682** |
| **APKT160408PDR-M** | PMK40 | 17 | 9.44 | 4.5 | 5,67 | 0.8 | **2480 008 746** |
| **APKT 1604PDR-HM** | PMK30 | 17 | 9.44 | 4.5 | 5,67 | 0.8 | **2000 859 069** |
| **APKT160408PDR-R** | PMK40 | 17 | 9.44 | 4.5 | 5,67 | 0.8 | **2000 859 025** |



Supplied without insert

## Facing cutter

**45° · Nickel-plated type · With internal cooling** · With high-positive cutting angle, usable for many purposes · For high feed rates and cutting depths to 6 mm · For indexable insert SE1204 AF
Supplied with tightening screw, clamp screw, without screwdriver (size T20)




| D [mm] | Ø d H7 [mm] | d1 [mm] | L [mm] | D1 [mm] | b [mm] | t [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **50** | 22 | 18 | 40 | 65 | 10.4 | 6.3 | 4 | SE1204 AF | **2000 859 001** |
| **63** | 22 | 18 | 40 | 78 | 10.4 | 6.3 | 5 | SE1204 AF | **2000 859 002** |
| **80** | 27 | 38 | 50 | 95 | 12.4 | 7.0 | 5 | SE1204 AF | **2000 859 003** |

Spare parts for facing cutter 45°

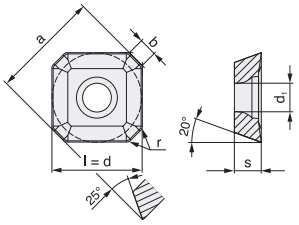
| Article | Size | Article no. |
|---|---|---|
| **Tensioning screw US 4511** | T20 | **2000 859 009** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Insert SEKT / SEET

Chip breaker geometry AL = for aluminium processing
Chip breaker geometry M = for medium processing
Chip breaker geometry F = for finishing
Chip breaker geometry R = for roughing




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | |
| AFFN | | | | | | | | | | | | | | | | | | |
| **2000 859 012** | - | - | - | 250 | - | - | - | - | - | 0.12 | - | - | - | - | - | 0.2 | - | - |
| | - | - | - | 1200 | - | - | - | - | - | 0.4 | - | - | - | - | - | 7 | - | - |
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| AFEN/AFSN | | | | | | | | | | | | | | | | | | |
| **2000 859 010** | 205 | 120 | 190 | - | 40 | 40 | 0.2 | 0.2 | 0.2 | - | 0.2 | 0.1 | 0.5 | 0.5 | 0.5 | - | 0.5 | 0.3 |
| | 305 | 180 | 285 | - | 90 | 60 | 0.4 | 0.3 | 0.4 | - | 0.24 | 0.2 | 6.5 | 4.9 | 6.5 | - | 3.9 | 1.5 |
| **2000 859 074** | 215 | 125 | 200 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 280 | 165 | 265 | - | 80 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 6.5 | 6.5 | 6.5 | - | 5.2 | - |
| **2000 859 011** | 195 | 115 | 185 | - | 35 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 260 | 155 | 245 | - | 75 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 6.5 | 6.5 | 6.5 | - | 5.2 | - |

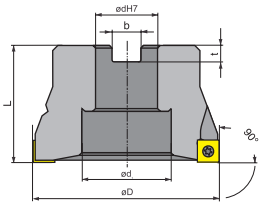
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | |
| **SEKT1204AFFN-AL** | N20 | 12,7 | 12.7 | 5.5 | 4,76 | 1.6 | **2000 859 012** |
| **TiN-coated** | | | | | | | |
| **SEET1204AFEN-F** | PMK30 | 12,7 | 12.7 | 5.5 | 4,76 | - | **2000 859 010** |
| **SEET1204AFSN-M** | PMK30 | 12,7 | 12.7 | 5.5 | 4,76 | - | **2000 859 074** |
| **SEET1204AFSN-R** | PMK40 | 12,7 | 12.7 | 5.5 | 4,76 | - | **2000 859 011** |

## Corner cutter

**90° · Nickel-plated type · With internal cooling** · For light to medium machining · For indexable insert SOMT 09T304...
Supplied with tightening screw, clamp screw, without screwdriver (size T9)



Supplied without insert



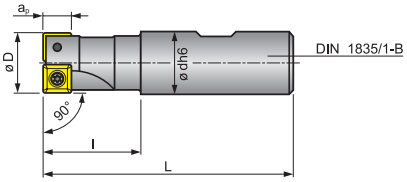

| D [mm] | Ø d H7 [mm] | d1 [mm] | L [mm] | b [mm] | t [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|---|---|
| **40** | 16 | 14 | 40 | 8.4 | 5.6 | 5 | SOMT 09T304 | **2000 859 081** |
| **50** | 22 | 18 | 40 | 10.4 | 6.4 | 6 | SOMT 09T304 | **2000 859 082** |
| **63** | 22 | 18 | 40 | 10.4 | 6.4 | 7 | SOMT 09T304 | **2000 859 083** |

## End mill

**90° · Nickel-plated type · With internal cooling** · For indexable insert SOMT 09T304...
Supplied with clamp screw, without screwdriver (size T9)



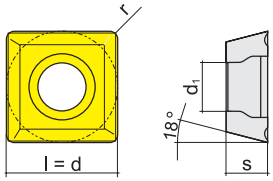
Supplied without insert




| D [mm] | L | l [mm] | d h6 [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|
| **20** | 82 | 32 | 20 | 2 | SOMT 09T304 | **2000 859 027** |
| **25** | 98 | 42 | 25 | 3 | SOMT 09T304 | **2000 859 028** |
| **32** | 102 | 42 | 32 | 4 | SOMT 09T304 | **2000 859 029** |

Spare parts for corner/end mill 90°

| Article | Size | Article no. |
|---|---|---|
| **Tensioning screw US 3006** | T9 | **2000 859 086** |




## Insert SOMT

Chip breaker geometry M = for medium processing
Chip breaker geometry R = for roughing

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| SOMT | | | | | | | | | | | | | | | | | | |
| **2000 859 095** | 150 | 90 | 140 | - | 30 | - | 0.08 | 0.08 | 0.08 | - | 0.08 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 245 | 145 | 230 | - | 70 | - | 0.26 | 0.2 | 0.35 | - | 0.21 | - | 8 | 8 | 8 | - | 6.4 | - |
| **2000 859 092** | 165 | 95 | 155 | - | 30 | - | 0.08 | 0.08 | 0.08 | - | 0.08 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 270 | 160 | 255 | - | 80 | - | 0.26 | 0.2 | 0.35 | - | 0.21 | - | 8 | 8 | 8 | - | 6.4 | - |
| **2000 859 090** | 165 | 95 | 155 | - | 30 | - | 0.08 | 0.09 | 0.08 | - | 0.09 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 265 | 155 | 250 | - | 75 | - | 0.35 | 0.32 | 0.35 | - | 0.25 | - | 8 | 8 | 8 | - | 6.4 | - |

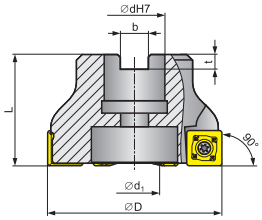
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **SOMT09T304-M** | PMK40 | 9,55 | 9.55 | 3.5 | 3,97 | 0.4 | **2000 859 095** |
| **SOMT09T304-R** | PMK40 | 9,55 | 9.55 | 3.5 | 3,97 | 0.4 | **2000 859 092** |
| **SOMT09T304-R** | PMK30 | 9,55 | 9.55 | 3.5 | 3,97 | 0.4 | **2000 859 090** |



Supplied without insert

## Corner cutter

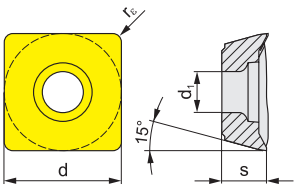
**90° · Nickel-plated type · With internal cooling** · For medium to heavy-duty machining · **High-precision manufacturing for excellent surfaces** · Corner and facing cutters with plunge depths up to 10 mm possible · For indexable insert SDMT 120508...
Supplied with tightening screw, clamp screw, without screwdriver (size T15)




| D [mm] | Ø d H7 [mm] | d1 [mm] | L [mm] | b [mm] | t [mm] | No. of cutters | Indexable insert | Article no. |
|---|---|---|---|---|---|---|---|---|
| **50** | 22 | 18 | 40 | 10.4 | 6.3 | 5 | SDMT 120508 | **2000 859 033** |
| **63** | 22 | 18 | 40 | 10.4 | 6.3 | 6 | SDMT 120508 | **2000 859 034** |
| **80** | 27 | 38 | 50 | 12.4 | 7.0 | 6 | SDMT 120508 | **2000 859 035** |

Spare part for corner cutter 90°

| Article | Size | Article no. |
|---|---|---|
| **Tensioning screw US 3511-T15** | T15 | **2000 859 042** |




## Insert SDMT

Chip breaker geometry M = for medium processing

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| SDMT | | | | | | | | | | | | | | | | | | |
| **2000 859 023** | 195 | 115 | 185 | - | 35 | - | 0.1 | 0.1 | 0.1 | - | 0.1 | - | 1 | 1 | 1 | - | 1 | - |
| | 275 | 165 | 260 | - | 80 | - | 0.25 | 0.19 | 0.25 | - | 0.15 | - | 7 | 5 | 5 | - | 8 | - |
| **2000 859 024** | 175 | 150 | 165 | - | 35 | - | 0.1 | 0.1 | 0.1 | - | 0.1 | - | 1 | 1 | 1 | - | 1 | - |
| | 250 | 150 | 235 | - | 75 | - | 0.25 | 0.19 | 0.25 | - | 0.15 | - | 7 | 5 | 5 | - | 8 | - |

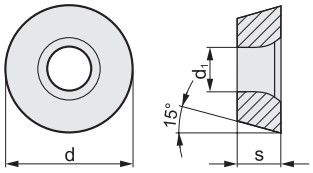
| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **SDMT 120508SR-M** | PMK30 | 12,7 | 12.7 | 4.4 | 5 | 0.8 | **2000 859 023** |
| **SDMT120508SR-M** | PMK40 | 12,7 | 12.7 | 4.4 | 5 | 0.8 | **2000 859 024** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Insert RDHT / RDHX

For copy milling



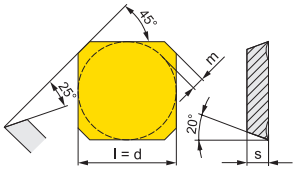

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | |
| RDHT | | | | | | | | | | | | | | | | | | |
| **2000 859 285** | - | - | - | 155 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.3 | - | - |
| | - | - | - | 610 | - | - | - | - | - | 0.3 | - | - | - | - | - | 2.5 | - | - |
| **2000 859 293** | - | - | - | 140 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.3 | - | - |
| | - | - | - | 610 | - | - | - | - | - | 0.4 | - | - | - | - | - | 4 | - | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| RDHX | | | | | | | | | | | | | | | | | | |
| **2000 859 284** | 230 | - | 215 | - | - | - | 0.1 | - | 0.1 | - | - | - | 0.5 | - | 0.5 | - | - | - |
| | 305 | - | 285 | - | - | - | 0.2 | - | 0.2 | - | - | - | 2 | - | 2 | - | - | - |
| **2000 859 287** | 200 | - | 190 | - | - | - | 0.1 | - | 0.1 | - | - | - | 0.5 | - | 0.5 | - | - | - |
| | 300 | - | 285 | - | - | - | 0.3 | - | 0.3 | - | - | - | 2.5 | - | 2.5 | - | - | - |
| **2000 859 288** | 195 | - | - | - | - | - | 0.1 | - | - | - | - | - | 0.5 | - | - | - | - | - |
| | 290 | - | - | - | - | - | 0.3 | - | - | - | - | - | 2.5 | - | - | - | - | - |
| **2000 859 290** | 240 | - | 225 | - | - | 45 | 0.1 | - | 0.2 | - | - | 0.1 | 1 | - | 1 | - | - | 0.6 |
| | 375 | - | 355 | - | - | 75 | 0.35 | - | 0.4 | - | - | 0.2 | 3 | - | 3 | - | - | 1.2 |
| **2000 859 292** | 185 | 110 | - | - | - | - | 0.1 | 0.1 | - | - | - | - | 1 | 1 | - | - | - | - |
| | 280 | 165 | - | - | - | - | 0.35 | 0.35 | - | - | - | - | 3 | 3 | - | - | - | - |

| ISO designation | Type | d [mm] | d1 [mm] | s [mm] | Article no. |
|---|---|---|---|---|---|
| **Uncoated, highly polished** | | | | | |
| **RDHT1003MO-ALU** | N20 | 10 | 3.9 | 3,18 | **2000 859 285** |
| **RDHT1604MO-ALU** | N20 | 16 | 5.2 | 4,76 | **2000 859 293** |
| **TiAlN-coated** | | | | | |
| **RDHX0702MOT** | PK25 | 7 | 2.8 | 2,38 | **2000 859 284** |
| **RDHX1003MOT** | PK25 | 10 | 3.9 | 3,18 | **2000 859 287** |
| **RDHX1003MOT** | PK40 | 10 | 3.9 | 3,18 | **2000 859 288** |
| **RDHX12T3MOT** | KH05 | 12 | 3.9 | 3,97 | **2000 859 290** |
| **RDHX12T3MOT** | PK40 | 12 | 3.9 | 3,97 | **2000 859 292** |

## Insert SEER EN/SN

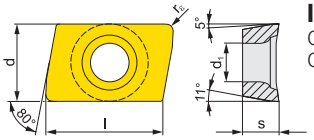
Chip breaker geometry M = for medium processing
Chip breaker geometry R = for roughing




In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| SEER-EN | | | | | | | | | | | | | | | | | | |
| **2480 008 693** | 230 | 135 | 215 | - | 45 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 0.5 | 0.5 | 0.5 | - | 0.5 | - |
| | 285 | 170 | 270 | - | 85 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 6.5 | 6.5 | 6.5 | - | 5.2 | - |
| SEER-SN | | | | | | | | | | | | | | | | | | |
| **2480 008 694** | 215 | 125 | 200 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 280 | 165 | 265 | - | 80 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 6.5 | 6.5 | 6.5 | - | 5.2 | - |
| **2480 009 316** | 215 | 125 | 200 | - | 40 | - | 0.2 | 0.2 | 0.2 | - | 0.2 | - | 1 | 1 | 1 | - | 1 | - |
| | 280 | 165 | 265 | - | 80 | - | 0.4 | 0.3 | 0.4 | - | 0.24 | - | 6.5 | 6.5 | 6.5 | - | 5.2 | - |

| ISO designation | Type | l [mm] | d [mm] | s [mm] | m [mm] | Article no. |
|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | |
| **SEER1203AFEN-M** | PMK30 | 12,7 | 12.7 | 3,18 | 1,6 | **2480 008 693** |
| **SEER1203AFSN-R** | PMK30 | 12,7 | 12.7 | 3,18 | 1,6 | **2480 008 694** |
| **SEER1204AFSN-R** | PMK30 | 12,7 | 12.7 | 4,76 | 1,6 | **2480 009 316** |




## Insert XPHT-S/F

Chip breaker geometry M = for medium processing
Chip breaker geometry AL = for aluminium processing

In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| XPHT-S | | | | | | | | | | | | | | | | | | |
| **2480 008 697** | 170<br>255 | 100<br>150 | 160<br>240 | - | - | - | 0.1<br>0.3 | 0.1<br>0.23 | 0.1<br>0.23 | - | - | - | 1.2<br>15 | 1.2<br>15 | 1.2<br>15 | - | - | - |
| **Uncoated, highly polished** | | | | | | | | | | | | | | | | | | |
| XPHT-AL | | | | | | | | | | | | | | | | | | |
| **2480 005 003** | -<br>- | -<br>- | -<br>- | 105<br>420 | - | - | -<br>- | -<br>- | -<br>- | 0.05<br>0.3 | - | - | -<br>- | -<br>- | -<br>- | 0.8<br>15 | - | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | Article no. |
|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | |
| **XPHT160412S-M** | PMK30 | 15,88 | 9.525 | 4.4 | 4,76 | **2480 008 697** |
| **Uncoated, highly polished** | | | | | | |
| **XPHT160408F-AL** | N20 | 15,88 | 9.525 | 4.4 | 4,76 | **2480 005 003** |



Supplied without insert



Supplied without insert

## Edging cutter

**Nickel-plated type · With internal cooling · Adjustable · 10°–80°** · Universally usable indexable milling countersink for chamfering, deburring edges, round holes and slots and countersinking in rigid applications · Silent running and stable type and construction · Straight shank with pulling face according to DIN 1835 B · **With SCMT can also be used as reverse countersink**

Supplied with 1 case each for TCMT 16... and SCMT 12..., clamp screw and key, without insert

| Adjustment range | D min - D max |
|---|---|
| 10° | 5–32 |
| 20° | 6–33 |
| 30° | 7–34 |
| 40° | 10–33 |
| 45° | 11–33 |
| 50° | 13–32 |
| 60° | 16–31 |
| 70° | 19–29 |
| 80° | 23–27 |



External chamfer



Groove production



Reverse countersink

| Nominal Ø [mm] | Shank Ø [mm] | Overall L [mm] | Insert L [mm] | Article no. |
|---|---|---|---|---|
| **31** | 20 | 90 | 60 | **2000 859 264** |
| **31** | 25 | 90 | 60 | **2000 859 263** |

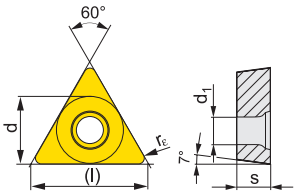


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

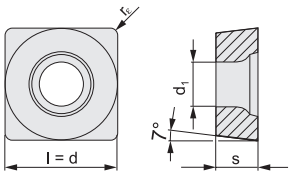
## Tensioning screw
For TCMT 16T3...

| Article | Article no. |
|---|---|
| **Clamp screw for TCMT 16...** | **2000 859 265** |
| **Clamp screw for SCMT 1204...** | **2000 859 266** |
| **Replacement case for TCMT 16T3** | **2000 859 267** |
| **Replacement case for SCMT 1204** | **2000 859 268** |
| **Clamp screw for case M6x16** | **2000 859 269** |

## Insert TCMT 16T3 / SCMT 1204
For universal processing



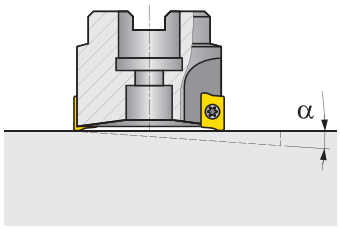
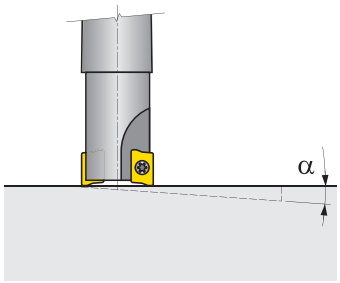
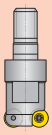
2000 859 299

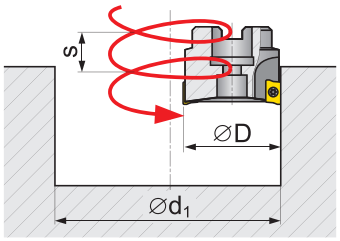
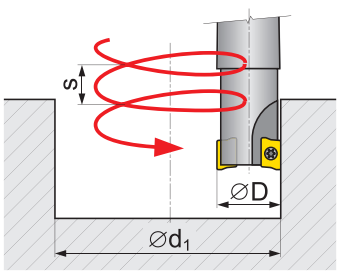
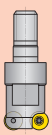



In material P / M / K / N / S / H

| Article no. | Vc (m/min) min<br>Vc (m/min) max | | | | | | Feed fz min<br>Feed fz max | | | | | | Cutting depth ap (mm) min<br>Cutting depth ap (mm) max | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | | | | | | | | | | | | |
| TCMT-M | | | | | | | | | | | | | | | | | | |
| **2000 859 299** | 175<br>240 | 105<br>140 | 165<br>225 | - | 35<br>70 | - | 0.15<br>0.24 | 0.15<br>0.18 | 0.15<br>2.4 | - | 0.15<br>0.18 | - | 0.4<br>3 | 0.4<br>2.3 | 0.4<br>3 | - | 0.4<br>1.8 | - |
| **TiAlN-coated** | | | | | | | | | | | | | | | | | | |
| SCMT-M | | | | | | | | | | | | | | | | | | |
| **2480 008 525** | 145<br>265 | 85<br>155 | 135<br>250 | - | -<br>- | - | 0.15<br>0.44 | 0.17<br>0.4 | 0.15<br>0.44 | - | -<br>- | - | 0.8<br>4 | 0.8<br>4 | 0.8<br>4 | - | -<br>- | - |

| ISO designation | Type | l [mm] | d [mm] | d1 [mm] | s [mm] | r [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **TiN-coated** | | | | | | | |
| **TCMT16T304E-M** | UNI35 | 16,5 | 9.525 | 4.4 | 3,97 | 0.4 | **2000 859 299** |
| **TiAlN-coated** | | | | | | | |
| **SCMT120408-M** | PMK30 | 12,7 | 12.7 | 5.5 | 4,76 | 0.8 | **2480 008 525** |

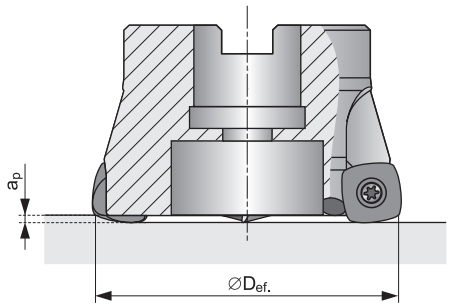
| Slanted insert | Tool | WSP | Milling cutter diameter [mm] | αmax [°] |
|---|---|---|---|---|
| **Arbor cutter** | | | | |
|  |  | ZDCW 09... | 40 | 0,35 (2,7)* |
| | | ZDEW 12... | 50 | 0,50 (2,6)* |
| | | | 63 | 0,35 (1,8)* |
| | | | 80 | 0,29 (1,3)* |
| |  | RD... 12... | 52 | 4,0 |
| | | | 66 | 3,0 |
| | | | 80 | 2,2 |
| | | RD... 16... | 52 | 8,0 |
| | | | 66 | 6,0 |
| | | | 80 | 4,0 |
| | | | 100 | 3,0 |
| **End mills** | | | | |
|  |  | ZDCW 09... | 25 | 0,9 (6,5)* |
| | | | 32 | 0,5 (4,0)* |
| | | ZDEW 12... | 32 | 1,2 (4,0)* |
| | | | 40 | 0,7 (3,7)* |
| |  | RDHX 05... | 10 | 15 |
| | | | 12 | 11 |
| | | | 15 | 7 |
| | | RD... 07... | 15 | 11 |
| | | | 20 | 7 |
| | | | 25 | 6 |
| |  | RD... 10... | 20 | 20 |
| | | | 25 | 12 |
| | | | 30 | 8 |
| | | | 35 | 7 |
| | | RD... 12... | 24 | 25 |
| | | | 35 | 9 |
| | | | 42 | 8 |
| | | RD... 16... | 32 | 25 |
| | | | 35 | 15 |

| Immersion throug spiral movement | Tool | WSP | Milling cutter diameter | dmin | dmax | Smax [mm] |
|---|---|---|---|---|---|---|
| **Arbor cutter** | | | | | | |
|  |  | ZDCW 09... | 40 | 64 | 76 | 0,4 |
| | | ZDEW 12... | 50 | 79 | 96 | 0,7 |
| | | | 63 | 105 | 122 | 0,75 |
| | | | 80 | 139 | 156 | 0,8 |
| |  | RD... 12... | 52 | 82 | 102 | 2,8 |
| | | | 66 | 110 | 132 | 2,8 |
| | | | 80 | 136 | 160 | 2,8 |
| | | RD... 16... | 52 | 74 | 104 | 4,0 |
| | | | 66 | 102 | 132 | 4,0 |
| | | | 80 | 130 | 160 | 4,0 |
| | | | 100 | 170 | 200 | 4,0 |
| **End mills** | | | | | | |
|  |  | ZDCW 09... | 25 | 34 | 48 | 0,4 |
| | | | 32 | 48 | 60 | 0,4 |
| | | ZDEW 12... | 32 | 43 | 62 | 0,65 |
| | | | 40 | 59 | 78 | 0,65 |
| |  | RDHX 05... | 10 | 12 | 20 | 1,0 |
| | | | 12 | 16 | 24 | 1,0 |
| | | | 15 | 22 | 32 | 1,0 |
| | | RD... 07... | 15 | 17 | 30 | 1,4 |
| | | | 20 | 28 | 40 | 1,4 |
| | | | 25 | 38 | 50 | 1,5 |
| |  | RD... 10... | 20 | 22 | 40 | 2,5 |
| | | | 25 | 32 | 50 | 2,5 |
| | | | 30 | 42 | 60 | 2,3 |
| | | | 35 | 52 | 70 | 2,5 |
| | | RD... 12... | 24 | 26 | 48 | 3,0 |
| | | | 35 | 46 | 70 | 3,0 |
| | | | 42 | 62 | 82 | 3,5 |
| | | RD... 16... | 32 | 34 | 64 | 4,0 |
| | | | 35 | 40 | 70 | 4,0 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## High-speed mill (HFC)




**Formula for calculating the cutting speed:**

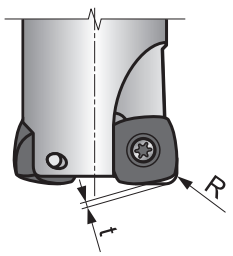
$$v_c = \frac{\pi \cdot D_{ef} \cdot n}{1000} \text{ [m.min}^{-1}\text{]}$$

Effective diameter plan thrower

| Milling diameter [mm] | WSP | Effective diameter Def in relation to cutting depth ap in [mm] | | |
|---|---|---|---|---|
| | | ap = 0 | ap = 0,5 | ap = 1,0 |
| 25 | ZDCW 09T304 | 11,6 | 21,0 | 23,7 |
| 32 | ZDCW 09T304 | 18,7 | 27,9 | 30,7 |
| 40 | ZDCW 09T304 | 27,7 | 35,9 | 38,,7 |

| Milling diameter [mm] | WSP | Effective diameter Def in relation to cutting depth ap in [mm] | | | |
|---|---|---|---|---|---|
| | | ap = 0 | ap = 0,5 | ap = 1,0 | ap = 1,5 |
| 32 | ZDEW 120408 | 14,5 | 24,7 | 28,0 | 30,1 |
| 40 | ZDEW 120408 | 22,5 | 32,8 | 36,1 | 38,2 |
| 50 | ZDEW 120408 | 32,5 | 42,9 | 46,1 | 48,3 |
| 63 | ZDEW 120408 | 45,5 | 56,0 | 59,2 | 61,3 |
| 80 | ZDEW 120408 | 62,5 | 73,0 | 76,2 | 78,3 |

Data for CNC programming




| WSP | R | t |
|---|---|---|
| | [mm] | [mm] |
| ZDCW 09T304 | 2,27 | 0,52 |
| ZDEW 120408 | 3,52 | 0,64 |




## Because top quality at a top price is simply unbeatable!

TECWERK stands for tools, personal protective equipment, abrasives and operating equipment for the highest demands – at a fair price. With around 10,000 products, the diverse assortment offers everything from A as in Anchor bolt to Z as in Zip-lock bags. TECWERK tools for abrasives are designed for long service life and maximum precision – even in continuous use. Choose professional tools for consistently clean results in construction, renovation, metalworking and woodworking. TECWERK is available exclusively from our specialist wholesalers and can be delivered quickly.

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# 2. Clamping Devices



# Flexible and compliant with the TECWERK brand




Quick-clamp drill chuck from page 156
Surface clamping chuck from page 158
Radial tool holder from page 162
Centring point from page 172
Quick-change holder from page 172

## TECWERK CLAMPING DEVICES – PRECISION AND SAFETY FOR YOUR PRODUCTION

Reliable clamping devices are the foundation of precise and efficient manufacturing processes. TECWERK offers a comprehensive assortment of clamping components that ensure the highest accuracy, stability and safety – from tool holders and collet chucks to complete clamping systems.
Our products are designed for daily use in manufacturing, mechanical engineering and metal processing, and impress with durability, quality and ease of handling.
Together, we design precise, efficient and safe production processes – for greater productivity and excellent results.

## Precision by design

TECWERK clamping devices stand for maximum dimensional accuracy and repeat accuracy. High-quality materials, precise manufacturing and well-engineered designs ensure stable processes – even at high speeds, with large workpieces or during long operating times. The results are reliable clamping solutions that make your everyday production more efficient and secure.

## Guaranteed quality

Our clamping components are manufactured in accordance with international industry standards – including DIN 69871 (ISO 7388-1), DIN 69893 (ISO 12164) and DIN 69880 (ISO 10889-1). Case-hardened, precision-ground components guarantee maximum dimensional accuracy, durability and secure connections between tool and machine – for maximum reliability in continuous operation.

## Individuality as standard

Whether a tool holder, collet chuck or complete system – TECWERK offers solutions that adapt flexibly to your manufacturing processes. A variety of interfaces, standards and accessory variants allow you to configure your clamping system individually. This gives you the practical, efficient and future-proof production you need.

## The environment – our responsibility

Sustainability is an integral part of the TECWERK philosophy. By using durable materials, energy-efficient manufacturing processes and recyclable packaging, we play an active role in conserving resources. Durability and quality are key – delivering sustainable cost-efficiency across many production cycles.

TECWERK – Innovative clamping devices, excellent service and maximum precision for your production: safe, stable, efficient.

## Accurate, stable and precisely manufactured to industrial standards – for maximum precision in every production step.




### Quick-action drill chuck Page 156

Heavy-duty industrial design for stationary machines
**Order no. 2000 832052**



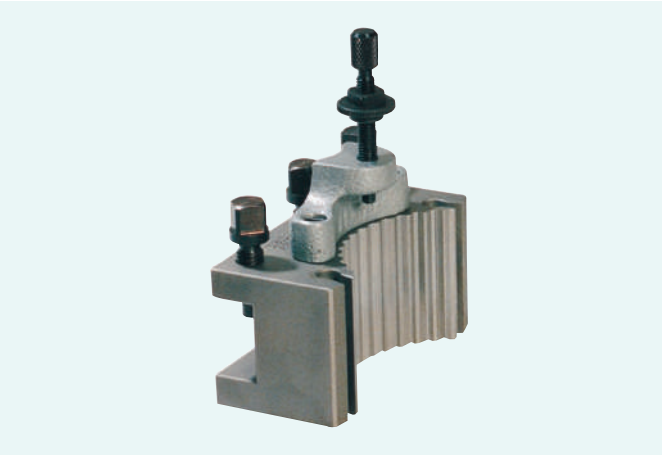
### Surface clamping chuck Page 158

With steep taper according to DIN 69871, shape AD/B, bore tolerance H4
**Order no. 2000 833769**




### Radial tool holder Page 162

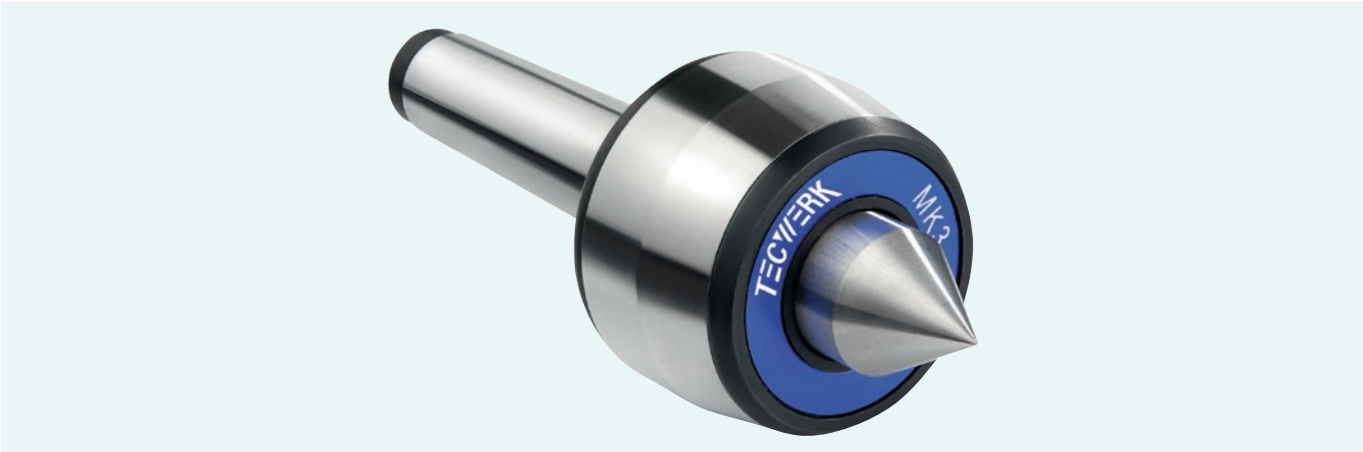
Standard: DIN 69880, shape B1, right-hand, external coolant supply
**Order no. 2000 833588**



### Quick-change holder Page 172

For turning tools, for quick-change tool holder head, H: 12 mm, L: 50 mm
**Order no. 2000 832155**

## For optimum clamping systems, reduced setup times and secure processing in series or one-off production.




### Centring point Page 172

Live centre, 60° point angle, maintenance-free permanent lubrication, running centre made of high-quality tool steel
**Order no. 2000 832040**

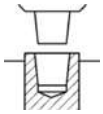


## Key for key-type drill chuck

With DIN serration

| Key size | Spigot Ø [mm] | Article no. |
|---|---|---|
| **S 1** | 4,0 | **2000 832 191** |
| **S 2 A** | 6,0 | **2000 832 192** |
| **S 3** | 8,0 | **2000 832 193** |





## Quick-clamp drill chuck

Self-clamping · **Heavy-duty industrial design for stationary machines** · With taper chuck
**For clockwise rotation**

**Industrial type**

| Clamping Ø [mm] | Mount | External Ø [mm] | Article no. |
|---|---|---|---|
| **0-10** | B 12 | 40.2 | **2000 832 052** |
| **1-13** | B 16 | 46 | **2000 832 053** |



## Drill chuck adapter

**SDS plus** · Also suitable for machines with anti-clockwise operation (supply with internal thread and retaining screw) · Suitable for every drill chuck with 1/2"-20 internal thread
**To be used without impact action**



| Type | Article no. |
|---|---|
| **With locking screw** | **2000 832 210** |



## Tapered mandrel

**With drill chuck DIN 238 · Completely hardened and ground** · To mount drill chucks on drills and lathes

| External taper | Drill chuck | Overall L [mm] | Article no. |
|---|---|---|---|
| **MK1** | B12 | 90 | **2000 832 312** |
| **MK1** | B16 | 97 | **2000 832 316** |
| **MK2** | B10 | 101 | **2000 832 318** |
| **MK2** | B12 | 105 | **2000 832 322** |
| **MK2** | B16 | 112 | **2000 832 326** |
| **MK2** | B18 | 120 | **2000 832 328** |
| **MK3** | B12 | 124 | **2000 832 332** |
| **MK3** | B16 | 131 | **2000 832 336** |
| **MK3** | B18 | 139 | **2000 832 338** |
| **MK3** | B22 | 147 | **2000 832 337** |
| **MK4** | B16 | 156 | **2000 832 346** |
| **MK4** | B18 | 164 | **2000 832 348** |
| **MK5** | B16 | 188 | **2000 832 343** |
| **MK5** | B18 | 196 | **2000 832 344** |



## Reducing sleeve

**DIN 2185 · Completely hardened, ground inside and out** · For tools with Morse taper

| External taper | Internal taper | Overall L [mm] | Article no. |
|---|---|---|---|
| **MK1** | MK0 | 80 | **2000 832 351** |
| **MK2** | MK1 | 92 | **2000 832 352** |
| **MK3** | MK1 | 99 | **2000 832 353** |
| **MK3** | MK2 | 112 | **2000 832 354** |
| **MK4** | MK1 | 124 | **2000 832 355** |
| **MK4** | MK2 | 124 | **2000 832 356** |
| **MK4** | MK3 | 140 | **2000 832 357** |
| **MK5** | MK2 | 156 | **2000 832 359** |
| **MK5** | MK3 | 156 | **2000 832 360** |
| **MK5** | MK4 | 171 | **2000 832 361** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Extension sleeve

**According to DIN 2187** · **Precision design** · **Completely hardened, ground inside and out** · For tools with Morse taper



| External taper | Internal taper | Overall L [mm] | Article no. |
|---|---|---|---|
| **MK2** | MK1 | 160 | **2000 832 315** |
| **MK2** | MK2 | 175 | **2000 832 320** |
| **MK2** | MK3 | 196 | **2000 832 325** |
| **MK3** | MK2 | 194 | **2000 832 335** |
| **MK3** | MK3 | 215 | **2000 832 340** |
| **MK3** | MK4 | 240 | **2000 832 362** |
| **MK4** | MK2 | 215 | **2000 832 364** |
| **MK4** | MK3 | 240 | **2000 832 365** |
| **MK4** | MK4 | 265 | **2000 832 366** |
| **MK4** | MK5 | 300 | **2000 832 367** |

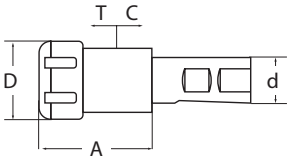


AD

## Thread cutting chuck Synchron

**With Weldon shank DIN 1835 B+E** · **With coolant supply** · For compensating pitch differences of the threading tool and the synchronous spindle · For use on CNC machines with synchronous thread cutting mechanism · **The chuck can compensate synchronisation errors for pressure and tension (+/- 0.5 mm)** · **Use for right- and left-hand thread** · **High concentricity** · **High clamping force** due to the voltage in the tap chucks with integrated square
**Supplied with clamping nut (article no. 2000 834 904 with mini nut)**






**Synchronous chuck**

| For tap | Suitable collet chucks | Shank Ø [mm] | D [mm] | A [mm] | Article no. |
|---|---|---|---|---|---|
| **M3–M10** | ER16-GB | 20 | 22 | 58 | **2000 834 904** |
| **M3–M20** | ER25-GB | 20 | 42 | 63 | **2000 834 905** |
| **M3–M20** | ER25-GB | 25 | 42 | 63 | **2000 834 906** |
| **M4–M27** | ER32-GB | 25 | 50 | 69 | **2000 834 907** |
| **M4–M33** | ER40-GB | 25 | 63 | 109 | **2000 834 908** |



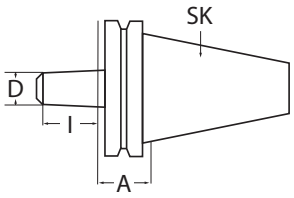
From page 168 onwards

G 6,3 15.000 min⁻¹ · A · AT3 · SK 40

## Drill chuck adapter

**With steep taper DIN 69871 Shape A** · For mounting drill chucks with taper according to **DIN 238**






| D | A [mm] | L [mm] | Article no. | EUR | CK |
|---|---|---|---|---|---|
| **SK40** | | | | | |
| **B16** | 25 | 24 | **2000 832 821** | - | |



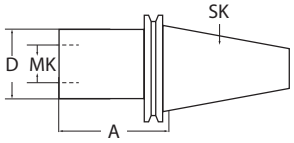
From page 171 onwards

G 6,3 15.000 min⁻¹ · AD · AT3 · SK 40

## Tapered sleeve

**With steep taper DIN 69871 Shape AD** · Case-hardened and ground · For mounting tools with Morse taper and ejector lobes






| Shank mount | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **SK40** | | | |
| **MK2** | 50 | 32 | **2000 833 792** |
| **MK3** | 70 | 40 | **2000 833 793** |
| **MK4** | 95 | 48 | **2000 833 794** |



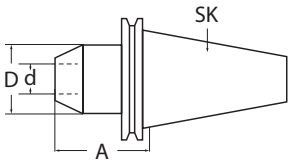
From page 171 onwards



G 2,5 15.000 min⁻¹ | AD | AT3 | SK 40

## Surface clamping chuck

**(Weldon) · With steep taper DIN 69871 Shape AD** · For mounting tools with straight shank and lateral pulling face according to **DIN 1835-B · Bore tolerance H4**
**Supplied with tensioning screw**
A dimension 130 mm and 200 mm in Shape AD/B




| Clamping Ø d [mm] | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **SK40** | | | |
| **6** | 50 | 25 | **2000 833 717** |
| **6** | 100 | 25 | **2000 833 718** |
| **8** | 50 | 28 | **2000 833 720** |
| **8** | 100 | 28 | **2000 833 721** |
| **10** | 50 | 35 | **2000 833 723** |
| **10** | 100 | 35 | **2000 833 724** |
| **12** | 50 | 42 | **2000 833 726** |
| **12** | 100 | 42 | **2000 833 727** |
| **14** | 50 | 44 | **2000 833 729** |
| **14** | 100 | 44 | **2000 833 730** |
| **16** | 35 | 45 | **2000 833 732** |
| **16** | 63 | 48 | **2000 833 733** |
| **16** | 100 | 48 | **2000 833 734** |
| **18** | 63 | 50 | **2000 833 736** |
| **20** | 35 | 45 | **2000 833 739** |
| **20** | 63 | 52 | **2000 833 740** |
| **20** | 100 | 52 | **2000 833 741** |
| **25** | 35 | 50 | **2000 833 743** |
| **25** | 100 | 65 | **2000 833 744** |
| **32** | 65 | 50 | **2000 833 746** |
| **32** | 100 | 72 | **2000 833 747** |



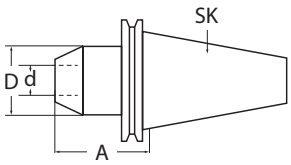
From page 171 onwards



G 2,5 15.000 min⁻¹ | AD/B | AT3 | SK 40

## Surface clamping chuck

**With steep taper according to DIN 69871 Shape AD/B** · With central coolant supply and resealable coolant ducts on the lateral collar as well as **lateral coolant ducts** for tools with straight shank and lateral driving surface according to **DIN 1835-B · Bore tolerance H4**
**Supplied with tensioning screw and O-ring**




**With lateral internal coolant holes**

| Clamping Ø d [mm] | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **SK40** | | | |
| **6** | 50 | 25 | **2000 833 769** |
| **8** | 50 | 28 | **2000 833 770** |
| **10** | 50 | 35 | **2000 833 771** |
| **12** | 50 | 42 | **2000 833 772** |
| **16** | 63 | 48 | **2000 833 774** |
| **20** | 63 | 52 | **2000 833 776** |



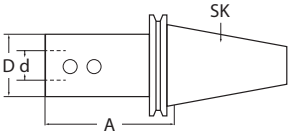
From page 171 onwards



G 6,3 15.000 min⁻¹ | AD/B | AT3 | SK 40

## Drill bit holder E1

**For indexable insert drill · With steep taper according to DIN 69871 shape AD/B** · With central coolant supply and resealable coolant ducts on the collar · For mounting indexable insert drills with straight shank and lateral pulling face according to **DIN 1835-B · Bore tolerance H4**
**Supplied with clamping bolts**




| Clamping Ø [mm] | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **SK40** | | | |
| **25** | 70 | 45 | **2000 833 053** |
| **32** | 75 | 52 | **2000 833 054** |



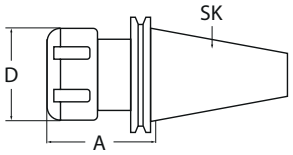
From page 171 onwards

G 2,5 15.000 min⁻¹ | AD | AT3 | SK 40



## Draw-in collet chuck ER

**With steep taper DIN 69871 Shape AD** · For clamping tools with straight shank in collet chucks according to **DIN 6499**
**Supplied with clamping nut**




| Clamping range [mm] | Suitable collet chucks | A [mm] | D [mm] | Article no. |
|---|---|---|---|---|
| **SK40** | | | | |
| **1–10** | ER 16 / 426 E | 63 | 32 | **2000 833 705** |
| **1–10** | ER 16 / 426 E | 100 | 32 | **2000 833 706** |
| **2–16** | ER 25 / 430 E | 60 | 42 | **2000 833 708** |
| **2–16** | ER 25 / 430 E | 100 | 42 | **2000 833 709** |
| **2–20** | ER 32 / 470 E | 70 | 50 | **2000 833 711** |
| **2–20** | ER 32 / 470 E | 100 | 50 | **2000 833 712** |
| **3–26** | ER 40 / 472 E | 80 | 63 | **2000 833 714** |
| **3–26** | ER 40 / 472 E | 100 | 63 | **2000 833 715** |



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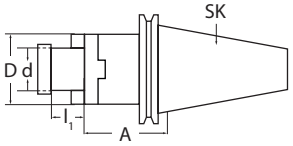
From page 166 onwards

G 6,3 15.000 min⁻¹ | AD/B | AT3 | SK 40



## Combined detachable cutter arbour

**With steep taper DIN 69871 Shape AD/B** · For mounting milling tools with lengthwise or transverse grooves · Case-hardened and ground
**Supplied with cutter tightening screw, driving collar, and feather key**




| Clamping Ø d [mm] | A [mm] | D [mm] | L [mm] | Article no. |
|---|---|---|---|---|
| **SK40** | | | | |
| **16** | 55 | 32 | 17 | **2000 833 795** |
| **16** | 100 | 32 | 17 | **2000 833 796** |
| **22** | 55 | 40 | 19 | **2000 833 797** |
| **22** | 100 | 40 | 19 | **2000 833 798** |
| **27** | 55 | 48 | 21 | **2000 833 799** |
| **27** | 100 | 48 | 21 | **2000 833 800** |
| **32** | 60 | 58 | 24 | **2000 833 801** |



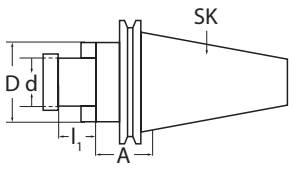
From page 171 onwards

G 2,5 15.000 min⁻¹ | AD/B | AT3 | SK 40



## Transverse slot arbour

**With enlarged collar diameter** · **With steep taper according to DIN 69871 Shape AD/B** · With central coolant delivery and resealable coolant ducts on the collar as well as **additional coolant holes at the end face** · For mounting cutter heads and milling cutters with cross grooves according to DIN 1880
**Supplied with cutter tightening screw and driving keys**




**Internal coolant holes, front**

| Clamping Ø d [mm] | A [mm] | L1 [mm] | D [mm] | Article no. |
|---|---|---|---|---|
| **SK40** | | | | |
| **16** | 35 | 17 | 38 | **2000 833 815** |
| **22** | 35 | 19 | 48 | **2000 833 816** |
| **22** | 100 | 19 | 48 | **2000 833 817** |
| **27** | 40 | 21 | 58 | **2000 833 818** |



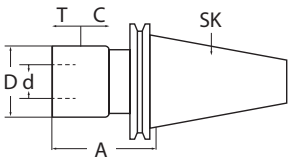
From page 171 onwards



A | SK 40 | SK 50

## Thread cutting chuck

**With steep taper DIN 69871 shape A** · With length compensation for tension and pressure · With ball bearing bushing · The tap torque is transmitted by clamping a quick-change insert




| For tap | Length compensation - / + [mm] | For insert size | A [mm] | D [mm] | d [mm] | Article no. |
|---|---|---|---|---|---|---|
| **SK40** | | | | | | |
| **M3–M14** | 7/7 | 1 | 59 | 36 | 19 | **2000 832 237** |
| **M5–M22** | 12/12 | 2 | 97 | 53 | 31 | **2000 832 238** |
| **SK50** | | | | | | |
| **M5–M22** | 12/12 | 2 | 97 | 53 | 31 | **2000 832 248** |
| **M14–M36** | 17.5/17.5 | 3 | 140 | 78 | 48 | **2000 832 249** |



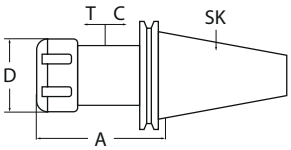
From page 171 onwards



G 6,3 15.000 min⁻¹ | AD/B | SK 40

## Thread cutting chuck Synchron

**With steep taper DIN 69871 AD/B · With coolant supply** · For compensating pitch differences of the threading tool and the synchronous spindle · For use on CNC machines with synchronous thread cutting mechanism · **The chuck can compensate synchronisation errors for pressure and tension (+/- 0.5 mm) · Use for right- and left-hand thread · High concentricity · High clamping force** due to the voltage in the tap chucks with integrated square
**Supplied with clamping nut (article no. 4000 834 914 with mini nut)**




**Synchronous chuck**

| For tap | Suitable collet chucks | D [mm] | A [mm] | Article no. |
|---|---|---|---|---|
| **SK40** | | | | |
| **M3–M12** | ER16-GB | 22 | 79 | **2000 834 914** |
| **M3–M20** | ER25-GB | 42 | 84 | **2000 834 915** |
| **M3–M27** | ER32-GB | 50 | 95 | **2000 834 916** |



From page 171 onwards



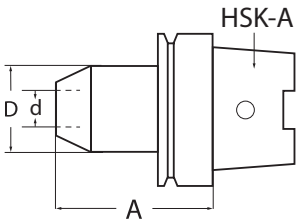
From page 168 onwards



G 2,5 15.000 min⁻¹ | HSK-A 63

## Surface clamping chuck

**(Weldon) · With hollow shaft cone DIN 69893 Shape A** · For clamping tools with straight shank and lateral pulling face according to DIN 1835-B · **Bore tolerance H4**
**Supplied with tensioning screw**



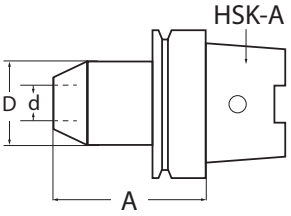

| Clamping Ø d [mm] | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **HSK-A63** | | | |
| **6** | 65 | 25 | **2000 832 385** |
| **6** | 100 | 25 | **2000 832 368** |
| **8** | 65 | 28 | **2000 832 386** |
| **8** | 100 | 28 | **2000 832 370** |
| **10** | 65 | 35 | **2000 832 387** |
| **10** | 100 | 35 | **2000 832 372** |
| **12** | 80 | 42 | **2000 832 388** |
| **14** | 80 | 44 | **2000 832 381** |
| **16** | 80 | 48 | **2000 832 390** |
| **18** | 80 | 50 | **2000 832 391** |
| **20** | 80 | 52 | **2000 832 392** |
| **25** | 110 | 65 | **2000 832 397** |

G 2,5 15.000 min⁻¹ | HSK-A 63

## Surface clamping chuck

**With hollow shaft cone according to DIN 69893 Shape A** · With **lateral cooling ducts** for tools with straight shank · And lateral pulling face **according to DIN 1835 B** · **Bore tolerance H4**
**Supplied with tensioning screw and O-ring**






**With lateral internal coolant holes**

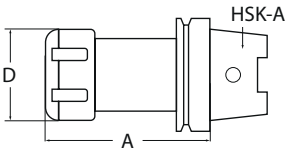
| Clamping Ø d [mm] | A [mm] | D [mm] | Article no. |
|---|---|---|---|
| **HSK-A63** | | | |
| **6** | 65 | 25 | **2000 833 835** |
| **8** | 65 | 28 | **2000 833 836** |
| **10** | 65 | 35 | **2000 833 837** |
| **12** | 80 | 42 | **2000 833 838** |
| **16** | 80 | 48 | **2000 833 840** |
| **20** | 80 | 52 | **2000 833 842** |

G 2,5 15.000 min⁻¹ | HSK-A 63

## Draw-in collet chuck ER

**With hollow shaft cone DIN 69893 Shape A** · For clamping tools with straight shank in collet chucks according to **DIN 6499**
**Supplied with clamping nut**






| Clamping range [mm] | Suitable collet chucks | A [mm] | D [mm] | Article no. |
|---|---|---|---|---|
| **HSK-A63** | | | | |
| **1–10** | ER 16 / 426 E | 100 | 32 | **2000 833 827** |
| **2–16** | ER 25 / 430 E | 100 | 42 | **2000 833 829** |
| **2–20** | ER 32 / 470 E | 100 | 50 | **2000 833 831** |



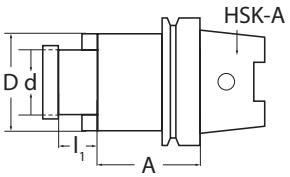
From page 166 onwards

G 2,5 15.000 min⁻¹ | HSK-A 63

## Transverse slot arbour

**With enlarged collar diameter** · **With hollow shaft cone DIN 69893 shape A** · **With additional internal coolant holes on the front side** · For mounting cutter heads and milling cutters with cross grooves according to DIN 1880
**Supplied with cutter tightening screw, driving keys**






**Internal coolant holes, front**

| Clamping Ø d [mm] | A [mm] | L1 [mm] | D [mm] | Article no. |
|---|---|---|---|---|
| **HSK-A63** | | | | |
| **16** | 50 | 17 | 38 | **2000 833 875** |
| **16** | 100 | 17 | 38 | **2000 833 876** |
| **22** | 50 | 19 | 48 | **2000 833 877** |
| **22** | 100 | 19 | 48 | **2000 833 878** |
| **27** | 60 | 21 | 58 | **2000 833 879** |

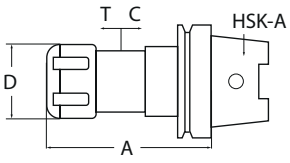


G 6,3 15.000 min⁻¹ | HSK-A 63

## Thread cutting chuck Synchron

**With hollow shaft cone DIN 69893 A · With coolant supply ·** For compensating pitch differences of the threading tool and the synchronous spindle · For use on CNC machines with synchronous thread cutting mechanism · **The chuck can compensate synchronisation errors for pressure and tension (+/- 0.5 mm) · Use for right- and left-hand thread · High concentricity · High clamping force** due to the voltage in the tap chucks with integrated square
**Supplied with clamping nut (article no. 4000 834 924 with mini nut)**

Synchronous chuck




| For tap | Suitable collet chucks | D [mm] | A [mm] | Article no. | EUR | CK |
|---|---|---|---|---|---|---|
| **HSK-A63** | | | | | | |
| **M3–M12** | ER16-GB | 22 | 93 | **2000 834 924** | - | |
| **M3–M20** | ER25-GB | 42 | 98 | **2000 834 925** | - | |
| **M3–M27** | ER32-GB | 50 | 108 | **2000 834 926** | - | |



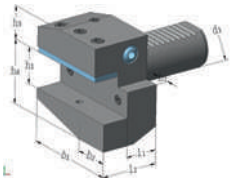
From page 168 onwards



Form B1 | rechts | kurz

## Radial tool holder

**Shape B1,** right · Short · External coolant supply



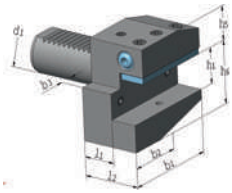
| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 70 | 35 | 10 | 28 | 38 | 22 | 40 | **2000 833 588** |
| **40** | 25 | 85 | 42.5 | 12.5 | 32.5 | 48 | 22 | 44 | **2000 833 589** |



Form B2 | links | kurz

## Radial tool holder

**Shape B2,** left · Short · External coolant supply



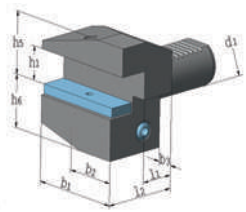
| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 70 | 35 | 10 | 28 | 38 | 22 | 40 | **2000 833 647** |
| **40** | 25 | 85 | 42.5 | 12.5 | 32.5 | 48 | 22 | 44 | **2000 833 648** |



Form B3 | rechts | Überkopf | kurz

## Radial tool holder

**Shape B3,** right · Overhead · Short · External coolant supply



| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 70 | 35 | 10 | 38 | 35 | 22 | 40 | **2000 833 649** |
| **40** | 25 | 85 | 42.5 | 12.5 | 48 | 42.5 | 22 | 44 | **2000 833 650** |



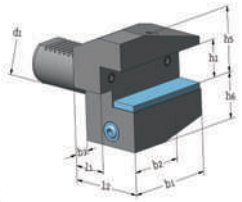
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Form B4 | links | Überkopf | kurz



## Radial tool holder

**Shape B4,** left · Overhead · Short · External coolant supply



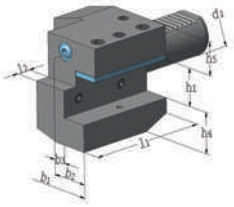
| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **40** | 25 | 85 | 42.5 | 12.5 | 48 | 42.5 | 22 | 44 | **2000 833 652** |

Form C1 | rechts



## Axial tool holder

**Shape C1,** right · External coolant supply



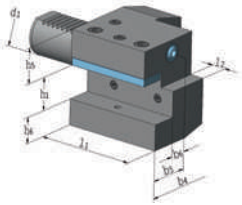
| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 70 | 35 | 17 | 28 | 38 | 70 | 10 | **2000 833 653** |
| **40** | 25 | 85 | 42.5 | 21 | 32.5 | 48 | 85 | 12.5 | **2000 833 654** |

Form C2 | links



## Axial tool holder

**Shape C2,** left · External coolant supply



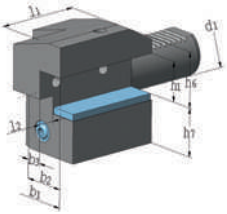
| d1 [mm] | h1 [mm] | b4 [mm] | b5 [mm] | b6 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 76 | 41 | 23 | 28 | 38 | 70 | 10 | **2000 833 655** |
| **40** | 25 | 90 | 47.5 | 25.5 | 32.5 | 48 | 85 | 12.5 | **2000 833 656** |

Form C3 | rechts | Überkopf



## Axial tool holder

**Shape C3,** right · Overhead · External coolant supply



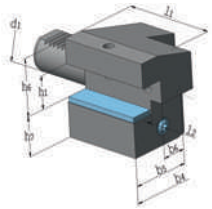
| d1 [mm] | h1 [mm] | b1 [mm] | b2 [mm] | b3 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 70 | 35 | 17 | 38 | 35 | 70 | 10 | **2000 833 657** |
| **40** | 25 | 85 | 42.5 | 21 | 48 | 42.5 | 85 | 12.5 | **2000 833 658** |



Form C4 | links | Überkopf

## Axial tool holder

**Shape C4,** left · Overhead · External coolant supply



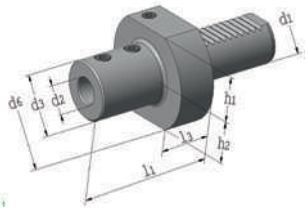
| d1 [mm] | h1 [mm] | b4 [mm] | b5 [mm] | b6 [mm] | h5 [mm] | h6 [mm] | l1 [mm] | l2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 20 | 76 | 41 | 23 | 38 | 35 | 70 | 10 | **2000 833 659** |
| **40** | 25 | 90 | 47.5 | 25.5 | 48 | 42.5 | 85 | 12.5 | **2000 833 660** |



Form E1

## Tool holder

**For indexable insert drill · With straight shank · Shape E1** · For tools **for drilling and turning with internal coolant supply**



| d1 [mm] | d2 [mm] | d3 [mm] | d6 [mm] | h1 [mm] | h2 [mm] | l1 [mm] | l3 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **30** | 16 | 36 | 68 | 28 | 30 | 67 | 22 | **2000 833 661** |
| **30** | 20 | 40 | 68 | 28 | 30 | 67 | 22 | **2000 833 662** |
| **30** | 25 | 45 | 68 | 28 | 30 | 71 | 22 | **2000 833 663** |
| **30** | 32 | 52 | 68 | 28 | 30 | 75 | 22 | **2000 833 664** |
| **30** | 40 | 65 | 68 | 28 | 30 | 90 | 22 | **2000 833 665** |
| **40** | 16 | 36 | 83 | 32,5 | - | 67 | 22 | **2000 833 666** |
| **40** | 20 | 40 | 83 | 32,5 | - | 67 | 22 | **2000 833 667** |
| **40** | 25 | 45 | 83 | 32,5 | - | 75 | 22 | **2000 833 668** |
| **40** | 32 | 52 | 83 | 32,5 | - | 75 | 22 | **2000 833 669** |
| **40** | 40 | 65 | 83 | 32,5 | - | 90 | 22 | **2000 833 670** |

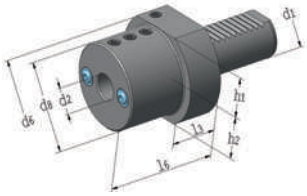


Form E2

## Tool holder

**For boring bars · With straight shank · Shape E2 · Internal and external coolant supply** · No shortening of the boring bar required

**Pierced type: 2000 833 671, 2000 833 672, 2000 833 673, 2000 833 674, 2000 833 678, 2000 833 679, 2000 833 680 and 2000 833 681**



| d1 [mm] | d2 [mm] | d6 [mm] | d8 [mm] | h1 [mm] | h2 [mm] | l3 [mm] | l6 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **30** | 8 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 671** |
| **30** | 10 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 672** |
| **30** | 12 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 673** |
| **30** | 16 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 674** |
| **30** | 20 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 675** |
| **30** | 25 | 68 | 55 | 28 | 30 | 22 | 60 | **2000 833 676** |
| **30** | 32 | 68 | 67 | 28 | 30 | 22 | 75 | **2000 833 677** |
| **40** | 8 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 678** |
| **40** | 10 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 679** |
| **40** | 12 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 680** |
| **40** | 16 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 681** |
| **40** | 20 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 682** |
| **40** | 25 | 83 | 55 | 32,5 | - | 22 | 75 | **2000 833 683** |
| **40** | 32 | 83 | 82 | 32,5 | - | 22 | 75 | **2000 833 684** |
| **40** | 40 | 83 | 82 | 32,5 | - | 22 | 90 | **2000 833 685** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Reducing bushing

Hardened and ground · **For boring bar holders, shape E 2**

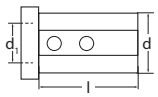
| d [mm] | d1 [mm] | Shape | Article no. |
|---|---|---|---|
| **d = 25 mm, l = 46 mm** | | | |
| **25** | 6 | 1 | **2000 834 201** |
| **25** | 8 | 1 | **2000 834 202** |
| **25** | 10 | 1 | **2000 834 203** |
| **25** | 12 | 1 | **2000 834 204** |
| **25** | 16 | 2 | **2000 834 205** |
| **25** | 20 | 2 | **2000 834 206** |
| **d = 32 mm, l = 56 mm** | | | |
| **32** | 6 | 1 | **2000 834 211** |
| **32** | 8 | 1 | **2000 834 212** |
| **32** | 10 | 1 | **2000 834 213** |
| **32** | 12 | 1 | **2000 834 214** |
| **32** | 16 | 2 | **2000 834 215** |
| **32** | 20 | 2 | **2000 834 216** |
| **32** | 25 | 2 | **2000 834 217** |
| **d = 40 mm, l = 71 mm** | | | |
| **40** | 6 | 1 | **2000 834 221** |
| **40** | 8 | 1 | **2000 834 222** |
| **40** | 10 | 1 | **2000 834 223** |
| **40** | 12 | 1 | **2000 834 224** |
| **40** | 16 | 2 | **2000 834 225** |
| **40** | 20 | 2 | **2000 834 226** |
| **40** | 25 | 2 | **2000 834 227** |
| **40** | 32 | 2 | **2000 834 228** |



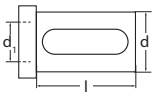
Shape 1



Shape 2




Shape 1



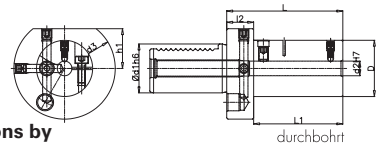

Shape 2

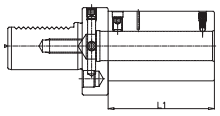
Form E2S

## Tool holder

**For boring bars · Slotted type · Shape E2 S · Reduces or prevents vibrations by clasping the boring bar** · Also suitable for fully rounded boring bars with V-groove · Holders are pierced in the shank wherever possible · Secured against fall-out in the turret through circlip · **Slotted area to 16 mm 4 x D, 20 and 25 mm 3 x D, from 32 mm 2,5 x D** · External and internal cooling possible · **For pierced shank, length adjustment possible from the side of shank**

Type A = pierced
Type B = not pierced






**Reduces vibrations for solid carbide boring bars**

| d1 [mm] | d2 [mm] | D [mm] | L1 [mm] | L [mm] | Type | Article no. |
|---|---|---|---|---|---|---|
| **30** | 10 | 44 | 73 | 95 | A | **2000 833 464** |
| **30** | 12 | 46 | 73 | 95 | A | **2000 833 473** |
| **30** | 16 | 50 | 73 | 95 | A | **2000 833 474** |
| **30** | 20 | 54 | 73 | 95 | B | **2000 833 478** |
| **30** | 25 | 59 | 90 | 112 | B | **2000 833 479** |
| **30** | 32 | 62 | 120 | 142 | B | **2000 833 483** |
| **30** | 40 | 62 | 120 | 142 | B | **2000 833 484** |
| **40** | 10 | 46 | 73 | 95 | A | **2000 833 486** |
| **40** | 12 | 46 | 73 | 95 | A | **2000 833 487** |
| **40** | 16 | 50 | 73 | 95 | A | **2000 833 488** |
| **40** | 20 | 54 | 73 | 95 | A | **2000 833 489** |
| **40** | 25 | 59 | 90 | 112 | B | **2000 833 490** |
| **40** | 32 | 65 | 120 | 142 | B | **2000 833 491** |
| **40** | 40 | 73 | 152 | 174 | B | **2000 833 492** |

Form E4

## Tool holder ER

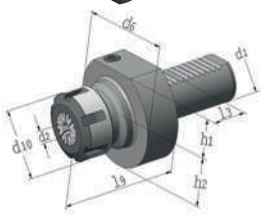
**For collet chuck DIN 6499, shape E4 · Internal and external coolant supply**
**Supplied with clamping nut**

| d1 [mm] | d6 [mm] | d10 [mm] | h1 [mm] | h2 [mm] | l3 [mm] | l9 [mm] | Clamping range [mm] | Suitable collet chucks | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **30** | 68 | 42 | 28 | 30 | 22 | 57 | 2–16 | ER 25 | **2000 833 686** |
| **30** | 68 | 50 | 28 | 30 | 22 | 62.5 | 2–20 | ER 32 | **2000 833 687** |
| **40** | 83 | 42 | 32,5 | - | 22 | 62 | 2–16 | ER 25 | **2000 833 624** |
| **40** | 83 | 50 | 32,5 | - | 22 | 62 | 2–20 | ER 32 | **2000 833 688** |



From page 166 onwards

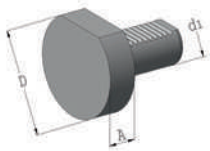





Form Z2

## Sealing plug

**Shape Z2**




| D [mm] | A [mm] | d1 [mm] | Article no. Steel |
|---|---|---|---|
| **68** | 20 | 30 | **2000 833 696** |
| **83** | 20 | 40 | **2000 833 697** |





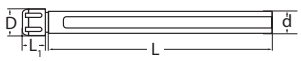
ER 11



ER 16, ER 25, ER 32

## Draw-in collet chuck ER

**With straight shank** and side clamping area · For clamping tools with straight shank in collet chucks according to **DIN 6499**
**Supplied with clamping nut**




ER 11



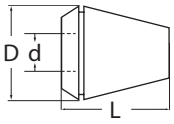

ER 16, ER 25, ER 32

| Clamping range [mm] Length of shank 150 mm | Shank Ø [mm] | Suitable collet chucks | L1 [mm] | D [mm] | Article no. |
|---|---|---|---|---|---|
| **1– 7** | 16 | ER 11 | 20 | 16 | **2120 619 001** |
| **1–10** | 16 | ER 16 | 30 | 32 | **2120 620 189** |
| **1–16** | 20 | ER 25 | 40 | 42 | **2120 620 190** |
| **2–20** | 32 | ER 32 | 35 | 50 | **2120 620 191** |



From page 166 onwards






ER

## Collet chuck ER

**According to DIN 6499-B** · Suitable for **draw-in collet chuck type ER** · Intermediate dimensions are not necessary · The tools are held along the entire clamping length and can also be clamped on the guide chamfer
**Concentricity and repeat accuracy: 5 µm**
**Clamp diameter bridging: ER 11 = nominal dimensions minus 0.5 mm**
**Clamp diameter bridging: ER 16, ER 20, ER 25, ER 32, ER 40 = nominal dimensions minus 1.0 mm**
Article no. 4000 832 910, 4000 832 866, 4000 832 923, 4000 832 938 and 4000 832 959 = nominal dimensions minus 0.5 mm

| d [mm] | Article no. ER 11 / 4008 E (D = 11.5 mm, L = 18 mm) | Article no. ER 16 / 426 E (D = 17 mm L = 27 mm) |
|---|---|---|
| 1 | 2000 832 848 | 2000 832 910 |
| 1.5 | 2000 832 849 | - |
| 2 | 2000 832 850 | 2000 832 912 |
| 2.5 | 2000 832 851 | - |
| 3 | 2000 832 855 | 2000 832 914 |
| 3.5 | 2000 832 857 | - |
| 4 | 2000 832 858 | 2000 832 915 |
| 4.5 | 2000 832 859 | - |
| 5 | 2000 832 860 | 2000 832 916 |
| 6 | 2000 832 863 | 2000 832 917 |
| 7 | - | 2000 832 918 |
| 8 | - | 2000 832 919 |
| 9 | - | 2000 832 920 |
| 10 | - | 2000 832 921 |

| d [mm] | Article no. ER 25 / 430 E (D = 26 mm L = 34 mm) | Article no. ER 32 / 470 E (D = 33 mm L = 40 mm) | Article no. ER 40 / 472 E (D = 41 mm L = 46 mm) |
|---|---|---|---|
| 2 | 2000 832 923 | 2000 832 938 | - |
| 3 | 2000 832 924 | 2000 832 939 | - |
| 4 | 2000 832 925 | 2000 832 940 | - |
| 5 | 2000 832 926 | 2000 832 941 | - |
| 6 | 2000 832 927 | 2000 832 942 | 2000 832 964 |
| 7 | 2000 832 928 | 2000 832 943 | - |
| 8 | 2000 832 929 | 2000 832 944 | 2000 832 966 |
| 9 | 2000 832 930 | 2000 832 945 | - |
| 10 | 2000 832 931 | 2000 832 946 | 2000 832 968 |
| 11 | 2000 832 932 | 2000 832 947 | - |
| 12 | 2000 832 933 | 2000 832 948 | 2000 832 972 |
| 13 | - | 2000 832 949 | - |
| 14 | 2000 832 935 | 2000 832 951 | 2000 832 974 |
| 15 | - | 2000 832 952 | - |
| 16 | 2000 832 937 | 2000 832 953 | 2000 832 976 |
| 18 | - | 2000 832 956 | 2000 832 978 |
| 20 | - | 2000 832 958 | 2000 832 984 |
| 22 | - | - | 2000 832 986 |
| 25 | - | - | 2000 832 990 |



ER

## Collet chuck ER

**According to DIN 6499-B** · Suitable for **draw-in collet chuck type ER** · Intermediate dimensions are not necessary · The tools are held along the entire clamping length and can also be clamped on the guide chamfer
**Concentricity and repeat accuracy: 5 µm**
**Clamp diameter bridging: Nominal dimensions minus 1.0 mm**
Article no. 2000 832 910 = nominal dimensions minus 0.5 mm

| d [mm] ER 16 / 426 E (D = 17 mm L = 27 mm) | Article no. |
|---|---|
| 1 | 2000 832 910 |
| 2 | 2000 832 912 |
| 3 | 2000 832 914 |
| 4 | 2000 832 915 |
| 5 | 2000 832 916 |
| 6 | 2000 832 917 |
| 7 | 2000 832 918 |
| 8 | 2000 832 919 |
| 9 | 2000 832 920 |
| 10 | 2000 832 921 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Collet chuck ER

**According to DIN 6499-B** · Suitable for **draw-in collet chuck type ER** · Intermediate dimensions are not necessary · The tools are held along the entire clamping length and can also be clamped on the guide chamfer
**Concentricity and repeat accuracy: 5 µm**
**Clamp diameter bridging: Nominal dimensions minus 1.0 mm**
Article no. 2000 832 923 = nominal dimensions minus 0.5 mm

| d [mm]<br>ER 25 / 430 E (D = 26 mm L = 34 mm) | Article no. |
|---|---|
| 2 | 2000 832 923 |
| 3 | 2000 832 924 |
| 4 | 2000 832 925 |
| 5 | 2000 832 926 |
| 6 | 2000 832 927 |
| 7 | 2000 832 928 |
| 8 | 2000 832 929 |
| 9 | 2000 832 930 |
| 10 | 2000 832 931 |
| 11 | 2000 832 932 |
| 12 | 2000 832 933 |
| 14 | 2000 832 935 |
| 16 | 2000 832 937 |

ER



## Collet chuck ER

**According to DIN 6499-B** · Suitable for **draw-in collet chuck type ER** · Intermediate dimensions are not necessary · The tools are held along the entire clamping length and can also be clamped on the guide chamfer
**Concentricity and repeat accuracy: 5 µm**
**Clamp diameter bridging: Nominal dimensions minus 1.0 mm**
Article no. 2000 832 938 = nominal dimensions minus 0.5 mm

| d [mm]<br>ER 32 / 470 E (D = 33 mm L = 40 mm) | Article no. |
|---|---|
| 2 | 2000 832 938 |
| 3 | 2000 832 939 |
| 4 | 2000 832 940 |
| 5 | 2000 832 941 |
| 6 | 2000 832 942 |
| 7 | 2000 832 943 |
| 8 | 2000 832 944 |
| 9 | 2000 832 945 |
| 10 | 2000 832 946 |
| 11 | 2000 832 947 |
| 12 | 2000 832 948 |
| 13 | 2000 832 949 |
| 14 | 2000 832 951 |
| 15 | 2000 832 952 |
| 16 | 2000 832 953 |
| 18 | 2000 832 956 |
| 20 | 2000 832 958 |

ER



## Collet chuck ER

**According to DIN 6499-B** · Suitable for **draw-in collet chuck type ER** · Intermediate dimensions are not necessary · The tools are held along the entire clamping length and can also be clamped on the guide chamfer
**Concentricity and repeat accuracy: 5 µm**
**Clamp diameter bridging: Nominal dimensions minus 1.0 mm**
Article no. 4000 832 959 = Nominal dimensions minus 0.5 mm

| d [mm]<br>ER 40 / 472 E (D = 41 mm L = 46 mm) | Article no. |
|---|---|
| 6 | 2000 832 964 |
| 8 | 2000 832 966 |
| 10 | 2000 832 968 |
| 12 | 2000 832 972 |
| 14 | 2000 832 974 |
| 16 | 2000 832 976 |
| 18 | 2000 832 978 |
| 20 | 2000 832 984 |
| 22 | 2000 832 986 |
| 25 | 2000 832 990 |



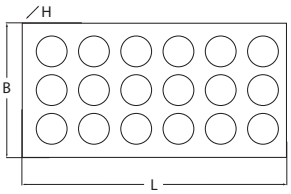
ER

## Collet chuck set

**In wooden base** · Suitable for draw-in collet chuck
**Concentricity and repeat accuracy: 5 µm**

Fig. shows 2000 832 784



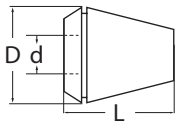


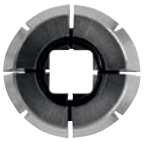

| Model | Clamping Ø [mm] | Contents | Width [mm] | Height [mm] | Length [mm] | Equipped with | Article no. |
|---|---|---|---|---|---|---|---|
| **ER 11 (4008 E)** | 1- 7 | 13-part | 85 | 20 | 95 | 1-1.5-2-2.5-3-3.5-4-4.5-5-5.5-6-6.5-7 | **2000 832 799** |
| **ER 16 (426 E)** | 1-10 | 10-part | 50 | 25 | 130 | 1-2-3-4- 5-6-7-8-9-10 | **2000 832 780** |
| **ER 25 (430 E)** | 2-16 | 15-part | 195 | 25 | 150 | 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16 | **2000 832 782** |
| **ER 32 (470 E)** | 3-20 | 18-part | 150 | 30 | 190 | 3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20 | **2000 832 784** |
| **ER 40 (472 E)** | 4-26 | 23-part | 195 | 25 | 290 | 4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26 | **2000 832 786** |




## Collet chuck

**Type ER-GB** · According to DIN 6499 with internal square for thread cutting · Suitable for thread cutting and draw-in collet chucks type ER
**Concentricity 15 µm**



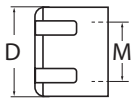
| d [mm] | Square [mm] | Article no. ER 16-GB / 4031 E (L = 27,5 mm) | Article no. ER 25-GB / 4282 E (L = 34 mm) | Article no. ER 32-GB / 4537 E (L = 40 mm) |
|---|---|---|---|---|
| **3.5** | 2.7 | **2000 834 954** | **2000 834 959** | - |
| **4** | 3 | **2000 834 955** | **2000 834 960** | - |
| **4.5** | 3.4 | **2000 834 956** | **2000 834 961** | **2000 834 969** |
| **6** | 4.9 | **2000 834 957** | **2000 834 962** | **2000 834 970** |
| **7** | 5.5 | **2000 834 958** | **2000 834 963** | **2000 834 971** |
| **8** | 6.2 | **2000 834 953** | **2000 834 964** | **2000 834 972** |
| **9** | 7 | - | **2000 834 965** | **2000 834 973** |
| **10** | 8 | - | **2000 834 966** | **2000 834 974** |
| **11** | 9 | - | **2000 834 967** | **2000 834 975** |
| **12** | 9 | - | **2000 834 968** | **2000 834 976** |
| **14** | 11 | - | - | **2000 834 977** |
| **16** | 12 | - | - | **2000 834 978** |



ER

## Clamping nut ER Mini

For draw-in collet chuck ER




| For dimension | Thread [mm] | D [mm] | Article no. |
|---|---|---|---|
| **ER 11** | M13 x 0.75 | 16 | **2120 620 358** |

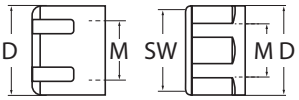


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

ER

## Clamping nut
**Type with friction bearings**
**For draw-in collet chuck ER · According to DIN 6499**





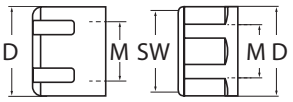

2000 833 998

| For dimension | Thread | D [mm] | Article no. |
|---|---|---|---|
| **ER 16** | M22 x 1.5 | 28 AF 25 | **2000 833 998** |
| **ER 25** | M32 x 1.5 | 42 | **2000 833 999** |
| **ER 32** | M40 x 1.5 | 50 | **2000 834 000** |

ER

## Clamping nut
**Standard version with eccentric ring**
**For draw-in collet chuck ER · According to DIN 6499** · Balanced type



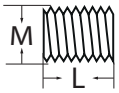



2000 833 993

| For dimension | Thread | D [mm] | Article no. |
|---|---|---|---|
| **ER 16** | M22 x 1.5 | 28 AF 25 | **2000 833 993** |
| **ER 16** | M22 x 1.5 | 32 | **2000 833 994** |
| **ER 25** | M32 x 1.5 | 42 | **2000 833 995** |
| **ER 32** | M40 x 1.5 | 50 | **2000 833 996** |
| **ER 40** | M50 x 1.5 | 63 | **2000 833 997** |

## Tensioning screw
**For surface clamping chuck** · For clamping tools with straight shank with lateral pulling face according to DIN 1835-B

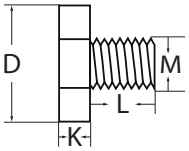





| Nominal thread Ø | For clamping chuck Ø D [mm] | L [mm] | Article no. |
|---|---|---|---|
| **M6** | 6 | 10 | **2000 834 134** |
| **M8** | 8 | 10 | **2000 834 135** |
| **M10** | 10 | 12 | **2000 834 136** |
| **M12** | 12/14 | 16 | **2000 834 137** |
| **M14** | 16/18 | 16 | **2000 834 138** |
| **M16** | 20 | 16 | **2000 834 139** |
| **M18 x 2** | 25 | 20 | **2000 834 140** |
| **M20 x 2 x 20** | 32 | 20 | **2000 834 141** |

## Cutter tightening screw
**According to DIN 6367**



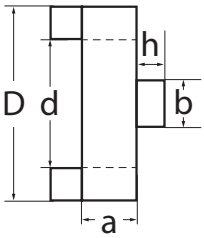



| For clamping Ø [mm] | Thread | D [mm] | K [mm] | L [mm] | Article no. |
|---|---|---|---|---|---|
| **16** | M8 | 20 | 6 | 16 | **2000 834 072** |
| **22** | M10 | 28 | 7 | 18 | **2000 834 073** |
| **27** | M12 | 35 | 8 | 22 | **2000 834 074** |



## Driving collar

**According to DIN 6366** · To drive cutters with cross groove · For milling cutter arbours



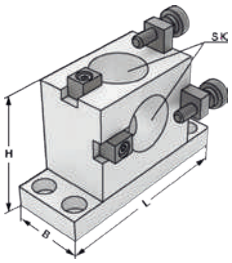

| d [mm] | D [mm] | a [mm] | b [mm] | h [mm] | Article no. |
|---|---|---|---|---|---|
| **16** | 32 | 10 | 8 | 5 | **2000 834 086** |
| **22** | 40 | 12 | 10 | 5.6 | **2000 834 087** |
| **27** | 46 | 12 | 12 | 6.3 | **2000 834 088** |



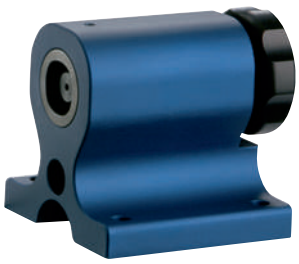
SK 40 | SK 50

## Assembly stand

**From Aluminium** · For safe and easy assembly/ disassembly of tool holders with steep tapers in the horizontal and vertical position · Stable and straightforward assembly on the workbench · With locking screw to secure the tool holder against falling during horizontal assembly




| Mount | W x H x L mm | Article no. |
|---|---|---|
| **SK40** | 60 x 100 x 160 | **2000 832 877** |
| **SK50** | 97 x 155 x 180 | **2000 832 878** |



## Mounting system

**Pivoted** · For the safe, fast and easy exchange of tool holders · Aluminium housing · Exchangeable tool holders made of steel · 4 x 90° pivoted and indexable · Form-fitting fixing of the tools · No cone damage · Small footprint · Low required force because of optimal ergonomics · Fast and safe tool change

**Scope of supply:** With operating instructions and operating key

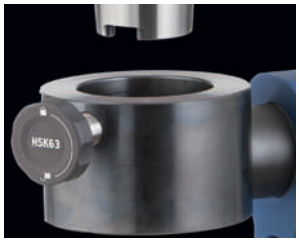
| Type | Article no. |
|---|---|
| **Pivoted basic equipment** | **2000 832 115** |

SK 40 | HSK-A 63

## Mount

For mounting system article no. 2000 832 115





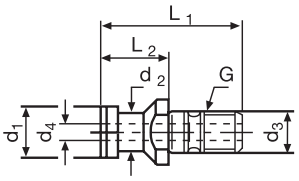

| Shank mount | Article no. |
|---|---|
| **SK40 (DIN 69871, JIS B, DIN 2080)** | **2000 832 116** |
| **HSK-A63** | **2000 832 118** |

SK 40 | SK 50



## Tightening bolt

For tools with steep taper according to DIN 69871 · Case-hardened 58 +/- HRC Eht 0.5–0.8 · Soft-ground thread according to DIN · Ground and burnished in parallel
**ISO 7388-3 Shape AD** (DIN 69872 shape A) · **With bore**



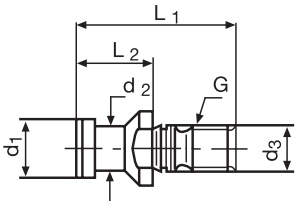

| For mounts | Locking thread | d1 [mm] | d2 [mm] | d3 [mm] | d4 [mm] | L1 [mm] | L2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SK40** | M16 | 19 | 14 | 17 | 7.0 | 54 | 26 | **2000 832 700** |
| **SK50** | M24 | 28 | 21 | 25 | 11.5 | 74 | 34 | **2000 832 701** |

SK 40 | SK 50



## Tightening bolt

**ISO 7388-3 Shape AF** (DIN 69872 shape B) · **Without bore** · Sealed with O-ring



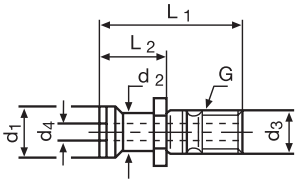

| For mounts | Locking thread | d1 [mm] | d2 [mm] | d3 [mm] | L1 [mm] | L2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **SK40** | M16 | 19 | 14 | 17 | 54 | 26 | **2000 832 710** |
| **SK50** | M24 | 28 | 21 | 25 | 74 | 34 | **2000 832 711** |

SK 40 | SK 50



## Tightening bolt

**ISO 7388 / II Shape B · With bore**



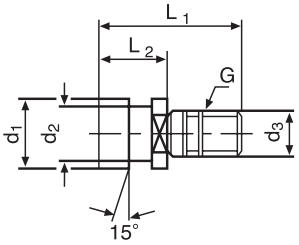

| For mounts | Locking thread | d1 [mm] | d2 [mm] | d3 [mm] | d4 [mm] | L1 [mm] | L2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|
| **SK40** | M16 | 18.95 | 12,95 | 17 | 7.35 | 44.5 | 16.4 | **2000 832 720** |
| **SK50** | M24 | 29.1 | 19,6 | 25 | 11.55 | 65.5 | 25.55 | **2000 832 721** |

SK 40



## Tightening bolt

**DIN2080 Ott ring groove · With internal thread M16** · With sealing ring



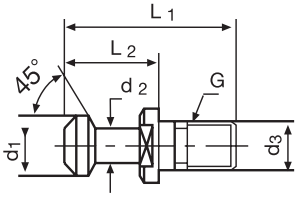

| For mounts | Locking thread | d1 [mm] | d2 [mm] | d3 [mm] | L1 [mm] | L2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **SK40** | M16 | 25 | 21,1 | 17 | 53 | 25 | **2000 832 722** |

BT 40



## Tightening bolt

JIS B 6339 · BT40 with 45° · With/without bore




| For mounts | Locking thread | Bore Ø [mm] | Type | d1 [mm] | d2 [mm] | d3 [mm] | L1 [mm] | L2 [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **BT40** | M16 | 4 | 45° | 15 | 10 | 17 | 60 | 35 | **2000 832 723** |



## Centring point

**Rotating** · Point angle 60 ° · High concentricity · Running point made of high-quality tool steel · Completely hardened and ground · Particularly easy running · Maintenance-free permanent lubrication

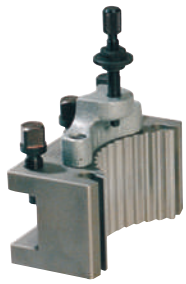
| Size of shank | Workpiece weight max. [kg] | Weight [g] | Max. concentricity deviation [mm] | Max. revolution speed [min-1] | A [mm] | B [mm] | D [mm] | G [mm] | K [mm] | Article no. |
|---|---|---|---|---|---|---|---|---|---|---|
| **MK2** | 200 | 500 | 0.005 | 4900 | 65 | 45 | 20 | 17.78 | 24 | **2000 832 040** |
| **MK3** | 500 | 1300 | 0.005 | 3500 | 79.5 | 60 | 25 | 23.825 | 31 | **2000 832 041** |
| **MK4** | 800 | 2300 | 0.005 | 2700 | 102.5 | 70 | 32 | 31.267 | 41 | **2000 832 042** |
| **MK5** | 2000 | 4700 | 0.005 | 2100 | 129 | 90 | 40 | 44.399 | 50 | **2000 832 043** |



## Quick-change tool holder head

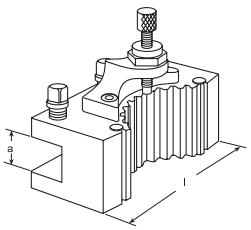
**With eccentric clamping** · For the rapid change of machining tools with a constant repeat accuracy of 0.01 mm · The height of tip is adjusted by an adjusting screw on the turning tool holder · The serration and the bearing surface are hardened and ground · 40 teeth in the steel holder head allow 40 different angular settings of the tools (9° each)
**Bore Ø = bore in the central body**
**Max. radius = centre of the bore to the end/edge of the quick-change holder**

| Size | Bore Ø [mm] | Max. radius [mm] | Article no. |
|---|---|---|---|
| **AA** | 12.5 | 30 | **2000 832 150** |
| **A** | 20 | 48 | **2000 832 151** |
| **B** | 32 | 71 | **2000 832 152** |
| **C** | 40 | 92/102 | **2000 832 153** |
| **D1** | 40 | 112/116/124 | **2000 832 154** |



## Quick-change holder

**For turning tools** · For quick-change tool holder head

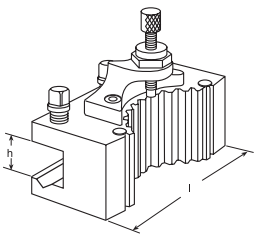



| For steel holder head | a [mm] | l [mm] | Article no. |
|---|---|---|---|
| **AA** | 12 | 50 | **2000 832 155** |
| **A** | 20 | 75 | **2000 832 156** |
| **B** | 25 | 120 | **2000 832 157** |
| **B** | 32 | 120 | **2000 832 158** |
| **C** | 32 | 150 | **2000 832 159** |
| **C** | 40 | 150 | **2000 832 160** |
| **D1** | 40 | 180 | **2000 832 161** |
| **D1** | 50 | 180 | **2000 832 162** |
| **D1** | 63 | 180 | **2000 832 163** |



## Quick-change holder

**With V-block** · **For round boring bars** · For quick-change tool holder head




| For steel holder head | l [mm] | h [mm] | Article no. |
|---|---|---|---|
| **A** | 85 | 20 | **2000 832 165** |
| **B** | 130 | 32 | **2000 832 166** |
| **C** | 160 | 40 | **2000 832 167** |

## Insert v-block

For quick-change holders with V-block, for round boring bars · **Clamping Ø = max. possible clamping Ø after insertion of the prism insert into the quick-change holder**

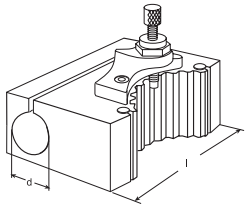


| Size | Length [mm] | Clamping Ø [mm] | Article no. |
|---|---|---|---|
| **A** | 85 | 14 | **2000 832 141** |
| **B** | 130 | 20 | **2000 832 142** |
| **C** | 160 | 25 | **2000 832 143** |
| **C** | 160 | 32 | **2000 832 144** |

## Quick-change holder

**With cylindrical bore · For the direct mounting of large boring bars and Morse taper sleeves** · For quick-change tool holder head



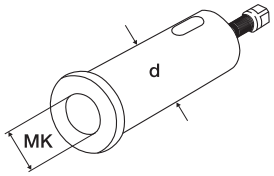



| For steel holder head | l [mm] | d [mm] | Article no. |
|---|---|---|---|
| **A** | 80 | 30 | **2000 832 171** |
| **B** | 120 | 40 | **2000 832 172** |
| **C** | 160 | 40 | **2000 832 173** |
| **C** | 160 | 50 | **2000 832 174** |

## Morse taper sleeve

**For quick-change holders with cylindrical bore** · With forcing screw






| For steel holder head | Size of shank | d [mm] | Article no. |
|---|---|---|---|
| **A** | MK2 | 30 | **2000 832 176** |
| **B** | MK3 | 40 | **2000 832 177** |
| **B** | MK4 | 40 | **2000 832 178** |
| **C** | MK4 | 40 | **2000 832 180** |
| **C** | MK4 | 50 | **2000 832 181** |

## Height-adjustment screw

**Spare part** for all types of TECWERK quick-change holders
**Supplied with height adjustment nut**



| Size | Thread | Article no. |
|---|---|---|
| **AA** | M4 | **2000 832 421** |
| **A** | M5 | **2000 832 422** |
| **B** | M7 | **2000 832 423** |
| **C** | M9 | **2000 832 424** |
| **D1** | M12 | **2000 832 425** |

## Tensioning screw

**Spare parts** for TECWERK quick-change holders **for lathe tools and with V-block**



| Size | Thread | Length [mm] | Square [mm] | Article no. |
|---|---|---|---|---|
| **AA** | M5 | 18 | 5 | **2000 832 426** |
| **A** | M7 | 21 | 8 | **2000 832 427** |
| **B** | M11 | 27 | 10 | **2000 832 428** |
| **C** | M14x1.5 | 38 | 14 | **2000 832 429** |
| **D1** | M14x1.5 | 38 | 14 | **2000 832 430** |



## Drilling vice

With a prism jaw and a smooth jaw · For bench and upright drills

| Jaw W [mm] | Clamping W. [mm] | Slot spacing (centre/centre) [mm] | L x W x H mm | Article no. |
|---|---|---|---|---|
| **75** | 70 | 115 | 254 x 140 x 58 | **2000 830 820** |
| **100** | 100 | 120 | 278 x 154 x 62 | **2000 830 821** |
| **125** | 112 | 150 | 346 x 183 x 66 | **2000 830 822** |



## Drilling vice

Complies with DIN 6370, milled and ground · Accuracy within 0.10 mm · Made of special cast metal · Steel jaws · Prism jaws

| Jaw W [mm] | Clamping W. [mm] | Slot spacing (centre/centre) [mm] | Article no. |
|---|---|---|---|
| **80** | 70 | 110 | **2000 830 888** |
| **100** | 115 | 140 | **2000 830 890** |
| **125** | 130 | 165 | **2000 830 892** |
| **160** | 225 | 210 | ⛟ **2000 830 896** |



## Workpiece Stop

**Complete with sliding block M8 x 14 mm · Made of aluminium**

360° · Continuously adjustable in 5 axes · As a versatile tool, the workpiece stop is suitable for positioning on machining machines or during assembly work

| Height [mm] | Stroke L [mm] | Base Ø [mm] | Article no. |
|---|---|---|---|
| **150** | 190 | 39 | **2000 833 541** |




# 3. Measuring Instruments

# For precision down to the last millimetre with the TECWERK brand




Calliper gauge from page 178
Micrometer from page 180
Dial gauge from page 182
Height measuring & marking device from page 184
Limit plug gauge from page 194
Spirit level set from page 200

## TECWERK MEASURING INSTRUMENTS – PRECISION YOU CAN RELY ON

Reliable measuring results are the foundation of quality, safety and efficiency – in production, assembly and the skilled trades. With measuring instruments from TECWERK, you receive precise tools that combine maximum accuracy with robust construction. Our assortment extends from classic calliper gauges to specialised gauges and modern laser measuring systems – for precise results in every application.

As an authorised specialist dealer for TECWERK, we support you in optimising your measurement processes and achieving consistently reproducible results. Because precision is no coincidence – it is the result of well-engineered technology, high-quality materials and rigorous quality control.

### Accuracy to standard

Our measuring instruments meet the requirements of relevant DIN standards such as DIN 862, DIN 863 and DIN 875. This guarantees precise, reliable measurements – whether for individual checks or series production.

### Robust & Durable

TECWERK measuring tools are manufactured from hardened steel, anodised aluminium or carbide. This makes them highly resistant to wear and ideal for demanding use in workshops and on building sites.

### Versatility in use

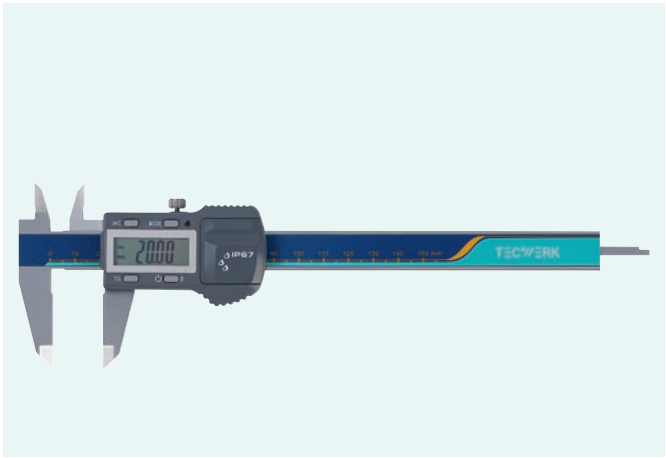
From classic rules to high-tech lasers – TECWERK provides solutions for all measurement tasks: length, angle, internal and depth measurements as well as optical and thermal inspections.

### Advice & Service

Our specialist dealers provide expert advice and support you in selecting the right measuring instruments for your specific requirements. This ensures you always have the right tool for your application.

TECWERK – Precision as the foundation of your success. Together, we create tools that inspire confidence and make quality measurable.

## For precise internal, external and depth measurements in all materials.




### Calliper gauge

Page 179

Automatic activation of the electronics via slide movement
**Order no. 2000 851009**




### Micrometer

Page 181

IP65, 8 mm LCD display, with insulating shell and ratchet thimble
**Order no. 2000 851223**




### Dial gauge

Clamping shank (Ø 8 mm h6) and gauging pin made of stainless steel
**Order no. 2000 851510**

Page 182



### Height measuring and marking device

5-digit LCD display, zero position at any point, with crank handle
**Order no. 2000 851591**

Page 185

## For minimal tolerances and maximum accuracy.

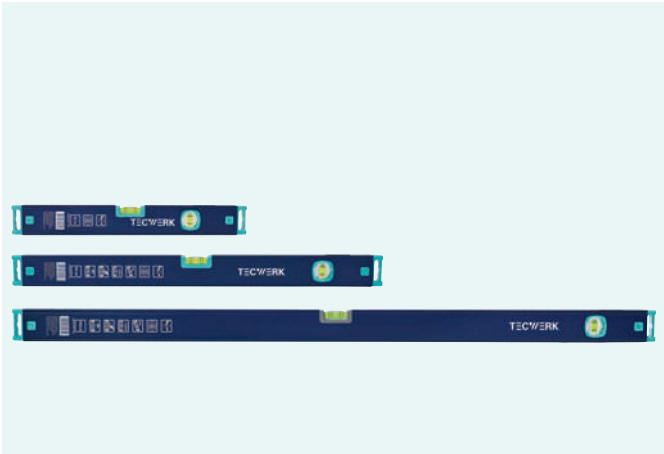



### Limit plug gauge

Page 194

Dimensions according to DIN 2245, tolerance range H7
**Order no. 2000 858582**

## Precise horizontal and vertical alignment for assembly and construction.

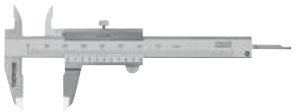



### Spirit level set

Page 200

Spirit levels in lengths 40 cm, 60 cm and 100 cm
**Order no. 2000 857018**

DIN 862 | INOX | mm ▼ inch | links | Parallax-frei



## Pocket calliper gauge

Matt chrome-plated scale and nonius · For inner, outer and depth measurement · Article no. 2000 851 005 only has mm readout

2000 851 005



2000 851 010



2000 851 015

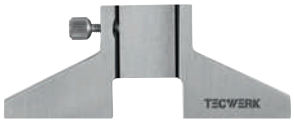


2000 851 011



2000 851 016- Parallax-free readout

| Measuring range [mm] | Jaw L [mm] | Readout | Depth gauge | Article no. With locking screw | Article no. With moment measuring facility |
|---|---|---|---|---|---|
| **70** | 30 | 0.05 mm / - inch | Rectangular | **2000 851 005** | **-** |
| **150** | 40 | 0.05 mm / 1/128 inch | Rectangular | **2000 851 011**<br>**2000 851 015**<br>**2000 851 016** | **2000 851 010** |




INOX

## Measuring bridge

Suitable for all pocket calliper gauges · Made of **hardened steel**

| Bridge L [mm] | Article no. |
|---|---|
| **75** | **2000 851 027** |



DIN 862 | INOX

## Dial calliper gauge

Round scale with 1-pointer system · With micro-adjustment roller · For inner, outer and depth measurements · With locking screw

| Measuring range [mm] | Jaw L [mm] | Readout [mm] | 1 pointer revolution [mm] | Article no. |
|---|---|---|---|---|
| **150** | 40 | 0.01 | 1 | **2000 851 031** |



DIN 862 | INOX | mm ▼ inch | LCD Display | CR2032

## Calliper gauge

**Digital** · Easy to read · Digit height 8 mm · The capacitive measuring system is located in the measuring rail protected against dirt and damage · Rails, jaws and tips hardened · Battery check display · For inner, outer and depth measurements · With locking screw · **Reset to zero from any position · Electronics switches off automatically after 5 minutes idle time**
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range [mm] | Jaw L [mm] | Accuracy [mm] | Readout | Depth gauge | Article no. |
|---|---|---|---|---|---|
| **100** | 40 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 056** |
| **150** | 40 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 055** |
| **200** | 50 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 058** |
| **300** | 60 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 059** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

DIN 862 | INOX | mm / inch | IP67 | LCD Display | CR2032 | 0 / TOL



## Calliper gauges

**Digital · IP67** · Measuring system resistant to dust and temporary immersion in water · With locking screw and cross tips · LCD display 9 mm · **With tolerance function:** Double warning limit input (min./max. tolerance range), for optical support when checking series parts for example · **The small LED sport lights up green** if the measurement result is within the defined tolerance range · Outside the tolerance range, the LED spot stays off

**Protection class IP67 and tolerance function**

**Functions:** On/off switch · **Quick start function**, automatic activation of the electronics through slide movement, pusher immediately ready to measure by one-time reset · **With tolerance function (warning limit input)** · mm/inch · Reset to zero from any position · Freezing of the display (button lock) · Electronics switch off automatically after 5 minutes
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range [mm] | Jaw L [mm] | Accuracy [mm] | Readout | Depth gauge | Article no. |
|---|---|---|---|---|---|
| **150** | 40 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 009** |



DIN 862 | INOX | mm / inch | IP67 | LCD Display | CR2032



## Calliper gauge

**Digital · IP67** · Measuring system resistant to dust and temporary immersion in water · With locking screw and cross tips · LCD display 14 mm

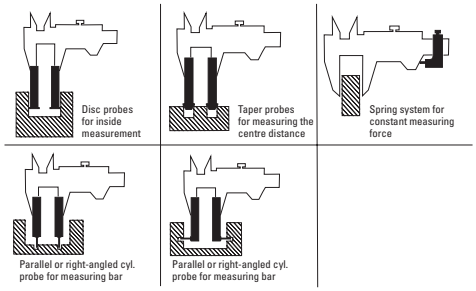
**Functions:** On/off switch · **Quick start function**, automatic activation of the electronics through slide movement, pusher immediately ready to measure by one-time reset · mm/inch · Reset to zero from any position · Freezing of the display (button lock) · Electronics switches off automatically after 5 minutes
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range [mm] | Jaw L [mm] | Accuracy [mm] | Readout | Depth gauge | Article no. |
|---|---|---|---|---|---|
| **150** | 40 | 0.03 | 0.01 mm / 0.0005 inch | Rectangular | **2000 851 007** |

## Dial gauge

**Suitable for digital calliper gauge** with a length of jaw of 40 mm and a jaw thickness of 3.50 to approx. 3.85 mm · For measuring drilling hole distances, gaps and inside grooves · Probe tips are screw-mounted on a metal plate (protection against loss) · Measuring inserts with mounting thread M2.5
**Set contents:**
1 pair probe holders, short
1 pair probe holders, long
1 pair each of probe tips with washer, Ø 6/ 10/ 12.5 mm
1 pair each of probe tips with 60° taper, Ø 9/ 12 mm
1 pair of probe tips, cylindrical, Ø 1.5x9 mm
1 pc. spring system for constant measuring force
1 pc. hex key
**Supplied in plastic case**
**For more measuring inserts with M2.5 mounting thread see page <NoVersionPageNo/>**



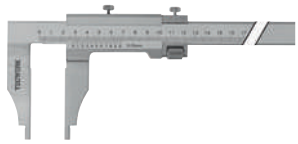



| Contents | Suitable for | Article no. |
|---|---|---|
| **18-part** | Digital calliper gauge | **2000 851 028** |

DIN 862 | INOX

## Workshop calliper gauge

Matt-chrome scale and nonius · With locking screw and **fine adjustments** · Inner and outer measurements
**Basic hole dimension for internal measurements:**
Up to 300 mm measuring range = 10 mm
500–1,000 mm measuring range = 20 mm



2000 851 131



2000 851 135

| Measuring range [mm] | Jaw L [mm] | Readout [mm] | Article no. without measuring points | Article no. with measuring points |
|---|---|---|---|---|
| **250** | 75 | 0.05 | **2000 851 131** | **2000 851 135** |
| **300** | 90 | 0.05 | **2000 851 132** | **2000 851 136** |
| **500** | 150 | 0.05 | **2000 851 133** | **2000 851 137** |
| **800** | 150 | 0.05 | **2000 851 134** | **2000 851 138** |
| **1000** | 150 | 0.05 | **-** | **2000 851 139** |



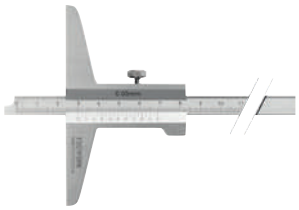
Werks-norm · mm ▼ inch · LCD Display · CR2032

## Workshop calliper gauge

**Digital · Metal electronics housing · With measuring points** · With locking screw and **fine adjustments**

**Functions:** On / off switch · Reset to zero from any position
Basic hole dimension for internal measurements = 20 mm
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range [mm] | Jaw L [mm] | Readout | Article no. |
|---|---|---|---|
| **300** | 100 | 0.01 mm / 0.0005 inch | **2000 851 141** |
| **500** | 150 | 0.01 mm / 0.0005 inch | **2000 851 142** |
| **800** | 150 | 0.01 mm / 0.0005 inch | **2000 851 143** |

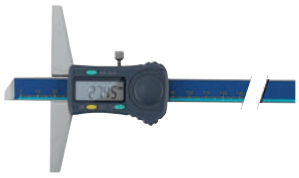


DIN 862 · INOX

## Depth calliper gauge

**Straight measuring rail** · With locking screw · Matt chrome-plated nonius and scale

| Measuring range [mm] | Bridge L [mm] | Cross-section of measuring rail [mm] | Readout [mm] | Article no. |
|---|---|---|---|---|
| **200** | 100 | 10 x 4.5 | 0.05 | **2000 851 218** |
| **300** | 150 | 10 x 4.5 | 0.05 | **2000 851 219** |



DIN 862 · INOX · mm ▼ inch · LCD Display · CR2032

## Depth calliper gauge

**Digital** · Easy to read · Digit height 8 mm · The capacitive measuring system is located in the measuring rail protected against dirt and damage · Hardened rail and measuring bridge · Battery check display · For depth measurement · **With straight measuring rail** · With locking screw · **Accuracy 0.03 mm** · Reset to zero from any position · **Electronics switches off automatically after 5 minutes**
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range [mm] | Bridge L [mm] | Readout | Article no. |
|---|---|---|---|
| **200** | 100 | 0.01 / 0.0005 inch | **2000 851 221** |
| **300** | 100 | 0.01 / 0.0005 inch | **2000 851 222** |



2000 851 151

DIN 863/1

## Micrometer

Hardened spindle · Ground thread · Matt-chrome-plated read-off parts · **Carbide measuring surfaces** · With insulation jacket and ratchet · **Spindle Ø 6.5 mm · Pitch 0.5 mm**

**Supply from 25 mm incl. setting dimensions**

| Measuring range [mm] | Readout [mm] | Article no. |
|---|---|---|
| **0– 25** | 0.01 | **2000 851 151** |
| **25– 50** | 0.01 | **2000 851 152** |
| **50– 75** | 0.01 | **2000 851 153** |
| **75–100** | 0.01 | **2000 851 154** |



DIN 863/1

## Micrometer set

Hardened spindle · Ground thread · Matt-chrome-plated read-off parts · **Carbide measuring surfaces** · With insulation jacket and ratchet · **Spindle Ø 6.5 mm · Pitch 0.5 mm**
**Set comprising:**
1 micrometer, each for 0–25, 25–50, 50–75 and 75–100 mm, 3 setting dimensions

| Measuring range [mm] Set incl. 3 setting dimensions | Readout [mm] | Article no. |
|---|---|---|
| **0–100** | 0.01 | **2000 851 150** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

DIN 863/1 | mm ▼ inch | IP65 | LCD Display



## Micrometer

**Digital · IP65 ·** LCD display 8 mm · With insulation jacket and ratchet · **Carbide measuring surfaces**

**Functions:** On/off switch · Reset to zero from any position · mm/inch
**Supply incl. setting dimension from 25 mm**
**Supplied with battery (SR44)**
Setting dimension, see from page <NoVersionPageNo/>
For replacement battery, see article no. 4000 901 745

| Measuring range [mm] | Readout | Article no. |
|---|---|---|
| 0–25 | 0.001 mm / 0.00005 inch | 2000 851 223 |
| 25–50 | 0.001 mm / 0.00005 inch | 2000 851 224 |



## Internal micrometer with jaw

With ratchet · Matt chrome plated · Hardened spindle · **Hardened measuring surfaces ·** With setting ring up to a measuring range of 50 mm · **Pitch 0.5 mm ·** Article no. 2000 851 295 has cylindrical measuring surfaces



2000 851 295

| Measuring range [mm] | Readout [mm] | Article no. |
|---|---|---|
| 5–30 | 0.01 | 2000 851 295 |
| 25–50 | 0.01 | 2000 851 296 |
| 50–75 | 0.01 | 2000 851 297 |

## Micrometer holder

For use with series measurements · For mounting micrometers with a measuring range up to 300 mm = article no. 2000 851 250 and with a measuring range up to 1,000 mm = article no. 2000 851 251



2000 851 250



2000 851 251

| Material | Article no. |
|---|---|
| Cast | 2000 851 250 |
| Steel | 2000 851 251 |

DIN 863

## Internal micrometer set

**Three point design ·** With ratchet · Matt chrome-plated scale and sleeves · With adjusting rings · **Carbide measuring surfaces · Pitch 0.5 mm**





| Measuring range [mm] | Readout [mm] | Contents [Pc.] | Adjusting ring Ø [mm] | Article no. |
|---|---|---|---|---|
| 6– 12 | 0.001 | 3 | 6 + 8 + 10 | 2000 851 380 |
| 12– 20 | 0.005 | 2 | 16 | 2000 851 381 |
| 20– 50 | 0.005 | 4 | 25 + 40 | 2000 851 098 |
| 50–100 | 0.005 | 4 | 62 + 87 | 2000 851 099 |



## Internal calliper

2-point comparator via reversal point determination · Moveable **carbide gauging pin** · With centring foot · With gauging pin and intermediate rings · Dial gauge Ø 58 mm

| Measuring range [mm] | Measuring D [mm] | Readout [mm] | No. of measuring pins | Article no. |
|---|---|---|---|---|
| **18– 35** | 150 | 0.01 | 9 | **2000 851 382** |
| **35– 50** | 150 | 0.01 | 5 | **2000 851 383** |
| **50–160** | 150 | 0.01 | 12 | **2000 851 384** |



## Internal calliper

2-point comparator via reversal point determination · Moveable **carbide gauging pin** · With centring foot · **Three measurement arms** · With gauging pin and intermediate rings · Dial gauge Ø 58 mm

| Measuring range [mm] | Measuring D [mm] | Readout [mm] | No. of measuring pins | Article no. |
|---|---|---|---|---|
| **18–160** | 150 | 0.01 | 25 | **2000 851 490** |



DIN 878

## Dial gauge

Clamping shank (Ø 8 mm h6) and gauging pin made of **stainless steel** · Adjustable tolerance marks · With 2 pointers · **Outer ring Ø 58 mm**

| Measuring range [mm] | Readout [mm] | 1 pointer revolution [mm] | Article no. |
|---|---|---|---|
| **10** | 0.01 | 1,0 | **2000 851 510** |



DIN 878

## Dial gauge

**With impact protection** · Clamping shank (Ø 8 mm h6) · Rotating outer ring · **Outer ring Ø 58 mm**

| Measuring range [mm] | Readout [mm] | 1 pointer revolution [mm] | Article no. |
|---|---|---|---|
| **10** | 0.01 | 1,0 | **2000 851 511** |



Werks-norm · mm ▼ inch · LCD Display · CR2032

## Dial gauge

**Digital** · 5 digit LCD display · Autom. Switch-off · On/off switches · Zero reset · **External Ø 58 mm** · Clamping shank (Ø 8 mm h6)
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Measuring range | Readout | Accuracy [mm] | Article no. |
|---|---|---|---|
| **12.5 mm / 0.5 inch** | 0.01 mm / 0.0005 inch | 0.03 | **2000 851 530** |

## Edge finder

For determining the zero line · Accuracy 0.01 mm · **Hardened** and **precisely ground probe head** · In the inside, the upper part of the shaft is flexibly connected by a small tensioning spring · **Spindle revolution speed approx. 500 rpm**



2000 851 542

| Clamping shank Ø [mm] | Probe head [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **10** | 10 | 90 | **2000 851 540** |
| **10** | 10 + 4 | 90 | **2000 851 542** |



## Replacement spring

For edge finder



| Replacement spring | Article no. |
|---|---|
| | + **2000 851 577** |

mit Zertifikat

## Edge finder

**Optical and acoustic**

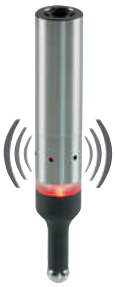
For the exact determination of work piece zero points and drilling points on milling machines, drills, processing centres, etc. · On contact, the spring-loaded probe ball in the axes X and Y with the work piece, the circuit closes, and the omnidirectional display lights up · The 3D type also has a safety spring path of 2 mm in the Z axis · The reference length must first be measured in a presetting device and taken into account · **Accuracy ± 0.01 mm · Ball probe Ø 10 mm**
**Supplied with 12 V battery, serial number and test report**
**For replacement battery, see article no. 4000 901 746**



2000 851 246



2000 851 247



2000 851 248



2000 851 249

| Clamping shank Ø [mm] | Overall L [mm] | Type | Article no. |
|---|---|---|---|
| **20** | 94 | 2D - optical | **2000 851 246** |
| **20** | 106 | 3D - optical | **2000 851 247** |
| **20** | 119 | 2D - acoustic + optical | **2000 851 248** |
| **20** | 131 | 3D - acoustic + optical | **2000 851 249** |

mm ▼ inch | IP65 | LCD Display | CR2032

## Tool presetter

**Digital · IP65** · LCD display, 12 mm digit height · For quick **determination of reference point** in the axial direction · **The device height of 50 mm is the reference dimension for the workpiece** · **Touch surface Ø 24.6 mm** · Robust metal housing · Recessed magnet elements on the underside · Spring deflection of the touch surface+ 2.5 mm to - 0.5 mm · **Electronics switches off automatically after 5 minutes of non-use** · Automatically switch on the electronics by pressing the touch surface
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755






| Readout | Repeat accuracy | Housing Ø [mm] | Article no. |
|---|---|---|---|
| **0.001 / 0.00005 inch** | +/- 0.002 mm / 0.0001" | 55 | **2000 851 000** |



## Magnetic measuring stand

With fine adjustments · Switchable magnetic base · Footprint designed as a V-block for use on all flat and cylindrical steel surfaces · Chrome-plated base column and cross arm · Cross arm with joint and dial gauge fine adjustment · 8 mm H7

| Foot W x D x H [mm] | Operating range [mm] | Overall H [mm] | Holding force [N] | Connection thread | Article no. |
|---|---|---|---|---|---|
| **60 x 50 x 55** | 150 | 180 | Approx. 600 | M8 | **2000 851 550** |



## Magnetic base

Replacement magnetic base

| Foot W x D x H [mm]<br>Replacement magnetic base | Holding force [N] | Connection thread | Article no. |
|---|---|---|---|
| **60 x 50 x 55** | Approx. 600 | M8 | **2000 851 551** |



## Magnetic measuring stand

**With articulated arm** · With mechanical central clamping and fine adjustment · Great mobility with high clamping force via a **clamping handle** · Switchable magnetic base with prismatic sole · Combined mount for dial gauges, comparator gauges and lever gauges · With dovetail clamp · Dial gauge adapter 8 mm H7

| Foot W x D x H [mm] | Operating range [mm] | Overall H [mm] | Holding force [N] | Connection thread | Article no. |
|---|---|---|---|---|---|
| **60 x 50 x 55** | 300 | 380 | 600 | M8 | **2000 851 488** |



Werks-norm

## Height marking device

Solid stand · Solid, sturdy column · With fine adjustments · Anti-glare chrome-plated read-off parts · mm readout · **0.02 mm readout** · **Carbide-tipped scriber**

| Measuring range [mm] | Article no. |
|---|---|
| **300** | **2000 851 580** |
| **500** | **2000 851 581** |




## Scriber

**Carbide** · For height marking device

| For measuring range [mm]<br>Carbide scriber for height marking device | For article no. | Article no. |
|---|---|---|
| **300** | 4000 851 580 | **2000 851 583** |
| **500** | 4000 851 581 | **2000 851 586** |

Werks-norm | mm inch | LCD Display

## Height measuring/marking device

**Digital** · Sturdy foot with smoothed footprint · 5 digit LCD display · Measurement value selection in both directions · Reset to zero in any position · **With crank handle** · **Carbide-tipped scriber** · The hard-wearing, capacitive measuring system permits fast operating speeds and guarantees error-free, economical measurement and work
**Supplied with battery (SR44)**
For replacement battery, see article no. 4000 901 745



| Measuring range [mm] | Readout | Article no. |
|---|---|---|
| **300** | 0.01 mm / 0.0005 inch | **2000 851 591** |

## Scriber

Carbide · For height measuring and marking device




| For measuring range [mm] | For article no. | Article no. |
|---|---|---|
| **Carbide scriber for height measuring and marking device** | | |
| **300** | 4000 851 591 | **2000 851 589** |

## Surface comparison plate RUGOTEST

For comparative testing of surface condition using the 'look-and-touch method' (with fingernail) · Wear resistant and stainless
**Processing: General**
Length of panel 120 mm x Height of panel 90 mm · With explanation



| Reference range Ra [µm] | No. of panels [Pc.] | ISO class | Article no. |
|---|---|---|---|
| **0.05–12.5** | 30 | N2-N10 | **2000 858 855** |

DIN EN ISO 3650 | mit Zertifikat

## Gauge block set

Made of high-quality, alloyed **special steel** with high stability
**Supplied with factory calibration certificate**



| Size of set<br>Type: Steel | Tolerance class | Set composition pc./mm | Article no. |
|---|---|---|---|
| **32-part** | 1 | 1 x 1,005/9 x 1,01 - 1,09/9 x 1,10 - 1,90/9 x 1- 9/3 x 10 - 30/1 x 50 | **2000 851 621** |
| **32-part** | 2 | 1 x 1,005/9 x 1,01 - 1,09/9 x 1,10 - 1,90/9 x 1 -9/3 x 10 - 30/1 x 50 | **2000 851 622** |
| **47-part** | 1 | 1 x 1,005/20 x 1,01 - 1,20/7 x 1,30 - 1,90/9 x 1 - 9/10 x 10 - 100 | **2000 851 624** |
| **47-part** | 2 | 1 x 1,005/20 x 1,01 - 1,20/7 x 1,30 - 1,90/9 x 1 - 9/10 x 10 - 100 | **2000 851 625** |
| **87-part** | 1 | 9 x 1,001 - 1,009/49 x 1,01 - 1,49/19 x 0,5 - 9,50/10 x 10 - 100 | **2000 851 627** |
| **87-part** | 2 | 9 x 1,001 - 1,009/49 x 1,01 - 1,49/19 x 0,5 - 9,50/10 x 10 - 100 | **2000 851 628** |
| **103-part** | 1 | 1 x 1,005/49 x 1,01 - 1,49/49 x 0,5 - 24,5/4 x 25 - 100 | **2000 851 630** |
| **103-part** | 2 | 1 x 1,005/49 x 1,01 - 1,49/49 x 0,5 - 24,5/4 x 25 - 100 | **2000 851 631** |

DIN EN ISO 3650

## Gauge block set

For micrometers · Made of **special steel** · Incl. inspection window Ø 30 mm



| Size of set<br>Type: Steel, supplied with inspection window Ø 30 mm | Tolerance class | Set composition pc./mm | Article no. |
|---|---|---|---|
| **5-part** | 1 | 1 x 5,1 / 1 x 10,3 / 1 x 15 / 1 x 20,2 / 1 x 25 | **2000 851 635** |

DIN EN ISO 3650

## Gauge block set

For calliper gauges · Made from steel, supplied with rings Ø 4 + Ø 25 mm



| Size of set | Tolerance class | Set composition pc./mm | Article no. |
|---|---|---|---|
| **3-part** | 1 | 1 x 30 / 1 x 41,3 / 1 x 131,4 | **2000 851 640** |
| **3-part** | 1 | 1 x 41,3 / 1 x 131,4 / 1 x 243,5 | **2000 851 641** |



2000 858 010



2000 858 110

Werks-norm

## Steel square

Made of steel · Machined on all sides · For simple marking and straightening work · **Galvanised** · Exposed corner stops

| Leg L [mm] | Cross section [mm] | Article no. Without stop | Article no. With stop |
|---|---|---|---|
| 100 x 70 | 20 x 5 | 2000 858 010 | 2000 858 110 |
| 150 x 100 | 20 x 5 | 2000 858 015 | 2000 858 115 |
| 200 x 130 | 20 x 5 | 2000 858 020 | 2000 858 120 |
| 250 x 160 | 25 x 5 | 2000 858 025 | 2000 858 125 |
| 300 x 180 | 25 x 5 | 2000 858 030 | 2000 858 130 |
| 400 x 230 | 25 x 5 | 2000 858 040 | 2000 858 140 |
| 500 x 280 | 25 x 5 | 2000 858 050 | 2000 858 150 |
| 600 x 330 | 30 x 5 | 2000 858 060 | 2000 858 160 |
| 750 x 375 | 30 x 5 | 2000 858 075 | 2000 858 175 |
| 1000 x 500 | 30 x 5 | 2000 858 080 | 2000 858 180 |



2000 858 207



2000 858 307

DIN 875/II

## Bracket

**Precision-made** · Made of steel · Raised edges and flat surfaces ground · Suitable for inspection work

| Leg L [mm] | Cross section [mm] | Article no. Without stop | Article no. With stop |
|---|---|---|---|
| 75 x 50 | 15 x 5 | 2000 858 207 | 2000 858 307 |
| 100 x 70 | 20 x 5 | 2000 858 210 | 2000 858 310 |
| 150 x 100 | 25 x 5 | 2000 858 215 | 2000 858 315 |
| 200 x 130 | 30 x 6 | 2000 858 220 | 2000 858 320 |
| 250 x 165 | 35 x 7 | 2000 858 225 | 2000 858 325 |
| 300 x 175 | 35 x 7 | 2000 858 230 | 2000 858 330 |
| 400 x 200 | 35 x 7 | 2000 858 240 | 2000 858 340 |
| 500 x 250 | 40 x 8 | 2000 858 250 | 2000 858 350 |
| 600 x 300 | 50 x 9 | 2000 858 260 | 2000 858 360 |
| 750 x 375 | 50 x 9 | 2000 858 275 | 2000 858 375 |
| 1000 x 500 | 65 x 9 | 2000 858 280 | 2000 858 380 |



2000 858 443



2000 858 435

DIN 875/I

## Bracket

**Precision-made** · Made of steel · Machined on all sides · Suitable for testing and inspection work

| Leg L [mm] | Cross section [mm] | Article no. Without stop | Article no. With stop |
|---|---|---|---|
| 75 x 50 | 15 x 5 | 2000 858 443 | 2000 858 435 |
| 100 x 70 | 20 x 5 | 2000 858 444 | 2000 858 436 |
| 150 x 100 | 25 x 5 | 2000 858 445 | 2000 858 437 |
| 200 x 130 | 30 x 6 | 2000 858 446 | 2000 858 438 |
| 250 x 165 | 35 x 7 | 2000 858 447 | 2000 858 439 |
| 300 x 200 | 40 x 8 | 2000 858 448 | 2000 858 440 |
| 400 x 265 | 40 x 7 | 2000 858 449 | 2000 858 441 |
| 500 x 330 | 40 x 8 | 2000 858 432 | 2000 858 442 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Werks-norm

## Bracket

**Precision-made (similar to DIN 875/I)** · Surface-hardened aluminium (HRC 62) · Black anodised · Suitable for testing and inspection work · **With raised edge scale, mm partition**



2000 858 061

**With raised edge scale, mm partition**



2000 858 067

| Leg L [mm] | Cross section [mm] | Article no. Without stop | Article no. With stop |
|---|---|---|---|
| 75 x 50 | 15 x 4 | 2000 858 061 | 2000 858 067 |
| 100 x 70 | 20 x 6 | 2000 858 062 | 2000 858 068 |
| 150 x 100 | 30 x 6 | 2000 858 063 | 2000 858 069 |
| 200 x 130 | 30 x 8 | 2000 858 064 | 2000 858 070 |
| 250 x 165 | 35 x 8 | 2000 858 065 | 2000 858 071 |
| 300 x 200 | 40 x 8 | 2000 858 066 | 2000 858 072 |

DIN 875/00

## Bevelled square

**Precision-made** · Flat type · Made of special steel · With finely ground and lapped straight-edge · Suitable **for inspection and measuring room**





| Leg L [mm] | Cross section [mm] | Article no. |
|---|---|---|
| 50 x 40 | 14 x 4,5 | 2000 858 385 |
| 75 x 50 | 16 x 4 | 2000 858 386 |
| 100 x 70 | 20 x 5 | 2000 858 387 |
| 150 x 100 | 28 x 6 | 2000 858 388 |
| 200 x 130 | 30 x 7 | 2000 858 389 |



DIN 875/00 | INOX

## Bevelled square

**Adjustable** · High-precision base unit with **sliding straight-edge** · Straight-edge infinitely adjustable and lockable via clamping spindle · Measuring surfaces ground and lapped · Bracket fully **hardened**
**Use:** For test work with the light gap method · Allows the identification of minute deviations · The moveable straight-edge also enables testing operations to be carried out on short chamfered recesses, punches, etc. · Especially suitable for tool and mould making

| Length of handle [mm] | Straight-edge [mm] | Article no. |
|---|---|---|
| **40 x 22 x 10** | 60x4x4 | **2000 858 415** |



DIN 875/00 | INOX

## Test set

**Comprising:**
1 bevelled square 75 x 50 mm
1 square with inside bevelled edges each of size 40 x 28 mm and 25 x 20 mm
1 straight-edge 100 mm
1 gauge block marking tip 60 x 8 x 8 mm



| Contents | Article no. |
|---|---|
| **5-part** | **2000 851 162** |



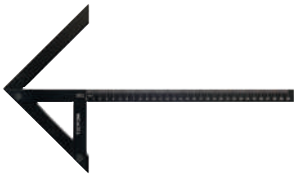
DIN 875/II

## Bevel angle

**135° · With stop** · Made of steel · With high-precision raised edges and perfectly machined flat sides

For precise marking and checking of 45° for corner bonding 90°

| Leg L [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **120 x 80** | 20 x 5 | **2000 858 400** |
| **150 x 100** | 20 x 5 | **2000 858 401** |
| **200 x 130** | 25 x 5 | **2000 858 402** |



Werks-norm

## Centre squares

Precision-made · Surface-hardened aluminium (HRC 62), black anodised · With mm partition for centring round panels and shafts

| Leg L [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **100x 70** | 90 | **2000 858 031** |
| **150x130** | 190 | **2000 858 032** |
| **200x150** | 220 | **2000 858 033** |
| **250x160** | 230 | **2000 858 034** |
| **300x180** | 280 | **2000 858 035** |

Werks-norm

## Flange square

Made of steel · Galvanised · Raised edges and flat surfaces smoothed clean · Special square for installers for accurately aligning flanges



| Leg L [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **300 x 300** | 30 x 5 | **2000 858 410** |
| **400 x 400** | 30 x 5 | **2000 858 411** |
| **500 x 500** | 30 x 5 | **2000 858 412** |

Werks-norm

## Precision bevel

**(Bevel)** · Made of steel · Galvanised · Raised edges and flat surfaces smoothed · With screw hinge
The two moveable legs can be set to any angle and fixed by means of a wing nut.



| Leg L [mm] | Article no. |
|---|---|
| **200** | **2000 858 431** |
| **300** | **2000 858 433** |
| **500** | **2000 858 434** |

Werks-norm

## Angle finder

**With matt chrome-plated scale** · Surface-hardened aluminium (HRC 62), black anodised · Open, half-round angle metre with 0–180° graduation, readout 1° · Anti-glare chrome-plated scale · With lock nut



| Angle metre Ø [mm] | Leg L [mm] | Article no. |
|---|---|---|
| **80** | 120 | **2000 858 560** |
| **120** | 150 | **2000 858 562** |
| **150** | 200 | **2000 858 565** |
| **200** | 300 | **2000 858 570** |
| **300** | 500 | **2000 858 575** |

INOX Werks-norm

## Angle finder

With full-length **adjustable measuring rail** · End of rail angled 45° · Open angle metre for measuring angles from 10° to 170° · Anti-glare matt chrome-plated

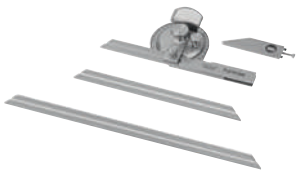


| Angle metre Ø [mm] | Length of rail [mm] | Article no. |
|---|---|---|
| **100** | 150 | **2000 858 710** |
| **150** | 300 | **2000 858 711** |
| **200** | 400 | **2000 858 712** |
| **250** | 500 | **2000 858 713** |

Werks-norm INOX

## Universal angle finder set

With full-length adjustable measuring rail · For measuring angle degree on work pieces, appliances and machines · Suitable for use as ruler, cross and bevel angle · Base plate in 4 x 90° graduations · Reading accuracy 1/12° = 5 arc minutes · Hardened rail · Anti-glare matt chrome-plated





| Length of rail [mm] | Article no. |
|---|---|
| **150/200/300** | **2000 858 725** |



Werks-norm · INOX · LCD Display · CR2032

## Angle finder

**Digital** · Easy to read · Display in degrees and angular minutes · Measuring range 0°–360° · Position 1 x 360°, 2 x 180°, 4 x 90° · Readout 0.005° / 10´· Measuring accuracy ±5 angular minutes

**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755



| Length of rail [mm] | Article no. |
|---|---|
| 150/300 | 2000 858 728 |



Werks-norm · LCD Display · CR2032

## Angle finder

**Digital** · LCD display, digit height 10 mm · Measuring range 0°–360° · Readout 0.1° · Reset to zero from any position · With HOLD function (key lock) · Partition in mm/mm, on both legs · Anti-glare matt chrome-plated
**Supplied with battery (CR2032)**
For replacement battery, see article no. 4000 901 755

| Length of rail [mm] | Article no. |
|---|---|
| 200 | 2000 858 714 |




LCD Display

## Angle sensor

**Digital · Device for setting angle** · Robust housing · Recessed magnet points on the sides and underside · Large LCD display with clear readout · On/off button and zero reset possible in any position · With hold function to record measurement value · Electronics switches off automatically after 5 minutes of non-use
**Supplied with battery (9 V block)**
For replacement battery, see article no. 4000 901 814

| Measuring range [°] | Readout [°] | Repeat accuracy | Length [mm] | Width [mm] | Height [mm] | Article no. |
|---|---|---|---|---|---|---|
| 0–90 | 0.05 | 0.05° | 55 | 30 | 55 | 2000 858 775 |




LCD Display · IP65 · Li-Ion

## Digital protractor

**Digital · IP65 · Device for measuring planeness, perpendicularity and angularity** · Precision contact surfaces in aluminium frame · Adjustable display from angle degrees to angle percent · With hold function to record measurement value · Large LCD display with on/off button and zero reset possible in any position · **With integrated rechargeable battery (3.7 V 400 mAh li-ion 6020), charging time approx. 40 min.**
**Supplied with charging cable, length 1 m (micro USB connection)**

| Measuring range [°] | Readout [°] | Repeat accuracy | Length [mm] | Width [mm] | Height [mm] | Article no. |
|---|---|---|---|---|---|---|
| 0–90 | 0.05 | ± 0.2° | 153 | 61 | 31 | 2000 858 780 |

## Divider
With riveted hinge and square legs · Tips hardened and ground


2000 858 900 2000 858 911

| Length [mm] | Article no. | Article no. With extension |
|---|---|---|
| 150 | 2000 858 900 | 2000 858 911 |
| 200 | 2000 858 901 | 2000 858 913 |
| 250 | 2000 858 902 | 2000 858 914 |
| 300 | 2000 858 903 | 2000 858 915 |
| 400 | 2000 858 904 | 2000 858 916 |
| 500 | 2000 858 905 | 2000 858 917 |

## Spring compass
Precision-made · With quick-fastening nut · With strong, angular legs



| Length [mm] | Article no. |
|---|---|
| 125 | 2000 858 951 |
| 150 | 2000 858 952 |
| 175 | 2000 858 953 |
| 200 | 2000 858 954 |
| 250 | 2000 858 955 |

## Callipers
**(Outside callipers)** · With riveted hinge



| Length [mm] | Article no. |
|---|---|
| 200 | 2000 858 922 |
| 300 | 2000 858 923 |

## Inside calliper
**(Inside callipers)** · With riveted hinge



| Length [mm] | Article no. |
|---|---|
| 200 | 2000 858 932 |
| 300 | 2000 858 933 |

INOX



## Marking gauge
**With flat pusher** · Stainless steel · Hardened marking edges · Matt chrome-plated · Easy-to-read scale · mm partition · **With nonius 0.1 mm**

**Stainless steel**

| Measuring range [mm] | Article no. |
|---|---|
| 200 | 2000 858 509 |
| 250 | 2000 858 510 |
| 300 | 2000 858 511 |



## Marking gauge

**With flat pusher** · Surface-hardened aluminium (HRC 62), black anodised · Easy-to-read laser marking · **With nonius 0.05 mm**

| Measuring range [mm] | Article no. |
|---|---|
| 200 | 2000 858 517 |
| 250 | 2000 858 518 |
| 300 | 2000 858 519 |



## Angle marking gauge

Surface-hardened aluminium (HRC 62), black anodised · Easy-to-read laser marking · With straight 0–300 mm scale and 4 x 90° round or angle scale · For performing normal marking tasks and for drawing and measuring angles · **With nonius 0.1 mm**
**This tool combines the application of a marking gauge and angle finder in a single tool**

| Measuring range [mm] | Article no. |
|---|---|
| 300 | 2000 858 500 |



## Marking gauge

With round beam and round stop plate · Replaceable scriber · mm partition
**Supply incl. carbide scriber**

| Measuring range [mm] | Readout [mm] | Article no. |
|---|---|---|
| 300 | 0.10 | 2000 858 940 |



## Replacement scriber

For marking gauge article no. 2000 858 940

| Type | Article no. |
|---|---|
| For marking gauge article no. 4000 858 940 | 2000 858 942 |



INOX

## Marking gauge

**With castor** · Matt chrome-plated · mm partition · With exchangeable hardened scriber · The marking gauge of the contour to be traced is precisely adjusted by the castor · Suitable for marking concave, convex, and other forms

| Measuring range [mm] | Article no. |
|---|---|
| 200 | 2000 858 580 |
| 400 | 2000 858 630 |



INOX

## Replacement scriber

For marking gauge article no. 2000 858 580 and 2000 858 630

| Type | Article no. |
|---|---|
| For marking gauge article no. 4000 858 580 and 4000 858 630 | 2000 858 581 |



## Scriber

Single piece · Fully hardened · Burnished

| Length [mm] | Article no. |
|---|---|
| 180 | 2000 858 991 |



## Scriber

With knurled gripper · Galvanised · Needle black finished · Fully hardened · Mounted · One side angled 90°, the other side straight

| Length [mm] | Article no. |
|---|---|
| 250 | 2000 858 990 |



## Hexagonal scriber

With soldered-in carbide point and clip

| Length [mm] | Sleeve Ø [mm] | Article no. |
|---|---|---|
| 150 | 6 | 2000 858 999 |



## Scriber

Carbide needle · Stable metal design with clip · With knurled surface for good grip and to transfer marking pressure · Needle can be countersunk or reground and is replaceable · Contoured marks on materials up to HRC 60 · Most suitable for workshop use

| Length [mm] | Article no. |
|---|---|
| 149 | 2000 858 512 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Replacement scriber

Made of carbide (5 pc. in the plastic tube, price per pc.) · For TECWERK scriber 2000 858 512



| Suitable for | Length [mm] | Needle Ø [mm] | Article no. |
|---|---|---|---|
| **Article no. 2000 858 512** | 32 | 2 | **2000 858 513** |

INOX



## Steel rule

**Precision-made** · Printed scale · Flexible · With ground measuring edge · Wide type · Very easy to read thanks to the matt surface and clear partition

| Length [mm] | Cross section [mm] | Article no. Partition A = mm/mm |
|---|---|---|
| **500** | 30 x 0,5 | **2000 858 735** |



INOX



## Steel rule

Laser-engraved scale · Flexible · **Made of stainless spring band steel**

| Length [mm] | Cross section [mm] | Article no. Partition B = mm/1/2 mm |
|---|---|---|
| **150** | 13 x 0,5 | **2000 858 760** |
| **200** | 13 x 0,5 | **2000 858 761** |
| **300** | 13 x 0,5 | **2000 858 762** |
| **500** | 18 x 0,5 | **2000 858 763** |
| **1000** | 18 x 0,5 | **2000 858 764** |

II INOX



N/A

## Steel rule

Laser-engraved scale · **Made of stainless spring band steel** · Precise and deep partition

| Length [mm] | Cross section [mm] | Article no. Partition B = mm/1/2 mm |
|---|---|---|
| **500** | 28 x 1 | **2000 858 800** |

## Aluminum rule

Laser-engraved scale · **Made of solid aluminium** · With recessed grip · Silver anodised · With mm scale



| Length [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **300** | 50 x 5 | **2000 858 736** |
| **600** | 50 x 5 | **2000 858 737** |
| **1000** | 50 x 5 | **2000 858 738** |

Werks-norm



## Rule

Laser-engraved scale · **Made of steel** · With facet · Finely polished · With mm scale · No protective ends

| Length [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **500** | 40 x 5 | **2000 858 805** |
| **1000** | 40 x 5 | **2000 858 806** |
| **1500** | 40 x 5 | **2000 858 807** |
| **2000** | 40 x 5 | **2000 858 808** |

## Workshop ruler

**With chamfer** · Raised edges ground · Finely polished · Straightness 0.2–0.3 mm



| Length [mm] | Cross section [mm] | Article no. |
|---|---|---|
| **500** | 40 x 5 | **2000 858 740** |
| **800** | 40 x 5 | **2000 858 741** |
| **1000** | 40 x 5 | **2000 858 742** |




DIN 874/00 | INOX

## Straight-edge

**Made of stainless steel** · Hardened and ground · Lapped measuring edges · With thermal hand protection · Anti-glare matted

| Length [mm] | Cross section [mm] | Article no. |
|---|---|---|
| 75 | 23 x 5 | 2000 858 390 |
| 100 | 23 x 5 | 2000 858 391 |
| 125 | 23 x 5 | 2000 858 392 |
| 150 | 28 x 6 | 2000 858 393 |
| 200 | 28 x 6 | 2000 858 394 |
| 300 | 38 x 8 | 2000 858 395 |
| 500 | 46 x 10 | 2000 858 396 |




DIN 7162 7164 | H7

## Limit plug gauge

**Tolerance range H7** · With go and no-go ends · Made of gauge steel · For checking drill holes against dimensional accuracy · Structural dimensions in accordance with DIN 2245

| Nominal Ø [mm] | Article no. | Nominal Ø [mm] | Article no. |
|---|---|---|---|
| 2 | 2000 858 582 | 21 | 2000 858 601 |
| 3 | 2000 858 583 | 22 | 2000 858 602 |
| 4 | 2000 858 584 | 23 | 2000 858 603 |
| 5 | 2000 858 585 | 24 | 2000 858 604 |
| 6 | 2000 858 586 | 25 | 2000 858 605 |
| 7 | 2000 858 587 | 26 | 2000 858 606 |
| 8 | 2000 858 588 | 28 | 2000 858 608 |
| 9 | 2000 858 589 | 30 | 2000 858 609 |
| 10 | 2000 858 590 | 32 | 2000 858 610 |
| 11 | 2000 858 591 | 34 | 2000 858 611 |
| 12 | 2000 858 592 | 35 | 2000 858 612 |
| 13 | 2000 858 593 | 36 | 2000 858 613 |
| 14 | 2000 858 594 | 38 | 2000 858 615 |
| 15 | 2000 858 595 | 40 | 2000 858 616 |
| 16 | 2000 858 596 | 42 | 2000 858 617 |
| 17 | 2000 858 597 | 45 | 2000 858 619 |
| 18 | 2000 858 598 | 50 | 2000 858 623 |
| 19 | 2000 858 599 | 55 | 2000 858 625 |
| 20 | 2000 858 600 | 60 | 2000 858 626 |



DIN 7162 7164 | H7

## Set of threaded mandrels

Structural dimensions in accordance with DIN 2245 · With go and no-go ends · For checking drill holes against dimensional accuracy · **Tolerance range H7**

| Contents [mm] | Article no. |
|---|---|
| 1 each of 3, 4, 5, 6, 8, 10, 12 | 2000 858 577 |



M | DIN 13 | 6H

## Set of limit thread gauges

For metric **ISO thread** · **DIN 13** · With go and no-go ends · For checking threaded holes for dimensional accuracy · **Tolerance range 6H**
**Supplied in plastic case**

| Contents | Article no. |
|---|---|
| 1 each M3, M4, M5, M6, M8, M10, M12 | 2000 858 578 |



## Jet gauge

With steel pins anchored in plastic · Shell made of steel with locking screw

| Measuring range [mm] | No. of pins | Article no. |
|---|---|---|
| 0.45–1.50 | 20 pc. | 2000 858 810 |
| 1.5 –3.0 | 16 pc. | 2000 858 811 |

## Jet gauge

**(Plug gauge)** · Precision type · Hardened and smoothed, round measuring needle · Taper 1:10 · Nickel-plated housing



| Measuring range [mm] | Readout [mm] | Article no. |
|---|---|---|
| **0–3** | 0.1 | **2000 858 812** |
| **0–5** | 0.1 | **2000 858 813** |

## Plug gauge

**Tapered** · Made of steel · High-precision partition · Hardened and finely ground · Taper 1:10



| Measuring range [mm] | Readout [mm] | Article no. |
|---|---|---|
| **1– 6** | 0.1 | **2000 858 815** |
| **4–15** | 0.1 | **2000 858 816** |



## Feeler gauge

Conical blade · Width 10 mm, **length 100 mm** · In clamping sheath



2000 858 464

| Sheet thickness [mm] | No. of sheets [Pc.] | Increasing by [mm] | Article no. |
|---|---|---|---|
| **Steel** | | | |
| **0.05–0.5** | 8 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50 | **2000 851 420** |
| **0.05–1.0** | 13 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00 | **2000 851 421** |
| **0.05–1.0** | 20 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00 | **2000 851 422** |
| **0.05–2.0** | 21 | 0.05+0.10–2.00 increasing by 0.1 mm | **2000 851 423** |
| **Brass** | | | |
| **0.05–1.0** | 13 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00 | **2000 858 464** |
| **0.05–1.0** | 20 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00 | **2000 858 465** |

## Feeler gauge

Small cylindrical blade made of steel · Width approx. 13 mm, **length 200 mm** · Combined with ring



| Sheet thickness [mm] | No. of sheets [Pc.] | Increasing by [mm] | Article no. |
|---|---|---|---|
| **0.05–0.5** | 8 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50 | **2000 858 466** |
| **0.05–1.0** | 13 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00 | **2000 858 467** |
| **0.05–1.0** | 20 | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00 | **2000 858 468** |

## Feeler gauge stock

Made of **hardened spring band steel** · Burr-free edges · Acts as support for aligning in mechanical engineering, for measuring tolerances and splitting tests · **Length 5 m** · **Width 12,7 mm**
**Supplied in plastic can**




| Thickness [mm] | Article no. | Thickness [mm] | Article no. |
|---|---|---|---|
| **0.01** | **2000 851 440** | **0.25** | **2000 851 452** |
| **0.02** | **2000 851 441** | **0.30** | **2000 851 453** |
| **0.03** | **2000 851 442** | **0.35** | **2000 851 454** |
| **0.04** | **2000 851 443** | **0.40** | **2000 851 455** |
| **0.05** | **2000 851 444** | **0.45** | **2000 851 456** |
| **0.06** | **2000 851 445** | **0.50** | **2000 851 457** |
| **0.07** | **2000 851 446** | **0.60** | **2000 851 459** |
| **0.08** | **2000 851 447** | **0.70** | **2000 851 461** |
| **0.09** | **2000 851 448** | **0.80** | **2000 851 463** |
| **0.10** | **2000 851 449** | **0.90** | **2000 851 465** |
| **0.15** | **2000 851 450** | **1.00** | **2000 851 467** |
| **0.20** | **2000 851 451** | | |

## Holders

**For feeler gauge stock**



| | Article no. |
|---|---|
| | **2000 851 468** |



## Feeler gauge stock set

In wall holder made of sheet steel · Enamelled finish
**Contents:**
1 pc. each feeler gauge stock made of hardened spring band steel in plastic can · **Length 5 m · Width 12.7 mm**
**Inc. holder for feeler gauge stock**

| Contents [mm] | Article no. |
|---|---|
| 0.01/ 0.02/ 0.03/ 0.04/ 0.05/ 0.06/ 0.07/ 0.08/ 0.09/ 0.10/ 0.12/ 0.15/ 0.18/ 0.20/ 0.25 | 2000 851 471 |
| 0.30/ 0.35/ 0.40/ 0.45/ 0.50/ 0.55/ 0.60/ 0.65/ 0.70/ 0.75/ 0.80/ 0.85/ 0.90/ 0.95/ 1.00 | 2000 851 472 |



INOX

## Feeler gauge stock set

**Made of stainless steel** · In wall holder made of sheet steel · Enamelled finish
**Contents:**
1 pc. each feeler gauge stock made of stainless steel in plastic can · **Length 5 m** · **Width 12.7 mm**
**Inc. holder for feeler gauge stock**

| Contents [mm] | Article no. |
|---|---|
| 0.01/ 0.02/ 0.03/ 0.04/ 0.05/ 0.06/ 0.07/ 0.08/ 0.09/ 0.10/ 0.12/ 0.15/ 0.18/ 0.20/ 0.25 | 2000 851 800 |



## Twist drill grinding gauge

For twist drill with a point angle of 118°

| Measuring range [mm] | Article no. |
|---|---|
| Up to 50 | 2000 851 424 |



## Radius guide

Steel · Concave and convex gauges with lock nut · For checking internal and external radii

| No. of sheets [Pc.] | Radius [mm] | Article no. |
|---|---|---|
| 17 | 1.0– 7 | 2000 851 415 |
| 16 | 7.5–15 | 2000 851 416 |
| 15 | 15.5–25 | 2000 851 417 |



INOX

## Twist drill grinding gauge

With adjustable angle from 30° to 160° · Finely polished

| Article no. |
|---|
| 2000 851 425 |



## Universal grinding gauge

For twist drill with a point angle of 118° · 4-edge and 6-edge angle with mm partition · 90° and 120° angles · For 55° and 60° steel thread

| Article no. |
|---|
| 2000 851 430 |



## Lathe tool/thread gauge

**Combined** · For trapezoid, Whitworth and metric threads · Angles of 40° to 80° in addition for measuring cutting angle on lathe tools

| Article no. |
|---|
| 2000 851 431 |

INOX

## Sliding weld seam gauge

For measuring flange weld seams and fillet welds with angles of 60°, 70°, 80° and 90° · Matt chrome-plated scale · With locking screw



| Measuring range [mm] | Article no. |
|---|---|
| 0–20 | 2000 851 460 |

INOX

## Fan-type weld seam gauge

Fan-type with 12 blades · For measuring fillet welds



| Measuring range [mm] | Article no. |
|---|---|
| 3–12 | 2000 851 462 |



INOX

## Special weld seam gauge

For measuring fillet welds · One-sided support · Largely eliminates measuring errors



| Reading accuracy [mm] | Article no. |
|---|---|
| 0.1 | 2000 851 458 |

## Thread guide

For inner and outer measurements · Precision-made
**Combined:** Metric and 60° pipe thread · Whitworth 55°
**Flank angle 60° with 24 pitches:** 0.25–6.0 mm (0.25/ 0.3/ 0.35/ 0.4/ 0.45/ 0.5/ 0.6/ 0.7/ 0.75/ 0.8/ 0.9/ 1.0/ 1.25/ 1.5/ 1.75/ 2.0/ 2.5/ 3.0/ 3.5/ 4.0/ 4.5/ 5.0/ 5.5/ 6.0)
**Flank angle 55° with 28 pitches:** 4–62 pitch to 1" (4/ 4 1/2/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12/ 13/ 14/ 16/ 18/ 19/ 20/ 22/ 24/ 25/ 26/ 28/ 30/ 32/ 36/ 40/ 48/ 60/ 62)



| No. of sheets [Pc.] | Radius | Article no. |
|---|---|---|
| 52 | M/G 60°/BSW 55° | 2000 851 410 |

## DIN thread slider

For metric ISO (DIN 13), Whitworth (DIN 11) · And pipe thread (DIN 259) · Partition in black print



| Material | Article no. |
|---|---|
| Plastic | 2000 851 411 |

## ISO fit slider

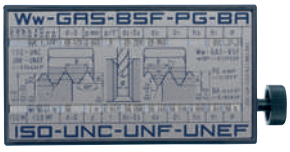
For standard bore and standard shaft in line with ISO DIN 7154 and 7155 · Partition in black print



| Material | Article no. |
|---|---|
| Plastic | 2000 851 412 |

## ISO thread indicator Filetor

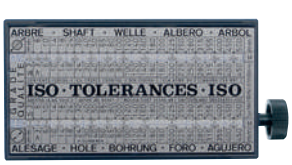
Plastic housing · For reading all thread specifications




| Width [mm] | Depth [mm] | Height [mm] | Article no. |
|---|---|---|---|
| 60 | 30 | 110 | 2000 851 413 |

## ISO tolerance key Tolerator

Plastic housing · For direct readout of all tolerance values



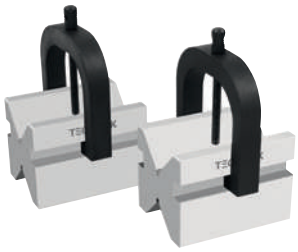

| Width [mm] | Depth [mm] | Height [mm] | Article no. |
|---|---|---|---|
| 60 | 30 | 110 | 2000 851 414 |



## Scale magnifier

**Precision-made** · Black anodised aluminium housing · Aplanatic magnifier · Adjustable · Stainless steel partition plate with black engraved graduation lines · The magnifier can be moved in order to adjust the focus or removed and used as a hand-held magnifying glass

| Magnification | Scale graduation [mm] | Measuring range/scale length [mm] | Article no. |
|---|---|---|---|
| **8x** | 0.1 | 10 | **2000 851 505** |



## Double-V pair

Accuracy ±0.004 mm · Finely polished in pairs · **Hardened** · **Precision-made** · 2 contact surfaces · Notch 90°

**Supplied in pairs**

| For Ø [mm] Steel | Article no. |
|---|---|
| **5–30** | **2000 851 480** |
| **5–50** | **2000 851 481** |
| **7–70** | **2000 851 482** |





(III)

## Folding rule

Made of **beechwood** · Red partition of 10 · Concealed riveted segment connectors · Moisture-proof and dirt-repellent · Painted white · Segment links made of sturdy plastic · Link element thickness 3 mm · Link height 16 mm
**EC accuracy class III**

| Length [m] | No. of elements | Partition | Article no. |
|---|---|---|---|
| **2** | 10 | mm/cm | **2000 853 076** |





(III)

## Folding rule

Made of **plastic** · Black graduation in 10 cm increments
**EC accuracy class III**

| Length [m] | No. of elements | Partition | Article no. |
|---|---|---|---|
| **2** | 10 | mm/cm | **2000 853 077** |



(II)

## Pocket retracting tape measure

Steel tape, painted yellow · Automatic tape retraction with stop button and arrester · Ergonomic design with belt clip and carrying loop · ABS plastic housing
**EC accuracy class II**



| Length [m] | Belt W [mm] | Partition | Article no. |
|---|---|---|---|
| **2** | 16 | mm/cm | **2000 855 002** |
| **3** | 16 | mm/cm | **2000 855 007** |
| **5** | 19 | mm/cm | **2000 855 008** |



(II)

## Pocket retracting tape measure

Steel tape, painted yellow · Automatic tape retraction with arrester · Chrome-plated plastic housing with belt clip
**EC accuracy class II**



| Length [m] | Belt W [mm] | Partition | Article no. |
|---|---|---|---|
| **3** | 16 | mm/cm | **2000 855 040** |
| **5** | 19 | mm/cm | **2000 855 041** |
| **8** | 25 | mm/cm | **2000 855 042** |



## Pocket retracting tape measure

Steel tape, painted matt yellow · **Self-lock system (retracts at the press of a button) · End hook with two integral magnets** · ABS plastic housing · With belt clip and carrying loop
**EC accuracy class II**



| Length [m] | Belt W [mm] | Partition | Article no. |
|---|---|---|---|
| **3** | 16 | mm/cm | **2000 855 037** |
| **5** | 19 | mm/cm | **2000 855 038** |
| **8** | 25 | mm/cm | **2000 855 039** |



## Pocket retracting tape measure

Steel tape, painted matt yellow · **Printed tape graduation on both sides · One side horizontal, one side vertical · Self-lock system (retracts at the press of a button) · Length 5 m and 8 m with double end hook** · Chrome-plated plastic housing with part-rubber cover and belt clip
**EC accuracy class II**



| Length [m] | Belt W [mm] | Partition | Article no. |
|---|---|---|---|
| **3** | 16 | mm/cm | **2000 855 016** |
| **5** | 19 | mm/cm | **2000 855 017** |
| **8** | 25 | mm/cm | **2000 855 018** |



## Pocket retracting tape measure

**Magnifying window for internal dimension** · The partition on the viewing window is not upside down (no reading error) · Steel tape, painted white · Smooth tape movement with pull-push design without arrester · ABS plastic housing
**EC accuracy class II**



| Length [m] | Belt W [mm] | Partition | Article no. |
|---|---|---|---|
| **3** | 13 | mm/cm | **2000 855 000** |



## Professional tape measure

Steel tape measure in impact-resistant plastic frame · Printed mm partition up to a length of 20 cm · Remaining length with cm partition up to the end of the tape · Fold-out crank · Crank assembly for left- and right-hand use · Ball bearing-mounted winding mechanism with high-quality POM friction bearings · 2000 855 413 and 2000 855 414 stainless steel tape
**EC accuracy class II**



| Length [m] | Belt W [mm] | Start of measuring section | Partition | Article no. |
|---|---|---|---|---|
| **30** | 13 | A | cm | **2000 855 410** |
| **50** | 13 | A | cm | **2000 855 411** |
| **30** | 13 | A | cm | **2000 855 413** |
| **50** | 13 | A | cm | **2000 855 414** |



## Professional tape measure

In aluminium frame · Anodised · White enamelled stainless-steel tape measure · Fold-out crank · Can be assembled on left and right sides · Ball bearing-mounted winding mechanism with high-quality POM friction bearings
**EC accuracy class II**



| Length [m] | Belt W [mm] | Start of measuring section | Partition | Article no. |
|---|---|---|---|---|
| **30** | 13 | A | cm | **2000 855 420** |
| **50** | 13 | A | cm | **2000 855 430** |



## Retractable tape rule

Nylon fibre tape · In ABS housing · Tape measure printed on both sides · With crank
**EC accuracy class II**



| Length [m] | Belt W [mm] | Start of measuring section | Partition | Article no. |
|---|---|---|---|---|
| **20** | 13 | A | 2 / cm | **2000 855 805** |
| **30** | 13 | A | 2 mm/cm | **2000 855 806** |
| **50** | 13 | A | 2 mm/cm | **2000 855 807** |



## Spirit level

Made of aluminium · Powder-coated grey surface · Milled measuring surface · Breakproof plastic vials · **Measuring accuracy in normal position ±0.5 mm/m**

| Length [cm] | Article no. |
|---|---|
| 30 | 2000 857 130 |
| 40 | 2000 857 131 |
| 50 | 2000 857 132 |
| 60 | 2000 857 133 |
| 80 | 2000 857 134 |
| 100 | 2000 857 135 |
| 120 | 2000 857 136 |
| 150 | 2000 857 137 |
| 180 | 2000 857 138 |
| 200 | 2000 857 139 |



## Spirit level

Made of aluminium · Powder-coated blue surface · Magnified horizontal vial for faster recognition of the measurement result · Patented **mirror vial** - top view of the vertical vial · Milled measuring surface up to a length of 120 cm · **Measuring accuracy in normal position ± 0.5 mm/m, in inverted position ± 0.75 mm/m**

| Length [cm] | Type | Article no. |
|---|---|---|
| 30 | Mirror vial | 2000 857 153 |
| 40 | Mirror vial | 2000 857 154 |
| 50 | Mirror vial | 2000 857 155 |
| 60 | Mirror vial | 2000 857 156 |
| 80 | Mirror vial | 2000 857 158 |
| 100 | Mirror vial | 2000 857 160 |
| 120 | Mirror vial | 2000 857 162 |
| 150 | Mirror vial | 2000 857 165 |
| 180 | Mirror vial | 2000 857 168 |
| 200 | Mirror vial | 2000 857 170 |



## Spirit level

Made of aluminium · **With powerful magnetic clamps** · Powder-coated blue surface · Magnified horizontal vial for faster recognition of the measurement result · Milled measuring surface · Patented **mirror vial** - top view of the vertical vial · **Measuring accuracy in normal position ± 0.5 mm/m, in inverted position ± 0.75 mm/m**

| Length [cm] | Type | Article no. |
|---|---|---|
| 40 | With magnet | 2000 857 175 |
| 60 | With magnet | 2000 857 176 |
| 80 | With magnet | 2000 857 177 |
| 100 | With magnet | 2000 857 178 |



## Spirit level set

**Comprising:**

Spirit level in lengths 40 cm, 60 cm, 100 cm · Aluminium · Silver · Mirror vial · **Measuring accuracy in normal position max. ± 0.5 mm/m**

| Contents | Article no. |
|---|---|
| 3-part | 2000 857 018 |



## Spirit level

Made of aluminium · In bag format · Powder-coated blue surface · Unbreakable acrylic glass block vial · Shock-absorbing end caps · **Measuring accuracy in normal position ±1.0 mm/m**

| Length [cm] | Article no. |
|---|---|
| 10 | 2000 857 183 |





## Spirit level Torpedo

Die-cast · **2 strong rare earth magnets** · 3 unbreakable acrylic glass block vials · Patented **mirror vial** - top view of the vertical plumb vial · Milled contact surface · V-profile for positioning on round materials · **Measuring accuracy in normal position ±1.0 mm/m**

| Length [cm] | Article no. |
|---|---|
| 25 | 2000 857 184 |


TECWERK
FÜR GRANIT
Ø 230 mm
x 22,23 mm
TECWERK
EN 12413
MAX. R.P.M. 12250
125 x 1,0 x 22,23
EDELSTAHL - STAINLESS STEEL
TECWERK
Ø14

# 4. Abrasives

# Efficiency meets precision with the TECWERK brand




Calender roller from page 213
Diamond cutting disc from page 214
Cutting disc from page 218
Fan-type disc from page 221
Non-woven abrasive fabric roll from page 226

## TECWERK ABRASIVES – PRECISION DOWN TO THE FINEST DETAIL

With abrasives from TECWERK, professionals achieve clean, precise and consistently high-quality results in grinding, cutting, polishing and cleaning tasks. Our assortment covers all applications in the processing, cleaning and finishing of a wide variety of materials – from wood and metal to tiles and natural stone.
Whether in the skilled trades, industry or on building sites: TECWERK supplies the right tools for high demands on efficiency, accuracy and durability.

## Precision by design

Tools from the TECWERK brand stand for well-engineered functionality and maximum precision. They enable efficient workflows, clean results and simplified processes – in the workshop, in industry and on the building site. The consistent combination of modern technology, robust materials and ergonomic handling ensures cost-effectiveness and reliability in daily use.

## Individuality as standard

Whether fine surface treatment or heavy grinding work – TECWERK provides solutions for every requirement. Different granulation levels, shapes and sizes allow precise adaptation to your tasks. With our wide range of accessories from cutting, roughening and flap wheel discs to diamond tools and polishing tools – you can design workflows precisely tailored to your projects.

## Guaranteed quality

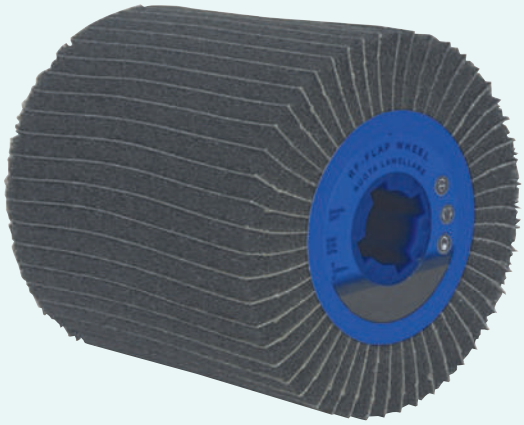
TECWERK relies on high-quality materials, such as diamond coatings and resin-bonded abrasives. These quality features guarantee consistent performance, long tool life and precise results – even under demanding conditions.

## The environment – our responsibility

At TECWERK, sustainability is a lived principle. Our products are manufactured with resource conservation in mind, designed for long service life and supplied in recyclable packaging. The focus on quality and durability reduces material consumption and helps conserve both the environment and resources – for sustainable efficiency in every application.

TECWERK – Professional tools, excellent service and abrasives that adapts to your requirements: precise, robust, sustainable.

## From coarse to fine grinding – for consistently high-quality results and precise edge finishing.



### Calender roller

Page 213

19 mm mount, for removing scratches while applying a satin finish; universally applicable for steel and stainless steel
**Order no. 2000 841991**

## For precise cutting, grinding and separating of hard materials, such as steel, granite or tiles.




### Diamond cutting disc

Page 214

7 mm turbo diamond segment, suitable for dry and wet use
**Order no. 2000 865410**




### Cutting disc

Page 218

Precise cutting behaviour with low thermal load
**Order no. 2000 845002**




### Fan-type disc

Page 222

Zirconium corundum, unobstructed view of the workpiece
**Order no. 2000 841179**



### Non-woven abrasive fabric roll

Page 230

For grinding and cleaning all types of surfaces
**Order no. 2000 844240**





## Workshop file DIN 7261

**Taper square** · Shape A · Rectangular file with a cut on three sides, one side unhewn · For machining rectangular geometries and for all general filing work in trade and industry · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 16 x 4 | 1 | **2000 840 016** |
| **150** | 16 x 4 | 2 | **2000 840 017** |
| **150** | 16 x 4 | 3 | **2000 840 018** |
| **200** | 20 x 5 | 1 | **2000 840 020** |
| **200** | 20 x 5 | 2 | **2000 840 021** |
| **200** | 20 x 5 | 3 | **2000 840 022** |
| **250** | 25 x 6 | 1 | **2000 840 023** |
| **250** | 25 x 6 | 2 | **2000 840 024** |
| **250** | 25 x 6 | 3 | **2000 840 025** |
| **300** | 30 x 6,5 | 1 | **2000 840 026** |
| **300** | 30 x 6,5 | 2 | **2000 840 027** |
| **300** | 30 x 6,5 | 3 | **2000 840 028** |
| **350** | 35 x 7,5 | 1 | **2000 840 052** |







## Workshop file DIN 7261

**Triangle** · Form C · Triangular file tapering to a point with a cut on two sides · For machining angular profiles and for general filing work in trade and industry · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 11 | 1 | **2000 840 070** |
| **150** | 11 | 3 | **2000 840 072** |
| **200** | 15 | 1 | **2000 840 073** |
| **200** | 15 | 3 | **2000 840 075** |
| **250** | 17,5 | 1 | **2000 840 076** |
| **250** | 17,5 | 2 | **2000 840 077** |
| **250** | 17,5 | 3 | **2000 840 078** |





## Workshop file DIN 7261

**Square** · Shape D · Square file tapering to a point with a cut on four sides · For machining angular profiles and for general filing work in trade and industry · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 6 | 1 | **2000 840 110** |
| **200** | 8 | 1 | **2000 840 113** |
| **200** | 8 | 3 | **2000 840 115** |
| **250** | 10 | 1 | **2000 840 116** |
| **250** | 10 | 2 | **2000 840 117** |



## Workshop file DIN 7261

**Half-round** · Shape E · Half-round file with a cut on two sides · For machining radii and for filing half-round profiles as well as for general filing work in trade and industry · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 16 x 4,5 | 1 | **2000 840 140** |
| **150** | 16 x 4,5 | 2 | **2000 840 141** |
| **150** | 16 x 4,5 | 3 | **2000 840 142** |
| **200** | 20 x 6 | 1 | **2000 840 143** |
| **200** | 20 x 6 | 2 | **2000 840 144** |
| **200** | 20 x 6 | 3 | **2000 840 145** |
| **250** | 25 x 7 | 1 | **2000 840 146** |
| **250** | 25 x 7 | 2 | **2000 840 147** |
| **250** | 25 x 7 | 3 | **2000 840 148** |
| **300** | 30 x 8,5 | 1 | **2000 840 149** |
| **300** | 30 x 8,5 | 2 | **2000 840 150** |
| **300** | 30 x 8,5 | 3 | **2000 840 151** |



## Workshop file DIN 7261

**Round** · Shape F · Round file with circumferential cut · For machining radii and for filing profiles with inner radii as well as for general filing work in trade and industry · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 6 | 1 | **2000 840 180** |
| **150** | 6 | 2 | **2000 840 181** |
| **150** | 6 | 3 | **2000 840 182** |
| **200** | 7,5 | 1 | **2000 840 183** |
| **200** | 7,5 | 2 | **2000 840 184** |
| **200** | 7,5 | 3 | **2000 840 185** |
| **250** | 9,5 | 1 | **2000 840 186** |
| **250** | 9,5 | 2 | **2000 840 187** |
| **250** | 9,5 | 3 | **2000 840 188** |
| **300** | 12 | 1 | **2000 840 189** |
| **300** | 12 | 2 | **2000 840 190** |



## Wood rasp DIN 7263

**Half-round** · Form C · Half-round file tapering to a point with rasp cut on two sides · For universal rasping work, e.g. roughing and finishing

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | ● | ● | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **250** | 25 x 7 | 2 | **2000 840 522** |

## File handle

**Made of plastic** · 2-component handle · High degree of gripping comfort
Bores:
2000 840 625 = 9 x 7 mm
2000 840 627 = 10 x 8 mm
2000 840 629 = 12 x 9 mm




| Handle L [mm] | For file length [mm] | Article no. |
|---|---|---|
| **90** | 100 - 150 | **2000 840 625** |
| **110** | 200 - 250 | **2000 840 627** |
| **115** | 300 - 350 | **2000 840 629** |





## Workshop file DIN 7261

**Taper square** · **With an ergonomic file handle** · Shape A · Rectangular file with a cut on three sides · One side unhewn · For machining angular geometries · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 20 x 5 | 1 | **2000 840 054** |
| **150** | 16 x 4 | 2 | **2000 840 060** |
| **200** | 20 x 5 | 2 | **2000 840 062** |
| **250** | 25 x 6 | 1 | **2000 840 064** |
| **250** | 25 x 6 | 2 | **2000 840 055** |





## Workshop file DIN 7261

**Triangle** · **With an ergonomic file handle** · Form C · Triangular file tapering to a point with a cut on two sides · For filing angular profiles · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 14 | 2 | **2000 840 095** |





## Workshop file DIN 7261

**Square** · **With an ergonomic file handle** · Shape D · Square file tapering to a point with a cut on four sides · For filing angular profiles · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 8 | 2 | **2000 840 130** |





## Workshop file DIN 7261

**Half-round** · **With an ergonomic file handle** · Shape E · Half-round file with a cut on two sides · For machining radii and for filing half-round profiles · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 16 x 5 | 2 | **2000 840 155** |
| **200** | 20 x 6 | 2 | **2000 840 157** |
| **250** | 25 x 7 | 1 | **2000 840 159** |
| **250** | 25 x 7 | 2 | **2000 840 156** |





## Workshop file DIN 7261

**Round** · **With an ergonomic file handle** · Shape F · Round file with circumferential cut · For machining radii and for filing profiles with inner radii · Also suitable for bronze, copper, brass and zinc

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **150** | 6,3 | 2 | **2000 840 205** |
| **200** | 7,5 | 2 | **2000 840 207** |
| **250** | 9,5 | 1 | **2000 840 209** |
| **250** | 9,5 | 2 | **2000 840 193** |



## File rasp DIN 7261

**Taper square · With 2-component plastic handle ·** Shape A · Rectangular file with different cuts on both sides · Front side cross cut for rough machining · Rear side rasp cut for rasping · For surface and edge machining of steel, non-ferrous metal (soft), wood and plastic

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | ● | ● | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 20 x 5 | 1 | **2000 840 339** |



## Wood rasp DIN 7263 C

**Half-round · With an ergonomic file handle ·** Form C · Half-round file tapering to a point with rasp cut on two sides · For universal rasping work, e.g. roughing and finishing

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | ● | ● | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 20 x 5,5 | 2 | **2000 840 535** |
| **250** | 25 x 7 | 2 | **2000 840 537** |



## Wood rasp DIN 7263 E

**Round · With 2-component plastic handle** · Shape E · Round file tapering to a point with circumferential rasp cut · For universal rasping work, e.g. roughing and finishing

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | ● | ● | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 8 | 2 | **2000 840 550** |



## Cabinet rasp DIN 7263 D

**Half-round · With 2-component plastic handle** · Shape D · Half-round file tapering to a point with rasp cut on two sides · Wider and flatter than half-round wood rasps · Suitable for processing surfaces, radii, half-round profiles and edges (chamfering and rounding)

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | ● | ● | |

| Length [mm] | Cross section [mm] | Cut | Article no. |
|---|---|---|---|
| **200** | 24 x 5 | 2 | **2000 840 506** |



## File set

**With 2-component plastic handle** · Made from high-quality steel · In plastic bag
**Contents:** Taper square, half-round, round, triangle, rasp half-round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cut | Contents | Article no. |
|---|---|---|---|
| **200** | 2 | 5-part | **2000 840 255** |
| **250** | 2 | 5-part | **2000 840 256** |



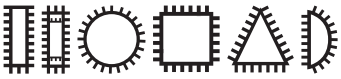
## File brush

Steel wire · Wooden stock · Suitable for cleaning all files and rasps

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | ● | | | | | | |

| Length [mm] Steel | Length of lining [mm] | Article no. |
|---|---|---|
| **235** | 115 | **2000 841 020** |



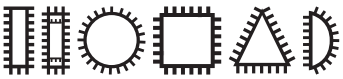
## Key file set DIN 7283 A-F

**With wooden handle** · Ideal for gentle and delicate filing work · In metal box
**Contents:** Taper square, flat, round, square, triangle, half-round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cut | Contents | Article no. |
|---|---|---|---|
| **100** | 2 | 6-part | **2000 840 457** |





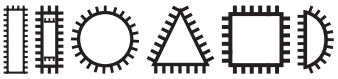
## Key file set

**With wooden handle** · Ideal for gentle and delicate filing work · In plastic bag
**Contents:** Taper square, flat, round, square, triangle, half-round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | ● | | | | |

| Length [mm] | Cut | Contents | Article no. |
|---|---|---|---|
| **100** | 2 | 6-part | **2000 840 455** |





## Needle file set

In plastic bag
**Contents:** Taper square, flat, round, triangular, square, half-round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | | | | |

| Length [mm] | Cut | Contents | Article no. |
|---|---|---|---|
| **160** | 2 | 6-part | **2000 840 401** |
| **200** | 2 | 6-part | **2000 840 402** |





## Diamond needle file set

Suitable for machining hardened steels, carbide, ceramic, glass, ferrite, nickel- and titanium-based alloys · In plastic case
**Contents:** Taper square, flat, triangle, square, half-round, round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | ● | | | |

| Length [mm] | FEPA standard | Contents | Article no. |
|---|---|---|---|
| **140** | D 126 | 6-part | **2000 840 647** |





## Set of one-piece diamond files

Suitable for machining hardened steels, carbide, ceramic, glass, ferrite, nickel- and titanium-based alloys · In plastic bag
**Contents:** Taper square, half-round, triangle, square, round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | ● | | | |

| Length [mm] | FEPA standard | Contents | Article no. |
|---|---|---|---|
| **215** | D 126 | 5-part | **2000 840 654** |





## Diamond needle file set

Suitable for machining hardened steels, carbide, ceramic, glass, ferrite, nickel- and titanium-based alloys · In wooden box · Coat length approx. 70 mm
**Contents:** Taper square, half-round, triangle, square, round

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | ● | | | |

| Length [mm] | FEPA standard | Contents | Article no. |
|---|---|---|---|
| **140** | D 126 | 5-part | **2000 840 465** |

## Serrated grinder

High-quality grinding tool with corundum sprinkled material lamellae · Synthetic resin bonding · Universally usable · Suitable for processing shaped parts, radii and difficult to access surfaces in tool, apparatus and container engineering ·
**Shank Ø 6 mm**



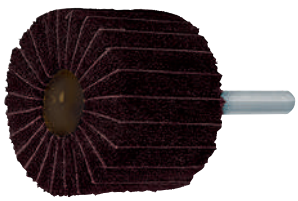


| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | | |

| Ø x H [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **20 x 10** | 60 | 34750 | **2000 841 397** |
| **20 x 10** | 80 | 34750 | **2000 841 454** |
| **20 x 10** | 120 | 34750 | **2000 841 456** |
| **30 x 10** | 60 | 25500 | **2000 841 570** |
| **30 x 10** | 80 | 25500 | **2000 841 571** |
| **30 x 10** | 120 | 25500 | **2000 841 457** |
| **30 x 15** | 60 | 25500 | **2000 841 546** |
| **30 x 15** | 80 | 25500 | **2000 841 547** |
| **30 x 15** | 120 | 25500 | **2000 841 548** |
| **40 x 15** | 60 | 19100 | **2000 841 580** |
| **40 x 15** | 80 | 19100 | **2000 841 581** |
| **40 x 15** | 120 | 19100 | **2000 841 582** |
| **40 x 20** | 60 | 19100 | **2000 841 458** |
| **40 x 20** | 80 | 19100 | **2000 841 459** |
| **40 x 20** | 120 | 19100 | **2000 841 462** |
| **50 x 20** | 60 | 15300 | **2000 841 590** |
| **50 x 20** | 80 | 15300 | **2000 841 591** |
| **50 x 20** | 120 | 15300 | **2000 841 592** |
| **50 x 30** | 60 | 15300 | **2000 841 469** |
| **50 x 30** | 80 | 15300 | **2000 841 471** |
| **50 x 30** | 120 | 15300 | **2000 841 477** |
| **60 x 30** | 60 | 12700 | **2000 841 600** |
| **60 x 30** | 80 | 12700 | **2000 841 601** |
| **60 x 30** | 120 | 12700 | **2000 841 602** |
| **80 x 50** | 60 | 9550 | **2000 841 478** |
| **80 x 50** | 80 | 9550 | **2000 841 479** |
| **80 x 50** | 120 | 9550 | **2000 841 505** |

## Serrated grinder

High-quality non-woven abrasive fabric · Corundum fabric lamellae · Ideal for medium removal rate · For removing oxide and paint coats · Grinding and cleaning of metal surfaces · Especially with the grinding cloth · Universal use ·
**Shank Ø 6 mm**



| Ø x H [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **40 x 20** | 80 / AMED | 17100 | **2000 841 760** |
| **40 x 20** | 100 / AFINE | 17100 | **2000 841 761** |
| **40 x 20** | 150 / AFINE | 17100 | **2000 841 762** |
| **50 x 30** | 80 / AMED | 13700 | **2000 841 763** |
| **50 x 30** | 100 / AFINE | 13700 | **2000 841 764** |
| **50 x 30** | 150 / AFINE | 13700 | **2000 841 765** |
| **60 x 30** | 80 / AMED | 11500 | **2000 841 766** |
| **60 x 30** | 100 / AFINE | 11500 | **2000 841 767** |
| **60 x 30** | 150 / AFINE | 11500 | **2000 841 768** |
| **80 x 50** | 80 / AMED | 8600 | **2000 842 210** |
| **80 x 50** | 150 / AFINE | 8600 | **2000 842 212** |
| **80 x 50** | 240 / A-VERY FINE | 8600 | **2000 842 214** |



## Serrated grinder

**Stainless steel** · High-quality non-woven abrasive fabric with normal corundum · Suitable for cleaning metal surfaces, such as the removal of flash rust · Calendering and finishing work · Removal of thin paint coats · Cool grinding with stainless steel · For an even grinding pattern in the metal area · **Shank Ø 6 mm**

| Ø x H [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **40 x 20** | 60 | 17100 | **2000 841 770** |
| **40 x 20** | 100 | 17100 | **2000 841 771** |
| **40 x 20** | 150 | 17100 | **2000 841 772** |
| **50 x 30** | 60 | 13700 | **2000 841 773** |
| **50 x 30** | 100 | 13700 | **2000 841 774** |
| **50 x 30** | 150 | 13700 | **2000 841 775** |
| **60 x 30** | 60 | 11500 | **2000 841 776** |
| **60 x 30** | 100 | 11500 | **2000 841 777** |
| **60 x 30** | 150 | 11500 | **2000 841 778** |
| **80 x 50** | 80 | 8600 | **2000 842 170** |
| **80 x 50** | 150 | 8600 | **2000 842 190** |
| **80 x 50** | 240 | 8600 | **2000 842 199** |





## Grinding sleeve

**Corundum** · With inner reinforced cotton fabric · Suitable for work on extremely small areas · The high quality of the grinding abrasive guarantees a long service life · Suitable for processing normal steel, non-ferrous metals and their alloys, plastics

**Supplied without rubber pad**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | ● | | ● | | |

| Ø x W [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **10 x 20** | 60 | 38000 | **2000 842 513** |
| **10 x 20** | 80 | 38000 | **2000 842 514** |
| **10 x 20** | 150 | 38000 | **2000 842 515** |
| **13 x 25** | 80 | 30000 | **2000 842 516** |
| **13 x 25** | 150 | 30000 | **2000 842 553** |
| **15 x 30** | 36 | 26000 | **2000 842 468** |
| **15 x 30** | 60 | 26000 | **2000 842 469** |
| **15 x 30** | 150 | 26000 | **2000 842 471** |
| **22 x 20** | 36 | 17000 | **2000 842 472** |
| **22 x 20** | 60 | 17000 | **2000 842 473** |
| **22 x 20** | 150 | 17000 | **2000 842 475** |
| **25 x 25** | 60 | 15000 | **2000 842 554** |
| **25 x 25** | 80 | 15000 | **2000 842 576** |
| **30 x 30** | 36 | 13000 | **2000 842 480** |
| **30 x 30** | 60 | 13000 | **2000 842 481** |
| **30 x 30** | 150 | 13000 | **2000 842 483** |
| **45 x 30** | 36 | 8500 | **2000 842 484** |
| **45 x 30** | 60 | 8500 | **2000 842 485** |
| **45 x 30** | 150 | 8500 | **2000 842 487** |
| **60 x 30** | 60 | 6500 | **2000 842 577** |
| **60 x 30** | 80 | 6500 | **2000 842 578** |



## Grinding sleeve

**Zirconium fabric** · For excellent grinding performance and high material removal rate with low flexibility · Suitable for processing normal steel and stainless steel

**Supplied without rubber pad**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø x W [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **15 x 30** | 36 | 26000 | **2000 842 490** |
| **15 x 30** | 60 | 26000 | **2000 842 491** |
| **19 x 25** | 60 | 20000 | **2000 842 579** |
| **19 x 25** | 80 | 20000 | **2000 842 583** |
| **22 x 20** | 36 | 17000 | **2000 842 493** |
| **22 x 20** | 60 | 17000 | **2000 842 494** |
| **25 x 25** | 80 | 15000 | **2000 842 584** |
| **30 x 30** | 36 | 13000 | **2000 842 499** |
| **30 x 30** | 60 | 13000 | **2000 842 500** |
| **45 x 30** | 36 | 8500 | **2000 842 502** |
| **45 x 30** | 60 | 8500 | **2000 842 503** |
| **60 x 30** | 36 | 6500 | **2000 842 164** |
| **60 x 30** | 60 | 6500 | **2000 842 166** |

## Grinding sleeve carrier

**Made from rubber · Cylindrical shape · Slotted** · The slots facilitates the expansion of the grinding body while grinding, which tensions the grinding sleeve and increases the elasticity · Anti-slip seating of the grinding sleeve · Grinding sleeves are slid on and off with a slight clockwise rotation



| Ø [mm] | Height [mm] | Shank Ø [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **10** | 20 | 6 | 38000 | **2000 842 609** |
| **13** | 25 | 6 | 30000 | **2000 842 633** |
| **15** | 30 | 6 | 26000 | **2000 842 405** |
| **19** | 25 | 6 | 20000 | **2000 842 634** |
| **22** | 20 | 6 | 17000 | **2000 842 406** |
| **25** | 25 | 6 | 15000 | **2000 842 635** |
| **30** | 30 | 6 | 13000 | **2000 842 408** |
| **45** | 30 | 6 | 8500 | **2000 842 409** |
| **60** | 30 | 6 | 6500 | **2000 842 209** |

## Coarse cleaning disc

**TECWERK quick-change system** · Very coarse and aggressive non-woven cleaning cloth · Permeated with special particles for high material removal performance and long service life · Suitable for removing rust and varnish, cleaning of weld seams, removing adhesives, scale, etc.

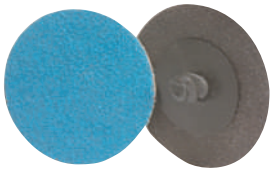


| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm] | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **51** | Extra coarse | 10500 | **2000 844 830** |

## Grinding disc

**TECWERK quick-change system · Zirconium corundum** · Fabric grinding disc for grinding stainless steel, alloyed steel and titanium



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Granulation | Article no. |
|---|---|---|
| **51** | 40 | **2000 844 836** |
| **51** | 60 | **2000 844 837** |
| **51** | 80 | **2000 844 838** |
| **51** | 120 | **2000 844 839** |
| **75** | 60 | **2000 844 807** |
| **75** | 80 | **2000 844 808** |
| **75** | 120 | **2000 844 809** |

## Grinding disc

**TECWERK quick-change system · Zirconium corundum** · Fabric grinding disc (Y-pad) with additional abrasive covering · Cool surface · Very long service life · For grinding steel, stainless steel and aluminium

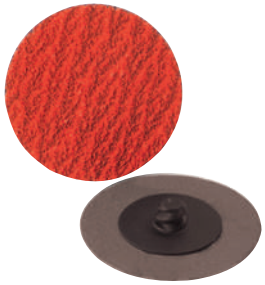


| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Granulation | Article no. |
|---|---|---|
| **51** | 40 | **2000 844 832** |
| **51** | 60 | **2000 844 833** |
| **51** | 120 | **2000 844 835** |
| **75** | 40 | **2000 844 802** |
| **75** | 60 | **2000 844 803** |
| **75** | 80 | **2000 844 804** |
| **75** | 120 | **2000 844 805** |

## Grinding disc

**TECWERK quick-change system · Ceramic grit** · Stable X-bracket · For grinding high-temperature resistant materials, hard NF metals, titanium, etc. · Effective material removal capacity with self-sharpening effect



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Granulation | Article no. |
|---|---|---|
| **51** | 40 | **2000 844 818** |
| **51** | 60 | **2000 844 819** |
| **51** | 80 | **2000 844 820** |
| **51** | 120 | **2000 844 821** |
| **75** | 40 | **2000 844 822** |
| **75** | 60 | **2000 844 823** |
| **75** | 80 | **2000 844 824** |
| **75** | 120 | **2000 844 825** |

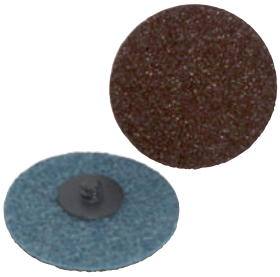


## Compact non-woven disc SCD

**TECWERK quick-change system** · Synthetic resin-bound non-woven abrasive fabric for finishing work on surfaces made of steel, stainless steel and aluminium

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Type | Article no. |
|---|---|---|
| **51** | Coarse | **2000 844 840** |
| **51** | Medium | **2000 844 841** |
| **51** | Very fine | **2000 844 842** |
| **75** | Coarse | **2000 844 810** |
| **75** | Medium | **2000 844 811** |
| **75** | Very fine | **2000 844 812** |



## Compact non-woven disc SCD-HD

**TECWERK quick-change system** · Synthetic resin-bound non-woven abrasive fabric for cleaning and smoothing steel, stainless steel and aluminium surfaces · For removing thin weld seams

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Type | Article no. |
|---|---|---|
| **51** | Medium | **2000 844 844** |
| **75** | Coarse | **2000 844 813** |
| **75** | Medium | **2000 844 814** |



2000 841 681 + 2000 841 682

## Backing pad

**Mount for TECWERK quick-change system** · Medium hard · Made from rubber

| Ø [mm] | Article no. |
|---|---|
| **44** | **2000 841 681** |
| **69** | **2000 841 682** |

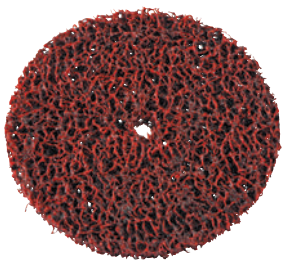


## Coarse cleaning disc STW

Very coarse and aggressive non-woven cleaning cloth, permeated with special particles · High material removal performance · Long service life · Very suitable for removing rust and varnish · Weld cleaning · Removing adhesives and undercoating · Cleaning concrete slabs · Removing scale · **Bore Ø 13 mm**
**Supplied without tensioning shank**
**For use with tensioning shank article no. 2000 841 846, 2000 841 847**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | ● |

| Ø [mm] | Width [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **100** | 13 | 8000 | **2000 841 840** |
| **150** | 13 | 5350 | **2000 841 841** |



## Coarse cleaning disc Heavy Duty

**Extremely aggressive non-woven cleaning cloth,** particularly for irregular surfaces · High edge stability thanks to a harder and tighter particle binding structure · Very long service life and cleaning performance · Particularly suitable for cleaning welds, removing rust, dirt and paint coats, removal of thermally induced blue stains · Cleans wood and plastic · **Bore Ø 13 mm**

**For use with tensioning shank article no. 2000 841 846, 2000 841 847**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm] | Width [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **100** | 13 | 8000 | **2000 841 858** |
| **150** | 13 | 5350 | **2000 841 859** |

## Tensioning shank

For TECWERK coarse cleaning discs 2000 841 840, 2000 841 841, 2000 841 858, 2000 841 859



| Shank Ø [mm] | For bore Ø [mm] | No. of discs | Article no. |
|---|---|---|---|
| **6** | 13 | 1-fold | **2000 841 846** |
| **8** | 13 | 2-fold | **2000 841 847** |

## Calender roller non-wovens/fabric

High-quality non-woven abrasive fabric / fabric combination · Synthetic resin-bonded · Medium material removal rate · For removing scratches and application of a satin finish at the same time · Universally applicable for steel and stainless steel · **Mount 19 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Width [mm] | Granulation | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|---|
| **110** | 100 | 80 | Medium | 5700 | **2000 841 991** |
| **110** | 100 | 100 | Fine | 5700 | **2000 841 992** |
| **110** | 100 | 150 | Fine | 5700 | **2000 841 993** |
| **110** | 100 | 240 | Very fine | 5700 | **2000 842 009** |

## Calender roller non-wovens

High-quality non-woven · Synthetic resin-bonded · For cleaning and smoothing surfaces · Ideal for VA materials · Also for matting aluminium and stainless steel surfaces · **Mount 19 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Width [mm] | Granulation | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|---|
| **110** | 100 | 80 | Coarse | 5700 | **2000 841 995** |
| **110** | 100 | 150 | Medium | 5700 | **2000 841 996** |
| **110** | 100 | 240 | Fine | 5700 | **2000 841 997** |
| **110** | 100 | 400 | Very fine | 5700 | **2000 842 012** |
| **110** | 100 | 800 | Ultra fine | 5700 | **2000 842 013** |

## Calender roller

Highly crimped non-woven abrasive fabric strips on a plastic core · Wound · Feather-edge satin finish to surfaces through crimped arrangement of the non-woven abrasive fabric · Cool surface grinding
Particularly suitable for rust-free steels, normal and special steel, non-ferrous metals, aluminium, titanium · **Mount 19 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | | | |

| Ø [mm] | Width [mm] | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **100** | 100 | Medium | 5700 | **2000 842 109** |
| **100** | 100 | Fine | 5700 | **2000 842 110** |

## Bench grinder disc

Normal corundum (grey) · For use on bench grinders · Suitable for wet and dry grinding · Particularly tough, can be used universally, however mainly for processing of iron and steel with low tensile strength, and of welds and for working on cast steel · **Supplied with reducing ring set (32-25 / 25-20 / 20-16)**
**Normal corundum (NC) grey**
Particularly tough, can be used universally, however mainly for processing of iron and steel with low tensile strength, and of welds and for working on cast steel
4000842011 and 4000842031 With recess 110 x 16 mm
4000842016 With recess 125 x 19 mm



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ○ | ○ | | | | |

| Ø [mm] | Width [mm] | Bore [mm] | Granulation | Article no. |
|---|---|---|---|---|
| **175** | 25 | 32 | 36 | **2000 842 004** |
| **175** | 25 | 32 | 60 | **2000 842 022** |
| **200** | 25 | 32 | 36 | **2000 842 007** |
| **200** | 25 | 32 | 60 | **2000 842 024** |



## Bench grinder disc

High grade corundum (white) · For use on bench grinders · Suitable for wet and dry grinding · For machining SS and HSS steels as well as for unhardened, hardened, alloyed, nitrided and rust-free steels · **Supplied with reducing ring set (32-25 / 25-20 / 20-16)**

**High grade corundum (aluminium oxide) white**

For machining SS and HSS steels as well as for unhardened, hardened, alloyed, nitrided and rust-free steels

4000 842 053 With recess 110 x 16 mm

4000 842 056 With recess 125 x 19 mm

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ○ | | | | | | |

| Ø [mm] | Width [mm] | Bore [mm] | Granulation | Article no. |
|---|---|---|---|---|
| **150** | 20 | 32 | 80 | **2000 842 040** |
| **175** | 25 | 32 | 80 | **2000 842 044** |
| **200** | 25 | 32 | 80 | **2000 842 048** |



## Bench grinder disc

Silicon carbide (green) · For use on bench grinders · Suitable for wet and dry grinding · Silicon carbide (SCg) green · For grinding carbide, stone, ceramics, glass and all non-ferrous metals, cast iron and plastics · **Supplied with reducing ring set (32-25 / 25-20 / 20-16)**

**Silicon carbide (SCg) green**

For grinding carbide, stone, ceramics, glass and all non-ferrous metals, cast iron and plastics

4000842073 With recess 110 x 16 mm

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | | ● | ● | | |

| Ø [mm] | Width [mm] | Bore [mm] | Granulation | Article no. |
|---|---|---|---|---|
| **150** | 20 | 32 | 80 | **2000 842 060** |
| **175** | 25 | 32 | 80 | **2000 842 064** |
| **200** | 25 | 32 | 80 | **2000 842 068** |






## Diamond cutting disc BETON

Universal diamond cutting disc with 10 mm diamond segment for use on: Concrete, reinforced concrete, construction materials, granite, natural stone, sand-lime brick, marble, masonry, Poroton, slate, composite stone · Ground blade · Can be used wet or dry

| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 10 | 1,9 | 13300 | 22.23 | **2000 865 398** |
| **125** | 10 | 1,9 | 12250 | 22.23 | **2000 865 399** |
| **230** | 10 | 2,4 | 6650 | 22.23 | **2000 865 402** |
| **350** | 10 | 3,2 | 5500 | 25.4 | **2000 865 404** |







## Diamond cutting disc BETON PRO

Universal diamond cutting disc with 15 mm turbo diamond segment for use on: Concrete, reinforced concrete, construction materials, granite, natural stone, sand-lime brick, marble, masonry, Poroton, slate, composite stone · Multi-steel sandwich blade core for stability, cutting precision and safety · Noise-reduced · Reduced vibration · Self-cooling · Can be used wet or dry

| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 15 | 2,4 | 13300 | 22.23 | **2000 865 405** |
| **125** | 15 | 2,4 | 12250 | 22.23 | **2000 865 406** |
| **230** | 15 | 2,8 | 6650 | 22.23 | **2000 865 407** |
| **350** | 15 | 3,4 | 5500 | 25.4 | **2000 865 409** |






## Diamond cutting disc GRANIT

Universal diamond cutting disc with 7 mm turbo diamond segment for use on: Granite, natural stone, reinforced concrete, construction materials, roof tiles, sand-lime brick, marble, masonry, Poroton, slate, composite stone · Can be used wet or dry

| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 7 | 2,2 | 13300 | 22.23 | **2000 865 410** |
| **125** | 7 | 2,2 | 12250 | 22.23 | **2000 865 411** |
| **230** | 7 | 2,6 | 6650 | 22.23 | **2000 865 412** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



## Diamond cutting disc GRANIT PRO

Universal diamond cutting disc with 10 mm high-performance diamond segment for use on: Granite, natural stone, reinforced concrete, construction materials, roof tiles, sand-lime brick, marble, masonry, Poroton, slate, composite stone · Can be used wet or dry

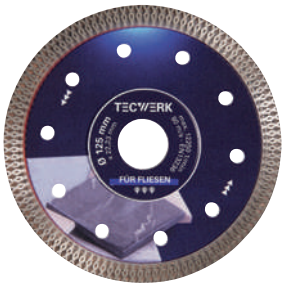



| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 10 | 2,2 | 13300 | 22.23 | **2000 865 413** |
| **125** | 10 | 2,2 | 12250 | 22.23 | **2000 865 414** |
| **230** | 10 | 2,8 | 6650 | 22.23 | **2000 865 415** |
| **350** | 10 | 3,2 | 5500 | 25.4 | **2000 865 417** |



## Diamond cutting disc FLIESEN PRO X

Universal diamond cutting disc with 10 mm diamond segment for use on all tiles, regardless of hardness · Reinforced steel core for greater cutting precision, safety and lateral stability · Ultra-thin · Ultra-fast · Precise · Low-noise · Can be used wet or dry




| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 10 | 1,4 | 13300 | 22.23 | **2000 865 418** |
| **125** | 10 | 1,4 | 12250 | 22.23 | **2000 865 419** |



## Diamond cutting disc FLIESEN PRO T

Universal diamond cutting disc with 7 mm precision diamond segment for use on: Porcelain stoneware, tiles, granite, marble, mosaic, natural stone, porcelain, slate · Precise and thin · Self-sharpening · Fast · Durable · Can be used wet or dry




| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **115** | 7 | 1,6 | 13300 | 22.23 | **2000 865 420** |
| **125** | 7 | 1,6 | 12250 | 22.23 | **2000 865 421** |



## Diamond cutting disc ASPHALT

Asphalt diamond cutting disc with 10 mm diamond segment for use on: Asphalt, screed, fresh concrete · Long service life · Diamond angled segments for blade protection · Double laser-welded for greater safety




| Ø [mm] | Height of segment [mm] | Thickness of segment [mm] | Max. revolutions [min-1] | Bore [mm] | Article no. |
|---|---|---|---|---|---|
| **350** | 10 | 3,2 | 5500 | 20 | **2000 865 433** |
| **400** | 10 | 3,4 | 4800 | 25.4 | **2000 865 434** |



## Diamond grinding cup UNIVERSAL

2-row · Height of segment 5 mm · Block segment for optimal material removal · Dynamically balanced · For grinding, reduction, cleaning, preparation and levelling · Suitable for concrete, natural stone, tile adhesives and plaster



| Ø [mm] | FEPA standard | Type | Height of segment [mm] | Bore [mm] | Revolution speed [rpm] | Article no. |
|---|---|---|---|---|---|---|
| **115** | D 426 | 2-row | 5 | 22.23 | 13300 | **2000 865 437** |
| **125** | D 426 | 2-row | 5 | 22.23 | 12250 | **2000 865 438** |
| **180** | D 426 | 2-row | 5 | 22.23 | 8500 | **2000 865 439** |




## Diamond tile drill PRO HEX

HEX mount for cordless screwdriver · Suitable for tiles of any thickness, porcelain stoneware, mosaic, granite and natural stone

| Ø [mm] | Mount | No. of segments | Length [mm] | Length of segment [mm] | Height of segment [mm] | Width of segment [mm] | Max. revolutions [min-1] | Contents | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **6** | HEX | 1 | 63.5 | 10 | 10 | 0.5 | 3000 | 1-part | **2000 865 443** |
| **8** | HEX | 1 | 63.5 | 10 | 10 | 0.5 | 3000 | 1-part | **2000 865 444** |
| **10** | HEX | 1 | 63.5 | 10 | 10 | 0.5 | 3000 | 1-part | **2000 865 445** |
| **12** | HEX | 1 | 63.5 | 10 | 10 | 0.5 | 3000 | 1-part | **2000 865 446** |
| **14** | HEX | 1 | 63.5 | 10 | 10 | 0.5 | 3000 | 1-part | **2000 865 447** |



## Diamond tile drill PRO M14

M14 mount for angle grinder · Self-cooling and self-sharpening · Suitable for tiles of any thickness, porcelain stoneware, mosaic, granite and natural stone



| Ø [mm] | Mount | No. of segments | Length [mm] | Length of segment [mm] | Height of segment [mm] | Width of segment [mm] | Max. revolutions [min-1] | Contents | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **6** | M14 | 1 | 60.5 | 10 | 10 | 0.5 | 11500 | 1-part | **2000 865 448** |
| **8** | M14 | 1 | 60.5 | 10 | 10 | 0.5 | 11500 | 1-part | **2000 865 449** |
| **10** | M14 | 1 | 60.5 | 10 | 10 | 0.5 | 11500 | 1-part | **2000 865 450** |
| **12** | M14 | 1 | 60.5 | 10 | 10 | 0.5 | 11500 | 1-part | **2000 865 451** |
| **14** | M14 | 1 | 60.5 | 10 | 10 | 0.5 | 11500 | 1-part | **2000 865 452** |
| **20** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 453** |
| **26** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 454** |
| **32** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 455** |
| **36** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 456** |
| **44** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 457** |
| **50** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 458** |
| **68** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 459** |
| **80** | M14 | 1 | 60.5 | 15 | 15 | 0.5 | 11500 | 1-part | **2000 865 460** |




## Diamond tile drill SET SANITÄR

M14 mount for angle grinder · Self-cooling and self-sharpening · Suitable for tiles of any thickness, porcelain stoneware, mosaic, granite and natural stone
**Scope of supply:** 2 x 6 mm / 1 x 8 mm / 1 x 10 mm / 1 x 14 mm



| Ø [mm] | Mount | No. of segments | Length [mm] | Length of segment [mm] | Height of segment [mm] | Width of segment [mm] | Max. revolutions [min-1] | Contents | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **6 / 6 / 8 / 10 / 14** | M14 | 1 | 63.5 | 15 | 15 | 0.5 | 11500 | 5-part | **2000 865 461** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Diamond core bit NASS

Universal diamond core bit WET with ground precision tube for optimal concentricity · Processable materials: Reinforced concrete, construction materials, concrete, screed, hollow blocks, sand-lime brick, cellar bricks, masonry, natural stone, Poroton, bricks · Useful length 450 mm · **Mount 1 1/4" UNC (F) for use on core drills**



| Ø [mm] | Mount ["] | No. of segments | Length [mm] | Length of segment [mm] | Height of segment [mm] | Width of segment [mm] | Max. revolutions [min-1] | Contents | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **42** | 1 1/4 | 4 | 530 | 24 | 9 | 3.5 | 1820 | 1-part | **2000 865 464** |
| **52** | 1 1/4 | 4 | 530 | 24 | 9 | 3.5 | 1470 | 1-part | **2000 865 465** |
| **62** | 1 1/4 | 4 | 530 | 24 | 9 | 3.5 | 1230 | 1-part | **2000 865 466** |
| **72** | 1 1/4 | 5 | 530 | 24 | 9 | 3.5 | 1060 | 1-part | **2000 865 467** |
| **82** | 1 1/4 | 6 | 530 | 24 | 9 | 3.5 | 930 | 1-part | **2000 865 468** |
| **102** | 1 1/4 | 7 | 530 | 24 | 9 | 3.5 | 750 | 1-part | **2000 865 470** |
| **112** | 1 1/4 | 7 | 530 | 24 | 9 | 3.5 | 680 | 1-part | **2000 865 471** |
| **122** | 1 1/4 | 8 | 530 | 24 | 9 | 3.5 | 630 | 1-part | **2000 865 472** |
| **132** | 1 1/4 | 8 | 530 | 24 | 9 | 3.5 | 580 | 1-part | **2000 865 473** |
| **162** | 1 1/4 | 9 | 530 | 24 | 9 | 4 | 470 | 1-part | **2000 865 476** |
| **182** | 1 1/4 | 10 | 470 | 24 | 9 | 4 | 420 | 1-part | **2000 865 478** |
| **200** | 1 1/4 | 11 | 470 | 24 | 9 | 4.5 | 380 | 1-part | **2000 865 479** |

## Diamond core bit adapter HILTI BI

Adapter HILTI BI to 1 1/4" · Allows the easy and simple use of alternative diamond core bits on Hilti devices · Precision tool · With corrosion protection · Optimised concentricity



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **Hilti DD BI** | 47 | 1 1/4 UNC (M) | 110 | **2000 865 481** |

## Diamond core bit adapter HILTI BL

Adapter HILTI BL to 1 1/4" · Vibration-minimised · Precision tool · With corrosion protection · Optimised concentricity · Hardened steel for a long service life



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **Hilti DD BL** | 31.75 | 1 1/4 UNC (M) | 115 | **2000 865 482** |

## Diamond core bit TROCKEN

Universal diamond core bit DRY · Optimised concentricity for perfect drilling performance · Vibration-minimised · Self-sharpening · Self-cooling · Processable materials: Bricks, construction materials, sand-lime brick, concrete pipes, Poroton, pumice · Useful length 150 mm · **Mount A. ½" BSP (F) for use on core drills**



| Ø [mm] | Mount ["] | No. of segments | Length [mm] | Length of segment [mm] | Height of segment [mm] | Width of segment [mm] | Max. revolutions [min-1] | Contents | Article no. |
|---|---|---|---|---|---|---|---|---|---|
| **52** | 1/2 | 4 | 165 | 16 | 7 | 3.5 | 3675 | 1-part | **2000 865 485** |
| **65** | 1/2 | 3 | 165 | 24 | 7 | 3.5 | 2940 | 1-part | **2000 865 486** |
| **82** | 1/2 | 4 | 165 | 24 | 7 | 3.5 | 2330 | 1-part | **2000 865 487** |
| **102** | 1/2 | 5 | 165 | 24 | 7 | 3.5 | 1870 | 1-part | **2000 865 488** |
| **132** | 1/2 | 5 | 165 | 24 | 7 | 3.5 | 1450 | 1-part | **2000 865 490** |
| **152** | 1/2 | 6 | 165 | 24 | 7 | 4 | 1250 | 1-part | **2000 865 491** |

## Diamond core bit adapter HEX

Adapter HEX X 1/2" 3 · Galvanisation for corrosion protection · Vibration-minimised · Hardened for a long service life · Optimised concentricity



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **HEX** | 25 | 1/2 BSP (M) | 87 | **2000 865 492** |

## Diamond core bit adapter SDS

Adapter SDS x 1/2" · Vibration-minimised · Precision tool · With corrosion protection · Hardened for a long service life



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **SDS plus** | 10 | 1/2 BSP (M) | 115 | **2000 865 493** |

## Centre drill bit

For diamond core bits



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **Taper** | 10 | Conical bore | 200 | **2000 865 494** |

## Extension

**For diamond core bits** · For deeper bores, up to 4 extensions can be screwed together · With corrosion protection · Hard steel for a long service life



| Mount | Shank Ø [mm] | For bore Ø | Length [mm] | Article no. |
|---|---|---|---|---|
| **1/2 BSP (F)** | 29.5 | 1/2 BSP (M) | 169 | **2000 865 495** |
| **1/2 BSP (F)** | 29.5 | 1/2 BSP (M) | 319 | **2000 865 496** |



## Cutting disc

**Ultra-thin, just 0.8 mm** · For machining stainless steel and steel · Also ideal for use on cordless angle grinders · High cutting speed and long service life · Cool cut and low burr formation · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Bent nose** | | | |
| **125** | 0.8 | 12200 | **2000 841 780** |



## Cutting disc Action

For machining stainless steel and steel · Also ideal for use on cordless angle grinders · High cutting speed and long service life · Cool cut and low burr formation · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **125** | 1 | 12200 | **2000 841 299** |



## Premium cutting disc 2in1

Premium cutting disc with better cutting capacity thanks to the rough, free-grinding sides · Fast separation with great time savings without the need for force · Precise cutting behaviour with low thermal load on the workpiece (heat formation) · Maximum service life with low noise and dust · For cutting sheet metal, profiles, pipes, rods and solid material · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **125** | 1 | 12250 | **2000 845 002** |



## Cutting disc

**Ceramic grit** · Very high cutting speed and long service life · Low burr formation · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **125** | 1 | 12200 | **2000 841 222** |



## Cutting disc INOX

Long service life · High cutting speed · Low vibration · Low dust development · Cool cut · Virtually burr-free cut · For machining stainless steels, sheets and thin profiles · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **115** | 1 | 13300 | **2000 841 241** |
| **115** | 1.5 | 13300 | **2000 841 243** |
| **125** | 1 | 12200 | **2000 841 242** |
| **125** | 1.5 | 12200 | **2000 841 244** |
| **Bent nose** | | | |
| **180** | 1.5 | 8500 | **2000 841 245** |
| **230** | 1.9 | 6600 | **2000 841 246** |

## Cutting disc

Universally usable · For general metalwork on steel and cast · **Bore Ø 22.23 mm**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **115** | 1 | 13300 | **2000 840 000** |
| **115** | 1.6 | 13300 | **2000 840 001** |
| **125** | 1 | 12200 | **2000 840 002** |
| **125** | 1.6 | 12200 | **2000 840 003** |
| **180** | 3 | 8500 | **2000 841 302** |
| **230** | 1.9 | 6600 | **2000 840 004** |
| **230** | 3 | 6600 | **2000 841 303** |
| **Bent nose** | | | |
| **115** | 2.5 | 13300 | **2000 841 300** |
| **125** | 2.5 | 12200 | **2000 841 301** |

## Cutting disc ALU

For machining aluminium and non-ferrous metals · Hard · Fast separating · No clogging of the disc · **Bore 22.23 mm Ø**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **125** | 1 | 12200 | **2000 840 006** |
| **125** | 1.6 | 12200 | **2000 841 048** |

## Cutting disc stone

Universally usable · For concrete, artificial and natural stone, roof tiles, granite, ceramics, clinker brick, etc. · **Bore 22.23 mm Ø**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | | ● | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Bent nose** | | | |
| **125** | 2.5 | 12200 | **2000 841 341** |
| **Straight** | | | |
| **230** | 3 | 6600 | **2000 841 343** |

## Cutting disc

**Metal and stone** · Universally usable · **Bore Ø 22.23 mm**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | ● | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Straight** | | | |
| **115** | 1 | 13300 | **2000 841 049** |
| **125** | 1 | 12200 | **2000 841 050** |

## Roughening disc Action

Universally applicable · For general metalwork on steel and cast · **Bore Ø 22.23 mm**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | | |

| Ø [mm] | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **Bent nose** | | | |
| **125** | 6 | 12200 | **2000 843 299** |




## Premium roughening disc 2in1

Roughening disc suitable for steel and stainless steel applications · Soft design enables fast and comfortable operation with less use of force · With angled and defined card for comfortable start when grinding and increased working comfort · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 7 | 12250 | **2000 845 003** |




## Roughening disc

Powerful stainless steel roughening disc with ceramic abrasive grain · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ○ | | | | | |

| Ø [mm] Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 7 | 12250 | **2000 841 223** |




## Roughening disc INOX

For high alloy and non-rusting stainless steels · **Bore 22.23 mm Ø**

| Ø [mm] Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 6 | 13300 | **2000 841 325** |
| **125** | 6 | 12200 | **2000 841 326** |




## Roughening disc

For universal application on stainless steel, steel and cast · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm] Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 6 | 12200 | **2000 840 013** |
| **230** | 6 | 6600 | **2000 840 015** |




## Roughening disc

Universally applicable · For general metalwork on steel and cast · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | | |

| Ø [mm] Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 6 | 13300 | **2000 841 320** |
| **125** | 6 | 12200 | **2000 841 321** |
| **180** | 8 | 8500 | **2000 841 322** |
| **230** | 6 | 6600 | **2000 841 324** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Roughening disc

For machining aluminium and non-ferrous metals · **Bore Ø 22.23 mm**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | | | |

| Ø [mm]<br>Bent nose | Thickness of pane [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 6 | 12200 | **2000 840 057** |

## Grinding cup

Fast grinding with good service life · **Dimensions 110 x 55 mm** · **Bore Ø 22.23 mm**




2000 841 496

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | | |
| | ● | ● | | ● | | | |

| Granulation<br>Steel and cast steel | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **16** | A16Q | 8700 | **2000 841 496** |
| **24** | A24Q | 8700 | **2000 841 497** |
| **Natural and artificial stone, cast steel** | | | |
| **16** | C16N | 8700 | **2000 841 498** |



## Fan-type disc Action

**Zirconium corundum** · High cutting performance and long service life with alloyed, unalloyed and tempered steels, high tensile non-ferrous metals, stainless steel · Ideal for coarse and intermediate grinding · For machining weld seams, deburring, smoothing surfaces, rust removal and cast cleaning · **Bore 22.23 mm Ø**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm]<br>Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 40 | 12200 | **2000 844 137** |
| **125** | 60 | 12200 | **2000 844 138** |
| **125** | 80 | 12200 | **2000 844 139** |



## Premium fan-type disc 2in1

Flap disc with greater rib density for maximum service life · Exceptional material removal capacity thanks to the high-tech zirconium lamellae · Trimmable plastic carrier that guarantees the full use of the lamellae · Ideal for edge and surface grinding and for machining weld seams · **Bore Ø 22.23 mm**




| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm]<br>Flat | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 40 | 12250 | **2000 845 303** |
| **125** | 60 | 12250 | **2000 845 304** |
| **125** | 80 | 12250 | **2000 845 305** |



## Fan-type disc

**Zirconium corundum** · Free view of the workpiece · Controlled material removal, as the disc appears to be transparent when rotating · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 40 | 12200 | **2000 841 179** |
| **125** | 60 | 12200 | **2000 841 183** |
| **125** | 80 | 12200 | **2000 841 199** |






## Fan-type disc

**Normal corundum** · For aluminium and soft NF metals, alloyed and non-alloyed steels, plastics and wood · Ideal for coarse and intermediate grinding · For machining weld seams, deburring, smoothing surfaces, rust removal and cast cleaning · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | | ● | ● | ● |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 40 | 13300 | **2000 841 501** |
| **115** | 60 | 13300 | **2000 841 502** |
| **115** | 80 | 13300 | **2000 841 503** |
| **125** | 40 | 12200 | **2000 841 511** |
| **125** | 60 | 12200 | **2000 841 512** |
| **125** | 80 | 12200 | **2000 841 513** |
| **125** | 120 | 12200 | **2000 841 514** |




## Flap disc

**Zirconium corundum** · Particularly high cutting performance and long service life with alloyed, unalloyed and tempered steels, high tensile non-ferrous metals, stainless steel · Ideal for coarse and intermediate grinding · For machining weld seams, deburring, smoothing surfaces, rust removal and cast cleaning · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | | | | | | ● | ● |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 40 | 13300 | **2000 841 506** |
| **115** | 60 | 13300 | **2000 841 507** |
| **115** | 80 | 13300 | **2000 841 508** |
| **115** | 120 | 13300 | **2000 841 509** |
| **125** | 40 | 12200 | **2000 841 516** |
| **125** | 60 | 12200 | **2000 841 517** |
| **125** | 80 | 12200 | **2000 841 518** |
| **125** | 120 | 12200 | **2000 841 519** |
| **180** | 40 | 8500 | **2000 841 526** |
| **180** | 60 | 8500 | **2000 841 527** |
| **180** | 80 | 8500 | **2000 841 528** |
| **Flat** | | | |
| **125** | 40 | 12200 | **2000 843 535** |
| **125** | 60 | 12200 | **2000 843 536** |
| **125** | 80 | 12200 | **2000 843 537** |
| **125** | 120 | 12200 | **2000 843 538** |



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You will find the explanation of the symbols before the index.



## Fan-type disc

**Ceramic grit** · Suitable for high-alloy and rust-resistant steel, nickel base alloy, titanium alloys, aluminium and other non-ferrous metals · High grinding performance and long service life during surface and edge grinding thanks to self-sharpening ceramic grit · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 40 | 13300 | **2000 841 056** |
| **115** | 60 | 13300 | **2000 841 057** |
| **115** | 80 | 13300 | **2000 840 067** |
| **115** | 120 | 13300 | **2000 840 068** |
| **125** | 40 | 12200 | **2000 841 058** |
| **125** | 60 | 12200 | **2000 841 059** |
| **125** | 80 | 12200 | **2000 840 069** |
| **125** | 120 | 12200 | **2000 840 100** |



## Fan-type disc

**Silicon carbide** · Special design for machining non-ferrous metals, such as aluminium, brass, bronze, etc. · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | ● | | | | |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 40 | 12200 | **2000 840 065** |
| **125** | 60 | 12200 | **2000 840 066** |



## Fan-type disc Kehlnaht

**Zirconium corundum** · Ideal for fillet weld / contour grinding thanks to the protruding rib · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | |

| Ø [mm] Tapered | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | 40 | 12200 | **2000 840 104** |
| **125** | 60 | 12200 | **2000 840 105** |
| **125** | 80 | 12200 | **2000 840 106** |



## Fan-type disc Vlies

The open and flexible structure of the non-woven material in which the abrasive grain is embedded gives the tool a special elasticity and ensures cool grinding · Suitable for surface treatment of components made of rust- and acid-resistant steel · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | | | | |

| Ø [mm] | Granulation | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **125** | 100 | Coarse | 12200 | **2000 844 220** |
| **125** | 180 | Medium | 12200 | **2000 844 221** |
| **125** | 240 | Fine | 12200 | **2000 844 222** |



## Coarse cleaning disc

**Extra Coarse** · Very coarse and aggressive non-woven cleaning cloth, permeated with special particles · Rigid fibre glass bracket · High material removal performance · Long service life · Very suitable for removing rust and varnish · Weld cleaning · Removing adhesives and undercoating · Cleaning concrete slabs · Removing scale, etc. · **Bore Ø 22.23 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | ● |

| Ø [mm] | Width [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 22 | 11000 | **2000 841 845** |
| **125** | 22 | 9800 | **2000 841 844** |



## Coarse cleaning disc Heavy Duty

**Coarse** · With glass fibre pad · Extremely aggressive non-woven cleaning cloth · For universal application, e.g. on wood, plastic and stainless steel · Particularly for irregular surfaces · High edge stability, long service life and cleaning performance due to a harder and tighter particle binding structure · Particularly suitable for cleaning welds, removing rust, dirt and paint coats, removal of thermally induced blue stains · Cleans wood and plastic · **Bore 22.23 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | | ● |

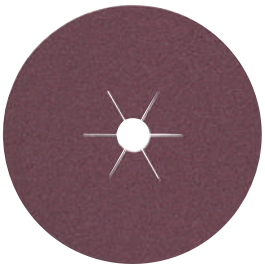
| Ø [mm] | Width [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 22 | 11000 | **2000 841 848** |
| **125** | 22 | 9800 | **2000 841 849** |



## Fillet weld disc

**Non-woven** · For fillet weld machining · For cleaning, levelling, deburring and finishing · Ideal for machining soft metals as well as high-alloy steels and titanium alloys · Multi-layered pressed non-woven fabric layers · For precision grinding to prepare for polishing · Cool surface machining to prevent temper colours · Very long service life · For use on all conventional angle grinders and fillet weld flap tools · **Bore 22.23 mm Ø**
**Medium:** Removal of scratches, temper colours
**Medium-hard:** Removal of weld seams

| Ø [mm] | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **125** | Medium | 10000 | **2000 844 248** |
| **125** | Medium hard | 10000 | **2000 844 249** |

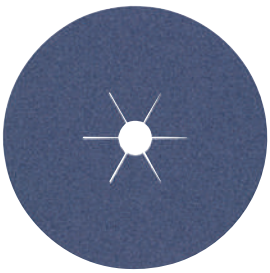


## Fibre disc

**Corundum** · For woodworking and metal processing · Grinding fibre with dense corundum dispersal · Synthetic resin bonding · Long service life · Suitable for derusting, descaling and deburring in the metal industry · With star hole · **Bore 22 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | | | ● | |

| Ø [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 24 | 13200 | **2000 841 636** |
| **115** | 40 | 13200 | **2000 841 635** |
| **115** | 60 | 13200 | **2000 841 633** |
| **115** | 80 | 13200 | **2000 841 632** |
| **115** | 120 | 13200 | **2000 841 630** |
| **125** | 24 | 12000 | **2000 841 644** |
| **125** | 40 | 12000 | **2000 841 643** |
| **125** | 60 | 12000 | **2000 841 641** |
| **125** | 80 | 12000 | **2000 841 640** |
| **125** | 120 | 12000 | **2000 841 638** |
| **180** | 24 | 8500 | **2000 841 652** |
| **180** | 40 | 8500 | **2000 841 651** |
| **180** | 60 | 8500 | **2000 841 649** |
| **180** | 80 | 8500 | **2000 841 648** |



## Fibre disc

**Zirconium corundum** · For steel and stainless steel machining · Abrasive substances in the bond result in particularly high cutting performance and an extremely long tool life when working with difficult to machine materials, such as stainless steel · Synthetic resin bonding · With star hole · **Bore 22 mm Ø**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | | | | | | | |

| Ø [mm] | 115 | 115 | 115 | 125 | 125 | 125 |
|---|---|---|---|---|---|---|
| Granulation | 36 | 60 | 80 | 36 | 60 | 80 |
| Max. revolutions [min-1] | 13200 | 13200 | 13200 | 12000 | 12000 | 12000 |
| **Article no.** | **2000 841 660** | **2000 841 662** | **2000 841 663** | **2000 841 666** | **2000 841 668** | **2000 841 669** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Fibre disc

**Ceramic grit** · Suitable for chrome and nickel-chrome steel, high-alloy steel, nickel-based alloys, titanium alloys, brass, bronze and structural steel · Aggressive and cool grinding with a long service life · A distinct self-sharpening effect occurs during grinding**,** which ensures a high and level material removal with a high machining speed, with star hole · **Bore Ø 22 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | | | | | | | |

| Ø [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | 36 | 13200 | **2000 842 616** |
| **115** | 40 | 13200 | **2000 842 617** |
| **115** | 60 | 13200 | **2000 842 618** |
| **125** | 24 | 12000 | **2000 842 621** |
| **125** | 36 | 12000 | **2000 842 622** |
| **125** | 40 | 12000 | **2000 842 623** |
| **125** | 60 | 12000 | **2000 842 624** |
| **125** | 80 | 12000 | **2000 842 625** |
| **125** | 120 | 12000 | **2000 842 626** |

## Backing pad

Extremely durable · Flexible · Resistant to wear and abrasion · Medium hard



| Ø [mm] | Thread | Mount | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **115** | M14 | M14 | 13000 | **2000 841 683** |
| **125** | M14 | M14 | 12000 | **2000 841 684** |
| **180** | M14 | M14 | 8500 | **2000 841 685** |

## Backing pad

**With cooling fins** · Extremely durable · Resistant to wear and abrasion · Hard



| Ø [mm] | Mount | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **115** | M14 | 13000 | **2000 841 686** |
| **125** | M14 | 12000 | **2000 841 687** |
| **180** | M14 | 8500 | **2000 841 688** |

## Adhesive grinding disc

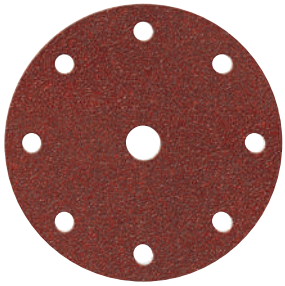
**Corundum · Unperforated** · Can be used for all sanding tasks · Removal of rust and paint · Sanding of wood and metal · **Hook-and-loop-backed**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | ● | ● |

| Ø [mm] | Granulation | Article no. |
|---|---|---|
| **115** | 40 | **2000 841 700** |
| **115** | 60 | **2000 841 701** |
| **115** | 80 | **2000 841 702** |
| **115** | 100 | **2000 841 703** |
| **115** | 120 | **2000 841 704** |
| **125** | 40 | **2000 841 705** |
| **125** | 60 | **2000 841 706** |
| **125** | 80 | **2000 841 707** |
| **125** | 100 | **2000 841 708** |
| **125** | 120 | **2000 841 709** |







## Adhesive grinding disc

**Corundum** · Can be used for all sanding tasks · Removal of rust and paint · Sanding of wood and metal · Suitable for all eccentric grinders **with 6- or 8-hole mounting plate** · Suction holes Ø 10 mm · **Hook-and-loop-backed**
**Type GLS 4 + GLS 5:** For power tools manufactured by AEG, Atlas Copco, Black & Decker, Bosch, DeWalt, ELU, Festool, Hitachi, Kress, Makita, Metabo and Skil
**Type GLS 1:** For power tools manufactured by Festool, Holz-Her, Mafell and Makita
**Type GLS 3:** For power tools manufactured by Bosch, DeWalt, ELU, Hitachi and Metabo

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | ● | | | | ● | ● |

| Ø [mm] | Granulation | Type | No. of hoes | Pitch circle Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **125** | 40 | GLS 5 | 8 | 65 | **2000 841 745** |
| **125** | 60 | GLS 5 | 8 | 65 | **2000 841 746** |
| **125** | 80 | GLS 5 | 8 | 65 | **2000 841 747** |
| **125** | 120 | GLS 5 | 8 | 65 | **2000 841 749** |
| **125** | 180 | GLS 5 | 8 | 65 | **2000 841 756** |
| **125** | 240 | GLS 5 | 8 | 65 | **2000 841 757** |
| **150** | 40 | GLS 1 | 8 + 1 | 120 | **2000 842 191** |
| **150** | 60 | GLS 1 | 8 + 1 | 120 | **2000 842 192** |
| **150** | 80 | GLS 1 | 8 + 1 | 120 | **2000 842 193** |
| **150** | 100 | GLS 1 | 8 + 1 | 120 | **2000 842 194** |
| **150** | 120 | GLS 1 | 8 + 1 | 120 | **2000 842 195** |
| **150** | 180 | GLS 1 | 8 + 1 | 120 | **2000 842 196** |
| **150** | 240 | GLS 1 | 8 + 1 | 120 | **2000 842 197** |
| **150** | 320 | GLS 1 | 8 + 1 | 120 | **2000 842 198** |
| **150** | 40 | GLS 3 | 6 | 80 | **2000 842 241** |
| **150** | 60 | GLS 3 | 6 | 80 | **2000 842 242** |
| **150** | 80 | GLS 3 | 6 | 80 | **2000 842 243** |
| **150** | 120 | GLS 3 | 6 | 80 | **2000 842 245** |




## Backing pad

**Hook-and-loop-backed** · Medium hard

| Ø [mm] | Thread | Mount | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **115** | M14 | M14 | 13000 | **2000 841 710** |
| **125** | M14 | M14 | 12000 | **2000 841 711** |
| **150** | M14 | M14 | 10200 | **2000 841 712** |



## Backing pad

**Hook-and-loop-backed** · High temperature-resistant hook-and-loop material · With cyclone technology · 55-hole · Medium
**Supplied with one adapter each for Festool and Bosch machines**

| Ø [mm] | Thread | Mount | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **150** | 5/16" and M8 | 5/16" and M8 | 12000 | **2000 841 642** |



## Non-woven abrasive disc LONGLIFE

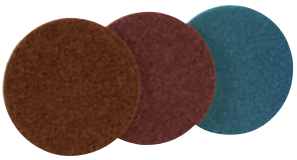
**Corundum** · Fibre-reinforced universal non-woven fabric · Open pore, three dimensional non-woven fabric structure, therefore less clogging with shavings and dirt · Less grinding through with thin material · No shape change to the disc · Universal use · For cleaning and derusting, grinding away old coats of varnish and stone protection, fine deburring, grinding metal surfaces, removing temper colour and weld residue, etc. · **Hook-and-loop**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | ● | ● | ● | ● |

| Ø [mm] | Type | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **115** | Coarse | 80 | 8000 | **2000 844 140** |
| **115** | Fine | 180 | 8000 | **2000 844 141** |
| **115** | Very fine | 280 | 8000 | **2000 844 142** |
| **125** | Coarse | 80 | 8000 | **2000 844 507** |
| **125** | Fine | 180 | 8000 | **2000 844 508** |
| **125** | Very fine | 280 | 8000 | **2000 844 509** |

## Non-woven abrasive disc

SCD non-woven disc · Synthetic nylon non-woven material evenly interspersed with corundum abrasive particles · Full synthetic resin · Water resistant, also ideal for machining stainless steel · Approx. 50 % reduced vibration · **Unperforated · Hook-and-loop**



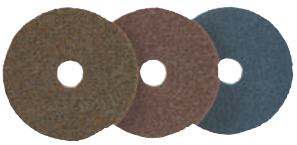
| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | | ● | ● | ● |



| Ø [mm] | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| 125 | Coarse | 12150 | 2000 844 226 |
| 125 | Medium | 12150 | 2000 844 227 |
| 125 | Very fine | 12150 | 2000 844 228 |

## Non-woven abrasive disc

SCD non-woven disc · Synthetic nylon non-woven material evenly interspersed with corundum abrasive particles · Full synthetic resin · Water resistant, also ideal for machining stainless steel · Approx. 50 % reduced vibration · **Prepunched bore Ø 22.23 mm · Hook-and-loop**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | | |

| Ø [mm] | Type | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| 115 | Medium | 13300 | 2000 843 029 |
| 125 | Coarse | 12150 | 2000 843 043 |
| 125 | Medium | 12150 | 2000 843 044 |
| 125 | Very fine | 12150 | 2000 843 045 |

## Backing pad

**Hook-and-loop-backed · For SCD discs** · Hard



| Ø [mm] | Thread | Mount | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| 113 | M14 | M14 | 13000 | 2000 841 743 |
| 123 | M14 | M14 | 12000 | 2000 841 748 |

## Abrasive paper

**Silicon carbide · Water resistant** paper pad · Evenly distributed · Good adhesion of the abrasive particles on the support · For grinding paint, varnish and plastic · Especially suitable for the car repair industry · **Single sheets · Dimensions: 280 x 230 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ○ | ● | | ● | ● | ● | | ● |

| Granulation | Article no. |
|---|---|
| 100 | 2000 842 130 |
| 120 | 2000 842 131 |
| 150 | 2000 842 132 |
| 180 | 2000 842 216 |
| 240 | 2000 842 135 |
| 320 | 2000 842 137 |
| 400 | 2000 842 139 |
| 600 | 2000 842 141 |
| 800 | 2000 842 186 |
| 1000 | 2000 842 187 |

## Abrasive paper

**Corundum · Finishing paper** · Glue-bonded abrasive paper · Half open dispersal · Good grinding performance · Numerous applications for wood, metal, paint and varnish · **Single sheets · Dimensions: 280 x 230 mm**



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ○ | | ○ | | ○ | ● | ● |

| Granulation | Article no. |
|---|---|
| 40 | 2000 842 235 |
| 60 | 2000 842 236 |
| 80 | 2000 842 237 |
| 100 | 2000 842 238 |
| 120 | 2000 842 239 |
| 150 | 2000 842 249 |
| 180 | 2000 842 251 |
| 220 | 2000 842 257 |



## Grinding cloth

**Corundum · For metal/woodworking** · Synthetic resin-bonded · With dense corundum dispersal · Highly flexible · For the highest grinding requirements · **Single sheets · Dimensions: 280 x 230 mm**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | | ○ | ● | ○ |

| Granulation | Article no. |
|---|---|
| 40 | 2000 842 115 |
| 60 | 2000 842 117 |
| 80 | 2000 842 118 |
| 100 | 2000 842 119 |
| 120 | 2000 842 120 |
| 150 | 2000 842 121 |
| 180 | 2000 842 122 |
| 240 | 2000 842 129 |
| 320 | 2000 842 140 |
| 400 | 2000 842 183 |



## Grinding cloth roll

**Corundum** · For metal processing · Synthetic resin-bonded grinding cloth with dense corundum dispersal · Highly flexible · For the highest grinding requirements · **50 m roll**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | ○ | ● | ○ |

| Width of roll [mm] | Granulation | Article no. |
|---|---|---|
| 40 | 40 | 2000 842 200 |
| 40 | 60 | 2000 842 202 |
| 40 | 80 | 2000 842 203 |
| 40 | 100 | 2000 842 204 |
| 40 | 120 | 2000 842 205 |
| 40 | 150 | 2000 842 206 |
| 40 | 180 | 2000 842 207 |
| 40 | 220 | 2000 842 208 |
| 40 | 320 | 2000 842 211 |
| 40 | 400 | 2000 842 213 |
| 50 | 40 | 2000 842 220 |
| 50 | 60 | 2000 842 222 |
| 50 | 80 | 2000 842 223 |
| 50 | 100 | 2000 842 224 |
| 50 | 120 | 2000 842 225 |
| 50 | 150 | 2000 842 226 |
| 50 | 180 | 2000 842 227 |
| 50 | 220 | 2000 842 228 |
| 50 | 320 | 2000 842 231 |
| 50 | 400 | 2000 842 233 |
| 100 | 40 | 2000 842 258 |
| 100 | 60 | 2000 842 292 |
| 100 | 80 | 2000 842 301 |
| 100 | 100 | 2000 842 319 |
| 100 | 120 | 2000 842 320 |
| 100 | 180 | 2000 842 326 |
| 100 | 240 | 2000 842 327 |
| 100 | 400 | 2000 842 329 |
| 115 | 40 | 2000 842 338 |
| 115 | 60 | 2000 842 339 |
| 115 | 80 | 2000 842 345 |
| 115 | 100 | 2000 842 346 |
| 115 | 120 | 2000 842 347 |
| 115 | 150 | 2000 842 348 |
| 115 | 180 | 2000 842 349 |
| 115 | 240 | 2000 842 354 |
| 115 | 320 | 2000 842 356 |



## Abrasive paper roll

**Corundum** · Fully synthetic resin-bonded · For wood and paint abrasion · For the highest grinding requirements · **50 m roll**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | | | | | | ● | ● |

| Width of roll [mm] | Granulation | Article no. |
|---|---|---|
| 115 | 40 | 2000 842 300 |
| 115 | 60 | 2000 842 302 |
| 115 | 80 | 2000 842 303 |
| 115 | 100 | 2000 842 304 |
| 115 | 120 | 2000 842 305 |
| 115 | 150 | 2000 842 306 |
| 115 | 180 | 2000 842 307 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Sanding block

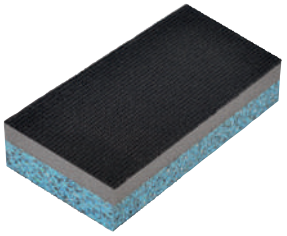
Made of natural cork · For manual grinding



| L x W x H [mm] | Article no. |
|---|---|
| 120 x 60 x 35 | 2000 843 050 |

## Adhesive abrasive block

**Hook-and-loop-backed** · Suitable for dry grinding · Hard, blue side for surface grinding and flat surfaces · Soft, grey side for round grinding and curved surfaces



| L x W x H [mm] | Type | Article no. |
|---|---|---|
| 123 x 68 x 38 | Hard / soft | 2000 843 611 |

## Sanding belt

**Corundum** · Synthetic resin-bonded grinding cloth · With flexible and extremely stable fabric backing · Suitable for grinding and cleaning on normal steel, VA, non-ferrous metals and wood

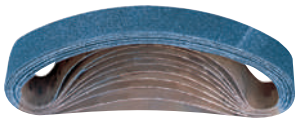


| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| | ● | | | | | ● | ● |

| W x L [mm] | Granulation | Article no. |
|---|---|---|
| 10 x 330 | 40 | 2000 842 636 |
| 10 x 330 | 60 | 2000 842 637 |
| 10 x 330 | 80 | 2000 842 638 |
| 10 x 330 | 120 | 2000 842 639 |
| 12 x 520 | 40 | 2000 842 537 |
| 12 x 520 | 60 | 2000 842 538 |
| 12 x 520 | 80 | 2000 842 539 |
| 13 x 457 | 40 | 2000 842 669 |
| 13 x 457 | 60 | 2000 842 679 |
| 13 x 457 | 80 | 2000 842 681 |
| 13 x 457 | 120 | 2000 842 682 |
| 19 x 520 | 40 | 2000 842 541 |
| 19 x 520 | 60 | 2000 842 542 |
| 19 x 520 | 80 | 2000 842 543 |
| 19 x 520 | 120 | 2000 842 544 |

## Sanding belt

**Zirconium corundum** · A heavy, robust fabric · Synthetic resin bonding · Universal use on wood surfaces and for iron and steel and non-ferrous metals in all alloys



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | ● | ● | |

| W x L [mm] | Granulation | Article no. |
|---|---|---|
| 9 x 533 | 40 | 2000 842 395 |
| 9 x 533 | 60 | 2000 842 396 |
| 9 x 533 | 80 | 2000 842 397 |
| 9 x 533 | 120 | 2000 842 398 |
| 10 x 330 | 40 | 2000 842 683 |
| 10 x 330 | 60 | 2000 842 684 |
| 10 x 330 | 80 | 2000 842 685 |
| 10 x 330 | 120 | 2000 842 686 |
| 13 x 457 | 40 | 2000 842 687 |
| 13 x 457 | 60 | 2000 842 688 |
| 13 x 457 | 80 | 2000 842 689 |
| 13 x 457 | 120 | 2000 842 690 |
| 13 x 533 | 40 | 2000 842 399 |
| 13 x 533 | 60 | 2000 842 415 |
| 13 x 533 | 80 | 2000 842 416 |
| 13 x 533 | 120 | 2000 842 417 |
| 20 x 520 | 40 | 2000 842 706 |
| 20 x 520 | 60 | 2000 842 707 |
| 20 x 520 | 80 | 2000 842 711 |
| 20 x 520 | 120 | 2000 842 712 |
| 30 x 533 | 40 | 2000 842 418 |
| 30 x 533 | 60 | 2000 842 419 |
| 30 x 533 | 80 | 2000 842 420 |
| 30 x 533 | 120 | 2000 842 423 |



## Sanding belt

**Zirconium corundum** · A very robust polyester fabric · Full synthetic resin bond · Universal use for grinding corrosion resistant and high-temperature steels, carbon steels, forged steel, non-ferrous metal, chrome and nickel alloys, grey cast iron

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | | | | ● | |

| W x L [mm] | Granulation | Article no. |
|---|---|---|
| 75 x 2000 | 40 | 2000 842 430 |
| 75 x 2000 | 60 | 2000 842 431 |
| 75 x 2000 | 80 | 2000 842 432 |
| 75 x 2000 | 120 | 2000 842 434 |
| 150 x 2000 | 40 | 2000 842 440 |
| 150 x 2000 | 60 | 2000 842 441 |
| 150 x 2000 | 80 | 2000 842 442 |
| 150 x 2000 | 120 | 2000 842 444 |



## Non-woven abrasive fabric belt SCXF

**Corundum** · Synthetic resin-bonded · With flexible and extremely stable fabric backing · Long service life thanks to the integrated grinding additive and open structure · Very cool grinding possible · Suitable for finishing work, such as the removal of temper colours, flash rust, paint · Weld cleaning · **Water-resistant**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | | | | ● | ● |

| W x L [mm] | Type | Granulation | Article no. |
|---|---|---|---|
| 9 x 533 | Coarse | 80 | 2000 842 470 |
| 9 x 533 | Medium | 180 | 2000 842 474 |
| 9 x 533 | Very fine | 400 | 2000 842 478 |
| 12 x 520 | Coarse | 80 | 2000 842 453 |
| 12 x 520 | Medium | 180 | 2000 842 454 |
| 12 x 520 | Very fine | 400 | 2000 842 455 |
| 30 x 533 | Coarse | 80 | 2000 842 489 |
| 30 x 533 | Medium | 180 | 2000 842 505 |
| 30 x 533 | Very fine | 400 | 2000 842 506 |
| 40 x 760 | Coarse | 80 | 2000 842 510 |
| 40 x 760 | Medium | 180 | 2000 842 511 |
| 40 x 760 | Very fine | 400 | 2000 842 512 |
| 75 x 2000 | Medium | 180 | 2000 842 463 |
| 75 x 2000 | Very fine | 400 | 2000 842 464 |



## Non-woven abrasive fabric roll

Highly flexible, malleable three dimensional universal abrasive fabric · Open pore structure to prevent clogging with abrasive dust · Ideally suited for use in hand sanding of contours and curves and for hard-to-reach places (beads and edges) · Can be used wet and dry, e.g. for abrasion and cleaning of surfaces of all types, such as metal, wood, plastic and stainless steel · Smoothing profiled workpieces, grinding off oxide coatings of all kinds, roughening, grinding prior to varnishing · For an outstanding finish · **10 m roll**

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | ● | ● | ● | ● |

| Width [mm] | Type | Article no. |
|---|---|---|
| 100 | Medium | 2000 844 240 |
| 100 | Fine | 2000 844 241 |
| 100 | Very fine | 2000 844 246 |
| 100 | Ultra fine | 2000 844 242 |
| 100 | General purpose | 2000 844 292 |
| 120 | Medium | 2000 844 243 |
| 120 | Fine | 2000 844 244 |
| 120 | Very fine | 2000 844 247 |
| 120 | Ultra fine | 2000 844 245 |
| 120 | General purpose | 2000 844 293 |



## Hand pad

Highly flexible, malleable three dimensional universal abrasive fabric · Open pore structure to prevent clogging with abrasive dust · Ideally suited for use in hand sanding of contours and curves and for hard-to-reach places (beads and edges) · Can be used dry and wet, e.g. for grinding and cleaning all types of surfaces, smoothing profiled workpieces, grinding away all kinds of oxide layers, roughening and grinding before varnishing

| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | | ● | | ● | | ● |

| Length [mm] | Width [mm] | Type | Article no. |
|---|---|---|---|
| 229 | 152 | Medium | 2000 844 230 |
| 229 | 152 | Fine | 2000 844 231 |
| 229 | 152 | Very fine | 2000 844 233 |
| 229 | 152 | Ultra fine | 2000 844 232 |
| 229 | 152 | General purpose | 2000 844 294 |

## Abrasive sponge

**Coated on four sides** · On foam support that adapts itself to the workpiece · Suitable for ground wood, intermediate varnish sanding, plastic sanding, metal grinding, etc.

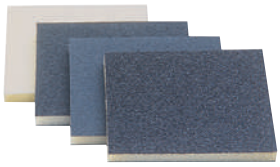


| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | | ● | ● | ● |

| L x W x H [mm] | Granulation | Type | Article no. |
|---|---|---|---|
| **98 x 69 x 26** | 60 | Medium | + **2000 843 020** |
| **98 x 69 x 26** | 100 | Fine | + **2000 843 021** |
| **98 x 69 x 26** | 180 | Very fine | + **2000 843 022** |

## Abrasive mat

**Coated on two sides** · On foam support that adapts itself to the workpiece · The special shape also allows very difficult to access areas such as profiles, edges, corners and curves to be accessed · Suitable for ground wood, intermediate varnish sanding, plastic sanding, metal grinding, etc.



| Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|
| ● | ● | ● | ● | | ● | ● | ● |

| L x W x H [mm] | Granulation | Type | Article no. |
|---|---|---|---|
| **123 x 98 x 12** | 60 | Medium | + **2000 843 030** |
| **123 x 98 x 12** | 100 | Fine | + **2000 843 031** |
| **123 x 98 x 12** | 180 | Very fine | + **2000 843 032** |

## Adhesive abrasive block

For use of adhesive grinding discs · Worn adhesive grinding discs can continue to be used



| L x W [mm] | Type | Article no. |
|---|---|---|
| **127 x 69** | Soft | **2000 843 092** |

## Adhesive abrasive block

For use of adhesive grinding discs · Worn adhesive grinding discs can continue to be used



| Type | Suitable for [mm] | Article no. |
|---|---|---|
| **Hard** | Discs Ø 150 | **2000 843 095** |

## Round brush

**Crimped wire** · The small diameter of this brush allows it to be used in hard-to-reach places, inner surfaces and grooves · For cleaning and removing rust · **Shank Ø 6 mm**




| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| Steel | | ● | ● | ○ | | ○ | ○ | |

| Ø [mm] Steel | Width of lining [mm] | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **30** | 9 | 0.2 | 20000 | **2000 841 100** |
| **40** | 15 | 0.2 | 18000 | **2000 841 114** |
| **50** | 17 | 0.2 | 15000 | **2000 841 115** |
| **60** | 18 | 0.3 | 15000 | **2000 841 116** |
| **70** | 18 | 0.3 | 15000 | **2000 841 117** |
| **80** | 19 | 0.3 | 15000 | **2000 841 118** |

## Round brush

**Crimped wire** · The small diameter of this brush allows it to be used in hard-to-reach places, inner surfaces and grooves · For cleaning and deburring · **Shank Ø 6 mm**



| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| VA | ● | ○ | ○ | ● | | ○ | ○ | |

| Ø [mm] VA | Width of lining [mm] | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **30** | 9 | 0.2 | 20000 | **2000 841 101** |
| **40** | 11 | 0.2 | 18000 | **2000 841 124** |
| **50** | 17 | 0.2 | 15000 | **2000 841 125** |
| **60** | 18 | 0.2 | 15000 | **2000 841 126** |
| **70** | 18 | 0.3 | 15000 | **2000 841 127** |
| **80** | 19 | 0.3 | 12000 | **2000 841 128** |



## Round brush

**Crimped wire** · For cleaning and removing rust on containers, surfaces, etc. · **Shank Ø 6 mm**

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| Brass | ○ | ● | ● | ○ | | ○ | ○ | |

| Ø [mm] Brass | Width of lining [mm] | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| 50 | 17 | 0.2 | 15000 | 2000 841 141 |
| 60 | 18 | 0.2 | 15000 | 2000 841 142 |
| 70 | 18 | 0.2 | 15000 | 2000 841 143 |
| 80 | 19 | 0.2 | 12000 | 2000 841 144 |



## Round brush

**Grinding nylon with silicon carbide trimming** · The trimming of this brush perfectly suits the contours of the workpiece without significantly changing the surface · New abrasive particles are always released so that the material removal capacity remains constant · For removing paint and dust, smoothing, matting, cleaning and structuring of wood · **Shank Ø 6 mm**

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| Nylon | ● | ● | ● | ● | | ○ | ● | |

| Ø [mm] Nylon | Width of lining [mm] | Granulation | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| 75 | 10 | 80 | 4500 | 2000 841 191 |
| 100 | 10 | 80 | 4500 | 2000 841 192 |



## Conical brush

**Braided wire** · Suitable for deburring, derusting, descaling as well as machining weld seams · **M14**

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| Steel | | ● | ● | ○ | | ○ | ○ | |
| VA | ● | ○ | ○ | ● | | ○ | ○ | |

| Ø [mm] Steel | Width of lining [mm] | Length of lining [mm] | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|---|
| 100 | 13 | 22 | 0.5 | 12500 | 2000 841 150 |
| 115 | 15 | 23 | 0.5 | 12500 | 2000 841 149 |
| VA | | | | | |
| 100 | 13 | 22 | 0.35 | 12500 | 2000 841 151 |

## Wire cup brush

**Crimped wire** · Brush tool for light and medium cleaning of large surfaces · **M14**




Steel




VA

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| Steel | | ● | ● | ○ | | ○ | ○ | |
| VA | ● | ○ | ○ | ● | | ○ | ○ | |

| Ø [mm] Steel | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| 60 | 0.3 | 12500 | 2000 841 160 |
| 80 | 0.3 | 8500 | 2000 841 170 |
| VA | | | |
| 60 | 0.3 | 12500 | 2000 841 161 |
| 80 | 0.3 | 8500 | 2000 841 171 |

## Wire cup brush

**Braided wire** · Aggressive tool for use in heavy-duty cleaning · **M14** · **With support ring**




| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | ● | ● | ○ | | ○ | ○ | |

| Ø [mm] Steel | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **65** | 0.35 | 12500 | **2000 841 165** |
| **65** | 0.5 | 12500 | **2000 841 166** |
| **80** | 0.5 | 8500 | **2000 841 167** |
| **100** | 0.5 | 8500 | **2000 841 175** |
| **120** | 0.5 | 6500 | **2000 841 177** |

## Wire cup brush

**Braided wire** · Aggressive tool for use in heavy-duty cleaning on smooth surfaces · **M14** · **With support ring**



| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **VA** | ● | ○ | ○ | ● | | ○ | ○ | |

| Ø [mm] VA | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|
| **65** | 0.35 | 12500 | **2000 841 164** |
| **80** | 0.5 | 8500 | **2000 841 163** |
| **100** | 0.5 | 8500 | **2000 841 162** |

## Round brush

**Braided wire** · For deburring and cleaning weld seams · Quiet and low-vibration operation · **Bore Ø 22.2 mm**



| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | ● | ● | ○ | | ○ | ○ | |
| **SS wire** | ● | ○ | ○ | ● | | ○ | ○ | |

| Ø [mm] Steel | Width of lining [mm] | Thickness of wire [mm] | Max. revolutions [min-1] | Article no. |
|---|---|---|---|---|
| **115** | 12 | 0.5 | 12500 | **2000 841 185** |
| **125** | 13 | 0.5 | 12500 | **2000 841 184** |
| **178** | 13 | 0.5 | 10000 | **2000 841 186** |
| **SS wire** | | | | |
| **115** | 12 | 0.5 | 12500 | **2000 841 207** |
| **125** | 12 | 0.5 | 12500 | **2000 841 208** |
| **178** | 13 | 0.5 | 10000 | **2000 841 209** |

## Wire brush

**Smooth wire** · Wooden stock · Flared shape · Useful length 145 mm · Length of bundle 25 mm



| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Cast steel** | | ● | ● | | ○ | ○ | ○ | |

| Type Cast steel | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **2-row** | 295 | 0.35 | **2000 841 012** |
| **3-row** | 295 | 0.35 | **2000 841 013** |
| **4-row** | 295 | 0.35 | **2000 841 014** |
| **5-row** | 295 | 0.35 | **2000 841 015** |

## Wire brush

**Smooth wire** · Wooden stock · Flared shape · Useful length 145 mm · Length of bundle 25 mm



| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **VA** | ● | ○ | ○ | ● | ○ | ○ | ○ | |

| Type VA | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **2-row** | 295 | 0.35 | **2000 841 052** |
| **3-row** | 295 | 0.35 | **2000 841 053** |
| **4-row** | 295 | 0.35 | **2000 841 054** |
| **5-row** | 295 | 0.35 | **2000 841 055** |



## Wire brush

**Crimped wire** · Wooden stock · Flared shape · Useful length 145 mm · Length of bundle 25 mm

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Brass** | ○ | ● | ● | ● | ○ | ○ | ○ | |

| Type<br>Brass | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **2-row** | 295 | 0.3 | **2000 841 032** |
| **3-row** | 295 | 0.3 | **2000 841 033** |
| **4-row** | 295 | 0.3 | **2000 841 034** |
| **5-row** | 295 | 0.3 | **2000 841 035** |



## Fillet weld brush

Smooth wire · Wooden stock · V-shaped type · Suitable for cleaning fillet welds · 3-row

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Cast steel** | | ● | ● | | | | | |
| **VA** | ● | | | | | | | |

| Type<br>Cast steel | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **3-row** | 295 | 0.35 | **2000 841 060** |
| **VA** | | | |
| **3-row** | 295 | 0.35 | **2000 841 061** |



2000 841 065



2000 841 066



2000 841 067

## Wire brush

**Crimped wire** · With convenient plastic handle · Brush back made of strong steel bar · Useful length 140 mm

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | ● | ● | | ○ | | | |
| **VA** | ● | ○ | ○ | ● | ○ | | | |
| **Brass** | ○ | ● | ● | ○ | ○ | | | |

| Type<br>Steel | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **1-row** | 265 | 0.3 | **2000 841 065** |
| **VA** | | | |
| **1-row** | 265 | 0.3 | **2000 841 066** |
| **Brass** | | | |
| **1-row** | 265 | 0.3 | **2000 841 067** |



## Fine brush

**Crimped wire** · Wooden stock · Useful length 145 mm

| | Stainless steel | Steel | Cast | Aluminium | Stone | Plastic | Wood | Paint |
|---|---|---|---|---|---|---|---|---|
| **Brass** | ○ | ○ | ○ | ○ | | | | |

| Type<br>Brass | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **4-row** | 220 | 0.15 | **2000 841 040** |



## Sparking plug brush

**Crimped wire** · Wooden stock · Useful length 50 mm

| Type<br>Brass | Length [mm] | Thickness of wire [mm] | Article no. |
|---|---|---|---|
| **3-row** | 150 | 0.2 | **2000 841 023** |




# 5. Clamping and Screwing Tools

# Precise work with the TECWERK brand



Set of open-end ring ratchet spanners from page 240
Torque spanner from page 252
Socket spanner set from page 259
Torsion bit assortment from page 276
Screwdriver set with wooden handles from page 285
Screwdriver set with multi-component handles from page 285

## TECWERK CLAMPING AND SCREWING TOOLS – PRECISION FOR EVERY CONNECTION

Clamping and screwing tools are the foundation of secure, strong and durable connections – whether in the skilled trades, assembly work or industrial service. With TECWERK, you choose precise, robust and ergonomically optimised tools designed for continuous professional use. This ensures you always find the solution that suits your application best – efficient, reliable and long-lasting.
The TECWERK assortment of clamping and screwing tools covers all requirements of modern skilled trades – from classic screwdrivers to specialised bits and torque wrenches.

## Efficiency by design

Tools from the TECWERK brand stand for precise work, high functionality and secure connections. Intelligent details such as slip-resistant handles, robust mechanisms and perfectly matched material hardnesses guarantee consistently accurate results. Well-engineered designs ensure smooth workflows and boost productivity – whether in single-part assembly or series production.

## Guaranteed quality

All TECWERK clamping and screwing tools are manufactured from high-quality materials, such as chrome-vanadium or S2 steel. Matt-chromed surfaces protect against corrosion and ensure a long service life. Our products comply with international standards such as DIN 3123, ISO 3316 and ISO 2936 – a guarantee of tested quality, precision and safety in daily use.

## Individuality as standard

From ergonomic screwdrivers to precision torque wrenches, TECWERK offers solutions for every requirement. Different handle systems, drive types and bit profiles allow individual adaptation to each application. Ergonomically optimised designs ensure comfortable, fatigue-free work – even in demanding applications and during extended use.

## The environment – our responsibility

At TECWERK, sustainability and quality go hand in hand. Manufacturing is carried out with resource efficiency in mind, using durable materials and environmentally compatible coating processes.

TECWERK – Quality clamping and screwing tools, excellent service and precision you can rely on: robust, ergonomic, sustainable.

## Durable mechanisms, calibratable and ISO-compliant – for precise torques and reliable screw connections.



### Set of open-end ring ratchet spanners

16-part, jaw 15° angled, 72 teeth, made of CV steel
**Order no. 2000 821529**

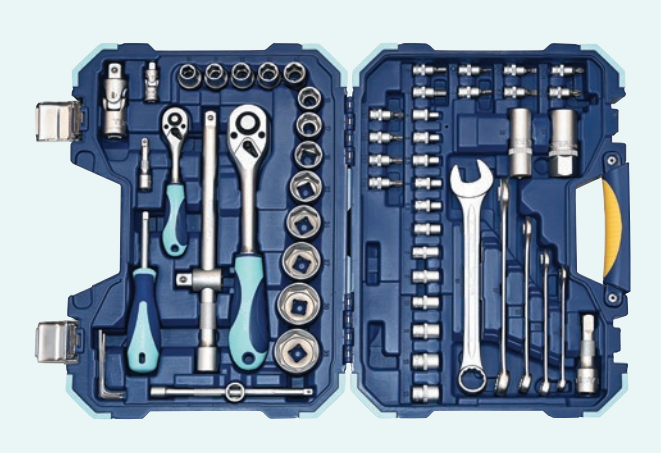
Page 240



### Torque spanner

Automatic release, test certificate according to DIN EN ISO 6789-2:2017
**Order no. 2000 821704**

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### Set of open-end ring ratchet spanners

16-part, jaw 15° angled, 72 teeth, made of CV steel
**Order no. 2000 821529**

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### Torsion bit assortment

32-part, for bits C 6.3 + E 6.3, also suitable for long bits
**Order no. 2000 829713**

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## Ergonomic multi-component handles, anti-roll protection and insulated variants for electrical work – comfortable and safe in every application.




### Screwdriver set with wooden handles

5-part, wooden handles, burnished cutting edges
**Order no. 2000 827115**

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### Screwdriver set with multi-component handles

6-part, with multi-component handles with anti-roll protection
**Order no. 2000 827127**

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## Combination spanner

Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**DIN 3113 shape A / ISO 3318 / ISO 7738**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **6** | 100 | **2000 823 506** |
| **7** | 110 | **2000 823 507** |
| **8** | 120 | **2000 823 508** |
| **9** | 130 | **2000 823 509** |
| **10** | 140 | **2000 823 510** |
| **11** | 150 | **2000 823 511** |
| **12** | 160 | **2000 823 512** |
| **13** | 170 | **2000 823 513** |
| **14** | 180 | **2000 823 514** |
| **15** | 190 | **2000 823 515** |
| **16** | 200 | **2000 823 516** |
| **17** | 210 | **2000 823 517** |
| **18** | 220 | **2000 823 518** |
| **19** | 230 | **2000 823 519** |
| **20** | 240 | **2000 823 520** |
| **21** | 250 | **2000 823 521** |
| **22** | 260 | **2000 823 522** |
| **24** | 280 | **2000 823 524** |
| **27** | 310 | **2000 823 527** |
| **30** | 340 | **2000 823 530** |
| **32** | 360 | **2000 823 532** |
| **36** | 400 | **2000 823 533** |







## Combination spanner set

Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**DIN 3113 shape A / ISO 3318 / ISO 7738**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **8-part** | 8, 9, 10, 11, 13, 14, 17, 19 | **2000 823 600** |
| **12-part** | 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 19, 22 | **2000 823 603** |
| **12-part** | 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 30, 32 | **2000 823 605** |



2000 823 723



## Combination spanner set

Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**DIN 3113 shape A / ISO 3318 / ISO 7738**
**Supplied in roll pouch**

| Contents | Width across flats [mm] | Packaging | Article no. |
|---|---|---|---|
| **8-part** | 8, 9, 10, 11, 13, 14, 17, 19 | In roll-up pouch | **2000 823 723** |
| **12-part** | 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 19, 22 | In roll-up pouch | **2000 823 725** |
| **22-part** | 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 27, 30, 32, 36 | In roll-up pouch | **2000 823 726** |



(Similar to figure)

## Combination spanner

**Extra long** · Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**Similar to DIN 3113 shape A**
**Ring end with protective TECWERK-ENERGY profile**; forces are transferred to the surfaces of the screws and nuts, thereby protecting the screws and the tool and allowing higher torques to be transferred

**DIN 3113 Form A**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **10** | 170 | **2000 823 000** |
| **13** | 206 | **2000 823 001** |
| **17** | 254 | **2000 823 002** |
| **19** | 278 | **2000 823 007** |
| **22** | 314 | **2000 823 009** |
| **24** | 338 | **2000 823 012** |
| **27** | 386 | **2000 823 013** |
| **30** | 424 | **2000 823 018** |
| **32** | 440 | **2000 823 019** |
| **36** | 480 | **2000 823 040** |
| **41** | 520 | **2000 823 045** |



## Combination spanner set

**Extra long** · Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**Similar to DIN 3113 shape A**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 10, 13, 17, 19, 22, 24, 27, 30, 32 | **2000 823 038** |



## Combination spanner

Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end offset and angled 10°, jaw position 15°**

**DIN 3113 shape B / ISO 3318 / ISO 7738**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **5.5** | 100 | **2000 823 624** |
| **6** | 100 | **2000 823 676** |
| **7** | 112 | **2000 823 677** |
| **8** | 124 | **2000 823 678** |
| **9** | 136 | **2000 823 679** |
| **10** | 147 | **2000 823 680** |
| **11** | 159 | **2000 823 681** |
| **12** | 171 | **2000 823 682** |
| **13** | 183 | **2000 823 683** |
| **14** | 195 | **2000 823 684** |
| **15** | 207 | **2000 823 685** |
| **16** | 219 | **2000 823 686** |
| **17** | 232 | **2000 823 687** |
| **18** | 243 | **2000 823 688** |
| **19** | 256 | **2000 823 689** |
| **20** | 268 | **2000 823 690** |
| **21** | 279 | **2000 823 691** |
| **22** | 292 | **2000 823 692** |
| **24** | 315 | **2000 823 693** |
| **27** | 349 | **2000 823 694** |
| **30** | 385 | **2000 823 695** |
| **32** | 408 | **2000 823 696** |
| **36** | 453 | **2000 823 697** |
| **41** | 520 | **2000 823 728** |
| **46** | 580 | **2000 823 729** |



## Combination spanner set

Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end offset and angled 10°, jaw position 15°**

**DIN 3113 shape B / ISO 3318 / ISO 7738**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **8-part** | 8, 9, 10, 11, 13, 14, 17, 19 | **2000 823 700** |
| **12-part** | 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 19, 22 | **2000 823 701** |
| **12-part** | 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 30, 32 | **2000 823 702** |



Zollmaße

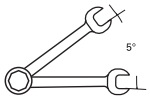
## Combination spanner set

**Imperial units** · Chromium-vanadium steel · Chrome-plated · With identical spanner width across flats · **Ring end angled 15°, jaw position 15°**

**DIN 3113 shape A / ISO 3318 / ISO 7738**
**Supplied in roll pouch**

| Contents | Width across flats | Width across flats [mm] | Article no. |
|---|---|---|---|
| **13-part** | **1/4", 5/16", 3,8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"** | 6,35, 7,93, 9,52, 11,11, 12,70, 14,28, 15,87, 17,46, 19,05, 20,63, 22,22, 22,87, 25,40 | **2000 823 628** |



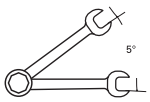



## Open-end ring ratchet spanner

**Straight shape** · Chromium-vanadium steel · Chrome-plated · **Jaw angled 15°** · 72 teeth

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **8** | 136 | **2000 821 486** |
| **9** | 143 | **2000 821 487** |
| **10** | 160 | **2000 821 488** |
| **11** | 168 | **2000 821 489** |
| **12** | 174 | **2000 821 490** |
| **13** | 180 | **2000 821 491** |
| **14** | 193 | **2000 821 492** |
| **15** | 200 | **2000 821 493** |
| **16** | 216 | **2000 821 494** |
| **17** | 233 | **2000 821 495** |
| **18** | 239 | **2000 821 496** |
| **19** | 250 | **2000 821 497** |
| **22** | 285 | **2000 821 499** |
| **24** | 325 | **2000 821 625** |
| **27** | 359 | **2000 821 669** |
| **30** | 399 | **2000 821 671** |





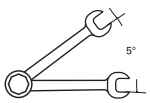

## Ratchet combination spanner set

Straight shape · Made of chromium-vanadium steel · Chrome-plated · **Jaw angled 15°** · 72 teeth

**Contents:**
1 ratchet combination spanner each in 8 / 10 / 13 / 17 / 19 mm
1 adapter for sockets in **6.3 mm** (1/4") x 10 mm, **12.5 mm** (1/2") x 19 mm
1 adapter for socket bits in **6.3 mm** (1/4") x 10 mm
**Supplied in steel case**

| Contents | Type | Article no. |
|---|---|---|
| **8-part** | Straight | **2000 821 505** |





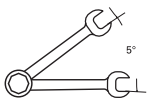

## Set of open-end ring ratchet spanner

Straight shape · Made of chromium-vanadium steel · Chrome-plated · **Jaw angled 15°** · 72 teeth

**Contents:**
1 ratchet combination spanner each in 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 mm
1 adapter each for socket bits
**6.3 mm** (1/4") x 10 mm
**10.0 mm** (3/8") x 13 mm
**12.5 mm** (1/2") x 19 mm
1 adapter for bits in **6.3 mm** (1/4") x 10 mm
**Supplied in steel case**

| Contents | Type | Article no. |
|---|---|---|
| **16-part** | Straight | **2000 821 529** |






## Open-end ring ratchet spanner

**Reversible** · Chromium-vanadium steel · Matt chrome-plated · **15° jaw position, ring end angled 15°** · 72 teeth

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **8** | 135 | **2000 821 440** |
| **10** | 158 | **2000 821 441** |
| **13** | 179 | **2000 821 442** |
| **17** | 232 | **2000 821 443** |
| **19** | 247 | **2000 821 444** |
| **24** | 325 | **2000 821 439** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

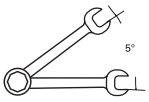
## Set of open-end ring ratchet spanner

**Reversible** · Made of chromium-vanadium steel · Matt chrome-plated · **15° jaw position, ring end angled 15°** · 72 teeth

**Contents:**
1 ratchet combination spanner each in 8 / 10 / 13 / 17 / 19 mm
1 adapter each for socket bits
**6.3 mm** (1/4") x 10 mm
**12.5 mm** (1/2") x 19 mm
1 adapter for socket bits in **6.3 mm** (1/4") x 10 mm

**Supplied in Steel case**





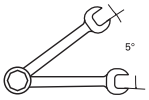

| Contents | Type | Article no. |
|---|---|---|
| **8-part** | Reversible | **2000 821 446** |

## Open-end ring ratchet spanner

**Ring end with flexible head · Straight shape** · Chromium-vanadium steel · Matt chrome-plated · **15° jaw position** · 72 teeth








| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **8** | 136 | **2000 821 512** |
| **10** | 160 | **2000 821 513** |
| **13** | 180 | **2000 821 514** |
| **17** | 233 | **2000 821 515** |
| **19** | 250 | **2000 821 516** |

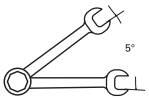
## Set of open-end ring ratchet spanner

**Ring end with flexible head** · Straight shape · Made of chromium-vanadium steel · Matt chrome-plated · **15° jaw position** · 72 teeth

**Contents:**
1 ratchet combination spanner each in 8 / 10 / 13 / 17 / 19 mm
1 adapter each for socket bits
6.3 mm (1/4") x 10 mm
12.5 mm (1/2") x 19 mm
1 adapter for socket bits in 6.3 mm (1/4") x 10 mm

**Supplied in steel case**






| Contents | Type | Article no. |
|---|---|---|
| **8-part** | Flexible ring end | **2000 821 520** |





## Double-ended ring spanner

Chromium-vanadium steel · Chrome-plated · **Deep offset** · With thin-walled rings

**DIN 838 / ISO 3318 / ISO 1085 / ISO 10104**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **6 x 7** | 168 | **2000 823 300** |
| **8 x 9** | 182 | **2000 823 302** |
| **8 x 10** | 182 | **2000 823 303** |
| **10 x 11** | 197 | **2000 823 304** |
| **10 x 13** | 216 | **2000 823 306** |
| **12 x 13** | 216 | **2000 823 308** |
| **13 x 14** | 239 | **2000 823 310** |
| **13 x 17** | 263 | **2000 823 312** |
| **14 x 15** | 239 | **2000 823 314** |
| **16 x 17** | 263 | **2000 823 318** |
| **17 x 19** | 290 | **2000 823 320** |
| **18 x 19** | 290 | **2000 823 322** |
| **19 x 22** | 318 | **2000 823 324** |
| **19 x 24** | 325 | **2000 823 325** |
| **20 x 22** | 318 | **2000 823 326** |
| **22 x 24** | 325 | **2000 823 330** |
| **24 x 27** | 337 | **2000 823 332** |
| **24 x 30** | 346 | **2000 823 343** |
| **27 x 32** | 360 | **2000 823 335** |
| **30 x 32** | 360 | **2000 823 336** |
| **30 x 36** | 410 | **2000 823 338** |
| **36 x 41** | 440 | **2000 823 344** |



## Double-ended ring spanner set

**Deep offset** · Chromium-vanadium steel · Matt chrome-plated · With thin-walled rings

**DIN 838 / ISO 3318 / ISO 1085 / ISO 10104**




| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **8-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22 | **2000 823 400** |
| **10-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27 | **2000 823 403** |
| **12-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27, 25 x 28, 30 x 32 | **2000 823 406** |



Der PROBLEM LÖSER 4 in 1

## Multi-function ratchet ring spanner 4 in 1

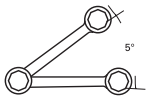
Chromium-vanadium steel · Matt chrome-plated · Straight shape · 72 teeth

**Special product benefits:**

Cover the 4 most common widths across flats with one spanner



= 1 spanner




| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **10 / 13 / 17 / 19** | 220 | **2000 821 481** |



## Double open-end spanner

Chromium-vanadium steel · Matt chrome-plated · **Jaw position 15°** · With flat heads

**DIN 3110 / ISO 3318 / ISO 1085 / ISO 10102**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **5 x 5.5** | 122 | **2000 823 099** |
| **6 x 7** | 122 | **2000 823 100** |
| **7 x 8** | 137 | **2000 823 101** |
| **8 x 9** | 136 | **2000 823 102** |
| **8 x 10** | 145 | **2000 823 103** |
| **10 x 11** | 152 | **2000 823 104** |
| **10 x 13** | 172 | **2000 823 106** |
| **12 x 13** | 172 | **2000 823 108** |
| **12 x 14** | 172 | **2000 823 109** |
| **13 x 14** | 186 | **2000 823 110** |
| **13 x 15** | 186 | **2000 823 111** |
| **13 x 17** | 201 | **2000 823 112** |
| **14 x 15** | 186 | **2000 823 114** |
| **14 x 17** | 201 | **2000 823 116** |
| **16 x 17** | 201 | **2000 823 118** |
| **17 x 19** | 221 | **2000 823 120** |
| **18 x 19** | 221 | **2000 823 122** |
| **19 x 22** | 235 | **2000 823 124** |
| **19 x 24** | 245 | **2000 823 125** |
| **20 x 22** | 235 | **2000 823 126** |
| **21 x 23** | 245 | **2000 823 128** |
| **22 x 24** | 245 | **2000 823 130** |
| **24 x 27** | 265 | **2000 823 134** |
| **27 x 30** | 275 | **2000 823 135** |
| **24 x 30** | 275 | **2000 823 133** |
| **25 x 28** | 275 | **2000 823 136** |
| **27 x 32** | 299 | **2000 823 137** |
| **30 x 32** | 299 | **2000 823 138** |
| **32 x 36** | 330 | **2000 823 139** |
| **34 x 36** | 330 | **2000 823 143** |
| **36 x 41** | 358 | **2000 823 140** |
| **30 x 36** | 330 | **2000 823 141** |
| **41 x 46** | 405 | **2000 823 142** |
| **46 x 50** | 455 | **2000 823 144** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Double open-end spanner set

Chromium-vanadium steel · Forged · Matt chrome-plated · **Jaw position 15 ° ·** With flat heads



**DIN 3110 / ISO 3318 / ISO 1085 / ISO 10102**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **8-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22 | **2000 823 200** |
| **10-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27 | **2000 823 203** |
| **12-part** | 6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27, 25 x 28, 30 x 32 | **2000 823 206** |

## Adjustable spanner

Adjustable · Matt chrome-plated · Polished head · With adjustment/measuring scale on spanner head · 22.5° jaw position



**DIN 3117 A**

| Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|
| **Max. 19** | 150 | **2000 823 826** |
| **Max. 24** | 200 | **2000 823 827** |
| **Max. 28** | 250 | **2000 823 828** |
| **Max. 34** | 300 | **2000 823 829** |

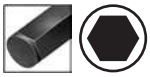
## Adjustable spanner

**Quick-adjusting** and with non-slip plastic-coated handle · Polished head · Measuring scale on spanner head
**22.5° jaw position**



How-to video

| Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|
| **Max. 40** | 250 | **2000 823 814** |





## Hex key

S2 steel Matt chrome plated · Chamfered ends · Surface Matt chrome plated
**ISO 2936 K**

| Width across flats [mm] | Leg L [mm] | Article no. |
|---|---|---|
| **1.5** | 45 x 14 | **2000 825 170** [1] |
| **2** | 50 x 16 | **2000 825 172** [1] |
| **2.5** | 56 x 18 | **2000 825 174** [1] |
| **3** | 63 x 20 | **2000 825 176** [1] |
| **4** | 70 x 25 | **2000 825 178** [1] |
| **5** | 80 x 28 | **2000 825 180** [1] |
| **5.5** | 85 x 30 | **2000 825 182** [1] |
| **6** | 90 x 32 | **2000 825 184** [1] |
| **7** | 95 x 34 | **2000 825 186** [1] |
| **8** | 100 x 36 | **2000 825 188** |
| **10** | 112 x 40 | **2000 825 192** |
| **12** | 125 x 45 | **2000 825 194** |
| **14** | 140 x 56 | **2000 825 196** |
| **17** | 160 x 63 | **2000 825 200** |
| **19** | 180 x 70 | **2000 825 202** |
| **22** | 200 x 80 | **2000 825 204** |
| **24** | 224 x 90 | **2000 825 206** |

[1] price per pc.



## Offset screwdriver set

S2 steel · Matt chrome plated · Angled · Chamfered ends

**ISO 2936**
**Supplied in Plastic bag**




| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **10-part** | 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 / 12 / 14 | **2000 825 100** |



## Offset screwdriver set
On ring, S2 steel · Matt chrome-plated · Angled · Chamfered ends

**ISO 2936**
**Supplied in a plastic pouch**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **8-part** | 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 102** |



## Offset screwdriver set
S2 steel · Matt chrome-plated · Chamfered ends

**ISO 2936**

**Supplied in folding case**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 103** |





## Hexagon offset screwdriver set
Short · S2 steel · Matt chrome-plated · Angled · Chamfered ends

**ISO 2936**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 121** |



2000 825 104

## Screwdriver set
S2 steel · Matt chrome-plated · Chamfered ends

**ISO 2936**

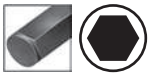
**Supplied in pocket holder**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **7-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 | **2000 825 104** |
| **6-part** | 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 105** |



## Screwdriver set
Blades made of S2 steel · Matt chrome-plated · 2-component plastic holder · Chamfered ends
**Supplied in 2-component pocket holder**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **7-part** | 2 / 2.5 / 3 / 4 / 5 / 6 / 8 | **2000 825 117** |

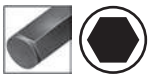




## Hex key
**Extra long** · Matte chrome-plated S2 steel · Angled · Chamfered ends

**ISO 2936 L**

| Width across flats [mm] | Leg L [mm] | Article no. |
|---|---|---|
| 1.5 | 90 x 14 | 2000 825 304 |
| 2 | 100 x 16 | 2000 825 350 |
| 2.5 | 112 x 18 | 2000 825 352 |
| 3 | 126 x 20 | 2000 825 354 |
| 4 | 140 x 25 | 2000 825 356 |
| 5 | 160 x 28 | 2000 825 358 |
| 6 | 180 x 32 | 2000 825 360 |
| 8 | 200 x 36 | 2000 825 364 |
| 10 | 224 x 40 | 2000 825 366 |
| 12 | 250 x 45 | 2000 825 370 |
| 14 | 280 x 56 | 2000 825 372 |
| 17 | 320 x 63 | 2000 825 374 |
| 19 | 360 x 70 | 2000 825 376 |





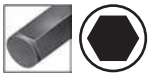
## Hexagon offset screwdriver set
**Long** · S2 steel · Matt chrome-plated · Angled · Chamfered ends

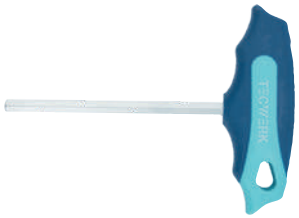
**ISO 2936 L**

**Supplied in plastic holder**

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| 9-part | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | 2000 825 122 |







## Pin spanner with T-handle
**With 2-component handle for hex screws** · S2 steel blade · Chrome-plated

| Width across flats [mm] | Blade L [mm] | Article no. |
|---|---|---|
| 2 | 100 | 2000 825 001 |
| 2.5 | 100 | 2000 825 002 |
| 3 | 100 | 2000 825 003 |
| 3 | 150 | 2000 825 004 |
| 4 | 100 | 2000 825 005 |
| 4 | 150 | 2000 825 006 |
| 4 | 200 | 2000 825 007 |
| 5 | 100 | 2000 825 008 |
| 5 | 150 | 2000 825 009 |
| 5 | 200 | 2000 825 010 |
| 5 | 350 | 2000 825 011 |
| 6 | 100 | 2000 825 012 |
| 6 | 150 | 2000 825 013 |
| 8 | 150 | 2000 825 014 |
| 8 | 200 | 2000 825 015 |
| 10 | 200 | 2000 825 016 |
| 12 | 200 | 2000 825 017 |





## Pin spanner set
**With T-handles · With 2-component handle for hex screws** · Blades S2 steel · Chrome-plated
**Special product benefits:**
The workshop stand can be set up on both workbenches and walls
**Supplied in sturdy metal workshop stand**

| Type | Contents | Width across flats [mm] | Article no. |
|---|---|---|---|
| With T-handle | 8-part | 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 | 2000 825 000 |





## Hexagon offset screwdriver set

Short with ball end · S2 steel · Matt chrome plated · Angled · Long leg with ball end allows screwing up to an angle of 25° · Chamfered short leg

| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 123** |





## Hex key

**With ball end · Long, ball end ·** S2 steel · Matt chrome-plated · Angled · Long leg with ball end · **Allows screwing at angles up to 25° ·** Chamfered short leg

**According to ISO 2936 L**

| Width across flats [mm] | Leg L [mm] | Article no. |
|---|---|---|
| **1.5** | 90 x 14 | **2000 825 450** |
| **2** | 100 x 16 | **2000 825 452** |
| **2.5** | 112 x 18 | **2000 825 454** |
| **3** | 126 x 20 | **2000 825 456** |
| **4** | 140 x 25 | **2000 825 458** |
| **5** | 160 x 28 | **2000 825 460** |
| **6** | 180 x 32 | **2000 825 462** |
| **7** | 190 x 34 | **2000 825 464** |
| **8** | 200 x 36 | **2000 825 466** |
| **10** | 224 x 40 | **2000 825 468** |
| **12** | 250 x 45 | **2000 825 470** |







## Offset screwdriver set

**Universal ·** Long · For screws with **hexagon socket profile** in 1.5–10 AF long leg with ball end · The ball end allows screwing at angles of up to 25° · For screws with **Internal TORX® profile** in T 10–T 50 · S2 steel · Matt chrome-plated

**Special product advantage:**
Every hex key for M2–M10 screws in one compact set

| Contents | Width across flats [mm] | Sizes | Article no. |
|---|---|---|---|
| **18-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40 / T 45 / T 50 | **2000 825 118** |





## Offset screwdriver set

**With ball ends · Long ·** S2 steel · Matt chrome plated · Angled · Long leg with ball end · Allows screwing at angles up to 25° · Chamfered short leg
**Supplied in Plastic holder**



| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 111** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



## Offset screwdriver set

**With ball ends and extra short leg** for working in very tight spaces · S2 steel · Matt chrome plated · Long leg with ball end · Allows screwing at angles up to 25° · Chamfered short leg, extra short

**Equipped with:**
1.5 x 100.5 x 4.0 mm
2.0 x 112.0 x 4.5 mm
2.5 x 125.5 x 5.0 mm
3.0 x 141.0 x 5.5 mm
4.0 x 158.0 x 7.5 mm
5.0 x 180.0 x 8.5 mm
6.0 x 202.5 x 10.0 mm
8.0 x 224.0 x 12.0 mm
10.0 x 247.0 x 17.0 mm
**Supplied in Plastic holder**



| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 109** |



## Offset screwdriver set

**With ball ends** · Long · **Colour-coded**

S2 steel · Powder-coated · Matt chrome-plated · Angled · Long leg with ball end · Allows screwing at angles up to 25° · Chamfered short leg

**Special product benefits:**
**Each key is colour-coded for easy identification**
**Supplied in Plastic holder**



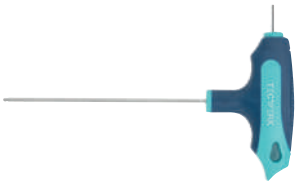


| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| **9-part** | 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 | **2000 825 110** |



## Pin spanner with T-handle

**With 2-component handle for hex screws** · Side torque drive for applying heavy force · The ball end allows screwing at angles of up to 25° · S2 steel blades · Chrome-plated



| Width across flats [mm] | Blade L [mm] | Article no. |
|---|---|---|
| **2** | 100 | **2000 825 021** |
| **2.5** | 100 | **2000 825 022** |
| **3** | 100 | **2000 825 023** |
| **4** | 150 | **2000 825 024** |
| **5** | 150 | **2000 825 025** |
| **6** | 150 | **2000 825 026** |
| **8** | 200 | **2000 825 027** |
| **10** | 200 | **2000 825 028** |



## Pin spanner set

**With T-handles · With 2-component handle for hex screws** · Side torque drive for applying heavy force · The ball end allows screwing at angles of up to 25°, blades S2 steel · Chrome-plated
**Special product benefits:**
The workshop stand can be set up on both workbenches and walls
**Supplied in sturdy metal workshop stand**



| Type | Contents | Width across flats [mm] | Article no. |
|---|---|---|---|
| **T-handle, ball end, side torque drive** | 8-part | 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 | **2000 825 020** |



## Offset screwdriver
**For screws with internal TORX® profile** · S2 steel · Matt chrome-plated · Angled

| Size | Leg L [mm] | For screws | Article no. |
|---|---|---|---|
| **T 10** | 51 x 17 | M3 | **2000 825 507** |
| **T 15** | 54 x 18 | M3.5 | **2000 825 508** |
| **T 20** | 57 x 19 | M4 | **2000 825 509** |
| **T 25** | 60 x 20 | M5 | **2000 825 510** |
| **T 30** | 70 x 24 | M6 | **2000 825 512** |
| **T 40** | 76 x 26 | M8 | **2000 825 513** |



## Offset screwdriver set
**For screws with internal TORX® profile · S2 steel** · Matt chrome plated · Angled
**Supplied in Plastic holder**

| Contents | Sizes | Article no. |
|---|---|---|
| **9-part** | T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40, T 45 | **2000 825 113** |



## Offset screwdriver set
**With ball ends · For screws with internal TORX® profile · Long leg with ball end** · Allows screwing at angles up to 25° · **S2 steel** · Matt chrome plated
**Supplied in plastic holder**

| Contents | Sizes | Article no. |
|---|---|---|
| **9-part** | T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40, T 45 | **2000 825 114** |



## Offset screwdriver set
**With ball ends · Colour-coded · For screws with internal TORX® profile** · S2 steel · Powder-coated

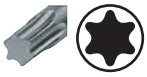
**Special product benefits:**
**Each key is colour-coded for easy identification**
**Supplied in Plastic holder**

| Contents | Sizes | Article no. |
|---|---|---|
| **9-part** | T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40, T 45 | **2000 825 115** |



## Screwdriver set
**For screws with Internal Torx® profile** · Blades made of S2 steel · Matt chrome-plated · 2-component plastic holder
**Supplied in 2-component pocket holder**

| Contents | Sizes | Article no. |
|---|---|---|
| **8-part** | T9 / T10 / T15 / T20 / T25 / T27 / T30 / T40 | **2000 825 119** |

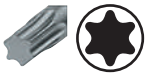




## T-handle screwdriver

**With 2-component handle · For screws with internal TORX® profile** · S2 steel blade · Chrome-plated

| Size | Blade L [mm] | For screws | Article no. |
|---|---|---|---|
| **T 10** | 100 | M 3.0 | **2000 825 032** |
| **T 15** | 100 | M 3.5 | **2000 825 033** |
| **T 20** | 100 | M 4.0 | **2000 825 034** |
| **T 25** | 100 | M 5.0 | **2000 825 035** |
| **T 27** | 100 | - (For custom screws) | **2000 825 036** |
| **T 30** | 100 | M 6.0 | **2000 825 037** |
| **T 40** | 100 | M 8.0 | **2000 825 038** |
| **T 45** | 100 | M 8.0 | **2000 825 039** |





## T-handle screwdriver set

**With 2-component handle · For screws with internal TORX® profile** · S2 steel blade · Chrome-plated
**Special product benefits:**
The workshop stand can be set up on both workbenches and walls
**Supplied in sturdy metal workshop stand**

| Contents | Sizes | Article no. |
|---|---|---|
| **8-part** | T 10/T 15/T 20/T 25/T 27/T 30/T 40/T 45 | **2000 825 030** |







## T-handle screwdriver

**With 2-component handle · For screws with internal TORX® profile with pin** · With side torque drive · S2 steel blade · Chrome-plated

| Size | Blade L [mm] | For screws | Article no. |
|---|---|---|---|
| **T 10** | 100 | M 3.0 | **2000 825 041** |
| **T 15** | 100 | M 3.5 | **2000 825 042** |
| **T 20** | 100 | M 4.0 | **2000 825 043** |
| **T 25** | 150 | M 5.0 | **2000 825 044** |
| **T 27** | 150 | - (For custom screws) | **2000 825 045** |
| **T 30** | 150 | M 6.0 | **2000 825 046** |
| **T 40** | 200 | M 8.0 | **2000 825 047** |
| **T 45** | 200 | M 8.0 | **2000 825 048** |





## T-handle screwdriver set

**With 2-component handle · For screws with internal TORX® profile with pin** · With side torque drive · S2 steel blade · Chrome-plated
**Special product benefits:**
The workshop stand can be set up on both workbenches and walls
**Supplied in sturdy metal workshop stand**

| Contents | Sizes | Article no. |
|---|---|---|
| **8-part** | T 10/T 15/T 20/T 25/T 27/T 30/T 40/T 45 | **2000 825 040** |





## Box spanner

**Made of E155** · Galvanised · Long type with movable, captive T-handle

**Also ideal for assembling upright taps**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **10** | 400 | **2000 823 733** |
| **11** | 400 | **2000 823 735** |
| **12** | 400 | **2000 823 737** |
| **13** | 400 | **2000 823 739** |



## Box spanner

Made from steel tube (C35) · Hardened · Chrome-plated · Hexagonal ends · With hollow shaft · Seamless
**DIN 896 shape B / ISO 2236 / ISO 1085 / DIN 2391**

| Width across flats [mm] | Length [mm] | Bore Ø [mm] | Article no. |
|---|---|---|---|
| 6 x 7 | 100 | 6.5 | 2000 823 730 |
| 8 x 9 | 100 | 6.5 | 2000 823 732 |
| 8 x 10 | 120 | 6.5 | 2000 823 734 |
| 10 x 11 | 120 | 6.5 | 2000 823 736 |
| 10 x 13 | 140 | 8.5 | 2000 823 738 |
| 12 x 13 | 140 | 8.5 | 2000 823 740 |
| 13 x 14 | 140 | 8.5 | 2000 823 742 |
| 13 x 15 | 140 | 8.5 | 2000 823 743 |
| 13 x 17 | 150 | 10.5 | 2000 823 744 |
| 14 x 15 | 140 | 8.5 | 2000 823 746 |
| 14 x 17 | 150 | 10.5 | 2000 823 748 |
| 16 x 17 | 150 | 10.5 | 2000 823 750 |
| 17 x 19 | 160 | 12.5 | 2000 823 752 |
| 18 x 19 | 160 | 12.5 | 2000 823 754 |
| 19 x 22 | 170 | 12.5 | 2000 823 756 |
| 20 x 22 | 170 | 12.5 | 2000 823 758 |
| 21 x 23 | 185 | 12.5 | 2000 823 760 |
| 22 x 24 | 185 | 12.5 | 2000 823 761 |
| 24 x 27 | 185 | 14.5 | 2000 823 762 |
| 25 x 28 | 205 | 14.5 | 2000 823 764 |
| 30 x 32 | 225 | 16.5 | 2000 823 768 |





## Box spanner

Made from steel tube (C35) · Hardened · Chrome-plated · Hexagonal ends · With hollow shaft · Seamless
**DIN 896 shape B / ISO 2236 / ISO 1085 / DIN 2391**
**Supplied in roll-up pouch, complete with stepped tommy bar (6-8-1012 mm)**



| Contents | Width across flats [mm] | Article no. |
|---|---|---|
| 9-part | 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 | 2000 823 769 |



## Stepped tommy bar

**For box spanners** · Hardened · Chrome-plated

| Ø [mm] | Length [mm] | Article no. |
|---|---|---|
| 6, 8, 10, 12, 14 | 250 | 2000 823 770 |




## Hexagon socket wrench

**With multi-component no-roll handle** · Blade made of high-tempered special steel · Matt chrome-plated · **With bores for protruding threaded rods**
**DIN 3125 / ISO 2725**

| Width across flats [mm] | Blade L [mm] | Overall L [mm] | Drilling D [mm] | Article no. |
|---|---|---|---|---|
| 5 | 125 | 230 | 26 | 2000 827 150 |
| 5.5 | 125 | 230 | 26 | 2000 827 151 |
| 6 | 125 | 240 | 26 | 2000 827 152 |
| 7 | 125 | 240 | 26 | 2000 827 153 |
| 8 | 125 | 240 | 26 | 2000 827 154 |
| 9 | 125 | 240 | 26 | 2000 827 155 |
| 10 | 125 | 240 | 26 | 2000 827 156 |
| 13 | 125 | 250 | 26 | 2000 827 159 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Hexagon socket wrench set

**With multi-component no-roll handles** · Blades made of high-tempered special steel · Matt chrome-plated · **With bores for protruding threaded rods**




| Contents | Width across flats [mm] | Drilling D [mm] | Article no. |
|---|---|---|---|
| **5-part** | 5.5 / 7 / 8 / 10 / 13 | 26 | **2000 827 162** |

## Hexagonal socket wrench with T-handle

**With T-handle · With 2-component handle** · S2 steel blade · Chrome-plated



| Width across flats [mm] | Blade L [mm] | Article no. |
|---|---|---|
| **6** | 125 | **2000 825 051** |
| **7** | 125 | **2000 825 052** |
| **8** | 125 | **2000 825 053** |
| **8** | 230 | **2000 825 054** |
| **10** | 125 | **2000 825 055** |
| **10** | 230 | **2000 825 056** |
| **13** | 125 | **2000 825 057** |
| **13** | 230 | **2000 825 058** |
| **17** | 125 | **2000 825 059** |

## Triangular key

Made of special steel · Galvanised · For locking and unlocking euro security posts



| Size | Article no. |
|---|---|
| **M12** | **2000 824 807** |

## Triangular socket DIN 22417 A

Made of special steel · Galvanised shank and fulcrum pin

**Note:** The M12 size is particularly suitable for locking/unlocking steel and aluminium euro security posts



| Size | Length [mm] | Ø [mm] | Article no. |
|---|---|---|---|
| **M4** | 90 | 10 | **2000 824 800** |
| **M5** | 100 | 12 | **2000 824 801** |
| **M6** | 112 | 14 | **2000 824 802** |
| **M8** | 125 | 16 | **2000 824 803** |
| **M10** | 140 | 20 | **2000 824 804** |
| **M12** | 160 | 20 | **2000 824 805** |

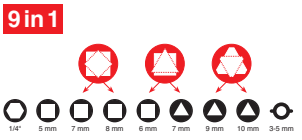



## Cabinet key/electric

For all common gas, water and power supply shut-off systems as well as for technical installations in buildings, such as air conditioning and ventilation systems, stop valves, power panels, etc. · **With built-in bottle-opener**

**Functions:**
1. 5 mm internal square
2. 6 mm internal square
3. 8 mm internal square
4. Internal triangle 9 mm
5. 3–5 mm double bit
6./7. Reversible bit: For **cross (PH 2) / slot 1 x 7 mm**
8. 6.3 mm (1/4") magnetic bit mount




| L x W x H [mm] | Article no. |
|---|---|
| **110 x 75 x 10** | **2000 829 772** |



1/4"
6,3 mm

## Cabinet key/construction

For all common gas, water and power supply shut-off systems as well as for technical installations in buildings, such as air conditioning and ventilation systems, stop valves, power panels, etc. · **With built-in bottle-opener**

**Functions:**

1. 3 mm hex key
2. 5 mm internal square
3. 6 mm internal square
4. 7 mm internal square
5. 8 mm internal square
6. Internal triangle 7 mm
7. Internal triangle 9 mm
8. Internal triangle 10 mm
9. 6–10 mm stepped square
10. Reversible bit: Cross PH 2+ slot 1.0 x 7 mm
    1/4" bit mount incl. magnet

| L x W x H [mm] | Article no. |
|---|---|
| **145 x 75 x 10** | **2000 829 773** |







## Universal key Universal

Versatile use · For opening, closing and measuring · Driving collar for Euro cylinder locks · Double-sided scale for measuring cylinder lengths · Square piped key 6 / 7 / 8 mm

| Material | Surface | Article no. |
|---|---|---|
| **Steel** | Nickel-plated matte | **2000 251 567** |



1/2"
12,5 mm

DIN
ISO



## Torque spanner set

**(Wheel installation set)**
**Contents:**
1 torque spanner, **12.5 mm** (1/2")
1 sliding square, **12.5 mm** (1/2")
1 **hexagonal** socket bit /**12.5 mm** (1/2") drive each in AF 10 / 13 / 17 / 19 / 21 / 24 mm*
1 **hexagonal** socket bit / 78 mm long / **12.5 mm** (1/2") drive each in AF 17 / 19 / 21 mm**
1 extension, **12.5 mm** (1/2"), 125 mm long*
* For use with hand tools
** With plastic sleeve to prevent damage to sensitive aluminium surfaces (also suitable for air impact drivers)

**Torque spanner**
Automatic release · For controlled clockwise and anti-clockwise tightening · Built-in ratcheting function · Tactile and audible release signal · Double scale (Nm/lbf.ft.) underneath magnifying window · Release accuracy tolerance ± 3 % from pre-set scale value
**Supplied with operating instructions and traceable calibration certificate in accordance with DIN EN ISO 6789-2:2017**
**Supplied in plastic case**

| Square drive [mm] (inch) | Contents | Work area [Nm] | Work area [lbf.ft] | Scale division [Nm] | Article no. |
|---|---|---|---|---|---|
| **12.5 (1/2)** | 12-part | 40 - 200 | 30–150 | 1.0 | **2000 821 769** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Torque spanner

Classified in accordance with DIN EN 6789:2017 Type II Class A · Calibrated to a maximum permissible deviation of +/- 3 %, making it more precise than the +/- 4 % required by the standard. · Includes calibration certificate in accordance with DIN EN ISO 6789-2:2017



| Square drive [mm] (inch) | Work area [Nm] | Work area [lbf.ft] | Type | Mount [mm] | Length [mm] | Article no. |
|---|---|---|---|---|---|---|
| **12.5 (1/2)** | 20 - 100 | 15– 75 | Reversible ratchet | 12.5 | 409 | **2000 821 708** |
| **12.5 (1/2)** | 40 - 200 | 30–150 | Reversible ratchet | 12.5 | 500 | **2000 821 709** |
| **12.5 (1/2)** | 60 - 300 | 45–220 | Reversible ratchet | 12.5 | 590 | **2000 821 710** |
| **20 (3/4)** | 150 - 550 | 80–405 | Reversible ratchet | 20 | 998 | **2000 821 711** |

1/4" 6,3 mm | 3/8" 10,0 mm | 1/2" 12,5 mm | 3/4" 20,0 mm

DIN ISO



## Torque spanner

Automatic release · Made of powder-coated, sturdy steel tube for controlled clockwise and anti-clockwise tightening with built-in ratchet function · Clicking mechanism with rollers guarantees a tactile and audible release signal · Simple reversing (just press square through ratchet) · Easily readable double scale (Nm/lbf.ft) underneath magnifying window · Calibrated to a release accuracy of ± 3 % of the tolerance of the set scale value

**Supplied with operating instructions and traceable calibration certificate in accordance with DIN EN ISO 6789-2:2017**
**Supplied in transparent plastic tubes with hanger** (article no. 2000 821 706 in sturdy cardboard box)

**Complete with sliding square**



| Square drive [mm] (inch) | Work area Nm] | Scale division [Nm] | Work area [lbf.ft] | Type | Mount [mm] | Length [mm] | Article no. |
|---|---|---|---|---|---|---|---|
| **6.3 (1/4)** | 1 - 5 | 0.025 | 0.75– 3.7 | - | - | 220 | **2000 821 698** |
| **6.3 (1/4)** | 5 - 25 | 0.1 | 3.7 – 18 | - | - | 285 | **2000 821 699** |
| **10 (3/8)** | 10 - 50 | 0.25 | 7.5 – 37 | - | - | 335 | **2000 821 701** |
| **12.5 (1/2)** | 20 - 100 | 0.5 | 15 – 75 | - | - | 395 | **2000 821 703** |
| **12.5 (1/2)** | 40 - 200 | 1 | 30 –150 | - | - | 485 | **2000 821 704** |
| **12.5 (1/2)** | 60 - 300 | 1 | 45 –220 | - | - | 575 | **2000 821 705** |
| **20 (3/4)** | 150 - 750 | 1 | 110 –550 | - | - | 1240 | **2000 821 706** |
| **20 (3/4)** | 80 - 400 | - | 60 –300 | Mushroom head | 20 | 684 | **2000 821 707** |

Der PROBLEM LÖSER

## Adapter set

Made of chromium-vanadium steel · Matt chrome-plated · Practical two-coloured insert for easy completeness check
**Contents:**
1 adapter, **6.3 mm** (1/4") to **10.0 mm** (3/8")
1 adapter, **10.0 mm** (3/8") to **12.5 mm** (1/2")
1 reducer, **10.0 mm** (3/8") to **6.3 mm** (1/4")
1 reducer, **12.5 mm** (1/2") to **10.0 mm** (3/8")
1 adapter, **6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head*
1 adapter, **12.5 mm** (1/2") external square to **6.3 mm** (1/4") hexagon head*
1 adapter, **6.3 mm** (1/4") internal square to **6.3 mm** (1/4") hexagon socket**





* For driving sockets with power tools (conventional cordless screwdriver)
** For driving **6.3 mm** (1/4 ") bits with a ratchet or handle with **6.3 mm** (1/4") square

| Contents | Article no. |
|---|---|
| **7-part** | **2000 821 196** |



1/4" 6,3 mm

DIN ISO

## Socket bit

**6.3 mm** (1/4") square drive · **Hexagonal** · Chromium-vanadium steel

**DIN 3124 / ISO 2725-1**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| 5 | 25 | 2000 821 005 |
| 5.5 | 25 | 2000 821 208 |
| 6 | 25 | 2000 821 006 |
| 7 | 25 | 2000 821 007 |
| 8 | 25 | 2000 821 008 |
| 9 | 25 | 2000 821 009 |
| 10 | 25 | 2000 821 010 |
| 11 | 25 | 2000 821 011 |
| 12 | 25 | 2000 821 012 |
| 13 | 25 | 2000 821 013 |



1/4" 6,3 mm

DIN ISO

## Deep socket bit

**6.3** mm (1/4") square drive · **Hexagonal** · Chromium-vanadium steel · Matt chrome-plated · Long type

**DIN 3124 / ISO 2725**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| 6 | 50 | 2000 821 016 |
| 7 | 50 | 2000 821 017 |
| 8 | 50 | 2000 821 018 |
| 10 | 50 | 2000 821 020 |
| 13 | 50 | 2000 821 015 |





1/4" 6,3 mm

## Socket bit

For use with hand and power tools (conventional cordless screwdriver) · **With strong permanent magnet** Drive:
**6.3 mm** (1/4") hexagonal DIN 3126-E 6.3, ISO 1173

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| 5.5 | 60 | 2000 821 220 |
| 6 | 60 | 2000 821 000 |
| 7 | 60 | 2000 821 001 |
| 8 | 60 | 2000 821 002 |
| 9.4 | 60 | 2000 821 014 |
| 10 | 60 | 2000 821 003 |
| 13 | 60 | 2000 821 004 |



1/4" 6,3 mm

## Socket spanner assortment

For use with hand and power tools (conventional cordless screwdriver) · **With strong permanent magnet**

Drive: 6.3 mm (1/4") hexagonal DIN 3126 - E 6.3 · ISO 1173

**Contents:**
1 socket bit with 6.3 mm (1/4") hexagonal drive each in 6 / 7 / 8 / 10 / 13 mm
**Supplied in sturdy folding case**

| Contents | Length [mm] | Article no. |
|---|---|---|
| 5-part | 60 | 2000 821 048 |




## Socket bit

**6.3** mm (1/4") square drive · **For slotted head screws** · Chromium-vanadium steel base · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **4** | 0.5 | 32 | **2000 821 023** |
| **5.5** | 0.4 | 32 | **2000 821 024** |




## Socket bit

**6.3** mm (1/4") square drive · **For cross-head (PH) screws** · Chromium-vanadium steel base · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Size | Length [mm] | Article no. |
|---|---|---|
| **PH 1** | 32 | **2000 821 027** |
| **PH 2** | 32 | **2000 821 028** |
| **PH 3** | 32 | **2000 821 029** |




## Socket bit

**6.3** mm (1/4") square drive · **For cross-head (PZ) screws** · Base made of chromium-vanadium steel · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Size | Length [mm] | Article no. |
|---|---|---|
| **PZ 1** | 32 | **2000 821 031** |
| **PZ 2** | 32 | **2000 821 032** |
| **PZ 3** | 32 | **2000 821 033** |



## Socket bit

**6.3** mm (1/4") square drive · **For screws with hexagon socket profile** · Chromium-vanadium steel base · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **2.5** | 32 | **2000 821 223** |
| **3** | 32 | **2000 821 043** |
| **4** | 32 | **2000 821 044** |
| **5** | 32 | **2000 821 045** |
| **6** | 32 | **2000 821 046** |
| **8** | 32 | **2000 821 047** |



1/4" 6,3 mm

DIN ISO

## Socket bit

**6.3** mm (1/4") square drive · **For screws with internal TORX® profile** · Chromium-vanadium steel base · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Size | Length [mm] | Article no. |
|---|---|---|
| **T10** | 32 | **2000 821 050** |
| **T15** | 32 | **2000 821 051** |
| **T20** | 32 | **2000 821 052** |
| **T25** | 32 | **2000 821 053** |
| **T27** | 32 | **2000 821 056** |
| **T30** | 32 | **2000 821 054** |
| **T40** | 32 | **2000 821 055** |



1/4" 6,3 mm

DIN ISO

## Socket bit

**6.3** mm (1/4") square drive · **For screws with external TORX® profile** · Chromium-vanadium steel

**DIN 3120 / ISO 1174**

| Size | Length [mm] | Article no. |
|---|---|---|
| **E4** | 25 | **2000 821 021** |
| **E5** | 25 | **2000 821 022** |
| **E6** | 25 | **2000 821 025** |
| **E7** | 25 | **2000 821 026** |
| **E8** | 25 | **2000 821 030** |
| **E10** | 25 | **2000 821 034** |



1/4" 6,3 mm

DIN ISO

## Adapter

For driving bits with a ratchet

**DIN 3123**

| Square drive [mm] (inch) | Hexagon drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|---|
| **6.3 (1/4)** | **6.3** (1/4) | 25 | **2000 821 073** |



1/4" 6,3 mm

DIN ISO

## Adapter

**6.3** mm (1/4") **external square** to **6.3** mm (1/4") **hexagon head** · For driving **6.3 mm** (1/4") socket bits with a power tool (conventional cordless screwdriver)

| Hexagon drive [mm] (inch) | Square drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|---|
| **6.3 (1/4)** | **6.3** (1/4) | 25 | **2000 821 074** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

1/4"
6.3 mm

DIN
ISO



## Adapter
**6.3** mm (1/4") **external square** to **6.3** mm (1/4") **hexagon head** · For driving **6.3 mm** (1/4") socket bits with a power tool (conventional cordless screwdriver)

| Hexagon drive [mm] (inch) | Square drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|---|
| **6.3 (1/4)** | **6.3** (1/4) | 65 | **2000 821 078** |

1/4"
6.3 mm

DIN
ISO



## Extension
**6.3** mm (1/4") square drive · Chromium-vanadium steel · Chrome-plated

**DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **50** | **2000 821 060** |
| **75** | **2000 821 062** |
| **100** | **2000 821 061** |
| **150** | **2000 821 063** |



1/4"
6.3 mm

DIN
ISO



## Extension
**Flexible** · **6.3** mm (1/4") square drive · Chromium-vanadium steel

**DIN 3123, ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **150** | **2000 821 064** |

1/4"
6.3 mm

DIN
ISO



## Extension
**6.3** mm (1/4") square drive · Chromium-vanadium steel · Removable sliding collar

**DIN 3122 / ISO 3315**
**DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **100** | **2000 821 067** |

1/4"
6.3 mm

DIN
ISO



## Universal joint
**6.3 mm** (1/4") square drive · Chromium-vanadium steel **DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **40** | **2000 821 070** |

1/4" 6,3 mm

DIN ISO





## Handle with square drive

**6.3 mm** (1/4") external square · Multi-component handle

**DIN 3122 / ISO 3315**

| Length [mm] | Type | Article no. |
|---|---|---|
| **150** | With square drive | **2000 821 077** |

1/4" 6,3 mm



## Bit/lever-action reversible ratchet

**6.3 mm** (1/4") square drive · When combined with the supplied bit adapter, every bit can be used with the **6.3 mm** (1/4") hexagonal drive · Socket-locking function with push-button release · Additional bit holder in handle (magnetic) · 72 teeth

**Supply complete with bit adapter**




| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **6.3 (1/4)** | 95 | **2000 821 501** |

1/4" 6,3 mm



## Bit/lever-action reversible ratchet

With **direct bit mount** · **For 6.3 mm** (1/4") **bits** · Additional bit holder in handle (magnetic) · 72 teeth






| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **6.3 (1/4)** | 95 | **2000 821 540** |

1/4" 6,3 mm



DIN ISO






## Lever-action reversible ratchet

**6.3 mm** (1/4") square drive · With 2-component handle · Chromium-vanadium steel · Matt chrome-plated · Socket-locking function with push-button release

**5° backswing angle**

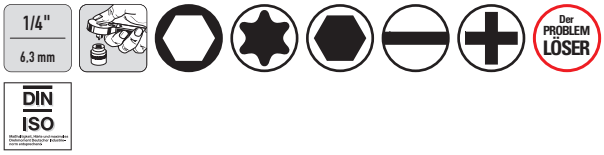
72 teeth

**DIN 3122 / ISO 3315**

| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **6.3 (1/4)** | 145 | **2000 821 236** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.






## Socket spanner set
**"With MAGIC technology"**

**Also loosens screw heads and nuts that have been rounded by up to 85 %**

**6.3 mm** (1/4") square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Socket bits with CV base and special steel blades · Phosphate-coated



**Contents:**
1 lever-action reversible ratchet (72 teeth) with socket-locking function and push-button release
1 **hexagonal** socket bit **"with MAGIC technology"** each in sizes 4 / 4.5 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 socket bit each for screws with **internal TORX® profile** in sizes T 15 / T 20 / T 25 / T 27 / T 30
1 socket bit each for screws with **hexagon socket profile** AF 3 / 4 / 5 / 6 mm
1 extension each L 50 / 150 mm
1 handle with square drive
1 socket bit each for **slotted head screws** in 4 / 5.5 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2
1 hex key each in AF 1.25 / 1.5 / 2 / 2.5 / 3 mm
1 universal joint
1 adapter, **6.3 mm** (1/4") to **10.0 mm** (3/8")




The **TECWERK** socket bits **"with MAGIC technology"** are real problem solvers.
They can be used to loosen both hexagonal screws/nuts as well as **screw heads and nuts that have been rounded by up to 85 %.**
**Supplied in steel case**

5

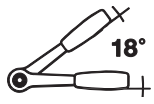
| Contents | Article no. |
|---|---|
| 36-part | 2000 822 345 |






## Socket spanner set
**6.3 mm** (1/4") square drive · Made of chromium-vanadium steel · Matt chrome-plated · Easy-grip knurled socket bits · Lever-action reversible ratchet with 2-component handle and socket-locking function with push-button release · **Two-coloured insert for easy tool completeness check**

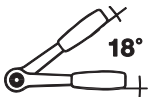
**Contents:**
1 lever-action reversible ratchet (20 teeth)
1 **hexagonal** socket bit each in AF 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm
1 extension each in 50 / 150 mm
1 handle with square drive
1 universal joint
1 sliding collar (also serves as adapter, **10.0 mm** (3/8") to **6.3 mm** (1/4"))




**Supplied in steel case**

| Contents | Article no. |
|---|---|
| 18-part | 2000 821 182 |





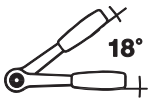

## Socket spanner set

**6.3 mm** (1/4") square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Knurled socket bits · Socket bits with chromium-vanadium base and phosphate-coated special steel blades · Lever-action reversible ratchet with 2-component handle and socket-locking function with push-button release · Two-coloured insert for easy tool completeness check

**Contents:**
1 lever-action reversible ratchet (20 teeth)
1 **hexagonal** socket bit each in AF 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm
1 socket bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 30 / T 40
1 socket bit each for screws with **hexagon socket profile** in AF 3 / 4 / 5 / 6 mm
1 extension each in 50 / 150 mm
1 handle with square drive
1 socket bit each for **slotted head screws** in 4 / 5.5 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2 / 3
1 socket bit each for **cross-head (PZ)** screws in sizes 1 / 2 / 3
1 sliding collar (also serves as adapter, **10.0 mm** (3/8") to **6.3 mm** (1/4"))
1 universal joint
**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **36-part** | **2000 821 183** |






## Socket spanner set

**6.3 mm** (1/4") square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Easy-grip knurled socket bits · Driver bits made of S2 steel · Lever-action reversible ratchet with 2-component handle and socket-locking function with push-button release · **Two-coloured insert for easy tool completeness check**

**Contents:**
1 lever-action reversible ratchet (20 teeth)
1 **hexagonal** socket bit each in AF 4 / 4.5 / 5 / 5.5 / 6 / 6.5 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 **deep hexagonal** socket bit each in AF 7 / 8 / 10 / 13 mm
1 driver bit each for **slotted head screws** in 4 / 5.5 / 6.5 mm*
Driver bits for **cross-head (PH)** screws: 1x sizes 00 / 0 / 3, 2x sizes 1 / 2*
1 driver bit, **long type** (75 mm) each for **cross-head (PH)** screws in sizes 0 / 1 / 2 / 3
Driver bits for **cross-head (PZ)** screws: 1x size 3, 2x sizes 1 / 2*
1 driver bit, **long type** (75 mm) each for **cross-head (PZ)** screws in sizes 1 / 2
1 driver bit each for screws with **hexagon socket profile** in sizes 2 / 2.5 / 3 / 4 / 5 / 6 / 8 mm*
1 driver bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40*
1 of each extension size 50 / 100 mm
1 sliding collar (also serves as adapter, **10.0 mm** (3/8") to **6.3 mm** (1/4"))
1 adapter, **6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head**
1 adapter, **6.3 mm** (1/4") internal square to **6.3 mm** (1/4") hexagon socket
(For driving driver bits with a ratchet)
1 **driver** with bit holder (with magnet and quick-change holder) with multi-component handle
1 bit holder with magnet
* 25 mm long

** For driving socket holder sets with power tools (conventional cordless screwdriver)
**Supplied in steel case**



| Contents | Article no. |
|---|---|
| **61-part** | **2000 821 191** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

3/8"
10.0 mm

DIN
ISO



## Socket bit

**10.0 mm** (3/8") square drive · **Hexagonal** in accordance with DIN 3124 · Chromium-vanadium steel · Forged · Matt chrome-plated
**DIN 3124**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **6** | 30 | **2000 821 521** |
| **7** | 30 | **2000 821 522** |
| **8** | 30 | **2000 821 523** |
| **9** | 30 | **2000 821 524** |
| **10** | 30 | **2000 821 525** |
| **11** | 30 | **2000 821 526** |
| **12** | 30 | **2000 821 527** |
| **13** | 30 | **2000 821 528** |
| **15** | 30 | **2000 821 530** |
| **17** | 30 | **2000 821 532** |
| **19** | 30 | **2000 821 534** |
| **22** | 30 | **2000 821 537** |
| **24** | 30 | **2000 821 539** |

3/8"
10.0 mm



## Adapter

**10** mm (3/8") **external square to 6.3** mm (1/4") **hexagon head** · For driving **10** mm (3/8") socket bits (conventional cordless screwdriver)

| Hexagon drive [mm] (inch) | Square drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|---|
| **6.3 (1/4)** | **10** (3/8) | 65 | **2000 822 343** |

3/8"
10.0 mm

DIN
ISO



## Extension

**10.0 mm** (3/8") square drive · Chromium-vanadium steel · Chrome-plated
**DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **75** | **2000 821 544** |
| **125** | **2000 821 672** |

3/8"
10.0 mm

DIN
ISO



## Extension

**10.0 mm** (3/8") square drive · Chromium-vanadium steel · Removable sliding collar
**DIN 3122 / ISO 3315**

| Length [mm] | Article no. |
|---|---|
| **150** | **2000 821 545** |

3/8"
10.0 mm

DIN
ISO



## Universal joint

**10.0 mm** (3/8") square drive · For manually operated socket bits with ball lock · Chromium-vanadium steel · Chrome-plated
**DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **50** | **2000 821 546** |





3/8" 10,0 mm

DIN ISO

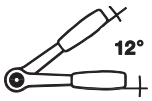
## Lever-action reversible ratchet

**10 mm** (3/8") square drive · With 2-component handle · Chromium-vanadium steel · Matt chrome-plated · Socket-locking function with push-button release
**5° backswing angle**
72 teeth

**DIN 3122 / ISO 3315**

| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **10 (3/8)** | 145 | **2000 822 344** |






3/8" 10,0 mm

DIN ISO

## Socket spanner set

**10 mm** (3/8") square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Easy-grip knurled socket bits · Lever-action reversible ratchet with 2-component handle and socket-locking function with push-button release · Practical two-coloured insert for easy tool completeness check

**Contents:**
1 lever-action reversible ratchet (30 teeth)
1 **hexagonal** socket bit each in AF 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 mm
1 extension each in 75 / 125 / 150 mm
1 universal joint
1 sliding collar (also serves as adapter, **12.5 mm** (1/2") to **10 mm** (3/8"))
**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **20-part** | **2000 821 185** |



1/2" 12,5 mm

## Adapter

**12.5** mm (1/2") **external square** to **6.3** mm (1/4") **hexagon head** · For driving **12.5 mm** (1/2") socket bits with a power tool (conventional cordless screwdriver)

| Hexagon drive [mm] (inch) | Square drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|---|
| **6.3 (1/4)** | **12.5** (1/2) | 72 | **2000 821 080** |



1/2" 12,5 mm

DIN ISO

## Socket bit

**12.5 mm** (1/2") square drive · **Hexagonal** · Chromium-vanadium steel · Chrome-plated

**DIN 3124 / ISO 2725-1**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **8** | 40 | **2000 821 225** |
| **10** | 40 | **2000 821 210** |
| **11** | 40 | **2000 821 211** |
| **12** | 40 | **2000 821 212** |
| **13** | 40 | **2000 821 213** |
| **14** | 40 | **2000 821 214** |
| **15** | 40 | **2000 821 215** |
| **16** | 40 | **2000 821 216** |
| **17** | 40 | **2000 821 217** |
| **18** | 40 | **2000 821 218** |
| **19** | 40 | **2000 821 219** |
| **21** | 40 | **2000 821 221** |
| **22** | 40 | **2000 821 222** |
| **24** | 40 | **2000 821 224** |
| **27** | 45 | **2000 821 227** |
| **30** | 45 | **2000 821 230** |
| **32** | 47 | **2000 821 232** |
| **36** | 48 | **2000 821 234** |



## Socket bit
**Long type · 12.5 mm** (1/2″) square drive · **Hexagonal** for long-protruding threaded rods · Forged

**DIN 3124 / ISO 2725-1**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **10** | 77 | **2000 821 237** |
| **13** | 77 | **2000 821 240** |
| **17** | 77 | **2000 821 244** |
| **19** | 77 | **2000 821 246** |



Similar to figure

## Socket bit
**12.5 mm** (1/2″) square drive · **Double hexagonal** · Chromium-vanadium steel

**DIN 3124 / ISO 2725-1**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **10** | 40 | **2000 821 250** |
| **11** | 40 | **2000 821 251** |
| **12** | 40 | **2000 821 252** |
| **13** | 40 | **2000 821 253** |
| **14** | 40 | **2000 821 254** |
| **15** | 40 | **2000 821 255** |
| **16** | 40 | **2000 821 256** |
| **17** | 40 | **2000 821 257** |
| **18** | 40 | **2000 821 258** |
| **19** | 40 | **2000 821 259** |
| **21** | 40 | **2000 821 261** |
| **22** | 40 | **2000 821 262** |
| **24** | 40 | **2000 821 264** |
| **27** | 45 | **2000 821 267** |
| **30** | 45 | **2000 821 270** |
| **32** | 47 | **2000 821 272** |



2000 821 226



2000 821 228



2000 821 229

## Socket bit
**12.5 mm** (1/2″) square drive · For screws with **hexagon socket profile** · Chromium-vanadium steel base · Blade made of special steel

**DIN 7422**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **4** | 55 | **2000 821 226** |
| **5** | 55 | **2000 821 356** |
| **5** | 180 | **2000 821 228** |
| **6** | 55 | **2000 821 357** |
| **6** | 90 | **2000 821 229** |
| **6** | 140 | **2000 821 273** |
| **7** | 55 | **2000 821 369** |
| **7** | 100 | **2000 821 375** |
| **8** | 55 | **2000 821 358** |
| **8** | 100 | **2000 821 376** |
| **9** | 55 | **2000 821 231** |
| **10** | 55 | **2000 821 359** |
| **10** | 100 | **2000 821 377** |
| **12** | 55 | **2000 821 363** |
| **14** | 55 | **2000 821 364** |
| **14** | 140 | **2000 821 412** |
| **17** | 55 | **2000 821 374** |
| **19** | 55 | **2000 821 414** |



1/2" 12,5 mm

DIN ISO

## Socket bit

**12.5 mm** (1/2") square drive · **For screws with internal TORX® profile** · Chromium-vanadium steel base · Matt chrome-plated · Blade made of special steel · Phosphate-coated

**DIN 3120 / ISO 1174**

| Size | Length [mm] | Article no. |
|---|---|---|
| **T30** | 55 | **2000 821 149** |
| **T40** | 55 | **2000 821 350** |
| **T45** | 55 | **2000 821 351** |
| **T50** | 55 | **2000 821 352** |
| **T55** | 55 | **2000 821 353** |



1/2" 12,5 mm

DIN ISO

## Socket bit

**12.5 mm** (1/2") square drive · **For screws with external TORX® profile** · Chromium-vanadium steel · Matt chrome-plated

| Size | Length [mm] | Article no. |
|---|---|---|
| **E10** | 38 | **2000 821 274** |
| **E12** | 38 | **2000 821 276** |
| **E14** | 38 | **2000 821 277** |
| **E18** | 38 | **2000 821 278** |



1/2" 12,5 mm

DIN ISO

## Extension

**12.5 mm** (1/2") square drive · Chromium-vanadium steel · Chrome-plated
**DIN 3123 / ISO 3316**

| Length [mm] | Article no. |
|---|---|
| **75** | **2000 821 453** |
| **125** | **2000 821 455** |
| **250** | **2000 821 457** |



1/2" 12,5 mm

DIN ISO

## Extension

**12.5 mm** (1/2") square drive · Chromium-vanadium steel · Forged · Matt chrome-plated

The sliding collar is removable and also serves as an adapter, **10.0 mm** (3/8") to **12.5 mm** (1/2").

| Length [mm] | Article no. |
|---|---|
| **255** | **2000 821 460** |



1/2" 12,5 mm

DIN ISO

## Universal joint

**12.5 mm** (1/2") square drive · Chromium-vanadium steel · Chrome-plated
**DIN 3123 / ISO 3316**

| Length [mm] | Article no. | EUR | CK |
|---|---|---|---|
| **72** | **2000 821 465** | - | |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

1/2" 12.5 mm
DIN ISO



## Square coupler
**12.5 mm** (1/2") square drive · Chromium-vanadium steel · Chrome-plated
**DIN 3122 / ISO 3315**

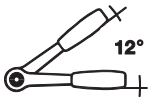
| Drive [mm] (inch) | Length [mm] | Type | Article no. |
|---|---|---|---|
| **12.5 (1/2)** | 36 | With ball lock | **2000 821 450** |

1/2" 12.5 mm
DIN ISO



## Pass-through ratchet
**12.5 mm** (1/2") square drive · **With reversible square drive** · Chromium-vanadium steel · Chrome-plated · 2-component handle

**12° backswing angle**
30 teeth




| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **12.5 (1/2)** | 270 | **2000 821 560** |

1/2" 12.5 mm
DIN ISO



## Lever-action reversible ratchet
**12.5 mm** (1/2") square drive · With 2-component handle · Chromium-vanadium steel · Socket-locking function with push-button release · Chrome-plated
**5° backswing angle**
72 teeth

**DIN 3122 / ISO 3315**




| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **12.5 (1/2)** | 250 | **2000 821 238** |

1/2" 12.5 mm



## Telescope ratchet
**12.5 mm** (1.2") square drive · Chromium-vanadium steel · With 2-component handle · Socket-locking function with push-button release · Length options approx. 455, 480, 510, 540, 570, 595 mm
**5° backswing angle**
72 teeth






| Drive [mm] (inch) | Length [mm] | Article no. |
|---|---|---|
| **12.5 (1/2)** | 455–595 | **2000 821 696** |



1/4" 6,3 mm | 1/2" 12,5 mm | DIN ISO

## Socket spanner set

**6.3 mm** (1/4″) and **12.5 mm** (1/2″) square drive · Practical two-coloured insert for easy tool completeness check · **For screws with internal and External TORX® profile · Chromium-vanadium steel** · **Contents: 6.3 mm** (1/4″)-**square drive** · 1 socket bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 · 1 socket bit each for screws with **external TORX® profile** in AF E 4 / E 5 / E 6 / E 7 / E 8 / E 10 **12.5 mm** (1/2″)-**square drive** · 1 socket bit each for screws with **internal TORX® profile** in sizes T 40 / T 45 / T 50 / T 55 · 1 socket bit each for screws with **external TORX® profile** in AF E 10 / E 11 / E 12 / E 14 / E 16 / E 18 / E 20 · 1 TORX® key each in sizes T 6 / T 7 / T 8 / T 9

**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **27-part** | **2000 821 186** |



1/4" 6,3 mm | 1/2" 12,5 mm | DIN ISO

## Socket spanner set

**6.3 mm** (1/4″) and **12.5 mm** (1/2″) square drive · Practical two-coloured insert for easy tool completeness check · **For screws with hexagon socket profile · Chromium-vanadium steel** · **Contents: 6.3 mm** (1/4″)-**square drive** · 1 socket bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm **12.5 mm** (1/2″)-**square drive** · 1 socket bit each in sizes 5 / 6 / 7 / 8 / 10 / 12 / 14 / 17 mm · 1 socket bit, **100 mm long** each in sizes 8 / 10 mm · 1 pc. each of hexagonal socket wrench in sizes 1.25 / 1.5 / 2 / 2.5 / 3 mm

**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **19-part** | **2000 821 187** |






1/2" 12,5 mm | DIN ISO

## Socket spanner set

**12.5 mm** (1/2″) square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Knurled socket bits · Lever-action reversible ratchet with 2-component handle and socket-locking function with push-button release · Practical two-coloured insert for easy tool completeness check

**Contents:**

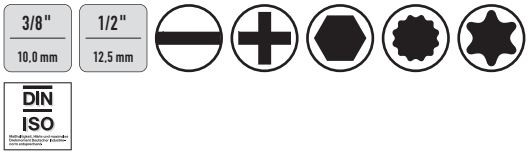
1 lever-action reversible ratchet (36 teeth)
1 **hexagonal** socket bit each in AF 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 / 27 / 30 / 32 mm
1 **deep hexagonal** socket bit each in AF 13 / 17 / 19 mm
1 sparking plug socket bit each in 16 / 21 mm
1 extension each in 75 / 125 / 250 mm
1 universal joint
1 sliding collar

**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **27-part** | **2000 821 189** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.






## Power wrench set

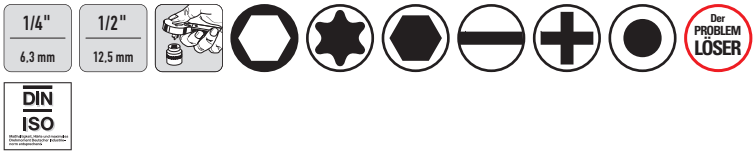
**10 mm** (3/8") and **12.5 mm** (1/2") square drive
For screws with **hexagon socket, XZN and internal TORX® profile** · Made of S2 steel (adapter* made of chromium-vanadium steel)
**For use with hand tools, electric screwdrivers and impact screwdrivers**

**Contents:**
1 bit each for **slotted head screws** in sizes 8 / 10 mm**
1 bit each for **cross-head (PH)** screws in sizes 2 / 3 mm**
1 bit each for screws with **hexagon socket profile** in sizes 4 / 5 / 6 / 7 / 8 / 10 / 12 mm**
1 bit each for screws with **hexagon socket profile** in sizes 6 / 8 / 10 mm***
1 bit each for screws with **triple-square (XZN) profile** in sizes 5 / 6 / 8 / 10 / 12 mm**
1 bit each for screws with **triple-square (XZN) profile** in sizes 6 / 8 / 10 / 12 mm***
1 bit each for screws with **internal TORX® profile** in sizes T 20 / T 25 / T 30 / T 40 / T 45 / T 50 / T 55 / T 60**
1 bit each for screws with **internal TORX® profile** in sizes T 20 / T 25 / T 30 / T 40 / T 45 / T 50 / T 55 / T 60***
1 adapter* each for **12.5 mm** (1/2") and **10 mm** (3/8") square drive

*** Adapter for hand tools only**
** Bit length 30 mm
*** Bit length 75 mm
**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **40-part** | **2000 820 340** |








## Socket spanner set

**"With MAGIC technology"**



**Also loosens screw heads and nuts that have been rounded by up to 85 %**




**6.3 mm** (1/4") and **12.5 mm** (1/2") square drive · Socket bits and operating elements made of chromium-vanadium steel · Socket bits with chromium-vanadium base and nickel-chromium-molybdenum steel blades

**Contents:**
**6.3 mm** (1/4") **square drive**
1 lever-action reversible ratchet (72 teeth) with socket-locking function and push-button release
1 **TECWERK** socket bit **"with MAGIC technology"** each in AF 4 / 4.5 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 socket bit each for screws with **Internal TORX® profile** in sizes T 20 / T 25 / T 27 / T 30
1 socket bit each for screws with **hexagon socket profile** size 3 / 4 / 5 / 6 mm
1 extension each L 50 / 115 mm
1 universal joint
1 handle with square drive
1 socket bit each for **slotted head screws** in 4–5 /5 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2
1 hex key each in 1.25 / 1.5 / 2.0 / 2.5 / 3.0 mm
1 adapter, **6.3 mm** (1/4") to **10.0 mm** (3/8")

**12.5 mm** (1/2") **square drive**
1 lever-action reversible ratchet (72 teeth) with socket-locking function and push-button release
1 **TECWERK** socket bit **"with MAGIC technology"** each in AF 10 / 11 / 12 / 13 / 14 / 15 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm
1 socket bit each for sparking plugs, AF 16 / 21 mm
1 extension each L 75 / 280 mm
1 universal joint
1 adapter, **12.5 mm** (1/2") to **10.0 mm** (3/8")

The **TECWERK** socket bits **"with MAGIC technology"** are real problem solvers.
They can be used to loosen both hexagonal screws/nuts as well as **screw heads and nuts that have been rounded by up to 85 %**.
**Supplied in steel case**

| Contents | Article no. |
|---|---|
| **55-part** | **2000 822 346** |



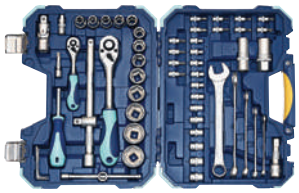



## Socket spanner set

**6.3 mm** (1/4″) and **12.5 mm** (1/2″) square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Socket bits with chromium-vanadium base and phosphate-coated special steel blades · Lever-action reversible ratchets with 2-component handle and socket-locking function with push-button release · Two-coloured insert for easy tool completeness check **Contents: 6.3 mm** (1/4″) **square drive** 1 lever-action reversible ratchet (20 teeth) 1 **hexagonal** socket bit each in AF 4 / 5 / 5.5 / 6 / 6.5 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm 1 socket bit each for screws with **internalTORX® profile** in sizes T 20 / 25 / 27 / 30 1 socket bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm 1 extension each in 50 / 150 mm 1 universal joint 1 handle with square drive 1 socket bit each for **slotted head screws** 4 / 5.5 mm 1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2 1 hexagonal pin spanned each AF 1.25 / 1.5 / 2.0 / 2.5 / 3.0 mm 1 sliding collar (also serves as adapter / **10.0 mm** (3/8″) to **6.3 mm** (1/4″) **12.5 mm** (1/2″) **square drive** 1 lever-action reversible ratchet (36 teeth) 1 **hexagonal** socket bit AF 10 / 11 / 12 / 13 / 14 / 15 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm 1 socket bit each for sparking plugs 16 / 21 mm 1 extension each 75 / 250 mm 1 sliding collar 1 universal joint
**Supplied in steel case**



| Contents | Article no. |
|---|---|
| **55-part** | **2000 821 190** |






## Socket spanner set

**6.3 mm** (1/4″) and **12.5 mm** (1/2″) square drive · Socket bits and operating elements made of chromium-vanadium steel · Matt chrome-plated · Socket bits with chromium-vanadium base and phosphate-coated special steel blades · Lever-action reversible ratchets with 2-component handle and socket-locking function with push-button release

**Contents:**
**6.3 mm** (1/4″) **square drive**
1 lever-action reversible ratchet (20 teeth)
1 **hexagonal** socket bit each in AF 4 / 5 / 5.5 / 6 / 6.5 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 socket bit each for screws with **internal TORX® profile** in sizes T 20 / T 25 / T 27 / T 30
1 socket bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm
1 extension each in 50 / 150 mm
1 universal joint
1 handle with square drive
1 socket bit each for **slotted head screws** in 4 / 5.5 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2
1 hex key each in AF 1.3 / 1.5 / 2.0 / 2.5 / 3.0 mm
1 sliding collar (also serves as adapter, **10.0 mm** (3/8″) to **6.3 mm** (1/4″))

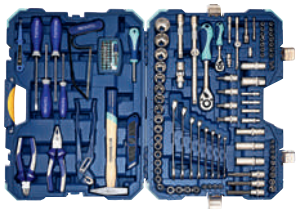
**12.5 mm** (1/2″) **square drive**
1 lever-action reversible ratchet (36 teeth)
1 **hexagonal** socket bit each in AF 10 / 11 / 12 / 13 / 14 / 15 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm
1 sparking plug socket bit each in 16 / 21 mm
1 extension each in 75 / 250 mm
1 sliding collar
1 universal joint
1 combination spanner each in AF 8 / 10 / 13 / 17 / 19 mm
**Supplied in impact-resistant plastic case**

| Contents | Article no. |
|---|---|
| **60-part** | **2000 821 193** |

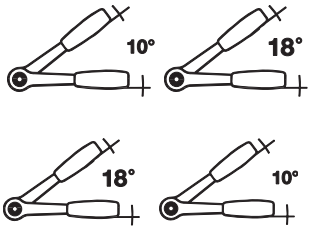


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



2000 820 230




## Socket set/tool case

**6.3 mm** (1/4") and **12.5 mm** (1/2") square drive · Socket bits and operating elements made of chromium-vanadium steel · Socket bits with chromium-vanadium steel base and phosphate-coated special steel blades · **Lever-action reversible ratchets with 2-component handle** and socket-locking function with push-button release

**Bottom contents:**
**6.3 mm** (1/4") **square drive**
1 lever-action reversible ratchet, **18° backswing angle**
1 **hexagonal** socket bit each in AF 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 deep **hexagonal** socket bit each in AF 6 / 7 / 8 / 10 mm
1 socket bit each for screws with **Internal TORX® profile** in sizes T 15 / T 20 / T 25 / T 30
1 socket bit each for screws with **External TORX® profile** in AF E 4 / E 5 / E 6 / E 8
1 socket bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm
1 socket bit each for **slotted head screws** in 4.0 x 0.8 / 5.5 x 1.0 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2
1 socket bit each for **cross-head (PZ)** screws in sizes 1 / 2
1 of each extension size 75 / 150 mm
1 sliding collar for extension
1 universal joint
1 handle with **6.3 mm** (1/4") square drive

**12.5 mm** (1/2") **square drive**
1 lever-action reversible ratchet, **10° backswing angle**
1 **hexagonal** socket bit each in AF 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 / 27 / 30 / 32 mm
1 deep **hexagonal** socket bit each in AF 13 / 17 / 19 **mm**
1 socket bit each for screws with **External TORX® profile** in AF E 10 / E 12 / E 14 / E 18
1 of each extension size 125 / 250 mm
1 sliding collar for extension
1 universal joint
1 socket bit each for screws with **hexagon socket profile** in sizes 7 / 8 / 10 mm (length 100 mm)
1 socket bit each for screws with **Internal TORX® profile** in sizes T 40 / T 45 / T 50 / T 55
1 socket bit each for sparking plugs, AF 16 / 21 mm

1 combination spanner set, 8-part (8–19 mm, **see table for type)**

**Top contents:**
1 water pump pliers, 240 mm
1 universal pliers, 180 mm, 1 side cutter, 160 mm
1 Cross peen hammer (300 g)
1 craft knife, 1 junior hacksaw, 240 mm
1 voltage tester
1 screwdriver each for **slotted head screws** in 5.5 x 125 / 6.5 x 150 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 mm

**Bit assortment**
1 **bit holder with magnet and quick-change chuck**
1 bit each for **slotted head screws** in sizes 3 / 4 / 5 / 6 mm
1 bit each for **cross-head (PH)** screws in sizes 1 / 3
2 bits for **cross-head (PH)** screws in size 2
1 bit each for **cross-head (PZ)** screws in sizes 1 / 3
2 bits for **cross-head (PZ)** screws in size 2
1 bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit **with bore** each for screws **with internal pin-in TORX® profile** with locking pin in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm
1 **adapter**, **6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with power tools (All bits approx. 25 mm long)

**Adapter**
1 adapter, 6.3 mm (1/4") internal square to 6.3 mm (1/4") hexagon socket
For driving bits with a ratchet
1 adapter, 6.3 mm (1/4") external square to 6.3 mm (1/4") hexagon head
For driving socket bits with power tools (conventional cordless screwdriver)
1 adapter, 12.5 mm (1/2") external square to 6.3 mm (1/4") hexagon head
For driving socket bits with power tools (conventional cordless screwdriver)
**Supplied in impact-resistant plastic case**

| Contents | Type | Article no. |
|---|---|---|
| **131-part** | With combination spanners | **2000 820 230** |






## Tool sheath

**12.5 mm** (1/2") square drive · Equipped with high-quality industrial/trade tools

**Contents:**
1 lever-action reversible ratchet (2-component handle, socket-locking function with push-button release, 36 teeth, 10° backswing angle)
1 **hexagonal** socket bit, 12.5 mm (1/2") square drive each in AF 8 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 mm
1 combination spanner each in AF 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 mm
1 universal pliers, 180 mm
1 water pump pliers, 240 mm
1 screwdriver each for **slotted head screws** in 3.0 / 5.5 / 8.0 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 / 2
1 voltage tester, 125–250 V AC
1 hexagon pin spanner set (8-part) for screws with **hexagon socket profile** in 1.5–8 mm
1 pin spanner set (8-part) for screws with **Internal TORX® profile** in sizes T 9–T 40
1 cross peen hammer, 300 g
1 universal joint
1 of each extension size 125 / 250 mm
1 sliding **12.5 mm** (1/2") square drive
1 sparking plug socket each in 16 / 18 / 21 mm
**Supplied in impact-resistant plastic case**

| Contents | Type | Article no. |
|---|---|---|
| **47-part** | In plastic case | **2000 820 631** |





## Tool bag

Made of sturdy nylon fabric · With stainless handle (grip area padded) · With shoulder strap and multiple internal and external insert compartments
Equipped tool bag can be found on page <NoVersionPageNo/>



| W x D x H [mm] | Article no. |
|---|---|
| **400 x 250 x 200** | **2000 871 740** |



## Tool bag Universal

**Equipped with high-quality industrial/trade tools**
**Comprising:**

1 set of hex keys, 9-part, hexagonal with ball head, AF 1.5–10 mm
1 screwdriver set 6-part (**slot/PH**):
1 screwdriver each for **slotted head screws** in 3.5 x 100 / 4.5 x 125 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver for screws with **cross-head** (PH), size 1 x 80 / 2 x 100 mm
1 universal pliers DIN ISO 5746 L 180 mm
1 side cutter L 160 mm
1 craft knife, width 18 mm with brake wheel
1 water pump pliers in Chromium-vanadium steel, DIN/ISO8976, L 240 mm
1 cross peen hammer 500 g, with Hickory handle
1 pocket retracting tape measure, length 5 m, width 19 mm, yellow
1 aluminium spirit level L 30 cm
1 pocket calliper gauge DIN862, 150 mm
1 wooden folding rule, length 2 m, white
1 safety goggles, daylight basic, PC lenses
1 pair of gloves, size 10 Flex nylon knit
1 tool bag W 400 x D 250 x H 200 mm, nylon

| Contents | Article no. |
|---|---|
| **27-part** | **2000 871 914** |

| Accessories | Article no. |
|---|---|
| **Tool bag, unequipped** | **2000 871 740** |

LED



## Tool assortment Universal

In TECWERK L-BOXX® **for universal application**
Comes with high-quality industrial/trade tools
**Practical two-coloured insert for easy tool completeness check**

**Comprising:**
1 wooden folding rule, length 2 m, white, moisture-resistant
1 screwdriver set, 6-part, slot/PH (1 screwdriver each for **slotted head screws** in 3.5 x 100 / 4.5 x 125 / 5.5 x 125 / 6.5 x 150 mm, 1 screwdriver each for **cross-head (PH)** screws in 1 x 80 mm / 2 x 100 mm)
1 voltage tester 120–250 V AC, width 3.0 mm, length 65 mm
1 pocket retracting tape measure, length 5 m, width 19 mm, yellow, self-locking
1 ratchet combination spanner, AF 8 mm, length 136 mm
1 ratchet combination spanner, AF 9 mm, length 143 mm
1 ratchet combination spanner, AF 10 mm, length 160 mm
1 ratchet combination spanner, AF 11 mm, length 168 mm
1 ratchet combination spanner, AF 12 mm, length 174 mm
1 ratchet combination spanner, AF 13 mm, length 180 mm
1 ratchet combination spanner, AF 17 mm, length 233 mm
1 ratchet combination spanner, AF 19 mm, length 250 mm
1 ratchet combination spanner, AF 22 mm, length 285 mm
1 screwdriver set, 6-part (T 10 / T 15 / T 20 / T 25 / T 30 / T 40)
1 **hex key** set with ball ends, 9-part (AF 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm)
1 LED torch, length 160 mm, light output 120 lm, 3x AAA batteries
1 side cutter, length 160 mm, 60 HRC chrome, with 2-component grips
1 universal pliers, DIN ISO 5746, length 180 mm, chrome, with 2-component grips
1 water pump pliers made of air-hardened chromium-vanadium steel, DIN ISO 8976, length 240 mm
1 masonry chisel made of air-hardened chromium-vanadium steel, length 300 mm, shank 23 x 13 mm
1 craft knife, width 18 mm, with demolition blade, automatic locking
1 cutter blade, width 18 mm, thickness 0.5 mm, iron-hardened
1 cross peen hammer 500 g, hickory handle, handle L 320 mm, DIN 1041
1 centre punch made of polished and tempered air-hardened chromium-vanadium steel, length 150 mm
1 flat file, length 200 mm, 2nd cut
1 TECWERK L-BOXX®
**Supplied in TECWERK L-BOXX®**

| Contents | Article no. |
|---|---|
| 44-part | 2000 871 570 |



1/2"
12.5 mm

DIN
ISO



## Screw remover set

Impact screwdriver · **12.5 mm** (1/2") **square drive** · (For mounting **12.5 mm** (1/2") impact socket bits) · Especially suited for loosening stuck screws by striking with a hammer · For clockwise and anti-clockwise loosening

**Contents:**
1 impact screwdriver, **12.5 mm** (1/2") square drive, forward/reverse rotation
1 bit each for **7.94 mm** (5/16") **slotted head screws** in 8 x 36 / 8 x 80 / 10 x 36 mm
1 bit each for **7.94 mm (5/16") cross-head (PH)** screws in 2 x 36 / 2 x 80 / 3 x 36 mm
1 link, **12.5 mm** (1/2") internal square to **7.94 mm** (5/16") hexagon socket
**Supplied in steel case**

| Contents | Article no. |
|---|---|
| 8-part | 2000 828 191 |



## Bit set

**7.94 mm** (5/16") replacement bits suitable for impact screwdriver article no. 2000 828 191

**Contents:**
1 bit each for **7.94 mm** (5/16")**slotted head screws** in 8 x 1.2 / 10 x 1.2 mm,
1 bit each for **7.94 mm (5/16") cross-head (PH)** screws in sizes 2 / 3

| Contents | Article no. |
|---|---|
| 4-part | 2000 828 192 |



2000 821 400



2000 821 401

1/2" 12,5 mm

DIN ISO

## Socket bit

**12.5 mm** (1/2″) square drive · **Hexagonal** · Chromium-vanadium steel · Chrome-plated · **With rubber insert for sparking plugs**

**DIN 3124**

| Width across flats [mm] | Length [mm] | Article no. |
|---|---|---|
| **16** | 65 | **2000 821 401** |
| **21** | 65 | **2000 821 400** |



## Four-way wheel brace

For **passenger cars/vans, etc.** · Galvanised

| L x W [mm] | Width across flats [mm] (inch) | Article no. |
|---|---|---|
| **350 x 350** | **17 x 19 x 22 x 12,5** (1/2) 4-kant | **2000 823 665** |



## Strap spanner

Double riveted, non-slip fabric tape

Length of belt: Riveted 820 mm (unriveted 895 mm)

| Clamping range [mm] | Belt W [mm] | Length of handle [mm] | Article no. |
|---|---|---|---|
| **Ø 240** | 25 | 230 | **2000 821 422** |



## Tyre level

Profiled shape · Solid forged · Made of chromium-vanadium steel · Chrome-plated



| Length [mm] | Article no. |
|---|---|
| **305** | **2000 822 436** |
| **400** | **2000 822 437** |
| **500** | **2000 822 438** |
| **610** | **2000 822 439** |



## Tyre level

Heavy, offset type · Made of chromium-vanadium steel · Chrome-plated



| Length [mm] | Article no. |
|---|---|
| **610** | **2000 822 441** |



## Tyre iron

Made of chromium-vanadium steel · Evenly hardened and tempered across the whole length · Chrome-plated · Smallest taper Ø: 5 mm



| Length [mm] | Length of taper [mm] | Article no. |
|---|---|---|
| **600** | 120 | **2000 822 442** |

## Dolly



| W x L x H [mm] | Weight [kg] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|
| **480 x 1000 x 120** | 5 | 130 | **2000 370 718** |

## Kneeling pad

High-quality rigid foam support for flexible use on hard floors · With practical carrying grip and storage compartment for small parts



| L x W x Th approx. [mm] | Article no. |
|---|---|
| **490 x 245 x 30** | **2000 871 588** |

1/2" 12.5 mm

DIN ISO



## Impact socket set

**12.5 mm** (1/2") square drive · **Hexagonal** · Long type · Chromium-molybdenum steel · Colour-coded

**Contents:**
1 impact wrench socket each in sizes 17 / 19 / 21 mm (length 85 mm)

**Special product benefits:**
Plastic sleeves prevent damage to sensitive aluminium surfaces · Ideally suited for tyre servicing
**Supplied in plastic box**

| Contents | Article no. |
|---|---|
| **3-part** | **2000 820 616** |

1/2" 12.5 mm



## Power socket bit set

**12.5 mm** (1/2") square drive · Made of chromium-molybdenum steel · Black burnished surface
For the toughest conditions on electrical and/or compressed air impact screwdrivers
**Equipped with:**
1 **hexagonal** socket bit each in AF 10 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 / 27 mm **(long type approx. 78 mm long)**
1 wobble extension, 125 mm
1 adapter, **12.5 mm** (1/2") **external square** to **6.3 mm** (1/4") **hexagon head** for driving socket bits with **12.5 mm** (1/2") square drive using power tools (conventional cordless screwdriver)*
10 locking pins
10 rubber fixing rings

*** Suitable for conventional cordless screwdrivers, not suitable for electric and/or air impact drivers**

**Supplied in steel case**



| Contents | Article no. |
|---|---|
| **35-part** | **2000 820 622** |



1/4" 6,3 mm

## Bit

**Tough/hard** · For universal use · S2 steel · For use with hand and power tools (conventional cordless screwdriver)

Drive for 25 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3
Drive for 50/89 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - E 6.3

| Cutting edge W [mm] | Th. of cutting edge [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **4.5** | 0.6 | 25 | **2000 829 105** |
| **5.5** | 1 | 25 | **2000 829 106** |
| **6.5** | 1.2 | 25 | **2000 829 107** |
| **4.5** | 0.6 | 50 | **2000 829 196** |
| **5.5** | 1 | 50 | **2000 829 197** |
| **6.5** | 1.2 | 50 | **2000 829 198** |
| **4.5** | 0.6 | 89 | **2000 829 199** |
| **5.5** | 1 | 89 | **2000 829 200** |



With cross-head (PZ)

1/4" 6,3 mm

## Bit

**Tough/hard** · For universal use · S2 steel · For use with hand and power tools (conventional cordless screwdriver)

Drive for 25 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3
Drive for 50/89 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - E 6.3

| Size | Length [mm] | Hexagon socket ["] | Fig. | Article no. |
|---|---|---|---|---|
| **For cross-head (PH) screws** | | | | |
| **PH 1** | 25 | 1/4 | 1 | **2000 829 113** |
| **PH 2** | 25 | - | 1 | **2000 829 114** |
| **PH 3** | 25 | - | 1 | **2000 829 115** |
| **PH 1** | 50 | - | - | **2000 829 202** |
| **PH 2** | 50 | - | - | **2000 829 203** |
| **PH 3** | 50 | - | - | **2000 829 204** |
| **PH 1** | 89 | - | - | **2000 829 205** |
| **PH 2** | 89 | - | - | **2000 829 206** |
| **PH 3** | 89 | - | - | **2000 829 207** |
| **For cross-head (PZ) screws** | | | | |
| **PZ 1** | 25 | - | 2 | **2000 829 131** |
| **PZ 2** | 25 | - | 2 | **2000 829 132** |
| **PZ 3** | 25 | - | 2 | **2000 829 133** |
| **PZ 1** | 50 | - | - | **2000 829 208** |
| **PZ 2** | 50 | - | - | **2000 829 209** |
| **PZ 3** | 50 | - | - | **2000 829 210** |
| **PZ 1** | 89 | - | - | **2000 829 211** |
| **PZ 2** | 89 | - | - | **2000 829 212** |




1/4" 6,3 mm

## Bit

**With torsion zone · Tough/hard** · For universal use · S2 steel · For use with hand and power tools · (Conventional cordless screwdriver)

Drive: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3

| Size | Length [mm] | Article no. |
|---|---|---|
| **For cross-head (PH) screws** | | |
| **PH 1** | 25 | **2000 829 116** |
| **PH 2** | 25 | **2000 829 117** |
| **For cross-head (PZ) screws** | | |
| **PZ 1** | 25 | **2000 829 121** |
| **PZ 2** | 25 | **2000 829 122** |
| **PZ 3** | 25 | **2000 829 123** |

1/4" 6.3 mm



## Bit

**Tough/hard** · For universal use · S2 steel · **For use with hand and power tools** · (Conventional cordless screwdriver)

Drive for 25 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3
Drive for 50/89 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - E 6.3

| Size<br>For screws with internal TORX® profile | Length [mm] | Article no. |
|---|---|---|
| T 5 | 25 | 2000 829 158 |
| T 6 | 25 | 2000 829 159 |
| T 7 | 25 | 2000 829 160 |
| T 8 | 25 | 2000 829 161 |
| T 9 | 25 | 2000 829 162 |
| T 10 | 25 | 2000 829 163 |
| T 15 | 25 | 2000 829 164 |
| T 20 | 25 | 2000 829 165 |
| T 25 | 25 | 2000 829 166 |
| T 27 | 25 | 2000 829 167 |
| T 30 | 25 | 2000 829 168 |
| T 40 | 25 | 2000 829 169 |
| T 8 | 50 | 2000 829 217 |
| T 10 | 50 | 2000 829 219 |
| T 15 | 50 | 2000 829 220 |
| T 20 | 50 | 2000 829 221 |
| T 25 | 50 | 2000 829 225 |
| T 30 | 50 | 2000 829 227 |
| T 40 | 50 | 2000 829 228 |
| T 10 | 89 | 2000 829 234 |
| T 15 | 89 | 2000 829 235 |
| T 20 | 89 | 2000 829 236 |
| T 25 | 89 | 2000 829 237 |
| T 30 | 89 | 2000 829 239 |
| T 40 | 89 | 2000 829 240 |

[1] price per pc.

1/4" 6.3 mm




## Bit

**With torsion zone** · **Tough/hard** · For universal use · S2 steel · For use with hand and power tools · (Conventional cordless screwdriver)

Drive: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3

| Size<br>For screws with internal TORX® profile | Length [mm] | Article no. |
|---|---|---|
| T 10 | 25 | 2000 829 170 |
| T 15 | 25 | 2000 829 171 |
| T 20 | 25 | 2000 829 172 |
| T 25 | 25 | 2000 829 173 |
| T 30 | 25 | 2000 829 182 |
| T 40 | 25 | 2000 829 183 |

[1] price per pc.

1/4" 6.3 mm



## Bit

**Tough/hard** · For universal use · S2 steel · **With bore** · For use with hand and power tools · (Conventional cordless drill)

Drive for 25 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3
Drive for 50/89 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - E 6.3

| Size<br>For screws with Internal TORX® profile, incl. locking pin | Length [mm] | Article no. |
|---|---|---|
| T 7 | 25 | 2000 829 186 |
| T 8 | 25 | 2000 829 187 |
| T 10 | 25 | 2000 829 189 |
| T 15 | 25 | 2000 829 190 |
| T 20 | 25 | 2000 829 191 |
| T 25 | 25 | 2000 829 192 |
| T 27 | 25 | 2000 829 193 |
| T 30 | 25 | 2000 829 195 |
| T 40 | 25 | 2000 829 194 |
| T 20 | 50 | 2000 829 243 |
| T 25 | 50 | 2000 829 244 |
| T 30 | 50 | 2000 829 246 |
| T 40 | 50 | 2000 829 247 |
| T 20 | 89 | 2000 829 250 |
| T 25 | 89 | 2000 829 251 |
| T 30 | 89 | 2000 829 253 |



1/4" 6.3 mm

## Bit

**Tough/hard** · For universal use · S2 steel · For use with hand and power tools · (Conventional cordless screwdriver)

Drive for 25 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - C 6.3
Drive for 50/89 mm length: **6.3 mm** (1/4") hexagonal DIN 3126 - E 6.3

| Size [mm] For screws with hexagon socket profile | Length [mm] | | Article no. |
|---|---|---|---|
| 2 | 25 | ● | 2000 829 174 |
| 2.5 | 25 | ● | 2000 829 175 |
| 3 | 25 | ● | 2000 829 176 |
| 4 | 25 | ● | 2000 829 177 |
| 5 | 25 | ● | 2000 829 178 |
| 6 | 25 | ● | 2000 829 179 |
| 8 | 25 | ● | 2000 829 180 |
| 10 | 25 | ● | 2000 829 184 |
| 2 | 50 | ● | 2000 829 255 |
| 2.5 | 50 | ● | 2000 829 256 |
| 3 | 50 | ● | 2000 829 257 |
| 4 | 50 | ● | 2000 829 258 |
| 5 | 50 | ● | 2000 829 259 |
| 6 | 50 | ● | 2000 829 260 |
| 2.5 | 89 | ● | 2000 829 262 |
| 3 | 89 | ● | 2000 829 263 |
| 4 | 89 | ● | 2000 829 264 |
| 5 | 89 | ● | 2000 829 265 |
| 6 | 89 | ● | 2000 829 266 |





2000 829 580



2000 829 581

1/4" 6.3 mm

Der PROBLEM LÖSER

## Bit holder

**With stainless steel sleeve, quick-change chuck and magnet**

**Bit:**
For bits with **6.3 mm** (1/4") hexagon head drive · DIN 3126-C 6.3 (ISO 1173)
**Drive:**
**6.3 mm** (1/4") hexagon head, DIN 3126: ISO 1173, shape E 6.3

**Special product benefits:**
Extra slim (just approx. 11.5 mm) · One-handed release

| Length [mm] | Article no. |
|---|---|
| 65 | 2000 829 580 |
| 150 | 2000 829 581 |



1/4" 6.3 mm

## Bit holder

**With stainless steel sleeve and strong permanent magnet**

Drive: **6.3 mm** (1/4") hexagonal DIN 3126: ISO 1173, E 6.3
Drive: **6.3 mm** (1/4") hexagon head DIN 3126: ISO 1173 C 6.3

| Length [mm] | Article no. |
|---|---|
| 60 | 2000 829 592 |



1/4" 6.3 mm

## Bit holder

**With stainless steel sleeve, strong permanent magnet and snap ring**

Drive: **6.3 mm** (1/4") hexagonal DIN 3126: ISO 1173, E 6.3
Drive: **6.3 mm** (1/4") hexagon head DIN 3126: ISO 1173 C 6.3

| Length [mm] | Article no. |
|---|---|
| 75 | 2000 829 593 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

1/4"
6.3 mm



## Bit holder
**With strong permanent magnet and quick-change chuck**

Drive: **6.3 mm** (1/4") hexagonal DIN 3126: ISO 1173, E 6.3
Drive: **6.3 mm** (1/4") hexagon head DIN 3126: ISO 1173 C 6.3

| Length [mm] | Article no. |
|---|---|
| 60 | 2000 829 603 |

1/4"
6.3 mm



## Bit holder
**With stainless steel sleeve and quick-change chuck** · Sliding the clamping sleeve forward releases the locking lever and enables a quick tool change · Bit holder locks automatically when bit is inserted

**Special product benefits:**
· For bits with C6.3 and E6.3 drive
· Also suitable for long bits, double-ended bits, and all other tools with **6.3 mm** (1/4") hexagonal shank

| Length [mm] | Article no. |
|---|---|
| 65 | 2000 829 623 |

1/4"
6.3 mm



## Bit hand holder
**Magnetic** · With **multi-component handle** · Bit holder made of stainless steel · Blade made of special steel · Matt chrome-plated
Drive: **6.3 mm** (1/4") hexagonal DIN 3126: C6.3

| Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|
| 150 | 265 | 2000 829 500 |

1/4"
6.3 mm



## Bit hand holder
With **multi-component handle and quick-change chuck** · Rotating guide sleeve
Drive: **6.3 mm** (1/4") hexagonal DIN 3126: C 6.3 + E 6.3 - also suitable for long bits

| Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|
| 100 | 212 | 2000 829 616 |

1/4"
6.3 mm



## Bit hand holder
**With flexible shank** made of plastic-coated wire mesh and multi-component handle · **Bit holder made of stainless steel** · With snap ring
Drive: **6.3 mm** (1/4") hexagonal DIN 3126, ISO 1173, shape D6.3

| Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|
| 210 | 325 | 2000 829 501 |



## Precision engineer's bit set

Handle with magnetic bit holder and rotating head · Complete with 28 micro bits

**Contents:**
1 handle with:
1 micro bit each for **slotted head screws** in sizes 1.5 / 2.0 / 2.5 / 3.0 mm
1 micro bit each for **cross-head (PH)** screws in sizes 00 / 0 / 1 / 2
1 micro bit each for **cross-head (PZ)** screws in sizes 0 / 1
1 micro bit **(with bore)** each for screws with **TORX® profile** (incl. locking pin) in sizes T 4 / 5 / 6 / 7 / 8 / 9 / 10 / 15
1 micro bit each for screws with **hexagon socket profile** in sizes 0.9 / 1.3 / 1.5 / 2.0 / 2.5 / 3.0 mm
1 micro bit each for screws with **TRI-WING® profile** in sizes 1.5 / 2.0 mm
1 micro bit each for **5lobe profile** in sizes 1 / 1.5 mm

Also ideal for repairing mobile phones
**Supplied in plastic sliding case with practical stand mechanism**

| Contents | Article no. |
|---|---|
| **29-part** | **2000 828 142** |



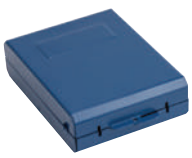


1/4" 6,3 mm

## Bit assortment

Equipped with **tough/hard bits**, **bit holder with magnet** and reversible **bit ratchet** · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit ratchet**
1 **bit holder**
1 bit each for **slotted head screws** in sizes 4.5 / 5.5 / 6.5 mm
3 bits each for **cross-head (PH)** screws in sizes 1 / 2 / 3
3 bits each for **cross-head (PZ)** screws in sizes 1 / 2 / 3
1 bit each for screws with **internal TORX® profile** in sizes T 10 / 15 / 20 / 25 / 30 / 40
1 bit each for screws with **hexagon socket profile** in sizes 4 / 5 / 6 mm
**Supplied in steel case**





| Contents | Type | Article no. |
|---|---|---|
| **32-part** | With magnet and bit ratchet | **2000 829 649** |



2000 829 653



2000 829 654

1/4" 6,3 mm

## Bit assortment

Equipped with **tough/hard bits** and **bit holder** · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder** (see table for type)
1 bit each for **slotted head screws** in sizes 4.5 / 5.5 / 6.5 mm
3 bits each for **cross-head (PH)** screws in sizes 1 / 2 / 3
3 bits each for **cross-head (PZ)** screws in sizes 1 / 2 / 3
1 bit each for screws with **internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 30 / T 40
1 bit each for screws with **hexagon socket profile** in sizes 4 / 5 / 6
**Supplied in steel case**

| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **31-part** | With magnet and snap ring | Slot/PH/PZ/TX | **2000 829 653** |
| **31-part** | With magnet and quick-change chuck | Slot/PH/PZ/TX | **2000 829 654** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



## Bit assortment

Equipped with **tough/hard bits (50 mm long)** · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 bit each for **slotted head screws** in sizes 4 / 5.5 / 6.5 mm
1 bit each for **cross-head (PH)** screws in sizes 1 / 3
2 bits for **cross-head (PH)** screws in size 2
2 bits each for **cross-head (PZ)** screws in sizes 1 / 2 / 3
1 bit each for screws with **internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit **with bore** each for screws **with internal TORX® profile (incl. locking pin)** in sizes T 10 / T 15 / T 20 / T 25 / T 30 / T 40
1 bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm
All bits 50 mm long
**Supplied in steel case**





| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **30-part** | Bit length 50 mm | Slot/PH/PZ/TX/TX-BO/hexagonal | **2000 829 662** |



## Bit assortment

Equipped with **89 mm long bits**, **bit holder with quick-change chuck** and rotating guide sleeve and **bit hand grip** · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder** (65 mm)
1 **multi-component driver**
1 bit each for **slotted head screws** in sizes 4 / 5 / 5.5 / 6.5 mm
1 bit each for **cross-head (PH)** screws in sizes 1 / 2 / 3
1 bit for **cross-head (PZ)** screws in sizes 1 / 2 / 3
1 bit **with bore** for screws **with internal TORX® profile** (incl. locking pin) in sizes T 5 / T 6 / T 7 / T 8 / T 9 / T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit each for screws **hexagon socket profile** in sizes 2 / 2.5 / 3 / 4 / 5 / 6 mm
**Supplied in plastic case**

| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **30-part** | With quick-change chuck | Slot/PH/PZ/TX-BO/hexagonal | **2000 829 810** |



## Bit assortment

Equipped with bits for all standard screws and security screws

**Contents:**
1 "spanner" for wing nuts
1 bit holder with magnet (60 mm)
1 adapter, (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with a power tool*
1 adapter for driving **6.3 mm** (1/4") socket bits with power tools*
1 bit each for **slotted head screws** in sizes 3 / 4 / 4.5 / 5 / 5.5 / 6 / 6.5 / 7 / 8 mm
1 bit each for **cross-head (PH)** screws in sizes 0 / 1 / 2 / 3
1 bit each for **cross-head (PZ)** screws in sizes 0 / 1 / 2 / 3
1 bit each for screws with **hexagon socket profile** in sizes 1.5 / 2 / 2.5 / 3 / 4 / 5 / 5.5 / 6 / 8 mm
1 bit each for screws with **internal TORX® profile** in sizes T 8 / T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40 / T 45
1 bit each for screws with **triple-square profile** in sizes M5 / M6 / M8
1 bit each for **internal square screws** in sizes 0 / 1 / 2 / 3
*Conv. cordless screwdriver

**Security bits**
1 bit each for screws with **TORQ-SET® profile** in sizes 6 / 8 / 10 mm
1 bit each for security screws with **spanner profile** in sizes 4 / 6 / 8 / 10 mm
1 bit each for screws with **TRI-WING ® profile** in sizes 1 / 2 / 3 / 4
1 bit with **bore** each for screws with **internal TORX® profile** (incl. locking pin) in sizes T 18 / T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 35 / T 40
1 **clamp bit** each in sizes 1 / 2 / 3
1 bit with **bore** each for screws with **hexagon socket profile** (incl. locking pin) in sizes 2 / 2.5 / 3 / 4 / 5 / 6 mm
**Supplied in steel case**

| Contents | Type | Article no. |
|---|---|---|
| **75-part** | With universal holder | **2000 820 220** |



1/4" 6,3 mm

## Bit assortment

Equipped with **tough/hard bits** with **colour-code system** and **bit holder with quick-change chuck** and rotating guide sleeve · For C 6.3 and E 6.3 bits (also for long bits) · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder (65 mm)**
1 bit each for **slotted head screws** (green) in sizes 3 / 4 / 5 / 6 mm
1 bit each for **cross-head (PH)** screws (red) in sizes 1 / 3
2 bits for **cross-head (PH)** screws (red) in size 2
1 bit each for **cross-head (PZ)** screws (blue) in sizes 1 / 3
2 bits for **cross-head (PZ)** screws (blue) in size 2
1 bit each for screws with **internal TORX® profile** (orange) in sizes T 10 / 15 / 20 / 25 / 27 /30 / 40
1 bit **with bore** each for screws **with internal TORX® profile** (incl. locking pin) (dark pink) in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit each for screws with **hexagon socket profile** (yellow) in sizes 3 / 4 / 5 / 6 mm
1 **adapter, 6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with power tools (conventional cordless screwdriver)
**Supplied in plastic case with belt clip**

| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **32-part** | With magnet and quick-change chuck | Slot/PH/PZ/TX/TX-BO/hexagonal | **2000 829 646** |



1/4" 6,3 mm

## Bit assortment Torsión

Equipped with **tough/hard bits** with **colour-code system** and **bit holder with quick-change chuck** and rotating guide sleeve · For C 6.3 and E 6.3 bits · Also for long bits · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder** (65 mm)
1 bit each for **slotted head screws** (dark orange) in sizes 3 / 4 / 5 / 6 mm
1 bit each for **cross-head (PH)** screws (red) in sizes 1 / 3
2 bits for **cross-head (PH)** screws (red) in size 2
1 each for **cross-head (PZ)**screws (blue) in sizes 1 / 3
2 bits for **cross-head (PZ)** screws (blue) in size 2
1 bit each for screws with **internal TORX® profile** (yellow) in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit **with bore** each for screws **with internal TORX® profile** (incl. locking pin) (yellow) in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
1 bit each for screws with **hexagon socket profile** (light orange) in sizes 3 / 4 / 5 / 6 mm
1 **adapter, 6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with power tools (conventional cordless screwdriver)
**Supplied in plastic case with belt clip**

| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **32-part** | With quick-change chuck | Slot/PH/PZ/TX/TX-BO/hexagonal | **2000 829 713** |





1/4" 6,3 mm

## Bit assortment

Equipped with **tough/hard bits** with **colour-code system** and **bit holder with quick-change chuck** · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder** (65 mm)
**Bits for slotted head screws (green)**
2 each in 3 / 4 / 5 mm
1x 6 mm**
**Bits for cross-head (PH) screws (red)**
3 each in sizes 1 / 2 / 3*
1 each in sizes 2 / 3**
**Bits for cross-head (PZ) screws (blue)**
3 each in sizes 1 / 2 / 3*
1 each in sizes 1 / 2**
**Bits for screws with internal TORX® profile (orange)**
1 each in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40*
**Bits for screws with internal TORX® profile also with locking pin (pink)**
2 each in T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40*
1 each in sizes T 20 / T 25**
**Bits for screws with hexagon socket profile (yellow)**
1 each in sizes 3 / 4 / 5 mm*
1 adapter, **6.3 mm** (1/4") internal square to **6.3 mm** (1/4") hexagon socket for driving bits with a ratchet
* 25 mm long
** 75 mm long
**Supplied in plastic case with belt clip**

| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **57-part** | With quick-change chuck | Slot/PH/PZ/TX/TX-BO/hexagonal | **2000 829 702** |

1/4" 6.3 mm

## Bit assortment

Equipped with **tough/hard bits with colour-code system**, **bit holder** with magnet, and **bit ratchet** with direct bit mount · For use with hand and power tools (conventional cordless screwdriver) · Reversible bit ratchet

**Contents:**
1 **bit holder** (60 mm)
1 bit ratchet (72 teeth)
1 bit each for **slotted head screws** (green) in sizes 3 / 4 / 5 / 6 mm
1 bit each for **cross-head (PH)** screws (red) in sizes 1 / 3
2 bits for **cross-head (PH)** screws (red) in size 2
1 each for **cross-head (PZ)**screws (blue) in sizes 1 / 3
2 bits for **cross-head (PZ)** screws (blue) in size 2
1 bit each for screws with **internal TORX® profile** (orange) in sizes T 10 / 15 / 20 / 25 / 27 /30 / 40
1 bit **with bore** each for screws with **internal TORX® profile** (incl. locking pin) (pink) in sizes T 10 / 15 / 20 / 25 / 27 / 30 / 40
1 bit each for screws with **hexagon socket profile** (yellow) in sizes 3 / 4 / 5 / 6 mm
1 **adapter, 6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with power tools (conventional cordless screwdriver)
**Supplied in plastic box**








| Contents | Article no. |
|---|---|
| **33-part** | **2000 829 724** |



1/4" 6.3 mm

## Bit/socket spanner set

Equipped with **tough/hard bits**, **bit holder** with magnet and **bit ratchet** · For use with hand and power tools (conventional cordless screwdriver) · Reversible ratchet with direct bit mount

**Contents:**
1 **bit holder** (60 mm)
1 **bit ratchet** (95 mm)
1 bit each for **slotted head screws** in sizes 4.5 / 5.5 mm
1 bit each for **cross-head (PH)** screws in sizes 1 / 2
1 bit each for **cross-head (PZ)** screws in sizes 1 / 2
1 bit each for screws with **internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 30
1 bit each for screws with **hexagon socket profile** in sizes 3 / 4 / 5 / 6 mm
1 **hexagonal socket bit** each in AF 6 / 7 / 8 / 10 / 11 / 13 mm
1 **adapter, 6.3 mm** (1/4") external square to **6.3 mm** (1/4") hexagon head for driving socket bits with power tools (conventional cordless screwdriver)
**Supplied in plastic case with belt clip**



| Contents | Article no. |
|---|---|
| **24-part** | **2000 829 667** |

1/4" 6.3 mm

## Bit assortment

Supplied with **tough/hard bits** with **colour-code system** and two bit holders · For use with hand and power tools (conventional cordless screwdriver)

**Contents:**
1 **bit holder with magnet (60 mm)**
1 **bit holder with quick-change chuck** (65 mm)
3 bits each for **slotted head screws** (dark orange) in sizes 4 / 6 mm
3 bits each for **cross-head (PH)** screws (red) in sizes 1 / 3
6 bits for **cross-head (PH)** screws (red) in size 2
3 bits each for **cross-head (PZ)** screws (blue) in sizes 1 / 3
6 bits for **cross-head (PZ)** screws (blue) in size 2
3 bits each for screws with **hexagon socket profile** (light orange) in sizes 4 / 5 / 6 mm
3 bits each for screws with **internal TORX® profile** (yellow) in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30 / T 40
**Supplied in plastic box**



| Contents | Type | Equipped with | Article no. |
|---|---|---|---|
| **62-part** | 2 holders | Slot/PH/PZ/TX/hexagonal | **2000 829 645** |



HSS | M | 1/4" 6.3 mm

## Combination tap

**HSSG** · For drilling, thread cutting, and deburring · With **6.3 mm** (1/4") hexagonal blade in accordance with DIN 3126

| Nominal thread Ø | Thread pitch [mm] | Length [mm] | Core hole Ø [mm] | Article no. |
|---|---|---|---|---|
| **M3** | 0.50 | 36 | 2,5 | **2000 867 333** |
| **M4** | 0.70 | 39 | 3,3 | **2000 867 334** |
| **M5** | 0.80 | 41 | 4,2 | **2000 867 335** |
| **M6** | 1.00 | 44 | 5,0 | **2000 867 336** |
| **M8** | 1.25 | 51 | 6,8 | **2000 867 338** |
| **M10** | 1.50 | 59 | 8,5 | **2000 867 330** |



HSS | M | 1/4" 6.3 mm

## Combination tap set

**HSSG** · For drilling, thread cutting, and deburring - self-centring · Tap bit with **6.3 mm** (1/4") hexagonal blade in accordance with DIN 3126

**Contents:**
1x each M3 / M4 / M5 / M6 / M8 / M10 + 1 bit adapter
**Supplied in impact-resistant and break-proof Plastic case**

| Nominal thread Ø | Contents | Article no. |
|---|---|---|
| **M3-M10** | 7-part | **2000 867 339** |





## Screwdriver

**With wooden handle** · Through-handle blade made of tempered special steel with hexagonal bolster · Bright chrome-plated · With leather cap · Burnished cutting edge

**For slotted head screws**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|---|
| **3.5** | 0.6 | 75 | 170 | 4.5 | 6 | **2000 827 001** |
| **4.5** | 0.8 | 90 | 185 | 4.5 | 6 | **2000 827 002** |
| **5.5** | 1 | 100 | 200 | 5.5 | 8 | **2000 827 003** |
| **7** | 1.2 | 125 | 225 | 7 | 10 | **2000 827 004** |
| **9** | 1.4 | 150 | 270 | 8 | 12 | **2000 827 005** |
| **10** | 1.6 | 175 | 300 | 8 | 12 | **2000 827 006** |
| **12** | 2 | 200 | 330 | 9 | 13 | **2000 827 007** |
| **14** | 2.5 | 250 | 390 | 10 | 17 | **2000 827 008** |



## Screwdriver, short type

**Short shape · 1-component handle** · Blade made of tempered special steel · Matt chrome-plated

**For slotted head screws**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **4** | 1 | 25 | 80 | 4.5 | **2000 827 011** |
| **6** | 1 | 25 | 80 | 6 | **2000 827 012** |





Slot 6.5

## Screwdriver

**With multi-component no-roll handle** · Blade made of tempered special steel · Matt chrome-plated · With size guide system

**For slotted head screws**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **2.5** | 0.4 | 75 | 180 | 2.5 | **2000 827 016** |
| **3.5** | 0.6 | 100 | 205 | 3.5 | **2000 827 018** |
| **4** | 0.8 | 100 | 205 | 4 | **2000 827 019** |
| **4.5** | 0.8 | 125 | 230 | 4 | **2000 827 020** |
| **5.5** | 1 | 125 | 240 | 5.5 | **2000 827 021** |
| **6.5** | 1.2 | 150 | 265 | 6 | **2000 827 023** |
| **8** | 1.6 | 175 | 300 | 7 | **2000 827 024** |
| **10** | 1.6 | 200 | 325 | 8 | **2000 827 025** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.







Slot 6.5

## Screwdriver

**With multi-component no-roll handle · Hexagonal blade** made of tempered special steel **with bolster** · Matt chrome-plated · With size guide system

**For slotted head screws**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|---|
| **5.5** | 1 | 100 | 215 | 5 | 8 | **2000 827 030** |
| **6.5** | 1.2 | 125 | 240 | 6 | 10 | **2000 827 031** |
| **8** | 1.2 | 150 | 275 | 8 | 13 | **2000 827 032** |
| **10** | 1.6 | 175 | 300 | 8 | 13 | **2000 827 033** |
| **12** | 2 | 200 | 325 | 10 | 13 | **2000 827 034** |



## Screwdriver

**With wooden handle** · Blade made of high-grade tempered special steel with bolster · Bright chrome-plated · With leather cap · Burnished tip

**For cross-head (PH) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|
| **PH 1** | 80 | 180 | 4.5 | 6 | **2000 827 040** |
| **PH 2** | 100 | 210 | 6 | 10 | **2000 827 041** |
| **PH 3** | 150 | 270 | 8 | 12 | **2000 827 042** |



## Screwdriver

**Short shape · 1-component handle** · Blade made of high-tempered special steel · Matt chrome-plated

**For cross-head (PH) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|
| **PH 1** | 25 | 80 | 4.5 | **2000 827 046** |
| **PH 2** | 25 | 80 | 6 | **2000 827 047** |





PH

## Screwdriver

**With multi-component no-roll handle** · Blade made of high-tempered special steel · Matt chrome-plated · Size guide system

**For cross-head (PH) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|
| **PH 0** | 60 | 165 | 3 | **2000 827 050** |
| **PH 1** | 80 | 185 | 4.5 | **2000 827 051** |
| **PH 2** | 100 | 215 | 6 | **2000 827 053** |
| **PH 3** | 150 | 275 | 8 | **2000 827 055** |







PH

## Screwdriver

**With multi-component no-roll handle · Hexagonal blade** made of tempered special steel **with bolster** · Matt chrome-plated · Size guide system

**For cross-head (PH) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|
| **PH 1** | 80 | 185 | 5 | 8 | **2000 827 060** |
| **PH 2** | 100 | 215 | 6 | 10 | **2000 827 061** |
| **PH 3** | 150 | 275 | 8 | 13 | **2000 827 062** |



## Screwdriver

**With wooden handle** · Blade made of high-tempered special steel · Bolster · Bright chrome-plated · With leather cap · Burnished tip

**For cross-head (PZ) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|
| **PZ 1** | 80 | 180 | 4.5 | 6 | **2000 827 065** |
| **PZ 2** | 100 | 210 | 6 | 10 | **2000 827 066** |
| **PZ 3** | 150 | 270 | 8 | 12 | **2000 827 067** |



## Screwdriver, short type

**Short type with 1-component handle** · Blade made of high-tempered special steel · Matt chrome-plated
**For cross-head (PZ) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|
| **PZ 2** | 25 | 81 | 6 | **2000 827 071** |







PZ

## Screwdriver

**With multi-component no-roll handle** · Blade made of tempered special steel · Matt chrome-plated · Size guide system
**For cross-head (PZ) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|
| **PZ 1** | 80 | 185 | 4.5 | **2000 827 075** |
| **PZ 2** | 100 | 215 | 6 | **2000 827 076** |
| **PZ 3** | 150 | 275 | 8 | **2000 827 078** |



## Screwdriver

**With multi-component no-roll handle** · **Hexagonal blade** made of high-grade tempered special steel · **Bolster** · Matt chrome-plated · Size guide system
**For cross-head (PZ) screws**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | 6-edged [mm] | Article no. |
|---|---|---|---|---|---|
| **PZ 1** | 80 | 185 | 5 | 8 | **2000 827 082** |
| **PZ 2** | 100 | 215 | 6 | 10 | **2000 827 083** |
| **PZ 3** | 150 | 275 | 8 | 13 | **2000 827 084** |





TORX®

## Screwdriver

**With multi-component no-roll handle** · Blade made of high-tempered special steel · Matt chrome-plated · Size guide system
**For screws with internal TORX® profile**

| Size | Blade L [mm] | Overall L [mm] | Blade Ø [mm] | Article no. |
|---|---|---|---|---|
| **T 5** | 60 | 165 | 3 | **2000 827 090** |
| **T 6** | 60 | 165 | 3 | **2000 827 091** |
| **T 7** | 60 | 165 | 3 | **2000 827 092** |
| **T 8** | 60 | 165 | 3 | **2000 827 093** |
| **T 9** | 60 | 165 | 3 | **2000 827 094** |
| **T 10** | 80 | 185 | 3.5 | **2000 827 095** |
| **T 15** | 80 | 185 | 3.5 | **2000 827 096** |
| **T 20** | 100 | 205 | 4.5 | **2000 827 097** |
| **T 25** | 100 | 205 | 4.5 | **2000 827 098** |
| **T 27** | 115 | 230 | 6 | **2000 827 099** |
| **T 30** | 115 | 230 | 6 | **2000 827 100** |
| **T 40** | 130 | 255 | 7 | **2000 827 101** |
| **T 45** | 130 | 255 | 8 | **2000 827 102** |

## Screwdriver set

**With wooden handles** · Through-handle blades made of tempered special steel **with bolster** · Bright chrome-plated · With leather caps
**Contents 2000 827 116+2000 827 117:**
1 screwdriver each for **slotted head screws** in 4.5 x 90 / 5.5 x 100 / 7.0 x 125 mm
1 screwdriver each for **cross-head screws** (see table for type) in sizes 1 x 80 / 2 x 100 mm

**2000 827 115**: 1 screwdriver each for **slotted head screws** in 3.5 x 75 / 4.5 x 90 / 5.5 x 100 / 7.0 x 125 / 9.0 x 150 mm






| Contents | Equipped with | | Article no. |
|---|---|---|---|
| **5-part** | Slot | ⊖ | **2000 827 115** |
| **5-part** | Slot / PH | ⊖⊕ | **2000 827 116** |
| **5-part** | Slot / PZ | ⊖⊕ | **2000 827 117** |

⊖⊕■

## Screwdriver set

**With wooden handles** · Through-handle blades made of tempered special steel **with bolster** · Bright chrome-plated · With leather caps · **Incl. reamer** · Burnished screwdriver tips
**Contents:**
1 screwdriver each for **slotted head screws** in 4.5 x 90 / 5.5 x 100 / 7.0 x 125 / 9.0 x 150 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 mm
**1 reamer, 6 x 100 mm**






| Contents | Equipped with | | Article no. |
|---|---|---|---|
| **7-part** | Slot / PH / reamer | ⊖⊕■ | **2000 827 119** |

## Screwdriver set

**With multi-component no-roll handles** · Blades made of tempered special steel · Matt chrome-plated · Size guide system
**Contents:**
1 screwdriver ea. for **slotted head screws** in 2.5 x 75, 3.5 x 100, 4.5 x 125, 5.5 x 125, 6.5 x 150 mm
**Contents 2000 827 125:**
1 screwdriver each for **slotted head screws** in sizes 2.5 x 75 / 3.5 x 100 / 4.5 x 125 / 5.5 x 125 / 6.5 x 150 mm
**Contents 2000 827 126:**
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm
1 screwdriver each for **cross-head (PZ)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm
**Contents 2000 827 127:**
1 screwdriver each for **slotted head screws** in 3.5 x 100 / 4.5 x 125 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 mm
**Contents 2000 827 128:**
1 screwdriver each for **slotted head screws** in 3.5 x 100 / 4.5 x 125 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver each for **cross-head (PZ)** screws in sizes 1 x 80 / 2 x 100 mm
**Contents 2000 827 129:**
1 screwdriver for **slotted head screws** in 5.5 x 125 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm
1 screwdriver each for **cross-head (PZ)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm
**Contents 2000 827 133:**
1 screwdriver each in sizes T 10 x 80 / T 15 x 80 / T 20 x 100 / T 25 x 100 / T 30 x 115 / T 40 x 130 mm
**Contents 2000 827 134:**
1 screwdriver each in sizes T 8 x 60 / T 9 x 60 / T 10 x 80 / T 15 x 80 / T 20 x 100 / T 25 x 100 / T 30 x 115 mm















| Contents | Equipped with | | Article no. |
|---|---|---|---|
| **5-part** | Slot | ⊖ | **2000 827 125** |
| **6-part** | PH / PZ | ⊕⊕ | **2000 827 126** |
| **6-part** | Slot / PH | ⊖⊕ | **2000 827 127** |
| **6-part** | Slot / PZ | ⊖⊕ | **2000 827 128** |
| **7-part** | Slot / PH / PZ | ⊖⊕⊕ | **2000 827 129** |
| **6-part** | TORX® | ✱ | **2000 827 133** |
| **7-part** | TORX® | ✱ | **2000 827 134** |



## Screwdriver set XXL

**With multi-component no-roll handles** · Blades made of tempered special steel · Matt chrome-plated · Matt chrome-plated · Size guide system

**Contents:**
1 **VDE-insulated** screwdriver each for **slotted head screws** in 2.5 x 75 / 4.0 x 100 mm
1 voltage tester, 3.0 x 65 mm
1 screwdriver for **slotted head screws** in 3.5 x 100 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 mm
1 screwdriver each for **cross-head (PZ)** screws in sizes 1 x 80 / 2 x 100 mm
1 screwdriver each for screws with **internal TORX® profile** in sizes T 15 x 100 / T 20 x 100 / T 25 x 100 mm

| Contents | Equipped with | Article no. |
|---|---|---|
| **13-part** | Slot/PH/PZ/TX | **2000 827 719** |



## Screwdriver set

**With multi-component no-roll handles · Hexagonal blades** (from 5.5 x 100 mm) made from tempered special steel **with bolster** · Matt chrome-plated · Size guide system

**Contents:**
1 screwdriver each for **slotted head screws** in 3.5 x 75 / 4.5 x 90 / 5.5 x 100 / 6.5 x 125 mm
1 screwdriver each for **cross-head screws** (see table for type) in sizes 1 x 80 / 2 x 100 mm



PH

| Contents | Equipped with | Article no. |
|---|---|---|
| **6-part** | Slot / PH | **2000 827 130** |
| **6-part** | Slot / PZ | **2000 827 131** |



## Screwdriver set

**With multi-component no-roll handles · Hexagonal blades** made of tempered special steel **with bolster** · Matt chrome-plated · Size guide system

**Contents:**
1 screwdriver for **slotted head screws** in 5.5 x 100 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm
1 screwdriver each for **cross-head (PZ)** screws in sizes 1 x 80 / 2 x 100 / 3 x 150 mm



Slot 6.5

| Contents | Equipped with | Article no. |
|---|---|---|
| **7-part** | Slot / PH / PZ | **2000 827 132** |



## Bradawl/reamer

**With multi-component handle** · Blade made of high-tempered special steel · Bright nickel-plated

| Type | Blade th. [mm] | Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|---|
| **With round tip** | 6 | 100 | 215 | **2000 827 140** |
| **With square tip** | 6 | 100 | 215 | **2000 827 141** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.





## Bradawl/reamer

**With wooden handle and striking cap** · Through-handle blade · Blade made of high-tempered special steel · Bright nickel-plated

| Type | Blade th. [mm] | Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|---|
| **With round tip** | 6 | 100 | 190 | **2000 827 142** |
| **With square tip** | 6 | 100 | 190 | **2000 827 143** |

## Precision engineer's screwdriver set

**Rotating centring head**

**Contents 2000 828 141:**
1 screwdriver each for **slotted head screws** in 1.5 / 2.0 / 2.4 / 3.0 mm*
1 screwdriver each for **cross-head (PH)** screws in sizes 00 / 0 / 1*

**Contents 2000 828 151:**
1 screwdriver each for screws with **internal TORX® profile** in sizes T 4 / T 5 / T 6 / T 7 / T 8 / T 9 / T 10*
* Blade length 50 mm / total length approx. 140 mm
**Supplied in textile bag**








| Contents | Equipped with | | Article no. |
|---|---|---|---|
| **7-part** | Slot / PH | | **2000 828 141** |
| **7-part** | TORX® | | **2000 828 151** |

## Magnetiser/Demagnetiser

For magnetising and demagnetising screwdriver blades, tweezers and similar steel tools









| Height [mm] | Width [mm] | Depth [mm] | Article no. |
|---|---|---|---|
| **48** | 50 | 28 | **2000 813 150** |

1000 V
IEC 60900






## Screwdriver

With multi-component no-roll handle · **Insulated blade** · **Individually tested in accordance with IEC 60900** · Blade made of tempered special steel · Phosphate-coated cutting edge

**For slotted head screws**

| Cutting edge W [mm] | Th. of cutting edge [mm] | Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|---|
| **2.5** | 0.4 | 75 | 180 | **2000 828 025** |
| **3** | 0.5 | 100 | 205 | **2000 828 026** |
| **4** | 0.8 | 100 | 205 | **2000 828 027** |
| **5.5** | 1 | 125 | 240 | **2000 828 028** |
| **6.5** | 1.2 | 150 | 265 | **2000 828 029** |
| **8** | 1.2 | 175 | 300 | **2000 828 030** |



## Screwdriver

With multi-component no-roll handle · **Insulated blade** · **Individually tested in accordance with IEC 60900** · Blade made of tempered special steel · Phosphated **tip**
**For cross-head (PH) screws**

| Size | Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **PH 0** | 60 | 165 | **2000 828 034** |
| **PH 1** | 80 | 185 | **2000 828 035** |
| **PH 2** | 100 | 215 | **2000 828 036** |
| **PH 3** | 150 | 275 | **2000 828 037** |



## Screwdriver

With multi-component no-roll handle · **Insulated blade · Individually tested in accordance with IEC 60900** · Blade made of tempered special steel · Phosphate-coated tip
**For cross-head (PZ) screws**

| Size | Blade L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **PZ 1** | 80 | 185 | **2000 828 041** |
| **PZ 2** | 100 | 215 | **2000 828 042** |
| **PZ 3** | 150 | 275 | **2000 828 043** |

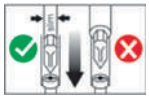


## Screwdriver set VDE insulated

With multi-component handles with anti-roll protection* · **Insulated blades · Individually tested in accordance with IEC 60900*** · Blades made of tempered special steel · **Phosphate-coated cutters/tips*** (* does not apply for the single-pole voltage testers)
**Contents:**
1 screwdriver each for **slotted head screws** in 3.0 x 100 / 4.0 x 100 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver each for **cross-head screws** (see table for type) in sizes 1 x 80 / 2 x 100 mm
1 voltage tester, 3.0 x 60 mm

| Contents | Equipped with | | Article no. |
|---|---|---|---|
| **7-part** | Slot / PH | | **2000 828 049** |
| **7-part** | Slot / PZ | | **2000 828 050** |





## Screwdriver set slim

With multi-component no-roll handles · **Insulated blades, individually tested in accordance with IEC 60900** · Blades made of tempered special steel · With **reduced blade diameter and built-in insulation** (ideal for deep-set screws and spring elements) · **Phosphate-coated cutters/tips**
**Contents:**
1 screwdriver each for **slotted head screws** in 3.0 x 100 / 4.0 x 100 / 5.5 x 125 / 6.5 x 150 mm
1 screwdriver each for **cross-head (PH)** screws in sizes 1 x 80 / 2 x 100 mm
1 voltage tester, 3.0 x 65 mm

| Contents | Equipped with | Article no. |
|---|---|---|
| **7-part** | Slot / PH | **2000 828 073** |


600V
CAT III
MAX
600A
TECWERK
OFF
SEL
MIN
MAX
RAN
Hz%
B.L
HOLD
CM 100
T-RMS
COM
INPUT
600V
CAT III
KATABA
Multicutter HM-Kreissägeblatt

# 6. Hand Tools

# Tools that make a difference with the TECWERK brand




Voltage testers from page 292
Electrician's tools from page 294
Cutting & clamping tools from page 308
Impact tools from page 313
Saw blades from page 331

## TECWERK HAND TOOLS – PRECISION IN YOUR HAND

Hand tools are the foundation of every successful project. They determine the quality, efficiency and safety of daily work. With professional hand tools from TECWERK, you receive products developed specifically for the high demands of construction, the skilled trades and industry. High-quality materials, precise manufacturing and ergonomic design ensure tools that perform under even the toughest conditions – day after day.

As an authorised TECWERK specialist dealer, we support you with expertise and experience in selecting your tools. Our goal: to increase your productivity, simplify your work and ensure long-term quality. Together, we create workshop environments that set new standards.

### Precision as standard

Every hand tool from TECWERK is designed for maximum accuracy and reliable performance. Our manufacturing processes follow the highest quality standards – for tools that support professionals across all trades.

### Structure & Organisation

With our modular filing systems and tool sets, you always keep an overview. Your most important tools are always within easy reach – for efficient and safe work in your daily workshop tasks.

### Robust & Durable

TECWERK hand tools are built for continuous use. Hardened cutters, robust clamping mechanisms and wear-resistant surfaces ensure exceptional durability and minimal maintenance.

### Speed & Service

Benefit from our fast availability – throughout Germany within 24 hours. This ensures your tools are ready exactly when you need them.

TECWERK tools – performance you can feel. Together, we create efficient, safe and modern working environments.

## For precise measurement of voltage, resistance, frequency, capacitance and temperature.




### Voltage tester 12–1000 V
Page 292

Optical, acoustic and vibrating display
**Order no. 2000 828945**



### Pliers set
Page 293

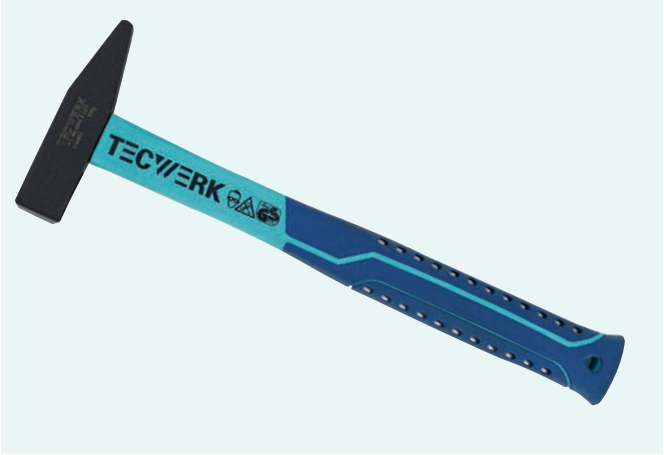
6-part, plastic case L: 360 mm, W: 280 mm, H: 80 mm
**Order no. 2000 810095**

## Powerful, precise and ergonomic – for all gripping, cutting and striking tasks.



### Cutting knife set
Page 308

Comprising two craft knives
**Order no. 2000 817945**




### Cross peen hammer
Page 313

With unbreakable multi-component fibreglass handle
**Order no. 2000 811017**



### Parallel vice
Page 322

Perfectly parallel clamping thanks to adjustable central guide
**Order no. 2000 830290**



### Lever clamp
Page 325

Clamping with high clamping force (up to 8000 N)
**Order no. 2000 831323**



## Voltage tester

Transparent · Transparent · Clearly visible glow lamp · Stainless steel clip · Milled high-quality blade

| Display | Optical |
|---|---|
| Cutting edge W [mm] | 3 |
| Blade L [mm] | 65 |
| Overall L [mm] | 153 |
| Nominal voltage range [(V AC)] | 150–250 |
| **Article no.** | **2000 828 802** |



## Phase and cable break tester

Non-contact testing · Detects alternating voltages without current flow · For detecting cable breaks and defective fuses, checking defective switches, sockets, transformers, e.g. low-voltage lighting systems, and string lights · Detects phase conductors in single-phase and three-phase networks · Tests the function of circuit breakers · Detects live cables in distribution boxes · **Optical display · Testing range 110–1000 V AC**
**Supplied complete with batteries (2 x 1.5 V micro (AAA)), for replacement batteries, see article no. 4000 901 810**
**For detailed information, see the QR code**

| Measurement category [V] | CAT III 1000 / CAT IV 600 |
|---|---|
| Nominal voltage range [(V AC)] | 110–1000 |
| **Article no.** | **2000 828 967** |





## Voltage tester

**Phase and cable break tester**
Non-contact testing · Detects alternating voltages without current flow · For detecting cable breaks and defective fuses, checking defective switches, sockets, transformers, e.g. low-voltage lighting systems, and string lights · Detects phase conductors in single-phase and three-phase networks · Tests the function of circuit breakers · Detects live cables in distribution boxes
**Optical, acoustic and vibrating display · LED torch function · Large measuring range from 12–1000 V AC ·** Measurement category: CAT IV 1000 V
**Supplied complete with batteries (2 x 1.5 V micro (AAA)), for replacement batteries, see article no. 4000 901 810**

| Measurement category [V] | CAT IV 1000 |
|---|---|
| Nominal voltage range [(V AC)] | 12–1000 |
| **Article no.** | **2000 828 945** |



## Voltage/continuity tester SP 100

With LED and large digital display as well as measuring point lighting

**Technical data:**
LCD display: 4-digit
LED display levels: 12 - 24 - 50 - 120 - 230 - 400 - 690 - 1,000 V
Polarity (+/-)
Single-pole phase testing: 100–1000 V AC (50/60 Hz)
Rotary field testing: 170–1,000 V phase-to-phase, A 50/60 Hz
Continuity test: 0–500 kΩ with optical and acoustic display
Measurement category: CATIII/1000 V, CAT IV/600 V
Standards: EN61243-3:2014
Acoustic signal: Yes
**Supplied with Batteries (2x type AAA), for replacement batteries see article no. 4000 901 810**

| Nominal voltage range [V AC/DC] | Article no. |
|---|---|
| **6–1000 / 6–1500** | **2000 828 940** |



## Clamp-on ammeter multimeter CM 100

4 digit LCD display · Min or max value measurement · Resistance up to 60 MOhm · Frequency range: 10 Hz to 10 kHz · Capacitance measurement · Acoustic continuity testing · Diode test · LED torch function · Overvoltage category CAT III 600 V
**Measuring range:**
Alternating/direct current: 10 mA–600 A
Alternating/direct voltage: 1 mV–600 V
**Supplied with batteries, measuring leads and instrument case**
**For detailed information, see the QR code**

| Opening of pliers [mm] | 24 |
|---|---|
| Measuring technique | TRUE RMS for non-sinusoidal voltages |
| L x W x H [mm] | 210 x 80 x 35 |
| **Article no.** | **2000 828 966** |

## Multimeter DMM 10

For measuring voltage, resistance, frequency, capacitance, and temperature · With LCD display



**Special feature:**
Automatic selection of the optimum display range

**Technical data:**
Direct voltage 0–600 V
Alternating voltage 0–600 V
Direct current 0–10 A
Alternating current 0–10 A
Resistance 0–60 MOhm
Diode test
Passage per acoustic signal below 50 ohm
Temperature -20 °C–200 °C with temperature sensor
Frequency 10 Hz–10 MHz
Pulse duty factor
Capacitance measurement 0–60 mF
Auto-Power-Off
Backlit
Data hold
CAT III 600 V
**Supplied with protective holster, batteries (2 x type AA) and measuring leads**
**Replacement batteries, see article no. 4000 901 811**

| Measuring technique | Article no. |
|---|---|
| **TRUE RMS** | **2000 828 844** |

## Infrared thermometer

Dual laser target display selection function · High-low temperature alarm setting · Fahrenheit/Celsius conversion · Measurement data memory function · Laser/blacklight display selection function · Automatic switch-off function · Low battery indicator function · With laser class certificate
**Scope of supply:** Infrared thermometer, battery, manual



| | |
|---|---|
| **Measuring range [°C]** | **-50 to approx. 750** |
| Accuracy | ±2 °C |
| Operating temperature [°C] | 0 to 50 |
| Measuring ratio | 16:1 |
| **Article no.** | **2000 370 719** |

## Pliers set

**Polished head · With multi-component grips**
**Contents:**
1 pc. needle-nose pliers 200 mm, straight (article no. 2000 811 254)
1 pc. side cutters 160 mm (article no. 2000 810 259)
1 pc. universal pliers 180 mm (article no. 2000 810 287)

**Supplied in high-quality plastic case**



| Contents | Article no. |
|---|---|
| **3-part** | **2000 811 254** |

## Pliers set

**Chrome-plated pliers · With multi-component grips** (water pump pliers dip-coated)

**Contents:**
1 pc. side cutters 160 mm (article no. 2000 810 119)
1 pc. radio pliers 160 mm (article no. 2000 810 309)
1 pc. universal pliers 180 mm (article no. 2000 810 203)
1 pc. water pump pliers 240 mm, box joint
**Supplied in high-quality plastic case**



| Contents | Article no. |
|---|---|
| **4-part** | **2000 810 814** |

## Pliers set

**Chrome-plated pliers · With multi-component grips**

**Contents:**
1 pc. radio/telephone pliers 200 mm, straight (article no. 2000 810 341)
1 pc. radio/telephone pliers 200 mm, angled (article no. 2000 810 365)
1 pc. side cutter 160 mm, for piano wire (article no. 2000 810 119)
1 pc. power side cutter 180 mm (article no. 2000 810 133)
1 pc. power universal pliers 200 mm (article no. 2000 811 099)
1 pc. water pump pliers 240 mm, box joint (article no. 2000 810 671)
**Supplied in a high-quality plastic case with durable foam insert**



| Contents | Article no. |
|---|---|
| **6-part** | **2000 810 095** |



## 1000 V

### Pliers set

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Chrome-plated pliers · With multi-component grips**

**Contents:**
1 pc. radio/telephone pliers 200 mm, straight (article no. 2000 810 359)
1 pc. side cutters 160 mm (article no. 2000 810 158)
1 pc. universal pliers 180 mm (article no. 2000 810 241)
**Supplied in high-quality plastic case**

| Contents | Article no. |
|---|---|
| 3-part | 2000 810 096 |



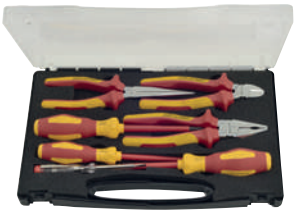
## 1000 V

### Pliers set

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Chrome-plated pliers · With multi-component grips**
**Contents:**
1 pc. radio/telephone pliers 160 mm, straight (article no. 2000 810 328)
1 pc. curved nose pliers 160 mm, angled (article no. 2000 810 873)
1 pc. side cutters 160 mm (article no. 2000 810 158)
1 pc. stripping pliers 160 mm (article no. 2000 810 418)
1 pc. universal pliers 180 mm (article no. 2000 810 241)

**Supplied in high-quality plastic case**

| Contents | Article no. |
|---|---|
| 5-part | 2000 810 887 |



## 1000 V

### Pliers/tool set

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · Equipped with high-quality tools · **Pliers with multi-component grips · Screwdriver with multi-component power handle**

**Contents:**
1 pc. side cutter 160 mm, VDE-insulated (article no. 2000 810 158)
1 pc. universal pliers 180 mm (article no. 2000 810 241)
1 pc. telephone pliers 200 mm, straight (article no. 2000 810 359)
1 pc. screwdriver for **slotted head screws** in 4 x 100 mm (article no. 2000 828 027)
1 pc. screwdriver for **slotted head screws** in 5.5 x 125 mm (article no. 2000 828 028)
1 pc. screwdriver for screws with **cross-head (PH)** size 2 (article no. 2000 828 036)
1 phase tester 150 mm
**Supplied in a high-quality plastic case with durable foam insert**

| Contents | Article no. |
|---|---|
| 7-part | 2000 810 027 |





### Pincer

**German shape** · For the harshest demands · High resistance to wear and balanced weight distribution · Cutters additionally hardened, cutting edge hardness approx. 58 HRC · Special tool steel, oil-hardened and tempered

**Black painted pliers · Polished head**

| Overall L [mm] | | Article no. |
|---|---|---|
| 160 | | 2000 810 310 |
| 180 | | 2000 810 311 |
| 200 | | 2000 810 312 |
| 220 | | 2000 810 313 |
| 250 | | 2000 810 314 |



### Mechanic's nippers

**(Tower pincers or braiding pliers)** · For twisting and cutting binding wire from the reel in a single operation · Cutters additionally hardened, cutting edge hardness approx. 61 HRC · Special tool steel, oil-hardened and tempered

**Black painted pliers · Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| 220 | Max. 3.2 | Max. 1.8 | | 2000 810 052 |
| 250 | Max. 3.5 | Max. 2 | | 2000 810 053 |
| 280 | Max. 3.5 | Max. 2.2 | | 2000 810 054 |
| 300 | Max. 3.5 | Max. 2.4 | | 2000 810 074 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Universal pliers

Gripping zones for flat and round material · Long cutters for thicker cables · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, forged, oil-hardened and tempered



**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Plastic coating** | | | | |
| **160** | Max. 2.5 | Max. 1.8 | | **2000 810 195** |
| **180** | Max. 2.8 | Max. 2.5 | | **2000 810 196** |
| **200** | Max. 3 | Max. 2.8 | | **2000 810 217** |

## Universal pliers

Gripping zones for flat and round material · Long cutters for thicker cables · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, forged, oil-hardened and tempered



**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **160** | Max. 2.5 | Max. 1.8 | | **2000 810 286** |
| **180** | Max. 2.8 | Max. 2.5 | | **2000 810 287** |
| **200** | Max. 3 | Max. 2.8 | | **2000 810 358** |

## Universal pliers

Gripping zones for flat and round material · Long cutters for thicker cables · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, forged, oil-hardened and tempered



**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **160** | Max. 2.5 | Max. 1.8 | **2000 810 202** |
| **180** | Max. 2.8 | Max. 2.5 | **2000 810 203** |

1000 V



## Universal pliers

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · Gripping zones for flat and round material · Long cutters for thicker cables · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, forged, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **160** | Max. 2.5 | Max. 1.8 | **2000 810 240** |
| **180** | Max. 2.8 | Max. 2.5 | **2000 810 241** |
| **200** | Max. 3 | Max. 2.8 | **2000 810 242** |

## Power combination pliers

**Up to 30 % less force required · 20 % weight reduction** · Slim shape · Cutters additionally induction-hardened, cutting edge hardness approx. 64 HRC · Special tool steel, forged, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | ● | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **200** | Max. 3.8 | Max. 2.7 | Max. 2.3 | **2000 811 099** |

## Multi-function pliers

**7in1** · Serrated gripping surfaces for powerful gripping and pulling of wires and cables · Profile groove with smooth base for precise manipulation/ guiding or powerful bending · Stripping of flexible or solid conductors (0.5 / 1.5 / 2.5 mm²) · Crimping of wire end ferrules (0.5–2.5 mm²) · Precision cutter for fine wires, medium-hard wire and piano wire · Crimping of cable lugs (0.5–2.5 mm²) · Piano wire 1.0 mm · Pointed tip for piercing and deburring flush-mounted boxes, etc.



| Length [mm] | Work area [mm²] | ◑ | ◕ | Article no. |
|---|---|---|---|---|
| **3-component grips** | | | | |
| **180** | 0.5–2.5 (AWG1/0) | 2.5 | 1.6 | **2000 811 300** |



## Multi-function pliers

**6in1** · **VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · Serrated gripping surfaces for powerful gripping and pulling of wires and cables · Profile groove with smooth base for precise manipulation/ guiding or powerful bending · Stripping of flexible or solid conductors (1.5 and 2.5 mm²) · Crimping of wire end ferrules (0.5–2.5 mm²) · Shearing cutting edge for cutting copper and aluminium cables without crushing (up to 5 x 1.5 mm²) · Pointed tip for piercing and deburring flush-mounted boxes, etc.

| Length [mm] | Work area [mm²] | ⊕ | Article no. |
|---|---|---|---|
| **3-component grips** | | | |
| **180** | 1.5–2.5 | 10 | **2000 811 301** |



## Needle-nose pliers

**With cutting edge (radio pliers)** · **Straight, flat-round jaws** · Serrated gripping surfaces · Cutters additionally hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered · **From 160 mm with torch hole**

**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Plastic coating** | | | | |
| **145** | Max. 2.3 | Max. 1.6 | | **2000 810 305** |
| **160** | Max. 2.5 | Max. 1.6 | | **2000 810 315** |



## Needle-nose pliers

**With cutting edge (radio pliers)** · **Straight, flat-round jaws, with torch hole** · Serrated gripping surfaces · Cutters additionally hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **160** | Max. 2.5 | Max. 1.6 | | **2000 810 309** |



## Needle-nose pliers

**With cutting edge (radio pliers)** · **VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Straight, flat-round jaws, with torch hole** · Serrated gripping surfaces · Cutters additionally hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **160** | Max. 2.5 | Max. 1.6 | | **2000 810 328** |



## Needle-nose pliers

**With cutting edge (curved nose pliers)** · **Straight, flat-round, long jaws tapering to a point, with torch hole** · Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Plastic coating** | | | | |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 339** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · Straight, flat-round, long jaws tapering to a point, with torch hole ·**
Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC ·
Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 345** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · Straight, flat-round, long jaws tapering to a point, with torch hole ·**
Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC ·
Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 341** |

1000 V



## Needle-nose pliers

**With cutting edge · VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · Straight, flat-round jaws, with torch hole

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **200** | Max. 2.8 | Max. 1.8 | **2000 810 359** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · Angled at 40°, flat-round, long jaws tapering to a point, with torch hole ·**
Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC ·
Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Plastic coating** | | | | |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 357** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · Angled at 40°, flat-round, long jaws tapering to a point, with torch hole ·**
Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC ·
Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 383** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · Angled at 40°, flat-round, long jaws tapering to a point, with torch hole** · Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **160** | Max. 2.5 | Max. 1.6 | | **2000 810 362** |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 365** |



## Needle-nose pliers

**With cutting edge (curved nose pliers) · VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Angled at 40°, flat-round, long jaws tapering to a point, with torch hole** · Serrated gripping surfaces · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **160** | Max. 2.5 | Max. 1.6 | | **2000 810 873** |
| **200** | Max. 2.8 | Max. 1.8 | | **2000 810 380** |



## Assembly pliers

**With cross profiles** · For gripping, adjustment and assembly work at difficult to access locations · **Flat-round gripping tips** · Particularly suitable for work in the motor vehicle trade (e.g. in the engine compartment), in assembly and mechanical engineering · Forged from special tool steel · Oil-hardened

**Polished head**

| Length [mm] | Tip | Article no. |
|---|---|---|
| **Plastic coating** | | |
| **280** | Straight | **2000 810 884** |



## Long-nose pliers

**Long, flat jaws** · Serrated gripping surfaces · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Overall L [mm] | Article no. |
|---|---|
| **Multi-component grips** | |
| **160** | **2000 810 281** |



## Long-nose pliers

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Long, flat jaws** · Serrated gripping surfaces · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Overall L [mm] | Article no. |
|---|---|
| **Multi-component grips** | |
| **160** | **2000 810 271** |



## Locking pliers

With wire cutter · With adjusting screw and release lever · Special jaw for secure gripping, clamping and holding · Head made of high-quality chromium-vanadium steel · Forged · Screw with hexagon socket

| Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **Max. 35** | 180 | **2000 810 636** |
| **Max. 48** | 225 | **2000 810 637** |
| **Max. 65** | 300 | **2000 810 638** |

## Parallel locking pliers

**Parallel clamping** · With adjustment screw and safely clamping quick-release lever · Chromium-vanadium steel · Forged steel jaws · **Screw with hexagon socket**



| Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|
| **Max. 48** | 236 | **2000 811 135** |

## Wide jaw grip wrench

With wide, flat jaws · With adjusting screw and release lever · Idea for sheet metal forming · For bending, shaping, bonding or crimping workpieces · Screw with hexagon socket



| Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|
| **Max. 37** | 244 | **2000 811 051** |

## Welding pliers

Pliers body made of high-strength steel · Bright nickel-plated · With adjusting screw and release lever · Screw with hexagon socket



| Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **Max. 50** | 280 | **2000 810 644** |

## Pipe welding pliers

Pliers body made of high-strength steel · Bright nickel-plated · With adjusting screw and release lever · **Screw with hexagon socket**



| Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **Max. 70** | 280 | **2000 810 646** |

## Brace grip pliers

With forged jaws · Clamp tongs for awkwardly shaped pieces · Bright nickel-plated · With adjusting screw and release lever · Screw with hexagon socket



| Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **Max. 90** | 280 | **2000 810 648** |

## Side cutter

For soft and medium-hard wire · Cutters additionally hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Polished head**



| Length [mm]<br>Plastic coating | ◑ | ◕ | Article no. |
|---|---|---|---|
| **160** | Max. 2.8 | Max. 2 | **2000 810 103** |

## Side cutter

For soft and hard wire · Cutters additionally hardened, cutting edge hardness approx. 62 HRC · Special tool steel, oil-hardened and tempered

**Polished head**



| Length [mm]<br>Plastic coating | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **130** | Max. 2 | Max. 1.6 | Max. 1.2 | | **2000 810 101** |
| **140** | Max. 2.8 | Max. 2 | Max. 1.4 | | **2000 810 110** |
| **160** | Max. 3 | Max. 2.3 | Max. 1.6 | | **2000 810 111** |
| **180** | Max. 3.2 | Max. 2.5 | Max. 1.8 | | **2000 810 149** |

## Side cutter

For soft and hard wire · Cutters additionally hardened, cutting edge hardness approx. 62 HRC · Special tool steel, oil-hardened and tempered

**Polished head**



| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **130** | Max. 2 | Max. 1.6 | Max. 1.2 | | **2000 810 257** |
| **145** | Max. 2.8 | Max. 2 | Max. 1.4 | | **2000 810 258** |
| **160** | Max. 3 | Max. 2.3 | Max. 1.6 | | **2000 810 259** |
| **180** | Max. 3.2 | Max. 2.5 | Max. 1.8 | | **2000 810 262** |



## Side cutter

For soft and medium-hard wire · Cutters additionally hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **Multi-component grips** | | | | |
| **140** | Max. 2.5 | Max. 1.8 | | **2000 810 108** |
| **160** | Max. 2.8 | Max. 2 | | **2000 810 109** |



## Side cutter

For soft and hard wire · Cutters additionally hardened, cutting edge hardness approx. 62 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **140** | Max. 2.8 | Max. 2 | Max. 1.4 | | **2000 810 118** |
| **160** | Max. 3 | Max. 2.3 | Max. 1.6 | | **2000 810 119** |
| **180** | Max. 3.2 | Max. 2.5 | Max. 1.8 | | **2000 810 151** |



1000 V

## Side cutter

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · For soft and hard wire · Cutters additionally hardened, cutting edge hardness approx. 62 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **130** | Max. 2 | Max. 1.6 | Max. 1.2 | | **2000 810 282** |
| **140** | Max. 2.8 | Max. 2 | Max. 1.4 | | **2000 810 243** |
| **160** | Max. 3 | Max. 2.3 | Max. 1.6 | | **2000 810 158** |
| **180** | Max. 3.2 | Max. 2.5 | Max. 1.8 | | **2000 810 244** |



## Power side cutter

**20 % less force required** compared to conventional side cutters · Cutters additionally induction-hardened, cutting edge hardness approx. 64 HRC · Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **160** | Max. 3.5 | Max. 2.5 | Max. 2 | | **2000 811 226** |
| **180** | Max. 3.8 | Max. 2.7 | Max. 2.3 | | **2000 810 104** |
| **200** | Max. 4.2 | Max. 3 | Max. 2.5 | | **2000 810 105** |



## Power side cutter

**20 % less force required** compared to conventional side cutters · Cutters additionally induction-hardened, cutting edge hardness approx. 64 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **180** | Max. 3.8 | Max. 2.7 | Max. 2.3 | | **2000 810 133** |
| **200** | Max. 4.2 | Max. 3 | Max. 2.5 | | **2000 810 132** |



1000 V

## Power side cutter

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **20 % less force required** compared to conventional side cutters · Cutters additionally induction-hardened, cutting edge hardness approx. 64 HRC · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ◑ | ◕ | ● | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **160** | Max. 3.5 | Max. 2.5 | Max. 2 | | **2000 810 159** |
| **180** | Max. 3.8 | Max. 2.7 | Max. 2.3 | | **2000 810 157** |
| **200** | Max. 4.2 | Max. 3 | Max. 2.5 | | **2000 810 161** |

## Bolt cutters

Chromium-vanadium blade · Forged · Blue powder-coated · With eccentric adjustment · Individually tempered · Cutting edges additionally induction-hardened · Max. 48 HRC/1600 N/mm²



| Length [mm] 1-component handle | ◔ | ◑ | ◕ | Article no. |
|---|---|---|---|---|
| **460** | 8 | 7 | 5 | **2000 810 874** |
| **620** | 9 | 8 | 7 | **2000 810 875** |
| **780** | 11 | 9 | 8 | **2000 810 876** |
| **900** | 13 | 11 | 9 | **2000 810 877** |

## Replacement cutter head

Complete with screws · Suitable for bolt cutters article no. 2000 810 874, 2000 810 875, 2000 810 876 and 2000 810 877



| For overall length [mm] | Article no. |
|---|---|
| **460** | **2000 801 010** |
| **620** | **2000 801 011** |
| **780** | **2000 801 012** |
| **900** | **2000 801 013** |

## Steel wire mesh cutter

Cutter head deburred and sand-blasted · Chromium-vanadium blade · Forged · Blue powder-coated · With eccentric adjustment · Individually tempered, max. 40 HRC / 1,260 N/mm² · Single-component handle, black



| Overall L [mm] | ◔ | ◑ | ◕ | Article no. |
|---|---|---|---|---|
| **950** | 11 | 9 | 9/2x8 | **2000 810 878** |

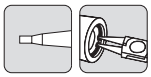
## End cutter

The type of head allows for optimised movement when tightening the binding knot during reinforced concrete work · Cutters additionally induction-hardened, cutting edge hardness approx. 60 HRC · Special tool steel, oil-hardened and tempered



**Polished head**

| Overall L [mm] Plastic coating | ◑ | ◕ | | Article no. |
|---|---|---|---|---|
| **180** | Max. 3.8 | Max. 2.8 | | **2000 810 072** |



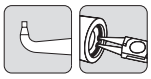
## Circlip pliers

**For inner races in bores · Straight tips ·** Slip-off resisting, stable tips · Chromium-vanadium quality steel, oil-hardened and tempered



**Polished head · Plastic-coated handles**

| Model | For bore Ø [mm] | Article no. |
|---|---|---|
| **J 0** | 8– 13 | **2000 810 583** |
| **J 1** | 12– 25 | **2000 810 584** |
| **J 2** | 19– 60 | **2000 810 590** |
| **J 3** | 40–100 | **2000 810 591** |



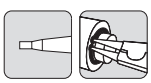
## Circlip pliers

**For inner races in bores · 90° bent tips ·** Slip-off resisting, stable tips · Chromium-vanadium quality steel, oil-hardened and tempered



**Polished head · Plastic-coated handles**

| Model | For bore Ø [mm] | Article no. |
|---|---|---|
| **J 01** | 8– 13 | **2000 810 593** |
| **J 11** | 12– 25 | **2000 810 594** |
| **J 21** | 19– 60 | **2000 810 607** |
| **J 31** | 40–100 | **2000 810 608** |



## Circlip pliers

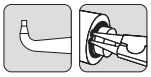
**For outer rings on shafts · Straight tips** · Slip-off resisting, stable tips · Chromium-vanadium quality steel, oil-hardened and tempered



**Polished head · Plastic-coated handles**

| Model | For shaft Ø [mm] | Article no. |
|---|---|---|
| **A 0** | 3– 10 | **2000 810 611** |
| **A 1** | 10– 25 | **2000 810 613** |
| **A 2** | 19– 60 | **2000 810 614** |
| **A 3** | 40–100 | **2000 810 624** |





## Circlip pliers

**For outer rings on shafts · 90° bent tips ·** Slip-off resisting, stable tips · Chromium-vanadium quality steel, oil-hardened and tempered

**Polished head · Plastic-coated handles**

| Model | For shaft Ø [mm] | Article no. |
|---|---|---|
| **A 01** | 3– 10 | **2000 810 626** |
| **A 11** | 10– 25 | **2000 810 627** |
| **A 21** | 19– 60 | **2000 810 628** |
| **A 31** | 40–100 | **2000 810 629** |



2000 810 630

## Circlip pliers set

**Contents of article no. 2000 810 630:**
1 pc. circlip pliers for inner races
**Straight** (article no. 2000 810 590)
1 pc. circlip pliers for inner races
**90° angled** (article no. 2000 810 607)
1 pc. circlip pliers for outer rings
**Straight** (article no. 2000 810 614)
1 pc. circlip pliers for outer rings
**90° angled** (article no. 2000 810 628)



**Contents of article no. 2000 810 631:**
1 pc. of each of the circlip pliers for inner races
**Straight** (article no. 2000 810 584, 2000 810 590)
1 pc. of each of the circlip pliers for inner races
**90° angled** (article no. 2000 810 594, 2000 810 607)
1 pc. of each of the circlip pliers for outer rings
**Straight** (article no. 2000 810 613, 2000 810 614)
1 pc. of each of the circlip pliers for outer rings
**90° angled** (article no. 2000 810 627, 2000 810 628)
**Supplied in a high-quality roll pouch made of tough polyester textile fabric, with ties**

| Contents | Work area [mm] | Article no. |
|---|---|---|
| **4-part** | 19–60 | **2000 810 630** |
| **8-part** | 10–60 | **2000 810 631** |





## Pliers spanner PRESSwrench

Powerful, finely adjustable screwing tool for parallel, full-surface, backlash-free and thus secure gripping of multiple edges without damaging edges up to 68 mm · Continuously parallel adjustable, smooth jaws for gentle gripping or powerful pressing, particularly axial pressing · Push-button fine adjustment of all widths across flats for hand-friendly handle position and optimum ergonomics · High clamping force thanks to lever ratio · Fast, ratchet-like tightening or loosening of nuts and screws by easily opening the jaw, turning and repositioning · **Protected scale for presetting the desired width across flats or for measuring pipe thicknesses and widths across flats** · High-quality chromium-vanadium steel, forged, oil-hardened

**Chrome-plated pliers**

| Length [mm] | Clamping W. [mm] | Setting position | Article no. |
|---|---|---|---|
| **3-component grips** | | | |
| **180** | 40 | 19 | **2000 811 201** |
| **250** | 52 | 19 | **2000 811 136** |
| **PVC coating** | | | |
| **300** | 86 | 19 | **2000 811 202** |



## Water pump pliers

**DIN/ISO 8976 ·** Chromium-vanadium steel · Drop-forged · Enamelled finish · With polished box joint · 7 position adjustment · With profiled and curved handles

| Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|
| **26** | 175 | **2000 810 664** |
| **33** | 240 | **2000 810 665** |
| **45** | 300 | **2000 810 666** |



## Water pump pliers PRESSplus

**30 % enlarged gripping range ·** Pinch protection · Adjustment at the push of a button · Self-locking · Fine adjustment · Opposing additional serration near the joint · High-quality chromium-vanadium steel

**Chrome-plated pliers**

| For pipes [mm] (inch) | Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **3-component grips** | | | |
| **50 (2)** | 46 | 250 | **2000 811 137** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Water pump pliers PRESSplus

**30 % enlarged gripping range** · Sand-blasted, chrome-plated · Nickel-plated · Pinch protection · Quick adjustment · Quality chromium-vanadium tool steel



2000 810 791

| For pipes [mm] (inch) | Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **Plastic coating** | | | |
| **42 (1 1/2)** | 36 | 180 | **2000 810 791** |
| **50 (2)** | 46 | 250 | **2000 810 848** |

## Water pump pliers

**Length: 7-step latch adjustment · Self-locking on pipes and nuts** · Pinch protection · Gripping surfaces with teeth · High-quality chromium-vanadium steel



**Chrome-plated pliers**

| For pipes [mm] (inch) | Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **6–44 (1/8–1 1/2)** | 6–44 | 250 | **2000 810 671** |

1000 V



## Water pump pliers

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · **Length: 7-step latch adjustment** · Chrome-plated box joint · Pinch protection · Chromium-vanadium quality steel, oil-hardened and tempered

| For pipes [mm] (inch) | Clamping W. [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **6–44 (1/8–1 1/2)** | 6–44 | 250 | **2000 810 789** |

## Pipe wrench

**90° jaw position** · Chromium-vanadium steel · Drop-forged · Painted blue, polished · Adjusting nut · Induction-hardened jaws





| For pipes [mm] (inch) | Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **25.4 (1)** | 0– 42 | 320 | **2000 810 692** |
| **38.1 (1 1/2)** | 0– 62 | 425 | **2000 810 693** |
| **50.8 (2)** | 0– 70 | 560 | **2000 810 694** |
| **76.2 (3)** | 10–110 | 630 | **2000 810 695** |
| **101.6 (4)** | 10–121 | 740 | **2000 810 696** |

## Pipe wrench, Swedish style

**45° jaw position · Chromium-vanadium steel** · Drop-forged · Painted blue, polished · Adjusting nut · Induction-hardened jaws



| For pipes [mm] (inch) | Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **25.4 (1)** | 0–55 | 320 | **2000 810 710** |
| **38.1 (1 1/2)** | 0–62 | 425 | **2000 810 711** |
| **50.8 (2)** | 0–94 | 565 | **2000 810 712** |

## Pipe wrench, Swedish style

**S-jaw** · Chromium-vanadium steel · Drop-forged · Painted blue, polished · Adjusting nut · Induction-hardened jaws



| For pipes [mm] (inch) | Clamping W. [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **25.4 (1)** | 0– 40 | 330 | **2000 810 730** |
| **38.1 (1 1/2)** | 0– 55 | 420 | **2000 810 731** |
| **50.8 (2)** | 0– 67 | 535 | **2000 810 732** |
| **76.2 (3)** | 0–103 | 652 | **2000 810 733** |

## Electronic side cutters

Box joint · With double leaf spring · Pointed-round head · With double leaf spring · Special tool steel, forged · With additional inductive hardening of the cutting edge



**Finely polished head**

| Length [mm] | Type of head | ◕ | ⊛ | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **110** | Round | 0.6 | 0.3–1.5 | | **2000 810 526** |

## Electronic side cutters

Box joint · Round head · With double leaf spring · Special tool steel, forged · With additional inductive hardening of the cutting edge



**Polished steel head**

| Length [mm] | Type of head | ◕ | ⊛ | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **115** | Round | 0.6 | 0.3–1.6 | | **2000 810 511** |
| **115** | Round | - | 0.2–1.3 | | **2000 810 512** |



## Electronic side cutters

Box joint · Pointed head · With double leaf spring · Special tool steel, forged · With additional inductive hardening of the cutting edge

**Polished steel head**

| Length [mm] | Type of head | ◕ | ⊕ | | Article no. |
|---|---|---|---|---|---|
| **Multi-component grips** | | | | | |
| **115** | Pointed | 0.5 | 0.3–1.3 | | **2000 810 514** |
| **115** | Pointed | - | 0.2–1.3 | | **2000 810 515** |





## Electronic needle-nosed pliers

Box joint · With double leaf spring · Smooth gripping surface · Blackened, polished head · Special tool steel, forged, oil-hardened

**Finely polished head**

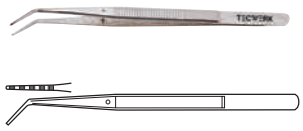
| Overall L [mm] | Jaw design | Article no. |
|---|---|---|
| **Multi-component grips** | | |
| **130** | Straight | **2000 810 524** |



## Universal tweezers

Made of stainless, antimagnetic steel · Stainless 18/10

| Overall L [mm] | Article no. |
|---|---|
| **130** | **2000 810 465** |



## College tweezers

Angled · With guide pin · Narrow, serrated tips · Nickel-plated

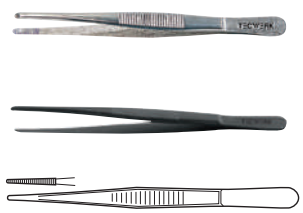
| Overall L [mm] | Article no. |
|---|---|
| **155** | **2000 810 468** |



## Cross-lock soldering tweezers

Bent tips · With heat-insulating plastic grips, made of stainless anti-magnetic stainless steel · Stainless 18/10

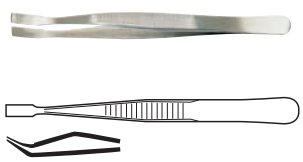
| Overall L [mm] | Article no. |
|---|---|
| **160** | **2000 810 470** |



## Universal tweezers

Sturdy · Blunt and wide serrated tips

| Overall L [mm] | Surface | Article no. |
|---|---|---|
| **145** | Nickel-plated | **2000 810 471** |
| **145** | Non-stick coating | **2000 810 472** |
| **200** | Nickel-plated | **2000 810 572** |
| **250** | Nickel-plated | **2000 810 633** |
| **300** | Nickel-plated | **2000 810 639** |



## Flat nose tweezers

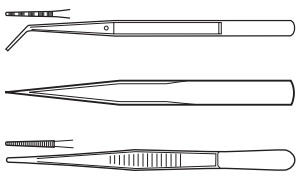
4 mm wide · Square tips · Bent nose · Stainless steel 18/10 · Anti-magnetic

| Overall L [mm] | Article no. |
|---|---|
| **120** | **2000 810 477** |



## Tweezer set

**Contents:**
1 pair of college tweezers, 155 mm (article no. 2000 810 468)
1 pair of universal tweezers, 130 mm (article no. 2000 810 465)
1 pair of universal tweezers, 145 mm (article no. 2000 810 471)
**Supplied in pouch**



| Contents | Article no. |
|---|---|
| **3-part** | **2000 810 479** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Cable shears

Smooth, clean cut · Precision-ground, hardened cutting edges · With pinch protection · Special tool steel, forged, oil-hardened and tempered



**Polished head**

| Length [mm] | ⌖ | Article no. |
|---|---|---|
| **Multi-component grips** | | |
| **160** | Max. 10 (50 mm²) | **2000 810 903** |

## 1000 V



## Cable shears

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · Ergonomic **head type 25°** · Smooth, clean cut · Bolted joint connections, adjustable · With integrated spring and locking lever · Pinch protection · Special tool steel, forged, oil-hardened and tempered

**Polished head**

| Length [mm] | ⌖ | Article no. |
|---|---|---|
| **Multi-component grips** | | |
| **180** | Max. 18 (50 mm²) | **2000 810 919** |



## Stripping pliers

With knurled screw and counter nut · With measuring scale for stripping length · Opening spring · Special tool steel, oil-hardened and tempered

**Polished head**

| Length [mm] | ⌖ | Spring | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **160** | Max. 5 | With opening spring | **2000 810 102** |



## Stripping pliers

With knurled screw and counter nut · With measuring scale for stripping length · Opening spring · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ⌖ | Spring | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **160** | Max. 5 | With opening spring | **2000 810 381** |

## 1000 V



## Stripping pliers

**VDE-insulated up to 1000 V** · Manufactured in accordance with DIN EN/IEC 60900, individually tested · With knurled screw and counter nut · With measuring scale for stripping length · Opening spring · Special tool steel, oil-hardened and tempered

**Chrome-plated pliers**

| Length [mm] | ⌖ | Spring | Article no. |
|---|---|---|---|
| **Multi-component grips** | | | |
| **160** | Max. 5 | With opening spring | **2000 810 418** |

## Automatic stripping pliers

For stripping and cutting finely stranded and solid conductors with PVC insulation with a diameter between Ø 0.08–6 mm² (AWG 28–10) · Strips multiple conductors · With thin flat ribbon cables it strips several conductors in a single operation · Jaws open automatically after stripping · No splaying of individual strands · Special self-adjusting stripping blades avoid damage to the conductor · Blade cassettes surround the cable and part the insulation all the way round



| Length [mm] | Skinning value [mm²] | Article no. |
|---|---|---|
| **190** | 0,08 - 6 (AWG 28 - 10) | **2000 810 421** |



## Automatic stripping pliers

Automatic stripping pliers for all standard flexible and solid conductors · Integrated, easily accessible side cutter up to Ø 2 mm

| Length [mm] | Skinning value [mm²] | Length stop [mm] | Article no. |
|---|---|---|---|
| **220** | 0,2 - 6 | 5–12 | **2000 811 190** |



## Stripping blade

**With hooked blade and protective cap** · For all standard round caps · The cutting depth of the blade can be adjusted as required using the adjusting screw at the end of the handle

| Overall L [mm] | Work area Ø [mm] | Article no. |
|---|---|---|
| **247** | 4–28 | **2000 818 855** |



## Cable/electrical knife

1-part cable knife with two notches · For stripping NYM cables · Stainless steel blade (420) · Plastic grip with insulated rivets

| Overall L [mm] | Blade L [mm] | Article no. |
|---|---|---|
| **190** | 80 | **2000 817 906** |



## Crimping pliers

**For uninsulated cable lugs and connectors** · Rolled cable lugs, tubular cable lugs, pin cable lugs, parallel and series connectors · Forced locking system ensures high-quality crimp · Release mechanism option in case of incorrect operation

| Work area | Length [mm] | Article no. |
|---|---|---|
| **0.5–6 (~AWG 20... 10) mm²** | 205 | **2000 810 452** |



## Crimping pliers

**For PVC and polyamide-insulated connectors** · For cable lugs, pin cable lugs, parallel and serial connectors · Forced locking system ensures high-quality crimp · Release mechanism option in case of incorrect operation

| Work area [mm²] | Length [mm] | Article no. |
|---|---|---|
| **0.5–6 (~AWG 20... 10)** | 235 | **2000 810 453** |







## Wire end ferrule crimping tool

**For wire end ferrules with and without plastic collars** · Guarantees optimum, solder-free, electrical connections according to DIN standard · Reduced manual force thanks to lever action · Forced locking system ensures reliable crimping · **Crimp:** Trapezoid



| Work area [mm²]<br>Plastic grips | Overall L [mm] | Article no. |
|---|---|---|
| **0.5–6 (AWG 24–10)** | 205 | **2000 810 469** |



## Wire end ferrule pliers

For crimping wire end ferrules DIN 46228 Part 1 + 4 · Crimping in marked trapezoidal or half-round profiles for secure connection of sleeve and conductor · Special tool steel, forged, oil-hardened and tempered

**Article no. 2000 810 440 trapezoidal profile**
**Article no. 2000 810 441 half-round profile**

**Polished head**





| Work area [mm²]<br>Plastic coating | Overall L [mm] | Article no. |
|---|---|---|
| **0.25–2.5 (AWG 23–13)** | 145 | **2000 810 440** |
| **0.25–16.0 (AWG 23–5)** | 180 | **2000 810 441** |



## Wire end ferrule assortment

**Contents:**
1 pc. wire end ferrule pliers 180 mm for wire end ferrules 0.25–16 mm² (article no. 2000 810 441)
1 phase tester 150 mm
100 each of the insulated wire end ferrules 0.5/0.75/1.5/2.5 and 4.0 mm²
**Supplied in plastic case with permanent foam insert**

| Contents | Cross section [mm²] | Article no. |
|---|---|---|
| **502-part** | 0,50 - 4,00 | **2000 810 404** |

## Manual blind riveter

**Handy, lightweight, professional type** · For use with **aluminium** blind rivets with **Ø 2.4–5.0 mm** and **stainless steel** blind rivets with **Ø 2.4–4.0 mm** · Working stroke 8 mm · Complete with 4 nose pieces



| Spring | Work area [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **With opening spring** | 2.4–5 | 255 | **2000 813 025** |

## Blind rivet assortment

With hand riveting pliers (article no. 2000 813 025) · **Without drill bits**

**Contents:**
1 hand rivet tool, working range 2.4–5.0 mm
125 pc. each blind rivets aluminium/steel 3 x 6, 3,2 x 8, 4 x 10 and 4 x 12 mm
50 pc. blind rivets aluminium/steel 4.8 x 14 mm
20 each flat washers with internal Ø 3.2 mm and 4.2 mm
10 flat washers with internal Ø 5.0 mm

**Supplied in steel case**



| L x W x H [mm] | Contents | Article no. |
|---|---|---|
| **340 x 240 x 55** | 601-part | **2000 813 048** |

## Hand tacker

Made of stable **die-cast aluminium** · Easily accessible tacker magazine · For staples up to 14 mm long · With ergonomic 2-component handle



| | Article no. |
|---|---|
| | **2000 813 677** |

## Hammer tacker

**Heavy-duty design** · For staples up to 10 mm long · Painted surface · With ergonomic handle

**Supplied in blister box**



| | Article no. |
|---|---|
| | **2000 813 676** |

## Magnetic storage tray

E.g. for nails, screws, etc. · Bevelled shape · Made of high-quality plastic · Strong permanent magnet for attachment to all metal surfaces (rubber buffer protects the metal surface from damage)



Supplied without tools/ contents



| Magnetic surface Ø [cm] | Bowl Ø [cm] | Article no. |
|---|---|---|
| **8.5** | 15 | **2000 829 805** |

## Telescopic magnetic pick-up tool

Extensible telescopic shaft · With strong permanent magnet · For reaching and picking up small metallic objects in inaccessible places



| Overall L [mm] | Length retracted [mm] | Magnetic head Ø [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **635** | 170 | 12 | Approx. 3.5 | **2000 829 780** |

## Telescopic magnetic pick-up tool

Telescopically extensible · Strong magnet head for picking up of lost parts such as screws etc. · Integral nozzle adjustment needle (secured with protective cap) · When extended the telescopic rod indicates the jet direction of the nozzle



| Overall L [mm] | Length retracted [mm] | Magnetic head Ø [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **670** | 150 | 6 | 0.55 | **2000 829 799** |

## Magnetic pick-up tool

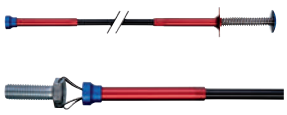
With **flexible**, chrome-plated **shaft** · Ergonomic handle



| Overall L [mm] | Magnetic head Ø [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|
| **440** | 6 | 0.5 | **2000 829 804** |

## Claw pick-up tool/magnetic pick-up tool

With **flexible plastic-coated shaft** · Three gripping jaws, which grip automatically through spring pressure and integrated ring magnets · Magnetic head diameter approx. 15 mm



| Length of flex. Shaft [mm] | Overall L [mm] | Lifting force [g] | Claw opening max. [mm] | Article no. |
|---|---|---|---|---|
| **500** | 700 | 800 | 16 | **2000 829 798** |



## Utility knife

Die-cast zinc housing · Retractable blade · Quick multi-position blade adjustment · Suitable for hooked and trapezoid blades · Powder-coated
**Supplied with 1 trapezoid blade**

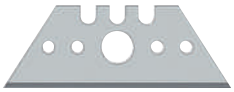
| Overall L [mm] | Article no. |
|---|---|
| **162** | **2000 817 702** |



## Utility knife

**2-component housing with non-slip coating** · Retractable blade · Quick multi-position blade adjustment
**Supplied with 1 trapezoid blade**

| Overall L [mm] | Article no. |
|---|---|
| **158** | **2000 817 703** |



2000 817 765



2000 817 766

## Trapezoid blade

For utility knife · Ice-hardened

| L x W x Th [mm] | Perforation | Coating | Packaging | Article no. |
|---|---|---|---|---|
| **52 x 18.7 x 0.65** | With | - | 10 pc. / dispenser | **2000 817 765** |
| **52 x 18.7 x 0.65** | With | - | 50 pc. / dispenser | **2000 817 883** |
| **61 x 18.7 x 0.65** | With | TIN | 10 pc. / dispenser | **2000 817 766** |
| **61 x 18.7 x 0.65** | With | TIN | 50 pc. / dispenser | **2000 817 884** |



2000 817 767



2000 817 768

## Hooked blade

For utility knife · Ice-hardened

| Coating | Blade L [mm] | Blade th. [mm] | Blade Ø [mm] | Packaging | Article no. |
|---|---|---|---|---|---|
| - | 48.2 | 0.65 | 18.7 | 10 pc. / dispenser | **2000 817 767** |
| **TiN** | 48.2 | 0.65 | 18.7 | 10 pc. / dispenser | **2000 817 768** |





2000 817 933



2000 817 753

## Craft knife

With stainless steel guide rail · Automatic safety lock · Integrated feed magazine for replacement blades · Handles with rubber coating
**Supplied with 2 replacement demolition blades**

| Blade Ø [mm] | Length [mm] | Article no. |
|---|---|---|
| **9** | 140 | **2000 817 933** |
| **18** | 163 | **2000 817 753** |



## Craft knife

Stainless steel housing/blade type · Safety lock · With magazine for 2 blades · Blades with rated breaking points
**Supplied with 3 replacement blades**

| Blade Ø | Length [mm] | Article no. |
|---|---|---|
| **9 mm** | 146 | **2000 817 751** |



## Craft knife

Slender housing · With safety locking · Steel guide · With locking wheel
**Supplied with 2 replacement demolition blades**

| Blade Ø [mm] | Length [mm] | Article no. |
|---|---|---|
| **18** | 167 | **2000 817 752** |



## Craft knife

Aluminium housing · Stainless steel blade guide · With soft rubber handle · **Safety lock · Integrated feed magazine for replacement blades with automatic reloading** · Powder-coated
**Supplied with 5 replacement demolition blades**

| Blade Ø [mm] | Length [mm] | Article no. |
|---|---|---|
| **18** | 166 | **2000 817 840** |



## Cutting knife set

Comprising two craft knives

| Packaging | Article no. |
|---|---|
| **Cutter 2000 817 753 and 2000 817 933** | **2000 817 945** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Demolition blade
For craft knife · Ice-hardened



2000 817 771



2000 817 774

| L x W x Th [mm] | Coating | Rated break points | Packaging | Article no. |
|---|---|---|---|---|
| **80 x 9.1 x 0.4** | - | 12 | 10 pc. / dispenser | **2000 817 771** |
| **100 x 17.7 x 0.5** | - | 0 | 10 pc. / dispenser | **2000 817 887** |
| **100 x 17.7 x 0.5** | - | 7 | 10 pc. / dispenser | **2000 817 772** |
| **100 x 17.7 x 0.5** | - | 7 | 50 pc. / dispenser | **2000 818 254** |
| **142 x 25 x 0.7** | - | 6 | 10 pc. / dispenser | **2000 817 881** |
| **80 x 9.1 x 0.4** | TiN | 12 | 10 pc. / dispenser | **2000 817 773** |
| **100 x 17.7 x 0.5** | TiN | 0 | 10 pc. / dispenser | **2000 817 888** |
| **100 x 17.7 x 0.5** | TiN | 7 | 10 pc. / dispenser | **2000 817 774** |
| **142 x 25 x 0.7** | TiN | 6 | 10 pc. / dispenser | **2000 817 882** |

## Demolition hook blade
For craft knife · Ice-hardened



**PU = 1 safety dispenser with 10 pc.**

| L x W x Th [mm] | Coating | Rated break points | Packaging | Article no. |
|---|---|---|---|---|
| **104.5 x 17.7 x 0.5** | TiN | 3 | 10 pc. / dispenser | **2000 817 831** |

## Safety knife
Die-cast zinc housing · **Automatic blade retraction** · Suitable for mounting trapezoidal and hooked blades · Powder-coated
**Supplied with 1 trapezoid blade**



| L x W x H [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| **167 x 25 x 35** | 24 | **2000 817 713** |

## Industrial knife
**Stainless steel** · One-part · With **blade lock** · Screw-mounted blade · Serrated blade · Plastic grips
**Note:** Safe cutting



| Overall L [mm] | Blade L [mm] | Article no. |
|---|---|---|
| **190** | 78 | **2000 817 907** |

## Plate shears
Berlin shape · **Quality steel** · For long straight cuts · All steel screw · Grey sand-blasted head · With open, curved handles · Fully hardened cutting edges · (58 HRC)



| Length [mm] | Designed | Steel [mm] | Stainless steel [mm] | Article no. |
|---|---|---|---|---|
| **254** | Right | Max. 0.78 | Max. 0.45 | **2000 810 932** |

## Hole cutting shears
**Quality steel** · For short, straight and figure cuts (large radii) · Grey sand-blasted head · With open, curved handles · Fully hardened cutting edges · (58 HRC)



2000 810 936



2000 810 938

| Overall L [mm] | Designed | Steel [mm] | Stainless steel [mm] | Article no. |
|---|---|---|---|---|
| **250** | Right | Max. 1 | Max. 0.5 | **2000 810 936** |
| **250** | Left | Max. 1 | Max. 0.5 | **2000 810 938** |

## Ideal plate shears
**Quality steel** · For continuous straight and figure cuts · Grey sand-blasted · With open, curved handles · Fully hardened cutting edges · (58 HRC)



2000 810 940



2000 810 941

| Length [mm] | Designed | Steel [mm] | Stainless steel [mm] | Article no. |
|---|---|---|---|---|
| **260** | Right | Max. 0.8 | Max. 0.45 | **2000 810 940** |
| **260** | Left | Max. 0.8 | Max. 0.45 | **2000 810 941** |

## Pelican (straight cutting) shears
**Quality steel** · For long straight and continuous cuts · Grey sand-blasted · With open, curved handles · Fully hardened cutting edges · (58 HRC)



| Overall L [mm] | Designed | Steel [mm] | Stainless steel [mm] | Article no. |
|---|---|---|---|---|
| **300** | Right | Max. 0.78 | Max. 0.45 | **2000 810 945** |



2000 810 964



2000 810 972

## Figure snips

**Quality steel** 62HRC · Fully hardened cutting edges · Suitable for short, straight and figure cuts · **Lever action · Ergonomic 2-component handles with PVC coating and slip guard**

| Length [mm] | Designed | Steel [mm] | Article no. |
|---|---|---|---|
| **248** | Right | Max. 1.2 | **2000 810 964** |
| **260** | Right | Max. 1.5 | **2000 810 972** |



2000 810 978



2000 810 952

## Plate shears

**Quality steel** 62HRC · Fully hardened cutting edges · Hot forged · Sand-blasted blades · Suitable for figures and straight continuous cuts · **Lever action · Ergonomic 2-component handles with PVC coating and slip guard**

| Length [mm] | Designed | Steel [mm] | Article no. |
|---|---|---|---|
| **260** | Right | Max. 1.5 | **2000 810 978** |
| **260** | Left | Max. 1.5 | **2000 810 952** |



## Plate/round steel shears

Machine body made of stable, high-quality steel plates · New body design (plate body) guarantees particularly easy feeding of the material · Large, infinitely adjustable restrainer · Enables precise cutting after the initial incision and neat cutting quality · Safety bolts reliably prevent accidents · High-quality shearing tools, carefully manufactured, hardened and ground to ensure long service life · Particularly suitable for assembly work for fitters, installers, teaching workshops, etc. · Easy to transport

Supplied complete with hand lever

| Cutting capacity steel sheet [mm] | Cutting capacity round sheet [mm] | Article no. |
|---|---|---|
| **50 x 4** | 11 | **2000 810 997** |
| **50 x 5** | 11 | **2000 810 998** |
| **70 x 6** | 13 | **2000 810 999** |



## Strap safety scissors

For plastic + metal straps · Energy-saving lever action · With safety restrainer and hand-friendly ERGO grip · Additionally induction-hardened cutting edges · Pinch protection · Special tool steel, oil-hardened and tempered · **Recommended by BG**

| Overall L [mm] | Capacity | Article no. |
|---|---|---|
| **600** | 1.2 x 50 mm | **2000 810 899** |



2000 818 429

## All-purpose scissors

**Titanium-coated** · No resharpening necessary · High-quality type · For cutting cardboard, fibreglass, special fibres, fabric film, carbon film · **With 2-component eyelet**

| Overall L [mm] | Article no. |
|---|---|
| **180** | **2000 818 429** |
| **210** | **2000 818 430** |



## Electrician/craftsman's scissors

Sturdy, strong shape · Suitable for thin wires, insulating sleeves, NYM cables, etc. · With a notch · For cutting fine-stranded conductors up to 16 mm² · Handle coated in 2-component plastic

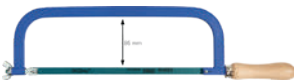
| Length [mm] | Article no. |
|---|---|
| **140** | **2000 817 802** |



## Revolving punch pliers

For punching holes in leather, textiles and plastic material · With 6 interchangeable punches: Ø 2.0 / 2.5 / 3.0 / 3.5 / 4.0 / 5.0 mm · Made of high-strength sheet steel · Powder-coated · With opening spring and locking lever

| Overall L [mm] | Article no. |
|---|---|
| **240** | **2000 810 612** |



## Metal saw frame

Made of flat steel (18 x 8 mm) · Powder-coated · With captive dowel pins in accordance with DIN 6473 · With beechwood handle

**Scope of supply:** Complete with TECWERK bi-metal saw blade

| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **300** | 24 | **2000 814 059** |

## Metal saw frame

D-handle and front handle · Bar and rotating clamping knob anti-slide coated · Integrated "chuck key"
**Scope of supply:** Complete with TECWERK HSS bi-metal saw blade



| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **300** | 24 | **2000 814 056** |

## Metal saw frame

Completely made of pressure die-cast aluminium · High sawing comfort as a result of the ergonomic shape and low weight of 650 g · With knuckle guard and soft-rubber hand and front handle · Integrated "chuck key" · Possibility of alternative blade clamping at 45° and 90° for flush cuts · A maximum clamping of the blade of 800 N is guaranteed
**Scope of supply:** Complete with TECWERK bi-metal saw blade



| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **300** | 24 | **2000 814 065** |

## Metal saw blade

**HSS bi-metal** · Toothed on one side · High cutting speed and service life · Teeth made of HSS (DIN 1.3343), hardness 63–65 HRC, milled and corrugated · Blade body made of spring steel (50 HRC) · Unbreakable
**2000 814 083:** Pack with 100 saw blades
**2000 814 084:** Pack with 10 saw blades



| L x W x Th [mm] | Teeth per inch | Article no. |
|---|---|---|
| **300 x 12,5 x 0.63** | 24 | **2000 814 083** |
| **300 x 12,5 x 0.63** | 24 | **2000 814 084** |

## Hacksaw

Handy hacksaw for single-handed operation – ideal for cutting a wide variety of materials such as wood, plastic and steel up to Ø 120 mm · Replacement blades 300 x 25 x 0.75 mm, combination 24/14 TPI available · Practical for precise work in hard-to-reach places thanks to compact design



| Length of sheet [mm] | Article no. |
|---|---|
| **300** | **2000 858 042** |

## Saw frame

Round steel bar · Black, powder-coated surface with blue plastic grips and mounted PUK® universal saw blade, article no. 4000 814 020



| Overall L [mm] | Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|---|
| **240** | 150 | 25 | **2000 814 012** |

## Pipe cutter

For the cutting of aluminium, copper and thin-walled metal pipes · Body, sled and rotary knob made of die-cast zinc · **With 1 cutting wheel** · With ICS system · Cutting wheel change without tool · With steel-supported spindle · Ergonomic rotation knob · Extremely reduced work radius · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 19 mm · Powder-coated
**Replacement cutter wheel see article no. 4000 812 625**




| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–15.88 (1/8–5/8)** | 50 | 3–16 | **2000 812 613** |

## Pipe cutter

**For thin-walled metal pipes** · Ideal for work in confined and difficult to access locations · Body and rotary knob made of die-cast zinc · With ergonomic rotation knob · With steel-supported spindle · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 19 mm · **Replacement cutting wheel in the rotation knob** · Powder-coated · With ICS system · Cutting wheel change without tool
**Replacement cutter wheel see article no. 4000 812 625**




| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–28.58 (1/8–1 1/8)** | 50 | 3–30 | **2000 812 601** |

| Accessories | Article no. |
|---|---|
| **Cutting wheel Ø 20 mm** | **2000 812 625** |

## Pipe cutter

For the cutting of aluminium, copper and thin-walled metal pipes · Body, sled and rotary knob made of die-cast zinc · With ICS system · Cutting wheel change without tool · With steel-supported spindle · Ergonomic rotation knob · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 19 mm · Powder-coated · **With 1 replacement cutting wheel**
**Replacement cutter wheel see article no. 4000 812 625**



| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–34.93 (1/8–1 3/8)** | 120 | 3–35 | **2000 812 614** |



2000 812 622

## Pipe cutter

For thin-walled metal pipes made of AL, CU + stainless steel to max. 2 mm · Body made of Magnesium · Slide and rotary knob made of die-cast zinc · With steel-supported advance-feed quick-spindle · Four-roll guide · With extendible NOGA deburrer blade · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 19 mm · Powder-coated · Cutting wheel change without tool · **Replacement cutting wheel in the rotation knob**
**Replacement cutter wheel see article no. 4000 812 625**

| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–34.93 (1/8–1 3/8)** | 160 | 3–35 | **2000 812 622** |
| **3.18–44.45 (1/8–1 3/4)** | 183 | 3–45 | **2000 812 623** |



## Stainless steel pipe cutter

For thin-walled metal pipes, especially for exact cutting of **stainless steel pipes** · Body made of Magnesium · Slide and rotary knob made of die-cast zinc · With steel-supported advance-feed quick-spindle · 4 needle-supported guide rollers made of stainless steel · Needle-supported cutting wheel with special cutter geometry for V2A/ INOX stainless steel pipes · With extendible NOGA deburrer blade · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 19 mm · Powder-coated · With ICS system · Cutting wheel change without tool · **Replacement cutting wheel in the rotation knob**

| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–34.93 (1/8–1 3/8)** | 195 | 3–35 | **2000 812 609** |

| Accessories | Article no. |
|---|---|
| **Replacement cutting wheel DIN 100, Cr6 steel** | **2000 812 624** |



## Pipe cutter

For the cutting of plastic pipes · Body made of die-cast aluminium · Slide and rotary knob made of die-cast zinc · With 2 cutting wheels · 1 assembled + **1 replacement cutting wheel in the knob cap** · With ICS system · Cutting wheel change without tool · With 4 guide rollers · With fast feed · Integrated NOGA deburring tool blade · Can be taken out completely · Ergonomic rotation knob · Cutting wheel made of DIN 42CrM04 steel, black, Ø 30 mm · Powder-coated

| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **6.35–76.20 (1/4–3)** | 260 | 6–76 | **2000 812 612** |

| Accessories | Article no. |
|---|---|
| **Cutting wheel Ø 26 mm** | **2000 812 603** |



## Pipe cutter

**For steel pipes** · Steel forged body · Sled made of die-cast zinc · Rotation knob of non-plasticised plastic · With 2 guide rollers · The spring-loaded, press-on system guarantees improved cuts and longer useful service life of the cutting wheel · Cutting wheel made of DIN 100Cr6 steel, black burnished, Ø 31 mm · Cutting wheel change without tool
**Replacement cutter wheel see article no. 4000 812 628**

| For pipes [mm] (inch) | Length [mm] | Work area [mm] | Article no. |
|---|---|---|---|
| **3.18–50.8 (1/8–2)** | 390 | 10–60 | **2000 812 615** |

| Accessories | Article no. |
|---|---|
| **Cutting wheel Ø 32 mm** | **2000 812 628** |



2000 812 675

## Hose cutter

**Made of die-cast magnesium** · For cutting flexible hoses (including SAE 100 R8 hoses with Kevlar® coating) · Easy, fast and precise cut with minimum exertion · Optimum cutting edge geometry and with PTFE coating · Automatic blade retraction · One-hand locking system
Kevlar® is a registered trademark of E.I. du Pont de Nemours and Company

| For pipe [mm] | Article no. |
|---|---|
| **16** | **2000 812 675** |
| **22** | **2000 812 676** |

| Accessories | Article no. |
|---|---|
| **Replacement blade for 4000 812 675** | **2000 812 679** |
| **Replacement blade for 4000 812 676** | **2000 812 680** |



## Hose cutter

**Made of die-cast magnesium** · For cutting flexible hoses (including SAE 100 R8 hoses with Kevlar® coating), soft plastic pipes (PEX, PE, PB, etc.) and armoured pipes · Optimum cutting edge geometry and with PTFE coating · Automatic blade retraction · Ergonomic two-component handles with anti-impact damping · One-hand locking system
Kevlar® is a registered trademark of E.I. du Pont de Nemours and Company

| For pipe [mm] | Article no. |
|---|---|
| **Ø 28** | **2000 812 672** |

| Accessories | Article no. |
|---|---|
| **Replacement blade** | **2000 812 673** |



## Composite pipe clamp

**Made of die-cast magnesium** · For cutting composite pipes · Needle-supported guide rollers · Easy, fast and precise cut with minimum exertion · Optimum cutting edge geometry and with PTFE coating · Integrated protective corrugated pipe cutter · Protective pipes (18–35 mm) can be cut without damaging the inner pipe · With 4 three-edged blades · Automatic blade retraction · One-hand locking system · Ergonomic two-component handles with anti-impact damping

| For pipe [mm] | Article no. |
|---|---|
| **26** | **2000 812 677** |

| Accessories | Article no. |
|---|---|
| **Replacement blade for composite pipe cutter** | **2000 812 681** |
| **Replacement blade for corrugated piping** | **2000 812 682** |

## Plastic corrugated pipe cutter



**Made of die-cast magnesium** · For cutting plastic corrugated protective pipes · Extremely light and robust
**Two cutting systems:**
**Cross section**
With 2 four-edged blades · Blade can be adjusted in 4 different 90° increments · Pipe guide system for perfect positioning of the pipe when cutting · Blades are protected in the body
**Longitudinal cut:**
With 1 four-edged blades · Blade can be adjusted in 4 different 90° increments · Pipe support for better guidance of the pipe · Blade is protected in the body

| For pipe [mm] | Article no. |
|---|---|
| **15–45** | **2000 812 678** |

| Accessories | Article no. |
|---|---|
| **Replacement blade** | **2000 812 683** |

## Plastic pipe cutter





For cutting **PE, PP, PB, PEX, PPR, MLP/MSR, VPE, CPVC, PVC and PVDF** · Easy, fast and precise cut with minimum exertion thanks to improved transmission of force · Immediate blade change without the use of tools · Made of die-cast magnesium, very lightweight and robust · Stainless steel blade (Made in Solingen/Germany) of the highest quality and long service life with optimum cutting geometry and non-stick surface · Blade protected in the body - prevents damage to the cutting edge and injury to the user

| For pipes [mm] (inch) | Type | Cutting range [mm] | Article no. |
|---|---|---|---|
| **0–34.93 (0–1 3/8)** | Automatic blade retraction | 0–35 | **2000 812 652** |
| **0–41.28 (0–1 5/8)** | Fast single-handed blade retraction | 0–42 | **2000 812 653** |
| **0–50.8 (0–2)** | Fast single-handed blade retraction | 0–50 | **2000 812 669** |
| **0–63.5 (0–2 1/2)** | Fast single-handed blade retraction | 0–63 | **2000 812 674** |



## Cross peen hammer

**DIN 1041** · Forged steel hammer head · With steel ring key · **With double curved hickory handle** · Top quality

| Weight of head [g] | Length of handle [mm] | Article no. |
|---|---|---|
| **100** | 260 | **2000 811 021** |
| **200** | 280 | **2000 811 022** |
| **300** | 300 | **2000 811 023** |
| **400** | 320 | **2000 811 024** |
| **500** | 320 | **2000 811 025** |
| **800** | 350 | **2000 811 028** |
| **1000** | 360 | **2000 811 030** |
| **1500** | 380 | **2000 811 035** |
| **2000** | 400 | **2000 811 038** |



## Cross peen hammer

**DIN 1041 · With nylon protective sleeve** · Hammer head drop-forged · With steel ring key and **hickory handle** · Professional quality

| Weight of head [g] | Length of handle [mm] | Article no. |
|---|---|---|
| **200** | 280 | **2000 811 236** |
| **300** | 300 | **2000 811 237** |
| **400** | 310 | **2000 811 238** |
| **500** | 320 | **2000 811 239** |
| **600** | 320 | **2000 811 234** |
| **800** | 350 | **2000 811 240** |
| **1000** | 360 | **2000 811 241** |
| **1500** | 380 | **2000 811 246** |
| **2000** | 400 | **2000 811 247** |

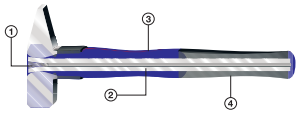
## Cross peen hammer



**DIN 1041** · Drop forged, hardened and tempered · Face and pin ground · Edges broken according to specification · **With unbreakable multi-component fibreglass handle**

| Weight of head [g] | Article no. |
|---|---|
| **300** | **2000 811 017** |
| **500** | **2000 811 018** |
| **800** | **2000 811 019** |
| **1000** | **2000 811 020** |






## Cross peen hammer

**DIN 1041 · 3-component handle · Forged safety collar and hardened protective polyamide sleeve ·** Secured mechanically with heavy-duty steel wedge
The result of intensive research, guarantees maximum safety and protection when using the hammer, ergonomic, indestructible, free from harmful vibration and protective of the wrist

**Patented safety handle:**
1. Steel wedge for mechanical blocking
2. Aluminium alloy core
3. Polyamide component resists oils and solvents
4. Anti-slip thermoplastic rubber component for a safe hold

| Weight of head [g] | Length of handle [mm] | Article no. |
|---|---|---|
| 300 | 300 | 2000 811 011 |
| 500 | 320 | 2000 811 012 |
| 1000 | 360 | 2000 811 013 |
| 1500 | 380 | 2000 811 014 |



## Sledge hammer

**DIN 1042 ·** Drop-forged hammer · Hardened face and peen · Broken edges · **With hickory handle ·** Wood and ring wedged

| Weight of head [g] | Length of handle [mm] | Article no. |
|---|---|---|
| 3000 | 600 | 2000 811 197 |
| 4000 | 700 | 2000 811 198 |
| 5000 | 800 | 2000 811 199 |
| 6000 | 800 | 2000 811 200 |





## Club hammer

**DIN 6475 ·** Drop-forged · Faces carefully hardened and tempered · Bevelled face edges · Painted black · Working surfaces uncoated · With **curved hickory handle ·** Coated and wedged

| Weight of head [g] | Article no. |
|---|---|
| 1000 | 2000 811 100 |
| 1250 | 2000 811 101 |
| 1500 | 2000 811 102 |
| 2000 | 2000 811 103 |



## Club hammer

**DIN 6475 · With nylon protective sleeve ·** Drop-forged · Faces carefully hardened and tempered · Bevelled face edges · With steel ring key and **hickory handle**

| Weight of head [g] | Article no. |
|---|---|
| 1000 | 2000 811 242 |
| 1250 | 2000 811 243 |
| 1500 | 2000 811 244 |
| 2000 | 2000 811 245 |



## Club hammer

**DIN 6475** · Drop forged, hardened and tempered · Face and pin ground · Edges broken according to specification · **With unbreakable multi-component fibreglass handle**

| Weight of head [g] | Article no. |
|---|---|
| 1000 | 2000 811 122 |
| 1250 | 2000 811 123 |



## Roofing hammer

**DIN 7239 ·** Polished head · With ground nail puller and tip · Tubular steel handle and steel ring for improved handle protection · With securing pin · Plastic handle with roughened surface

| Type | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| With magnet | 600 | Roughened | 2000 811 308 |

## Roofing hammer

**DIN 7239** · Head coated black · With ground nail puller and tip · With nail holder · Tubular steel handle and steel ring for improved handle protection · With securing pin · Plastic handle with roughened surface



| Type | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| **Without magnet** | 600 | Roughened | **2000 811 305** |
| **With magnet** | 600 | Roughened | **2000 811 306** |

## Roofing hammer

Drop forged, hardened and tempered · Head coated black · Face and pin ground · Edges broken according to specification · **With unbreakable multi-component nylon handle**



| Type | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| **With magnet** | 600 | Roughened | **2000 811 132** |

## All-steel roofing hammer

Surface brushed · Continuous, made from one piece · Wide claws · Plastic handle



| Type | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| **With magnet** | 600 | Roughened | **2000 811 309** |

## Plasterer's hatchet

Painted black · Roughened face · Ground, bright cutting edge · With tubular steel and plastic handle with roughened surface · With securing pin



| Weight of head [g] | Article no. |
|---|---|
| **570** | **2000 811 232** |

## Masonry hammer

**Rhine shape** · Hardened and tempered in line with DIN · Painted black · Tubular steel handle · Plastic handle with roughened surface · With securing pin



| Weight [g] | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| **946** | 600 | Roughened | **2000 811 167** |

## Masonry hammer

**Berlin shape** · Hardened and tempered in line with DIN · Painted black · Tubular steel handle · Plastic handle with roughened surface · With securing pin



| Weight [g] | Weight of head [g] | Path | Article no. |
|---|---|---|---|
| **790** | 600 | Roughened | **2000 811 168** |

## Claw hammer

Tubular steel handle with securing pin and steel ring for improved handle protection · Head fine uncoated · Plastic handle with roughened surface



| Weight [g] | Article no. |
|---|---|
| **450** | **2000 811 360** |

## Rubber hammer

**DIN 5128** · 90 Shore hardness, tough/hard rubber · Low-rebound · With ash handle · With 2 flat faces



| Head Ø [mm] | Head L [mm] | Article no. |
|---|---|---|
| **40** | 80 | **2000 811 570** |
| **54** | 90 | **2000 811 571** |
| **64** | 113 | **2000 811 572** |
| **74** | 127 | **2000 811 573** |
| **90** | 139 | **2000 811 574** |



## Rubber hammer

**DIN 5128-70** · 70 Shore hardness · White · No colouring · Special design for the wood-processing industry · With ash handle · With 2 flat faces

| Head Ø [mm] | Head L [mm] | Article no. |
|---|---|---|
| **64** | 113 | **2000 811 580** |
| **90** | 139 | **2000 811 582** |




## Copper hammer

Impact surfaces with broken edges · With steel ring key and **hickory handle**

| Weight of head [g] | Length of handle [mm] | Article no. |
|---|---|---|
| **500** | 310 | **2000 811 158** |
| **750** | 330 | **2000 811 159** |
| **1000** | 350 | **2000 811 160** |
| **1500** | 360 | **2000 811 161** |
| **2000** | 400 | **2000 811 162** |
| **5000** | 700 | **2000 811 164** |




## Plastic hammer

Hammer body made of galvanised grey cast iron · Drive head made of impact-resistant **CA (cellulose acetate)** · With painted handle

| Head Ø [mm] | Head L [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **22** | 78 | 255 | **2000 811 530** |
| **27** | 88 | 270 | **2000 811 531** |
| **32** | 96 | 280 | **2000 811 532** |
| **35** | 103 | 290 | **2000 811 533** |
| **40** | 105 | 320 | **2000 811 534** |
| **50** | 115 | 340 | **2000 811 535** |





## Plastic hammer head

Made of **impact-resistant CA (cellulose acetate)** · Suitable for soft faced hammer

| Head Ø [mm] | Height of head [mm] | Article no. |
|---|---|---|
| **22** | 17 | **2000 811 540** |
| **27** | 24 | **2000 811 541** |
| **32** | 28 | **2000 811 542** |
| **35** | 30 | **2000 811 543** |
| **40** | 30 | **2000 811 544** |
| **50** | 33 | **2000 811 545** |




## Soft faced hammer

Chip-free, break-proof and wear-resistant polyamide heads · Interchangeable · Upon impact, the blank is slid to the impact side and resulting in a recoil-free impact · Impact effect up to 100 % greater than with normal soft faced hammers · 75 Shore D · Tested down to -20 °C · **With hickory handle** and steel handle sleeve

**Areas of application:**

For toolmaking and mechanical engineering, motor vehicle repair, sheet metal and assembly work

| Head Ø [mm] | Length [mm] | Head L [mm] | Weight [g] | Article no. |
|---|---|---|---|---|
| **30** | 350 | 115 | 436 | **2000 811 614** |
| **35** | 355 | 118 | 543 | **2000 811 615** |
| **40** | 375 | 125 | 736 | **2000 811 616** |
| **45** | 380 | 130 | 848 | **2000 811 617** |
| **50** | 385 | 135 | 1085 | **2000 811 618** |
| **60** | 420 | 165 | 1710 | **2000 811 619** |

Für Metallbearbeitung



## Flat chisel

**DIN 6453** · Chromium-vanadium air-hardened steel · Made of flat oval steel · Enamelled finish · Hardened · Tempered drive head

| Length [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **100** | 15 | 14 x 9 | **2000 812 110** |
| **125** | 18 | 17 x 11 | **2000 812 100** |
| **150** | 18 | 17 x 11 | **2000 812 101** |
| **175** | 21 | 20 x 12 | **2000 812 102** |
| **200** | 21 | 20 x 12 | **2000 812 103** |
| **200** | 24 | 23 x 13 | **2000 812 104** |
| **250** | 25 | 23 x 13 | **2000 812 105** |
| **300** | 26 | 23 x 13 | **2000 812 106** |

Für Metallbearbeitung



## Groove cutting chisel

**DIN 6455** · Chromium-vanadium air-hardened steel · Enamelled finish · Hardened · Tempered drive head

| Length [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **150** | 2 | 10 | **2000 812 182** |
| **150** | 4 | 10 | **2000 812 184** |

## Masonry chisel

**DIN 7254 A** · Chromium-vanadium air-hardened steel · Made of flat oval steel · Enamelled finish · Hardened · Tempered drive head



| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **250** | 26 | 20 x 12 | **2000 812 111** |
| **300** | 29 | 23 x 13 | **2000 812 123** |
| **400** | 29 | 23 x 13 | **2000 812 124** |
| **500** | 32 | 26 x 13 | **2000 812 125** |

## Masonry chisel

Chromium-vanadium air-hardened steel · Oil-hardened · Made of octagonal steel · Enamelled finish



| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **300** | 26 | 18 | **2000 812 119** |
| **400** | 30 | 20 | **2000 812 120** |

## Electrician's chisel

**DIN 7255** · Chromium-vanadium air-hardened steel · Made of octagonal steel · Enamelled finish · Hardened · Tempered drive head



| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **200** | 10 | 8 | **2000 812 170** |
| **200** | 12 | 10 | **2000 812 172** |
| **250** | 10 | 8 | **2000 812 173** |
| **250** | 12 | 10 | **2000 812 174** |
| **300** | 12 | 10 | **2000 812 121** |
| **250** | 14 | 12 | **2000 812 175** |
| **300** | 14 | 12 | **2000 812 176** |

## Point chisel

Chromium-vanadium air-hardened steel · Made of octagonal steel



| Length [mm] | Steel thickness [mm] | Article no. |
|---|---|---|
| **300** | 16 | **2000 812 133** |
| **400** | 18 | **2000 812 134** |

## Point chisel

**DIN 7256** · Chromium-vanadium air-hardened steel · Made of octagonal steel · Enamelled finish · Hardened · Tempered drive head



| Length [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|
| **250** | 16 | **2000 812 141** |
| **300** | 18 | **2000 812 142** |
| **400** | 20 | **2000 812 144** |



Für Metallbearbeitung

## Cross-cut chisel

**DIN 6451** · Chromium-vanadium air-hardened steel · Made of flat oval steel · Enamelled finish · Hardened · Tempered drive head

| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **125** | 5 | 17 x 11 | **2000 812 150** |
| **150** | 6 | 17 x 11 | **2000 812 151** |
| **175** | 7 | 17 x 11 | **2000 812 152** |
| **200** | 8 | 20 x 12 | **2000 812 153** |
| **250** | 9 | 23 x 13 | **2000 812 154** |
| **300** | 9 | 23 x 13 | **2000 812 118** |



Für Metallbearbeitung

## Slot cutting chisel

Chromium-vanadium air-hardened steel · Flat · Hardened · Enamelled finish · Tempered drive head

| Overall L [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|
| **240** | 26 x 7 | **2000 812 160** |



## Slot cutting/flat chisel

With hand protection · Chromium-vanadium air-hardened steel · Flat · Enamelled finish · Hardened · Tempered drive head

| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **240** | 26 | 26 x 7 | **2000 812 165** |



## Joint chisel

Chromium-vanadium air-hardened steel · Enamelled finish · Hardened · Tempered drive head

| Overall L [mm] | Cutting edge W [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **250** | 50 | 23 x 13 | **2000 812 190** |
| **250** | 60 | 26 x 13 | **2000 812 122** |
| **250** | 70 | 26 x 13 | **2000 812 126** |
| **250** | 80 | 26 x 13 | **2000 812 191** |





## Chisel hand guard

Universally usable · For flat and octagonal chisels
For octagonal: Ø 18 mm
Flat profile: 23 x 13 mm

| Length [mm] | Article no. |
|---|---|
| **110** | **2000 812 245** |



Für Metallbearbeitung

## Drift punch

**DIN 6458** · Chromium-vanadium air-hardened steel · Made of octagonal steel · Polished · Hardened · Tempered drive head

| Overall L [mm] | Tip Ø [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **120** | 1 | 10 | **2000 812 211** |
| **120** | 2 | 10 | **2000 812 212** |
| **120** | 3 | 10 | **2000 812 213** |
| **120** | 4 | 10 | **2000 812 214** |
| **120** | 5 | 10 | **2000 812 215** |
| **120** | 6 | 12 | **2000 812 216** |
| **120** | 8 | 12 | **2000 812 218** |
| **120** | 10 | 12 | **2000 812 219** |
| **150** | 12 | 14 | **2000 812 221** |



Für Metallbearbeitung

## Drift punch set

**DIN 6458** · Chromium-vanadium air-hardened steel · Hardened · Tempered drive head
**Supplied in high-quality plastic holder**

| Contents | Equipped with [mm] | Article no. |
|---|---|---|
| **6-part** | 1-2-3-4-5 + centre punch Ø 4 | **2000 812 365** |

## Drift punch set

**DIN 6458** · Chromium-vanadium air-hardened steel · Hardened · Tempered drive head
**Supplied in metal box**



| Contents | Equipped with [mm] | Article no. |
|---|---|---|
| **6-part** | 1-2-3-4-5 + centre punch Ø 4 | **2000 812 362** |

## Assembly drift punch

Made of hardened special tool steel · Sanded taper



| Overall L [mm] | Tip Ø [mm] | Length of taper [mm] | Shank Ø [mm] | Article no. |
|---|---|---|---|---|
| **180** | 5 | 110 | 12 | **2000 812 081** |
| **200** | 6 | 120 | 13 | **2000 812 082** |
| **200** | 8 | 130 | 16 | **2000 812 083** |
| **200** | 9 | 130 | 20 | **2000 812 084** |
| **230** | 10 | 140 | 22 | **2000 812 085** |
| **250** | 11 | 155 | 24 | **2000 812 086** |
| **280** | 12 | 170 | 27 | **2000 812 087** |
| **315** | 14 | 190 | 30 | **2000 812 088** |
| **340** | 15 | 200 | 32 | **2000 812 089** |
| **380** | 16 | 220 | 35 | **2000 812 090** |

Für Metallbearbeitung



## Pin punch

**DIN 6450** · Chromium-vanadium air-hardened steel · Made of octagonal steel · Polished · Hardened · Tempered drive head

| Ø [mm] | Length [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **Point 2** | 150 | 10 | **2000 812 222** |
| **Point 3** | 150 | 10 | **2000 812 223** |
| **Point 4** | 150 | 10 | **2000 812 224** |
| **Point 5** | 150 | 10 | **2000 812 225** |
| **Point 6** | 150 | 10 | **2000 812 226** |
| **Point 7** | 150 | 12 | **2000 812 227** |
| **Point 8** | 150 | 12 | **2000 812 228** |
| **Point 9** | 150 | 12 | **2000 812 229** |
| **Point 10** | 150 | 12 | **2000 812 230** |
| **Point 12** | 150 | 14 | **2000 812 243** |

Für Metallbearbeitung

## Pin punch set

**DIN 6450** · Chromium-vanadium air-hardened steel · Hardened · Tempered drive head
**Supplied in high-quality plastic holder**



| Contents | Equipped with [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **6-part** | 3-4-5-6-8-10 | 150 | **2000 812 369** |

Für Metallbearbeitung

## Pin punch set

**DIN 6450** · Chromium-vanadium air-hardened steel · Hardened · Tempered drive head
**Supplied in metal box**



| Contents | Equipped with [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **6-part** | 3-4-5-6-8-10 | 150 | **2000 812 364** |



## Pin punch set

Chromium-vanadium steel · High-alloy tool steel tempered throughout · Hardness ≥ 54 HRC · Safety impact head · Completely chrome-plated · Powder-coated in multiple colours
**Supplied in metal box**

| Contents | Equipped with [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **6-part** | 3-4-5-6-8-10 | 150 | **2000 812 107** |



Für Metallbearbeitung

## Pin punch

**With guide sleeve** · Narrow type · With knurled guide sleeve and hardened insert mandrel · Chromium-vanadium steel
**Size 0.9–3.9 with loose guide sleeve**
**Size 5.9 with fixed shank**

| Ø [mm] | Length [mm] | Article no. |
|---|---|---|
| **Point 0.9** | 80 | **2000 812 091** |
| **Point 1.4** | 84 | **2000 812 092** |
| **Point 1.8** | 88 | **2000 812 093** |
| **Point 2.4** | 92 | **2000 812 094** |
| **Point 2.8** | 96 | **2000 812 095** |
| **Point 3.4** | 98 | **2000 812 096** |
| **Point 3.9** | 100 | **2000 812 097** |
| **Point 5.9** | 102 | **2000 812 098** |



Für Metallbearbeitung

## Pin punch set

**With guide sleeve** · Narrow type · With knurled guide sleeve and hardened insert mandrel · Chromium-vanadium steel

| Contents | Equipped with | Article no. |
|---|---|---|
| **8-part** | 0.9–5.9 | **2000 812 099** |



Für Metallbearbeitung

## Centre punch

**DIN 7250** · Chromium-vanadium steel · Made of octagonal steel · Polished · Hardened · Tempered drive head

| Overall L [mm] | Tip Ø [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **100** | 3 | 8 | **2000 812 199** |
| **120** | 4 | 10 | **2000 812 200** |
| **120** | 5 | 12 | **2000 812 201** |
| **150** | 5 | 12 | **2000 812 203** |



Für Metallbearbeitung

## Centre punch

With soldered-in carbide tip and octagonal shank made of chromium-vanadium steel

| Overall L [mm] | Tip Ø [mm] | Shank cross-section [mm] | Article no. |
|---|---|---|---|
| **120** | 3 | 10 | **2000 812 108** |
| **130** | 4 | 14 | **2000 812 109** |



Für Metallbearbeitung

## Automatic centre punch

With fine-tooth gearing, for single-hand operation · The impact strength is adjustable by rotating the knob

| Length [mm] | Shank cross-section [mm] | Granulation [mm] | Article no. |
|---|---|---|---|
| **135** | 2 | 2 | **2000 812 205** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

Für Metallbearbeitung

## Tool set

Chromium-vanadium air-hardened steel · Varnished surface · Hardened · Tempered drive head
**Contents:**
1 flat chisel each size 125 x 10 mm, 150 x 12 mm
1 cross-cut chisel 125 x 10 mm
1 centre punch 120 x 10 mm
1 drift punch each size 120 x 10 x 3 mm, 120 x 10 x 4 mm

**Supplied in high-quality plastic holder**



| Contents | Article no. |
|---|---|
| **6-part** | **2000 812 361** |

Für Metallbearbeitung

## Tool set

Chromium-vanadium air-hardened steel · Varnished surface · Hardened · Tempered drive head
**Contents:**
1 flat chisel each size 125 x 10 mm, 150 x 12 mm
Cross-cut chisel 125 x 10 mm
Centre punch 120 x 10 mm
1 drift punch each size 120 x 10 x 3 mm, 120 x 10 x 4 mm

**Supplied in metal box**



| Contents | Article no. |
|---|---|
| **6-part** | **2000 812 360** |

## Tool set

Chromium-vanadium air-hardened steel · Hardened · Tempered drive head
**Contents:**
1 flat chisel each 150 x 17 x 11 mm, 200 x 23 x 13 mm, 125 x 10 mm, 150 x 12 mm
Cross-cut chisel 125 x 10 mm
1 pin punch each 150 x 10 x 3 mm, 150 x 10 x 4 mm, 150 x 10 x 5 mm, 150 x 10 x 6 mm, 150 x 12 x 8 mm, 150 x 12 x 10 mm
1 centre punch each 120 x 10 mm, 150 x 12 mm
1 drift punch each 120 x 10 x 1 mm, 120 x 10 x 2 mm, 120 x 10 x 3 mm, 120 x 10 x 4 mm, 120 x 10 x 5 mm, 120 x 12 x 6 mm, 120 x 12 x 8 mm

**Supplied in roll pouch**



| Contents | Article no. |
|---|---|
| **20-part** | **2000 812 366** |



## Precision engineer's vice

Made of impact-resistant spheroidal cast iron · Jaws induction hardened (52–58 HRC)
**Particular benefit:** Swivel plate removable using clamp screw, therefore also suited for fixed installation



| Jaw W [mm] Spheroidal cast iron | Clamping W. [mm] | Clamp depth [mm] | Article no. |
|---|---|---|---|
| **75** | 45 | 32 | **2000 830 119** |

## Cast iron vice

Made of cast iron with a large anvil surface · Manual · Complete with removable swivel plate· Body: Iron (spheroidal cast iron) · Spindle: Soft steel · Hardened clamping jaws: 30+HRC



| Jaw W [mm] | Clamping W. [mm] | Clamp depth [mm] | Type | Article no. |
|---|---|---|---|---|
| **100** | 104 | 68 | Cast iron (spheroidal cast iron) | **2000 830 405** |
| **125** | 130 | 82 | Cast iron (spheroidal cast iron) | **2000 830 406** |
| **150** | 155 | 102 | Cast iron (spheroidal cast iron) | **2000 830 407** |
| **175** | 180 | 108 | Cast iron (spheroidal cast iron) | **2000 830 408** |

## Parallel vice

Made of welded steel · Hardened steel jaws · With large anvil · With adjustable guide



| Jaw W [mm] | Clamping W. [mm] | Clamp depth [mm] | Article no. |
|---|---|---|---|
| **100** | 100 | 53 | **2000 830 420** |
| **125** | 125 | 67 | **2000 830 421** |
| **150** | 150 | 87 | **2000 830 422** |



## Parallel vice

Forged (C45 steel) · Completely parallel clamping through adjustable centred guide · Jaws and anvil inductively-hardened (52–58 HRC) · Extra-large anvil for aligning and compressing work · Clamping jaws extra-high shaped, as a result large clamping depths possible · With measurement scale for fast presetting the clamping width · Above size 120 mm with holder under the clamping jaws for mounting swivel and changeable pipe clamp jaws · Vice opening to the front

| Jaw W [mm] | Clamping W. [mm] | Clamp depth [mm] | Type | Article no. |
|---|---|---|---|---|
| **100** | 125 | 68 | Forged | **2000 830 290** |
| **120** | 150 | 83 | Forged | **2000 830 291** |
| **140** | 200 | 96 | Forged | **2000 830 292** |
| **160** | 225 | 118 | Forged | **2000 830 293** |
| **180** | 225 | 118 | Forged | **2000 830 294** |



## Parallel vice

**With pipe clamp jaws, particularly suitable for installers · Pipe clamp jaws welded-in** · Forged (C45 steel) · Completely parallel clamping through adjustable centred guide · Jaws and anvil inductively-hardened (52–58 HRC) · Larger anvil for straightening and compressing work · Clamping jaws extra-high shaped, as a result large clamping depths possible · With measurement scale for fast presetting the clamping width · Vice opening to the front

| Jaw W [mm] | Clamping W. [mm] | Clamp depth [mm] | Type | Article no. |
|---|---|---|---|---|
| **120** | 150 | 83 | With pipe clamp jaws | **2000 830 270** |
| **140** | 200 | 96 | With pipe clamp jaws | **2000 830 272** |
| **160** | 225 | 118 | With pipe clamp jaws | **2000 830 273** |



## Swivel plate

2 mounting holes · Allows 360° rotation of the vice · Infinite locking by locking lever

| For jaw W [mm] | For vice | Article no. |
|---|---|---|
| **100** | Article no. 2000 830 290 | **2000 830 274** |
| **120** | Article no. 2000 830 270, 2000 830 291 | **2000 830 275** |
| **140** | Article no. 2000 830 272, 2000 830 292 | **2000 830 276** |
| **160/180** | Article no. 2000 830 273, 2000 830 293, 2000 830 294 | **2000 830 277** |

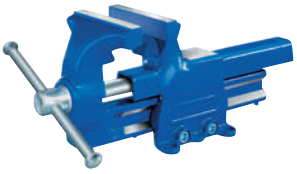




## Elevator

**With gas pressure spring** · For the height adjustment of a screwed-on vice · The installed gas pressure spring enables continuous adjustment of the device · Can be rotated 360°, enabling continuous vertical and horizontal adjustment · The column is securely locked after adjustment by a clamping lever
(Supplied without vice)
Adjustment range max. 240 mm

| For jaw W [mm] | For vice | Article no. |
|---|---|---|
| **120** | TECWERK with two-hole fixing | **2000 830 279** |
| **140** | TECWERK with two-hole fixing | **2000 830 280** |

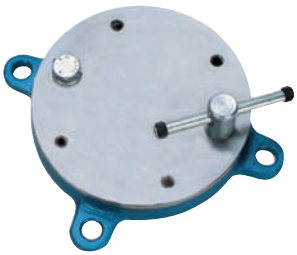


## Parallel vice

**With 2 pipe forged pipe clamp jaws · Forged** · Anvil surface for aligning and compressing work · Milled clamping jaws · Induction-hardened · (HRC 54–58) · Re-adjustable guide · Theft-protection as a result of removable frontal jaw part · Vice opening to the front
**Compatible accessories:** Swivel plate see article no. 2000 830 360, 2000 830 361, 2000 830 362, 2000 830 363

For elevators, see article no. 2000 830 366, 2000 830 367, 2000 830 368

| Jaw W [mm] | Clamping W. [mm] | Clamp depth [mm] | Type | Article no. |
|---|---|---|---|---|
| **100** | 125 | 55 | Forged | **2000 830 230** |
| **120** | 150 | 74 | Forged | **2000 830 231** |
| **140** | 200 | 85.5 | Forged | **2000 830 232** |
| **160** | 225 | 104 | Forged | **2000 830 233** |
| **180** | 225 | 104 | Forged | **2000 830 234** |



## Swivel plate

**4 mounting holes** · Allows 360° rotation of the vice · Infinite locking by locking lever

| For jaw W [mm] | For vice | Article no. |
|---|---|---|
| **100** | Article no. 2000 830 230 | **2000 830 360** |
| **120** | Article no. 2000 830 231 | **2000 830 361** |
| **140** | Article no. 2000 830 232 | **2000 830 362** |
| **160 + 180** | Article no. 2000 830 233, 2000 830 234 | **2000 830 363** |



▷ = no stock item. Procurement takes place after receipt of order. = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Elevator

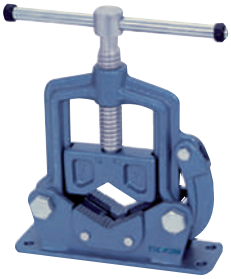
**With gas pressure spring** · For the height adjustment of a screwed-on vice · The installed gas pressure spring enables continuous adjustment of the device · Can be rotated 360°, enabling continuous vertical and horizontal adjustment · The column is securely locked after adjustment by a clamping lever



| For jaw W [mm] | For vice | Article no. |
|---|---|---|
| **120** | TECWERK with four-hole fixing | **2000 830 366** |
| **140** | TECWERK with four-hole fixing | **2000 830 367** |
| **160 / 180** | TECWERK with four-hole fixing | **2000 830 368** |

## Pipe vice

Forged from high-grade steel · Body and pipe jaws made of hardened steel · Re-adjusting possibility by means of self-locking screws · Upper and lower placement jaws and replaceable cap hook · **Fold-open type** with automatically-closing cap hook



| Clamping W. [mm] | Article no. |
|---|---|
| **60** | **2000 830 705** |
| **90** | **2000 830 706** |

## Working equipment

**Folding · With hinged pipe vice** and stable, hinged footboard · Tool shelf and bending plate for cold bending of pipes · With 5 different bending holes · 3" pipe vice (article no. 2000 830 706) may be fitted **(not included in scope of supply)**



| Clamping W. [mm] | Article no. |
|---|---|
| **60** | **2000 830 755** |

## Pullers

**Two-armed · With one-part, sliding, always-parallel pull-off hooks** · Traverse with retaining spring against unintentional sliding-off of the hooks · Spindle head with collar prevents any sliding with the spanner · Freely-rotating centring point, replaceable and adjustable (ball/tip)

**Can also be used as an internal puller by repositioning the arms · Adjustable without tools**



| Clamp depth [mm] | Clamping W. [mm] | Article no. |
|---|---|---|
| **100** | 100 | **2000 821 800** |
| **100** | 150 | **2000 821 801** |
| **150** | 150 | **2000 821 802** |
| **150** | 250 | **2000 821 803** |
| **200** | 250 | **2000 821 804** |
| **200** | 350 | **2000 821 805** |

## Pullers

**Three-armed · With one-part, sliding, always-parallel pull-off hooks** · Traverse with retaining spring against unintentional sliding-off of the hooks · Spindle head with collar prevents any sliding with the spanner · Freely-rotating centring point, replaceable and adjustable (ball/tip)

**Can also be used as an internal puller by repositioning the arms · Adjustable without tools**



| Clamp depth [mm] | Clamping W. [mm] | Article no. |
|---|---|---|
| **100** | 150 | **2000 821 806** |
| **150** | 150 | **2000 821 807** |
| **150** | 250 | **2000 821 808** |
| **200** | 250 | **2000 821 809** |

## Annealed cast iron screw clamp

**Safety clamp · With slip-prevention device in the sliding part** · Clamping arms from high-quality, malleable cast iron · Cast parts blue powder-coated · Galvanised hollow-profile rail · Triple grooved on both sides · Movable steel pressure plate · Trapezoidal thread spindle · Plastic protective cap and plastic ring on the **ergonomic ash handle**
**High-quality for industrial use**



| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **150** | 80 | 25 x 6 | **2000 831 332** |
| **200** | 100 | 27 x 7 | **2000 831 333** |
| **250** | 120 | 30 x 8 | **2000 831 335** |
| **300** | 140 | 32 x 10 | **2000 831 336** |
| **400** | 175 | 32 x 10 | **2000 831 338** |



## Annealed cast iron screw clamp

**Lightweight type with slip protection · With ergonomic 3-component power handle for optimum force transfer**

Fixed and sliding arms made of high-quality malleable cast iron · Safety hollow profile rail, 6x grooved, electrogalvanised · Plastic protective caps · Smooth-running, trapezoidal thread spindle, burnished

| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **400** | 120 | 30 x 8 | **2000 831 300** |
| **500** | 120 | 30 x 8 | **2000 831 301** |
| **600** | 120 | 30 x 8 | **2000 831 302** |
| **800** | 120 | 30 x 8 | **2000 831 303** |
| **1000** | 120 | 30 x 8 | **2000 831 304** |



## Annealed cast iron screw clamp

**Heavy-duty tradesman/industrial quality with anti-slip protection · With ergonomic 3-component power handle for optimum force transfer**

Fixed and sliding arms made of high-quality malleable cast iron · Safety hollow profile rail, 6x grooved, electrogalvanised · Plastic protective caps · Smooth-running, trapezoidal thread spindle, burnished

| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **120** | 65 | 22 x 6 | **2000 831 305** |
| **160** | 80 | 22 x 6 | **2000 831 306** |
| **200** | 100 | 30 x 8 | **2000 831 307** |
| **250** | 120 | 30 x 8 | **2000 831 308** |
| **300** | 120 | 30 x 8 | **2000 831 309** |
| **400** | 120 | 35 x 11 | **2000 831 310** |
| **500** | 120 | 35 x 11 | **2000 831 311** |
| **600** | 120 | 35 x 11 | **2000 831 312** |
| **800** | 120 | 35 x 11 | **2000 831 313** |
| **1000** | 120 | 35 x 11 | **2000 831 314** |
| **1250** | 120 | 35 x 11 | **2000 831 315** |
| **1500** | 120 | 35 x 11 | **2000 831 316** |
| **2000** | 120 | 35 x 11 | **2000 831 317** |
| **300** | 140 | 35 x 9 | **2000 831 318** |
| **400** | 175 | 35 x 9 | **2000 831 319** |
| **600** | 175 | 35 x 9 | **2000 831 320** |
| **800** | 175 | 35 x 9 | **2000 831 321** |
| **1000** | 175 | 35 x 9 | **2000 831 322** |





## Deep throat screw clamp

**With ergonomic 3-component power handle for optimum force transfer**

Fixed and sliding arms made of high-quality malleable cast iron · Profile and full rail · Cross-section of rail 35 x 11 mm with profiled rail, rail cross-section 45 x 12 mm with full rail · 6x grooved, galvanised · Smooth-running, trapezoidal thread spindle, burnished

| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **600** | 200 | 35 x 11 | **2000 831 356** |
| **800** | 200 | 35 x 11 | **2000 831 357** |
| **1000** | 200 | 35 x 11 | **2000 831 358** |
| **400** | 250 | 45 x 12 | **2000 831 383** |
| **600** | 250 | 45 x 12 | **2000 831 384** |
| **800** | 250 | 45 x 12 | **2000 831 385** |
| **1000** | 250 | 45 x 12 | **2000 831 359** |
| **400** | 300 | 45 x 12 | **2000 831 386** |
| **600** | 300 | 45 x 12 | **2000 831 387** |
| **800** | 300 | 45 x 12 | **2000 831 388** |
| **1000** | 300 | 45 x 12 | **2000 831 389** |



## All-steel screw clamp

Slide rail and fixed bracket made of bright-drawn, tempered hollow profile steel · Nickel-plated · Sliding piece forged in the die · Annealed and nickel-plated · Trapezoidal thread spindle · **Ergonomic ash handle** · Movable steel pressure plate

| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **120** | 60 | 13.5 x 6.5 | **2000 831 450** |
| **160** | 80 | 15.5 x 7.5 | **2000 831 451** |
| **200** | 100 | 19.5 x 9.5 | **2000 831 453** |
| **250** | 120 | 22.0 x 10.6 | **2000 831 454** |
| **300** | 140 | 25.0 x 12.0 | **2000 831 456** |
| **400** | 120 | 25.0 x 12.0 | **2000 831 457** |
| **500** | 120 | 25.0 x 12.0 | **2000 831 459** |

## All-steel screw clamp

**With ergonomic 3-component power handle ·** Slide rail and fixed bracket made of cold-drawn, tempered hollow profile steel · Galvanised · Sliding piece forged in the die · Annealed and galvanised · Burnished trapezoidal thread spindle · Movable steel pressure plate



| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **120** | 60 | 13.5 x 6.5 | **2000 831 490** |
| **160** | 80 | 16.0 x 7.5 | **2000 831 491** |
| **200** | 100 | 19.5 x 9.5 | **2000 831 492** |
| **250** | 120 | 22.0 x 10.5 | **2000 831 493** |
| **300** | 140 | 25.0 x 12.0 | **2000 831 494** |
| **400** | 120 | 25.0 x 12.0 | **2000 831 495** |
| **500** | 120 | 25.0 x 12.0 | **2000 831 496** |
| **600** | 120 | 25.0 x 12.0 | **2000 831 497** |
| **800** | 120 | 27.0 x 13.0 | **2000 831 498** |
| **1000** | 120 | 27.0 x 13.0 | **2000 831 499** |

## High-performance welding clamp

Fixed bracket made of cold-drawn profile steel · Drop-forged slide · Tempered · Galvanised · Spindle with trapezoidal thread, AF 17 at end · Movable (to 35°) pressure plate and T-handle for severe stressing with clamping of workpieces in steel construction · Metalworking shops · Wood bonding · Mechanical engineering etc. · For clamping forces of 12 kN with 150 mm clamping width



| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **250** | 140 | 30 x 15 | **2000 831 280** |
| **300** | 140 | 30 x 15 | **2000 831 281** |
| **500** | 140 | 30 x 15 | **2000 831 282** |
| **800** | 140 | 30 x 15 | **2000 831 283** |

## Lever clamp

Fixed bracket made of cold-drawn profile steel · Drop-forged slide with ratcheting system · Tempered · Galvanised · Clamping and release lever · Movable pressure plate for fast clamping with high clamping force (up to 8000 N)



| Clamping W. [mm] | Radius [mm] | Cross-section of rail [mm] | Article no. |
|---|---|---|---|
| **160** | 80 | 16.0 x 7.5 | **2000 831 323** |
| **200** | 100 | 19.5 x 9.5 | **2000 831 324** |
| **250** | 120 | 22.0 x 10.5 | **2000 831 325** |
| **300** | 140 | 25.0 x 12.0 | **2000 831 326** |
| **400** | 120 | 25.0 x 12.0 | **2000 831 327** |
| **500** | 120 | 25.0 x 12.0 | **2000 831 328** |
| **600** | 120 | 25.0 x 12.0 | **2000 831 329** |



## Handsaw

Electric steel blade · Ripped and sharpened · Wooden handle with transparent varnish · With 2 nickel-plated rivets · With solid handle




| Length of sheet [mm] | Teeth per inch | Serration [mm] | Article no. |
|---|---|---|---|
| **350** | 8 | 3 | **2000 814 232** |
| **400** | 8 | 3 | **2000 814 233** |

## Handsaw

Hardened and ground · With ergonomic plastic handle




| Length of sheet [mm] | Teeth per inch | Serration | Article no. |
|---|---|---|---|
| **450** | 7 | Normal toothing | **2000 814 255** |

## Handsaw

**With 2-component comfort handle ·** Hardened and ground · For wood and thin-walled plastics




2000 814 252

| Length of sheet [mm] | Teeth per inch | Serration | Article no. |
|---|---|---|---|
| **350** | 12 | Fine special toothing | **2000 814 252** |
| **450** | 7 | Universal toothing | **2000 814 254** |
| **550** | 7 | Tip toothing | **2000 814 258** |



2000 814 258

## Handsaw

**With 2-component comfort handle** · Fine, three-sided diamond cut · Hardened teeth · For blockboards and laminated wood



| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **450** | 11 | **2000 814 264** |



## Jigsaw

**With 2-component comfort handle** · Fine universal serration · Hardened and ground

| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **300** | 7 | **2000 814 257** |



## Veneer saw

**With 2-component comfort handle** · Fine universal serration · Hardened and ground

| Length of sheet [mm] | Teeth per inch | Article no. |
|---|---|---|
| **325** | 15 | **2000 814 256** |



## Sash saw

Hollow ground · Hardened teeth · Special steel blade, painted

| Length of sheet [mm] | Width of sheet [mm] | Shape | Property | Article no. |
|---|---|---|---|---|
| **250** | 60 | Straight | Fine cuts in wood | **2000 814 290** |



## Japanese saw/fine cut saw Kataba

With 3-sided ground Japanese toothing · For fine cuts · Straight comfort handle

| Length of sheet [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **270** | 615 | **2000 814 300** |



## Japanese saw/fine cut saw Dozuki

With 3-sided ground Japanese toothing · Long steel spine · For precise saw guidance · For extra-fine cuts · Straight rattan handle

| Length of sheet [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **240** | 600 | **2000 814 301** |



## Japanese saw/fine cut saw Mini Dozuki

With 3-sided ground Japanese toothing · For extra-fine cuts · Straight rattan handle

| Length of sheet [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **150** | 370 | **2000 814 302** |



## Japanese saw/fine cut saw Ryoba

With two different Japanese toothing profiles, ground in 3 sides · For fine cuts · With 2-component comfort handle

| Length of sheet [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **250** | 600 | **2000 814 303** |



## Japanese saw/fine cut saw Mini Ryoba

With 3-sided ground Japanese toothing · For extra-fine cuts · 2-component comfort handle

| Length of sheet [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **150** | 330 | **2000 814 304** |



## Hacksaw

Bar made of oval steel pipe · Enamelled finish · With clamping lever and hand protection · Hardened and ground saw serration · For fresh wood

| Length of sheet [mm] | Article no. |
|---|---|
| **530** | **2000 814 333** |
| **600** | **2000 814 334** |
| **760** | **2000 814 335** |



## Hacksaw blade

Made of high-quality steel · Extremely hard tooth tips · Planing serration

| Length of sheet [mm] | Area of application | Article no. |
|---|---|---|
| **530** | For fresh wood | **2000 814 368** |
| **600** | For fresh wood | **2000 814 369** |
| **760** | For fresh wood | **2000 814 370** |

## Firmer chisel

Chromium-vanadium steel · Blade finely-ground · Flattened **hornbeam handle Ulm shape** · With clamp



| Cutting edge W [mm] | Article no. |
|---|---|
| 4 | 2000 815 164 |
| 6 | 2000 815 166 |
| 8 | 2000 815 168 |
| 10 | 2000 815 170 |
| 12 | 2000 815 172 |
| 14 | 2000 815 174 |
| 16 | 2000 815 176 |
| 18 | 2000 815 178 |
| 20 | 2000 815 180 |
| 22 | 2000 815 182 |
| 24 | 2000 815 184 |
| 26 | 2000 815 186 |
| 28 | 2000 815 188 |
| 30 | 2000 815 190 |
| 32 | 2000 815 191 |
| 35 | 2000 815 192 |
| 40 | 2000 815 193 |
| 45 | 2000 815 194 |
| 50 | 2000 815 195 |

## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · With hornbeam handle, Ulm shape · With clamp
**Contents:**
1 pc. firmer chisel each, width of cutting edge 12, 16, 20, 26 mm




| Contents | Article no. |
|---|---|
| 4-part | 2000 815 399 |

## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · With flattened **Ulm shape handle made of hornbeam** · With clamp
**Contents:**
1 pc. firmer chisel each, width of cutting edge 6, 10, 12, 16, 20, 26 mm



| Contents | Article no. |
|---|---|
| 6-part | 2000 815 305 |

## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · With flattened **Ulm shape handle made of hornbeam** · With clamp
**Contents:**
1 pc. firmer chisel each, width of cutting edge 6, 10, 12, 16, 20, 26 mm

**Supplied in wooden box**



| Contents | Article no. |
|---|---|
| 6-part | 2000 815 306 |

## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · With **hornbeam handle, Ulm shape** · With clamp
**Contents:**
1 pc. each firmer chisel cutting edge width 6, 8, 10, 12, 16, 20, 16, 22, 24, 26, 30 mm



| Contents | Article no. |
|---|---|
| 10-part | 2000 815 371 |



## Firmer chisel

Chromium-vanadium steel · Blade finely-ground · **2-component handle and strike block**

| Cutting edge W [mm] | Article no. |
|---|---|
| 8 | 2000 815 222 |
| 10 | 2000 815 223 |
| 12 | 2000 815 224 |
| 16 | 2000 815 226 |
| 20 | 2000 815 228 |
| 24 | 2000 815 230 |
| 26 | 2000 815 231 |
| 30 | 2000 815 233 |
| 32 | 2000 815 280 |
| 40 | 2000 815 282 |



## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · **2-component handle and strike block**
**Contents:**
1 pc. each firmer chisel cutting edge width 6, 10, 12, 16, 20, 26 mm

**Supplied in wooden box**

| Contents | Article no. |
|---|---|
| 6-part | 2000 815 234 |



## Firmer chisel set

Chromium-vanadium steel · Blade finely-ground · With 2-component handle with strike block
**Contents:**
1 pc. each firmer chisel cutting edge width 6, 10, 12, 16, 20, 26 mm

| Contents | Article no. |
|---|---|
| 6-part | 2000 815 373 |



## Carpenter's chisel

Chromium-vanadium steel · Manufactured according to DIN 5141 · Blade finely-ground · Hornbeam Kraftform handle · Heavy-duty design · With fibreglass disc for damping

| Cutting edge W [mm] | Type | Article no. |
|---|---|---|
| 26 | Heavy-duty design | 2000 815 387 |
| 30 | Heavy-duty design | 2000 815 389 |
| 40 | Heavy-duty design | 2000 815 392 |



## Wood turner chisel set

Chromium-vanadium steel · Blade finely-ground · Length of blade: 100 mm
**Contents:**
Turning chisel, pointed 13 mm, gouge 10 mm, corner chisel 5 mm, point chisel 13 mm, round chisel 13 mm

**Supplied in a plastic pouch**

| Contents | Article no. |
|---|---|
| 5-part | 2000 815 400 |



## Joiner's square

With beechwood handle · Brass clasp · Blue steel blade

| Leg L [mm] | Article no. |
|---|---|
| 200 | 2000 858 533 |
| 250 | 2000 858 534 |
| 300 | 2000 858 535 |
| 400 | 2000 858 536 |



## Precision mitre gauge

With beechwood handle and steel blade

| Leg L [mm] | Article no. |
|---|---|
| 300 | 2000 858 539 |



## Bevel

Bevel with beechwood handle and blue coated blade

| Length of rail [mm] | Leg L [mm] | Article no. |
|---|---|---|
| 250 | 175 | 2000 858 537 |
| 300 | 175 | 2000 858 538 |

## Carpenter's square

Made of stainless steel · mm partition, laser-engraved · **Without marking holes**



| Leg L [mm] | Article no. |
|---|---|
| 600 x 280 | 2000 858 528 |
| 700 x 300 | 2000 858 529 |
| 800 x 320 | 2000 858 530 |

## Carpenter's square

Made of stainless steel · mm partition, laser-engraved · **With marking holes**



| Leg L [mm] | Article no. |
|---|---|
| 700 x 300 | 2000 858 531 |
| 800 x 320 | 2000 858 532 |

## Shuttering drill

Made of chromium-vanadium steel · Safety shuttering drill made of high-grade steel for drilling through shuttering in a single process



| Ø [mm] | Length [mm] | Type | Article no. |
|---|---|---|---|
| 8 | 400 | Cylindrical shank | 2000 863 031 |
| 8 | 600 | Cylindrical shank | 2000 863 051 |
| 10 | 400 | Cylindrical shank | 2000 863 033 |
| 10 | 600 | Cylindrical shank | 2000 863 053 |
| 12 | 400 | Cylindrical shank | 2000 863 035 |
| 12 | 600 | Cylindrical shank | 2000 863 055 |
| 14 | 400 | Cylindrical shank | 2000 863 032 |
| 14 | 600 | Cylindrical shank | 2000 863 057 |
| 16 | 400 | Cylindrical shank | 2000 863 034 |
| 16 | 600 | Cylindrical shank | 2000 863 059 |
| 18 | 400 | Cylindrical shank | 2000 863 036 |
| 18 | 600 | Cylindrical shank | 2000 863 061 |
| 20 | 400 | Cylindrical shank | 2000 863 037 |
| 20 | 600 | Cylindrical shank | 2000 863 063 |
| 22 | 400 | Cylindrical shank | 2000 863 038 |
| 22 | 600 | Cylindrical shank | 2000 863 065 |
| 10 | 600 | With SDS-Plus shank | 2000 863 075 |
| 12 | 600 | With SDS-Plus shank | 2000 863 076 |
| 18 | 600 | With SDS-Plus shank | 2000 863 079 |
| 20 | 600 | With SDS-Plus shank | 2000 863 080 |
| 22 | 600 | With SDS-Plus shank | 2000 863 081 |

## Power drill wood bit

Chromium-vanadium steel · **Straight shank** · With continuous back milling, centring point and taper taps



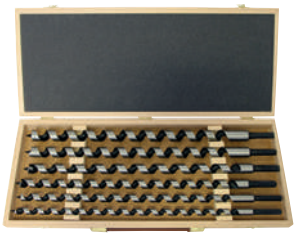
| Ø [mm] | Overall L [mm] | Shank Ø [mm] | Article no. |
|---|---|---|---|
| 3.0 | 61 | 3 | 2000 863 103 |
| 4.0 | 75 | 4 | 2000 863 104 |
| 5.0 | 86 | 5 | 2000 863 105 |
| 6.0 | 93 | 6 | 2000 863 106 |
| 7.0 | 109 | 7 | 2000 863 716 |
| 8.0 | 117 | 8 | 2000 863 108 |
| 10.0 | 133 | 10 | 2000 863 110 |
| 12.0 | 151 | 10 | 2000 863 112 |
| 13.0 | 151 | 10 | 2000 863 721 |
| 14.0 | 160 | 10 | 2000 863 114 |
| 15.0 | 162 | 10 | 2000 863 722 |
| 16.0 | 162 | 10 | 2000 863 116 |
| 18.0 | 185 | 10 | 2000 863 118 |
| 20.0 | 205 | 13 | 2000 863 120 |
| 22.0 | 210 | 13 | 2000 863 723 |

## Wood twist drill set

Chromium-vanadium steel · With centring point and 2 main cutting edges · With cylindrical shanks
**Supplied in plastic case**




| Type [mm] | Contents | Article no. |
|---|---|---|
| Ø 4, 5, 6, 8, 10 | 5-part | 2000 863 130 |
| Ø 3, 4, 5, 6, 7, 8, 9,10 | 8-part | 2000 863 717 |



## Auger set

For all work with hardwood and softwood · Drill bits manufactured in accordance with DIN with hexagonal mount
**Supplied in wooden case**

| Type | Contents [mm] | Length [mm] | Article no. |
|---|---|---|---|
| **8-part** | Ø 6, 8, 10, 12, 14, 16, 18, 20 | 230 | **2000 863 252** |
| **8-part** | Ø 6, 8, 10, 12, 14, 16, 18, 20 | 320 | **2000 863 253** |
| **6-part** | Ø 10, 12, 14, 16, 18, 20 | 460 | **2000 863 251** |



## Forstner drill bit

According to DIN 7483G · With centring point and 2 main cutting edges · Peripheral cutting edge

| Ø [mm] | Shank Ø [mm] | Article no. |
|---|---|---|
| **15** | 8 | **2000 863 241** |
| **20** | 8 | **2000 863 242** |
| **25** | 8 | **2000 863 243** |
| **30** | 8 | **2000 863 244** |
| **35** | 10 | **2000 863 245** |
| **40** | 10 | **2000 863 246** |



## Forstner bit set

With centring point · Peripheral cutting edge and two cutting edges for drilling exact and tear-free blind holes · Offset straight shank
**Supplied in wooden box**

| Type | Contents [mm] | Article no. |
|---|---|---|
| **5-part** | Ø 15, 20, 25, 30, 35 | **2000 863 250** |





## Forstner bit set Type 0310

DIN 7483G · With centring point · Peripheral cutting edge · 2 cutting edges and offset cylindrical shank · In premium quality · Forged type
**Areas of application: For drilling blind holes, marginal holes and inclined holes into softwood and hardwood, easy cutting which requires little effort due to the optimum cutting edge geometry**
**Supplied in wooden case**

| Type | Contents [mm] | Article no. |
|---|---|---|
| **5-part** | Ø 15, 20, 25, 30, 35 | **2000 863 446** |



## Multi spur machine bit

**Carbide-tipped** · Centring point · 2 leading edges and 2 main cutting edges · Diamond-edged cutters
**Contents:**
1 carbide multi spur machine bit each Ø 15, 20, 25, 30, 35 mm

**Supplied in wooden case**

| Type | Contents | Shank Ø [mm] | Article no. |
|---|---|---|---|
| **Carbide tipped** | 5-part | 10 | **2000 863 755** |

## Circular saw bench blade




| External Ø [mm] | Cut width [mm] | Bore [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|---|
| **300** | 2.8 | 30 | 20 | Softwood, hardwood | **2000 814 941** |
| **315** | 3.2 | 30 | 20 | Softwood, hardwood | **2000 814 942** |
| **350** | 3.2 | 30 | 24 | Softwood, hardwood | **2000 814 943** |
| **400** | 3.2 | 30 | 28 | Softwood, hardwood | **2000 814 944** |
| **450** | 3.8 | 30 | 32 | Softwood, hardwood | **2000 814 945** |
| **500** | 3.8 | 30 | 36 | Softwood, hardwood | **2000 814 946** |
| **600** | 4.0 | 30 | 40 | Softwood, hardwood | **2000 814 947** |
| **700** | 4.2 | 30 | 42 | Softwood, hardwood | **2000 814 948** |

## Circular saw bench blade




| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **400** | 3.5 | 28 | Construction timber with mortar and nails | **2000 814 949** |
| **450** | 3.8 | 32 | Construction timber with mortar and nails | **2000 814 950** |
| **500** | 3.8 | 36 | Construction timber with mortar and nails | **2000 814 951** |

## Portable circular saw blade




| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **160** | 2.6 | 24 | Softwood, hardwood | **2000 814 952** |
| **160** | 2.6 | 36 | Softwood, hardwood | **2000 814 953** |
| **160** | 2.6 | 48 | Softwood, hardwood | **2000 814 954** |
| **165** | 1.7 | 36 | Softwood, hardwood | **2000 814 955** |
| **190** | 2.6 | 36 | Softwood, hardwood | **2000 814 956** |
| **190** | 2.6 | 48 | Softwood, hardwood | **2000 814 957** |
| **190** | 2.0 | 24 | Softwood, hardwood | **2000 814 958** |
| **190** | 2.0 | 48 | Softwood, hardwood | **2000 814 959** |
| **190** | 2.6 | 24 | Softwood, hardwood | **2000 814 960** |
| **190** | 2.0 | 16 | Softwood, hardwood | **2000 814 961** |
| **210** | 2.8 | 48 | Softwood, hardwood | **2000 814 962** |
| **235** | 2.8 | 24 | Softwood, hardwood | **2000 814 963** |

## Portable circular saw blade




| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **160** | 2.2 | 48 | HPL | **2000 814 964** |
| **165** | 2.6 | 48 | HPL | **2000 814 965** |
| **190** | 2.8 | 56 | HPL | **2000 814 966** |

## Portable circular saw blade




| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **190** | 2.4 | 54 | Aluminium, plastic | **2000 814 967** |
| **160** | 2.4 | 42 | Aluminium, plastic | **2000 814 968** |
| **210** | 2.4 | 54 | Aluminium, plastic | **2000 814 969** |

## Table/cross-cut circular saw blade




| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **210** | 2.5 | 80 | Aluminium, plastic | **2000 814 970** |
| **216** | 2.5 | 60 | Aluminium, plastic | **2000 814 971** |
| **216** | 2.5 | 80 | Aluminium, plastic | **2000 814 972** |
| **250** | 3.2 | 80 | Aluminium, plastic | **2000 814 973** |
| **254** | 3.2 | 60 | Aluminium, plastic | **2000 814 974** |
| **254** | 3.2 | 96 | Aluminium, plastic | **2000 814 975** |
| **260** | 3.2 | 80 | Aluminium, plastic | **2000 814 976** |
| **300** | 3.2 | 96 | Aluminium, plastic | **2000 814 977** |
| **305** | 3.2 | 80 | Aluminium, plastic | **2000 814 978** |
| **305** | 3.2 | 96 | Aluminium, plastic | **2000 814 979** |




## Portable circular saw blade

| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **305** | 2.6 | 60 | Steel | **2000 814 980** |
| **355** | 2.6 | 80 | Steel | **2000 814 981** |




## Cross-cut circular saw blade

| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **216** | 2.6 | 64 | Aluminium, plastic | **2000 814 982** |
| **254** | 2.8 | 80 | Aluminium, plastic | **2000 814 983** |
| **260** | 2.8 | 80 | Aluminium, plastic | **2000 814 984** |
| **305** | 2.8 | 96 | Aluminium, plastic | **2000 814 985** |
| **315** | 2.8 | 96 | Aluminium, plastic | **2000 814 986** |




## Portable circular saw blade

| External Ø [mm] | Cut width [mm] | No. of teeth | Area of application | Article no. |
|---|---|---|---|---|
| **160** | 2.2 | 6 | Fibre-cement boards, gypsum fibreboards | **2000 814 987** |
| **190** | 2.2 | 6 | Fibre-cement boards, gypsum fibreboards | **2000 814 988** |




2000 814 648


2000 814 650 + 2000 814 672


2000 814 652 + 2000 814 675


2000 814 654 + 2000 814 675


2000 814 656


2000 814 657


2000 814 658


2000 814 660


2000 814 661


2000 814 663


2000 814 671




## Jigsaw blade

Made of alloyed tool steel · Suitable for jigsaws of the makes Bosch, DeWalt, Festool, Hilti, Mafell, Makita, Metabo, Milwaukee and many more

| Equivalent to no. | Serrated length [mm] | Overall L [mm] | Serration [mm] | Type | Area of application | Material | Pc. per card | Article no. |
|---|---|---|---|---|---|---|---|---|
| **T 101 AiF** | 55 | 80 | 1.9 | Cross-ground, reverse toothing | Coated, thin wood up to 20 mm, laminate and parquet | BIM | 5 | **2000 814 648** |
| **T 101 B** | 75 | 100 | 2.5 | Cross-ground, conical | For hardwood and plywood, plastic 3–30 mm | HCS | 5 | **2000 814 650** |
| **T 101 B** | 75 | 100 | 2.5 | Cross-ground, conical | For hardwood and plywood, plastic 3–30 mm | HCS | 25 | **2000 814 672** |
| **T 101 D** | 75 | 100 | 4 | Cross-ground, conical | For hardwood and softwood, plastic 10–45 mm | HCS | 5 | **2000 814 652** |
| **T 101 D** | 75 | 100 | 4 | Cross-ground, conical | For hardwood and softwood, plastic 10–45 mm | HCS | 25 | **2000 814 673** |
| **T 101 BR** | 75 | 100 | 2.5 | Cross-ground, reverse toothing | For all woods, plastics 3–30 mm | HCS | 5 | **2000 814 657** |
| **T 144 D** | 75 | 100 | 4 | Ripped, ground | For all woods 5–50 mm, quick cut | HCS | 5 | **2000 814 654** |
| **T 144 D** | 75 | 100 | 4 | Ripped, ground | For all woods 5–50 mm, quick cut | HCS | 25 | **2000 814 675** |
| **T 244 D** | 75 | 100 | 4 | Ripped, ground | Curved saw blade for all woods 5–50 mm | HCS | 5 | **2000 814 656** |
| **T 111 C** | 75 | 100 | 3 | Ripped, ground | Softwood, plastics 4–50 mm | HCS | 5 | **2000 814 660** |
| **T 234X** | 91 | 117 | 2.5 | Triple-ground, conical | Hardwood and softwood, plastics | HCS | 5 | **2000 814 661** |
| **T301CD** | 105 | 132 | 3 | Conical cross ground | Fine cut, for all woods, plastics 8–65 mm | HCS | 5 | **2000 814 671** |
| **T 344 D** | 105 | 132 | 4 | Ripped, diagonally sharpened | Extra long, for all woods, quick cut | HCS | 5 | **2000 814 658** |
| **T 744 D** | 155 | 180 | 4 | Ground, straight set, sharpened diagonally | Thick wood 5–120 mm | HCS | 5 | **2000 814 663** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.




## Jigsaw blade

Made of alloyed tool steel · Suitable for jigsaws of the makes Bosch, DeWalt, Mafell, Hilti, Makita, Metabo, Milwaukee, Würth and many more

| Equivalent to no. | Serrated length [mm] | Overall L [mm] | Serration [mm] | Type | Area of application | Material | Pc. per card | Article no. |
|---|---|---|---|---|---|---|---|---|
| **T 118 A** | 55 | 76.5 | 1.2 | Corrugated, milled | Thin steel sheet metal 1.2–2 mm | HSS | 5 | **2000 814 662** |
| **T 118 AF** | 55 | 76.5 | 1.2 | Corrugated, milled | Flexible, steel sheet metal and stainless steel 1.2–3 mm | BIM | 5 | **2000 814 664** |
| **T 118 B** | 55 | 76.5 | 2 | Corrugated, milled | Non-ferrous metals, steel, aluminium 2.5–6 mm | HSS | 5 | **2000 814 666** |
| **T 118 B** | 55 | 76.5 | 2 | Corrugated, milled | Non-ferrous metals, steel, aluminium 2.5–6 mm | HSS | 25 | **2000 814 677** |
| **T 127 D** | 75 | 100 | 3 | Ripped | Non-ferrous metals, aluminium, steel 3–15 mm, plastics | HSS | 5 | **2000 814 667** |
| **T 318 AF** | 105 | 132 | 1 | Corrugated, milled | Flexible, for steel 1–3 mm, sandwich material up to 80 mm | BIM | 5 | **2000 814 665** |


2000 814 662


2000 814 664


2000 814 665


2000 814 666 + 2000 814 677


2000 814 667





2000 814 670

## Jigsaw blade

Made of alloyed tool steel · Suitable for jigsaws of the makes Bosch, DeWalt, Festool, Hilti, Mafell, Makita, Metabo, Würth and many more

| Equivalent to no. | Serrated length [mm] | Overall L [mm] | Serration [mm] | Type | Area of application [mm] | Material | Pc. per card | Article no. |
|---|---|---|---|---|---|---|---|---|
| **T 718 BF** | 155 | 180 | 2 | Milled, corrugated | Metal, sandwich material 2.5–120 | BIM | 5 | **2000 814 670** |

## Jigsaw blade assortment

Made of alloyed tool steel · Suitable for jigsaws of the makes Bosch, DeWalt, Festool, Flex, Makita, Metabo

**Article no. 2000 814 678 for wood/plastic comprising:**
2 pc. article no. 2000 814 654 - corresponds to Bosch No. T 144 D
2 pc. article no. 2000 814 650 - corresponds to Bosch No. T 101 B
2 pc. article no. 2000 814 652 - corresponds to Bosch No. T 101 D
2 pc. article no. 2000 814 656 - corresponds to Bosch No. T 244 D
2 pc. article no. 2000 814 660 - corresponds to Bosch No. T 111 D

**Article no. 2000 814 679 for metal comprising:**
3 pc. article no. 2000 814 662 - corresponds to Bosch No. T 118 A
3 pc. article no. 2000 814 666 - corresponds to Bosch No. T 118 B
2 pc. article no. 2000 814 667 - corresponds to Bosch No. T 127 D
2 pc. article no. 2000 814 664 - corresponds to Bosch No. T 118 D

| Contents | Use | Article no. |
|---|---|---|
| **10-part** | For wood | **2000 814 678** |
| **10-part** | For metal | **2000 814 679** |



2000 814 678

## Jigsaw blade assortment

Universal

**Contents:**
1 pc. jigsaw blade for hardwood and plywood, **article no. 2000 814 650 (Bosch T 101 B)**
1 pc. jigsaw blade for hardwood, plywood and plastics, **article no. 2000 814 660 (Bosch T 111 C)**
1 pc. jigsaw blade for all woods **article no. 2000 814 654 (Bosch T 144 D)**
1 pc. jigsaw blade for steel and sandwich metal **article no. 2000 814 665 (Bosch T 118 AF)**
1 pc. jigsaw blade for steel pipes, steel profiles, solid material, sheet metal, **article no. 2000 814 662 (Bosch T 118 A)**




| Contents | Use | Article no. |
|---|---|---|
| **5-part** | For wood / metal | **2000 814 689** |

## Reciprocating saw blade

Carbide teeth · For quick cuts in metal · Stainless steel · Non-ferrous metal · Sheath · Cast SML · Vehicle parts (A/B/C column) and metal-reinforced rubber



| Overall L [mm] | Pc. per card | Article no. |
|---|---|---|
| **150** | 1 | **2000 814 927** |
| **228** | 1 | **2000 814 928** |



2000 814 702 + 2000 814 919



2000 814 704



2000 814 706



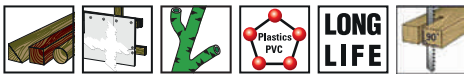
2000 814 922



2000 814 923



2000 814 924




## Reciprocating saw blade

Made of alloyed tool steel · Ripped · Suitable for reciprocating saws of the makes DeWalt, Bosch, Flex, Hilti, Hitachi, Makita, Metabo, REMS, Roller, Milwaukee, Würth

| Equivalent to no. | Overall L [mm] | Type | Area of application | Pc. per card | Article no. |
|---|---|---|---|---|---|
| **Bosch S 644 D** | 150 | Milled, ripped sharpened diagonally | For all woods | 5 | **2000 814 702** |
| **Bosch S 644 D** | 150 | Milled, ripped sharpened diagonally | Parallel cut, all woods, plastics, gypsum boards | 25 | **2000 814 919** |
| **Wilpu 3021/225** | 225 | Milled, ripped | Parallel cut, all woods, plastics, gypsum boards | 5 | **2000 814 922** |
| **Bosch S 1344 D** | 300 | Milled, ripped | Parallel cut, all woods, plastics, gypsum boards | 5 | **2000 814 923** |
| **Bosch S 611 DF** | 150 | Milled, ripped | Long life, all woods, plastics, parallel cut | 5 | **2000 814 924** |
| **Wilpu 3019/150** | 150 | Milled, ripped | Universal for wood | 5 | **2000 814 706** |
| **Bosch S 1531 L** | 240 | Cross ground, induction hardened | For all woods, fresh cut wood | 5 | **2000 814 704** |
| **Bosch S 1411DF** | 300 | Milled, ripped | Wood, plastics, aluminium and window dismantling | 5 | **2000 814 932** |








▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.




## Reciprocating saw blade

Made of bi-metal · Suitable for reciprocating saws of the makes AEG, DeWalt, Bosch, Flex, Hitachi, Makita, Metabo, REMS, Roller, Milwaukee, and many more

| Equivalent to no. | Overall L [mm] | Type | Area of application | Pc. per card | Article no. |
|---|---|---|---|---|---|
| **Bosch S 922 AF** | 150 | Milled, wave-set | Flexible, fine serrations for rust-free steel, metal thickness 1.2 mm | 5 | **2000 814 710** |
| **Wilpu 3059/150** | 150 | Milled, ripped | Steel pipes and profiles, solid material, non-ferrous metal, wood with metal residue, pallet repairs, Long Life | 5 | **2000 814 893** |
| **Wilpu 3016/150** | 150 | Milled, ripped | Long life, steel pipes and profiles, solid material, wood with metal residues, non-ferrous metal, aluminium, TWINCUT serration | 5 | **2000 814 898** |
| **Bosch S 922 EF** | 150 | Milled, wave-set | Metal, stainless steel | 5 | **2000 814 712** |
| **Bosch S 922 BF** | 150 | Milled, wave-set | Metal, stainless steel | 5 | **2000 814 716** |
| **Bosch S 922 BF** | 150 | Milled, wave-set | Metal, stainless steel | 25 | **2000 814 891** |
| **Bosch S922BF** | 150 | - | - | 100 | **2000 814 937** |
| **Bosch S 922 HF** | 150 | Milled, ripped | Long life, steel pipes and profiles, solid material, non-ferrous metal, stainless steel | 5 | **2000 814 894** |
| **Bosch S 1122 EF** | 200 | Milled, wave-set | Metal, stainless steel | 5 | **2000 814 714** |
| **Bosch S 1122 BF** | 200 | Milled, wave-set | Metal, stainless steel, non-ferrous metals | 5 | **2000 814 717** |
| **Bosch S 1122 BF** | 200 | Milled, wave-set | Metal, stainless steel, non-ferrous metals | 25 | **2000 814 892** |
| **Bosch S1122BF** | 200 | - | - | 100 | **2000 814 936** |
| **Bosch S 1122 HF** | 200 | Milled, ripped | Long life, steel pipes and profiles, solid material, non-ferrous metal, stainless steel | 5 | **2000 814 895** |
| **Bosch S 1122 VF** | 225 | Milled, ripped | Metal, non-ferrous metal, wood with nails | 5 | **2000 814 700** |
| **Bosch S 1120 CF** | 225 | Milled, wave-set | Long life, wood with metal residue, steel pipes and profiles, solid material, stainless steel, dismantling, parallel cut | 3 | **2000 814 896** |
| **WILPU 3058** | 225 | Milled, ripped | Long life, all woods, wood with metal residue, dismantling, parallel cut | 3 | **2000 814 917** |
| **Bosch S 1130 CF** | 225 | Milled, ripped | Long life, steel pipes and profiles, solid material, wood with metal residues, non-ferrous metal, aluminium, TWINCUT serration | 3 | **2000 814 907** |
| **Bosch S 1234 XF** | 225 | Ripped, milled | Long life, steel pipes and profiles, solid material, wood with metal residues, non-ferrous metal, aluminium, TWINCUT serration | 5 | **2000 814 899** |
| **Bosch S 1136 BEF** | 225 | Milled, ripped | Long life, wood with metal residues, steel pipes and profiles, solid material, parallel cut, TWINCUT serration | 5 | **2000 814 915** |
| **Bosch S 1211 HF** | 280 | Milled, ripped | Metal, non-ferrous metal, stainless steel | 5 | **2000 814 718** |
| **Wilpu 3050/300** | 300 | Milled, wave-set | Long life, wood with metal residue, steel pipes and profiles, solid material, stainless steel, dismantling, parallel cut | 3 | **2000 814 897** |
| **Wilpu 3016/280** | 280 | Milled, ripped | Long life, steel pipes and profiles, solid material, wood with metal residue, non-ferrous metal, aluminium, TWINCUT serration | 5 | **2000 814 906** |
| **Bosch S 1230 CF** | 300 | Milled, ripped | Long life, steel pipes and profiles, solid material, wood with metal residues, non-ferrous metal, aluminium, TWINCUT serration | 3 | **2000 814 908** |
| **WILPU 3056/300** | 300 | Milled, ripped | Long life, wood with metal residue, steel pipes and profiles, solid material, parallel cut, TWINCUT serration | 5 | **2000 814 916** |
| **Bosch S 1110 VF** | 300 | Milled, ripped | Long life, all woods, wood with metal residue, dismantling, parallel cut | 3 | **2000 814 918** |
| **Bosch S1222VF** | 300 | Teeth milled and ripped | Wood with metal residues, steel pipes and profiles, and solid material | 5 | **2000 814 933** |
| **Bosch S1226CHF** | 300 | Teeth milled and ripped | Steel pipes and profiles, solid material and wood with metal residues | 5 | **2000 814 934** |
| **Wilpu 810F/200** | 200 | Milled, ripped | Wood with metal residues, steel pipes and profiles, and solid material | 5 | **2000 814 938** |
| **Wilpu 3013/150 PC** | 150 | Milled, wave-set | Steel pipes and profiles, solid material, non-ferrous metals and rust-free steel | 5 | **2000 814 939** |


2000 814 710


2000 814 712


2000 814 716 + 2000 814 891


2000 814 714


2000 814 717 + 2000 814 892


2000 814 718


2000 814 700


2000 814 893


2000 814 894


2000 814 895


2000 814 896


2000 814 897


2000 814 898


2000 814 899


2000 814 906


2000 814 907


2000 814 908


2000 814 915


2000 814 916


2000 814 917


2000 814 918

## Reciprocating saw blade

Craftsman-quality premium reciprocating saw blade with standard 1/2" mount, cutting edge coated with diamond granulate · Medium grit size for cutting cast steel, cast iron (black and red cast iron), red brick, ceramics, glass fibre reinforced plastics (GRP), epoxy

| Equivalent to no. | Overall L [mm] | Area of application | Pc. per card | Article no. |
|---|---|---|---|---|
| **DT/200 diamond** | 200 | Cast steel pipes, cast iron, bricks, ceramics, GRP and epoxy | 1 | **2000 814 940** |




## Reciprocating saw blade set

Assortment of 3 reciprocating saw blades · Suitable for reciprocating saws of the makes AEG, DeWalt, Bosch, Flex, Hitachi, Makita, Metabo, REMS, Roller, Milwaukee
Supplied in a plastic pouch

| Contents | Area of application | Comprising | Article no. |
|---|---|---|---|
| **3-part** | For wood | 1 each x 2000 814 702 / 1 each x 2000 814 704 / 1 each x 2000 814 706 | **2000 814 874** |
| **3-part** | Universal | 1 each x 2000 814 704 / 1 each x 2000 814 700 / 1 each x 2000 814 716 | **2000 814 875** |
| **3-part** | For metal | 1 each x 2000 814 716 / 1 each x 2000 814 717 / 1 each x 2000 814 712 | **2000 814 876** |


2000 814 875




## Plunge saw blade
For cutting wood and nails and general renovations

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Starlock** | 32 | 40 | 1 | **2000 907 001** |
| **Starlock** | 32 | 40 | 10 | **2000 907 002** |
| **Starlock** | 32 | 40 | 12 | **2000 907 121** |



## Plunge saw blade
For cutting wood and nails and general renovations

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Starlock** | 63 | 40 | 1 | **2000 907 003** |
| **Starlock** | 63 | 40 | 10 | **2000 907 004** |



## Plunge saw blade
For fast cutting of softwood · Rough cut

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Starlock** | 32 | 42 | 1 | **2000 907 005** |
| **Starlock** | 32 | 42 | 10 | **2000 907 006** |



## Plunge saw blade
Fine cuts of softwood and hardwood

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Starlock** | 32 | 42 | 1 | **2000 907 007** |



## Plunge saw blade
Heavy-duty metal cutting of nails, bolts, screws, etc.

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Starlock** | 32 | 29 | 1 | **2000 907 008** |



## Plunge saw blade
For cutting wood and nails and general renovations

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Universal** | 32 | 51 | 1 | **2000 907 011** |
| **Universal** | 32 | 51 | 10 | **2000 907 012** |
| **Universal** | 32 | 51 | 12 | **2000 907 122** |



## Plunge saw blade
For cutting wood and nails and general renovations

| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Universal** | 63 | 42 | 1 | **2000 907 013** |
| **Universal** | 63 | 42 | 10 | **2000 907 014** |



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## Plunge saw blade
For fast cutting of softwood · Rough cut



| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Universal** | 32 | 42 | 1 | **2000 907 015** |
| **Universal** | 32 | 42 | 10 | **2000 907 016** |

## Plunge saw blade
Fine cuts of softwood and hardwood



| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Universal** | 32 | 42 | 1 | **2000 907 017** |

## Plunge saw blade
Heavy-duty metal cutting of nails, bolts, screws, etc.



| Tool holders | Width [mm] | Plunge depth [mm] | Pc. per card | Article no. |
|---|---|---|---|---|
| **Universal** | 32 | 46 | 1 | **2000 907 018** |

## Keyhole saw
**HSS bi-metal** · The break-proof design of the keyhole saws makes them perfect for cutting round holes in practically all machinable materials, including cast iron, copper, bronze, aluminium and wood · All dimensions have a **4/6 combi-tooth** and can be used for **cutting depths of up to 38 mm**. · The associated mounting shanks enable quick and easy clamping in hand-held and stationary drills




**Supplied without adapter shank**

| Saw Ø [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| **17** | 38 | **2000 814 538** |
| **20** | 38 | **2000 814 612** |
| **22** | 38 | **2000 814 613** |
| **24** | 38 | **2000 814 540** |
| **25** | 38 | **2000 814 614** |
| **29** | 38 | **2000 814 615** |
| **30** | 38 | **2000 814 616** |
| **32** | 38 | **2000 814 617** |
| **33** | 38 | **2000 814 542** |
| **35** | 38 | **2000 814 618** |
| **38** | 38 | **2000 814 620** |
| **40** | 38 | **2000 814 621** |
| **41** | 38 | **2000 814 543** |
| **43** | 38 | **2000 814 544** |
| **44** | 38 | **2000 814 622** |
| **46** | 38 | **2000 814 545** |
| **48** | 38 | **2000 814 546** |
| **51** | 38 | **2000 814 623** |
| **54** | 38 | **2000 814 624** |
| **57** | 38 | **2000 814 625** |
| **60** | 38 | **2000 814 627** |
| **64** | 38 | **2000 814 628** |
| **65** | 38 | **2000 814 548** |
| **67** | 38 | **2000 814 629** |
| **68** | 38 | **2000 814 630** |
| **70** | 38 | **2000 814 631** |
| **76** | 38 | **2000 814 632** |
| **79** | 38 | **2000 814 551** |
| **83** | 38 | **2000 814 633** |
| **86** | 38 | **2000 814 552** |
| **92** | 38 | **2000 814 634** |
| **95** | 38 | **2000 814 635** |
| **102** | 38 | **2000 814 636** |
| **105** | 38 | **2000 814 637** |
| **111** | 38 | **2000 814 558** |
| **114** | 38 | **2000 814 638** |
| **121** | 38 | **2000 814 559** |
| **127** | 38 | **2000 814 561** |
| **140** | 38 | **2000 814 562** |
| **152** | 38 | **2000 814 563** |




## Keyhole saw

**HSS-Co8** · The break-proof design of the keyhole saws makes them perfect for cutting round holes in practically all machinable materials, including cast iron, stainless steel, tool steel, copper, bronze, aluminium and wood · All dimensions have a **4/6 combi-tooth** and can be used for **cutting depths of up to 38 mm**. · The associated mounting shanks enable quick and easy clamping in hand-held and stationary drills

**Supplied without adapter shank**

| Saw Ø [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| 16 | 38 | 2000 800 195 |
| 19 | 38 | 2000 800 197 |
| 20 | 38 | 2000 800 198 |
| 21 | 38 | 2000 800 199 |
| 22 | 38 | 2000 800 200 |
| 24 | 38 | 2000 800 201 |
| 25 | 38 | 2000 800 202 |
| 27 | 38 | 2000 800 203 |
| 29 | 38 | 2000 800 204 |
| 30 | 38 | 2000 800 205 |
| 32 | 38 | 2000 800 206 |
| 33 | 38 | 2000 800 207 |
| 35 | 38 | 2000 800 208 |
| 38 | 38 | 2000 800 209 |
| 40 | 38 | 2000 800 210 |
| 41 | 38 | 2000 800 211 |
| 43 | 38 | 2000 800 212 |
| 44 | 38 | 2000 800 213 |
| 46 | 38 | 2000 800 214 |
| 48 | 38 | 2000 800 215 |
| 51 | 38 | 2000 800 216 |
| 54 | 38 | 2000 800 217 |
| 57 | 38 | 2000 800 218 |
| 60 | 38 | 2000 800 219 |
| 64 | 38 | 2000 800 220 |
| 65 | 38 | 2000 800 221 |
| 67 | 38 | 2000 800 222 |
| 68 | 38 | 2000 800 223 |
| 70 | 38 | 2000 800 224 |
| 76 | 38 | 2000 800 225 |
| 79 | 38 | 2000 800 226 |
| 83 | 38 | 2000 800 227 |
| 86 | 38 | 2000 800 228 |
| 92 | 38 | 2000 800 229 |
| 95 | 38 | 2000 800 230 |
| 102 | 38 | 2000 800 231 |
| 105 | 38 | 2000 800 232 |
| 111 | 38 | 2000 800 233 |
| 114 | 38 | 2000 800 234 |
| 121 | 38 | 2000 800 235 |
| 127 | 38 | 2000 800 236 |
| 140 | 38 | 2000 800 237 |
| 152 | 38 | 2000 800 238 |





2000 814 643



2000 814 644

## Keyhole saw set

**Bi-metal** · 4/6-combi-tooth · For cutting holes in unalloyed steel, aluminium, cast metal, copper, bronze, wood and plastics · **Cutting depth 38 mm · Specially for electricians**

**Contents of article no. 2000 814 643:**
1 keyhole saw each Ø 22, 29, 35, 44, 51 and 68 mm

**Contents of article no. 2000 814 644:**
1 keyhole saw each Ø 19, 22, 29, 35, 38, 44, 51, 57 and 68 mm

**Contents of article no. 2000 814 549:**
1 keyhole saw each Ø 16, 19, 22, 25, 29, 32, 35, 38, 44, 51, 68 and 76 mm

**Contents of article no. 2000 814 647:**
1 keyhole saw Ø 19, 22, 29, 35, 38, 44, 51, 57, 68, 76, 83, 92, 95, 105 and 114 mm

**Each set incl.**
1 adapter shank in sizes 9.5 + 11 mm
1 replacement twist drill
**Supplied in case**



2000 814 647

| Contents | Saw Ø [mm] | Article no. |
|---|---|---|
| 10-part | 22– 68 | 2000 814 643 |
| 13-part | 19– 68 | 2000 814 644 |
| 17-part | 19–114 | 2000 814 647 |
| 16-part | 16– 76 | 2000 814 549 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Keyhole saw set

**HSS-Co8** · 4/6-combi-tooth · For cutting holes in alloyed (stainless), unalloyed steels, aluminium, cast iron, copper, bronze, wood and plastics · **Cutting depth 38 mm**
**Contents of article no. 2000 800 192:**
1 keyhole saw each Ø 22, 29, 35, 44, 51 and 68 mm

**Contents of article no. 2000 800 193:**
1 keyhole saw each Ø 19, 22, 29, 35, 38, 44, 51, 57 and 68 mm

**Contents of article no. 2000 800 194:**
1 keyhole saw Ø 19, 22, 29, 35, 38, 44, 51, 57, 68, 76, 83, 92, 95, 105 and 114 mm

**Each set incl.**
1 adapter shank in sizes 9.5 + 11 mm
1 replacement twist drill
**Supplied in case**



2000 800 192



2000 800 193



2000 800 194

| Contents | Saw Ø [mm] | Article no. |
|---|---|---|
| **10-part** | 22– 68 | **2000 800 192** |
| **13-part** | 19– 68 | **2000 800 193** |
| **17-part** | 19–114 | **2000 800 194** |

1/4"
6.3 mm

## Adapter shank

The mounts for the keyhole saws are always supplied with a **6.35 mm** (1/4") pilot bit · A locking screw enables the position of the pilot bit to be changed



2000 814 640



2000 814 641

| Mount [mm] | Type | Article no. |
|---|---|---|
| **Hexagonal 9.5** | With centre drill bit | **2000 814 640** |
| **Hexagonal 11.0** | With centre drill bit | **2000 814 641** |

## Pilot bit

It is fastened and held in the mount by a locking screw · The flat spot on the drill bit shank enables a precise adjustment of the drill bit beyond the cutting teeth of the keyhole saw
**The short type is suitable for mounting shanks article no. 2000 814 640 and 2000 814 641**



| Ø | Length [mm] | Type | Material | Article no. |
|---|---|---|---|---|
| **6.35** | 70 | Short | HSS | **2000 814 642** |
| **6.35** | 110 | Long | HSS | **2000 814 639** |
| **6.35** | 70 | Short | HSS-Co8 | **2000 800 240** |
| **6.35** | 110 | Long | HSS-Co8 | **2000 800 239** |

## Keyhole saw

**Flat cut** · Carbide tipped cutting edges allow repeated resharpening · Exchangeable centre drill bit · Eject spring for the drill core for material thicknesses up to 4 mm for unalloyed steel · Stainless steel up to 2 mm · From Ø 31 mm with specially hardened mounting holder · **Drill body 12 mm · Cutting depth 4 mm · Adapter shank Ø 13 mm**
**Scope of supply: Keyhole saw incl. drill bits and eject spring**
**Notes on use:** When sawing through metals, use high-quality cutting oil, do not use cutting oil for cast metal and add petroleum when sawing aluminium



| Saw Ø [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| **16** | 4 | **2000 800 041** |
| **20** | 4 | **2000 800 045** |
| **21** | 4 | **2000 800 046** |
| **23** | 4 | **2000 800 048** |
| **24** | 4 | **2000 800 049** |
| **25** | 4 | **2000 800 050** |
| **28** | 4 | **2000 800 053** |
| **30** | 4 | **2000 800 055** |
| **32** | 4 | **2000 800 057** |
| **33** | 4 | **2000 800 058** |
| **34** | 4 | **2000 800 059** |
| **35** | 4 | **2000 800 060** |
| **37** | 4 | **2000 800 062** |
| **40** | 4 | **2000 800 065** |

Continuation >

Continuation

| Saw Ø [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| 42 | 4 | 2000 800 067 |
| 43 | 4 | 2000 800 068 |
| 47 (PG36) | 4 | 2000 800 072 |
| 48 | 4 | 2000 800 073 |
| 50 | 4 | 2000 800 075 |
| 52 | 4 | 2000 800 077 |
| 54 (PG42) | 4 | 2000 800 079 |
| 55 | 4 | 2000 800 080 |
| 60 (PG48) | 4 | 2000 800 085 |
| 65 | 4 | 2000 800 086 |
| 68 | 4 | 2000 800 087 |
| 70 | 4 | 2000 800 088 |
| 75 | 4 | 2000 800 089 |
| 80 | 4 | 2000 800 090 |
| 90 | 4 | 2000 800 092 |
| 100 | 4 | 2000 800 094 |
| 105 | 4 | 2000 800 095 |



## Keyhole saw set

**Flat cut** · Carbide tipped cutting edges allow repeated resharpening · Exchangeable centre drill bit · Eject spring for the drill core for material thicknesses up to 4 mm for unalloyed steel · Stainless steel up to 2 mm · **Cutting depth 4 mm**
**Contents:**
1 carbide tipped keyhole saw each Ø 16 / 20 / 25 / 32 and 40 mm
1 offset screwdriver each, AF 2.5 / 3.0 and 4.0
**Supplied in case**
**Notes on use:** When sawing through metals, use high-quality cutting oil, do not use cutting oil for cast metal and add petroleum when sawing aluminium

| Contents | Saw Ø [mm] | Article no. |
|---|---|---|
| 8-part | 16–40 | 2000 800 100 |



## Keyhole saw

**Multi-purpose type** · Carbide tipped cutting edges allow repeated resharpening · Exchangeable centre drill bit · Eject spring for drill core · For unalloyed steels and stainless steel · For sawing flat material · Pipe material · Curved surfaces · Overlapping drill holes are possible · **Drill body 30 mm · Cutting depth 20 mm, for hand-held drilling machines up to 6 mm · Adapter shank Ø 13 mm**
**Scope of supply: Keyhole saw incl. drill bits and eject spring with 13 mm adapter shank, from Ø 31 mm with specially hardened mounting holder**
**Notes on use:** When sawing through metals, use high-quality cutting oil, do not use cutting oil for cast metal and add petroleum when sawing aluminium

| Saw Ø [mm] | Cutting D [mm] | Article no. |
|---|---|---|
| 18 | 20 | 2000 800 109 |
| 19 | 20 | 2000 800 110 |
| 20 | 20 | 2000 800 111 |
| 22 | 20 | 2000 800 113 |
| 24 | 20 | 2000 800 115 |
| 25 | 20 | 2000 800 116 |
| 26 | 20 | 2000 800 117 |
| 27 | 20 | 2000 800 118 |
| 28 | 20 | 2000 800 119 |
| 30 | 20 | 2000 800 121 |
| 32 | 20 | 2000 800 123 |
| 34 | 20 | 2000 800 125 |
| 35 | 20 | 2000 800 126 |
| 40 | 20 | 2000 800 131 |
| 42 | 20 | 2000 800 133 |
| 43 | 20 | 2000 800 134 |
| 45 | 20 | 2000 800 136 |
| 48 | 20 | 2000 800 139 |
| 50 | 20 | 2000 800 141 |
| 54 | 20 | 2000 800 145 |
| 55 | 20 | 2000 800 146 |
| 58 | 20 | 2000 800 149 |
| 60 | 20 | 2000 800 151 |
| 61 | 20 | 2000 800 152 |
| 63 | 20 | 2000 800 154 |
| 64 | 20 | 2000 800 155 |
| 70 | 20 | 2000 800 161 |
| 75 | 20 | 2000 800 166 |
| 80 | 20 | 2000 800 171 |
| 90 | 20 | 2000 800 181 |
| 96 | 20 | 2000 800 187 |
| 100 | 20 | 2000 800 191 |



## Adapter shank

For carbide tipped keyhole saws with hexagonal shank · Complete with centre drill bit

| Mount | Type | Article no. |
|---|---|---|
| Hexagonal | With centre drill bit | 2000 800 106 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Adapter shank
For carbide tipped keyhole saws with MK 2 mount



| Mount | Type | Article no. |
|---|---|---|
| **MK 2** | With centre drill bit | **2000 800 108** |

## Pilot bit
For carbide-tipped keyhole saws
2000 800 104: For 2000 800 109 to 2000 800 151
2000 800 204: For 2000 800 152 to 2000 800 191
2000 800 304: For 2000 800 041 to 2000 800 094
2000 800 305: For 2000 800 095



| Ø | Length [mm] | Type | Material | Article no. |
|---|---|---|---|---|
| **6** | 80 | Short | HSS | **2000 800 104** |
| **8** | 80 | Short | HSS | **2000 800 105** |
| **6** | 50 | Short | HSS | **2000 800 304** |
| **8** | 50 | Short | HSS | **2000 800 305** |

SDS plus

## Hammer core bit
**Hammer resistant** · With carbide edges · Complete with **adapter shank with M16 thread** and centre drill bit · For drilling of masonry, dressed stone, cast stone, concrete, etc.



| Nominal Ø [mm] | Working L [mm] | Overall L [mm] | Adapter shank | Type | Article no. |
|---|---|---|---|---|---|
| **68** | 50 | 180 | SDS-plus | For sockets | **2000 864 376** |
| **80** | 50 | 180 | SDS-plus | For junction boxes | **2000 864 377** |

## Core drill PROFI
With suction holes · Self-sharpening · Concentricity-optimised pipe · Short-tooth technology for an extremely long service life · Suitable for drilling in bricks, sand-lime brick, porous concrete, pumice



| Type | Ø [mm] | Working L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|---|
| **Soldered** | 68 | 62 | 90 | **2000 865 504** |
| **Soldered** | 82 | 62 | 90 | **2000 865 505** |

## Core drill



| Ø [mm] | Overall L [mm] | Article no. |
|---|---|---|
| **25** | 87 | **2000 865 534** |
| **25** | 116.5 | **2000 865 535** |

## Core drill



| Ø [mm] | Working L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **10** | 65 | 120 | **2000 865 537** |

## Stone drill
With carbide cutting edge · Made of tempered special steel · Higher breaking strength during impact drilling · Special spiral profile for rapid drill bit progress · With **carbide cutting edge**



| | |
|---|---|
| Concrete | ★ |
| Aerated concrete/Ytong | ★★★ |
| Granite | ★ |
| Sand-lime brick | ★★★ |
| Brick | ★★ |
| Aerated concrete | ★ |
| Marble | ★ |
| Masonry | ★★★ |
| Stone | ★★ |
| Wall tiles | ★ |
| Roof tiles | ★ |

| Ø [mm] | Working L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **4** | 35 | 75 | **2000 864 102** |
| **5** | 50 | 95 | **2000 864 104** |
| **6** | 60 | 100 | **2000 864 106** |
| **6** | 110 | 150 | **2000 864 130** |
| **8** | 80 | 120 | **2000 864 110** |
| **8** | 135 | 200 | **2000 864 131** |
| **10** | 80 | 120 | **2000 864 114** |
| **10** | 135 | 200 | **2000 864 132** |
| **12** | 90 | 150 | **2000 864 116** |
| **14** | 90 | 150 | **2000 864 118** |



## Carbide hammer drill bit set

Drill bit with straight shank · **With carbide cutting edges**

**Contents:**

1 carbide impact drill bit each 4/75.5/85.8/120.10/120.12/150.2x6/100 mm

**Supplied in plastic box**

| | |
|---|---|
| Concrete | ★ |
| Aerated concrete/Ytong | ★★★ |
| Granite | ★ |
| Sand-lime brick | ★★★ |
| Brick | ★★ |
| Aerated concrete | ★ |
| Marble | ★ |
| Masonry | ★★★ |
| Stone | ★★ |
| Wall tiles | ★ |
| Roof tiles | ★ |

| Contents | Article no. |
|---|---|
| **7-part** | **2000 864 330** |



| | |
|---|---|
| Concrete | ★★ |
| Aerated concrete/Ytong | ★★★ |
| Sand-lime brick | ★★★ |
| Masonry | ★★★ |
| Stone | ★ |

## Hammer drill bit

**SDS-plus** · Effective debris removal through aggressive tip and spiral design · Certified by the Prüfgemeinschaft Mauerbohrer (PGM) to requirements laid down by the Deutsches Institut für Bautechnik (DIBt)

**Areas of application: Concrete, sand-lime brick, masonry** (for all concrete and stone applications)

| Ø [mm] | Working L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **4.0** | 50 | 110 | **2000 864 010** |
| **5.0** | 50 | 110 | **2000 864 011** |
| **5.0** | 100 | 160 | **2000 864 012** |
| **6.0** | 50 | 110 | **2000 864 013** |
| **6.0** | 100 | 160 | **2000 864 014** |
| **6.0** | 150 | 210 | **2000 864 015** |
| **6.0** | 200 | 260 | **2000 864 016** |
| **6.5** | 150 | 210 | **2000 864 017** |
| **8.0** | 50 | 110 | **2000 864 019** |
| **8.0** | 100 | 160 | **2000 864 020** |
| **8.0** | 150 | 210 | **2000 864 021** |
| **8.0** | 200 | 260 | **2000 864 022** |
| **10.0** | 50 | 110 | **2000 864 025** |
| **10.0** | 100 | 160 | **2000 864 026** |
| **10.0** | 150 | 210 | **2000 864 027** |
| **10.0** | 200 | 260 | **2000 864 028** |
| **10.0** | 250 | 310 | **2000 864 029** |
| **10.0** | 400 | 450 | **2000 864 030** |
| **12.0** | 100 | 160 | **2000 864 031** |
| **12.0** | 150 | 210 | **2000 864 032** |
| **12.0** | 200 | 260 | **2000 864 033** |
| **12.0** | 250 | 310 | **2000 864 034** |
| **12.0** | 400 | 450 | **2000 864 035** |
| **14.0** | 100 | 160 | **2000 864 037** |
| **14.0** | 150 | 210 | **2000 864 038** |
| **14.0** | 200 | 250 | **2000 864 039** |
| **14.0** | 250 | 310 | **2000 864 040** |
| **14.0** | 400 | 450 | **2000 864 041** |
| **15.0** | 100 | 160 | **2000 864 043** |
| **16.0** | 100 | 160 | **2000 864 045** |
| **16.0** | 150 | 210 | **2000 864 046** |
| **16.0** | 250 | 300 | **2000 864 047** |
| **16.0** | 400 | 450 | **2000 864 048** |
| **16.0** | 550 | 600 | **2000 864 049** |
| **18.0** | 200 | 260 | **2000 864 051** |
| **18.0** | 400 | 450 | **2000 864 053** |
| **20.0** | 250 | 300 | **2000 864 055** |
| **20.0** | 400 | 450 | **2000 864 056** |
| **22.0** | 400 | 450 | **2000 864 057** |
| **25.0** | 400 | 450 | **2000 864 059** |



| | |
|---|---|
| Concrete | ★★ |
| Aerated concrete/Ytong | ★★★ |
| Sand-lime brick | ★★★ |
| Masonry | ★★★ |
| Stone | ★ |

## Large pack of hammer drill bits

**SDS-plus** · Effective debris removal through aggressive tip and spiral design · Certified by the Prüfgemeinschaft Mauerbohrer (PGM) to requirements laid down by the Deutsches Institut für Bautechnik (DIBt)

**Areas of application: Concrete, sand-lime brick, masonry** (for all concrete and stone applications)

| Ø [mm] | Working L [mm] | Overall L [mm] | Contents [Pc.] | Article no. |
|---|---|---|---|---|
| **6.0** | 100 | 160 | 10 | **2000 864 078** |
| **8.0** | 150 | 210 | 10 | **2000 864 080** |
| **10.0** | 100 | 160 | 10 | **2000 864 081** |
| **10.0** | 150 | 210 | 10 | **2000 864 082** |




## Hammer drill bit set SDS-Plus

Effective debris removal through aggressive tip and spiral design · Certified by the Prüfgemeinschaft Mauerbohrer (PGM) to requirements laid down by the Deutsches Institut für Bautechnik (DIBt)

**Areas of application: Concrete, sand-lime brick, masonry** (for all concrete and stone applications)
**Contents:**
1 drill bit in each of the sizes: 5 x 110 mm, 6 x 110 mm, 8 x 110 mm, 6 x 160 mm, 8 x 160 mm, 10 x 160 mm, 12 x 160 mm

**Supplied in plastic box**



| | |
|---|---|
| Concrete | ★★ |
| Aerated concrete/Ytong | ★★★ |
| Sand-lime brick | ★★★ |
| Masonry | ★★★ |
| Stone | ★ |

| Contents | Equipped with [mm] | Packaging | Article no. |
|---|---|---|---|
| **7-part** | 5–12 | Plastic box | **2000 864 095** |

## Hammer drill bit Multicutter 4

SDS-plus with 4 carbide cutting edges · Long service life, even when hitting reinforcement · Multiple cutter for concrete and reinforcing steel · With sunken carbide head for extreme toughness when encountering reinforcing steel and powerful drilling · Quick drilling progress · Optimised head and spiral design for extremely effective bore dust transport and minimum dust conflagration even in deep bore holes · Minimum vibration by computer-calculated spiral reduces the stress on the user · Easy spot drilling thanks to centring point





| Ø [mm] | Working L [mm] | Overall L [mm] | No. of cutters | Article no. |
|---|---|---|---|---|
| **5.0** | 50 | 110 | 4 | **2000 863 506** |
| **5.0** | 100 | 160 | 4 | **2000 863 507** |
| **6.0** | 50 | 110 | 4 | **2000 863 513** |
| **6.0** | 100 | 160 | 4 | **2000 863 514** |
| **6.0** | 150 | 210 | 4 | **2000 863 515** |
| **6.0** | 200 | 260 | 4 | **2000 863 516** |
| **8.0** | 50 | 110 | 4 | **2000 863 529** |
| **8.0** | 100 | 160 | 4 | **2000 863 530** |
| **8.0** | 150 | 210 | 4 | **2000 863 531** |
| **8.0** | 200 | 260 | 4 | **2000 863 532** |
| **10.0** | 50 | 110 | 4 | **2000 863 537** |
| **10.0** | 100 | 160 | 4 | **2000 863 538** |
| **10.0** | 150 | 210 | 4 | **2000 863 539** |
| **10.0** | 200 | 260 | 4 | **2000 863 540** |
| **10.0** | 250 | 310 | 4 | **2000 863 541** |
| **10.0** | 400 | 460 | 4 | **2000 863 543** |
| **12.0** | 100 | 160 | 4 | **2000 863 546** |
| **12.0** | 150 | 210 | 4 | **2000 863 547** |
| **12.0** | 200 | 260 | 4 | **2000 863 548** |
| **12.0** | 250 | 310 | 4 | **2000 863 549** |
| **12.0** | 400 | 450 | 4 | **2000 863 551** |
| **12.0** | 550 | 600 | 4 | **2000 863 552** |
| **14.0** | 200 | 260 | 4 | **2000 863 556** |
| **14.0** | 250 | 310 | 4 | **2000 863 557** |
| **14.0** | 400 | 450 | 4 | **2000 863 558** |
| **16.0** | 150 | 210 | 4 | **2000 863 563** |
| **16.0** | 200 | 260 | 4 | **2000 863 564** |
| **16.0** | 250 | 310 | 4 | **2000 863 565** |
| **18.0** | 200 | 250 | 4 | **2000 863 566** |
| **18.0** | 400 | 450 | 4 | **2000 863 567** |
| **18.0** | 550 | 600 | 4 | **2000 863 568** |
| **20.0** | 200 | 250 | 4 | **2000 863 569** |
| **20.0** | 400 | 450 | 4 | **2000 863 570** |
| **20.0** | 550 | 600 | 4 | **2000 863 571** |
| **22.0** | 200 | 250 | 4 | **2000 863 572** |
| **22.0** | 400 | 450 | 4 | **2000 863 573** |
| **24.0** | 200 | 250 | 4 | **2000 863 574** |
| **24.0** | 400 | 450 | 4 | **2000 863 575** |
| **25.0** | 200 | 250 | 4 | **2000 863 576** |
| **25.0** | 400 | 450 | 4 | **2000 863 577** |





## Hammer drill bit set Multicutter 4

SDSplus · With 4 cutters · 7-part set, Ø 5/6/6/8/8/10/12 mm
**Supplied in sturdy plastic case**



| Contents | Equipped with [mm] | Packaging | Article no. |
|---|---|---|---|
| **7-part** | 5/6/6/8/8/10/12 | Plastic case | **2000 863 580** |

| | |
|---|---|
| Beton | ★★★ |
| Gasbeton/Ytong | ★★★ |
| Kalksandstein | ★★ |
| Klinker | ★★ |
| Mauerwerk | ★★ |
| Stein | ★★★ |

## Hammer drill bit

**SDS-Max** · Dual cutter for very high drilling speeds · Specially hardened surface for increased breaking strength during hammer drilling · Prüfgemeinschaft Mauerbohrer certified

**Areas of application: Concrete, stone, masonry, clinker bricks**

| Ø [mm] | Working L [mm] | Overall L [mm] | Article no. |
|---|---|---|---|
| **12.0** | 200 | 340 | **2000 864 134** |
| **12.0** | 400 | 540 | **2000 864 135** |
| **14.0** | 200 | 340 | **2000 864 136** |
| **14.0** | 400 | 540 | **2000 864 137** |
| **16.0** | 200 | 340 | **2000 864 138** |
| **16.0** | 400 | 540 | **2000 864 139** |
| **18.0** | 400 | 540 | **2000 864 141** |
| **20.0** | 200 | 320 | **2000 864 142** |
| **20.0** | 400 | 520 | **2000 864 143** |
| **22.0** | 400 | 520 | **2000 864 145** |
| **24.0** | 400 | 520 | **2000 864 147** |
| **25.0** | 400 | 520 | **2000 864 149** |
| **28.0** | 400 | 520 | **2000 864 152** |
| **30.0** | 400 | 520 | **2000 864 154** |
| **35.0** | 400 | 520 | **2000 864 157** |
| **40.0** | 400 | 520 | **2000 864 158** |



## Point chisel

Made of high-quality special steel

| Length [mm] | Mount | Article no. |
|---|---|---|
| **250** | SDS-plus | **2000 812 340** |





2000 812 342



2000 812 466

## Flat chisel

Made of high-quality special steel

| Length [mm] | Width [mm] | Mount | Article no. |
|---|---|---|---|
| **250** | 20 | SDS-plus | **2000 812 342** |
| **250** | 25 | SDS-plus | **2000 812 466** |



2000 812 343



2000 812 344

## Spade chisel

Made of high-quality special steel

| Overall L [mm] | Cutting edge W [mm] | Shape | Mount | Article no. |
|---|---|---|---|---|
| **250** | 40 | Angled | SDS-plus | **2000 812 343** |
| **250** | 40 | Straight | SDS-plus | **2000 812 344** |



## Insertion tool kit

Suitable for all machines
**Contents:** 1 each point, flat and spade chisel
**Supplied in plastic box**

| Contents | Length [mm] | Mount | Article no. |
|---|---|---|---|
| **3-part** | 250 | SDS-plus | **2000 812 480** |



## Point chisel
Made of high-quality special steel

| Length [mm] | Mount | Article no. |
|---|---|---|
| **280** | SDS-Max | **2000 812 349** |
| **400** | SDS-Max | **2000 812 350** |



## Flat chisel
Made of high-quality special steel

| Length [mm] | Width [mm] | Mount | Article no. |
|---|---|---|---|
| **280** | 24 | SDS-Max | **2000 812 351** |
| **400** | 24 | SDS-Max | **2000 812 352** |





## Spade chisel
Made of high-quality special steel

| Length [mm] | Cutting edge W [mm] | Mount | Article no. |
|---|---|---|---|
| **400** | 50 | SDS-Max | **2000 812 354** |
| **300** | 80 | SDS-Max | **2000 812 355** |



## Tile chisel
Made of high-quality special steel · With SDS-max mount

| Length [mm] | Width [mm] | Article no. |
|---|---|---|
| **400** | 50 | **2000 812 348** |



## Insertion tool kit
Suitable for all machines
**Contents:**
1 each point, flat and spade chisel
**Supplied in plastic box**

| Contents | Length [mm] | Mount | Article no. |
|---|---|---|---|
| **3-part** | 400 | SDS-Max | **2000 812 471** |


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## 7. Technical Products

# Tailored solutions with the TECWERK brand





Industrial & multi-purpose hose from page 350

Blow gun from page 352

Multi-purpose spray from page 365

Acetone from page 382

Universal binding agent from page 387

Lashing strap from page 388


## TECWERK TECHNICAL PRODUCTS – QUALITY FOR EVERYDAY REQUIREMENTS

In the field of technical products, TECWERK offers a diverse assortment of products ranging from general industrial supplies to compressed air and hose technology, technical rubber goods and chemical-technical products. Everything required daily in industrial maintenance, on building sites, in workshops and during assembly work: high-quality water hoses, multi-purpose and industrial hoses, compressed air processing products, proven sealing agents, adhesives and fillers, cleaning agents, lubricants, technical aerosols, adhesive tapes, everything you need for load securing, binding agents as well as a wide range of accessories and application tools. Our products stand for high quality, ease of application and reliable performance – for safe working, efficient workflows and durable results. Together, we create smooth processes that simplify your day-to-day work and increase your productivity.

## Efficiency by design

TECWERK technical products are perfectly matched and developed for continuous professional use. From assembly to maintenance – every product impresses with quality, functionality and ease of application. This ensures reliable results for every task – quickly, safely and economically.

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## Individuality as standard

Each application requires specific solutions. That's why TECWERK offers a wide selection of products, container sizes and packaging units – precisely tailored to your needs. Practical sets, coordinated system components and professional accessories enable you to design your workflows individually and efficiently.

## Service & Availability

TECWERK stands for partnership-based support and fast delivery capability. With high stock availability and reliable logistics, we ensure you receive your products exactly when you need them. Our specialist dealers provide expert advice in product selection and support you in assembling practical assortments – for maximum efficiency in procurement and application.

TECWERK – Practical solutions, excellent service and products professionals trust: reliable, versatile, efficient.

## Compressed air technology – everything you need for compressed air processing!




### Industrial and multi-purpose hose Page 350

Bending radius: 50 mm, temperature range: –40 °C to +100 °C
**Order no. 2000 310024**




### Blow gun Page 352

For blowing out and cleaning machines, workpieces, etc.
**Order no. 2000 351974**




### Multi-purpose spray Page 365

Leaves a colourless, oily film; displaces moisture
**Order no. 2000 354009**




### Acetone Page 382

For the dilution of combination nitrocellulose lacquers and adhesives
**Order no. 2000 355962**

## Load securing – reliably strong for logistics, transport and storage!




### Pressure sprayer Page 384

With FPM/FKM seal, PA pump unit, adjustable plastic nozzle
**Order no. 2000 355696**




### Lashing strap Page 388

Polyester, one-part, temperature range: –40 °C to +100 °C
**Order no. 2000 365112**




## Water hose

Flexible multi-layer yellow PVC hose
**Reinforcement:** Tricot fabric
**Cover:** Soft PVC, very good UV resistance
**Core:** Soft PVC
**Temperature range:** -15 °C to +60 °C
**Areas of use:** Agricultural industry, construction industry, gardening and landscaping, farming

| Internal Ø [mm] (inch) | External Ø [mm] | Thickness of wall [mm] | Operating pressure [bar] | Bursting pressure [bar] | Bending radius [mm] | Length [m] | Article no. |
|---|---|---|---|---|---|---|---|
| **12.5 (1/2)** | 17 | 2.25 | 8 | 20 | 140 | 25 | **2000 350 310** [1] |
| **12.5 (1/2)** | 17 | 2.25 | 8 | 20 | 140 | 50 | **2000 350 311** [1] |
| **19 (3/4)** | 23.8 | 2.40 | 6 | 16 | 200 | 25 | **2000 350 312** [1] |
| **19 (3/4)** | 23.8 | 2.40 | 6 | 16 | 200 | 50 | **2000 350 313** [1] |




## Water hose

Flexible multi-layer red PVC hose
**Reinforcement:** TNT tricot fabric
**Cover:** Soft PVC, very good UV resistance
**Core:** Soft PVC, black, smooth
**Temperature range:** -15 °C to +60 °C
**Areas of use:** Agricultural industry, construction industry, gardening and landscaping, farming

| Internal Ø [mm] (inch) | External Ø [mm] | Thickness of wall [mm] | Operating pressure [bar] | Bursting pressure [bar] | Bending radius [mm] | Length [m] | Article no. |
|---|---|---|---|---|---|---|---|
| **12.5 (1/2)** | 17.6 | 2.55 | 10 | 25 | 125 | 25 | **2000 350 315** |
| **12.5 (1/2)** | 17.6 | 2.55 | 10 | 25 | 125 | 50 | **2000 350 316** |
| **19 (3/4)** | 25.3 | 3.15 | 9 | 23 | 180 | 25 | **2000 350 317** |
| **19 (3/4)** | 25.3 | 3.15 | 9 | 23 | 180 | 50 | **2000 350 318** |



## EPDM Industrial and multi-purpose hose

**Made in Germany**
**Reinforcement:** Helical textile inlays
**Cover:** EPDM, black, smooth extruded
**Core:** EPDM, black
**Temperature range:** -40 to +100 °C
**Electrical resistance:** R< $10^6$ Ω/m
**Areas of use:** Municipal operations, building and civil engineering, industry, landscaping and gardening, agriculture and many other areas. Hose for cleaning, irrigation, filling, spraying, rinsing and draining.

| Internal Ø [mm] (inch) | External Ø [mm] | Thickness of wall [mm] | Operating pressure [bar] | Bursting pressure [bar] | Bending radius [mm] | Length [m] | Article no. |
|---|---|---|---|---|---|---|---|
| **13 (1/2)** | 20 | 3.5 | 20 | 60 | 50 | 40 | **2000 310 024** |
| **19 (3/4)** | 28 | 4.5 | 20 | 60 | 65 | 40 | **2000 310 025** |
| **25 (1)** | 35 | 5 | 20 | 60 | 110 | 40 | **2000 310 026** |



## NBR multi-purpose hose

**Made in Germany**
**Reinforcement:** Helical textile inlays
**Cover:** NBR black
**Core:** NBR black, smooth extruded
**Temperature range:** -25 to +85 °C, for a short period up to +100 °C
**Electrical resistance:** Length-independent electrically dissipative in R< $10^6$ Ω/m
**Areas of use:** In areas of mechanical engineering, agriculture and forestry, in workshops, in shipping and railway applications. It can be used with compressors, barrel pumps and units.
Can be used in the chemical and petrochemical industry and the mineral oil industry.
For piping petrol, mineral oil, gas oil, kerosene, heating oil and lubricating oil, compressed air containing oil, hot and cold water with and without washing additives, animal greases, vegetable oils, propane, butane, diluted acids, industrial alcohols, pesticides, salt solutions, naphtha.

| Internal Ø [mm] (inch) | External Ø [mm] | Thickness of wall [mm] | Operating pressure [bar] | Bursting pressure [bar] | Length [m] | Article no. |
|---|---|---|---|---|---|---|
| **13 (1/2)** | 20 | 3.5 | 20 | 60 | 40 | **2000 310 030** |
| **19 (3/4)** | 28 | 4.5 | 20 | 60 | 40 | **2000 310 031** |
| **25 (1)** | 28 | 5 | 20 | 60 | 40 | **2000 310 032** |

## Construction/industrial hose

For standard applications · Complete with long, reusable and protected Storz couplings · Rubber-coated interior, non-decaying, abrasion-resistant and highly flexible · Increased flame resistance
**Core:** SBR, black, smooth
**Cover:** Light polyester thread, 2x woven
**Temperature range:** -20 °C to + 80 °C




| Internal Ø [mm] (inch) | Operating pressure [bar] | Bursting pressure [bar] | Type | Length [m] | Article no. |
|---|---|---|---|---|---|
| **50 (2)** | 10 | 30 | Storz C | 20 | **2000 350 130** [1] |
| **75 (3)** | 10 | 30 | Storz B | 20 | **2000 350 131** [1] |

[1] price per roll

## Construction/industrial hose

**Made in Germany**
**Bright orange safety paint** · Good abrasion resistance and long service life · Low pressure loss · Light and supple · Small roll diameter · Maintenance-free · Resistant to oil, benzene and chemicals · Easy to repair (repair material and vulcanising equipment are offered on request) · With Storz system coupling
**Fabric:** 100 % bright orange polyester thread (2-ply twisted), round-woven, max. elongation 3 %, max. lateral strain 3 %
**Inner lining:** High-quality synthetic rubber (double-layer rubber lining), ageing and ozone resistant
**Outside:** Uncoated, bright orange
**Extra:** With 2 leak sliders
**Temperature range:** -30 °C to +100 °C
**Areas of use:** Industry, construction industry, gardening, agriculture




| Internal Ø [mm] (inch) | Operating pressure [bar] | Bursting pressure [bar] | Type | Length [m] | Article no. |
|---|---|---|---|---|---|
| **52 (2)** | 13 | 40 | Storz C PN6 | 20 | **2000 350 075** |
| **75 (3)** | 13 | 40 | Storz B PN6 | 20 | **2000 350 076** |

IP44

## Cable reel

Cable reel with cable in encased drum with automatic spring mechanism · High-quality, robust plastic housing · Optional wall or ceiling mounting · Drum mounted with ball bearings on both sides, lockable · Optimised hose outlet ensures optimum cable pull-out · Pivoted wall bracket with latching mechanism for fast assembly · With thermal circuit breaker and HO7RN-F rubber cable · With euro coupling · 1 m connection cable 3 x 1.5 mm² with plug
**Power tools stored ready-to-hand to avoid work accidents and cable wear.**
Rebranding is currently taking place from "NOW" to "TECWERK". It is therefore possible that the product ordered is either from "NOW" or the new brand "TECWERK". The product and quality are both identical.



| Length of cable [m] | 12 | 17 |
|---|---|---|
| Cables | H07RN-F | H07RN-F |
| Line cross-section | 3 x 1,5 mm² | 3 x 1,5 mm² |
| **Article no.** | **2000 425 386** | **2000 425 406** |

| | | |
|---|---|---|
| Amperage | 10 A | 10 A |
| Protection class | IP44 | IP44 |

## Compressed air hose roller

High-quality, robust plastic housing · With automatic spring mechanism · Optional wall or ceiling mounting · Drum mounted with ball bearings on both sides, lockable · Optimised hose outlet ensures optimum hose pull-out · Pivoted wall bracket with latching mechanism for fast assembly · PUR / PVC hose · Hose end with pressed thread and anti-kink protection · 1 m connecting hose
**For safe and clean workstations in trade and in industry.**
We are currently switching brands from “NOW” to “TECWERK”. It is therefore possible that your product order will be delivered containing either the outgoing “NOW” or the new “TECWERK” brand mark. The product and quality remain identical.



| Input connection | 3/8”, external thread | 3/8”, external thread | 3/8”, external thread |
|---|---|---|---|
| Output connection | 1/4”, external thread | 1/4”, external thread | 3/8”, external thread |
| Operating pressure [bar] | 12 | 12 | 15 |
| Length [m] | 12 | 8 | 10 |
| Nominal width of hose [mm] inch | 6 (1/4) | 8 (5/16) | 10 (3/8) |
| **Article no.** | **2000 425 383** | **2000 425 384** | **2000 425 385** |

| Accessories | Article no. |
|---|---|
| **Replacement hose for article 2000 425 383** | **2000 425 391** |
| **Replacement hose for article 2000 425 385** | **2000 425 392** |



## Hose clip

**In accordance with DIN3017 · Material (W1) galvanised** · Hexagon screw AF 7 · Worm thread

| Clamping range [mm] | Belt W [mm] | Article no. |
|---|---|---|
| 8–12 | 9 | 2000 348 000 |
| 10–16 | 9 | 2000 348 001 |
| 12–22 | 9 | 2000 348 002 |
| 16–27 | 9 | 2000 348 003 |
| 20–32 | 9 | 2000 348 004 |
| 23–35 | 9 | 2000 348 005 |
| 32–50 | 9 | 2000 348 006 |
| 40–60 | 9 | 2000 348 007 |
| 16–27 | 12 | 2000 348 015 |
| 20–32 | 12 | 2000 348 016 |
| 25–40 | 12 | 2000 348 017 |



Stainless steel

## Hose clip

**In accordance with DIN3017 · Material (V2A) stainless steel** · Hexagon screw AF 7 · Worm thread

| Clamping range [mm] | Belt W [mm] | Article no. |
|---|---|---|
| 8–12 | 9 | 2000 348 030 |
| 10–16 | 9 | 2000 348 031 |
| 12–20 | 9 | 2000 348 032 |
| 12–22 | 9 | 2000 348 033 |
| 16–27 | 9 | 2000 348 034 |
| 20–32 | 9 | 2000 348 035 |
| 25–40 | 9 | 2000 348 037 |
| 32–50 | 9 | 2000 348 039 |
| 40–60 | 9 | 2000 348 040 |
| 16–27 | 12 | 2000 348 047 |
| 20–32 | 12 | 2000 348 048 |
| 25–40 | 12 | 2000 348 050 |
| 40–60 | 12 | 2000 348 053 |
| 50–70 | 12 | 2000 348 054 |



## Add-on oil-mist lubricator

| | |
|---|---|
| Temperature range [°C] | -5 to +60 |
| Operating pressure [bar] | Max. 8 |

| Thread [mm] (inch) | Flow [l/min] | Article no. |
|---|---|---|
| 13.16 (G 1/4) | 2000 | 2000 351 961 |





## Blow gun

Unscrewable and rotating · Housing / Lever: Polyamide 6 GK30 (recyclable) · Controlled discharge

| | |
|---|---|
| Threaded connection nozzle | M12x1.25 |
| Operating pressure [bar] | Max. 10 |
| Housing | Plastic |
| Temperature range [°C] | -10 to +50 |

| Connection type | Connection | Type | Article no. |
|---|---|---|---|
| Coupling plug | DN 7.2 | With extension | 2000 351 790 |

## Blow gun

For blowing out and cleaning machines, workpieces, bores, hollow parts, etc.



2000 351 970



2000 351 972



2000 351 974

| | |
|---|---|
| Threaded connection nozzle | M12x1.25 |
| Operating pressure [bar] | Max. 10 |
| Housing | Die cast aluminium, nickel-plated |

| Connection type | Connection | Type | Article no. |
|---|---|---|---|
| Coupling plug | DN 7.2–7.8 | Without nozzle | 2000 351 970 |
| Grommet | LW 9 | With standard nozzle | 2000 351 972 |
| Coupling plug | DN 7.2–7.8 | With standard nozzle | 2000 351 974 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Spiral pistol set

Hose set for immediate use · Comprising a spiral hose, nylon 11 (PA) and a blow gun made of nickel-plated die-cast aluminium



| Internal Ø [mm] (inch) Coupling DN 7.2 | External Ø [mm] | Thickness of wall [mm] | Operating pressure [bar] | Length [m] | Article no. |
|---|---|---|---|---|---|
| **6** | 8 | 1 | 10 | 2.5 | **2000 369 109** |
| **6** | 8 | 1 | 10 | 5 | **2000 369 110** |

## Blow gun

**Magnet design** for applications with surface protection, such as the electrical industry, painting and surface technology and precision engineering · For blowing out and cleaning machines, workpieces, bores, hollow parts, etc. · The magnet can be attached on both sides



| | |
|---|---|
| Threaded connection nozzle | M12x1.25 |
| Operating pressure [bar] | Max. 10 |
| Housing | Die cast aluminium, nickel-plated |

| Connection type | Connection | Type | Article no. |
|---|---|---|---|
| **Coupling plug** | DN 7.2 | With standard nozzle and magnet | **2000 350 049** |

## Quick-lock coupling

Brass · Locking on one side



| Thread [mm] (inch) DN 7.2, external thread | Article no. |
|---|---|
| **13.16 (G 1/4)** | **2000 351 909** |
| **16.66 (G 3/8)** | **2000 351 910** |
| **20.95 (G 1/2)** | **2000 351 911** |

## Quick-lock coupling

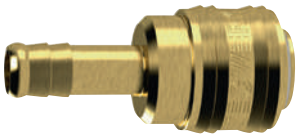
Brass · Locking on one side



| Thread [mm] (inch) DN 7.2, internal thread | Article no. |
|---|---|
| **11.89 (G 1/4)** | **2000 351 912** |
| **15.39 (G 3/8)** | **2000 351 913** |
| **19.17 (G 1/2)** | **2000 351 914** |

## Quick-lock coupling

Brass · Locking on one side



| Width of hose DN 7.2, grommet | Article no. |
|---|---|
| **LW 6** | **2000 351 915** |
| **LW 9** | **2000 351 916** |
| **LW 13** | **2000 351 917** |

## Insertion nozzle

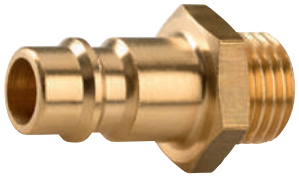
Brass



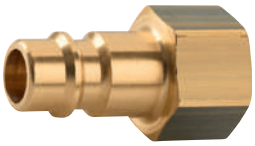
| Width of hose Plug DN 7.2 | Article no. |
|---|---|
| **LW 6** | **2000 351 918** |
| **LW 9** | **2000 351 919** |
| **LW 13** | **2000 351 920** |

## Push-fit nipple

Brass



| External thread [mm] (inch) Plug DN 7.2 | Article no. |
|---|---|
| **13.16 (G 1/4)** | **2000 351 921** |
| **16.66 (G 3/8)** | **2000 351 922** |
| **20.95 (G 1/2)** | **2000 351 923** |



## Push-fit nipple

Brass

| Internal thread [mm] (inch) | Article no. |
|---|---|
| **Plug DN 7.2** | |
| **11.89 (G 1/4)** | **2000 351 924** |
| **19.17 (G 1/2)** | **2000 351 926** |

## Distributor

Brass · Ready assembled



2000 351 946- 2000 351 947



2000 351 948- 2000 351 949

| | |
|---|---|
| Operating pressure [bar] | 0–35 |

| Thread [mm] (inch) | Article no. |
|---|---|
| **Internal thread, 2 couplings DN 7.2** | |
| **15.39 (G 3/8)** | **2000 351 946** |
| **19.17 (G 1/2)** | **2000 351 947** |
| **Internal thread, 3 couplings DN 7.2** | |
| **15.39 (G 3/8)** | **2000 351 948** |
| **19.17 (G 1/2)** | **2000 351 949** |

## Terminal distribution box

With ready assembled brass quick-lock couplings · With a sturdy brass threaded insert for high tightening torques



2000 351 962



2000 351 963

| | |
|---|---|
| Housing | Fibreglass reinforced plastic |
| Operating pressure [bar] | Max. 15 |
| Temperature range [°C] | -10 to +50 |

| Thread [mm] (inch) | Article no. |
|---|---|
| **Internal thread, 2 couplings DN 7.2** | |
| **19.17 (G 1/2)** | **2000 351 962** |
| **26.44 (G 3/4)** | **2000 351 964** |
| **Internal thread, 3 couplings DN 7.2** | |
| **19.17 (G 1/2)** | **2000 351 963** |
| **26.44 (G 3/4)** | **2000 351 965** |



## Assortment box

With quick-lock couplings and push-fit nipples DN 7.2 · Bright brass · Handy, robust and high-quality plastic assortment box · Clearly presented in 19 plastic boxes · All inserts are labelled with the article numbers of the parts contained within

**Equipped with:**

25 quick-lock couplings with external thread: 10 x G 1/4, 5 x G 3/8, 10 x G 1/2
15 quick-lock couplings with internal thread: 5 x G 1/4, 5 x G 3/8, 5 x G 1/2
15 quick-lock couplings with hose bushes 5 x LW 6, 5 x LW 9, 5 x LW 13
15 insertion nozzles 5 x LW 6, 5 x LW 9, 5 x LW 13
15 nipples with external thread: 5 x G 1/4, 5 x G 3/8, 5 x G 1/2
15 nipples with internal thread: 5 x G 1/4, 5 x G 3/8, 5 x G 1/2
1 PTFE sealing tape

| Contents | Article no. |
|---|---|
| **101-part** | **2000 368 997** |

## Turned brass parts assortment box

Handy plastic assortment box with a reduced selection of the most common nozzles, double nipples and reducing nipples

**Equipped with:**
38 screw-in hose nozzles G 1/4–6, G 1/4–9, G 3/8–9, G 1/2–9, G 1/2–13
32 double nipples: G 1/4 x G 1/4, G 3/8 x G 3/8, G 1/2 x G 1/2
50 reducing nipples: G 1/4 OT x G 1/8 IT, G 3/8 OT x G 1/4 IT, G 1/2 OT x G 3/8 IT, G 1/2 OT x G 1/4 IT





| Contents | Article no. |
|---|---|
| **120-part** | **2000 368 998** |

## Pushbutton-Safety coupling

High-quality, robust and durable, operable with one-hand, quick-lock coupling in safe design with high flow rates · Decoupling takes place by pressing the pushbutton twice · The first press vents the coupling, but the plug remains secured in the coupling · With the second press, the plug is safely released · This consequently prevents notorious 'whiplash accidents' and virtually eliminates risk of injuring the operator · Conforms to ISO standard DIN EN ISO 4414



2000 351 990



2000 351 993



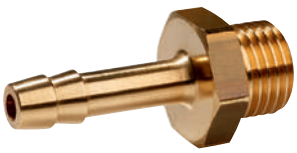
2000 351 996

| | |
|---|---|
| Flow volume (air) [l/min] | 1800 (at 6 bar, mounted plug and Δp = 1 bar) |
| Operating pressure [bar] | 12 |
| Temperature range [°C] | -20 to +70 |

| Thread [mm] (inch) | Width of hose | Article no. |
|---|---|---|
| **DN 7.4, external thread** | | |
| **13.16 (G 1/4)** | - | **2000 351 990** |
| **16.66 (G 3/8)** | - | **2000 351 991** |
| **20.95 (G 1/2)** | - | **2000 351 992** |
| **DN 7.4, internal thread** | | |
| **11.89 (G 1/4)** | - | **2000 351 993** |
| **15.39 (G 3/8)** | - | **2000 351 994** |
| **19.17 (G 1/2)** | - | **2000 351 995** |
| **DN 7.4, grommet** | | |
| - | LW 6 | **2000 351 996** |
| - | LW 9 | **2000 351 997** |
| - | LW 10 | **2000 351 998** |
| - | LW 13 | **2000 351 999** |

## Threaded nozzle

Brass



| | |
|---|---|
| Operating pressure [bar] | Max. 25 |
| Temperature range [°C] | Max. 90 |

| Thread [mm] (inch) | Width of hose | Article no. |
|---|---|---|
| **External thread** | | |
| **13.16 (G 1/4)** | LW 6 | **2000 351 927** |
| **13.16 (G 1/4)** | LW 9 | **2000 351 928** |
| **13.16 (G 1/4)** | LW 13 | **2000 351 929** |
| **16.66 (G 3/8)** | LW 6 | **2000 351 930** |
| **16.66 (G 3/8)** | LW 9 | **2000 351 931** |
| **16.66 (G 3/8)** | LW 13 | **2000 351 932** |
| **20.95 (G 1/2)** | LW 9 | **2000 351 933** |
| **20.95 (G 1/2)** | LW 13 | **2000 351 934** |

## Twin hose connector

Brass



| | |
|---|---|
| Operating pressure [bar] | Max. 16 |
| Temperature range [°C] | Max. 90 |

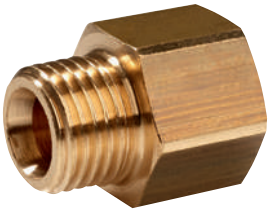
| Width of hose | Article no. |
|---|---|
| **LW 9** | **2000 351 944** |
| **LW 13** | **2000 351 945** |



## Reducing nipple
Brass · Short type

| | |
|---|---|
| Operating pressure [bar] | Max. 25 |
| Temperature range [°C] | Max. 90 |

| External thread [mm] (inch) | Internal thread [mm] (inch) | Article no. |
|---|---|---|
| **16.66 (G 3/8)** | 11.89 (G 1/4) | **2000 351 959** |
| **20.95 (G 1/2)** | 11.89 (G 1/4) | **2000 351 960** |
| **20.95 (G 1/2)** | 15.39 (G 3/8) | **2000 351 955** |
| **26.44 (G 3/4)** | 19.17 (G 1/2) | **2000 351 956** |



## Reducing nipple
Brass

| | |
|---|---|
| Operating pressure [bar] | Max. 25 |
| Temperature range [°C] | Max. 90 |

| External thread [mm] (inch) | Internal thread [mm] (inch) | Article no. |
|---|---|---|
| **13.16 (G 1/4)** | 15.39 (G 3/8) | **2000 351 902** |
| **16.66 (G 3/8)** | 19.17 (G 1/2) | **2000 351 904** |



## Hose connector
Brass · Detachable · Max. operating pressure: 25 bar

| | |
|---|---|
| Operating pressure [bar] | Max. 25 |
| Temperature range [°C] | Max. 90 |

| For union nuts [mm] (inch) | Width of hose | Article no. |
|---|---|---|
| **13.16 (G 1/4)** | LW 6 | **2000 351 905** |
| **16.66 (G 3/8)** | LW 9 | **2000 351 908** |






## Special compressed air oil
**For lubricating small to medium-sized compressed air tools and to drain compressed air systems** · The low viscosity, combined with good adhesion and a low tendency to evaporate, ensures good lubrication on the tool · Also suitable for system cleaning and rinsing · With corrosion protection · Viscosity at 40 °C: 22 mm²/s
**Areas of application:** Used for lubricating small to medium-sized compressed air tools and to drain compressed air systems

| Container | Contents [l] | Article no. |
|---|---|---|
| **Bottle** | 1 | + **2000 355 209** |



## Fabric tape
PE-coated fabric tape for diverse applications in trade, industry and leisure · **For fastening, bundling, packing, for masking and sealing work, for transport restraint, etc.** · Excellent tear strength · Very good adhesiveness on all kinds of different substrates · Easy to tear by hand · Natural rubber adhesive · Water-impermeable · Thermal resistance 0 °C to 60 °C (short term)

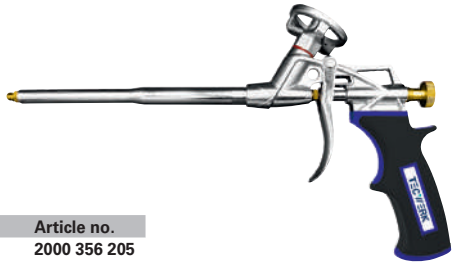
| Width [mm] | Length [m] | Colour | Article no. |
|---|---|---|---|
| **48** | 50 | Silver | **2000 353 654** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## 1-component installation gun Lite

Robust metal gun with rubberised handle · Offset gun tube for high stability · Easily adjusted using the good grip brass adjusting screw · For applying 1-component PU gun-applied expanding foam



| Article no. |
|---|
| 2000 356 205 |

## 1-component installation gun Profi

High-quality professional type for heavy-duty use on construction sites · Metal · Complete non-stick coating · Can be adjusted easily and precisely · Ergonomic handle and trigger for optimum hold · For applying 1-component PU gun-applied expanding foam



| Article no. |
|---|
| 2000 264 110 |

## Cartridge press Profi

Stable professional tool with rotating shell and extremely strong plunger block, rubber-coated, non-slip handle and trigger · Plunger and drive parts with special corrosion-proof alloy · **Thrust ratio 17:1** · Integrated ladder hook · Also suitable for viscous compounds · For all standard cartridges (310 ml)




| Article no. |
|---|
| 2000 264 017 |

## Hand jointing gun Profi

Stable sealant press · Enclosed design · With stable aluminium screw fastening and rotatable aluminium pipe · **Thrust ratio 14:1**



| Suitable for | Article no. |
|---|---|
| 310 ml cartridges/bags up to 400 ml | 2000 264 018 |
| 310 ml cartridges/bags up to 600 ml | 2000 264 019 |

## Joint spatula

Made of elastic plastic · For different joint sizes · For angular and round joints · Easy handling · Set: 4-part in plastic box





| Article no. |
|---|
| 2000 264 023 |

SDB

## 1-component installation foam

Construction material class B2 according to DIN 4102-1 · Single-component, ready to use, self-expanding rigid polyurethane foam with very good thermal insulation and excellent filling volume · **For filling voids with foam and for insulating window and door frames, window sills** · Adheres to almost all substrates, except for PE, PP, PTFE, silicone · Resistant to a large number of solvents, paints, chemicals, oil and petrol · Ageing resistant · Not UV-resistant · Not suitable for continuous use under water · Foam yield: 500 ml can up to 25 litre / 750 ml can up to 37 litres · Thermal resistance: -40 °C to +90 °C · Processing temperature: Contact surface and environment +5 °C to +35 °C / can +5 °C to +30 °C · Silicone-free




Since 24 August 2023, appropriate training must be provided before industrial or commercial use. Further information: See QR code.

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| 500 | Can | Champagne | + 2000 340 020 |
| 750 | Can | Champagne | + 2000 340 021 |




SDB

## 1-component gun foam XXL

Construction material class B2 according to DIN 4102-1 · Single-component, ready to use, self-expanding rigid polyurethane foam **with XXL foam yield - up to 50 % higher yield than a conventional 500 ml can** · Very low emissions – EC1 PLUS licensed · Suitable for assembly according to GEG, DIN 4108-7 and RAL (Mo 01, ift Rosenheim) · **For filling voids with foam and for insulating window and door frames, window sills** · Adheres to almost all substrates, except for PE, PP, PTFE, silicone · Resistant to a large number of solvents, paints, chemicals, oil and petrol · Ageing resistant · Not UV-resistant · Not suitable for continuous use under water · Foam yield: Up to 42 litres · Thermal resistance: -40 °C to +90 °C · Processing temperature: Contact surface and environment +5 °C to +35 °C / can +5 °C to +30 °C · Silicone-free

**Attention**: Protective gloves (e.g. article no. 4000 391 102) must be enclosed for delivery to private consumers. The article is delivered by the industry without protective gloves as it is classified as a purely commercial product.

Since 24 August 2023, appropriate training must be provided before industrial or commercial use. Further information: See QR code.

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **500** | Can | Grey | + **2000 340 022** |




SDB

## 1-component gun foam

Construction material class B2 according to DIN 4102-1 · Single-component, ready to use, self-expanding rigid polyurethane foam with very good thermal insulation and excellent dimensional stability · **Suitable for assembly according to GEG, DIN 4108-7 and RAL (Mo 01, ift Rosenheim)** · Exact dosage by using with an installation gun · For filling voids with foam and for insulating window and door frames, window sills · Adheres to almost all substrates, except for PE, PP, PTFE, silicone · Resistant to a large number of solvents, paints, chemicals, oil and petrol · Ageing resistant · Not UV-resistant · Not suitable for continuous use under water · Foam yield: Up to 45 litres · Thermal resistance: -40 °C to +90 °C · Processing temperature: Contact surface and environment +5 °C to +35 °C / can +5 °C to +30 °C · Silicone-free

**Attention**: Protective gloves (e.g. article no. 4000 391 102) must be enclosed for delivery to private consumers. The article is delivered by the industry without protective gloves as it is classified as a purely commercial product.

Since 24 August 2023, appropriate training must be provided before industrial or commercial use. Further information: See QR code.

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **750** | Can | Champagne | + **2000 340 023** |






SDB

## Gun cleaner

Fast-acting cleaner · Rapidly removes fresh polyurethane foam and other adhesives/sealing agents from non-porous surfaces such as plastics, coatings and metals · **For inner and outer cleaning of installation guns** · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Can | + **2000 340 025** |




SDB

## 2-component installation foam

Construction material class B2 according to DIN 4102-1 · Two-component, ready to use, self-expanding polyurethane fast acting foam with excellent dimensional stability · **Hardens independently of humidity** · Can be cut after only 13 minutes · Very low emissions - EC1 PLUS licensed · For the installation and insulation of door frames, wooden door linings and window elements according to GEG, DIN 4108-7 and RAL assembly guidelines · Installation of DIN-tested window sills and stairway steps, for the setting of bathtub and shower tray supports, foaming of difficult to access and poorly ventilated cavities · Adheres to almost all substrates, except for PE, PP, PTFE, silicone · Resistant to a large number of solvents, paints, chemicals, oil and petrol · Ageing resistant · Not UV-resistant · Not suitable for continuous use under water · Foam yield: Up to 9.3 litres · **Can contents sufficient for up to 2 door frames** · Thermal resistance: -40 °C to +90 °C · Processing temperature: Contact surface and environment +5 °C to +35 °C / can +5 °C to +30 °C · Silicone-free

Since 24 August 2023, appropriate training must be provided before industrial or commercial use. Further information: See QR code.

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Can | Light green | + **2000 340 024** |

## Acrylic




High-quality, plasto-elastic, single-component, acrylate dispersion-based sealant · **For permanent, airtight interior sealing of connecting joints between masonry and door and window frames** · Low exposure joints and cracks between masonry, concrete, plaster and window sills, roller shutter boxes, etc. · For all porous construction substrates, such as concrete, clay bricks, bricks, porous concrete, plasterboard, plaster, render, masonry, laminated wood, rigid PVC and anodised aluminium · Do not use on glass, corrosion-prone metals, enamels, ceramics, marble, natural stone or for underwater joints · Colourfast, weather and UV-resistant · **After curing, very good paint compatibility** according to DIN 52452 · Maximum total deformation 7.5 % · Solvent and silicone-free

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **White** | 310 | Cartridge | + **2000 340 010** |
| **Grey** | 310 | Cartridge | + **2000 340 011** |

## Sanitary silicone




High-quality, permanently elastic after curing, single-component joint sealing compound · **Acetate cross-linking** · For sealing joints in sanitary rooms and kitchens, seals in cold stores, in container construction and in air circulation systems · Can be used on all normal construction substrates, ceramics, enamel, porcelain, etc. (except PVC, PE, PP and PTFE) · Colourfast, weather and UV-resistant · Because of the acidic properties, some metals can be attacked (e.g. copper, lead, brass, zinc, iron), a preliminary test is recommended · Processing temperature: +5 °C to +35 °C · Thermal resistance: -60 °C to +120 °C

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **Transparent** | 310 | Cartridge | + **2000 340 000** |
| **White** | 310 | Cartridge | + **2000 340 001** |
| **Grey** | 310 | Cartridge | + **2000 340 002** |

## Construction/window silicone




High-quality, permanently elastic after curing, single-component joint sealing compound · **Neutral cross-linking** · Corrosion-proof · For building and construction joints, durable, vapour diffusion permeable external sealing of joints between brickwork and door or window frameworks, glass/frame sealing in conjunction with coated wood, anodised aluminium and rigid PVC, sealing in container construction, connection profiles and flashing, for plumbing and roofing work for all roof areas, terraces, etc. · Can be applied on all usual construction substrates (except for PE, PP and PTFE) · Tested according to ISO 11600-F+G-25LM · **RAL and EnEV conformity** · Colourfast, weather and UV-resistant · Coating compatible according to DIN 52452-A1 (cannot be painted over) · Processing temperature: +5 °C to +35 °C · Thermal resistance: -60 °C to +150 °C

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **Transparent** | 310 | Cartridge | + **2000 340 006** |
| **White** | 310 | Cartridge | + **2000 340 005** |

SDB

## Silicone remover




Gel · Removes hardened silicone residues quickly and reliably · Simple application using the brush in the cap · Can be used on all types of silicone · Removes hardened silicone from ceramic, plastic, metal, etc.

| Contents [ml] | Container | Article no. |
|---|---|---|
| **150** | Bottle | **2000 353 968** |

## 1-component hybrid polymer




MS polymer-based · Remains flexible with high strength and can therefore compensate for dynamic loads such as impact and vibrations · Resistant to weathering, UV radiation, water, chlorine, etc. · Can be used without a primer in most cases · For use in machine and transmission construction, engines and the electrical industry, mining, the marine industry, the automotive sector, the food industry, etc. · For bonding sheet metal, rubber, wood and plastic, for sealing, seam sealing, repairs, etc. · Can be painted and varnished over, can be used wet on wet · Free from isocyanate and silicone · Temperature-resistant from –40 °C to +100 °C

| Colour | Contents [g] | Container | Article no. |
|---|---|---|---|
| **Transparent** | 300 | Cartridge | **2000 353 973** |
| **White** | 440 | Cartridge | **2000 353 970** |
| **Grey** | 440 | Cartridge | **2000 353 971** |
| **Black** | 440 | Cartridge | **2000 353 972** |




## Assembly adhesive Allround

Strongly adhesive · Based on acrylate dispersion · Particularly suitable for porous substrates · **For interior finishing bonding** of wall panelling, panels, skirting boards made of wood and PVC, insulation, decorative and acoustic panels, cable ducts on fibre cement, autoclaved aerated concrete, particleboards, MDF panels, rigid PU foam, Styropor®, cork board, plastic strips, etc. installation of decorative parts made of rigid PU foam or polystyrene · Very good adhesion on all usual absorbent construction substrates, such as Styropor®, wood, stone, gypsum, etc. · Not suitable for PE, PP, PTFE, silicones and bitumen · Silicone- and solvent-free · Odourless · Can be painted over with aqueous systems · Correctable for several minutes · Thermal resistance: -20 °C to +70 °C · Processing temperature: +5 °C to +40 °C

| Colour | Contents [g] | Container | Article no. |
|---|---|---|---|
| **White** | 475 | Cartridge | + **2000 353 954** [1] |




## Assembly adhesive Profi

Bonding heavy parts on vertical surfaces and ceiling installation · Resistant to weathering, UV radiation, water, chlorine, etc. · Free from isocyanate and silicone · **Permanently elastic and for universal use** · Can be used in apparatus construction, sheet metalworking, air conditioning, the roofing trade, vehicle construction, window construction, the furniture industry and for bonding metal, wood and plastics, with and between each other · Temperature-resistant from -40 °C to +100 °C · Do not use if outdoor temperature is below +5 °C

| Colour | Contents [g] | Container | Article no. |
|---|---|---|---|
| **White** | 450 | Cartridge | **2000 353 953** |




SDB

## Spray adhesive permanent

6-way special valve/spray head combination for different application areas · Low-odour · Suitable for bonding within the temperature range -25 °C to +70 °C max. · **For making fixed bonding** of foams, various plastics, plastic films, paper, cardboard, wood, veneers, metal, felt textiles, insulation materials and, conditionally, polystyrene foam · **Test for suitability before use** · Solvent-based · Silicone-free
**Note:** After use, always turn the can upside down and spray freely until only propellant emerges, to prevent clogging of the valve and spray head · Do not store or use at temperatures below +10 °C

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Spray can | Transparent | + **2000 353 430** |






NSF Nonfood Compounds (Category Code)

SDB

## Instant adhesive Universal

Universal cyan acrylate adhesive · **Suitable for high-strength bonding of metal and plastic combinations** · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 35 to 70 mPas (20 °C) · Gap filling capacity: 0.07 mm · Handling strength after 5 to 15 seconds · Temperature-resistant from -50 °C to +80 °C · **NSF S4 approval**

| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 316** |



Kennzeichnungsfrei

## Instant adhesive

Universal cyan acrylate adhesive · **Does not require CLP labelling** · Odourless · **For bonding all kinds of different material combinations** (metal, rubber, wood, cardboard, ceramic as well as most plastics) to and among each other · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 120 to 250 mPas (20 °C) · Gap filling capacity: < 0.1 mm · Handling strength after 10 to 120 seconds · Temperature-resistant from -50 °C to +80 °C

| Contents [g] | Container | Article no. |
|---|---|---|
| **5** | Dispensing pen | + **2000 353 348** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

SDB

## Instant adhesive blitzschnell

Special cyanoacrylate adhesive · **Takes only one second to bond plastics and metals and combinations of the two** · Particularly suitable for smooth surfaces · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 3 to 10 mPas (20 °C) · Gap filling capacity: 0.05 mm · Handling strength after: Aluminium: 5–10 seconds, rubber: 2–5 seconds · Temperature-resistant from -50 °C to +80 °C



| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 980** |
| **50** | Bottle | + **2000 353 981** |

SDB

## Instant adhesive extrem schnell

Cyanoacrylate adhesive · **For extremely fast instant bonding of rubber and plastic** (readjustment is not possible) · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 90 to 120 mPas (20 °C) · Gap filling capacity: 0.1 mm · Handling strength after 5 to 30 seconds · Temperature-resistant from -60 °C to +80 °C



| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 925** |
| **50** | Bottle | + **2000 353 926** |

SDB

## Instant adhesive dickflüssig

Viscous cyanoacrylate adhesive · High viscosity · **For bonding very porous surfaces and components that require a certain amount of gap filling** · Particularly suitable for wood and leather but also suitable for glass and ceramic · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 1,200–1,500 mPas (20 °C) · Gap filling capacity: 0.2 mm · Handling strength after: Aluminium: 10–30 seconds, rubber: 15–25 seconds · Temperature-resistant from -50 °C to +80 °C



| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 456** |
| **50** | Bottle | + **2000 353 922** |

SDB

## Elastic instant adhesive

Special cyanoacrylate adhesive **for bonding rubber** · Remains elastic, flexible up to 180 °C · **Particularly suitable for O-rings and rubber components that are subjected to continuous movement** · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 90 to 120 mPas (20 °C) · Gap filling capacity: 0.05 mm · Final strength after 24 hours · Temperature-resistant from -60 °C to +80 °C



| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 928** |

SDB

## Instant adhesive for extreme loads

Special cyanoacrylate adhesive for special loads: **6 times higher impact resistance and 10 times higher peel strength of conventional CA adhesives** · Very high tensile shear strength (240 kg per square cm in a steel/steel bond) · Very good water resistance · **Particularly suitable for steel, plastic, glass and ceramic** · Can be applied in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 2,500 to 3,000 mPas (20 °C) · Gap filling capacity: 0.15 mm · Handling strength after: Aluminium: 30–50 seconds, rubber: 20–40 seconds · Temperature-resistant from -50 °C to +135 °C



| Contents [g] | Container | Article no. |
|---|---|---|
| **20** | Bottle | + **2000 353 935** |




SDB

## Impact-resistant instant adhesive

Black, impact resistant instant adhesive for bonding metal/metal and metal/rubber · Optimum resistance to shear and impact loads · **Especially suitable for bonding metal/plastic** · Can be used in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Viscosity: 500 to 1000 mPas (20 °C) · Gap filling capacity: 0.1 mm · Handling strength: Aluminium: 20–40 seconds, rubber: 5–20 seconds · Temperature-resistant from -50 °C to +135 °C

| Contents [g] | Container | Article no. |
|---|---|---|
| **50** | Bottle | + **2000 353 933** |




SDB

## Activator for instant adhesive

Curing accelerator for instant adhesive · High-viscosity instant adhesives can be completely cured within seconds with the use of an activator

| Contents [ml] | Container | Article no. |
|---|---|---|
| **150** | Spray can | + **2000 353 936** |




SDB

## 2-component epoxy adhesive

Universally usable · **Bonds metal, wood, plastic, stone and ceramic** · Weather-resistant · Achieves very high strength · Remains tough and flexible and can therefore ensure lasting strength when subjected to impacts and vibrations · Can be applied in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry and many more · Tensile shear strength >10 N/mm² · Gap filling capacity up to 3 mm · Fixture time 10 to 12 minutes (depending on temperature) · Final curing after 24 h · Temperature-resistant -40 °C to +80 °C · Do not use if outdoor temperature is below +5 °C · Mixing nozzle included in the scope of supply
**The applicator gun, article no. 4000 356 225, is required to use the 50 g cartridge**

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **25** | Twin syringe | Natural | + **2000 353 950** |
| **50** | Twin cartridge | Natural | + **2000 353 945** |




SDB

## 2-component high-performance adhesive

**For permanently bonding metal, stone, wood, ceramic and hard plastics** · Achieves higher strengths with little or no surface treatment · Weather-resistant · Can be used in materials handling equipment, vehicle construction, container construction, electro-technology and many other branches of industry · Tensile shear strength up to 27 N/mm² · Gap filling capacity of 1–10 mm · Handling strength after 60 min. (depending on temperature) · Final curing after 12 h · Temperature-resistant up to +120 °C · Do not use if outdoor temperature is below +5 °C· Mixing nozzle included in the scope of supply
**The applicator gun, article no. 4000 356 225, is required to use the 50 g cartridge.**

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **25** | Twin syringe | Milky | + **2000 353 941** |
| **50** | Twin cartridge | Milky | + **2000 353 942** |




SDB

## 2-component epoxy liquid metal

Repairs incorrectly drilled holes, cracks and broken threads in metal, steel, iron, cast parts, wood, stone, glass, ceramic and many hard plastics · Can be used in materials handling equipment, vehicle construction, container construction, electro-technology and many other branches of industry · **Machinable after approx. 30 min.**, parts can be ground, milled, drilled and painted over · Gap filling capacity 0.4 mm · Handling strength after 15 min. · Final strength after 24 h · Temperature-resistant up to +120 °C · Do not use below +5 °C outdoor temperature!

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **25** | Twin syringe | Grey | + **2000 353 335** |

SDB




## Quick repair compound

2-component repair kit · **Repairs incorrectly drilled holes, cracks and broken out threads in metal, wood and plastic** · Use like modelling material · Machinable after curing, parts can be ground, milled, drilled and painted over · Can be applied in the electrical and electronics industries, mechanical engineering, metalworking, car assembly, plastics processing, model making, furniture industry, etc. · Handling strength after 20 min. · Final strength after 24 h · Temperature-resistant from –50 °C to +180 °C, short-term up to +300 °C

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **56** | Stick | Grey-black | + **2000 353 338** |

SDB




## Threadlocker

**Low-strength, low-viscosity** · A 1-component anaerobic liquid plastic · Cures on contact with metals when air is excluded · Replaces conventional methods of fastening such as split pins, circlips and washers · **Easy dismantling** · Handling strength after approx. 15 to 30 min. · Functional strength after 1 to 3 h · Viscosity: 1,000 mPas (25 °C) · Gap filling capacity: 0.2 mm · Max. thread: M 24 · Strength class DIN 30661: 1 · Breakaway torque: 4 to 8 Nm · Temperature range: -55 °C to +150 °C · Simply, reliably and permanently bonds, seals and secures threaded fasteners, parts to be joined, bearings and pipe joints

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Purple | + **2000 353 905** |

SDB




## Threadlocker

**Medium-strength, medium-viscosity** · A 1-component anaerobic liquid plastic · Cures on contact with metals when air is excluded · Replaces conventional methods of fastening such as split pins, circlips and washers · Handling strength after approx. 10–20 min. · Functional strength after 1–3 h. · Viscosity: 1,000 mPas (25 °C) · Gap filling capacity: 0.2 mm · Max. thread: M 24 · Strength class DIN 30661: 2 · Breakaway torque: 14 to 18 Nm · Temperature range from –55 °C to +150 °C · Simply, reliably and permanently bonds, seals and secures threaded fasteners, parts to be joined, bearings and pipe joints

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Blue | + **2000 353 610** |

DIN DVGW product · SDB




## Threadlocker

**Medium-strength, high-viscosity** · A 1-component anaerobic liquid plastic, cures on contact with metals when air is excluded · Replaces conventional methods of fastening such as split pins, circlips and washers · Handling strength after approx. 10 to 20 min. · Functional strength after 1 to 3 h· Viscosity: 2,000 to 7,500 mPas (25 °C) · Gap filling capacity: 0.25 mm · Max. thread: M 36 · Strength class DIN 30661: 2 · Breakaway torque: 17 to 22 Nm · Temperature range from –55 °C to +150 °C · Simply, reliably and permanently bonds, seals and secures threaded fasteners, parts to be joined, bearings and pipe joints · **DVGW approved for drinking water applications**

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Dark blue | + **2000 353 908** |
| **50** | Pump dispensing bottle | Dark blue | + **2000 353 916** |

SDB




## Threadlocker

**High-strength, medium-viscosity** · A 1-component anaerobic liquid plastic · Cures on contact with metals when air is excluded · Replaces conventional methods of fastening such as split pins, circlips and washers · Handling strength after approx. 10–20 min. · Functional strength after 1–3 h · Viscosity: 500 mPas (25 °C) · Gap filling capacity: 0.15 mm · Max. thread: M 20 · Strength class DIN 30661: 3 · Breakaway torque: 28 to 35 Nm · Temperature range from –55 °C to +150 °C · Simply, reliably and permanently bonds, seals and secures threaded fasteners, parts to be joined, bearings and pipe joints

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Green | + **2000 353 611** |



## Threadlocker

**High-strength, high-viscosity** · A 1-component anaerobic liquid plastic, cures on contact with metals when air is excluded · Replaces conventional fastening methods such as split pins, circlips and washers, high temperature range · Handling strength after approx. 20–40 min. · Functional strength after 3 to 6 h · Viscosity: 8,000 to 15,000 mPas (25 °C) · Gap filling capacity: 0.3 mm · Max. thread: M20 · Strength class DIN 30661: 3 · Breakaway torque: 20 to 35 Nm · Temperature range from –55 °C to +230 °C · Simply, reliably and permanently bonds, seals and secures threaded fasteners, parts to be joined, bearings and pipe joints · **DVGW approved for drinking water applications**

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Red | + **2000 353 912** |
| **50** | Pump dispensing bottle | Red | + **2000 353 913** |



## Bushing/bearing adhesive

**High-strength, medium-viscosity** · A 1-component anaerobic liquid plastic, cures on contact with metals when air is excluded · Viscosity: 500 mPas (25 °C) · Gap filling capacity: 0.15 mm · Max. thread: M20 · Strength class 3 according to DIN 30661 · Breakaway torque: 30 to 35 Nm · Temperature-resistant from -55 °C to +175 °C · Handling strength after approx. 2 to 5 min. · Functional strength after 1 to 3 h · **Ideally suitable for fixing bearings on shafts or bearing housings** · Fast curing · Resistant to various oils, petrol, brake fluid and other substances · Very high strength, even when parts to be joined are slightly oily

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Green | + **2000 353 620** |



## Bushing/bearing adhesive

**High-strength, high-viscosity** · A 1-component anaerobic liquid plastic, cures on contact with metals when air is excluded · Viscosity: 2,500 mPas (25 °C) · Gap filling capacity: 0.2 mm · Max. thread: M36 · Strength class DIN 30661: 3 · Breakaway torque: 30 to 40 Nm · Temperature-resistant from -55 °C to +150 °C · Handling strength after approx. 2 to 5 min. · Functional strength after 1 to 3 h · **Ideally suitable for fixing bearings on shafts or bearing housings** · Fast curing · Resistant to various oils, petrol, brake fluid and other substances · Very high strength, even when parts to be joined are slightly oily

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Green | + **2000 353 915** |



## Pipe thread sealant

**Low-strength, low-viscosity** · Secures and seals screw threads against gas, water, hydrocarbons, oil, liquid gas and many chemicals · With PTFE · Replaces hemp and solid seals · Parts can be re-adjusted immediately after joining · Additional corrosion protection · Viscosity: 60,000 to 90,000 mPas (25 °C) · Gap filling capacity: 0.3 mm · Max. thread: M80 · Strength class DIN 30661: 1 · Breakaway torque: 7 to 10 Nm · Temperature-resistant from -55 °C to +150 °C · Handling strength after approx. 20 to 40 min. · Functional strength after 1 to 3 h

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Tube | White | + **2000 352 000** |



## Pipe thread sealant

**High-strength, medium-viscosity** · Secures and seals screw threads against gas, water, hydrocarbons, oil, liquid gas and many chemicals · Replaces hemp and solid seals · Parts can be realigned immediately after joining · Additional corrosion protection, also suitable for hydraulic seals · Handling strength after approx. 10 to 20 min.· Functional strength after 1 to 3 h · Viscosity: 500 mPas (25 °C) · Gap filling capacity: 0.15 mm · Max. thread: M 20 · Strength class DIN 30661: 2 · Breakaway torque: 12 to 16 Nm · Temperature range: -55 °C to +150 °C

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **50** | Bottle | Brown | + **2000 353 918** |

## Pipe thread sealant

**Medium-strength, high-viscosity** · Secures and seals screw threads against gas, water, hydrocarbons, oil, liquid gas and many chemicals · Replaces hemp and solid seals · Parts can be realigned immediately after joining · Additional corrosion protection · Handling strength: 15–30 minutes · Functional strength: 1–3 h · Viscosity: 24,000 to 70,000 mPAS (25 °C) · Gap filling capacity 0.5 mm · For screw connections up to M80 · Breakaway torque: 18 to 22 Nm · Temperature range from –55 °C to +150 °C · **DVGW approved for drinking water applications**




| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| 50 | Pump dispensing bottle | Yellow | + 2000 353 919 |

## Surface sealant

Thixotropic, therefore also suitable for use on vertical surfaces · **Seals against low pressure (approx. 5 bar) immediately after joining the parts** · Viscosity: 50,000 to 250,000 mPas (25 °C) · Gap filling capacity: 0.5 mm · Strength class DIN 30661: 2 · Tensile strength: 7 to 10 Nm · Shear strength according to DIN 54452: 8–13 Nm, load 7–10 Nm · Temperature-resistant from -55 °C to +150 °C · Handling strength after approx. 10 to 20 min. · Functional strength after 1 to 3 h · Has a high pressure resistance immediately after the handling strength is reached · Maximum pressure sealing capacity up to 350 bar (after full curing in the absence of oxygen) · Very good gap bridging




| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| 50 | Bottle | Red | + 2000 352 003 |

## Multi-purpose spray

Highly effective multi-functional fine lubricant with very good long-life corrosion protection · Excellent penetrating effect and wetting effect · Displaces moisture · Eliminates squeaking and sticking noises · Reliable protection, even in hard to reach corners and gaps · Acid and silicone-free · Non gumming · Leaves a colourless, oily film · Can be applied to metal parts, screws, hinges, door locks, etc. · Can be used as a rust solvent, as corrosion protection, penetrating oil, contact spray and fine lubricant




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 005 |
| 400 | - | + 2000 354 009 |

## Replacement spray head

With extension tube · Suitable for almost all TECWERK aerosol cans – not suitable for products with coloured pigments (colour spray, marking spray, copper spray, etc.), products containing zinc (zinc spray, zinc-aluminium spray, etc.), and spray adhesive, as the spray head very quickly becomes blocked/gummed · Bag contents: 12 spray heads and extension pipes (length 150 mm)






| Material | Article no. |
|---|---|
| Plastic | 2000 354 000 |

## Cylinder care spray

Resin-free · Non-greasing · Maintains and protects door cylinders, prevents freezing of door and car locks and loosens rusted screws, bolts, valves and rim nuts · Eliminates squeaking and creaking of doors, windows, drawers, etc. · Can be used as corrosion protection against salt, water, moisture and also as contact spray for electrical and electronic purposes · Can be used on door cylinders, car locks, tools, sports equipment, office machines, bicycle locks and much more. · Contains silicone




| Contents [ml] | Container | Article no. |
|---|---|---|
| 50 | Spray can | + 2000 354 001 |




SDB

## Rust solvent

With corrosion protection · **Extreme penetration, with high capillary effect** · Reduces the mechanical force and prevents screws and bolts from snapping · Non gumming · Apply liquid with brush, rags or by dipping method · Allow the solvent to evaporate after application · Even loosens joints that have completely rusted together · Can be used as corrosion protection, care oil for tools and precision engineering · Silicone and acid-free

| Contents | Container | Article no. |
|---|---|---|
| **400 ml** | Spray can | + **2000 354 010** |
| **5 l** | Canister | **2000 354 011** |




SDB

## Rust solvent Cool

**With cold shock effect** for fast loosening of dust on seized metal parts · **Cools sprayed surfaces down to -40 °C** · The cold shock produced causes the metal to shrink, thereby increasing the capillary effect enormously · With extreme penetration effect · Seized screws can be loosened with far less effort, even completely rusted connections can be loosened · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 012** |




SDB

## Rust converter

Reliable and long-term corrosion protection · The rust layer is neutralised and transformed into a protective layer · Easy subsequent treatment · If used properly, reliably stops the development of rust · **Neutralises the rust layer and forms a primer coat for further processing** · Ideally suitable for the maintenance and renovation of industrial constructions, systems, machines, vehicles · Silicone-free

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Spray can | Natural | + **2000 354 676** |




SDB

## Rust primer

High-quality acrylic paint · Special long-term primer · Protects against corrosion · Quick-drying · Can be painted over, salt water-resistant · Smooth, pore-deep and abrasion-resistant · **Not only protects bare metal in the long-term from oxidation, but also protects already rusted surfaces from further rusting** (does not replace a steel brush, only prevents new rust) · Can be used on steel structures, grab rail and boiler construction, tank installations, in automotive workshops for priming and repairing body parts, etc. · Temperature-resistant up to +80 °C · Acid and silicone-free

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **Light grey** | 400 | Spray can | + **2000 354 670** |
| **Reddish brown** | 400 | Spray can | + **2000 354 675** |




SDB

## Aluminium spray

Very high coverage, combines optimum **corrosion protection with an attractive matt silver appearance,** not electrically conductive but eminently suitable for spot welding between the sheets as corrosion protection · **Temperature-resistant up to +300 °C (for a short period)** · Pure aluminium flakes in acrylic resin · Particularly recommended for use in metalworking, welding · Suitable as corrosion protection in many areas, and to achieve a better appearance · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 075** |

SDB

## Aluminium spray

**Highly heat-resistant** · Light silver, glossy corrosion protection, after heating it sinters into the pores of the metal · Electrically conductive, extremely suitable as a conductor for spot welding · **Temperature-resistant up to +500 °C** · Aluminium flaks with synthetic resin · Ideal for achieving an appearance similar to fresh hot-dip galvanising · Particularly recommended for use in metalworking, welding · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 076** |

SDB

## Stainless steel spray

High-performance coating looks like stainless steel · Heat-resistant stainless steel alloy provides extremely resistant cathodic corrosion protection · Temperature-resistant up to +80 °C (up to +120 °C for a short period) · For improving surfaces after welding · For protecting all free-standing metal structures · Highly recommended for metal construction, welding, air conditioning and refrigeration technology · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 072** |

SDB

## Moisture proofing spray

Penetrates, displaces and infiltrates moisture · **Forms a microscopically fine protective film against corrosion** during metalworking or warehouse storage · Prevents contact corrosion and ensures temporary corrosion protection · Also for the preservation of tools · Temperature-resistant from -40 °C to +70 °C · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 585** |

SDB

## Primer spray

High-quality acrylic paint · **Excellent corrosion protection with long-lasting effect** · Quick-drying · In vehicle workshops for priming and retouching bodywork, cavities, vehicle chassis, trailers, etc. · For use on construction equipment, in trade and industry for steel structures, railings, boiler construction, tank installations, etc. · Silicone-free




| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **Dark grey** | 400 | Spray can | + **2000 354 167** |

SDB

## Corrosion protection wax

Forms a matt, transparent, touch-resistant and water-repellent protective layer · Suitable for the preservation of plastic injection moulds, plastic and wooden parts · Easily removed with not steam or de-greasing agent article no. 2000 354 110 · For preserving engine and machine components · **Reliably protects tools and treated surfaces from moisture and corrosion** · Non gumming · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 600** |




SDB

## Copper spray

Weather-resistant, quick-drying and **copper-coloured coating for many surfaces** · With corrosion protection, resistant to abrasion, scratching and brushing · For repairing damaged surfaces and as a protective sealant for pipelines and copper structures · Can be used in all areas of maintenance, servicing and repair, in wrought ironwork · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 069** |




SDB

## Brass spray

**Heat-resistant brass alloy** · Reliable adhesion to many surfaces made of metal, various plastics, wood, glass, stone, etc. · Highly resistant to aggressive media · Highly weather-resistant · Abrasion and impact resistant · Gives the surface a typical, almost golden shine · Temperature-resistant up to +200 °C · For improving the colour and coating or appearance of high-quality parts with a brass effect · For repairing soldered and welded seams · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 068** |




SDB

## Zinc spray, light

Fast-drying corrosion protection for coating and cold galvanising metal and for repairing damaged zinc surfaces · Can be painted over · **Dries fast and produces a light, matt-silver coat** · Abrasion resistant and very high coverage · Temperature-resistant up to +250 °C · Zinc particles with 98 % metal purity · Particularly recommended for metal construction, welding, vehicle maintenance · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 066** |




SDB

## Zinc spray

Excellent cathodic corrosion protection · Tunnelling (corrosion under protective coat) is not possible · Based on DIN 50976 · Can also be used as weld-through primer on base coat · Dries quickly, abrasion resistant, electrically conductive, can be painted over · **Temperature-resistant up to +450 °C** · Zinc particles with 98 % metal purity · For repairing damaged zinc coats · For coating drilling and welding points · For vehicle maintenance work · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 065** |




SDB

## Zinc-aluminium spray

Wear-resistant and very high coverage, can be painted over · Dries quickly and produces a matt-silver coat · Temperature-resistant: Up to approx. +250 °C · Zinc particles with 98 % metal purity, combined with pure aluminium flakes · **Ideal for repairing hot-dip galvanised surfaces** · Particularly recommended for metal construction, welding, vehicle maintenance · Silicone-free

| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Spray can | Aluminium coloured | + **2000 354 070** |

SDB

## Spray undercoating

Solvent preservation coating on a rubber-plastic base · **For the permanent preservation of the underbody of vehicles of all types against rust, stone impact and dirt** · Results in well-adhering, viscous-elastic film, which protects exceptionally against stone impact and climatic influences · High abrasion resistance · Prevents noise and vibrations · Can be painted over · Salt spray test DIN 50017 up to 480 h




| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 264** |

SDB

## Marking ink

Fast-drying contrast medium · Coloured film does not reflect · Wipe-resistant · Very good adhesive properties and easy to remove · For marking the machined areas on metal surfaces, glass, and ceramic · Silicone-free




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Spray can | Blue | + **2000 354 079** |

SDB

## Top coat

High-quality, temperature-resistant, acrylic-based retouching paint · Quick-drying with excellent holding force · **Contains rust inhibitors to slow corrosion** · Temperature-resistant up to +120 °C (for a short period up to +150 °C) · For repairing machines and fittings · Extremely resistant for protecting metal surfaces exposed to weathering · Ideal for special paint finishes on cars and motorbikes · Silicone-free




| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **Matt black** | 400 | Spray can | + **2000 354 164** |

SDB

## Colour spray

Bright paint spray, acrylic resin-based · Very high yield · Dries very fast · Does not run · **For interior and exterior paintwork** · Weather and corrosion resistant · Top coat with permanent colour intensity for metal, wood, masonry and most plastic materials · For new paintwork, refurbishing and repairs · Silicone-free
**Degree of gloss:** High gloss: Approx. 90 % at 60° angle · Silk matt: Approx. 50 % at 60° angle · Dust dry after approx. 20 to 25 minutes, depending on ambient temperature · Touch dry after approx. 2 h · Completely dry after approx. 24 h · Can be coated over with itself within 4 hours, then leave to dry for at least 24 hours




| Colour<br>Satin | RAL | Contents [ml] | Container | Article no. |
|---|---|---|---|---|
| **Varnish** | - | 400 | Spray can | + **2000 354 206** |
| **Rape yellow** | 1021 | 400 | Spray can | + **2000 354 205** |
| **Flame red** | 3000 | 400 | Spray can | + **2000 354 200** |
| **Gentian blue** | 5010 | 400 | Spray can | + **2000 354 201** |
| **Moss green** | 6005 | 400 | Spray can | + **2000 354 202** |
| **Light grey** | 7035 | 400 | Spray can | + **2000 354 215** |
| **Jet black** | 9005 | 400 | Spray can | + **2000 354 203** |
| **Pure white** | 9010 | 400 | Spray can | + **2000 354 204** |
| **High-gloss** | | | | |
| **Varnish** | - | 400 | Spray can | + **2000 354 213** |
| **Rape yellow** | 1021 | 400 | Spray can | + **2000 354 212** |
| **Flame red** | 3000 | 400 | Spray can | + **2000 354 207** |
| **Gentian blue** | 5010 | 400 | Spray can | + **2000 354 208** |
| **Moss green** | 6005 | 400 | Spray can | + **2000 354 209** |
| **Jet black** | 9005 | 400 | Spray can | + **2000 354 210** |
| **Pure white** | 9010 | 400 | Spray can | + **2000 354 211** |



SDB

## Marking spray

High-quality paint based on acrylic resin · With intensive, long-lasting colour and luminous pigments · **Frost proof long-term marking (3–6 months)** · High brilliance and coverage · Low risk of soiling · **With special 360° valve for marking in all positions, even overhead** · Dries after approx. 1–5 minutes (depending on ambient temperature) · Free from heavy metals and silicone

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **White** | 500 | Spray can | + **2000 354 083** |
| **Bright yellow** | 500 | Spray can | + **2000 354 084** |
| **Bright orange** | 500 | Spray can | + **2000 354 085** |
| **Red** | 500 | Spray can | + **2000 354 080** |
| **Fluorescent red** | 500 | Spray can | + **2000 354 086** |
| **Fluorescent pink** | 500 | Spray can | + **2000 354 087** |
| **Green** | 500 | Spray can | + **2000 354 082** |
| **Blue** | 500 | Spray can | + **2000 354 081** |



SDB

## Ground marking spray

Marking paint based on high-quality acrylic resin · Extremely abrasion-resistant · With high pigment content · **Suitable for surfaces such as concrete, stone, wood, industrial floors, road surfaces, etc.**· Processing temperature: At least +5 °C · Substrate temperature: Not higher than +40 °C, it may be necessary to mark twice in high temperatures · Drying time approx. 30–60 min. · Not suitable for substrates such as polystyrene, various plastics · Silicone-free · Can contents sufficient for approx. 50 m

| Colour | Similar to RAL | Contents [ml] | Container | Article no. |
|---|---|---|---|---|
| **White** | 9016 | 750 | Spray can | + **2000 354 260** |
| **Yellow** | 1023 | 750 | Spray can | + **2000 354 261** |



## Marking trolley

For one can of 750 ml ground marking spray 2000 354 260 or 2000 354 261 · Line width 5–7 cm · With 4 wheels

| Line width [mm] | Article no. |
|---|---|
| **50–70** | **2000 354 265** |



SDB

## Forestry marking spray

Based on bioalcohol · Special marking spray for easily visible markings · **Suitable for wood, metal, concrete, asphalt and stone markings** · Very good adhesion on wet and frozen surfaces · Low-odour · With writing nozzle

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **White** | 500 | - | + **2000 354 218** |
| **Neon yellow** | 500 | Spray can | + **2000 354 221** |
| **Neon orange** | 500 | - | + **2000 354 219** |
| **Neon red** | 500 | Spray can | + **2000 354 220** |
| **Neon pink** | 500 | Spray can | + **2000 354 222** |
| **Neon blue** | 500 | Spray can | + **2000 354 223** |



SDB

## Crayon spray

Chalk based · For short-term marking · **For all washable surfaces** · Suitable for event, sports ground, accident and leisure markings · Low-odour

| Colour | Contents [ml] | Container | Article no. |
|---|---|---|---|
| **White** | 500 | Spray can | + **2000 354 230** |
| **Yellow** | 500 | Spray can | + **2000 354 231** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

SDB

## Dye penetrant

For surface testing · Sulphur, chlorine and silicone-free · **Especially for finding hairline cracks or fractures** in areas where imperfections can occur on the material surface such as welds, castings, etc. · Active substance conforms to the model test according to **DIN EN ISO 3452-2**
Crack detection system: Dye penetrant, wet developer and intermediate cleaner




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **500** | Spray can | Red | + **2000 354 550** |

SDB

## Wet developer

Highly volatile · Dries within 5–20 minutes · Any cracks are easily visible in daylight due to the red lines or spots on the white surface · **Used in conjunction with the dye penetrant, the wet developer forms a fine-grained developer layer** · Active substance conforms to the model test according to **DIN EN ISO 3452-2** · Silicone-free
Crack detection system: Dye penetrant, wet developer and intermediate cleaner




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **500** | Spray can | White | + **2000 354 551** |

SDB

## Intermediate cleaners

Highly volatile · Dries at room temperature after a short exposure time without leaving a residue · **For pretreating surfaces before the crack test** · Material conforms to the model test according to **DIN EN ISO 3452** · Silicone-free
Crack detection system: Dye penetrant, wet developer and intermediate cleaner




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **500** | Spray can | Natural | + **2000 354 552** |

DIN DVGW CERT SDB

## Leakage detection spray

For maintenance and inspection of gas and pressure systems · **DIN-DVGW tested (Test No. NG 5170CL0063)** · Sprays with pure nitrogen, therefore completely incombustible · For finding leaks in lines carrying gaseous media, e.g. compressed air, natural gas, industrial gases, etc. · **Even minor leaks are indicated by bubble formation** · Particularly recommended for production, heating, refrigeration, transport companies · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 045** |

DIN DVGW CERT SDB

## Leakage detection spray Power

For maintenance and inspection of gas and pressure systems · **With a point jet for detecting leaks even in inaccessible locations** · DIN-DVGW tested (Test No. NG 5170AP1321) · Completely incombustible due to nitrogen propellant · For finding leaks in lines carrying gaseous media, e.g. compressed air, natural gas, industrial gases, etc. · Particularly recommended for production, heating and refrigeration technology, transport companies · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 047** |




### Leakage detection spray -15 °C

For maintenance and inspection of gas and pressure systems · **DIN-DVGW tested (Test No. NG 5170CQ0038)** · Sprays with pure nitrogen, therefore completely incombustible · Even minor leaks are indicated by bubble formation · For finding leaks in lines carrying gaseous media, e.g. compressed air, natural gas, industrial gases, etc. · Particularly recommended for production, heating and refrigeration technology, transport companies · **Temperature use range: –15 °C to +50 °C** · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 048** |




### Refrigerant spray

Suitable for thermal troubleshooting · Shrinkage of metal parts and freezing and cooling all kinds of components · Forms ice when sprayed · Combustible · **Generates up to -50 °C** · Particularly recommended for use in electrical and refrigeration, vehicle maintenance, etc. · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 046** |




### Mould parting agent

Lubricant and parting agent with high lubricating effect, comprising pure natural products · **Prevents adhesion to plastics, moulds, metals and tools** · Can be used in injection moulds, presses and vacuum moulding · Recommended for use in mould making and welding technology · Silicone-free · Temperature-resistant from -20 °C to +130 °C

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 035** |




### Weld parting spray

Silicone-free · Protects workpieces, nozzles and tools from weld spatter · Treated workpieces can then easily be painted, galvanized, black-finished and anodised after short cleaning · **Ideal for welding nozzles and accessories of gas-shielded welding equipment** · Particularly recommended for welding, metalworking and plastics processing

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 040** |




### Weld parting spray, water-based

Non-flammable · Silicone- and solvent-free · Easy removal of the parting agent enables speed further machining · High concentrate, therefore economical in use · Treated workpieces can then easily be painted, galvanized, black-finished and anodised after short cleaning · Biodegradable · With corrosion protection · **Ideal for welding work in enclosed spaces, e.g. container construction** · Acts as a parting agent in gas-shielded and electrode welding · Protects the welding nozzles

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 043** |

SDB

## K1 welding protection spray

A boron nitride-based, silicone-free, dry, strongly adhering long-life coating · **Reliably prevents weld spots from adhering to welding tips and gas nozzles** · In addition to conventional parting agents, which only protect the workpiece · Minimizes the time and cost required for maintaining and cleaning welding equipment, workpieces and fixtures · Shortens standstill periods · For use with electric arc welding, MIG/MAG welding, and for laser or plasma cutting · Protects surfaces which are exposed to temperatures up to approx. +1,000 °C




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 008 |

SDB

## Silicone spray

High-quality, colourless parting agent and lubricant · Provides lasting care and protection without greasing · Reliably prevents glues, adhesives and paints from adhering to treated surfaces · Quickly re-lubricates plastic sliding rails, rollers and bearings · Particularly suitable for use in foundries, window construction, the automotive sector and the packaging industry




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 018 |

SDB

## Lubricant spray

Light-coloured, strongly adhesive, silicone-free **special grease with PTFE additive** · Particularly supple, non-drip · Point jet for targeted application of the required grease thickness · Grease does not run and can easily be applied in layers · For lubrication and maintenance of slide rails, bearings, rollers and hinges in industrial installations, the food and beverage industry and agriculture, etc. · Temperature-resistant from -30 °C to +130 °C




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 050 |

SDB

## Silicone spray lubricant

White silicone grease with extremely high lubricating power, water displacing and insulating · Transparent when sprayed on, a matt white film of grease remains after flash-off · **Particularly suitable for lubricating door bolts, slide rails and hinges on doors and furniture** · Also for the lubrication of switches, electrical wiring and sensitive components and for protection against moisture and corrosion · Temperature-resistant from -30 °C to +270 °C (for a short period)




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| 400 | Spray can | White | + 2000 354 019 |

SDB

## V-belt spray

Prevents slipping · Removes squeaking and transfers the full drive power · Removes the need for adjustment work in case of minor belt slippage caused by cold, moisture or normal expansion · AOX and silicone-free · **Can be used on all V-, round, toothed and flat belts on pumps, compressors, engines, ventilators, blowers etc.**




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| 400 | Spray can | Light yellow | + 2000 354 590 |




SDB

## Low-viscosity adhesive grease

Extremely high penetration capability ensures optimum penetration in chain bearings within the first few seconds of spraying · **Outstanding adhesion prevents throwing** · Noise-reducing · Resistant to moisture and aggressive vapours · Does not attract dust or dirt · Temperature-resistant from approx. -30 °C to +130 °C · Can be applied in layers · Can be used on rolling and plain bearings, chains in industrial plants, lifts, fork-lift trucks · For lubrication and servicing in industry, mining, energy, refinery, railways, railway, trucks, defence technology, agricultural machinery, etc. · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 610** |




SDB

## High-pressure adhesive lubricant

**Extremely adhesive and penetration capable, synthetic lubricant** · For lubricating of wire ropes, open gears, roller chains, toothed racks, as well as slideways with high mechanical loading, etc. · For lubrication and servicing in industry, mining, energy, refinery, railways, railway, trucks, defence technology, agricultural machinery, etc. · O-ring / X-ring compatible · **Outstanding adhesion prevents throwing** · Load bearing capacity (DIN 51350) approx. 1,500 N · High compatibility with many seals and plastics (pretests are recommended) · Silicone, resin and acid-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 611** |




SDB

## Gear spray

Special lubricant · Protects against corrosion and reduces wear and noise · **Ideal for lubricating ropes, exposed gears, transmissions and chains** · After the solvent has evaporated, a strongly adhesive film remains that cannot be pushed away, even in case of higher surface pressure between the tooth flanks · Resistant to heat and salt water · Temperature-resistant from -25 °C to +180 °C · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 595** |






SDB

## Chain/wire cable spray

Extremely high penetration capability ensures optimum penetration in chain bearings within the first few seconds of spraying · Resistant to moisture and aggressive vapours · Does not attract dust or dirt · Noise-reducing · **Contains PTFE** · **Outstanding adhesion prevents throwing** · Run equipment briefly at the start of application to provide adequate lubrication of the inner bearings via the capillary effect · Highly suitable for chains in industrial facilities, lifts and fork-lift trucks · Can also be used as a universal lubricant on gear racks and joints · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 030** |




SDB

## PTFE spray

Transparent, highly effective parting agent and lubricant for use in rubber and plastic processing and woodworking · Non-stick coating of seals and sealing surfaces of all kinds · Eliminates squeaking and creaking noises, even in heavily loaded components · For hydrophobic impregnation of absorbent materials · Heat-resistant · **Repels water, oil and dirt** · Treated parts do not become greasy and gummed · Abrasion-resistant · Resistant to most chemicals · Temperature-resistant from approx. -40 °C to +260 °C · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 605** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
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SDB

## Graphite spray

Forms an extremely stable film · Highly resistant to water, petrol, oil, seawater, acids and vapours as well as most alkaline solutions · Non-stick effect · **Extremely high pressure resistance · Temperature-resistant from -180 °C to +1500 °C (for a short period)** · Can be used on screws and movable joints subject to aggressive conditions and high temperatures · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 615** |

SDB

## Copper paste spray

High-temperature resistant corrosion protection agent and lubricant for use on highly-stressed components that are subject to high pressure · Temperature-resistant from -40 °C to +1100 °C (for a short period) · Active adhesion · Seawater and salt water resistant · **Can be used as a parting agent against corrosion, seizing and wear** · Excellent when used on rope drums, exhaust systems, heating dampers, brake shafts of disc brakes, brake cams, etc. · For fastenings of gas and oil burners · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 020** |

SDB

## Assembly spray

Universally usable lubricating grease for industrial use · **Strong long-term effect due to good adhesion and high lubricating effect** · Good resistance to acids, alkaline solutions, petrol, oil and salt water · Temperature-resistant from -20 °C to +120 °C · Can be used as an assembly aid and for permanent lubrication of joints, bushings and other moving parts for which sustained functional capability and movability are required · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 025** |

## Multi-purpose grease

Light-coloured universal grease · Lithium saponified · **For use in both general machine lubrication and for demanding lubrication points** · For lubricating plain and rolling bearings in construction equipment, conveyor systems, motor vehicles, lorries, industrial machines, etc. · As lubricating grease in construction and agricultural machinery · Water-resistant · With shear stability · Oxidation resistant · Silicone and resin-free · Temperature range from –30 °C to +120 °C (for a short period up to +130 °C) · Labelling: K 2 K-30 / DIN 51 502 · NLGI class 2




| Contents | Container | Colour | Article no. |
|---|---|---|---|
| **400 g** | Cartridge | Light coloured | **2000 355 301** |
| **5 kg** | Bucket | Light coloured | **2000 355 303** |

## Multi-purpose grease with graphite

With graphite · Lithium saponified · **For the lubrication of all types of plain and rolling bearings** · Including those with a relatively high sliding friction component in motor vehicles, construction equipment, agricultural machinery and industrial machinery · Particularly suitable for oscillating movements and impact loads · With emergency running property · Easily pumpable · Water-resistant · High corrosion protection · Temperature range from –30 °C to +120 °C (for a short period up to +130 °C) · Labelling: KPF 2 K-30 / DIN 51 502 · NLGI class 2




| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Cartridge | Black | **2000 355 306** |




## Food-grade grease

Light-coloured aluminium complex soap lubricating grease based on medical white oil · Suitable for the lubrication of rolling and plain bearings of machines in the food, luxury food, animal feed and packaging industries · **With NSF H1 approval** · Oxidation- and water-resistant · Extreme shear stability · Good corrosion protection properties · Temperature range from –20 °C to +120 °C (for a short period up to +140 °C) · Labelling: K 2 K-20 / DIN 51 502

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Cartridge | Natural colour, light | **2000 355 308** |




## High-temperature grease

Natural coloured PU lubricant · **Extreme temperature stability** · Particularly suitable for lubricating rolling and plain bearings, furnaces, drying ovens, conveyor systems, hot-blast fans, special electric motors subjected to high-pressure and temperatures · Temperature range from –30 °C to +160 °C · Labelling: KP 2P-30 / DIN 51 502 · NLGI class 2

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Cartridge | Light coloured | **2000 355 310** |




## $MoS_2$ high-pressure gun grease

High-performance multi-purpose grease · Lithium saponified · **For lubricating bearings subject to extreme pressure and impact with relatively slow sliding movements** · For rolling and plain bearings of all kinds under difficult operating conditions, and for intermittent loading, vibrations and oscillating movements, including those with a relatively high sliding friction component · Application in motor vehicles, construction equipment, agricultural machinery and industrial machinery, water-resistant · High corrosion protection · Emergency running properties · Temperature range from –30 °C to +120 °C (for a short period up to +140 °C) · Labelling: KPF 2 K-30 / DIN 51 502 · NLGI class 2

| Contents [g] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Cartridge | Black-grey | **2000 355 315** |

7




SDB

## Penetrating oil spray

Excellent penetrating effect and wetting effect · Displaces moisture · Leaves a colourless, non-gumming, oily film · Can be used as a rust solvent and to lubricate the inner bearings of chains · **Gentle maintenance for all moving parts** · Silicone and acid-free, does not gum up · Particularly suitable for metal parts, screws, hinges, door locks, etc.

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 015** |




SDB

## High-temperature oil

Ensures **synthetic, clean lubrication with minimum evaporation** · Does not tend to drip, vapour-resistant · Temperature-resistant from approx. -40 °C to +250 °C · Recommended for oiling chains, joints, slideways, clamping and drying frames at high and low temperatures · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 620** |



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SDB

## Wood lubricant

Can be used on all woodworking machines as a lubricating film and to neutralise resin · With cleaning effect, prevents corrosion and displaces humidity · Temperature-resistant from -20 °C to +80 °C · **Prevents the bonding and smearing of wood chips** · Neutralise resins · Do not apply directly on the workpiece surface, perform preliminary test on painted parts · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 580** |

[1] price per pc.

SDB

## Battery pole protector spray

The durable blue, temperature-resistant film protects battery terminals, pole terminals and plug connections against corrosion, weathering and battery acid · **Particularly suitable for vehicle workshops, logistics and fleets** · Prevents contact resistance and voltage loss and thus prolongs the service life of the battery · Silicone-free
**Do not spray onto paint! Immediately remove any residues on the paint to prevent spots appearing!**




| Contents [ml] | Container | Colour | Article no. |
|---|---|---|---|
| **400** | Spray can | Blue | + **2000 354 572** |

## Adhesive oil for saw chains

High-performance mineral oil-based chain oil · Optimum adhesion · Effectively protects against corrosion · Lubrication enhancing additives ensure extremely low chain and rail wear · For lubricating all power saws makes · Optimum full lubrication in the summer and winter, even under more difficult operating conditions, also for sawing hardwood due to high performance reserves

| | | |
|---|---|---|
| Density/20 °C | 850–900 kg/m³ | DIN EN ISO 12185 |
| Viscosity/40 °C | 75–95 mm²/s | DIN 51562 |
| Flash point | > 150 °C | ISO 2592 |




| Contents [l] | Container | Article no. |
|---|---|---|
| **1** | Bottle | + **2000 355 320** |
| **5** | Canister | **2000 355 321** |

www.blauer-engel.de/uz178
· biologisch abbaubar
· schadstoffarm

## Adhesive oil for saw chains BIO

High-performance saw chain oil, rapeseed oil based, environmentally friendly, biodegradable · Awarded the **Blue Angel** environmental symbol · Good wear protection · Optimum adhesion · Effectively protects against corrosion ·
For lubricating all makes of high-performance power saws · Optimum full lubrication in the summer and winter, even under more difficult operating conditions, also for sawing hardwood due to high performance reserves

| | | |
|---|---|---|
| Density/20 °C | 920 kg/m³ | DIN EN ISO 12185 |
| Viscosity/40 °C | > 52 mm²/s | DIN EN ISO 3104 |
| Flash point | > 300 °C | DIN EN ISO 2592 |




| Contents [l] | Container | Article no. |
|---|---|---|
| **1** | Bottle | + **2000 355 324** |
| **5** | Canister | **2000 355 325** |

SDB

## Drilling and cutting oil spray

Increases tool life, e.g. for drilling, milling, turning and thread tapping · With tool protection without aggressive additives · **Suitable for all non-ferrous metals, even for difficult machining processes** · Particularly recommended for metalworking, aluminium, steel and cast iron working · Also suitable for stainless steel · Low-odour ·
Free of chlorine-containing compounds and silicones




| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 055** |




SDB

## Drilling/cutting oil foam

For all machining operations on all materials such as steel, high-alloy steel, aluminium, non-ferrous metals, titanium · **Also suitable for stainless steel** · Ensures long tool life · Excellent cooling and lubrication effect · **Even for difficult machining processes** · Particularly recommended for metal, aluminium, steel and cast iron processing · Contains no aggressive additives · Free from chlorine, sulphur, phosphate, silicone and resin

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 056** |




## High-performance cutting oil

Not water-miscible · **For high-speed metal chip removal machining processes with non-ferrous metals and soft to hard and tough steels at high cutting speeds and increased cooling/flushing property requirements** (reaming, deep drilling, high-speed turning, etc.) · Not copper-corrosive · Good wear protection · Very good heat dissipation and distinct wetting and flushing behaviour generate high surface qualities · Density at +15 °C: 885 kg/m³ · ISO 3675 · Viscosity at +40 °C: 30 mm²/s ISO 3104 · Viscosity at +100 °C: 4.8 mm²/s ISO 3104 · Flash point (COC): >+200 °C ISO 2592 · Corrosive effect on copper 3 h/+100 °C: 1a (degree of corrosion) EN ISO 2160 · Free of zinc, chlorine and silicone

| Contents [l] | Container | Article no. |
|---|---|---|
| **5** | Canister | **2000 354 625** |




SDB

## High-performance cooling lubricant

Water-miscible · With effective EP additives · Causes a substantial extension in tool service life and enables machining with high cutting speeds · Long-term stability · Excellent corrosion protection · **For a wide range of machining processes** · Density/20 °C: 915 kg/m³ (DIN EN ISO 12185) · Viscosity/40 °C: 30–45 mm²/s (DIN EN ISO 3104) · PH value (4–5 %): 9.2 (DIN 51 369) · Cast iron chips test: 0 [1:20] (DIN 51 360/T 2) · Mineral oil content: 62.5 %
**Concentration used:**
Drilling/milling etc.: 1:20
Grinding/sawing etc.: 1:10
Thread cutting: 1:5 to 1:10

| Contents [l] | Container | Article no. |
|---|---|---|
| **5** | Canister | **2000 354 630** |






SDB

## Brake cleaner

For cleaning brake systems, clutch components, etc. · Removes oil, grease, wax and other deposits without leaving a residue · Short exposure time · **Ideally used for the assembly and final treatment of workpieces, particularly before painting** · Can be used in vehicle workshops, to remove brake dust or brake fluid · Also suitable for glass and ceramic · Free from chlorinated solvents and silicone

| Contents | Container | Type | Article no. |
|---|---|---|---|
| **500 ml** | Spray can | Contains acetone | + **2000 354 105** |
| **5 l** | Canister | Acetone-free | **2000 354 106** |




SDB

## Rapid industrial cleaner

Contains acetone · Removes stubborn dirt and incrustations on surfaces that have been soiled with oils, greases, lubricants, coal dust, tar splashes, bitumen and residues of adhesives · Dissolves adhesive and sealant residues · For removing graffiti, ballpoint and felt pen ink · For cleaning surfaces and profiles · On all metals and plastics · Extremely reliable for cleaning plastic windows and doors · Universally usable and material compatible · Silicone-free · **Before use, test on an inconspicuous area**

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 115** |

SDB

## De-greasing agent

Extremely fast evaporating degreasing agent with immediate action · Contains acetone · Flashing off without leaving a residue · For removing silicone parting agents, parting oil and paint mist, markings, etc. · For use in production, assembly aids, repair, vehicle maintenance, agricultural machinery and construction equipment · Silicone-free · **Before use, test on an inconspicuous area**




| Contents [ml] | Container | Article no. |
|---|---|---|
| 500 | Spray can | + 2000 354 110 |

SDB

## Adhesive/sealant remover

Removes residues of baked-on solid sealants, hardened sealing compounds and adhesives · Can be used on items made of metal, wood, glass, ceramic, polyethylene and polypropylene · For quick and easy removal of oil residues, greases, oils, resins, tar, lubricant residues, paints and lacquers · Silicone-free · **Not suitable for painted surfaces - may attack plastics. Before using the product, always test surface in an inconspicuous place to ensure it is suitable.**




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 120 |

SDB

## Graffiti remover

Mild varnish stripper with solvents · Spray on and leave to work, then wash off with brush and water · **Easily removes smears on walls, permanent marker, adhesives, resinous and oily residues** · Also for use in industrial operations and printing shops to clean inking rollers and rubber cloths · Suitable for all washable surfaces, e.g. plastic, aluminium, glass, tiles, stone, concrete, marble, terrazzo and Resopal coatings, etc. · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 126 |

SDB

## Stainless steel cleaner

Protects and preserves all metal surfaces and has a streak-free shiny finish · Natural · The treated surface is perfectly protected against fast re-soiling and a stained look · Many uses, including food sector · **Especially recommended for stainless steel work surfaces, cupboards and shelves, wall coverings etc.** · Silicone-free




| Contents [ml] | Container | Article no. |
|---|---|---|
| 500 | Spray can | + 2000 354 124 |

SDB

## Compressed gas spray

Special gas for generating compressed gas · For blowing out and removing dust from electronic components, optical equipment etc. · Generates approx. 4 bar pressure · Universally usable · Free from condensates and silicone




| Contents [ml] | Container | Article no. |
|---|---|---|
| 400 | Spray can | + 2000 354 660 |




SDB

## Contact spray

Reliably removes incrustations and protects against renewed oxidation due to anti-corrosion additive, prevents leakage currents · With corrosion protection, ensuring long-lasting electrical contact ability · For electrical contacts on switches, relays, luminaires, etc. · **Particularly recommended for plant and electro-technology, building services, industry, etc.** · Silicone-free · Only spray electrical contacts, do not rinse!

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 655** |




SDB

## Cleaning foam

For almost all cleaning tasks in trade and industry · **Highly active foam** · Removes dirt immediately, cleans without damage and is safe to use on almost any surface · For ceramic, glass and plastic surfaces and all types of painted surfaces · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 700** |




SDB

## General-purpose cleaner Citro

Removes even stubborn dirt from all water-resistant surfaces · With a good fat-dissolving effect and a pleasant, fresh scent · **Suitable for all washable surfaces** · For greasy stains and for daily floor cleaning · Particularly recommended for industry, canteen kitchens and the catering industry
**Dosage:** Mix approx. 50–100 ml per 8 litres of water in a bucket, apply pure with a sponge on stubborn dirt/stains and leave to act, after cleaning, wipe off with clean water

| Contents [l] | Container | Article no. |
|---|---|---|
| **1** | Bottle | + **2000 355 700** |
| **5** | Canister | **2000 355 701** |
| **10** | Canister | **2000 355 702** |




## Glass cleaner

Cleans all glassy surfaces to remove all kinds of dirt, even oily, greasy residues are removed without leaving a residue · For all washable surfaces · Also suitable for plastic surfaces
**Dosage for canister goods:** Is applied, undiluted, on the areas to be cleaned, wiped off with a lint-free cloth; in case of larger areas, dilute with water in ratio 1:50, for normal dirt

| Contents | Container | Article no. |
|---|---|---|
| **500 ml** | Spray bottle | + **2000 355 720** |
| **5 l** | Canister | **2000 355 722** |




SDB

## Glass cleaning foam

Removes even the most stubborn dirt · For a quick and thorough cleaning of glass and ceramic surfaces, tiles, mirrors, etc. without leaving a residue · Also effortlessly removes insects from car windscreens · **Stable cleaning foam that adheres well even to vertical surfaces** · Silicone-free
**Note:** High-performance cleaner made from surfactants, alcohol and water · Spray the surface to be cleaned and clean with a dry lint-free cloth

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 705** |

SDB

## Sanitary cleaner

Acidic sanitary cleaner for fast and thorough cleaning of all acid-resistant surfaces · With a fresh, long-lasting scent · Removes limescale and water residues from fittings, tiles, shower enclosures as well as urine and water scale deposits from ceramic surfaces · Suitable for spray systems, foam canons and high-pressure cleaners
**Dosage:** Approx. 60 ml per 8 litres of water · For heavy soiling, apply undiluted and leave to act, then rinse off with water




| Contents [l] | Container | | Article no. |
|---|---|---|---|
| 1 | Bottle | + | 2000 355 705 |
| 5 | Canister | | 2000 355 706 |

Kennzeichnungsfrei

## Workshop cleaner

**Does not require CLP labelling** · Concentrate · Quick and effective cleaning for a range of cleaning applications · Particularly thorough removal of oily and greasy contamination, wax, starch residue and organic deposits from alkali-resistant surfaces such as tiles, PVC, laminate, metals, painted surfaces as well as for vehicle interiors · With pleasant fragrance · Hypoallergenic · VOC-free
**Dosage:** Normal cleaning 1:2 to 1:5 with water, maintenance cleaning 1:10 to 1:30 with water, even just the concentrate can be used in cases of extreme soiling · Test for suitability before using on critical materials




| Contents | Container | | Article no. |
|---|---|---|---|
| 1 l | Bottle | + | 2000 355 713 |
| 5 kg | Canister | | 2000 355 714 |
| 10.1 kg | Canister | | 2000 355 715 |

SDB

## Industrial cleaner

Special cleaner for plastics, stainless steel and alkali-resistant metals on utility vehicles, machines, etc. · Penetrates weathered, open-pored materials and removes old dirt · Cleans lorry tarpaulins, plastic furniture, caravans, tents, garden furniture and much more · For basic machine cleaning on heavily used PVC flooring · Suitable for high-pressure cleaners
**Application / dosage**: Depending on the degree of soiling, dilute to 4–20 % (320–1600 ml/8 litres of cold water). Only use highly diluted on anodised surfaces and test on material before use. When used with the correct dosage, this product has no effect the action of oil separators.




| Contents [l] | Container | Article no. |
|---|---|---|
| 5 | Canister | 2000 355 711 |
| 10 | Canister | 2000 355 712 |

SDB

## Limestone/concrete solvent

Strongly acidic, high-yield cleaning concentrate · Easily dissolves even the most stubborn limescale deposits and all types of carbonates · **Specially designed for removing lime and cement deposits (cement residue)** · Removes all types of stubborn dirt from acid-resistant surfaces and sanitary installations · Silicone-free
**Dosage:** Concentrated up to 1:10 for heavy deposits - for daily use, dilute 1:50 with water · Please test for suitability before using on critical materials




| Contents [l] | Container | Article no. |
|---|---|---|
| 5 | Canister | 2000 354 680 |

SDB

## Cold cleaner

With tested wastewater behaviour (halide and aromatic compound-free) · Mild smell · Excellent solvent power for animal, vegetable and mineral oils and greases · Dissolves tar, waxes and natural and synthetic resins · Can be used in washing, dipping, spraying and flow-coating processes · **For cleaning and degreasing workpieces, tools, chains, machines, engines and gearboxes** · Dissolves fully dried coatings, does not attack most plastics or rubber · Recommended for cleaning painted or primed parts · Acetone-free · Density: 0.783 · Flash point: 63 °C · Evaporation number: 150 (ether = 1)
**Cold cleaners may only be used in conjunction with a light liquid separator (oil separator). Very hot parts should be cooled to approx. 50–60 °C before cleaning!**




| Contents [l] | Container | Article no. |
|---|---|---|
| 5 | Canister | 2000 355 964 |

7




SDB

## Oil remover

With deep action · Penetrates into the contaminated floor and brings back up to the surface, hydrocarbons that have penetrated deep · **For cleaning old and new oil spills** · On and in porous concrete surfaces and other solid floors · Silicone-free
After a short exposure time, absorb the soiling with a cloth or oil binder. Before use, test suitability at an inconspicuous location.

| Contents [ml] | Container | Article no. |
|---|---|---|
| **500** | Spray can | + **2000 354 650** |




SDB

## Car shampoo

Particularly good cleaning and care effect, including on highly soiled paints · With lotus effect · Removes greasy and oily stains with active cleaning foam · Care substances protect the paint from renewed soiling · For manual car washing · Extremely economical to use · Kind on the skin · **Dosage:** 1:20

| Contents [l] | Container | Article no. |
|---|---|---|
| **5** | Canister | **2000 355 731** |




SDB

## Cockpit spray

Cleans and cares for all plastic surfaces and noticeably revives the colour · Prevents embrittlement and reduces new soiling · Protects against static discharge · Colour: Milky/transparent · Leaves a pleasantly fresh, long-lasting fragrance inside the vehicle · Can be used on all plastic surfaces in motor vehicles and lorries (inside and outside) · Contains silicone

| Contents [ml] | Container | Article no. |
|---|---|---|
| **300** | Spray can | + **2000 354 710** |




SDB

## Cold start spray

Enables petrol and diesel engines to start immediately · Protects the engine and battery and prevents carburettor icing and oil thinning · **Easy cold start for all petrol and diesel engines** · Tried and tested starting aid for cars, lorries, construction plant and agricultural machinery, boat engines and lawnmowers · Silicone-free

| Contents [ml] | Container | Article no. |
|---|---|---|
| **400** | Spray can | + **2000 354 570** |




SDB

## Acetone

For pre-cleaning and degreasing all kinds of parts · Also particularly suitable for bonding acrylic glass and many plastics · Density: 0.790 · **For degreasing and pre-cleaning · For thinning combination nitrocellulose lacquers and adhesives**

| Contents [l] | Container | Article no. |
|---|---|---|
| **1** | Can | + **2000 355 960** |
| **5** | Canister | **2000 355 962** |

SDB

## Methylated spirit

As a solvent and cleaning agent for trade and industry · Neutral grain spirit made from renewable raw materials (94 % by vol. ethyl alcohol, denaturated) · **For cleaning and degreasing glass, plastic, chrome, tiles, etc. ·** For diluting spirit varnishes · As antifreeze for windscreen wash systems (mix ratio: 1:2 with water up to -15 °C) · Density: 0.800 · Evaporation number: 8




| Contents [l] | Container | Article no. |
|---|---|---|
| 1 | Bottle | + 2000 355 970 |

SDB

## Multi-purpose nitro-cellulose thinner

For thinning nitro, nitro combination, chlorinated rubber, air-drying and heat-curing synthetic resin varnishes, two-component varnishes and air- and oven-drying Zapon paints · Very high solvent power · Economical · For cleaning painting equipment · For removing dirt, grease and paint spots on wooden and stone floors, glass, upholstery, carpeting, etc. · Density: 0.85 · Evaporation number: 8 (ether = 1)




| Contents [l] | Container | Article no. |
|---|---|---|
| 1 | Can | + 2000 355 955 |
| 5 | Canister | 2000 355 957 |

SDB

## Petroleum

A cleaning agent that evaporates very slowly, **it dissolves greases and oils on all metals, plastics and glass ·** Can also be used to dissolve rust and remove preservative in metalworking firms · Does not usually attack plastics and painted surfaces, can also be used in washing, dipping, spraying and flow-coating processes · Density: 0.795 · Evaporation number: 220
**Rebated mineral oil must not be used as engine or heating fuel or for the manufacture of such materials!**




| Contents [l] | Container | Article no. |
|---|---|---|
| 1 | Can | + 2000 355 950 |
| 5 | Canister | 2000 355 952 |

SDB

## Turpentine substitute

Cleaning agent for equipment such as paint brushes, rollers, etc. · **Suitable for removing paint and dirt stains ·** The slow evaporation time ensures a very good painting or varnishing progress, without retarding through-drying of oxidative drying varnishes or paints · Density: 0.785 · Evaporation number: 46 (ether = 1) · **Can be used as cleaning agent for equipment ·** Removes paint and dirt stains · As thinner for oil, resin and clear varnishes, wood stain, primer paints, etc. · A preliminary test is recommended for sensitive surfaces
A preliminary test is recommended for sensitive surfaces
**Rebated mineral oil must not be used as engine or heating fuel or for the manufacture of such materials!**




| Contents [l] | Container | Article no. |
|---|---|---|
| 1 | Can | + 2000 355 940 |

SDB

## Benzine

Excellent solvent power · Can be used in washing, dipping, spraying and flow-coating processes · Especially recommended for use where, for safety reasons, physiologically harmful solvents should not be used, benzine has a neutral effect on metals · Density: 0.714 · Evaporation number: 3 · **Can be used for all degreasing and cleaning work,** particularly on painted and primed parts · Suitable for use in soldering and as lighter fuel · **Rebated mineral oil must not be used as engine or heating fuel or for the manufacture of such materials!**




| Contents [l] | Container | Article no. |
|---|---|---|
| 1 | Can | + 2000 355 945 |
| 5 | - | 2000 355 946 |




## Industrial atomizer

Transparent · With adjustable plastic nozzle · Suitable for light chemicals, solvents and cleaning agents

| Hold capacity [l] | Article no. |
|---|---|
| 1 | 2000 355 692 |




## Industrial atomizer

Hand atomizer with plastic nozzle suitable **for light chemicals**, solvents and cleaning agents, formwork release oils, and **mildly alkaline cleaning agents and disinfectants** · Delivery rate 1.1 ml per stroke, adjustable nozzle, height 26.5 cm, width 11 cm

| Hold capacity [l] | Article no. |
|---|---|
| 1 | 2000 355 690 |




## Universal pressure sprayer

With **FPM / FKM seals** and plastic nozzle · PP pump unit · Plastic container with filling scale, smooth-operating plastic pump, 2-in-1 safety valve triggers in case of overpressure and can also be manually actuated, adjustable plastic nozzle · Especially coated springs · Can be used in the cleaning trade - vehicle cleaning, building cleaning, industrial corrosion protection, for lubricating and impregnation, etc.

| Hold capacity [l] | Article no. |
|---|---|
| 1.5 | 2000 355 695 |




## Pressure sprayer Extra

With **FPM / FKM seal** · PP pump unit · 2-in-1 safety valve triggers in case of overpressure and can also be manually actuated · Plastic container with filling scale · Adjustable plastic nozzle · Plastic PA with plastic covering tube to protect the non-return valve · For diesel, mineral oils and various media containing naphtha, e.g. for numerous brake cleaners

| Hold capacity [l] | Article no. |
|---|---|
| 1.5 | 2000 355 696 |




## Pressure sprayer Extra EPDM

With **EPDM seal** · PP pump unit · Plastic container with filling scale, safety valve, adjustable plastic nozzle · Specially coated springs for optimum chemical resistance · Can be used in the cleaning trade, industry, vehicle cleaning, etc. · Suitable for liquids **containing acetone** and different solvents

| Hold capacity [l] | Article no. |
|---|---|
| 1.5 | 2000 355 708 |

## Pressure sprayer 360° FPM

**Plastic (PP)** · **FPM / FKM seals or EPDM seals** · Transparent fill scale · 360° spraying with high chemical resistance to acids · Fill content 1.5 l · Adjustable nozzle, plastic, 65° full jet · Stand for high stability · Safety valve · For professional applications



2000 355 716



2000 355 717

| Hold capacity [l] | Type | Article no. |
|---|---|---|
| **1.5** | Acidic | **2000 355 716** |
| **1.5** | Alkaline | **2000 355 717** |

## Pressure sprayer

With **FPM seals** · PP pump unit · With safety button · The pressure is retained after working, due to a safety seal (3 bar) · With safety pressure valve · Adjustable plastic nozzle · Springs made of stainless steel




| Hold capacity [l] | Article no. |
|---|---|
| **2** | **2000 355 698** |

## Hand lever grease gun

For 400 g cartridges, type according to DIN 1283 · Grease filler or loose grease · Separate filling and venting valve according to DIN 1283 · Greases up to NLG/ class 3 can be used · Incl. high-pressure reinforced hose 11 x 300 mm and 4-jaw coupling



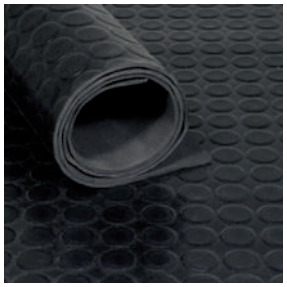
| Hold capacity [cm³] | Article no. |
|---|---|
| **500** | **2000 356 302** |

## Two-handed grease gun

For 500 g screw-in cartridges · With hose holder · For greases up according to NLGI 3 · Incl. high-pressure reinforced hose DIN 1293 11 x 300 mm and 4-jaw coupling DIN 1293



| Max. delivery pressure [bar] | Article no. |
|---|---|
| **400** | **2000 356 323** |



## Rubber mat with flat pimples

Top side with hammer blow profile · Abrasion-resistant · Weather-resistant · With an edge on the sides · Versatile in use for both indoor and outdoor areas, such as airports, hotels, cabins, exhibitions and much more
**Quality:** NR/SBR
**Hardness:** 65 Shore A+/- 5
**Top:** Nubby
**Underside:** Patterned fabric
**Colour:** Black
**Min. temperature:** –30 °C
**Max. temperature:** 70 °C
**Specific weight:** 1.5 grs/cm³
**Tensile strength:** 5 MPa
**Breaking strain:** 250 %

| Width [m] | Length | Area | Thickness [mm] | Article no. |
|---|---|---|---|---|
| **1** | 10 | 10 | 3 | **2000 349 119** |
| **1,2** | 10 m | 12 m² | 3 | **2000 349 117** |
| **1,4** | 10 | 14 | 3 | **2000 349 120** |
| **1,5** | 10 | 12 | 3 | **2000 349 118** |



## Rubber insulating mat

Strong and abrasion-resistant · Fine-ribbed on one side, patterned fabric on the other · **Electrically insulating according to the IEC 61111 standard** · For use as a floor covering for control panels to protect against electric shocks
**Quality:** EPDM
**Colour:** Grey
**Min. temperature:** –25 °C
**Max. temperature:** 120 °C
**Specific weight:** 1.5 grs/cm³
**Hardness:** 70 Shore A+/- 5
**Tensile strength:** 5 MPa
**Breaking strain:** 250 %

| Width [m] | Length [m] | Area [m²] | Thickness [mm] | Article no. |
|---|---|---|---|---|
| **1,0** | 10 | 10 | 4.5 | **2000 452 473** |
| **1,2** | 10 | 12 | 4.5 | **2000 452 474** |



## Edge protector

PVC · With metal insert · U-shaped · All listed profiles conform to RoHs

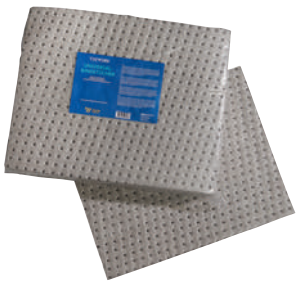
| Clamping range [mm] | Width [mm] | Height [mm] | Length [m] | Article no. |
|---|---|---|---|---|
| **Black** | | | | |
| **1–2** | 6,5 | 9.5 | 10 | **2577 770 129** |
| **1–2** | 6,5 | 9.5 | 100 | **2577 770 134** |
| **1–4** | 10 | 14.5 | 10 | **2577 770 130** |
| **3–6** | 12 | 17.5 | 10 | **2577 770 136** |
| **White-grey** | | | | |
| **1–2** | 6,5 | 9.5 | 10 | **2577 770 131** |
| **1–2** | 6,5 | 9.5 | 100 | **2577 770 135** |
| **1–4** | 10 | 14.5 | 10 | **2577 770 132** |
| **3–6** | 12 | 17.5 | 10 | **2577 770 137** |



## Oil binding cloths

Water-repellent (hydrophobic) and oil-absorbing (oleophilic) binding cloths made of microfibre (polypropylene) · Excellent tear strength · Very good absorbency · One cloth can absorb up to 20 times its own weight in liquid, up to 1.55 litres · No toxic contaminants · For fast and easy removal of leaked, hydrocarbon-based liquids such as oils, fuels, benzenes, alcohol, etc., but not water · Can be used in almost all areas where liquids are processed, stored or transported · Suitable for indoor and outdoor use
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Length [cm] | Width [cm] | Contents | Binds up to max. [l/PU] | Article no. |
|---|---|---|---|---|
| **40** | 50 | 10 x 10 wipes | 155 | **2000 369 660** |
| **40** | 50 | 10 x 20 wipes | 155 | **2000 369 661** |



## Universal binding cloths

Comprising a compact, lint-free, 3-ply binding non-wovens · Excellent tear strength · Very good absorbency · One cloth can absorb up to 20 times its own weight in liquid, up to 1 litres · No toxic contaminants · For fast and easy removal of leaked liquids such as oils, emulsions, and acids · Aggressive, organic, and inorganic as well as water-soluble chemicals can also be absorbed · Can be used in almost all areas where liquids are processed, stored or transported · Suitable for indoor and outdoor use
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

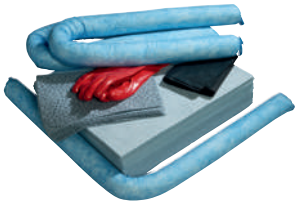
| Length [cm] | Width [cm] | Contents | Binds up to max. [l/PU] | Article no. |
|---|---|---|---|---|
| **40** | 50 | 4 x 25 wipes | 97 | **2000 369 663** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Oil emergency set



Blue · Absorbent capacity of 50 l · In a transparent PVC bag with zip-fastener and carry handle · Ideal for controlling minor leaks and for transport in trucks and forklifts · For fast and easy removal of leaked liquids such as oils, fuels, benzenes, alcohol, etc., but not water! · Suitable for indoor and outdoor use
**Contents:** 35 binder cloths 40x50 cm, 10 wipes, 3 binder hoses Ø 7.5 cm x 120 cm, 2 disposal sacks, 1 pair gloves
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Contents | Binds up to max. [l] | Article no. |
|---|---|---|
| **50-part with gloves** | 50 | **2000 369 667** |

## Oil binding hose



Water-repellent (hydrophobic) and oil-absorbing (oleophilic) socks with polypropylene fill material · Excellent tear strength · Very good absorbency · One sock absorbs up to 4 litres of liquid · No toxic contaminants

**Application:** Leaked hydrocarbon-based liquids such as oils, fuels, benzenes, alcohols, etc. (not water) can be easily and quickly contained to prevent spreading · At the same time, the liquid is absorbed by the sock · In case of larger quantities, the contamination can be absorbed by additionally spreading the oil binder (granulate) article no. 2000 369 670 · Can be used in almost all areas where liquids are processed, stored or transported · Suitable for indoor and outdoor use
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Length [cm] | Diameter [cm] | Contents | Binds up to max. [l/PU] | Article no. |
|---|---|---|---|---|
| **120** | 8 | 10 pc. | 40 | **2000 369 665** |

## Universal binding hose



Grey · Polypropylene fill material · Excellent tear strength · Very good absorbency · One sock absorbs up to 4 litres of liquid · No toxic contaminants

**Application:** Leaked, non-aggressive liquids such as oils, refrigerants and solvents, water, acids and alkaline solutions can be contained easily and quickly and spreading is prevented · At the same time, the liquid is absorbed by the sock · In case of larger quantities, the contamination can be absorbed by additionally spreading the oil binder (granulate) article no. 2000 369 670 · Can be used in almost all areas where liquids are processed, stored or transported · Suitable for indoor and outdoor use
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Length [cm] | Diameter [cm] | Contents | Binds up to max. [l/PU] | Article no. |
|---|---|---|---|---|
| **120** | 8 | 10 pc. | 40 | **2000 369 666** |

## Universal binding agent



Universal binding agent, based on calcium silicate hydrate · Highly absorbent, odour-binding, natural product, can be stored indefinitely · Colour: White

**Application:** For quick and simple removal of leaked liquids such as oils, greases, lubricants, dyes and varnishes, solvents, etc. · Aggressive, organic and inorganic as well as water-soluble chemicals can also be absorbed · Not suitable for strong acids and oxidants · Not water-repellent, not buoyant · Can be used in almost all areas where liquids are processed, stored or transported · Type III R · Suitable for indoor and outdoor use
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Contents [kg] | Container | Granulation [mm] | Bulk weight [g/l] | Max. suction capacity [l] | Article no. |
|---|---|---|---|---|---|
| **40 l / approx. 20** | Sack | 0.125–1 | Approx. 485 | 16 (per sack) | **2000 369 670** |
| **40 l / approx. 16** | Sack | 1 –4 | Approx. 396 | 14 (per sack) | **2000 369 671** |

## Oil binder



Coarse oil binder · Based on polyurethane foam · Highly absorbent, odour-binding, protects soil, water-repellent · Grey
**Application:** For fast and easy removal of leaked liquids such as dirt containing oil and grease · Diverse possible uses – industry, commerce, roads, other traffic areas, etc. · Oil binder type III R · Absorbency remains unchanged in rain and wet conditions · Very economical
**Note:** After use, do not dispose of binding agents in the household waste, but ensure that they are disposed of properly in line with the official regulations for the fluids that have been absorbed.

| Contents [kg] | Container | Granulation [mm] | Bulk weight [g/l] | Max. suction capacity [l] | Article no. |
|---|---|---|---|---|---|
| **40 l / approx. 12** | Sack | 0.125–4 | Approx. 295 | 18 (per sack) | **2000 369 672** |

## Lashing strap DIN EN 12195-2

Polyester · One-part · Temperature range: -40 °C to +100 °C



2000 365 112



2000 365 080 / 2000 365 081 / 2000 365 082 / 2000 365 083



2000 365 084 / 2000 365 085 / 2000 365 151



2000 365 086 / 2000 365 087

| Length [m] | Contents [Pc.] | Permissible traction (LC) in strapping [daN] | Width [mm] | Article no. |
|---|---|---|---|---|
| **With clamping lock** | | | | |
| **1** | 5 | 250 | 25 | **2000 365 112** |
| **3** | 2 | 250 | 25 | **2000 365 080** |
| **4** | 1 | 250 | 25 | **2000 365 081** |
| **5** | 1 | 250 | 25 | **2000 365 082** |
| **6** | 1 | 250 | 25 | **2000 365 083** |
| **With ratchet** | | | | |
| **4** | 1 | 800 | 25 | **2000 365 084** |
| **6** | 1 | 800 | 25 | **2000 365 085** |
| **8** | 1 | 800 | 25 | **2000 365 151** |
| **4** | 1 | 1500 | 25 | **2000 365 086** |
| **6** | 1 | 1500 | 25 | **2000 365 087** |

## Lashing strap DIN EN 12195-2

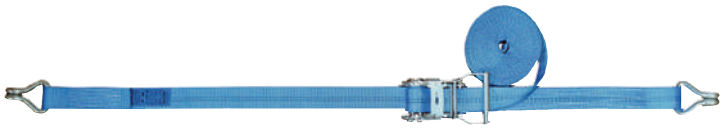
Polyester · Two-part · Temperature range: -40 °C to +100 °C · Fixed end: 0.4 m

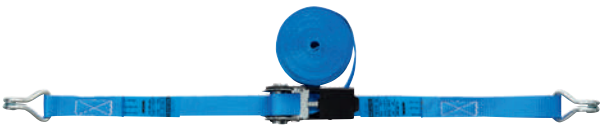


| Length [m] | Permissible traction (LC) direct [daN] | Width [mm] | Article no. |
|---|---|---|---|
| **With ratchet + tailgate claw** | | | |
| **4** | 500 | 50 | **2000 365 150** |

## Lashing strap DIN EN 12195-2

Polyester · Two-part · Temperature range: -40 °C to +100 °C · Fixed end: 0.3 m



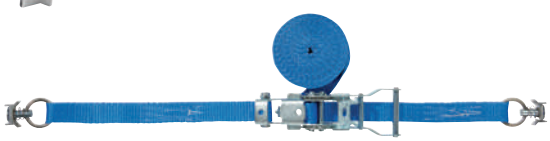


| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Width [mm] | Article no. |
|---|---|---|---|---|
| **With ratchet + claw hook** | | | | |
| **4** | 800 | 400 | 25 | **2000 365 144** |
| **6** | 800 | 400 | 25 | **2000 365 145** |

## Lashing strap DIN 12195-2

Polyester · Two-part · Temperature range -40 °C to +100 °C · Fixed end: 0.3 m / loose end: 3.7 m





| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Width [mm] | Article no. |
|---|---|---|---|---|
| **With ratchet + airline fitting** | | | | |
| **4** | 1500 | 750 | 25 | **2000 365 130** |

## Lashing strap DIN 12195-2

Polyester · Two-part · Temperature range -40 °C to +100 °C · Rod lashing rail · Fixed end: 0.3 m / loose end: 3.7 m



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Width [mm] | Article no. |
|---|---|---|---|---|
| **With ratchet + flat hook with latch** | | | | |
| **4** | 1500 | 750 | 25 | **2000 365 131** |

## Lashing strap DIN EN 12195-2

Polyester · One-part · Temperature range: –40 °C to +100 °C



| Length [m] | Permissible traction (LC) in strapping [daN] | Width [mm] | Article no. |
|---|---|---|---|
| **With ratchet** | | | |
| **4** | 2000 | 35 | **2000 365 142** |
| **6** | 2000 | 35 | **2000 365 088** |
| **8** | 2000 | 35 | **2000 365 089** |

## Lashing strap DIN EN 12195-2

Polyester · Two-part · Temperature range: –40 °C to +100 °C · Fixed end: 0.4 m



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Pretensioning force STF [daN] | Width [mm] | Article no. |
|---|---|---|---|---|---|
| **With ratchet + claw hook** | | | | | |
| **4** | 2000 | 1000 | 240 | 35 | **2000 365 143** |
| **6** | 2000 | 1000 | 240 | 35 | **2000 365 090** |
| **8** | 2000 | 1000 | 240 | 35 | **2000 365 091** |

## Lashing strap DIN EN 12195-2

Polyester · One-part · Temperature range: –40 °C to +100 °C



| Length [m] | Permissible traction (LC) in strapping [daN] | Width [mm] | Article no. |
|---|---|---|---|
| **With ratchet** | | | |
| **5** | 4000 | 50 | **2000 365 092** |
| **8** | 5000 | 50 | **2000 365 093** |

## Lashing strap DIN 12195-2

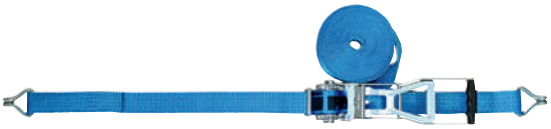
Polyester · Two-part · Temperature range -40 °C to +100 °C · Fixed end: 0.4 m



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Pretensioning force STF [daN] | Width [mm] | Article no. |
|---|---|---|---|---|---|
| **With ratchet + claw hook with latch** | | | | | |
| **8** | 5000 | 2500 | 300 | 50 | **2000 365 133** |
| **10** | 5000 | 2500 | 300 | 50 | **2000 365 134** |

## Lashing strap DIN EN 12195-2

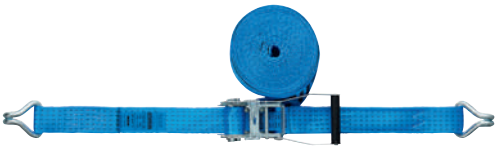
Polyester · Two-part · Temperature range: –40 °C to +100 °C · With label protection (label protected in loop) · Fixed end: 0.4 m



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Pretensioning force STF [daN] | Width [mm] | Article no. |
|---|---|---|---|---|---|
| **With long lever ratchet + claw hook** | | | | | |
| **8** | 5000 | 2500 | 500 | 50 | **2000 365 094** |
| **10** | 5000 | 2500 | 500 | 50 | **2000 365 095** |

## Lashing strap DIN EN 12195-2

Polyester · Two-part · Temperature range: -40 °C to +100 °C · Fixed end: 0.4 m



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Pretensioning force STF [daN] | Width [mm] | Article no. |
|---|---|---|---|---|---|
| **With ratchet + claw hook** | | | | | |
| **6** | 4000 | 2000 | 320 | 50 | **2000 365 096** |
| **8** | 4000 | 2000 | 320 | 50 | **2000 365 097** |
| **6** | 5000 | 2500 | 300 | 50 | **2000 365 098** |
| **8** | 5000 | 2500 | 300 | 50 | **2000 365 099** |
| **10** | 5000 | 2500 | 300 | 50 | **2000 365 126** |

## Automatic lashing strap DIN EN 12195-2

Polyester · With automatic winder · No tiresome winding of the lashing straps by hand



| Length [m] | Permissible traction (LC) in strapping [daN] | Permissible traction (LC) direct [daN] | Lashing capacity LC [daN] | Width [mm] | Article no. |
|---|---|---|---|---|---|
| **With claw hook** | | | | | |
| **3.5** | 680 | 340 | - | 25 | **2000 365 135** |
| **3** | 1500 | 750 | - | 50 | **2000 365 136** |
| **5** | 2000 | 1000 | 1000 | 35 | **2000 365 137** |

## Lashing chain system

Complies with EN 12195-3 · Grade 8 · Useful length 3.0 m



| Thickness of chain [mm] | Traction [daN] | Pretensioning force STF [daN] | Article no. |
|---|---|---|---|
| **Two-part** | | | |
| **8** | 4000 | 1000 | **2000 365 153** |
| **10** | 6300 | 1575 | **2000 365 154** |

## Set of load-securing equipment

Set in a practical drawstring bag (approx. 300 x 400 mm)

**Contents:**
4 x lashing strap, 1-part, length 4 m, 25 mm width, U LC 250 daN, with clamp buckle
2 x lashing strap, 2-part, length 6 m, 35 mm width, U LC 2000 daN, with pick
1 x cover net 114 x 61 cm



| Contents | Article no. |
|---|---|
| **7-part** | **2000 365 140** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Set of load-securing equipment Profi

Set in a black sports bag
**Contents:**
8 x anti-slip pads 8x200x100 (2000 365 138)
8 x edge protection brackets 50 mm (2000 365 139)
2 x lashing strap LC 1000 daN, 6.0 m, claw hook (2000 365 090)
2 x lashing strap LC 2500 daN, 8.0 m, claw hook (2000 365 099)
4 x lashing strap LC 800 daN, 6.0 m, one-part (2000 365 085)
2 x lashing strap LC 1000 daN, 6.0 m, one-part (2000 365 088)
2 x lashing strap LC 250 daN, 4.0 m, one-part (2000 365 081)




| Contents | Article no. |
|---|---|
| **28-part** | **2000 365 155** |

## Anti-slip mat

Made from granulate · Increase in the coefficient of friction μ, between the load and the platform · Increased safety

Reference price: 1 pc. corresponds to a set of 10 cut-to-size mats



| Contents | Length [cm] | Thickness [mm] | Width [cm] | Article no. |
|---|---|---|---|---|
| **10 cut-to-size mats** | 20 | 8 | 10 | **2000 365 138** |

## Edge protection bracket

To protect transport straps used for load restraint · For 50 mm wide straps · Polyurethane · Red

Reference price: 1 pc. corresponds to a set of 10 edge protection brackets



| Leg L [mm] | Width [mm] | Contents | Type | Article no. |
|---|---|---|---|---|
| **95 x 95** | 135 | 10 pc./set | With slot | **2000 365 139** |

## Edge protection bracket

Polypropylene · Suitable for 50 mm wide straps · Optimum force redirection at edges · Suitable for transporting rolls of paper · Unbreakable, cod resistant and dimensionally stable

Reference price: 1 pc. corresponds to a set of 4 edge protection brackets



| Leg L [mm] | Width [mm] | Contents | Article no. |
|---|---|---|---|
| **175 x 130** | 145 | 4 pc./set | **2000 365 141** |

## Round lifting sling DIN EN 1492-2

Polyester · Temperature range: -40 °C to +100 °C · Double cover




2000 365 100



2000 365 108




2000 365 104



2000 365 148

| Load-bearing capacity single [kg] | Load-bearing capacity U-shape [kg] | Colour | Useful L [m] | Circumference [m] | Article no. |
|---|---|---|---|---|---|
| **1000** | 2000 | Purple | 1 | 2 | **2000 365 100** |
| **1000** | 2000 | Purple | 1.5 | 3 | **2000 365 101** |
| **1000** | 2000 | Purple | 2 | 4 | **2000 365 102** |
| **1000** | 2000 | Purple | 3 | 6 | **2000 365 103** |
| **2000** | 4000 | Green | 1 | 2 | **2000 365 104** |
| **2000** | 4000 | Green | 1.5 | 3 | **2000 365 105** |
| **2000** | 4000 | Green | 2 | 4 | **2000 365 106** |
| **2000** | 4000 | Green | 3 | 6 | **2000 365 107** |
| **2000** | 4000 | Green | 4 | 8 | **2000 365 146** |
| **3000** | 6000 | Yellow | 1 | 2 | **2000 365 114** |
| **3000** | 6000 | Yellow | 2 | 4 | **2000 365 108** |
| **3000** | 6000 | Yellow | 3 | 6 | **2000 365 109** |
| **3000** | 6000 | Yellow | 4 | 8 | **2000 365 147** |
| **4000** | 8000 | Grey | 2 | 4 | **2000 365 148** |
| **4000** | 8000 | Grey | 4 | 8 | **2000 365 149** |

## Lifting sling DIN EN 1492-1

Polyester · Two-layer · Shape B2 · Safety factor 7 · Reinforced loop · Colour coding of the load-bearing capacity



2000 365 115



2000 365 118



2000 365 122

| Load-bearing capacity single [kg] | Load-bearing capacity U-shape [kg] | Colour | Length [m] | Belt W [mm] | Article no. |
|---|---|---|---|---|---|
| **1000** | 2000 | Purple | 1 | 30 | **2000 365 115** |
| **1000** | 2000 | Purple | 2 | 30 | **2000 365 116** |
| **1000** | 2000 | Purple | 3 | 30 | **2000 365 117** |
| **2000** | 4000 | Green | 2 | 60 | **2000 365 118** |
| **2000** | 4000 | Green | 3 | 60 | **2000 365 119** |
| **2000** | 4000 | Green | 4 | 60 | **2000 365 120** |
| **2000** | 4000 | Green | 6 | 60 | **2000 365 121** |
| **3000** | 6000 | Yellow | 3 | 90 | **2000 365 122** |
| **3000** | 6000 | Yellow | 4 | 90 | **2000 365 123** |
| **3000** | 6000 | Yellow | 6 | 90 | **2000 365 124** |




## Round lifting sling set

Round lifting slings with double cover in the five most common sizes · Set in a black sports bag

**Contents:**

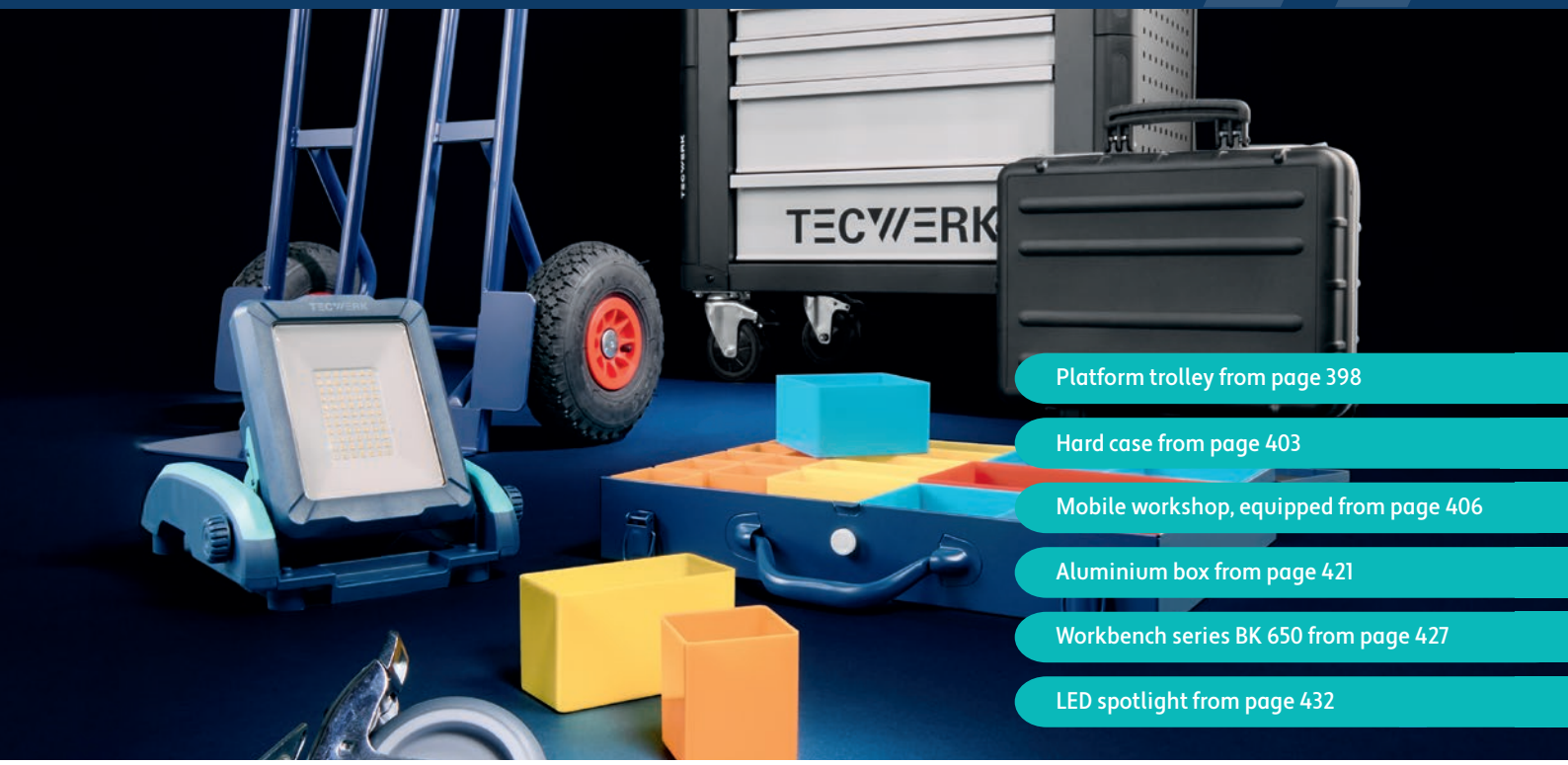
2x 1,000 kg, violet, circumference 2 m (2000 365 100)
2x 1,000 kg, violet, circumference 4 m (2000 365 102)
2x 2,000 kg, green, circumference 2 m (2000 365 104)
2x 2,000 kg, green, circumference 4 m (2000 365 106)
2x 3.000 kg, yellow, circumference 6 m (2000 365 109)

| Contents | Article no. |
|---|---|
| **10-part** | **2000 365 156** |




# 8. Industrial Requirement / Operating Equipment

# Optimised working environment with the TECWERK brand




Platform trolley from page 398
Hard case from page 403
Mobile workshop, equipped from page 406
Aluminium box from page 421
Workbench series BK 650 from page 427
LED spotlight from page 432

## TECWERK OPERATING EQUIPMENT – EFFICIENT SOLUTIONS FOR YOUR BUSINESS

Well-organised operating equipment is the key to productive work. TECWERK offers more than 100 products that combine functionality, ergonomics and durability – from workbenches and shelving systems to ergonomic work chairs.

The extensive, carefully selected product portfolio stands for modularity, flexibility and long service life. As an authorised TECWERK specialist dealer, we work with you to shape your workflows and operating processes down to the smallest detail. The modular concept, colour selection and wide range of functions meet your requirements for tailor-made individuality. Together, we shape your working environment.

### Efficiency by design

TECWERK-brand products stand for high economic efficiency. Efficient workflows and simplified operating processes are essential. Smart design concepts ensure optimum use of space.

### Guaranteed quality

High-quality products offer high practical value as well as excellent cost-effectiveness. This ensures user satisfaction even under tough working conditions. Depending on the product segment, first-class processing enables warranties of up to 10 years.

### Customisation as standard

We offer the right solutions when it comes to a wide variety of functions and colours. Modular designs guarantee adaptability to changing working conditions. The wide range of configurations offers countless possibilities for shaping working environments and integrating your corporate identity.

### Sustainability as a core principle

For the exclusive brand TECWERK, environmentally friendly and resource-conserving production is a matter of course. Recyclable sheet metal and steel as well as state-of-the-art coating systems ensure environmental protection. The same applies to worktops made from domestic beechwood.

TECWERK – Innovative products, excellent service and operating equipment that adapts to your business: efficient, safe, sustainable.



## Platform trolley Page 398

W: 450 mm, H: 910 mm, weight: 15 kg, loading height: 206 mm
**Order no. 2000 444130**



## Hard case Page 403

External dimensions (W x D x H): 513 x 258 x 435 mm, load-bearing capacity: 30 kg
**Order no. 2000 871658**

### Smart storage solutions – organised space down to the last square metre.




## Mobile workshop, equipped Page 406

Load-bearing capacity per drawer: 25 kg/static overall load-bearing capacity: 300 kg
**Order no. 2000 871501**




## Aluminium box Page 421

Internal dimensions H: 350 mm, L: 750 mm, W: 350 mm
**Order no. 2000 447953**

### Workplace design – comfort boosts productivity.



## Workbench series BK 650 Page 427

Solid beechwood top with face veneer on both sides
**Order no. 2000 425516**




## LED spotlight Page 435

Mobile high-power SMD LED luminaire for large-area illumination
**Order no. 2000 873343**



Locking lever for star wheels for trouble-free travel on flat areas

Puncture-resistant PU tyres for long service life

## Sack truck

Sturdy, welded tubular steel construction · Sheet steel shovel, wheel protection and safety handle · Powder-coated, sapphire blue, RAL 5003 · Bolted wheel mounting, easy wheel change · For suitable spare wheels see **article no. 9000 443 560 and 8001 269 477**

| **Load-bearing capacity [kg]** | **250** | **250** |
|---|---|---|
| Height [mm] | 1150 | 1150 |
| Overall W [mm] | 590 | 590 |
| Weight [kg] | 10 | 13 |
| Tyres | Air | Polyurethane |
| Shovel size L x W [mm] | 150 x 400 | 150 x 400 |
| Wheel Ø x W [mm] | 260 x 85 | 260 x 85 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 443 049** | **2000 443 054** |



## Stacker

Sturdy, welded tubular steel construction · Sheet steel shovel · Wheel protection and safety handle · Powder-coated, sapphire blue, RAL 5003 · Bolted wheel mounting, easy wheel change · For suitable spare wheel see **article no. 9000 443 560**

| **Load-bearing capacity [kg]** | **200** |
|---|---|
| Height [mm] | 1150 |
| Overall W [mm] | 570 |
| Weight [kg] | 11 |
| Tyres | Air |
| Shovel size L x W [mm] | 250 x 320 |
| Wheel Ø x W [mm] | 260 x 85 |
| | ⛟ |
| **Article no.** | **2000 443 139** |



## Stacker

Sturdy, welded tubular steel construction · Sheet steel shovel · Wheel protection and safety handle · Powder-coated, sapphire blue, RAL 5003 · Bolted wheel mounting, easy wheel change · For suitable spare wheel see **article no. 9000 443 560**

| **Load-bearing capacity [kg]** | **300** |
|---|---|
| Height [mm] | 1300 |
| Overall W [mm] | 580 |
| Weight [kg] | 12.4 |
| Tyres | Air |
| Shovel size L x W [mm] | 250 x 320 |
| Wheel Ø x W [mm] | 260 x 85 |
| | ⛟ |
| **Article no.** | **2000 443 058** |



With guide skids and puncture-resistant PU tyres

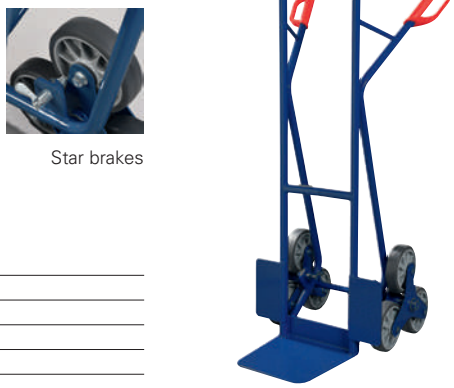
## Stacker

**With runners** · Sturdy, welded tubular steel construction · Sheet steel shovel, wheel protection and safety handle · Powder-coated, sapphire blue, RAL 5003 · With interchangeable plastic guide skids · Bolted wheel mounting, easy wheel change · For suitable spare wheel see **article no. 9000 443 560** and **article no. 8001 269 477**

| **Load-bearing capacity [kg]** | **300** | **300** |
|---|---|---|
| Height [mm] | 1300 | 1300 |
| Overall W [mm] | 580 | 580 |
| Weight [kg] | 16 | 18 |
| Tyres | Air | Polyurethane |
| Shovel size L x W [mm] | 250 x 320 | 250 x 320 |
| Wheel Ø x W [mm] | 260 x 85 | 260 x 85 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 443 059** | **2000 443 060** |

## Stairway truck

Sturdy, welded tubular steel construction · Sheet steel shovel, wheel protection and safety handle · Powder-coated, sapphire blue, RAL 5003 · 2 three spoke wheel centres each with 3 TPE wheels, lockable





Star brakes

| Load-bearing capacity [kg] | 200 |
|---|---|
| Height [mm] | 1300 |
| Overall W [mm] | 590 |
| Weight [kg] | 20 |
| Tyres | TPE |
| Shovel size L x W [mm] | 250 x 320 |
| Wheel Ø x W [mm] | 160 x 40 |
| | ⛟ |
| **Article no.** | **2000 443 160** |

## Panel barrow

For transporting large plastic and wood pallets lengthways · Tubular steel construction, powder-coated, sapphire blue, RAL 5003 · Wheels, roller-bearing hubs · Sheet steel pallet support, L 500 x W 200 mm · 2 support rollers Ø 50 mm



| Load-bearing capacity [kg] | 350 |
|---|---|
| Height [mm] | 1440 |
| Overall W [mm] | 680 |
| Weight [kg] | 16 |
| Tyres | Air |
| Support L x W [mm] | 500 x 200 |
| Wheel Ø x W [mm] | 260 x 85 |
| | ⛟ |
| **Article no.** | **2110 443 181** |

## Panel dolly

With jaws · Max. clamping width 0–60 mm · Inside surface with felt coating · Welded steel construction, powder-coated, sapphire blue, RAL 5003 · Air tyres, roller-bearing hubs · Bolted wheel mounting, easy wheel change · For suitable spare wheel see **article no. 9000 443 565**

**For transporting large plastic and wood pallets lengthways. The load secures itself - clamping is achieved using the load weight on the folding construction.**



Supplied without panel



| Load-bearing capacity [kg] | 250 |
|---|---|
| Tyres | Air |
| External dimensions L x W x H [mm] | 300 x 298 x 305 |
| Wheel Ø x W [mm] | 260 x 85 |
| **Article no.** | **2000 443 070** |

## Box dolly

Welded angle steel construction · Powder-coated, sapphire blue, RAL 5003 · Suitable for transport containers L 600 x W 400 mm · 4 swivel castors, 2 with brakes · Deep groove ball bearing hubs



| Load-bearing capacity [kg] | 250 |
|---|---|
| Frames | Open |
| Loading height [mm] | 182 |
| Tyres | TPE |
| Platform L x W [mm] | 605 x 405 |
| **Article no.** | **2000 444 230** |



2000 444 171

## Trolley with handle

Robust tubular steel construction, powder-coated, sapphire blue, RAL 5003, long-lasting surface protection · 1 platform with plywood board in frame, surface with beech finish · Screw-on push handle · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres · Deep groove ball bearing hubs

**Supplied unassembled**

| **No. of platforms** | **1** |
|---|---|
| Overall load-bearing capacity [kg] | 250 |
| Loading height [mm] | 195 |
| Weight [kg] | 11 |
| Wheel Ø x W [mm] | 125 x 32 |
| Platform L x W [mm] | 600 x 500 |
| **Article no.** | **2000 444 171** |



2000 444 173

## Trolley with handle

Robust tubular steel construction, powder-coated, sapphire blue, RAL 5003, long-lasting surface protection · 2 levels with plywood board in frame, surface with beech finish · Screw-on push handle · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres · Deep groove ball bearing hubs · Load-bearing capacity of upper loading area 100 kg

**Supplied unassembled**

| **No. of platforms** | **2** |
|---|---|
| Overall load-bearing capacity [kg] | 250 |
| Loading height [mm] | 195/770 |
| Weight [kg] | 19 |
| Wheel Ø x W [mm] | 125 x 32 |
| Platform L x W [mm] | 600 x 450 |
| **Article no.** | **2000 444 173** |



2000 444 130

## Platform trolley

Welded tubular steel and steel profile, powder-coated, pigeon blue, RAL 5014 · Plywood board platform surface with beech finish · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres, non-marking · Deep groove ball bearing hubs

| **Overall load-bearing capacity [kg]** | **250** |
|---|---|
| Loading height [mm] | 206 |
| Wheel Ø [mm] | 125 |
| Weight [kg] | 15 |
| Platform L x W [mm] | 850 x 450 |
| Overall dimensions L x W x H [mm] | 940 x 450 x 910 |
| | ⛟ |
| **Article no.** | **2000 444 130** |



2000 444 131

## Platform trolley

Welded tubular steel and steel profile, powder-coated, sapphire blue, RAL 5003 · Screw-on push bar · Plywood board platform, surface with beech finish · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres · Deep groove ball bearing hubs

**Supplied unassembled**

| **Overall load-bearing capacity [kg]** | **250** | **250** |
|---|---|---|
| Loading height [mm] | 206 | 206 |
| Wheel Ø [mm] | 125 | 125 |
| Weight [kg] | 15 | 20 |
| Platform L x W [mm] | 850 x 450 | 1000 x 600 |
| Overall dimensions L x W x H [mm] | 1100 x 450 x 910 | 1250 x 600 x 910 |
| **Article no.** | **2000 444 131** | **2000 444 132** |





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You will find the explanation of the symbols before the index.

## Platform trolley

**With folding clamp** · Tubular steel, powder-coated Pigeon blue, RAL 5014 · Plywood board platform surface with beech finish · Push bar can be folded on platform · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres · Wheel Ø 125 mm · Deep groove ball bearing hubs



2110 444 014

| **Overall load-bearing capacity [kg]** | **250** |
|---|---|
| Loading height [mm] | 206 |
| Wheel Ø [mm] | 125 |
| Weight [kg] | 16 |
| Platform L x W [mm] | 720 x 450 |
| Overall dimensions L x W x H [mm] | 815 x 470 x 930 |
| **Article no.** | **2110 444 014** |

## Platform trolley

Welded tubular steel and steel profile · Powder-coated, sapphire blue, RAL 5003 · Plywood board platform surface with beech finish · 2 swivel and 2 fixed castors, swivel castors with brakes · TPE tyres · Deep groove ball bearing hubs
**Supplied unassembled**

**Application:**
Smooth-running platform trolley with low starting and rolling resistance, ideal for transporting and commissioning heavy loads.



2000 444 140

| **Overall load-bearing capacity [kg]** | **600** | **600** |
|---|---|---|
| Loading height [mm] | 270 | 270 |
| Wheel Ø [mm] | 200 | 200 |
| Weight [kg] | 30 | 35 |
| Platform L x W [mm] | 1000 x 700 | 1200 x 800 |
| Overall dimensions L x W x H [mm] | 1125 x 709 x 990 | 1325 x 809 x 990 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 444 140** | **2000 444 141** |

## Table trolley

Welded tubular steel and steel profile · Powder-coated Sapphire blue, RAL 5003 · Impact- and scratch-proof · Plywood board platforms with beech finish, supported by angle steel frame, rim 12 mm high · 2 swivel castors with brakes and 2 fixed castors · TPE tyres, deep groove ball bearing hubs · Load-bearing capacity of upper loading area 80 kg
**Supplied unassembled**
**Application:** For fast internal small-scale transport of goods or working materials to the respective site



2000 444 128

| **No. of platforms** | **2** | **2** |
|---|---|---|
| Overall load-bearing capacity [kg] | 300 | 300 |
| Shelf height [mm] | 200/820 | 200/820 |
| Type | Push bar, vertical | Push bar, vertical |
| Wheel Ø [mm] | 125 | 125 |
| Weight [kg] | 29 | 36 |
| Platform L x W [mm] | 850 x 500 | 1000 x 600 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 444 128** | **2000 444 129** |

## Table trolley

Welded tubular steel and steel profile · Powder-coated Sapphire blue, RAL 5003 · Long-lasting surface protection, impact- and scratch-proof · Plywood board platforms with beech finish, supported by angle steel frame, rim 12 mm high · 2 swivel castors with brakes and 2 fixed castors · TPE tyres, roller-bearing hubs · Wheel Ø 125 mm · Load-bearing capacity of upper and middle platform 80 kg
**Supplied unassembled**



2000 444 125

| **No. of platforms** | **3** | **3** |
|---|---|---|
| Overall load-bearing capacity [kg] | 300 | 300 |
| Shelf height [mm] | 200/510/820 | 200/510/820 |
| Type | Push bar, vertical | Push bar, vertical |
| Wheel Ø [mm] | 125 | 125 |
| Weight [kg] | 36 | 49 |
| Platform L x W [mm] | 850 x 500 | 1000 x 600 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 444 125** | **2000 444 126** |



2000 444 119

## Table trolley

Welded tubular steel and steel profile · Powder-coated, sapphire blue, RAL 5003 · Long-lasting surface protection, impact- and scratch-proof · Plywood board platforms with beech finish, supported by angle steel frame, rim 12 mm high · 2 swivel castors with brakes and 2 fixed castors · TPE tyres, deep groove ball bearing hubs · Load-bearing capacity of upper loading area 80 kg
**Supplied unassembled**

| **No. of platforms** | **2** | **2** |
|---|---|---|
| Overall load-bearing capacity [kg] | 300 | 300 |
| Shelf height [mm] | 200/820 | 200/820 |
| Type | Push bar, horizontal | Push bar, horizontal |
| Wheel Ø [mm] | 125 | 125 |
| Weight [kg] | 29 | 36 |
| Platform L x W [mm] | 850 x 500 | 1000 x 600 |
| | ⛟ | ⛟ |
| **Article no.** | **2000 444 119** | **2000 444 120** |





## Table trolley

Welded tubular steel and steel profile · Powder-coated, sapphire blue, RAL 5003, long-lasting surface protection, impact- and scratch-proof · Plywood board platforms with beech finish · 2 swivel castors with brakes and 2 fixed castors, TPE tyres · Deep groove ball bearing hubs · Load-bearing capacity of upper platform 200 kg
**Supplied unassembled**

**Application:**
Robust trolley for use in shipping, office and factory settings

| **No. of platforms** | **2** | **2** | **2** | **2** | **2** |
|---|---|---|---|---|---|
| Overall load-bearing capacity [kg] | 500 | 500 | 600 | 600 | 600 |
| Shelf height [mm] | 228/860 | 228/860 | 270/900 | 270/900 | 270/900 |
| Wheel Ø [mm] | 160 | 160 | 200 | 200 | 200 |
| Weight [kg] | 32 | 36 | 44 | 49 | 58 |
| Platform L x W [mm] | 600 x 600 | 850 x 500 | 1000 x 600 | 1000 x 700 | 1200 x 800 |
| | ⛟ | ⛟ | ⛟ | ⛟ | ⛟ |
| **Article no.** | **2000 444 113** | **2110 444 114** | **2000 444 115** | **2000 444 116** | **2000 444 117** |

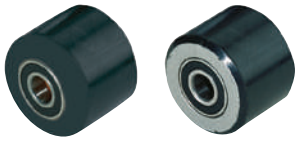




## Pallet truck

Robust, torsion-resistant steel construction · Safety shaft with lift, drive and lower functions, reinforced shaft base · Low maintenance hydraulic system · Overload cut-out · Adjustable lowering speed · **Retractable castors for easy entry into the width of Euro pallets** · Surface protection with high-quality multi-layer coating in pigeon blue, RAL 5014

| **Load-bearing capacity [kg]** | **2500** | **2500** | **2500** | **2000** |
|---|---|---|---|---|
| Length of fork [mm] | 800 | 1150 | 1150 | 2000 |
| Carrying width [mm] | 540 | 540 | 540 | 540 |
| Lifting range [mm] | 85–200 | 85–200 | 85–200 | 85–200 |
| Swivel castors | Polyurethane | Polyurethane | Solid rubber | Polyurethane |
| Fork castors | Polyamide | Polyamide | Polyurethane | Polyurethane |
| Swivel castor wheel Ø x W [mm] | 200 x 50 | 200 x 50 | 200 x 50 | 200 x 50 |
| Pallet truck castor Ø x W [mm] | 80 x 70 | 80 x 70 | 80 x 70 | 80 x 70 |
| | ⛟ | ⛟ | ⛟ | ⛟ |
| **Article no.** | **2000 443 352** | **2000 443 351** | **2000 443 355** | **2000 443 353** |



## Pallet truck castor

Polyamide with 2 precision ball bearings per castor · Designed to take heavy loads · Largely resistant to salts, greases, acids and alkalis

| **Equipment** | **For TECWERK pallet trucks up to year of manufacture 2008** |
|---|---|
| Tyres | Polyamide |
| Load-bearing capacity [kg] | 700 |
| Wheel Ø x W [mm] | 80 x 63 |
| Length of hub x axle Ø [mm] | 63 x 20 |
| **Article no.** | **2000 443 360** |



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## Scissor forklift truck

**Manual hydraulic** · Can be used as pallet truck and elevating platform · With 1-phase hydraulics · Hydraulic system with safety valve · Adjustable lowering speed · **Rapid lift for loads of up to 200 kg** · Prepare, move and lift palletised goods – without heavy lifting or bending · Safety supports for secure position when forks are lifted · High-quality powder coating pigeon blue, RAL 5014
Movable up to a lifting height of 400 mm, after which automatically resting side supports offer optimum stability



| Load-bearing capacity [kg] | 1000 |
|---|---|
| Lifting range [mm] | 85–800 |
| Load centre of gravity [mm] | 600 |
| Overall L [mm] | 1725 |
| Length of fork [mm] | 1170 |
| Carrying width [mm] | 540 |
| Weight [kg] | 122 |
| Ground clearance [mm] | 85 |
| Turning radius [mm] | 1564 |
| Swivel castors | Polyurethane |
| Fork castors | Polyurethane |
| | |
| **Article no.** | **2000 443 375** |

## High-lift stacker

**Load-bearing capacity 1000 kg** · Stacker for light and occasional internal loading duties · Sturdy chassis, welded precision profile mast construction · Manual lifting and carrying · **Quick stroke up to approx. 150 kg** · Adjustable lowering speed for accurate load placement · Sturdy hydraulic system with overload cut-out · Parking brake · Surface protection with high-quality multi-layer coating in pigeon blue, RAL 5014



| Load-bearing capacity [kg] | 1000 | 1000 |
|---|---|---|
| Lifting range [mm] | 90–900 | 90–1600 |
| Load centre of gravity [mm] | 600 | 600 |
| Overall height [mm] | 1300 | 1965 |
| Length of fork [mm] | 1150 | 1150 |
| Carrying width [mm] | 540 | 540 |
| Turning radius [mm] | 1445 | 1445 |
| Swivel castors | Polyurethane | Polyurethane |
| Fork castors | Polyamide | Polyamide |
| Weight [kg] | 179 | 205 |
| Swivel castor wheel Ø x W [mm] | 180 x 50 | 180 x 50 |
| Pallet truck castor Ø x W [mm] | 80 x 55 | 80 x 55 |
| | | |
| **Article no.** | **2000 443 385** | **2000 443 386** |

## Scissor lift truck

**For lifting and carrying loads anywhere on the premises** · Smooth lowering via hand lever · Lifting by means of hydraulic foot pump · Single scissor mechanism · Robust construction · Polyurethane wheels · Swivel and fixed castors with ball bearings · Swivel castors with brakes · High-quality multi-layer coating, pigeon blue, RAL 5014 · Complies with EN 1570, prEN 1757-4



| Load-bearing capacity [kg] | 150 | 300 | 500 | 750 |
|---|---|---|---|---|
| Lifting range [mm] | 220–720 | 285–880 | 285–880 | 420–1000 |
| Weight [kg] | 49 | 78 | 82 | 120 |
| Tabletop surface L x W [mm] | 700 x 450 | 850 x 500 | 850 x 500 | 1000 x 510 |
| Overall dimensions L x W [mm] | 908 x 450 | 1093 x 500 | 1093 x 520 | 1330 x 520 |
| | | | | |
| **Article no.** | **2000 443 405** | **2000 443 406** | **2000 443 407** | **2000 443 408** |

## Lever hoist

Sheet steel housing and hand lever · Round steel chain · Support and load hook with safety bar · Automatic load brake



| Load-bearing capacity [kg] | Lifting height [m] | Weight incl. chains [kg] | Article no. |
|---|---|---|---|
| **750** | 1.5 | 7.2 | **2000 360 000** |
| **1500** | 1.5 | 12.5 | **2000 360 001** |
| **3000** | 1.5 | 21.5 | **2000 360 002** |



## Chain hoist

Solid sheet steel case · High-strength round steel chain · With support hook and load hook · Low overall height · Lightweight · Automatic load pressure brake

| Load-bearing capacity [kg] | No. of chain strands | Lifting height [m] | Weight incl. chains [kg] | Article no. |
|---|---|---|---|---|
| **1000** | 1 | 3 | 14.0 | **2000 360 050** |
| **2000** | 1 | 3 | 19.0 | **2000 360 051** |



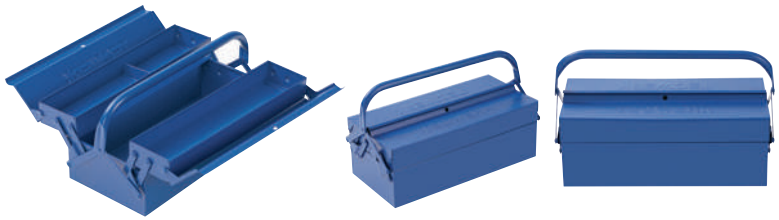
## Stackable transport container

**Polypropylene** · For a wide range of applications in warehouse and order picking sectors · Designed to fit Euro pallet dimensions · Resistant to most acids and oils · Food safe · Temperature-resistant from -20 °C to +80 °C · Colour Grey and Blue · Floor and side panels closed

| External dimensions L x W x H [mm] | Internal dimensions L x W x H [mm] | Contents [l] | Handle type | Article no. Grey | Article no. Blue |
|---|---|---|---|---|---|
| **300 x 200 x 120** | 260 x 160 x 117 | 5 | Recessed grip | **2000 447 798** | **2000 447 799** |
| **400 x 300 x 120** | 355 x 255 x 115 | 10 | Recessed grip | **2000 447 800** | **2000 447 801** |
| **400 x 300 x 170** | 355 x 255 x 165 | 14 | Hand grip opening | **2000 447 803** | **2000 447 804** |
| **400 x 300 x 220** | 355 x 255 x 215 | 20 | Hand grip opening | **2000 447 806** | **2000 447 807** |
| **400 x 300 x 320** | 355 x 255 x 315 | 31 | Hand grip opening | **2000 447 809** | **2000 447 808** |
| **600 x 400 x 120** | 555 x 355 x 115 | 24 | Recessed grip | **2000 447 812** | **2000 447 813** |
| **600 x 400 x 150** | 553 x 353 x 145 | 33 | Hand grip opening | **2000 447 815** | **2000 447 816** |
| **600 x 400 x 170** | 555 x 355 x 165 | 34 | Hand grip opening | **2000 447 818** | **2000 447 819** |
| **600 x 400 x 220** | 555 x 355 x 215 | 42 | Hand grip opening | **2000 447 821** | **2000 447 822** |
| **600 x 400 x 280** | 553 x 353 x 275 | 55 | Hand grip opening | **2000 447 827** | **2000 447 828** |
| **600 x 400 x 320** | 553 x 353 x 317 | 60 | Hand grip opening | **2000 447 830** | **2000 447 831** |
| **600 x 400 x 420** | 550 x 350 x 415 | 80 | Hand grip opening | **2000 447 833** | **2000 447 834** |

## Tool box

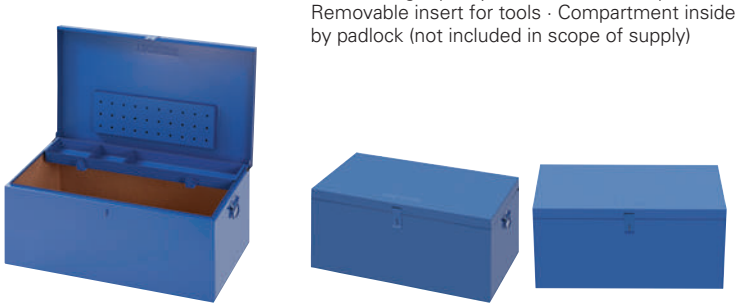
Made of sheet steel · Painted blue · With folding handle · Lockable by padlock (not included in scope of supply) · **Beaded edges · Thickness of sheet: Approx. 0.7 mm**



| Type | 3-part | 5-part | 5-part | 5-part |
|---|---|---|---|---|
| W x D x H [mm] approx. exterior | 430 x 200 x 150 | 430 x 200 x 200 | 530 x 200 x 200 | 600 x 200 x 200 |
| **Article no.** | **2000 871 260** | **2000 871 261** | **2000 871 263** | **2000 871 264** |

## Sheet steel tool box

Made of high-quality sheet steel · Blue, powder-coated · With large handles · Interior lined with hardboard (4 mm thick) · Removable insert for tools · Compartment inside lid for plans, etc. · Lid support holds the lid open if required · Lockable by padlock (not included in scope of supply)



| Type | Unequipped | Unequipped | Unequipped |
|---|---|---|---|
| Contents [l] | 73.5 | 120 | 200 |
| W x D x H [mm] approx. exterior | 690 x 360 x 310 | 830 x 440 x 340 | 910 x 530 x 430 |
| | | | ⛟ |
| **Article no.** | **2000 871 200** | **2000 871 202** | **2000 871 204** |



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## Component box

Dimensions: 438 x 342 x 70 mm · Plastic compartment divider: 12 pieces orange A · 6 pieces yellow B · 4 pieces blue C · 1 piece red D





| W x D x H [mm] | No. of compartments | Colour of lid | Article no. |
|---|---|---|---|
| **438 x 342 x 70** | 23 | Blue | **2000 871 531** |

## Portable tool box

Made of plastic · With two compartments and sturdy aluminium handle



| W x D x H [mm] | Colour | Article no. |
|---|---|---|
| **420 x 250 x 120** | Blue | **2000 871 304** |

## Hard case

Case shells **made of ultra-tough ABS · Robust aluminium frame with impact edge protection ·** Two lockable metal draw latches · Hinged cover
**Equipment:** Variable base tray, cover with 15 tool pockets, tool board with 22 tool pockets, document compartment in lid



| W x D x H [mm] | Contents [l] | Article no. |
|---|---|---|
| **490 x 188 x 365** | 24.5 | **2000 872 222** |

## Hard case

Shells **made of impact-resistant ABS material** · **Sturdy aluminium frame** with **impact edge protection** protects the tool and the case · Black · 2 lockable **tilt locks** and a **combination lock** ensure maximum security · **4 additional base feet** provide extra stability · Base tray can be **variably subdivided** by aluminium separating strips · Additional document compartment in A4 format · With **hinge lid** and **safety lid holder**
**External dimensions: (W x D x H) 500 x 200 x 420 mm**

**Equipment article no. 2000 871 661:** Removable tool board in lid with **22 tool bags** on the front and back, removable cover for base tray with **15 tool bags**



| W x D x H [mm] | Contents [l] | Article no. |
|---|---|---|
| **500 x 200 x 420** | 28.1 | **2000 871 661** |

## Hard case

Shells **made of impact-resistant ABS material** · Sturdy **aluminium frame with impact edge protection** protects the tool and the case · Black · 2 **lockable tilt locks and a combination lock** ensure maximum security · **4 additional base feet** provide extra stability · Base tray can be **variably subdivided** by aluminium separating strips · **Additional document compartment** in A4 format · With hinge lid and safety lid holder
**External dimensions: (W x D x H) 500 x 225 x 430 mm**

**Equipment:** Removable tool board in lid with **22 tool bags on the front and back**, removable cover for base tray with **15 tool bags**



| W x D x H [mm] | Contents [l] | Article no. |
|---|---|---|
| **470 x 200 x 365** | 34.3 | **2000 871 664** |

## Hard case

**With wheels** and deep base tray · **Made of ABS plastic** · **3-stage telescope extension** · Telescopic handle for comfort and convenience when carrying the case · 2 large inline castors ensure smooth travel · Robust aluminium frame with impact edge protection · 2 lockable tilt locks with a combination lock ensure a high level of security · **Load-bearing capacity/additional load 30 kg**
**External dimensions: (W x D x H) 513 x 258 x 435 mm**

**Equipment:**
Base tray can be variably divided by aluminium separating strips, document compartment in A4 format





| W x D x H [mm] interior | Contents [l] | Article no. |
|---|---|---|
| **480 x 200 x 375** | 36 | **2000 871 658** |



Supplied without tools/contents





## Hard case

**With wheels** and deep base tray · **Polypropylene** · **3-stage telescope extension**, 665 mm long · Large, rubber-coated castors with bearings · Wide wheel base · Extremely impact-resistant · Robust, moisture-resistant, removable tool boards · One tool board is double-sided · All-round aluminium frame · **Tilting cylinder locks** · Ratchet hinges · Base gliders · Lockable · **Load-bearing capacity 25 kg**

**Equipment:**

· 2 tool boards
· 1 tool board is double-sided: Front: 11 insert compartments + hook-and-loop fastener pocket, rear: 13 insert compartments and 12 tuck-in flaps
· 1 tool board equipped with 6 insert compartments and 9 tuck-in flaps
· 1 base tray with 6 tool compartments, can be divided as required
· 2 keys

| W x D x H [mm] interior | Contents [l] | Article no. |
|---|---|---|
| **465 x 255 x 352** | 42 | **2000 871 743** |



Supplied without contents

## Hard case

**With wheels** · **Made of HDPE plastic** · Model suitable for air travel, shock-resistant and corrosion-free · Telescopic handle · 2 TSA locks · **Load-bearing capacity/additional load: 30 kg**

**Equipment**: Base tray with adjustable dividers, 1 document compartment, 2 small part boxes

| W x D x H [mm] interior | Contents [l] | Article no. |
|---|---|---|
| **453 x 185 x 345** | 28.9 | **2000 872 009** |



## Hard case

**With wheels** · Case shells **made of extremely robust polypropylene** · Absolutely stable **dust-tight** and **splash-proof** · Ergonomic **two-component handle** · Automatic **air pressure equalising valve** · **Property marking** possible · Eyelets for padlock (padlock not included in scope of supply) · 2 large castors and comfortable telescopic handle · Base tray can be **individually subdivided** using **aluminium separating strips**

**External dimensions article no. 2000 871 668: (W x D x H) 602 x 261 x 426 mm**

**Equipment article no. 2000 871 668:** Tool boards with a total of **42 tool bags and 67 elastic tool loops**, document compartment in lid, two pneumatic springs prevent the lid from closing

| W x D x H [mm] interior | Contents [l] | Article no. |
|---|---|---|
| **539 x 225 x 359** | 43.5 | **2000 871 668** |



Supplied without tools/contents









## Hard case

**With wheels** · Case shall made of extremely hard-wearing and impact-resistant **HDPE plastic** · Sturdy aluminium frame · Reinforced corners · Two locks (lockable) · Two ball bearing wheels (Ø 120 mm) · Opening system with pneumatic springs · 2-stage telescopic handle, approx. 1100 mm long · PP feet · Stackable · With **TSA lock · Load-bearing capacity 40 kg**

**Equipment:**

· 1 base tray
· 1 base tray cover (tool board with 6 insert compartments and 12 insert flaps)
· 3 removable small parts storage units (in base tray)
· 1 insert tray with pre-cut foam padding in base tray (e.g. for sensitive measuring devices)
· 1 tool board is double-sided: Front: 11 insert compartments + bag for small parts, rear: 13 insert compartments + 12 insert flaps
· 2 document compartments

**Special product benefits:**

This case, which is 300 mm high, even provides storage space for large, bulky tools

**European quality product**

| W x D x H [mm] interior | Contents [l] | Article no. |
|---|---|---|
| **470 x 390 x 300** | 64 | **2000 871 771** |

## Protective case

Black · **Air- and water-tight** · With **pre-cut foam insert** for easy customising of the interior · Locks, air inlet screw, handle, shock-proof · **Made of impact-resistant plastic** · Can be locked with two padlocks · (Padlocks not included in scope of supply)









| W x D x H [mm] interior | Article no. |
|---|---|
| 186 x 123 x 75 | 2000 870 772 |
| 300 x 220 x 90 | 2000 870 773 |
| 395 x 320 x 117 | 2000 871 774 |
| 485 x 355 x 186 | 2000 870 775 |

## Belt pouch

Robust design · Made of **nylon 1680D** · For belt attachment, for holding tools · Adjustable safety belt with quick-release fasteners · Numerous insert compartments enable universal use · Durable seams and zips





Supplied without tools/contents

| W x D x H [mm] | 80 x 250 x 270 |
|---|---|
| Article no. | 2000 871 767 |

## Tool bag

With fold-open front wall · **Material: Genuine leather** · Internal dimensions: 420 x 150 x 250 mm · Aluminium edge protectors · 18 adjustable tool holders · 2 loops on the side panels · Completely reinforced interior · Galvanised sheet steel base tray · 2 plug-in locks · Base gliders · Carry rings · Large front pocket · Supplied without shoulder strap



Supplied without shoulder strap

| W x D x H [mm] | Contents [l] | Article no. |
|---|---|---|
| 430 x 170 x 280 | 16 | 2000 871 931 |

## Tool sheath L-BOXX®

Made of impact-resistant ABS · Black · With grey operating elements · Front handle · Handle in black · Click connection and stackable · Transport and storage solution for tools, accessories and consumables in one BOXX®
**Includes tool insert in the lid compartment**





| W x D x H [mm] interior | Model | Article no. |
|---|---|---|
| 378 x 311 x 107 | 136 | 2000 872 166 |











2000 871 254



2000 871 255



2000 871 256

## Tool trolley TREND 2.0

With **6 drawers** · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Painted metal cover · Divider set for 4 drawers included in scope of supply · Lockable thanks to built-in cylinder lock on the side with 2 keys · High-quality castors Ø 127 mm – 2 rigid and 2 swivel castors with brake · Both-sided perforated wall system (9 x 9 mm) for easy installation of accessories · **All-round, side plastic edge protectors**

Overall dimensions with everything fitted, including handle and wheels (W x D x H) 745 x 475 x 950 mm
Dimensions of body only (W x D x H) 678 x 459 x 781 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 75 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 154 mm

**Load-bearing capacity per drawer 25 kg / static overall load 300 kg**
**Equipment in drawer 1 (module 2000 871 254)**
**Contents:**
**With 6.3 mm** (1/4") **square drive**
1 lever-action reversible ratchet, **18° backswing angle**
1 hexagonal socket bit each with TECWERK-ENERGY profile, AF 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
1 hexagonal deep socket bit each with TECWERK-ENERGY profile, AF 6 - 7 - 8 - 10 mm
1 socket bit each for screws with **internal TORX® profile** in sizes T 15, T 20, T 25, T 30
1 socket bit each for screws with **external TORX® profile** AF E 4, E 5, E 6, E 8
1 socket bit each for screws with **hexagonal socket profile** AF 3, 4, 5, 6 mm
1 socket bit each for **slotted head screws** 0.8 x 4.0 and 1.0 x 5.5 mm
1 socket bit each for screws with **cross-head (PH)** in sizes 1, 2
1 socket bit each for screws with **cross-head (PZ)** in sizes 1 - 2
1 of each extension 75 mm and 150 mm
1 sliding collar for extension
1 universal joint
1 handle with square drive

**Contents:**
**With 12.5 mm** (1/2") **square drive**
1 lever-action reversible ratchet, **10° backswing angle**
1 hexagonal socket bit each with TECWERK-ENERGY profile,
AF 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm
1 hexagonal deep socket bit with TECWERK-ENERGY profile each, AF 13 - 17 - 19 mm
1 socket bit each for sparking plugs AF 16 and 21 mm
1 socket bit each for screws with **external TORX® profile** AF E 10, E 12, E 14, E 18
1 socket bit each for screws with **internal hexagonal profile**, length 100 mm, AF 7, 8, 10
1 socket bit each for screws with **internal TORX® profile** in sizes T 40, T 45, T 50, T 55
1 of each extension 125 mm and 250 mm
1 sliding collar for extension
1 universal joint

**Equipment in drawer 2 (module 2000 871 256):**
**Contents:**
1 screwdriver for **slotted head screws** in size 3.5 x 100 mm
1 screwdriver for screws with **cross-head (PH)** PH0 x 60 mm
2 screwdrivers for screws with **cross-head (PZ)** sizes 1 x 80 mm and 2 x 100 mm
5 screwdrivers for screws with **internal TORX® profile**
1 bit/socket spanner set hexagonal, 24-part, for **slotted head screws,** for screws with **cross-heads (PH + PZ),** screws with **hexagonal socket profile,** screws with **internal TORX® profile**
3 screwdriver each for screws with **outer hexagon screws** in sizes 8 x 200, 10 x 200 and 13 x 230 mm
1 bit holder with handle **(6.3 mm)** 1/4"

**Equipment in drawer 3 (module 2000 871 255):**
1 combination spanner set 12-part (6–22 mm)
1 pair of water pump pliers 240 mm / 1 pair of universal pliers 180 mm / 1 pair of side cutters 160 mm
1 cross peen hammer 300 g with hickory handle
1 craft knife
1 pocket retracting tape measure 5 m
1 telescopic magnetic pick-up tool with nozzle adjustment 150–670 mm
1 centre punch 120 mm
1 LED torch 9.8 cm
1 offset screwdriver set for screws with **internal TORX® profile,** 8-part (size 9–40)
1 offset screwdriver set for screws with **hexagon socket profile,** 9-part (size 1.5–10 mm)
2 screwdrivers for slotted head screws (5.5 x 125 mm, 6.5 x 150 mm)
2 screwdrivers for screws with **cross-head (PH)** (size 1 x 80 mm, 2 x 100 mm)
1 screwdriver for screws with **cross-head (PH)** (size 2 x 25 mm)
1 screwdriver for screws with **cross-head (PZ)** (size 2 x 25 mm)

**Tools in high-quality foam insert**

| W x D x H [mm] exterior | Contents | No. of drawers | Article no. |
|---|---|---|---|
| **745 x 475 x 950** | Unequipped | 6 | **2000 871 500** |
| **745 x 475 x 950** | 152-part | 6 | **2000 871 501** |



▷ = no stock item. Procurement takes place after receipt of order. = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.







## Tool trolley PLUS 2.0

With 6 **drawers** · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Divider set for 4 drawers included in scope of supply · With central locking (only one drawer can be opened at a time) · Lockable thanks to built-in cylinder lock with 4 keys · Drawers can be written on · Plastic cover · High-quality PVC castors Ø 127 mm - 2 rigid and 2 swivel castors with brake · Perforated wall system (9 x 9 mm) on both sides for easy installation of accessories · **2 can holders with perforation for screwdrivers** (included in the scope of supply) · **All-round side edge protectors**

Durable polypropylene storage area with storage compartments for small parts
Overall dimensions with everything fitted, including handle and wheels (W x D x H) 760 x 465 x 1030 mm
Dimensions of body only (W x D x H) 678 x 459 x 817 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 75 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 154 mm

**Load-bearing capacity per drawer 30 kg / static overall load 500 kg**

**Equipment in drawer 1 (module 2000 871 254)**
**Contents:**
**With 6.3 mm** (1/4") **square drive**
1 lever-action reversible ratchet, **18° backswing angle**
1 hexagonal socket bit each with TECWERK-ENERGY profile, AF 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
1 hexagonal deep socket bit each with TECWERK-ENERGY profile, AF 6 - 7 - 8 - 10 mm
1 socket bit each for screws with **internal TORX® profile** sizes T 15 - T 20 - T 25,T 30
1 socket bit each for screws with **external TORX® profile** AF E 4, E 5, E 6, E 8
1 socket bit each for screws with **internal hexagonal profile** AF 3,4,5,6 mm
1 socket bit each for **slotted head screws** 0.8 x 4.0 and 1.0 x 5.5 mm
1 socket bit each for screws with **cross-head (PH)** in sizes 1, 2
1 socket bit each for screws with **cross-head (PZ)** in sizes 1 - 2
1 of each extension 75 mm and 150 mm
1 sliding collar for extension
1 universal joint
1 handle with square drive

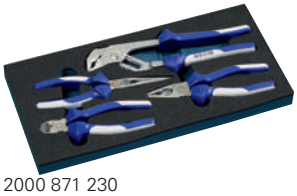
**Contents:**
**With 12.5 mm** (1/2") **square drive**
1 lever-action reversible ratchet, **10° backswing angle**
1 hexagonal socket bit each with TECWERK-ENERGY profile, AF 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm
1 hexagonal deep socket bit with TECWERK-ENERGY profile each, AF 13-17-19 mm
1 socket bit each for sparking plugs AF 16 and 21 mm
1 socket bit each for screws with **external TORX® profile** AF E 10, E 12, E 14, E 18
1 socket bit each for screws with **internal hexagonal profile**, length 100 mm, AF 7, 8, 10
1 socket bit each for screws with **internal TORX® profile** in sizes T 40, T 45, T 50, T 55
1 of each extension 125 mm and 250 mm
1 sliding collar for extension
1 universal joint

**Equipment in drawer 2 (module 2000 871 230, 2000 871 234, 2000 871 238)**
**Contents:**
**Pliers set 1/3 insert module (4-part)**
**W 185xD 385xH 30 mm**
1 pair of universal pliers DIN ISO 5746, 180 mm, chrome-plated head
1 pair of needle-nose pliers DIN ISO 5745, 200 mm, chrome-plated head
1 side cutter DIN ISO 5749, 160 mm, chrome-plated head
1 pair of water pump pliers DIN ISO 8976, 250 mm

**Combination spanner set 1/3 insert module (12-part)**
**W 185xD 385xH 30 mm**
Ring and jaw angled at 15°
Ring end with protective TECWERK-ENERGY profile
AF 6,7,8,9,10,11,12,13,14,17,19,22 mm

**Screwdriver set 1/3 insert module (9-part)**
**W 185xD 385xH 30 mm**
**With multi-component handle and anti-roll protection**
1 screwdriver each for slotted head screws 2.5, 3.5, 4.0, 5.5, 6.5 mm
1 screwdriver each for screws with cross-head (PH) in sizes 0 - 1 - 2 - 3

**Tools in high-quality foam insert**


2000 871 230

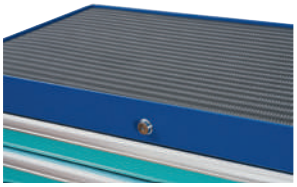

2000 871 234


2000 871 238


2000 871 254

| W x D x H [mm] exterior | Contents | No. of drawers | Article no. |
|---|---|---|---|
| **760 x 465 x 1030** | Unequipped | 6 | **2000 871 503** |
| **760 x 465 x 1030** | 96-part | 6 | **2000 871 504** |





## Tool trolley PLUS XL 2.0

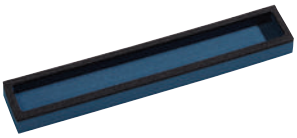
With 7 drawers · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Divider set for 4 drawers included · Lockable thanks to built-in cylinder lock with 4 keys · With central locking (only one drawer can be opened at a time) · Drawers can be written on · High-quality PVC castors Ø 127 mm - 2 rigid and 2 swivel castors with brake · Perforated wall system (9 x 9 mm) on both sides for easy installation of accessories · Fully extensible drawers · **2 can holders with perforation for screwdrivers (included in the scope of supply)** · Hard-wearing shelf plate · **All-round, side edge protectors**

Overall dimensions with everything fitted, including handle and wheels (W x D x H) 960 x 465 x 1020 mm
Dimensions of body only (W x D x H) 933 x 459 x 859 mm
Internal dimensions of drawers (W x D x H) 5 x 823 x 398 x 75 mm
Internal dimensions of drawers (W x D x H) 2 x 823 x 398 x 154 mm

**Load-bearing capacity per drawer 30 kg / static overall load 500 kg**

Supplied without tools/contents

| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| **960 x 465 x 1020** | 7 | **2000 871 505** |



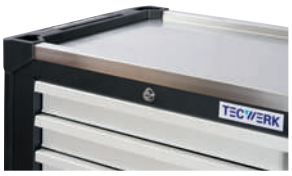
## Spacer

Milled foam insert · Serves as a filler for the use of TECWERK tool bits
Suitable for the TECWERK tool trolley, **article no. 2000 871 505**

Small parts such as screws or similar items can be stored in the existing cut-out. · Serves for the optimum and practical use of the width of drawer.

| W x D x H [mm] | Thickness [mm] | Article no. |
|---|---|---|
| **66 x 386 x 30** | 30 | **2000 871 587** |





## Tool trolley PROFI 2.0

With **7** Drawers · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Drawers with "Lift to open" function, prevents independent opening of the drawers · With **central locking** (only one drawer can be opened at a time) · Divider set for 4 drawers included in scope of supply · Lockable thanks to built-in cylinder lock with 4 keys · Perforated wall system (9 x 9 mm) on both sides for easy installation of accessories · High-quality PVC castors · **4 swivel castors** · 2 incl. brake function · **Stainless steel storage area** · **All-round side edge protectors**

Overall dimensions with handle and wheels mounted (W x D x H) 840 (1150) x 515 x 1015 mm
Dimensions of body only (W x D x H) 840 x 510 x 845 mm
Internal dimensions of drawers (W x D x H) 5 x 568 x 398 x 75 mm
Internal dimensions of drawers (W x D x H) 2 x 568 x 398 x 154 mm

**Load-bearing capacity per drawer 40 kg / static overall load 650 kg**
**Equipment:**
2 can holders with perforation for screwdrivers
1 waste container
1 paper towel holder with rack
Supplied without tools/contents

| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| **845 x 515 x 1015** | 7 | **2000 871 506** |




## Mobile workshop

Robust sheet steel construction · Powder-coated (body blue RAL 5022, shutters and drawers black) · Large work top with small parts storage · Trolley load-bearing capacity when stationary approx. 300 kg · Four pull-out drawers on ball bearing-mounted telescopic rails on each side · All drawers can be subdivided individually (12 sheet metal dividers included in scope of supply) · Shutter lock opens on both sides · Controllable front wheels · 1 front wheel with brake · **Lockable with integrated cylinder lock with 2 keys (included in scope of supply)**

Overall dimensions with everything fitted, including handle and wheels (W x D x H) 855 x 400 x 895 mm
Dimensions of body only (W x D x H) 750 x 400 x 752 mm
Internal dimensions of drawer (W x D x H) 600 x 340 x 55 mm
**Load-bearing capacity approx. 15 kg per drawer**

The TECWERK tool modules are not suitable for the drawers in this mobile workshop.
Supplied without tools/contents

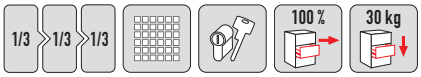






| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| 855 x 400 x 895 | 4 | 2000 871 109 |

| Accessories | Article no. |
|---|---|
| Castor/wheel set, 4-part, 2 swivel and 2 fixed castors | 2000 807 116 |
| Drawer guide rail, 2/3 drawer for the right and left side | 2000 807 117 |
| Cylinder lock, with 2 keys | 2000 807 127 |




## Mobile workbench TREND 2.0

With **6 Drawers** · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · MDF rack · Divider set for 4 drawers included in scope of supply · With central locking (only one drawer can be opened at a time) · Lockable thanks to built-in cylinder lock on the side with 4 keys · PP castors Ø 127 mm – 2 rigid and 2 swivel castors with brake · Perforated wall system (9 x 9 mm) on both sides for easy installation of accessories · Side compartment with door and 2 shelves · Lockable (identical locking to the drawers) · **All-round, side edge protectors**

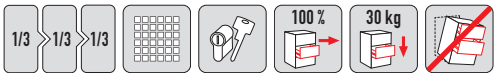
Overall dimensions with everything fitted, including handle and wheels (W x D x H) 1105 x 470 x 950 mm
Dimensions of body only (W x D x H) 1042 x 459 x 781 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 75 mm
Internal dimensions of drawers (W x D x H) 3 x 568 x 398 x 154 mm
External dimensions of door (W x H) 330 x 710 mm
**Load-bearing capacity per drawer 30 kg / static overall load 400 kg**







| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| 1105 x 470 x 950 | 6 | 2000 871 502 |




## Mobile workbench PLUS 2.0 S

With **13 drawers** · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Drawers can be written on · Durable storage area comprising a **25 mm-thick MDF panel** · Divider set for 4 drawers included in scope of supply · With central locking (only one drawer can be opened at a time) · Lockable thanks to built-in cylinder lock with 4 keys · High-quality PVC castors Ø 127 mm - 2 rigid and 2 swivel castors with brake · For perforated wall system (9 x 9 mm) · For the easy installation of accessories · **2 can holders with perforation for screwdrivers** (included in the scope of supply) · **All-round, side edge protectors**

Overall dimensions with everything fitted, including handle and wheels (W x D x H) 1090 x 500 x 1055 mm

Dimensions of body only (W x D x H) 1042 x 459 x 885 mm
Internal dimensions of drawers (W x D x H) 5 x 568 x 398 x 75 mm, 2 x 568 x 398 x 154 mm,
Internal dimensions of drawers (W x D x H) 3 x 290 x 398 x 75 mm, 3 x 290 x 398 x 154 mm

**The narrow drawers are not suitable for the TECWERK modular system**

**Load-bearing capacity per drawer 30 kg / static overall load 500 kg**
Supplied without tools/contents








| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| 1150 x 500 x 1015 | 13 | 2000 871 507 |






## Mobile workbench PLUS 2.0 T

With **7 drawers** · Handle · Ball bearing-mounted, with **100 % extensible drawers** with telescopic rails, each with an anti-slip mat · **Automatic drawer retraction** · Drawers can be written on · Durable storage area comprising a **25 mm-thick MDF panel** · Divider set for 4 drawers included in scope of supply · With central locking (only one drawer can be opened at a time) · 2 lockable compartments with door (identical locking to the drawers) · Lockable thanks to built-in cylinder lock with 4 keys · High-quality PVC castors Ø 127 mm - 2 rigid and 2 swivel castors with brake · For perforated wall system (9 x 9 mm) · For the easy installation of accessories · **2 can holders with perforation for screwdrivers** (included in the scope of supply) · **All-round, side edge protectors**

Overall dimensions with everything fitted, including handle and wheels (W x D x H) 1090 x 500 x 1055 mm



Dimensions of body only (W x D x H) 1042 x 459 x 885 mm
Internal dimensions of drawers (W x D x H) 5 x 568 x 398 x 75 mm,
Internal dimensions of drawers (W x D x H) 2 x 568 x 398 x 154 mm
External dimensions of door (W x H): 330 x 340 mm

**Load-bearing capacity per drawer 30 kg / static overall load 500 kg**
Supplied without tools/contents







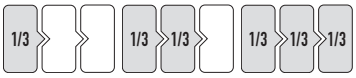
| W x D x H [mm] exterior | No. of drawers | Article no. |
|---|---|---|
| **1090 x 500 x 1055** | 7 | **2000 871 508** |

## Seat cushion

Support made of high-quality rigid foam for flexible use on hard surfaces · Ideal for low temperatures · With practical carrying grip

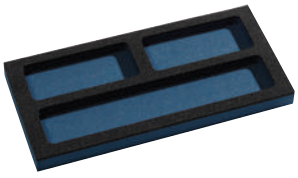


| L x W x Th approx. [mm] | Article no. |
|---|---|
| **290 x 340 x 15** | **2000 871 589** |

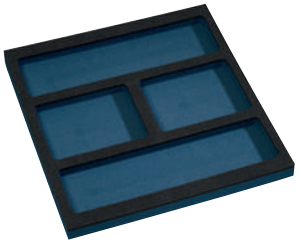



## Tool module

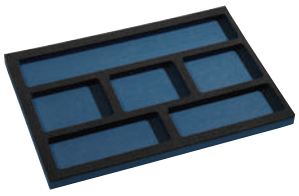
Empty foam insert



2000 871 415



2000 871 416

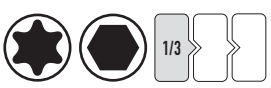


2000 871 417

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 415** |
| **370 x 385 x 30** | Empty insert | **2000 871 416** |
| **560 x 385 x 30** | Empty insert | **2000 871 417** |



2000 871 245



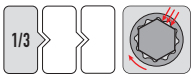

## Tool module

(1/3 module) **with offset screwdrivers**
**Contents:**
1 offset screwdriver set **with ball ends,** extra long, each: AF 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
1 offset screwdriver set for screws **with internal TORX® profile** AF T 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40 / 45

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 227** |
| **185 x 385 x 30** | 18-part | **2000 871 245** |



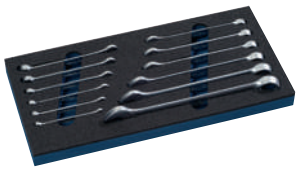
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.




## Tool module

(1/3 module) **with combination spanner set** · Chromium-vanadium steel · **Ring and jaw angled at 15°**
**Ring end with protective TECWERK-ENERGY profile:** Forces are transmitted to the surfaces of the screws and nuts, protecting the screws and the tool and allowing higher torques to be transmitted

**DIN3113/ISO3318 shape A/ISO7738**
**Contents:**
1 combination spanner each for AF 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 17 / 19 / 22 mm



2000 871 234

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 212** |
| **185 x 385 x 30** | 12-part | **2000 871 234** |







## Tool module

(1/3 module) **screwdriver set VDE insulated · With multi-component handle and anti-roll protection · Piece tested at 10000 V · Acc. to IEC 60900:2004 ·** Blade made from highly alloyed special steel
**Contents:**
1 screwdriver each for **slotted screws** 2.5 / 3 / 4 / 5.5 / 6.5 mm
1 screwdriver each for screws with **cross-head (PH)** in sizes 1 / 2
1 voltage tester 120–250 V



2000 871 240



2000 871 300

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 300** |
| **185 x 385 x 30** | 8-part | **2000 871 240** |



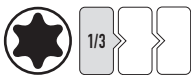

## Tool module

(1/3 module) **Screwdriver set** with multi-component handle **and anti-roll protection ·** Impact-resistant · Blade made of chromium-vanadium-molybdenum steel · **Chrom-Top® tip**
**Contents:**
1 screwdriver each for **slotted screws** 2.5 / 3.5 / 4.0 / 5.5 / 6.5 mm
1 screwdriver each for screws with **cross-head (PH)** in sizes 0 / 1 / 2 / 3



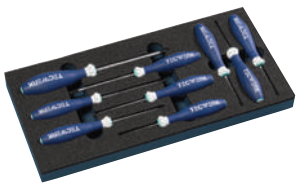
2000 871 238

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 298** |
| **185 x 385 x 30** | 9-part | **2000 871 238** |



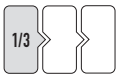

## Tool module

(1/3 module) **screwdriver set** with multi-component handle and anti-roll protection · Impact-resistant · Blade made of chromium-vanadium-molybdenum steel · **Chrom-Top® tip**
**Contents:**
1 screwdriver each for screws with **internal TORX® profile** in sizes T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 30



2000 871 239

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 299** |
| **185 x 385 x 30** | 9-part | **2000 871 239** |




## Tool module

(1/3 module)
**Contents:**
1 flat chisel 250 mm
1 cross-cut chisel 200 mm
1 drift punch each for sizes 3 / 4 / 5 mm
1 pin punch each for sizes 2 / 3 / 4 / 5 / 6 mm
1 cross peen hammer, 500 g

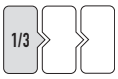


2000 871 243

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 225** |
| **185 x 385 x 30** | 11-part | **2000 871 243** |



2000 871 230




## Tool module

**Handle with ergonomic 2-component grips with slipguard**
**Contents:**
1 pair of universal pliers DIN ISO 5746, 180 mm, chrome-plated head
1 pair of needle-nose pliers DIN ISO 5745, 200 mm, straight, chrome-plated head
1 side cutter DIN ISO 5749, 160 mm, chrome-plated head
1 pair of water pump pliers DIN ISO 8976, 250 mm

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 208** |
| **185 x 385 x 30** | 4-part | **2000 871 230** |



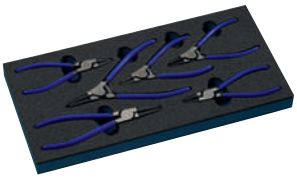
2000 871 247




## Tool module

(1/3 module) socket spanner set **6.3 mm** (1/4") square drive, bits and operating elements made of chromium-vanadium steel
**Contents:**
1 lever-action reversible ratchet
1 **hexagonal** socket bit each for AF 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm
1 socket bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 30 / T 40
1 socket bit each for screws with **hexagon socket profile** AF 3 / 4 / 5 / 6 mm
1 socket bit each for **slotted head screws** in sizes 4 / 5.5 mm
1 socket bit each for **cross-head (PH / PZ)** screws size 1 / 2 / 3
1 of each extension size 50 / 150 mm
1 sliding collar
1 universal joint
1 handle with square drive

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 229** |
| **185 x 385 x 30** | 36-part | **2000 871 247** |



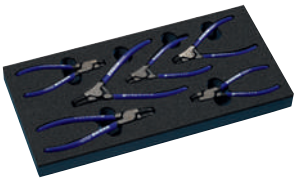
2000 871 241




## Tool module

(1/3 module) **with pliers for locking rings** (inner and outer locking rings) · **Straight jaws** · Polished head
**DIN 5256 C/DIN 5254 A**
**Contents:**
1 pc. each for inner rings size J 0 / 1 / 2
1 pc. each for outer rings size A 0 / 1 / 2

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 219** |
| **185 x 385 x 30** | 6-part | **2000 871 241** |



2000 871 242




## Tool module

(1/3 module) **with pliers for locking rings** (inner and outer locking rings) · **Curved jaws** · Polished head
**DIN 5256 D/DIN 5254 B**
**Contents:**
1 pc. each for inner rings size J 01 / 11 / 21
1 pc. each for outer rings size A 01 / 11 / 21

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 224** |
| **185 x 385 x 30** | 6-part | **2000 871 242** |



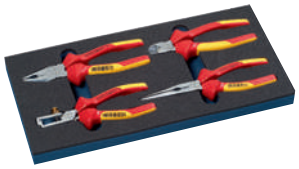


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

1/3 1000 V

## Tool module

**VDE-insulated up to 1000 V** · Chrome-plated head · **Handle with ergonomic 2-component grips with slipguard**
**Contents:**
Pair of universal pliers DIN ISO 5746, 180 mm
Pair of needle-nose pliers DIN ISO 5745, 200 mm
Side cutter DIN ISO 5749, 160 mm
Pair of stripping pliers DIN ISO 5743, 160 mm



2000 871 231

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 209** |
| **185 x 385 x 30** | 4-part | **2000 871 231** |

1/3

## Tool module

(1/3 module)
**Contents:**
1 pocket calliper gauge with setscrew, measuring range 150 mm, readout mm/inch - 0.05 / 1/128
1 try square 150 x 100 mm
1 steel rule 300 mm
1 scriber 150 mm
1 spirit level 30 cm
1 pocket retracting tape measure 5 m



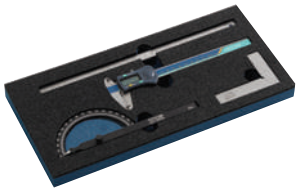
2000 871 252

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 267** |
| **185 x 385 x 30** | 6-part | **2000 871 252** |

1/3

## Tool module

(1/3 module)
**Contents:**
1 calliper gauge, digital, with setscrew, measuring range 150 mm, readout mm/inch - 0.01 / 0.0005 incl. battery (SR44)
1 flat bracket 100 x 70 mm
1 angle finder 120 x 150 mm
1 steel rule 300 mm



2000 871 253

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 268** |
| **185 x 385 x 30** | 4-part | **2000 871 253** |

1/4" 6.3 mm · 1/2" 12.5 mm · 1/3

## Tool module

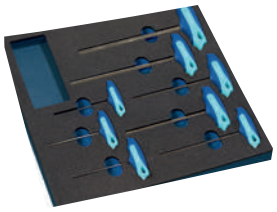
(1/3 module) socket spanner set **6.3 mm** (1/4") and **12.5 mm** (1/2") square drive, bits made of chromium-vanadium steel
**Contents:**
With **6.3 mm** (1/4") square drive
1 socket bit each for screws with **Internal TORX® profile** in sizes T 10 / T 15 / T 20 / T 25 / T 27 / T 30
1 socket bit each for screws with **external TORX® profile** AF E 4 / 5 / 6 / 7 / 8 / 10
1 socket bit each for screws with **hexagon socket profile** size 3 / 4 / 5 / 6 mm

**Contents:**
With **12.5 mm** (1/2") square drive
1 socket bit each for screws with **internal TORX® profile** in sizes T 40 / T 45 / T 50 / T 55
1 socket bit each for screws with **external TORX® profile** AF E 10 / 11 / 12 / 14 / 16 / 18 / 20
1 **TORX®** pin spanner each in sizes T 6 / 7 / 8 / 9
1 socket bit each for screws with **hexagon socket profile** size 5 / 6 / 7 / 8 / 10 / 12 / 14 / 17 mm
1 socket bit each for screws with **hexagon socket profile,** 100 mm long, size 8 / 10 mm
1 pc. each of hexagonal socket wrench in 1.25 / 1.5 / 2.0 / 2.5 / 3.0 mm



2000 871 250

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **185 x 385 x 30** | Empty insert | **2000 871 259** |
| **185 x 385 x 30** | 46-part | **2000 871 250** |



2000 871 237

## Tool module

(2/3 module) **screwdriver set** with chromium-vanadium steel hexagonal blade · Bevelled ends
**Contents:**
1 screwdriver each for screws with **hexagon socket profile** in sizes 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 297** |
| **370 x 385 x 30** | 8-part | **2000 871 237** |



2000 871 246

## Tool module

(2/3 module)
**Contents:**
Engineer's file set, 5-part, 200 mm cut 2
1 wire brush, 4-row
1 wire brush, 1-row

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 228** |
| **370 x 385 x 30** | 7-part | **2000 871 246** |



2000 871 244

## Tool module

(2/3 module)
**Contents:**
1 non-recoil soft-faced hammer, size 40 mm
1 cross peen hammer, 500 g

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 226** |
| **370 x 385 x 30** | 2-part | **2000 871 244** |

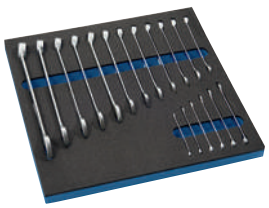


2000 871 232

## Tool module

(2/3 module) **with double open-end spanners** · Chromium-vanadium steel · **15° jaw position**
**DIN3110/ISO3318/ISO1085/ISO10102**
**Contents:**
1 double open-end spanner each for AF 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 / 21 x 23 / 24 x 27 / 25 x 28 / 30 x 32 mm

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 210** |
| **370 x 385 x 30** | 12-part | **2000 871 232** |



2000 871 235

## Tool module

(2/3 module) **with combination spanner set** · Chromium-vanadium steel · **Ring and jaw angled at 15°**
**Ring end with protective TECWERK-ENERGY profile:** Forces are transmitted to the surfaces of the screws and nuts, protecting the screws and the tool and allowing higher torques to be transmitted

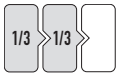
**DIN3113/ISO3318 shape A/ISO7738**
**Contents:**
1 combination spanner each for AF 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 mm

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 213** |
| **370 x 385 x 30** | 18-part | **2000 871 235** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
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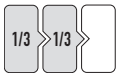

## Tool module

(2/3 module)
**Contents:**
1 utility knife / safety knife, tool-free blade replacement, magazine for 5 blades, **incl. 5 trapezoid blades**
10 trapezoid blades for utility knives / safety knives
1 craft knife, with safety locking, blade width 18.0 mm, **incl. 2 demolition blades**
10 craft blades, blade width 18.0 mm
1 electrician/craftsman's scissors, length 140 mm
1 telescopic magnetic pick-up tool, length up to 635 mm, **load-bearing capacity approx. 3.5 kg**
1 LED torch
3 batteries, type AAA, 1.5 V
1 pair of plate shears, **quality steel 62 HRC,** lever action, right-handed, length 260 mm



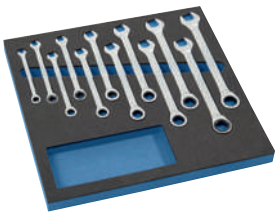
2000 871 251

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 266** |
| **370 x 385 x 30** | 12-part | **2000 871 251** |




## Tool module

(2/3 module) **with ratchet combination spanner set** · Chromium-vanadium steel · **Jaw angled 15°** · 72 teeth
**Contents:**
1 ratchet combination spanner each for AF 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 mm



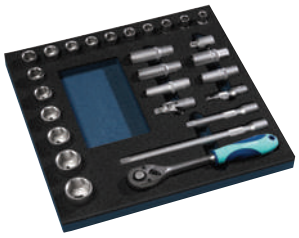
2000 871 236

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 214** |
| **370 x 385 x 30** | 12-part | **2000 871 236** |




## Tool module

(2/3 module) socket spanner set **12.5 mm** (1/2") square drive, bits and operating elements made of chromium-vanadium steel
**Contents:**
1 lever-action reversible ratchet
1 **hexagonal** socket bit each for AF size 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 / 27 / 30 / 32 mm
1 **hexagonal** deep socket bit each for AF 13 / 17 / 19 mm
1 socket bit each for sparking plugs, AF 16 / 21 mm
1 extension each in 75 / 125 / 250 mm
1 sliding collar
1 universal joint



2000 871 248

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 257** |
| **370 x 385 x 30** | 27-part | **2000 871 248** |



2000 871 249

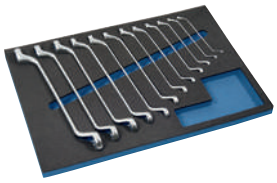
## Tool module

(2/3 module) socket spanner set **6.3 mm** (1/4") and **12.5 mm** (1/2") square drive, bits and operating elements made of chromium-vanadium steel

**Contents:**
With **6.3 mm** (1/4") square drive
1 lever-action reversible ratchet
1 **hexagonal** socket bit each for AF 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 socket bit each for screws with **internal TORX profile** in sizes T 20 / 25 / 27 / 30
1 socket bit each for screws with **hexagon socket profile** AF 3 / 4 / 5 / 6 mm
1 socket bit each for **slotted head screws** in sizes 4 / 5.5 mm
1 socket bit each for screws with **cross-head (PH)** size 1 / 2
1 pin spanner each for AF 1.3 / 1.5 / 2.0 / 2.5 / 3 mm
1 extension each, 50 / 150 mm
1 sliding collar
1 universal joint
1 handle with square drive

**Contents:**
With **12.5 mm** (1/2") square drive
1 lever-action reversible ratchet
1 **hexagonal** socket bit each for AF 10 / 11 / 12 / 13 / 14 / 15 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm
1 socket bit each for sparking plugs, AF 16 / 21 mm
1 of each extension size 75 / 250 mm
1 sliding collar
1 universal joint

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **370 x 385 x 30** | Empty insert | **2000 871 258** |
| **370 x 385 x 30** | 55-part | **2000 871 249** |



2000 871 233

## Tool module

(3/3 module) **with double-ended ring spanner set** · Chromium-vanadium steel · Deep offset
**Ring end with protective TECWERK-ENERGY profile:** Forces are transmitted to the surfaces of the screws and nuts, protecting the screws and the tool and allowing higher torques to be transmitted

**DIN838/ISO3318/ISO1085/ISO10104**
**Contents:**
1 double-ended ring spanner each for AF 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 / 21 x 23 / 24 x 27 / 25 x 28 / 30 x 32 mm

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **560 x 385 x 30** | Empty insert | **2000 871 211** |
| **560 x 385 x 30** | 12-part | **2000 871 233** |



2000 871 256

## Tool module

**Contents:**
1 screwdriver for **slotted head screws** in size 3.5 x 100 mm
1 screwdriver for **cross-head (PH)** screws 0 x 60 mm
2 screwdrivers for **cross-head (PZ)** screws size 1 x 80 mm / 2 x 100 mm
5 screwdrivers for screws with **internal TORX® profile**
1 bit/socket spanner set, hexagonal, 24-part., for **slotted screws,** for screws with **cross-heads (PH + PZ),** screws with **hexagonal socket profile,** screws with **internal TORX® profile**
3 screwdrivers for **outer hexagon screws** sizes 8 x 200 / 10 x 200 /13 x 230 mm
1 bit holder with handle **(6.3 mm)** 1/4"

**Tools in high-quality foam insert**

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **560 x 385 x 30** | Empty insert | **2000 871 302** |
| **560 x 385 x 30** | 37-part | **2000 871 256** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.




## Tool module

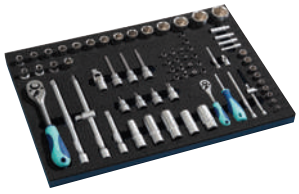
**Contents:**
**With 6.3 mm** (1/4") **square drive**

1 lever-action reversible ratchet, **18° backswing angle**
1 hexagonal socket bit each with TECWERK-ENERGY profile, AF 5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 mm
1 hexagonal deep socket bit each with TECWERK-ENERGY profile, AF 6 / 7 / 8 / 10 mm
1 socket bit each for screws with **Internal TORX® profile** in sizes T 15 / T 20 / T 25 / T 30
1 socket bit each for screws with **External TORX® profile** in AF E 4 / E 5 / E 6 / E 8
1 pc. each of socket bit for screws with **hexagonal socket profile** AF 3 / 4 / 5 / 6 mm
1 socket bit each for **slotted head screws** in 0.8 x 4.0 / 1.0 x 5.5 mm
1 socket bit each for **cross-head (PH)** screws in sizes 1 / 2
1 socket bit each for **cross-head (PZ)** screws in sizes 1 / 2
1 of each extension size 75 / 150 mm
Extension with sliding collar 150 mm
1 universal joint
1 handle with square drive

**Contents:**
**With 12.5 mm** (1/2") **square drive**

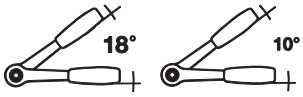
1 lever-action reversible ratchet, **10° backswing angle**
1 hexagonal socket bit with TECWERK-ENERGY profile each for
AF 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm
1 hexagonal deep socket bit with TECWERK-ENERGY profile each, AF 13 / 17 / 19 mm
1 socket bit each for sparking plugs, AF 16 / 21 mm
1 socket bit each for screws with **External TORX® profile** in AF E 10 / E 12 / E 14 / E 18
1 pc. each of socket bit for screws with **hexagonal socket profile** length 100 mm, AF 7 / 8 / 10
1 socket bit each for screws with **Internal TORX® profile** in sizes T 40 / T 45 / T 50 / T 55
1 of each extension size 125 / 250 mm
Extension with sliding collar 250 mm
1 universal joint

**Tools in high-quality foam insert**

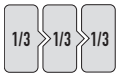


2000 871 254




| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| 560 x 385 x 30 | Empty insert | 2000 871 271 |
| 560 x 385 x 30 | 71-part | 2000 871 254 |




## Tool module

**Contents:**
1 combination spanner set 12-part, 6–22 mm
1 water pump pliers, 240 mm
1 universal pliers, 180 mm
1 side cutter, 160 mm
1 cross peen hammer 300 g with hickory handle
1 craft knife
1 pocket retracting tape measure 5 m
1 telescopic magnetic pick-up tool with nozzle adjustment 150–670 mm
1 centre punch 120 mm
1 LED torch
1 set of offset screwdrivers for screws with **internal Torx® profile,** 8-part, AF 9–40
1 offset screwdriver set, hexagonal, 9-part, AF 1.5–10 mm
2 screwdrivers for **slotted screws** 5.5 x 125 / 6.5 x 150 mm
2 screwdrivers for **cross-head (PH)** screws in sizes 1 x 80 mm / 2 x 100 mm
1 screwdriver for **cross-head** (PH) screws size 2 x 25 mm
1 screwdriver for **cross-head (PZ)** screws size 2 x 25 mm

**Tools in high-quality foam insert**



2000 871 255







| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| 560 x 385 x 30 | Empty insert | 2000 871 301 |
| 560 x 385 x 30 | 44-part | 2000 871 255 |



2000 871 283

1/3 1/3 1/3

## Tool module

**(Wheel installation set)**
**Contents:**
1 torque spanner, **12.5 mm** (1/2")
1 sliding square, **12.5 mm** (1/2")
1 **hexagonal** socket bit **12.5 mm** (1/2") drive each, AF 10 / 13 / 17 / 19 / 21 / 24 mm*
1 **hexagonal** socket bit, 78 mm long, **12.5 mm** (1/2") each, AF 17 / 19 / 21 mm**
1 extension, **12.5 mm** (1/2"), 125 mm long*
* For use with hand tools
** With plastic sleeve to prevent damage to sensitive aluminium surfaces (also suitable for air impact drivers)

**Torque spanner**
Automatic release · For controlled clockwise and anti-clockwise tightening · Built-in ratcheting function · Tactile and audible release signal · Square drive 12.5 mm (1/2") · Working range 40–220 Nm (30–150 lbf.ft) · Release accuracy tolerance ± 3 % of pre-set scale value

**Supplied complete with operating instructions and calibration certificate in accordance with DIN EN ISO 6789**
**Tools in high-quality foam insert**

| W x D x H [mm] | Contents | Article no. |
|---|---|---|
| **560 x 385 x 30** | Empty insert | **2000 871 318** |
| **560 x 385 x 30** | 12-part | **2000 871 283** |



## Can holder

For perforated wall system 9 x 9 mm, for cans up to 70 mm in diameter

| W x D x H [mm] | Type | Suitable for | Article no. |
|---|---|---|---|
| **165 x 90 x 70** | For 2 cans | 2000 871 500, 2000 871 502, 2000 871 503, 2000 871 505, 2000 871 506, 2000 871 507, 2000 871 508 | **2000 871 056** |





## Can holder

For perforated wall system 9 x 9 mm, for cans up to 70 mm in diameter

| Type | Suitable for | Article no. |
|---|---|---|
| **For cans up to Ø 70 mm** | For perforated wall system 9 x 9 mm | **2000 871 145** |



## Multi-function compartment

| W x D x H [mm] | Suitable for | Article no. |
|---|---|---|
| **298 x 120.00 x 60.0** | 2000 871 500, 2000 871 501, 2000 871 502, 2000 871 503, 2000 871 504, 2000 871 505, 2000 871 506, 2000 871 507, 2000 871 508 | **2000 871 146** |



## Side pocket

| W x D x H [mm] | Suitable for | Article no. |
|---|---|---|
| **298 x 90.0 x** | 2000 871 500, 2000 871 501, 2000 871 502, 2000 871 503, 2000 871 504, 2000 871 505, 2000 871 506, 2000 871 507, 2000 871 508 | **2000 871 147** |

## Tool holder
Single · For perforated wall system 9 x 9 mm



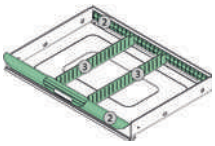
| W x D x H [mm] | Suitable for | Article no. |
|---|---|---|
| **58 x 25.5 x 56** | 4000 871 500,<br>4000 871 502,<br>4000 871 503,<br>4000 871 505,<br>4000 871 506,<br>4000 871 507,<br>4000 871 508 | **2000 871 060** |
| **108 x 25.5 x 56** | 4000 871 500,<br>4000 871 502,<br>4000 871 506 | **2000 871 061** |

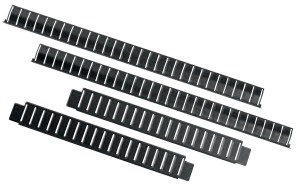
## Tool holder
Double · For perforated wall system 9 x 9 mm



| W x D x H [mm] | Suitable for | Article no. |
|---|---|---|
| **74 x 55 x 64.5** | 4000 871 500,<br>4000 871 502,<br>4000 871 503,<br>4000 871 505,<br>4000 871 506,<br>4000 871 507,<br>4000 871 508 | **2000 871 062** |
| **105 x 55 x 64.5** | 4000 871 500,<br>4000 871 502,<br>4000 871 506 | **2000 871 063** |

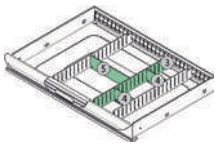
## Drawer divider material
Included in scope of supply **as basic fitting** in all of the tool trolleys listed below



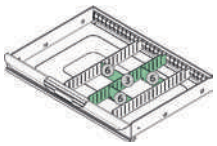


| Contents | Suitable for | Article no. |
|---|---|---|
| **4-part** | 4000 871 500,<br>4000 871 502,<br>4000 871 503,<br>4000 871 506,<br>4000 871 507,<br>4000 871 508 | **2000 871 068** |

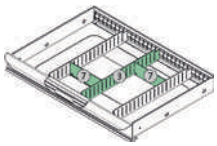
## Drawer divider material
Suitable for TECWERK tool trolley article no. 2000 871 500, 2000 871 502, 2000 871 503, 2000 871 505, 2000 871 506, 2000 871 507, 2000 871 508



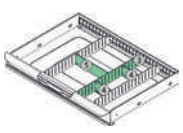
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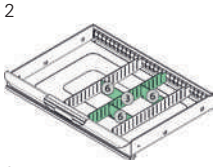
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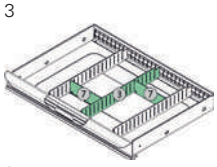
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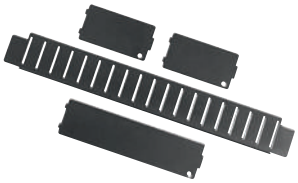
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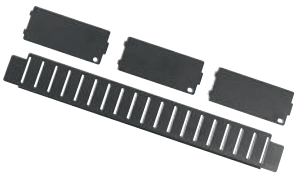
2



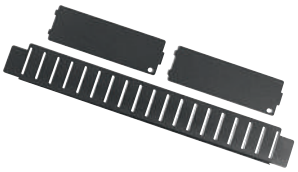
3



2000 871 069

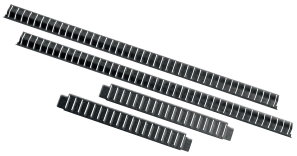


2000 871 070



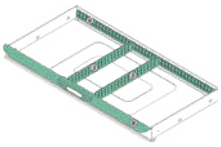
2000 871 071

| Contents | 4-part | 4-part | 3-part |
|---|---|---|---|
| Type | Extension set 1 | Extension set 2 | Extension set 3 |
| Fig. | 1 | 2 | 3 |
| **Article no.** | **2000 871 069** | **2000 871 070** | **2000 871 071** |



## Drawer divider material

2 pc. 821 x 43.5 x 1.2 mm · 2 pc. 393 x 51 x 1.2 mm



| Contents | Suitable for | Article no. |
|---|---|---|
| **4-part** | 2000 871 505 | **2000 871 080** |



## Cylinder lock

With 2 keys

| Suitable for | Article no. |
|---|---|
| **4000 871 500, 4000 871 501, 4000 871 502** | **2000 871 072** |



## Cylinder lock

With 4 keys

| Suitable for | Article no. |
|---|---|
| **4000 871 503, 4000 871 504, 4000 871 505, 4000 871 506, 4000 871 507, 4000 871 508** | **2000 871 073** |



## Castor set

4 castors, 2x fixed + 2x swivel castors

2000 871 074



2000 871 075

| Suitable for | Article no. |
|---|---|
| **4000 871 500** | **2000 871 074** |
| **4000 871 502, 4000 871 503, 4000 871 505, 4000 871 507, 4000 871 508** | **2000 871 075** |



## Castor set

4 swivel castors

| Suitable for | Article no. |
|---|---|
| **2000 871 506** | **2000 871 076** |



## Drawer guide rail

| Suitable for | Article no. |
|---|---|
| **2000 871 500, 2000 871 501, 2000 871 502** | **2000 871 127** |
| **2000 871 503, 2000 871 505, 2000 871 506, 2000 871 507, 2000 871 508** | **2000 871 128** |




## Workshop sliding seat

For comfortable sitting at the workplace · High capacity, **load-bearing capacity up to 130 kg** · Comfortably cushioned **seat: 375 x 210 mm** · 3 drawers, ball bearing-mounted drawers with telescopic rails, each with an anti-slip mat · Side shelf with plastic support for small parts · Possibility to accommodate up to 3 cans · Can holder diameter: 70 mm · Height of seat approx. 368 mm

| Frame design | Seat | Article no. |
|---|---|---|
| **With castors and tray** | Synthetic leather cushion | **2000 871 041** |

## Aluminium box

TECWERK-brand aluminium boxes are resistant to the weather, temperature, and corrosion · Lever clamp catches with 2 simultaneous locking cylinder locks and bores for seals or padlocks · Dust and splash-proof thanks to all-round rubber seal in the frame profile · With sprung handles, plastic-coated · Stable lid · Temperature range: -40 °C to +180 °C



2000 447 950



2000 447 951



2000 447 952



2000 447 953



2000 447 954



2000 447 955

| Contents [l] | Weight [kg] | External dimensions L x W x H [mm] | Article no. |
|---|---|---|---|
| **29** | 2.9 | 430 x 330 x 275 | **2000 447 950** |
| **47** | 3.7 | 580 x 380 x 275 | **2000 447 951** |
| **70** | 4.4 | 595 x 390 x 380 | **2000 447 952** |
| **90** | 5.1 | 780 x 380 x 380 | **2000 447 953** |
| **140** | 7.7 | 900 x 490 x 380 | **2000 447 954** |
| **184** | 8.5 | 790 x 560 x 475 | **2000 447 955** |

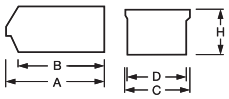
## Drip pan

**For storage of 200 l barrels or small containers** · After declaration of conformity (DoC) in accordance with StawaR, approved for flammable liquids in GHS categories 1-3, and water-hazardous substances in GHS categories 1–4 · Robust 3 mm sheet steel construction · With galvanised mesh · With stands (the pallet truck must lift the tray between the stands) · Load-bearing capacity 1000 kg/m²
Elaborately worked Z-edging for optimum support of the mesh




| Collecting volume [l] | 215 | 215 |
|---|---|---|
| Type | - | Galvanised |
| Weight [kg] | 70 | 74 |
| Colour | Gentian blue, RAL 5010 | Silver |
| L x W x H [mm] | 1200 x 800 x 360 | 1200 x 800 x 360 |
| | | |
| **Article no.** | **2000 467 209** | **2000 467 210** |






## Semi-open storage bins

**Made of extremely impact-resistant polyethylene** · Sturdy, stackable multi-purpose boxes · Can be used for mounting in shelving systems as well as for filling shelving cabinets · Continuous stacking and shelf rim · High load-bearing capacity · Temperature-resistant -50 °C to +80 °C · Largely acid- and alkali-resistant · Available in 4 different colours: Blue, yellow, green, red

| Length A/B mm | Width C/D mm | Height H [mm] | Load-bearing capacity [kg] | Load [kg] | Size | Article no. Blue | Article no. Yellow | Article no. Green | Article no. Red | |
|---|---|---|---|---|---|---|---|---|---|---|
| **500/450** | 310/300 | 200 | 60.0 | 180.0 | MK2 | **2000 453 800** | **2000 453 801** | **2000 453 802** | **2000 453 803** | + |
| **500/450** | 310/300 | 140 | 50.0 | 180.0 | MK2Z | **2000 453 805** | **2000 453 811** | **2000 453 817** | **2000 453 823** | + |
| **350/300** | 210/200 | 200 | 20.0 | 100.0 | MK3 | **2000 453 806** | **2000 453 807** | **2000 453 808** | **2000 453 809** | + |
| **350/300** | 210/200 | 140 | 20.0 | 100.0 | MK3Z | **2000 453 830** | **2000 453 831** | **2000 453 832** | **2000 453 833** | + |
| **230/200** | 150/140 | 130 | 10.0 | 50.0 | MK4 | **2000 453 812** | **2000 453 813** | **2000 453 814** | **2000 453 815** | + |
| **160/140** | 100/95 | 75 | 5.0 | 35.0 | MK5 | **2000 453 818** | **2000 453 819** | **2000 453 820** | **2000 453 821** | + |
| **85/65** | 100/95 | 50 | 1.5 | 10.5 | MK6 | **2000 453 824** | **2000 453 825** | **2000 453 826** | **2000 453 827** | + |



Supplied without semi-open storage bin

## Label

White · Suitable for TECWERK semi-open storage bins · Incl. transparent covers · PU = pack of 100

| For box size | Article no. |
|---|---|
| **MK2, MK 3** | **2000 453 849** |
| **MK4** | **2000 453 850** |
| **MK5** | **2000 453 851** |
| **MK6** | **2000 453 852** |
| **MK2Z, MK3Z** | **2000 453 853** |



Supplied without semi-open storage bins and labels

## Dust cover

For TECWERK semi-open storage bins · Transparent, made of acrylic glass · The bins can also be stacked with the dust cover · PU = pack of 5

| For box size | Article no. |
|---|---|
| **MK2, MK2Z** | **2000 453 860** |
| **MK3, MK3Z** | **2000 453 861** |
| **MK4** | **2000 453 862** |
| **MK5** | **2000 453 863** |



Supplied without semi-open storage bins and labels

## Front panel

For TECWERK semi-open storage bins · Transparent polystyrene · The panel can be also opened when stacked in sizes MK2, 2Z, 3 and 3Z · PU = pack of 10

| For box size | Article no. |
|---|---|
| **MK2** | **2000 453 834** |
| **MK2Z** | **2000 453 835** |
| **MK3** | **2000 453 836** |
| **MK3Z** | **2000 453 837** |
| **MK4** | **2000 453 838** |

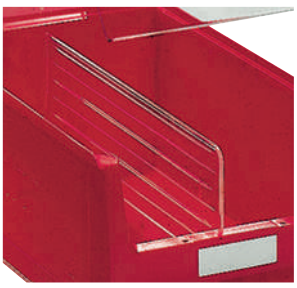


Supplied without semi-open storage bin

## Transverse divider

For TECWERK semi-open storage bins · Transparent polystyrene · PU = pack of 10

| Suitable for | Article no. |
|---|---|
| **Semi-open storage bin MK2** | **2000 453 839** |
| **Semi-open storage bin MK2Z** | **2000 453 840** |
| **Semi-open storage bin MK3** | **2000 453 841** |
| **Semi-open storage bin MK3Z** | **2000 453 842** |



Supplied without semi-open storage bins and labels

## Longitudinal divider

For TECWERK semi-open storage bins · Transparent polystyrene · PU = pack of 10

| Suitable for | Article no. |
|---|---|
| **Semi-open storage bin MK2** | **2000 453 856** |
| **Semi-open storage bin MK2Z** | **2000 453 857** |
| **Semi-open storage bin MK3Z** | **2000 453 858** |
| **Semi-open storage bin MK3** | **2000 453 859** |

## Shelving unit

Complete with TECWERK semi-open storage bins · Quick and easy push-fit assembly with pre-assembled galvanised frame · Galvanised shelves with reinforced container profile, H 25 mm, height-adjustable in 25 mm increments · Load-bearing capacity per shelf 150 kg · Shelving section load 1300 kg

**External dimensions of rack: Base shelf + 60 mm, add-on shelving unit + 6 mm, depth + 36 mm**
**Safety note:** According to DIN EN 15635, single-tier, manually operated shelving units with a height/depth ratio ≥ 4:1 must be secured against tilting. Shelving units with a height of 2,500 mm or more (single-sided) or 4,000 mm or more (double-sided) must always be secured.





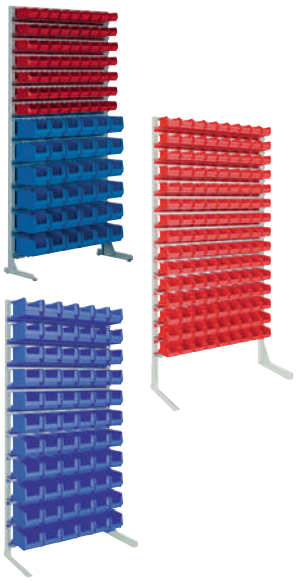
Supplied without labels

| Type | No. of semi-open container x size | No. of shelves | Article no. |
|---|---|---|---|
| **H 2000 x W 1000 x D 300 mm** | | | |
| **Base shelf** | 30 x MK4 blue, 36 x MK4 red | 12 | **2000 449 846** |
| **H 2000 x W 1000 x D 400 mm** | | | |
| **Base shelf** | 12 x MK3 blue, 16 x MK3 red | 8 | **2000 449 842** |
| **Base shelf** | 16 x MK3Z blue, 20 x MK3Z red | 10 | **2000 449 844** |
| **H 2000 x W 1000 x D 500 mm** | | | |
| **Base shelf** | 12 x MK2 blue, 9 x MK2 red | 8 | **2000 449 840** |
| **Base shelf** | 14 x MK2Z blue, 13 x MK2Z red | 10 | **2000 449 848** |
| **H 2000 x W 1000 x D 300 mm** | | | |
| **Add-on shelving unit** | 30 x MK4 blue, 36 x MK4 red | 12 | **2000 449 847** |
| **H 2000 x W 1000 x D 400 mm** | | | |
| **Add-on shelving unit** | 12 x MK3 blue, 16 x MK3 red | 8 | **2000 449 843** |
| **Add-on shelving unit** | 16 x MK3Z blue, 20 x MK3Z red | 10 | **2000 449 845** |
| **H 2000 x W 1000 x D 500 mm** | | | |
| **Add-on shelving unit** | 12 x MK2 blue, 9 x MK2 red | 8 | **2000 449 841** |
| **Add-on shelving unit** | 14 x MK2Z blue, 13 x MK2Z red | 10 | **2000 449 849** |

## Static shelving

One-sided type · Completely equipped with a variety of TECWERK polyethylene semi-open storage bins · Comprising side, cover, and hanging rails

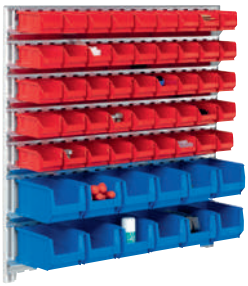
**Supplied disassembled**

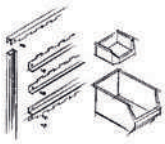


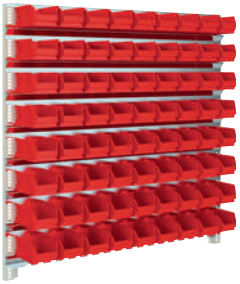
| Type | No. of semi-open container x size | Number of rails | Article no. |
|---|---|---|---|
| **H 2010 x W 1010 x D 400 mm** | | | |
| **Single-sided** | 63 x MK5 red, 36 x MK4 blue | 13 | **2000 449 150** |
| **Single-sided** | 135 x MK5 red | 15 | **2000 449 151** |
| **Single-sided** | 66 x MK4 blue | 11 | **2000 449 152** |
| **double-sided** | 126 x MK5 red, 72 x MK4 blue | 26 | **2144 449 200** |
| **double-sided** | 270 x MK5 red | 30 | **2144 449 202** |
| **double-sided** | 132 x MK4 blue | 22 | **2144 449 204** |

## Semi-open container set

**H 1000 x W 1010 mm** · Comprising: Light grey C-profiles for vertical mounting and galvanised hanging rails for mounting boxes
**Supplied disassembled incl. fastening material**
Fittings included.
Supplied dismantled.





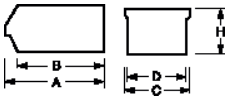


| No. of semi-open container x size | Number of rails | Article no. |
|---|---|---|
| **45 x MK5 red, 12 x MK4 blue** | 7 | **2000 453 890** |
| **72 x MK5 red** | 8 | **2000 453 891** |



## Semi-open storage bins

Transparent · Made of dimensionally stable styrene acrylonitrile (SAN) · Transparent · With smooth inner surfaces · Optimal stability thanks to hollow chamber profile · Highly impact-resistant · Temperature-resistant from -18 °C to +60 °C · Largely resistant to many oils and most acids and alkalis · Food safe




| L x W x H mm | Length A/B mm | Width C/D mm | Height H [mm] | Load [kg] | Size | Article no. Transparent |
|---|---|---|---|---|---|---|
| **230/200 x 150 x 130** | 230/200 | 150/140 | 130 | 50 | MK4 | **2000 453 880** + |
| **160/140 x 100 x 75** | 160/140 | 100/95 | 75 | 35 | MK5 | **2000 453 881** + |





## Wall rail

**With transparent semi-open storage bins** · Galvanised steel rail, width 602 mm
**Supplied disassembled incl. fastening material**

| No. of semi-open container x size | Number of rails | Article no. |
|---|---|---|
| **4 x MK4 transparent** | 1 | **2000 453 882** |
| **6 x MK5 transparent** | 1 | **2000 453 883** |





## Wall system

**H 1000 x W 1010 mm** · Comprising: Light grey C-profiles for vertical mounting and galvanised hanging rails for mounting boxes

**Supplied disassembled incl. fastening material**



Supplied without content or accessories

| No. of semi-open container x size | Number of rails | Article no. |
|---|---|---|
| **45 x MK5, 12 x MK4 transparent** | 7 | **2000 453 886** |
| **72 x MK5 transparent** | 8 | **2000 453 887** |

8

## Shelf container

Polypropylene · Transparent polystyrene finish · Largely resistant to most acids and oils · Temperature-resistant from -20 °C to +80 °C · **Corrugated inner base** for easy withdrawal · Recessed grip with large area for **labels** (see accessories) · **Removable dividers** (see accessories) · Optional pull-out stop prevents box from slipping out of shelving unit



Supplied without content or accessories



Supplied without content or accessories



Supplied without content or accessories



Supplied without content or accessories

| L x W x H mm | Box size | No. of poss. dividers | Article no. Red | Article no. Blue | Article no. Green | Article no. Transparent |
|---|---|---|---|---|---|---|
| **300 x 91 x 81** | 1 | 4 | **2000 448 950** | **2000 448 960** | **2000 448 970** | **2000 448 980** + |
| **300 x 183 x 81** | 2 | 4 | **2000 448 951** | **2000 448 961** | **2000 448 971** | **2000 448 981** + |
| **400 x 91 x 81** | 3 | 6 | **2000 448 952** | **2000 448 962** | **2000 448 972** | **2000 448 982** + |
| **400 x 183 x 81** | 4 | 6 | **2000 448 953** | **2000 448 963** | **2000 448 973** | **2000 448 983** + |
| **500 x 91 x 81** | 6 | 8 | **2000 448 954** | **2000 448 964** | **2000 448 974** | **2000 448 984** + |
| **500 x 183 x 81** | 7 | 8 | **2000 448 955** | **2000 448 965** | **2000 448 975** | **2000 448 985** + |



▷ = no stock item. Procurement takes place after receipt of order. = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Divider

For TECWERK shelf container · Transparent, made of Styrolux · No. of dividers max. 4/6/8 pc. · PU = pack of 10

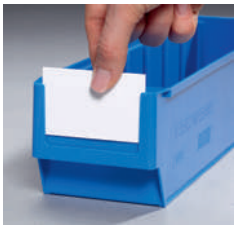


| Suitable for | Article no. |
|---|---|
| Shelf container W 91 mm | 2000 448 990 |
| Shelf container W 183 mm | 2000 448 991 |

Supplied without shelf containers and labels

## Label

White · Suitable for TECWERK shelf containers and partition walls · PU = pack of 100



| For box size [mm] | Article no. |
|---|---|
| W 91 | 2000 448 993 |
| W 183 | 2000 448 994 |

Supplied without semi-open storage bin

## Pull-out stop

For TECWERK shelf container · PU = pack of 10



| Colour | Article no. |
|---|---|
| Black | 2000 448 992 |

Supplied without shelf container

## Shelving unit

**Complete with TECWERK storage boxes and semi-open storage bins** · Quick and easy push-fit assembly with pre-assembled galvanised frame · Galvanised shelves with reinforced container profile, H 25 mm, height-adjustable in 25 mm increments · Load-bearing capacity per shelf 150 kg · Shelving section load 1200 kg

**Dimensions of rack: H 2000 x W 1000 x D 400 mm**
**External dimensions of rack: Base shelf + 60 mm, add-on shelving unit + 6 mm, depth + 36 mm**
**Storage boxes:**
Size 3 = L 400 x W 91 x H 81 mm
Size 4 = L 400 x W 183 x H 81 mm
**Semi-open storage bins:**
Size MK 4 = L 230/200 x W 150/140 x H 130 mm
**Safety note:** Shelving units with a height/depth ratio **≥ 4:1** must be secured against tilting with the appropriate wall or foot fixtures.



| H x W x D [mm] | Type | No. of shelf containers x size | No. of semi-open container x size | No. of shelves | Article no. |
|---|---|---|---|---|---|
| 2000 x 1000 x 400 | Base shelf | 60 x 3, 15 x 4 blue | 24 x MK4 blue | 14 | 2000 449 860 |
| 2000 x 1000 x 400 | Add-on shelving unit | 60 x 3, 15 x 4 blue | 24 x MK4 blue | 14 | 2000 449 861 |
| 2000 x 1000 x 400 | Base shelf | 60 x 3, 15 x 4 green | 24 x MK4 green | 14 | 2000 449 862 |
| 2000 x 1000 x 400 | Add-on shelving unit | 60 x 3, 15 x 4 green | 24 x MK4 green | 14 | 2000 449 863 |
| 2000 x 1000 x 400 | Base shelf | 60 x 3, 15 x 4 transparent | 24 x MK4 transparent | 14 | 2000 449 864 |
| 2000 x 1000 x 400 | Add-on shelving unit | 60 x 3, 15 x 4 transparent | 24 x MK4 transparent | 14 | 2000 449 865 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 30 x 4 blue | - | 16 | 2000 449 866 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 30 x 4 blue | - | 16 | 2000 449 867 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 30 x 4 green | - | 16 | 2000 449 868 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 30 x 4 green | - | 16 | 2000 449 869 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 30 x 4 transparent | - | 16 | 2000 449 870 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 30 x 4 transparent | - | 16 | 2000 449 871 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 15 x 4 blue | - | 14 | 2000 449 880 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 15 x 4 blue | - | 14 | 2000 449 881 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 15 x 4 green | - | 14 | 2000 449 882 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 15 x 4 green | - | 14 | 2000 449 883 |
| 2000 x 1000 x 400 | Base shelf | 90 x 3, 15 x 4 transparent | - | 14 | 2000 449 884 |
| 2000 x 1000 x 400 | Add-on shelving unit | 90 x 3, 15 x 4 transparent | - | 14 | 2000 449 885 |
| 2000 x 1000 x 400 | Base shelf | 60 x 3 blue, 60 x 3 red | - | 12 | 2000 449 886 |
| 2000 x 1000 x 400 | Add-on shelving unit | 60 x 3 blue, 60 x 3 red | - | 12 | 2000 449 887 |





Supplied without contents or accessories



Supplied without contents or accessories

## Tool/accessories cabinet

Sheet steelConstruction with tough powder coating · Fitted with drawers and pull out shelves, 30 mm circumferential rim, on roller-bearing drawer slides, 100 % extensible · Drawers, H 100 mm and shelves height-adjustable in 25 mm increments · Load-bearing capacity per shelf/drawer 35 kg · Top rack with raised edge · Hinged doors with cylinder lock and rotary lock with 3-point locking

| H x W x D [mm] | Colour | Type | Article no. |
|---|---|---|---|
| **1000 x 500 x 500** | Anthracite grey, RAL 7016/ Pigeon blue NCS 4040 R 70B | 1 drawer, 2 shelves | **2000 425 930** |
| **1000 x 500 x 500** | Anthracite grey, RAL 7016/ Pigeon blue NCS 4040 R 70B | 2 drawers, 1 shelf | **2000 425 932** |



2000 425 936
Supplied without contents or accessories



2000 425 938
Supplied without contents or accessories

## Tool/accessories cabinet

Sheet steelConstruction with tough powder coating · Fitted with drawers and pull out shelves, 30 mm circumferential rim, on roller-bearing drawer slides, 100 % extensible · Drawers, H 100 mm and shelves height-adjustable in 25 mm increments · Load-bearing capacity per shelf/drawer 35 kg · Top rack with raised edge · Hinged doors with cylinder lock and rotary lock with 3-point locking

| H x W x D [mm] | Colour | Type | Article no. |
|---|---|---|---|
| **1000 x 1000 x 500** | Anthracite grey, RAL 7016/ Pigeon blue NCS 4040 R 70B | 2 drawers, 2 shelves | **2000 425 936** |
| **1000 x 1000 x 500** | Anthracite grey, RAL 7016/ Pigeon blue NCS 4040 R 70B | 2 drawers, 4 shelves | **2000 425 938** |



Supplied without decoration

## Top attachment

For tool and accessories cabinets · With pencil holder and large writing surface · Roomy interior below closing lid with cylinder lock · Also **suitable for wall mounting**

| H x W x D [mm] | Housing | Article no. |
|---|---|---|
| **272/91 x 500 x 500** | Anthracite grey, RAL 7016 | **2000 425 928** |



Supplied without contents or accessories

## Tool cupboard set

**Mobile** · Comprising: 1 tool cupboard H 1000 x W 500 x D 500 mm, with 1 drawer H 100 mm and 2 shelves, height 30 mm, (not extensible according to UVV) · Desk top attachment · Robust castor undercarriage with 4 swivel castors Ø 75 mm, load-bearing capacity per castor 75 kg

Shelves must be secured inside cabinet!

| H x W x D [mm] | Colour | Article no. |
|---|---|---|
| **1310 x 500 x 500** | Anthracite grey, RAL 7016/Pigeon blue NCS 4040 R 70B | **2000 425 940** |

## Workbench base BK 650

Welded C-profile 70 x 50 mm · Wide contact surface on top 120 mm, powder-coated, light grey, RAL 7035 · Height-adjustable from 750–1100 mm · Base plate prepared for ground anchor



| H x D [mm] | Colour | Article no. |
|---|---|---|
| **750–1100 x 650** | Light grey, RAL 7035 | **2000 425 540** |

## Work board BK 650

High-quality **solid beechwood board, thickness 40 mm** · With two cross-glued face veneers on each side · Surface-treated and ground · Combinable with workbench bases, drawers and base cabinets to form functional workbenches



| W x D x H [mm] | Material | Article no. |
|---|---|---|
| **1500 x 700 x 40** | Solid beech | **2000 425 542** |
| **2000 x 700 x 40** | Solid beech | **2000 425 544** |

## Drawer BK 650

Height 150 mm with integrated handle strip · Internal dimensions W 490 x D 560 mm · Single drawer on roller bearings, 90 % extensible, load-bearing capacity 50 kg · Powder-coated, gentian blue, RAL 5010 · Locking via cylinder lock



| Article no. |
|---|
| **2000 425 546** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board, thickness 40 mm, with face veneer on both sides
Comprising: 2 height-adjustable workbench bases, 1 work top, load-bearing capacity 750 kg (when load is evenly distributed)



| W x D x H [mm] | Frame | Article no. |
|---|---|---|
| **1500 x 700 x 790–1140** | Light grey, RAL 7035 | **2000 425 512** |
| **2000 x 700 x 790–1140** | Light grey, RAL 7035 | **2000 425 514** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board with face veneer on both sides, thickness 40 mm
Type with hanging drawer H 150 mm, internal dimensions W 490 x D 560 mm, gentian blue, RAL 5010, locking via cylinder lock
Comprising: 2 height-adjustable workbench bases, 1 work top, load-bearing capacity 750 kg (when load is evenly distributed), 1 hanging drawer



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 790–1140** | 1 x 150 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 516** |
| **2000 x 700 x 790–1140** | 1 x 150 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 518** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board, thickness 40 mm, with face veneer on both sides
Type with 2 hanging drawers H 150 mm, internal dimensions W 490 x D 560 mm, gentian blue, RAL 5010, locking via cylinder lock
Comprising: 2 height-adjustable workbench bases, 1 work top, load-bearing capacity 750 kg (when load is evenly distributed), 2 hanging drawers



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 790–1140** | 2 x 150 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 520** |
| **2000 x 700 x 790–1140** | 2 x 150 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 522** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board, thickness 40 mm, with face veneer on both sides · Drawer cabinet H 800 x W 580 x D 620 mm
Comprising: 1 workbench base, 1 work top, 1 or 2 base cabinets with drawers H 800 x W 580 x E 650 mm, load-bearing capacity 1000 kg (when load is evenly distributed)



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 840** | 4 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 524** |
| **2000 x 700 x 840** | 4 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 526** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly ·Solid beechwood board, thickness 40 mm, with face veneer on both sides · Drawer cabinet H 800 x W 580 x D 620 mm
Comprising: 1 workbench base, 1 work top, 1 base cabinet with drawers, load-bearing capacity 1000 kg (when load is evenly distributed)



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 840** | 2 x 90, 3 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 528** |
| **2000 x 700 x 840** | 2 x 90, 3 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 530** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board, thickness 40 mm, with face veneer on both sides · Drawer cabinet, single pull, 90 % extensible, load-bearing capacity 100 kg · Powder-coated · Light grey housing, RAL 7035, gentian blue drawer fronts, RAL 5010 · Internal dimensions W 490 x D 560 mm · Integrated handle strip with colour grid · Central locking via cylinder lock · Load-bearing capacity 1000 kg when load is evenly distributed



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 840** | 6 x 90, 2 x 120, 2 x 150, 2 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 532** |
| **2000 x 700 x 840** | 6 x 90, 2 x 120, 2 x 150, 2 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 533** |
| **1500 x 700 x 840** | 3 x 90, 1 x 120, 1 x 150, 1 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 534** |
| **2000 x 700 x 840** | 3 x 90, 1 x 120, 1 x 150, 1 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 535** |

## Workbench Serie BK 650

**Complete package** · Easy self-assembly · Solid beechwood board, thickness 40 mm, with face veneer on both sides · 2 height-adjustable workbench bases · Drawer cabinet, single pull, 90 % extensible, load-bearing capacity 100 kg · Powder-coated · Light grey housing, RAL 7035, gentian blue drawer fronts, RAL 5010 · Internal dimensions W 490 x D 560 mm · Integrated handle strip with colour grid · Central locking via cylinder lock · Load-bearing capacity 750 kg when load is evenly distributed



| W x D x H [mm] | No. of drawers x H [mm] | Frame | Front | Article no. |
|---|---|---|---|---|
| **1500 x 700 x 790–1140** | 2x180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 536** |
| **2000 x 700 x 790–1140** | 2x180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 537** |





▷ = no stock item. Procurement takes place after receipt of order. = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Chest of drawers BK 650

Robust sheet steel construction, powder-coated · Light grey housing, RAL 7035, gentian blue drawer fronts, RAL 5010 · Drawers on roller bearings with single pull, 90 % extensible, load-bearing capacity 100 kg · Internal dimensions W 490 x D 560 mm · Integrated handle strip with colour grid · Central locking via cylinder lock · Cabinet top with melamine resin-coated black work board, thickness 20 mm · Work board removable for use of cabinet as base cabinet



2000 425 565



2000 425 567

| H x W x D [mm] | No. of drawers x H [mm] | Housing | Drawers | Article no. |
|---|---|---|---|---|
| **820 x 580 x 650** | 3 x 90, 1 x 120, 1 x 150, 1 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 565** |
| **460 x 580 x 650** | 2 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 567** |

## Chest of drawers BK 650

Robust sheet steel construction, powder-coated · Light grey housing, RAL 7035, gentian blue drawer fronts, RAL 5010 · **Drawers** on roller bearings with single pull, 90 % extensible, **load-bearing capacity 100 kg** · Internal dimensions W 490 x D 560 mm · Integrated handle strip with colour grid · Central locking via cylinder lock · Cabinet top with melamine resin-coated black work board, thickness 20 mm · **Work board removable for use of cabinet as base cabinet**



2000 425 560



2000 425 562

| H x W x D [mm] | No. of drawers x H [mm] | Housing | Drawers | Article no. |
|---|---|---|---|---|
| **820 x 580 x 650** | 4 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 560** |
| **820 x 580 x 650** | 2 x 90, 3 x 180 | Light grey, RAL 7035 | Gentian blue, RAL 5010 | **2000 425 562** |

## Drawer divider materials

Practical divider material ensures optimum order and storage
Comprising: 1 frame insert, 4-part, 1 divider 560 mm and 4 partition plates 2x 190, 2x 285 mm



| Type | Front height [mm] | Article no. |
|---|---|---|
| **1 divider and 4 plug-connection walls** | 60–90 | **2000 425 551** |
| **1 divider and 4 plug-connection walls** | 120–150 | **2000 425 552** |
| **1 divider and 4 plug-connection walls** | From 180 | **2000 425 553** |

## Drawer divider materials

Practical divider material ensures optimum order and storage
Plastic insert H 45 mm with 16 troughs, 4x small, 12x large



| Type | Front height [mm] | Article no. |
|---|---|---|
| **Small parts insert, 16 troughs** | 60–90 | **2000 425 554** |

## Anti-slip mat

Suitable for all drawers of the TECWERK series BK 650



| L x W [mm] | Article no. |
|---|---|
| **490 x 560** | **2000 425 556** |



2000 425 200
Gliders

## Office swivel chair

User-friendly gas-lift seat height adjustment · Ergonomically designed seat and backrest **with hard-wearing integral foam cushions,** resistant to dilute acids and alkalis, easy to wash · **Extra high backrest, height 520 mm, with integrated lumbar support,** floating, with continuous inclination adjustment and 10-way height adjustment · Seat with pelvic support and rounded front edge · **Five-castor stable tubular steel base frame**, even travel, non-tip and trip safe with abrasion-resistant **plastic base gliders**

| Frame design | Seat height adjustment [mm] | Article no. |
|---|---|---|
| **Base gliders** | 440–620 | **2000 425 200** |



2000 425 201
Castors

## Office swivel chair

User-friendly gas-lift seat height adjustment · Ergonomically designed seat and backrest **with hard-wearing integral foam cushions,** resistant to dilute acids and alkalis, easy to wash · **Extra high backrest, height 520 mm, with integrated lumbar support,** floating, with continuous inclination adjustment and 10-way height adjustment · Seat with pelvic support and rounded front edge, **five-castor base frame made of plastic**, even travel, non-tip and trip safe with **load-dependent braked double safety castors** for hard floors

| Frame design | Seat height adjustment [mm] | Article no. |
|---|---|---|
| **Castors** | 440–620 | **2000 425 201** |



2000 425 202
Gliders/base ring

## Office swivel chair

User-friendly gas-lift seat height adjustment · Ergonomically designed seat and backrest with hard-wearing integral foam cushions, resistant to dilute acids and alkalis, easy to wash · **Extra high backrest, height 520 mm, with integrated lumbar support,** floating, with continuous inclination adjustment and 10-way height adjustment · Seat with pelvic support and rounded front edge, **five-castor base frame made of sturdy tubular steel**, even travel, non-tip and trip safe **with abrasion-resistant plastic base gliders and height-adjustable base ring for higher seating position**

| Frame design | Seat height adjustment [mm] | Article no. |
|---|---|---|
| **Base gliders + base ring** | 580–850 | **2000 425 202** |

## Office swivel chair

User-friendly gas-lift height adjustment · Intuitive one-lever operation · Ergonomically designed seat and backrest · **Height of rest 520 mm** · Synchronisation mechanism with weight adjustment · Backrest with height adjustment and integrated lumbar support · Seat inclination and seat depth adjustment · Five-castor base frame made of stable plastic · With load-dependent braked **double safety castors** for hard floors



2000 425 210



2000 425 211

| Type | Frame design | Seat/backrest | Upholstery colour | Seat height adjustment [mm] | Article no. |
|---|---|---|---|---|---|
| **Synchronisation mechanism** | Castors | Synthetic leather | Black | 450–600 | **2000 425 210** |
| **Synchronisation mechanism** | Castors | Supertec | Black | 450–600 | **2000 425 211** |

## Office swivel chair

User-friendly gas-lift height adjustment · Intuitive one-lever operation · Ergonomically designed seat and backrest · **Height of rest 520 mm · Synchronisation mechanism** with weight adjustment · Backrest with height adjustment and integrated lumbar support · Seat inclination and seat depth adjustment · Five-castor base frame made of stable plastic · **With stop & go castors** and **height-adjustable base ring** for higher seating position



2000 425 212



2000 425 213

| Frame design | Seat/backrest | Upholstery colour | Seat height adjustment [mm] | Article no. |
|---|---|---|---|---|
| **Castors + base ring** | Synthetic leather | Black | 580–860 | **2000 425 212** |
| **Castors + base ring** | Supertec | Black | 580–860 | **2000 425 213** |



LED | battery | IPX4

## LED torch

Splash-proof · Aluminium housing · Focus function · 3 brightness levels: 100 %, 50 %, stroboscope
**Supplied with batteries**
Replacement batteries, see article no. 4000 901 810

| For battery | Light output [lm] | Bulb life [h] | Article no. |
|---|---|---|---|
| **3 x AAA** | 150–500 | 4–13 | **2000 877 197** |



LED | IPX4 | Li-Ion

## LED pin lamp

Rechargeable pen lamp with 2 powerful CREE LED XTE · 1 LED at the front, 1 LED at the side, each with 2 brightness levels (110/400 lm or 60/160 lm) · Belt clip · Magnet on the underside · Aluminium housing · Charge indicator
**Supplied with USB-C charge cable and rechargeable battery (3.7 V, 750 mAh li-ion)**

| Battery voltage [V] | Rechargeable battery | Battery capacity [mAh] | Bulb life [h] | Article no. |
|---|---|---|---|---|
| **3.7** | Li-ion | 750 | 2.5–6 | **2000 877 187** |



LED | IP66 | Li-Ion

## LED torch

**Rechargeable,** professional and **splash-proof** aluminium torch · Extremely bright illumination of a large area · Focus feature provides a concentrated light cone · **5 different brightness levels** · **With charging status display**
**Supplied with rechargeable battery, USB-C charge cable and carrying loop**

| | |
|---|---|
| **Battery voltage [V]** | **3.7** |
| Rechargeable battery | Li-ion |
| Battery capacity [mAh] | 2600 |
| Light output [lm] | 1000 |
| Bulb life [h] | 4 |
| **Article no.** | **2000 877 175** |



LED | IP65 | Li-Ion

## LED torch

Rechargeable LED torch · 3 different brightness levels (100/600/1,000 lm) · Aluminium housing · 90° rotating lamp head · Magnet in the lamp base · Belt clip · Charge indicator · IP65
**Supplied with USB-C charging cable and rechargeable battery (3.6 V, 2,600 mAh li-ion)**

| | |
|---|---|
| **Battery voltage [V]** | **3.6** |
| Rechargeable battery | Li-ion |
| Battery capacity [mAh] | 2600 |
| Light output [lm] | 100–1000 |
| Bulb life [h] | 3–14 |
| **Article no.** | **2000 877 188** |



LED | IP67 | Li-Ion

## LED torch

High Performance Torch · 4 brightness levels (100/500/1,500/3,000 lm) · Black
**Scope of supply:** USB-C charging cable



| Battery voltage [V] | Rechargeable battery | Battery capacity [mAh] | Light output [lm] | Bulb life [h] | Article no. |
|---|---|---|---|---|---|
| **3.7** | Li-ion | 4500 | 100–3000 | 1.5–50 | **2000 877 182** |

LED | IP65 | Li-Ion

## LED headlight

CREE LED · Daylight white light (6,500 K) · 3 brightness levels · Pivoted head · Adjustable head bands · Charge indicator · Protection class IP65
**Scope of supply:** 1x li-ion rechargeable battery, 1 m USB-C charging cable, 4 helmet clips



| **Rechargeable battery** | **Li-ion** |
|---|---|
| Battery capacity [mAh] | 2600 |
| For battery | 3.7 V |
| Output [V] | 5 |
| Beam range [m] | 80 |
| Bulb life [h] | 3–9 |
| Light flux [lm] | 1. High (3 h): 800 / 2. Med (6 h): 200 / 3. Low (60 h): 20 |
| **Article no.** | **2000 877 184** |

LED | IP65 | Li-Ion

## LED headlight

3 W COB LED · High light output for the entire work area, switchable in 2 brightness levels · Switching on/off is performed with one hand movement /**sensor function**
**Special product benefits:**
· LED battery charge display (red = charging process, green = charging process completed)
· Non-contact on/off switch
**Scope of supply:** Incl. 1 x li-ion polymer rechargeable battery type 3.8 V / 1,600 mAh, USB-C charging cable



| **Rechargeable battery** | **1x Li-ion polymer** |
|---|---|
| Battery capacity [mAh] | 1600 |
| Output [W] | 3 |
| Light flux [lm] | High Mode (2 h): 300 / Eco Mode (5.5 h): 100 |
| **Article no.** | **2000 877 173** |

LED | IP44 | battery

## LED torch

COB LED lamp made of ABS (housing) with magnetic pocket clip · 180° swivel clip for flexible use · Two light modes
**Scope of supply:** Incl. 3 AAA batteries

Replacement batteries, see article no. 4000 901 810



| **For battery** | **3 x AAA micro batteries** |
|---|---|
| Light output [lm] | 80 |
| **Article no.** | **2000 876 549** |

LED | Li-Ion

## LED rechargeable torch

8 powerful SMD LEDs on the front and 1 LED as a main light serves as a **torch function** · Powerful magnet on the rear enables universal application · The luminaire is adjustable to up to 5 positions · With integrated charge indicator and 2 suspension hooks on the rear
**Supplied complete with li-ion rechargeable battery (3.7 V/1200 mAh), USB charging cable and 12 V car charger**



| **Battery voltage [V]** | **3.7** |
|---|---|
| Battery capacity [mAh] | 1200 |
| Rechargeable battery | Li-ion |
| Type | ABS housing |
| Light flux [lm] | 60–250 |
| Charging time [h] | 2–3 |
| Bulb life [h] | 2 |
| **Article no.** | **2000 877 148** |



LED | IP65 | Li-Ion

## LED rechargeable torch

10 W COB LED as main light and 4 W SMD LED on the head side · Main light with 3 brightness levels (250/500/1000 lm) · Head light 200 lm · 180° pivoted lamp base with magnet · Additional magnets on the rear · 2 fold-out, rotating hooks · Charge indicator

**Supplied with USB-C charging cable and rechargeable battery (3.6 V, 3350 mAh li-ion)**

| **Battery voltage [V]** | **3.6** |
|---|---|
| Length of cable [m] | 1 |
| Battery capacity [mAh] | 3350 |
| Beam range [m] | 50 |
| Power input [V] | 5 |
| Rechargeable battery | Li-ion |
| Light flux [lm] | 500/1000 |
| Charging time [h] | 4 |
| Bulb life [h] | 2–4 |
| **Article no.** | **2000 877 190** |
| **EUR** | - |
| CK | |



LED | IP54 | Li-Ion

## LED rechargeable torch

Powerful Power LED CRI 80 5 W + 3 W with torch function · Flexible pivoting across 2 axes · Strong magnet and fold-out hook · Battery life depending on illumination 2 to 20 h · Protection class: IP54/IK07

**Scope of supply:** Li-ion rechargeable battery 3.7 V 2500 mAh, USB-C charging cable

| **Battery voltage [V]** | **3.7** |
|---|---|
| Battery capacity [mAh] | 2500 |
| Beam range [m] | 30 |
| Power input [W] | 5 |
| Rechargeable battery | Li-ion |
| Light flux [lm] | 500/170 |
| Charging time [h] | 3 |
| **Article no.** | **2000 877 183** |
| **EUR** | - |
| CK | |



LED | IP65 | Li-Ion

## LED rechargeable torch

Powerful 7 W COB LED · Powerful magnet on the handle enables universal application · 4 brightness levels selectable · 360° adjustable · With LED charge indicator

**Supplied with li-ion rechargeable battery (3.7 V/2600 mAh), USB-C charging cable**

| **Battery voltage [V]** | **3.7** |
|---|---|
| Battery capacity [mAh] | 2600 |
| Power input [W] | 7 |
| Rechargeable battery | Li-ion |
| Light flux [lm] | 100–800 |
| Charging time [h] | 4 |
| **Article no.** | **2000 873 349** |
| **EUR** | - |
| CK | |



LED | IP54

## LED spotlight Multi Battery

For 18 V rechargeable batteries by Bosch, Makita, Milwaukee, DeWalt and CAS (Metabo) · Shock-resistant, dust- and splash-proof · Integrated USB outlet for charging external devices · Suitable for use on construction sites · Pivoted head · Four extra-strong neodymium magnets as well as a fold-out hook on the rear · Two dimming levels (50 %, 25 %) ·

**Corresponds to BGI 608 K2**

**Scope of supply:** 1 spotlight, 4 adapter plates

| **Power input [W]** | **20** |
|---|---|
| Battery voltage [V] | 18 |
| Light flux [lm] | 2900 |
| Bulb life [h] | 4.5–13 |
| **Article no.** | **2000 873 425** |
| **EUR** | - |
| CK | |

LED IP65



## LED spotlight

With a light, robust, die-cast aluminium housing · Special light scattering for illuminating large areas · Die-cast aluminium housing · 120° angle of deflection
**Special product benefits:**
New technology without power unit therefore it is extremely flat and durable with a service life of 30000 hours

**Approved for permanent outdoor use as well as on building sites**

This luminaire contains integrated LED lamps. · The integrated lamps cannot be replaced.

| **Power input [W]** | **30** | **50** |
|---|---|---|
| Light flux [lm] | 2200 | 4250 |
| Quality of cable | H05RN-F 3x1 mm² | H05RN-F 3x1 mm² |
| Length of cable [m] | 2 | 2 |
| Energy efficiency class | F | F |
| Service life [h] | 30000 | 30000 |
| **Article no.** | **2000 873 340** | **2000 873 341** |
| **EUR** | - | - |
| CK | | |




LED IP65



2000 873 343

## LED spotlight

Mobile High Power Chip LED luminaire for illuminating large areas · Bright light instantly, SMD-LED has extremely long service life · Die-cast aluminium housing · Stable tubular steel frame with ergonomically shaped plastic handle
**Technical data:**
Luminaire swivels and can be locked in place

**Special feature:** With folding frame, for easy and flexible transport

This luminaire contains integrated LED lamps. · The integrated lamps cannot be replaced.

| **Power input [W]** | **30** | **50** |
|---|---|---|
| Light flux [lm] | 2200 | 3660 |
| Quality of cable | H07RN-F 3x1 mm² | H07RN-F 3x1 mm² |
| Length of cable [m] | 5 | 5 |
| Energy efficiency class | F | F |
| Service life [h] | 30000 | 30000 |
| **Article no.** | **2000 873 343** | **2000 873 344** |
| **EUR** | - | - |
| CK | | |




LED IP54 Li-Ion



## Cordless LED spotlight

120 high-performance SMD LEDs · Adjustable lighting angle, vertical 90° and horizontal 180° · With charging status display · Robust housing and practical handle enable universal use · **Including power bank function**
**you can work off the mains for up to 2 hours with this spotlight**

**Approved for permanent outdoor use as well as on building sites**

This luminaire contains integrated LED lamps · The integrated lamps cannot be replaced
**Scope of supply:** Complete with Li-ion rechargeable battery (14.8 V/5200 mAh), 100–240 V mains adapter
Replacement battery, see article no. 4000 873 356

| **Power input [W]** | **50** |
|---|---|
| Battery voltage [V] | 14.8 |
| Battery capacity [mAh] | 5200 |
| Rechargeable battery | Li-ion |
| Charging time [h] | Approx. 3.5 |
| Light flux [lm] | 800–4500 |
| **Article no.** | **2000 873 354** |
| **EUR** | - |
| CK | |



| **Accessories** | **Article no.** | **EUR** | CK |
|---|---|---|---|
| **Replacement battery** | **2000 873 356** | | |

## Rechargeable battery

For LED spotlight



| **Type** | Battery voltage [V] | Battery capacity [mAh] | **Article no.** |
|---|---|---|---|
| **Lithium ion rechargeable battery** | 14.8 | 5200 | **2000 873 356** |



## Swivel castor

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Friction bearings** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **60 x 60** | 50 | 19 | 70 | 50 | **2000 276 040** |
| **60 x 60** | 75 | 25 | 100 | 75 | **2000 276 016** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 041** |



## Swivel castor with total stop

**Machine castor** · Sheet steel housing, galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Friction bearings** · With plate fitting · Metal total stop mounted to trail wheel

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **60 x 60** | 50 | 19 | 70 | 50 | **2000 276 042** |
| **60 x 60** | 75 | 25 | 100 | 75 | **2000 276 017** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 043** |



## Fixed castor

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · **Thermoplastic** rubber tyres (grey) on plastic rim · **Friction bearings** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **55 x 55** | 50 | 19 | 70 | 50 | **2000 276 044** |
| **67 x 60** | 75 | 25 | 100 | 75 | **2000 276 045** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 046** |



## Swivel castor

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Friction bearings** · Attachment via bolt hole Ø 11 mm

| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **50** | 19 | 70 | 50 | **2000 276 058** |
| **75** | 25 | 100 | 75 | **2000 276 059** |
| **100** | 32 | 135 | 100 | **2000 276 060** |



## Swivel castor with total stop

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Friction bearings** · Attachment via bolt hole Ø 11 mm · Total stop mounted to trail wheel

| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **50** | 19 | 70 | 50 | **2000 276 061** |
| **75** | 25 | 100 | 75 | **2000 276 062** |
| **100** | 32 | 135 | 100 | **2000 276 063** |

## Swivel castor

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **60 x 60** | 50 | 19 | 70 | 50 | **2000 276 047** |
| **60 x 60** | 75 | 25 | 100 | 75 | **2000 276 018** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 048** |

## Swivel castor with total stop

**Machine castor** · Sheet steel housing, galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) on plastic rim · **Ball bearing** · With plate fitting · Metal total stop mounted to trail wheel



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **60 x 60** | 50 | 19 | 70 | 50 | **2000 276 049** |
| **60 x 60** | 75 | 25 | 100 | 75 | **2000 276 050** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 019** |

## Fixed castor

**Machine castor** · Sheet steel housing, galvanised blue sheet steel housing · Not susceptible to corrosion · **Thermoplastic** rubber tyres (grey) on plastic rim · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **55 x 55** | 50 | 19 | 70 | 50 | **2000 276 051** |
| **67 x 60** | 75 | 25 | 100 | 75 | **2000 276 052** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 053** |

## Swivel castor

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) · On plastic wheel body · **Ball bearing** · Attachment via bolt hole Ø 11 mm



| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **50** | 19 | 70 | 50 | **2000 276 054** |
| **75** | 25 | 100 | 75 | **2000 276 055** |
| **100** | 32 | 135 | 100 | **2000 276 020** |

## Swivel castor with total stop

**Machine castor** · Galvanised blue sheet steel housing · Not susceptible to corrosion · Two-rowed ball cage in fork head · **Thermoplastic** rubber tyres (grey) · Plastic wheel body · **Ball bearing** · Attachment via bolt hole Ø 11 mm · Total stop mounted to trail wheel



| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **50** | 19 | 70 | 50 | **2000 276 056** |
| **75** | 25 | 100 | 75 | **2000 276 057** |
| **100** | 32 | 135 | 100 | **2000 276 021** |



## Swivel castor

**Stainless steel** swivel castor · Polypropylene wheel body · **Thermoplastic** elastomer running surface, 95° Shore A, grey · Stainless steel **friction bearings** · Low-noise · With bolt hole

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **60 x 60** | 50 | 19 | 70 | 50 | **2000 276 124** |
| - | - | - | - | - | **2000 276 125** |
| **77 x 67** | 100 | 32 | 135 | 100 | **2000 276 126** |
| **95 x 70** | 125 | 32 | 160 | 100 | **2000 276 128** |



## Swivel castor

**Stainless steel** swivel castor · Polypropylene wheel body, grey · **Thermoplastic** elastomer running surface, 95° Shore A, grey · Stainless steel **friction bearings** · Low-noise · With bolt hole

| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Bolt hole Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **50** | 19 | 70 | 50 | 11 | **2000 276 131** |
| **75** | 25 | 100 | 75 | 11 | **2000 276 132** |
| **100** | 32 | 135 | 100 | 11 | **2000 276 133** |
| **125** | 32 | 160 | 100 | 11 | **2000 276 134** |



## Spare wheel

Polypropylene wheel body, grey · Tyres: **Thermoplastic** elastomer 95° Shore A, grey · **Friction bearings**

| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **50** | 19 | 6 | 22 | 50 | Grey | **2000 276 148** |
| **75** | 25 | 6 | 28 | 75 | Grey | **2000 276 149** |
| **100** | 32 | 8 | 36 | 100 | Grey | **2000 276 150** |
| **125** | 32 | 8 | 36 | 100 | Grey | **2000 276 151** |





## Swivel castor

**Transport equipment castor** · Polypropylene wheel body, black · Solid rubber wheel, grey, 85° Shore A · **Roller bearing** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 160 | 40 | 195 | 135 | **2000 276 093** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 094** |



## Fixed castor

**Transport equipment castor** · Polypropylene wheel body, black · Solid rubber wheel, grey, 85° Shore A · **Roller bearing** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 160 | 40 | 195 mm | 135 | **2000 276 095** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 096** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Swivel castor with total stop

**Transport equipment castor** with total stop · Polypropylene wheel body, black · Solid rubber wheel, grey, 85° Shore A · **Roller bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 160 | 40 | 195 | 135 | **2000 276 097** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 098** |

## Swivel castor

**Transport equipment castor** · Polypropylene wheel body, black · Solid rubber tyres, grey, 85° Shore A · **Roller bearing** · Low-noise · With plate fitting · For indoor and outdoor use



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 103** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 104** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 105** |

## Fixed castor

**Transport equipment castor** · Polypropylene wheel body, black · Solid rubber tyres, grey, 85° Shore A · **Roller bearing** · Low-noise · With plate fitting · For indoor and outdoor use



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 106** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 107** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 108** |

## Swivel castor with total stop

**Transport equipment castor** with total stop · Polypropylene wheel body, black · Solid rubber tyres, grey, 85° Shore A · **Roller bearing** · Low-noise · With plate fitting · For indoor and outdoor use



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 109** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 110** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 111** |

## Swivel castor

**Transport equipment castor** · Polypropylene wheel body, black · Solid rubber tyres, grey, 85° Shore A · **Roller bearing** · Low-noise · With bolt hole · For indoor and outdoor use



| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Bolt hole Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **80** | 35 | 104 | 70 | 13 | **2000 276 112** |
| **100** | 35 | 124 | 75 | 13 | **2000 276 113** |
| **125** | 38 | 154 | 100 | 13 | **2000 276 114** |



## Swivel castor with total stop

**Transport equipment castor** with total stop · Polypropylene wheel body, black · Solid rubber tyres, grey, 85° Shore A · **Roller bearing** · Low-noise · With bolt hole · For indoor and outdoor use

| Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Bolt hole Ø [mm] | Article no. |
|---|---|---|---|---|---|
| **80** | 35 | 104 | 70 | 13 | **2000 276 115** |
| **100** | 35 | 124 | 75 | 13 | **2000 276 116** |
| **125** | 38 | 154 | 100 | 13 | **2000 276 117** |



## Spare wheel

Polypropylene wheel body, black · Solid rubber tyres, grey · **Roller bearing**

| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **80** | 35 | 8 | 40 | 70 | Grey | **2000 276 118** |
| **100** | 35 | 8 | 40 | 75 | Grey | **2000 276 119** |
| **125** | 38 | 10 | 50 | 100 | Grey | **2000 276 120** |
| **160** | 40 | 12 | 59 | 135 | Grey | **2000 276 121** |
| **200** | 50 | 12 | 59 | 205 | Grey | **2000 276 122** |



## Spare wheel

**Thermoplastic** rubber tyres (grey) · Plastic wheel body with plastic thread guard · **Ball bearing**

| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **80** | 32 | 8 | 36 | 80 | Grey | **2000 276 034** |
| **100** | 32 | 8 | 36 | 100 | Grey | **2000 276 032** |
| **125** | 32 | 8 | 36 | 100 | Grey | **2000 276 033** |
| **150** | 32 | 8 | 36 | 100 | Grey | **2000 276 035** |



## Swivel castor

**Transport equipment castor** · Galvanised blue sheet steel housing · Two-rowed ball cage and sealing ring in fork head · Solid rubber wheels (black) · **Roller bearing**, hub tube in wheel · Sheet steel rim with metal thread guard · Wheel axle screwed · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 000** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 001** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 002** |
| **135 x 110** | 160 | 40 | 195 | 135 | **2000 276 003** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 004** |



## Swivel castor

**Transport equipment castor with total stop** · Galvanised blue sheet steel housing · Two-rowed ball cage and sealing ring in fork head, solid rubber wheels (black) · **Roller bearing** · Hub tube in wheel · Sheet steel rim with metal thread guard · Wheel axle screwed · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 010** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 011** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 012** |
| **135 x 110** | 160 | 40 | 195 | 135 | **2000 276 013** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 014** |

## Fixed castor

**Transport equipment castor** · Galvanised blue sheet steel housing · Solid rubber wheels (black) · **Roller bearing**, hub tube in wheel · Sheet steel rim with metal thread guard · Wheel axle screwed · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 35 | 105 | 70 | **2000 276 005** |
| **105 x 80** | 100 | 35 | 125 | 75 | **2000 276 006** |
| **105 x 80** | 125 | 38 | 155 | 100 | **2000 276 007** |
| **135 x 110** | 160 | 40 | 195 | 135 | **2000 276 008** |
| **135 x 110** | 200 | 50 | 235 | 205 | **2000 276 009** |

## Spare wheel

With sheet steel rim, galvanised-chrome-plated without metal thread guard · Solid rubber wheels (black) · **Roller bearing**



| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **80** | 35 | 12 | 40 | 70 | Black | **2000 276 036** |
| **100** | 35 | 12 | 40 | 75 | Black | **2000 276 037** |
| **125** | 38 | 15 | 50 | 100 | Black | **2000 276 038** |
| **160** | 40 | 20 | 59 | 135 | Black | **2000 276 039** |
| **200** | 50 | 20 | 59 | 205 | Black | **2000 276 015** |

## Swivel castor

**Transport equipment castor** · Galvanised blue sheet steel housing with solid rivet plate fastening · Two-rowed ball cage in fork head · Wheel axle screwed · **Roller bearing** · Wheel made of polyamide, white, with small metal thread guard, weather-resistant, resistant to many oils and chemicals · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 30 | 105 | 130 | **2000 276 022** |
| **105 x 80** | 100 | 36 | 128 | 150 | **2000 276 023** |
| **105 x 80** | 125 | 38 | 155 | 250 | **2000 276 024** |
| **105 x 80** | 125 | 38 | 155 | 200 | **2000 276 064** |
| **135 x 110** | 150 | 50 | 190 | 300 | **2000 276 025** |
| **135 x 110** | 200 | 50 | 235 | 350 | **2000 276 026** |

## Swivel castor

**Transport equipment castor with total stop** · Galvanised blue sheet steel housing with solid rivet plate fastening · Two-rowed ball cage in fork head · Wheel made of polyamide, white, with small metal thread guard · **Roller bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 30 | 105 | 130 | **2000 276 065** |
| **105 x 80** | 100 | 36 | 128 | 150 | **2000 276 066** |
| **105 x 80** | 125 | 38 | 155 | 200 | **2000 276 027** |
| **105 x 80** | 125 | 38 | 155 | 250 | **2000 276 067** |
| **135 x 110** | 150 | 50 | 190 | 300 | **2000 276 028** |
| **135 x 110** | 200 | 50 | 235 | 350 | **2000 276 029** |

## Fixed castor

**Transport equipment castor** · Galvanised blue sheet steel housing · Wheel axle screwed · **Roller bearing** · Wheel made of polyamide, white, with small metal thread guard, weather-resistant, resistant to many oils and chemicals · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **105 x 80** | 80 | 30 | 105 | 130 | **2000 276 068** |
| **105 x 80** | 100 | 36 | 128 | 150 | **2000 276 069** |
| **105 x 80** | 125 | 38 | 155 | 250 | **2000 276 070** |
| **105 x 80** | 125 | 38 | 155 | 200 | **2000 276 071** |
| **135 x 110** | 150 | 50 | 190 | 300 | **2000 276 030** |
| **135 x 110** | 200 | 50 | 235 | 350 | **2000 276 031** |



## Spare wheel

Polyamide, white · **Roller bearing** · Weatherproof · Resistant to many oils and chemicals

| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **80** | 30 | 12 | 40 | 130 | White | **2000 276 072** |
| **100** | 36 | 12 | 40 | 150 | White | **2000 276 073** |
| **125** | 38 | 15 | 50 | 200 | White | **2000 276 074** |
| **150** | 50 | 20 | 59 | 300 | White | **2000 276 075** |
| **200** | 50 | 20 | 59 | 350 | White | **2000 276 076** |



## Spare wheel

**For double, swivel, and fixed castors** · Polyurethane coating (brown) on cast wheel body · 95 +/- 3 Shore A · Abrasion-resistant · **Ball bearing** · Resistant to petrol, diesel, oils such as vegetable and animal fats
**Scope of supply:** Always supplied with axle parts

| Wheel Ø [mm] | Width of wheel [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **125** | 50 | 60 | 700 | **2000 256 809** |
| **160** | 50 | 60 | 800 | **2000 256 810** |
| **200** | 50 | 60 | 1000 | **2000 256 811** |



## Swivel castor

**Transport roller** · Sheet steel fork · Galvanised/chrome-plated · Two-rowed ball cage in fork head · **Ball bearing** · Running surface: **Besothane** cast polyurethane, 95 Shore · Aluminium rims · Very high rolling resistance · With plate fitting · High directional stability · Stable transport of heavier loads

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 85** | 80 | 30 | 120 | 180 | Brown | **2000 276 600** |
| **100 x 85** | 100 | 40 | 140 | 250 | Brown | **2000 256 601** |



## Fixed castor

**Transport roller** · Sheet steel fork · Galvanised/chrome-plated · Running surface: **Besothane** cast polyurethane, 95 Shore · Aluminium rims · **Ball bearing** · With plate fitting · High directional stability · Stable transport of heavier loads

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 88** | 80 | 30 | 120 | 180 | Brown | **2000 256 602** |
| **100 x 88** | 100 | 40 | 140 | 250 | Brown | **2000 256 603** |



## Swivel castor

**Transport roller with total stop** · Sheet steel fork · Galvanised/chrome-plated · Two-rowed ball cage in fork head · Running surface: **Besothane** cast polyurethane, 95 Shore · Aluminium rims · **Ball bearing** · With plate fitting · High directional stability · Stable transport of heavier loads

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 85** | 80 | 30 | 120 | 180 | Brown | **2000 256 604** |
| **100 x 85** | 100 | 40 | 140 | 250 | Brown | **2000 256 605** |

## Spare wheel

**Besothane** cast polyurethane 95 Shore · Aluminium rims · **Ball bearing** · High rolling resistance · High wear resistance



| Wheel Ø [mm] | Width of wheel [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **80** | 30 | 35/47 | 180 | **2000 256 606** |
| **100** | 40 | 40/47 | 250 | **2000 256 607** |

## Heavy-duty swivel castor

Galvanised blue sheet steel housing · Housing with material thickness: 6 mm (attachment) and 5 mm (fork) · Polyamide wheel body · Running surface: Polyamide PA6, white · **Double ball bearings** · Screw-mounted wheel axle · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 85** | 75 | 32 | 117.5 | 300 | White | **2000 276 077** |
| **100 x 85** | 80 | 37 | 120 | 300 | White | **2000 276 078** |
| **100 x 85** | 100 | 37 | 140 | 500 | White | **2000 276 079** |
| **100 x 85** | 125 | 40 | 165 | 700 | White | **2000 276 080** |

## Heavy-duty fixed castor

Galvanised blue sheet steel housing · Housing with material thickness: 6 mm (attachment) and 5 mm (fork) · Polyamide wheel body · Running surface: Polyamide PA6, white · **Double ball bearings** · Screw-mounted wheel axle · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 88** | 75 | 32 | 117.5 | 300 | White | **2000 276 081** |
| **100 x 88** | 80 | 37 | 120 | 300 | White | **2000 276 082** |
| **100 x 88** | 100 | 37 | 140 | 500 | White | **2000 276 083** |
| **100 x 88** | 125 | 40 | 165 | 700 | White | **2000 276 084** |

## Heavy-duty swivel castor

**With total stop** · Galvanised blue sheet steel housing · Housing with material thickness: 6 mm (attachment) and 5 mm (fork) · Polyamide wheel body · Running surface: Polyamide PA6, white · **Double ball bearings** · Screw-mounted wheel axle · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Colour of reel | Article no. |
|---|---|---|---|---|---|---|
| **100 x 85** | 75 | 32 | 117.5 | 300 | White | **2000 276 085** |
| **100 x 85** | 80 | 37 | 120 | 300 | White | **2000 276 086** |
| **100 x 85** | 100 | 37 | 140 | 500 | White | **2000 276 087** |
| **100 x 85** | 125 | 40 | 165 | 700 | White | **2000 276 088** |

## Heavy-duty swivel castor

Robust sheet steel housing, galvanised/chrome-plated · Two-rowed ball cage in fork head · Elastic solid rubber tyres (grey, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 170 | 300 | **2000 256 404** |
| **135 x 110** | 160 | 50 | 202 | 400 | **2000 256 405** |
| **135 x 110** | 200 | 50 | 245 | 500 | **2000 256 406** |
| **135 x 110** | 250 | 50 | 295 | 500 | **2000 256 407** |



## Heavy-duty swivel castor

Robust sheet steel housing, galvanised/chrome-plated · Two-rowed ball cage in fork head · Elastic solid rubber tyres (black, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 164 | 300 | **2000 256 400** |
| **135 x 110** | 160 | 50 | 195 | 400 | **2000 256 401** |
| **135 x 110** | 200 | 50 | 245 | 500 | **2000 256 402** |
| **135 x 110** | 250 | 50 | 295 | 500 | **2000 256 403** |



## Heavy-duty swivel castor

**With total stop** · Robust sheet steel housing, galvanised/chrome-plated · Two-rowed ball cage in fork head · Elastic solid rubber tyres (black, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 164 | 300 | **2000 256 410** |
| **135 x 110** | 160 | 50 | 195 | 400 | **2000 256 408** |
| **135 x 110** | 200 | 50 | 245 | 500 | **2000 256 409** |



## Heavy-duty swivel castor

**With total stop** · Robust sheet steel housing, galvanised/chrome-plated · Two-rowed ball cage in fork head · Elastic solid rubber tyres (grey, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing** · With plate fitting

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 160 | 50 | 202 | 400 | **2000 256 411** |
| **135 x 110** | 200 | 50 | 255 | 500 | **2000 256 412** |
| **135 x 110** | 250 | 50 | 295 | 500 | **2000 256 413** |



## Heavy-duty swivel castor

Robust sheet steel housing, galvanised/chrome-plated · Fixed castor · Elastic solid rubber tyres (black, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing** · With plate fitting
**Note: Fixed castor also available with grey running surface on request**

| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 164 | 300 | **2000 256 416** |
| **135 x 110** | 160 | 50 | 195 | 400 | **2000 256 418** |
| **135 x 110** | 200 | 50 | 245 | 500 | **2000 256 419** |
| **135 x 110** | 250 | 50 | 295 | 500 | **2000 256 417** |



## Spare wheel

Elastic solid rubber tyres (black, firmly cured-on), on aluminium wheel body · Wheel axle screwed · **Ball bearing**
**Note: Spare wheel also available with grey running surface on request**

| Wheel Ø [mm] | Width of wheel [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|
| **125** | 50 | 60 | 300 | **2000 256 421** |
| **160** | 50 | 60 | 400 | **2000 256 424** |
| **200** | 50 | 60 | 500 | **2000 256 422** |
| **250** | 50 | 60 | 500 | **2000 256 423** |

## Spare wheel

Polyamide wheel body and wheel (white) · Extremely strong housing with hardened ball shell · **Double ball bearings** · Screw-mounted wheel axle



| Wheel Ø [mm] | Width of wheel [mm] | Axle Ø [mm] | Length of hub [mm] | Load-bearing capacity [kg] | Colour | Article no. |
|---|---|---|---|---|---|---|
| **75** | 32 | 10 | 35/47 | 300 | White | **2000 276 089** |
| **80** | 37 | 10 | 45/47 | 350 | White | **2000 276 090** |
| **100** | 37 | 10 | 45/47 | 500 | White | **2000 276 091** |
| **125** | 40 | 10 | 45/47 | 700 | White | **2000 276 092** |

## Heavy-duty swivel castor

**Heavy-duty transport equipment castor** · Heavy welded steel construction · Galvanised · Abrasion-resistant · Wheel: Polyurethane coating (brown) on cast wheel body, 95 +/- 3 Shore A · Resistant to petrol, diesel, oils such as vegetable and animal fats · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 170 | 700 | **2000 256 800** |
| **135 x 110** | 160 | 50 | 202 | 800 | **2000 256 801** |
| **135 x 110** | 200 | 50 | 245 | 1000 | **2000 256 802** |

## Heavy-duty swivel castor

**Heavy-duty transport equipment castor with total stop** · Heavy welded steel construction · Ball bearing · Galvanised · Abrasion-resistant · Wheel: Polyurethane coating (brown) on cast wheel body, 95 +/- 3 Shore A · Resistant to petrol, diesel, oils such as vegetable and animal fats · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 170 | 700 | **2000 256 803** |
| **135 x 110** | 160 | 50 | 202 | 800 | **2000 256 804** |
| **135 x 110** | 200 | 50 | 245 | 1000 | **2000 256 805** |

## Heavy-duty swivel castor

**Heavy-duty transport equipment castor** · Heavy welded steel construction · Fixed castor · Galvanised · Abrasion-resistant · Wheel: Polyurethane coating (brown) on cast wheel body, 95 +/- 3 Shore A · Resistant to petrol, diesel, oils such as vegetable and animal fats · **Ball bearing** · With plate fitting



| Panel [mm] | Wheel Ø [mm] | Width of wheel [mm] | Overall height [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|---|---|---|
| **135 x 110** | 125 | 50 | 170 | 700 | **2000 256 806** |
| **135 x 110** | 160 | 50 | 202 | 800 | **2000 256 807** |
| **135 x 110** | 200 | 50 | 245 | 1000 | **2000 256 808** |




## Professional tools for building sites, workshops and industry!

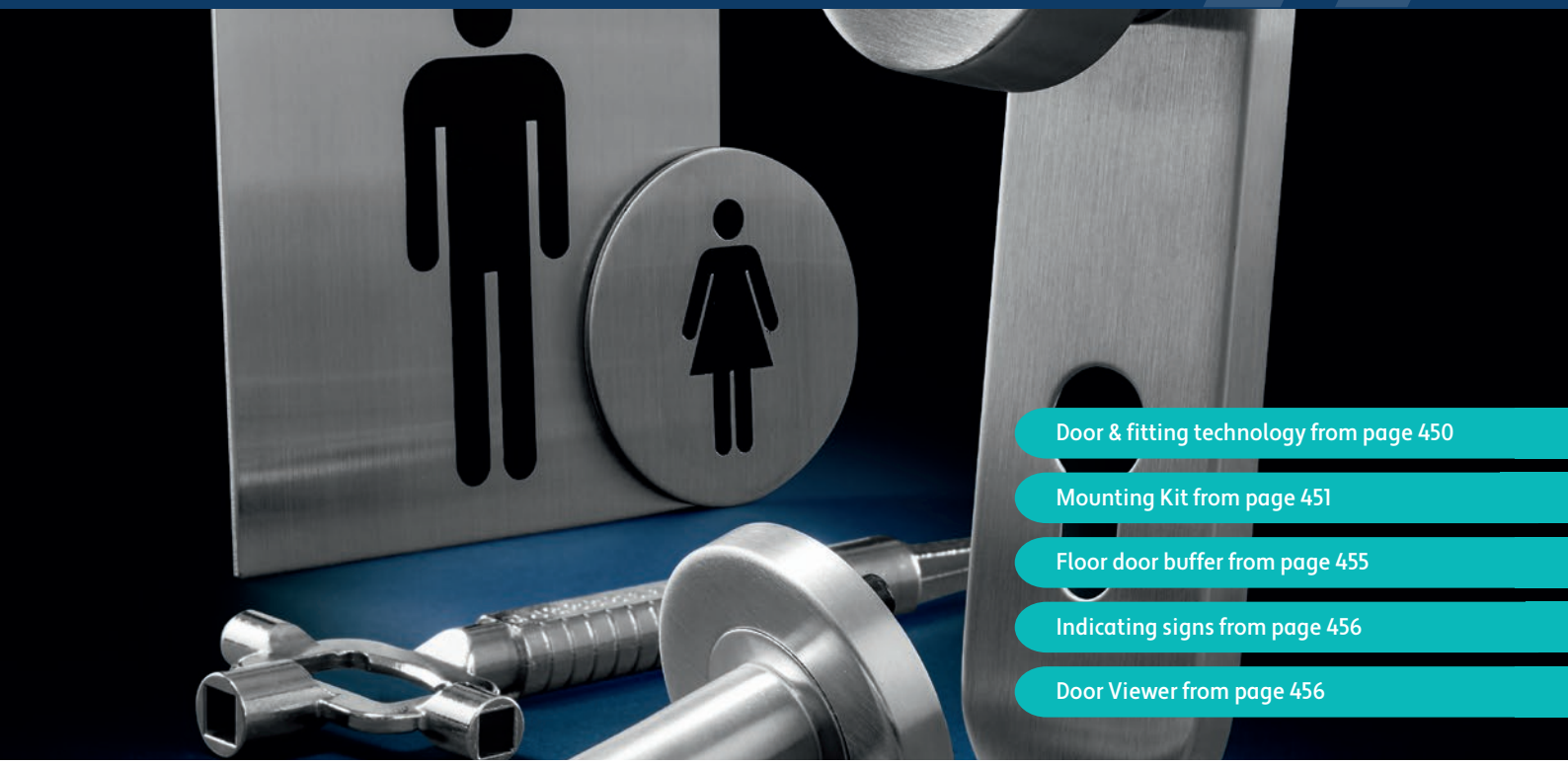
TECWERK stands for tools, personal protective equipment, chemical-technical products and operating equipment in professional quality at a fair price. With around 10,000 products, the diverse assortment offers everything from A as in Angle grinder to Z as in Zinc spray. Benefit from the easy handling and precise application of TECWERK tools – for efficient working. TECWERK is designed for all applications in construction, trades and industry and meets the highest demands and requirements of professionals. TECWERK is an exclusive brand of our specialist wholesalers and available via the central warehouse.

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# 9. Fitting - and Security Technology

# Exclusive fitting- & security technology with the TECWERK brand




Door & fitting technology from page 450

Mounting Kit from page 451

Floor door buffer from page 455

Indicating signs from page 456

Door Viewer from page 456


## TECWERK FITTING - AND SECURITY TECHNOLOGY – STABILITY MEETS PRECISION

With robust door handle fittings in mitre and U-shape, durable wide backplate fittings and shock-absorbing stainless steel wall door buffers, TECWERK offers a well-thought-out programme for internal and external doors. The assortment is complemented by self-adhesive notices made from brushed stainless steel – for WC, accessibility or no-smoking areas – as well as universal keys for manufacturing, assembly or maintenance.

In addition, our fitting - and security technology ensure reliable door and movement processes in workshops, warehouses and industrial environments. Wheels, castors and accessories from TECWERK guarantee stability, safety and flexibility – for efficient transport and assembly processes in your operations. Together, we create smooth workflows that deliver on their promise.

### Precise technology for continuous use

TECWERK-brand products stand for high economic efficiency. Efficient workflows and simplified operating processes are essential.

### Design & function combined

Our new stainless steel door fittings, door buffers and pictograms combine aesthetics with long service life – for modern, uniform room solutions that impress down to the last detail.

### Simple, flexible, compatible

Our fittings comply with common industrial standards and can be installed or replaced with ease. This ensures minimal downtime and maximum operational safety.

TECWERK – Stability and safety in perfection. Together, we create solutions that stabilise processes and modernise working environments.

## High-quality stainless steel components – functional, modern and durable.



### Commercial door fittings Page 450

Class 4 according to EN 1906, door handle fixed/rotating, mounted on metal bearings
**Order no. 2000 300000**



### Protective fittings Page 451

Tested according to DIN 18257 – ES 1 · Cylinder projection 8–15 mm
**Order no. 2000 267264**



### Fire protection fittings Page 452

Absorbs axial and radial forces on heavily used doors
**Order no. 2000 300015**



### Floor door buffer Page 455

Cylinder size 30 x 39 mm, with wide rubber ring
**Order no. 2000 267273**

## Flexible & individual – for every business.



### Indicating signs Page 456

76 mm diameter, self-adhesive, solid
**Order no. 2000 300058**



## Door handle set NW-301 / NW-302

Stainless steel matt · 8 mm square pin · **Tested according to EN 1906 Class 3** · Suitable for DIN left / right · Door handle loosely mounted in plastic substructure · Easy-to-assemble rosette system thanks to intelligent pre-assembly of clip rosettes and push pins · **Holding spring effective on both sides,** can be used on the right and left · Separate assembly of rosettes and door handle pairs



2000 267 250





2000 267 255

| Type | Surface | Perforation | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Stainless steel, Mitredsform** | | | | |
| **Door handle set** | 60 Stainless steel matt | BB | 38–45 | **2000 267 250** |
| **Door handle set** | 60 Stainless steel matt | PC | 39–45 | **2000 267 251** |
| **Lever/knob handle set** | 60 Stainless steel matt | PC | 40–45 | **2000 267 252** |
| **Bath handle set** | 60 Stainless steel matt | WC | 41–45 | **2000 267 253** |
| **Pair of door handles** | 60 Stainless steel matt | - | 42–45 | **2000 267 254** |
| **Stainless steel, U-shape** | | | | |
| **Door handle set** | 60 Stainless steel matt | BB | 43–45 | **2000 267 255** |
| **Door handle set** | 60 Stainless steel matt | PC | 44–45 | **2000 267 256** |
| **Lever/knob handle set** | 60 Stainless steel matt | PC | 45–45 | **2000 267 257** |
| **Bath handle set** | 60 Stainless steel matt | WC | 46–45 | **2000 267 258** |
| **Pair of door handles** | 61 Stainless steel matt | - | 47–45 | **2000 267 259** |



## Rosette fitting NW-401 / NW-402

**Class 4 according to EN 1906** · Stainless steel · Fixed/rotating with return spring · Metal substructure · Door handle fixed / rotating mounted on metal · Plastic substructure for optimum absorption of axial and radial forces on frequently used doors · Modern rosette design, concealed screw connection

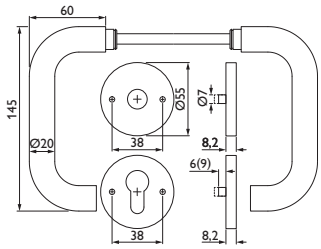


2000 300 000





2000 300 008




| Type | Surface | Perforation | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Stainless steel, U-shape** | | | | |
| **Door handle set** | Matt | PC | 37–48 | **2000 300 000** |
| **Bath handle set** | Matt | WC red/white | 37–48 | **2000 300 001** |
| **Lever/knob handle set** | Matt | PC | 37–48 | **2000 300 002** |
| **Lever/knob handle set** | Matt | PC | 37–48 | **2000 300 003** |
| **Stainless steel, Mitredsform** | | | | |
| **Door handle set** | Matt | PC | 37–48 | **2000 300 008** |
| **Bath handle set** | Matt | WC red/white | 37–48 | **2000 300 009** |
| **Lever/knob handle set** | Matt | PC | 37–48 | **2000 300 010** |
| **Lever/knob handle set** | Matt | PC | 37–48 | **2000 300 011** |



## Panel door handle hole part NW-500

Stainless steel · With holding spring · Class 4 EN 1906 without fastening material · Cam Ø 10 mm · Screw hole spacing 6 mm

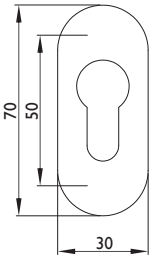
2000 300 088



2000 300 089

| Surface | Square [mm] | Article no. |
|---|---|---|
| **Matt** | 8 | **2000 300 088** |
| **Matt** | 8 | **2000 300 089** |






## Oval rosette NW-120 / NW-515

Article no. 2000 300 052 / 2000 300 053: Key rosette designed as sliding rosette
Article no. 2000 300 085 / 2000 300 086: Key rosette with plastic substructure

Supplied without fastening material

| Surface | Perforation | Thickness [mm] | Article no. |
|---|---|---|---|
| **Stainless steel** | | | |
| **Matt** | PC | 10 | **2000 300 052** |
| **Matt** | PC | 15 | **2000 300 053** |
| **Matt** | PC | 14 | **2000 300 085** |
| **Matt** | Blank | 14 | **2000 300 086** |



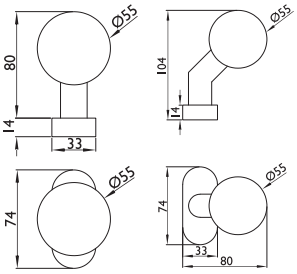


▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Panel door knob 2085

Ball door knob · Offset · Fixed or rotating on oval rosette · Screw hole spacing 6 mm · Knob hole part with 8 mm square perforation · Knob permanently mounted with M12 internal thread for the use of standard half spindles with roller · **The "fixed" version is also approved for fire protection doors.**

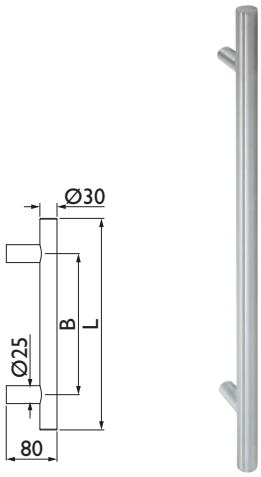





| Surface | Mount | Type | Storage | Article no. |
|---|---|---|---|---|
| **Matt** | 8 mm | Offset | Lockable | **2000 267 269** |
| **Matt** | M12 | Offset | Fixed | **2000 267 270** |
| **Matt** | 8 mm | Straight | Lockable | **2000 267 271** |
| **Matt** | M12 | Straight | Fixed | **2000 267 272** |

## Push handle NW-600

Straight stainless steel handle supports with solid stainless steel mounting base · Precisely cut supports ensure an optimal fit on the round tube · Includes hex screws with anti-twist protection · Incl. fastening set 1.1 for straight and inclined supports on wooden, plastic or metal doors





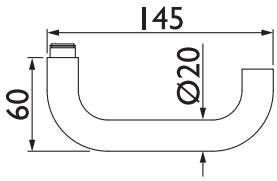

Similar to figure

| Model | Type | Length [mm] | Ø [mm] | Material | Surface | Colour no. | Article no. |
|---|---|---|---|---|---|---|---|
| **NW-600-1** | Straight supports | 400 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 044** |
| **NW-600-2** | Straight supports | 600 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 045** |
| **NW-600-3** | Straight supports | 800 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 046** |
| **NW-610-1** | Inclined supports | 400 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 047** |
| **NW-610-2** | Inclined supports | 600 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 048** |
| **NW-610-3** | Inclined supports | 800 | 30 | Stainless steel | Stainless steel matt | 60 | **2000 300 049** |

## Protective fitting NW-101-1

ZT-EN2 Lever/knob handle set with long backplate 2089 KS, knob 3128 offset · Outer backplate comprising a steel substructure with a hardened outer plate and stainless steel decorative cover plate, concealed screw connection · Hardened steel cams to receive the threaded screws · Triple M6 screw fastening with steel screws and thread lock · Knob adjustable for left / right use with integrated rotation lock · Inner backplate with steel substructure and stainless steel decorative clip-on plate, concealed screw connection · Door handle fixed · Plastic type: Spring-mounted core pull protection, enabling seamless, automatic adjustment to the profile cylinder length · **Tested according to DIN 18257 - ES 1 · Cylinder projection 8–15 mm**



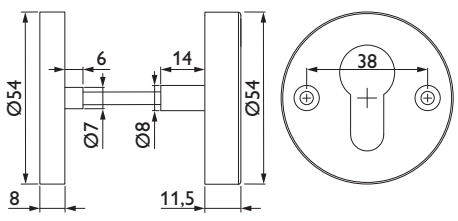



| Type<br>Stainless steel | Surface | Spacing [mm] | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 72 | 36–53 | **2000 267 264** |



## Protective rosette NW-130

Stainless steel








2000 300 093 2000 300 051

| Surface | Cylinder projection [mm] | Article no. |
|---|---|---|
| **60** | 10–12 | **2000 300 093** |
| **60** | 11–18 | **2000 300 051** |

## Fire protection door handle hole part NW-591

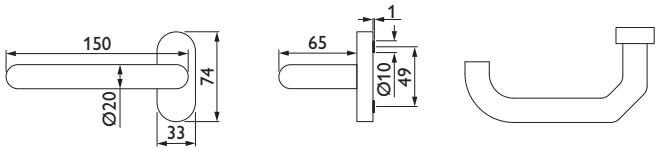
On oval rosette without fastening material · Cam Ø 10 mm · Screw hole spacing 6 mm



2000 300 090



2000 300 091

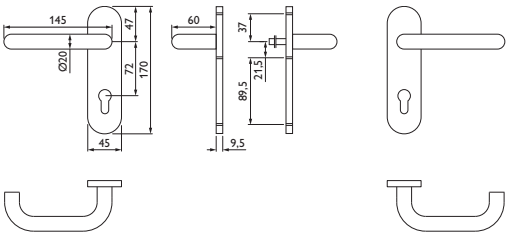



| Surface | Square [mm] | Article no. |
|---|---|---|
| **Stainless steel matt** | 9 | **2000 300 090** |
| **Stainless steel matt** | 9 | **2000 300 091** |

## Short backplate fitting NW-411

**Class 4 according to EN 1906** · U-shape · Stainless steel · Lever handle fixed / rotating mounted on metal substructure for optimum absorption of axial and radial forces on frequently used doors · Modern backplate design, concealed screw connection · Holding spring with rotation limiter for horizontal alignment of the door handle · Fastening material included · Suitable for door thickness Ø 37–50 mm · 8 mm square pin






| Type | Surface | Perforation | Swing direction | Article no. |
|---|---|---|---|---|
| **Door handle set** | Stainless steel matt | PC | DIN left/right | **2000 300 021** |
| **WC handle set** | Stainless steel matt | WC | DIN left/right | **2000 300 022** |
| **Lever/knob handle set** | Stainless steel matt | PC | DIN left | **2000 300 023** |
| **Lever/knob handle set** | Stainless steel matt | PC | DIN right | **2000 300 024** |

## Adhesive rosette 2076

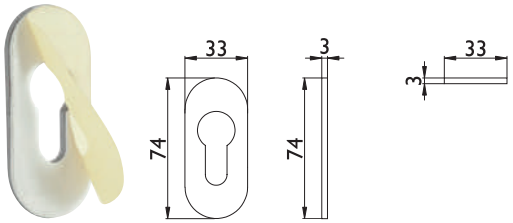
**Self-adhesive** · For frame doors of any thickness · Rosette Ø33 x 74 mm · Height 3 mm · Width 33 mm · In Stainless steel



2000 700 005



2000 700 006

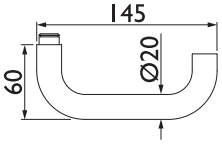



| Surface<br>Stainless steel | Perforation | Thickness [mm] | Article no. |
|---|---|---|---|
| **Matt** | PC | 3 | **2000 700 005** |
| **Matt** | Blank | 3 | **2000 700 006** |

## Protective fitting NW-102-1

ZT-EN2 Lever/knob handle set with long backplate 2089 S, knob 3128 offset · Outer backplate comprising a steel substructure with a hardened outer plate and stainless steel decorative cover plate, concealed screw connection · Hardened steel cams to receive the threaded screws · Triple M6 screw fastening with steel screws and thread lock · Knob adjustable for left / right use with integrated rotation lock · Inner backplate with steel substructure and stainless steel decorative clip-on plate, concealed screw connection · Door handle fixed · PC-perforated type · **Tested according to DIN 18257 - ES 1 · Outer backplate only 12 mm thick**






| Type<br>Stainless steel | Surface | Spacing [mm] | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 72 | 36–53 | **2000 267 266** |





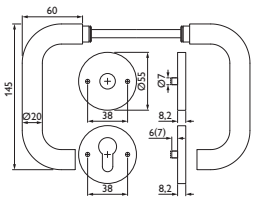
▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Fire protection fitting PZ NW-491

Fastening material included · Split square pin for panic locks with split follower · Door handle fixed / rotating mounted on a metal substructure for optimum absorption of axial and radial forces on frequently used doors








| Type | Surface | For door thickness [mm] | Perm. | Article no. |
|---|---|---|---|---|
| **Door handle set** | Matt | 45–58 | DIN 18273 EN179 | **2000 300 012** |

## Fastening set

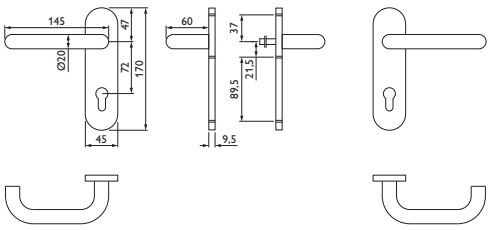
Fastening set for Tecwerk door fittings



| Square [mm] | Suitable for | Door thickness [mm] | Screws | Article no. |
|---|---|---|---|---|
| - | Lever handle set with rosette | 47-56 | 4xM4 x 60 mm | **2000 300 025** |
| **8** | Lever handle set with rosette | 57-66 | 4xM4 x 70 mm | **2000 300 026** |
| **8** | Lever handle set with rosette | - | 4xM4 x 80 mm | **2000 300 027** |
| **8** | Lever/knob handle set with rosette | - | 4xM4 x 60 mm | **2000 300 028** |
| **8** | Lever/knob handle set with rosette | - | 4xM4 x 70 mm | **2000 300 029** |
| **9** | Fire protection handle set with rosette | - | 4xM4 x 60 mm | **2000 300 030** |
| **9** | Fire protection handle set with rosette | - | 4xM4 x 70 mm | **2000 300 031** |
| **9** | Fire protection handle set with rosette | - | 4xM4 x 80 mm | **2000 300 032** |
| **9** | Fire protection lever handle set with short backplate | - | 3xM4 inkl. Hülse, 2x3,9 x 22 | **2000 300 033** |
| **9** | Fire protection lever handle set with short backplate | - | 3xM4 inkl. Hülse, 2x3,9 x 23 | **2000 300 034** |
| **9** | Fire protection lever handle set with short backplate | - | 3xM4 inkl. Hülse, 2x 3,9 x 24 | **2000 300 035** |
| **8** | Lever handle set with short backplate | - | 3xM4 mit Gewindehülsen, 2x Bohrschrauben | **2000 300 040** |
| **8** | Lever handle set with short backplate | - | 3xM4 mit Gewindehülsen, 2x Bohrschrauben | **2000 300 041** |
| **8** | Lever/knob handle set with short backplate | - | 3xM4 mit Gewindehülsen, 2x Bohrschrauben | **2000 300 042** |
| **8** | Lever/knob handle set with short backplate | - | 3xM4 mit Gewindehülsen, 2x Bohrschrauben | **2000 300 043** |

## Short backplate fitting NW-405

**Class 4 according to EN 1906 ·** Handle fixed / rotating mounted on metal substructure · Concealed screw connection · Fastening material included · Suitable for door thickness Ø 39–52 mm · 8 mm square pin



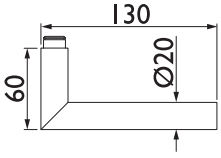



| Type | Surface | Perforation | Swing direction | Article no. |
|---|---|---|---|---|
| **Lever handle set with wide backplate** | Stainless steel matt | PC | DIN left/right | **2000 300 076** |
| **Lever/knob handle set with wide backplate** | Stainless steel matt | PC | DIN left | **2000 300 077** |
| **Lever/knob handle set with wide backplate** | Stainless steel matt | PC | DIN right | **2000 300 078** |
| **WC handle set with wide backplate** | Stainless steel matt | WC | DIN left | **2000 300 079** |
| **WC handle set with wide backplate** | Stainless steel matt | WC | DIN right | **2000 300 080** |

## Protective fitting NW-101-2

ZT-EN2 Lever/knob handle set with long backplate 2089 KS, knob 3128 offset · Outer backplate comprising a steel substructure with a hardened outer plate and stainless steel decorative cover plate, concealed screw connection · Hardened steel cams to receive the threaded screws · Triple M6 screw fastening with steel screws and thread lock · Knob adjustable for left / right use with integrated rotation lock · Inner backplate with steel substructure and stainless steel decorative clip-on plate, concealed screw connection · Door handle fixed · Plastic type: Spring-mounted core pull protection, enabling seamless, automatic adjustment to the profile cylinder length · **Tested according to DIN 18257 - ES 1 · Cylinder projection 8–15 mm**



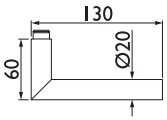



| Type<br>Stainless steel | Surface | Spacing [mm] | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 72 | 36–53 | **2000 267 265** |



## Protective fitting NW-102-2

ZT-EN2 Lever/knob handle set with long backplate 2089 S, knob 3128 offset · Outer backplate comprising a steel substructure with a hardened outer plate and stainless steel decorative cover plate, concealed screw connection · Hardened steel cams to receive the threaded screws · Triple M6 screw fastening with steel screws and thread lock · Knob adjustable for left / right use with integrated rotation lock · Inner backplate with steel substructure and stainless steel decorative clip-on plate, concealed screw connection. Door handle fixed · PC-perforated type · **Outer backplate only 12 mm thick**




| Type<br>Stainless steel | Surface | Spacing [mm] | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 72 | 36–53 | **2000 267 267** |



## Combination protective fitting NW-103-2

ZT-EN2 protective lever/knob handle set 1802 BASIC 02 · Knob adjustable for left / right use with integrated rotation lock · Inner door handle fixed on rosette and key rosette · PC-perforated type · **Tested according to DIN 18257 - ES 1 · Cylinder projection 8–15 mm**

| Type<br>Stainless steel | Surface | Spacing [mm] | For door thickness [mm] | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 72 | 36–53 | **2000 267 268** |





2000 267 260





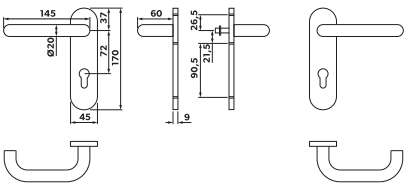
2000 267 262

## Fire protection fitting NW-495-2 / NW-495-1 / NW-494-2 / NW-494-1

Fire protection handle set with rosette to DIN 18253 · Metal-plastic substructure with plastic clip for secure hold of the cover rosettes · Concealed screw fastening with threaded screws · All screws with thread lock · Quick and easy assembly · Incl. fastening material, suitable for **door thickness: 40–58 mm** · 9 mm square pin
Article no. 2000 267 260 and 2000 267 261 = not suitable for emergency exit doors!
Article no. 2000 267 262 and 2000 267 263 = suitable for emergency exit doors! · As a tested unit according to EN 179

| Type | Surface | For door thickness [mm] | Perm. | Article no. |
|---|---|---|---|---|
| **Lever/knob handle set** | Matt | 40–58 | DIN 18273 | **2000 267 260** |
| **Door handle set** | Matt | 40–58 | DIN 18273 | **2000 267 261** |
| **Lever/knob handle set** | Matt | 40–58 | EN 179 / DIN 18273 | **2000 267 262** |
| **Door handle set** | Matt | 40–58 | EN 179 / DIN 18274 | **2000 267 263** |





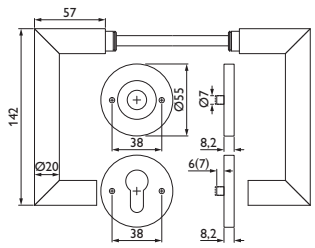

## Fire protection fitting NW 445 / 495

Fastening material included · 9 mm square pin · Door handle fixed / rotating mounted on a metal substructure for optimum absorption of axial and radial forces on frequently used doors
Article no. 2000 300 016 with split square spindle for panic locks with split follower

| Type | Surface | For door thickness [mm] | Perm. | Article no. |
|---|---|---|---|---|
| **Door handle set** | Matt | 42–78 | DIN 18273 EN179 | **2000 300 014** |
| **Lever/knob handle set** | Matt | 42–65 | DIN 18273 EN179 | **2000 300 015** |
| **Door handle set** | Matt | 45–58 | DIN 18273 EN179 | **2000 300 016** |








## Fire protection fitting NW-443 / NW492

Fastening material included · 9 mm square pin · Door handle fixed / rotating mounted on a metal substructure for optimum absorption of axial and radial forces on frequently used doors
Article no. 2000 300 019 with split square spindle for panic locks with split follower

| Type | Surface | For door thickness [mm] | Perm. | Article no. |
|---|---|---|---|---|
| **Door handle set** | Matt | 42–78 | DIN 18273 EN179 | **2000 300 017** |
| **Lever/knob handle set** | Matt | 40–58 | DIN 18273 EN179 | **2000 300 018** |
| **Door handle set** | Matt | 45–58 | DIN 18273 EN179 | **2000 300 019** |

## Fire protection fitting NW-445

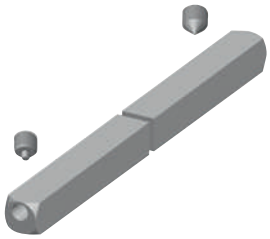
Fastening material included · 9 mm square pin · Door handle fixed / rotating mounted on a metal substructure for optimum absorption of axial and radial forces on frequently used doors



| Type | Surface | For door thickness [mm] | Perm. | Article no. |
|---|---|---|---|---|
| **Door handle set** | Matt | 39–52 | DIN 18273 EN179 | **2000 300 081** |
| **Door handle set** | Matt | 39–52 | DIN 18273 EN179 | **2000 300 082** |
| **Lever/knob handle set** | Matt | 39–52 | DIN 18273 EN179 | **2000 300 083** |
| **Lever/knob handle set** | Matt | 39–52 | DIN 18273 EN179 | **2000 300 084** |

## Panic pin

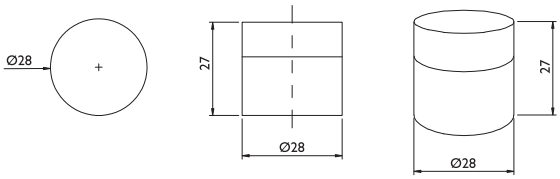
Split push pin for door handle hole part on both sides · For panic locks with split follower, one end face-drilled (to a depth of 30 mm), the other end centre-drilled for screw connection · Supplied with 2 hex screws 4006 L



| Square [mm] | For door thickness [mm] | LA [mm] | LI [mm] | Article no. |
|---|---|---|---|---|
| **9** | 38–45 | 52 | 67,5 | **2000 300 036** |
| **9** | 38–45 | 59 | 53,5 | **2000 300 037** |
| **9** | 38–45 | 59 | 60 | **2000 300 038** |

## Wall door buffer

Stainless steel · With wood screw 5 x 45 mm · Dowel Ø 8 mm

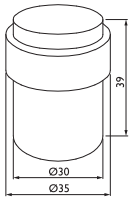





| Material | Surface | Height [mm] | Length [mm] | Article no. |
|---|---|---|---|---|
| **Stainless steel** | Matt polished | Ø 28 | 27 | **2000 300 070** |
| **Stainless steel** | Matt polished | Ø 28 | 60 | **2000 300 071** |
| **Stainless steel** | Matt polished | Ø 28 | 90 | **2000 300 072** |
| **Stainless steel** | Matt polished | Ø 28 | 120 | **2000 300 073** |
| **Rubber** | Black | Ø 28 | 12 | **2000 300 074** |

## Floor door buffer

With wide rubber ring · Cylinder dimensions 30 x 39 mm · Fastening material included in scope of supply






| Surface | Ø [mm] | Height [mm] | Model | Article no. |
|---|---|---|---|---|
| **Matt** | 35 | 39 | 3693 TS | **2000 267 273** |

## Door stop underlay

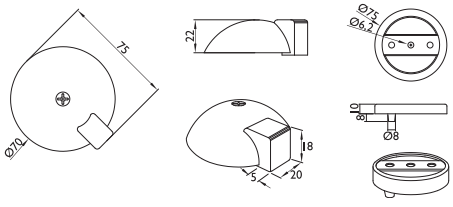
Support for Hermat door buffer 3699 · Silicone, black · Support stackable, so even larger height differences can be bridged



| Material | Surface | Ø [mm] | Height [mm] | Model | Article no. |
|---|---|---|---|---|---|
| **Silicone** | Black | 70 | 10 | 3699 GP | **2000 267 274** |

## Floor-mounted door stopper

Classic turtle shape · With wood screw 6 x 60 mm, dowel Ø 10 mm






| Material | Surface | Ø [mm] | Height [mm] | Model | Article no. |
|---|---|---|---|---|---|
| **Stainless steel** | Matt | 70/75 | 18/22 | 3699 | **2000 267 275** |

## Notice

Self-adhesive · Bold, black characters for excellent visibility




2000 300 054



2000 300 056



2000 300 058



2000 300 059




2000 300 062



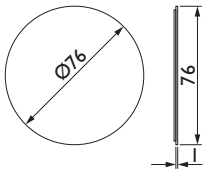
2000 300 064



2000 300 066



2000 300 067

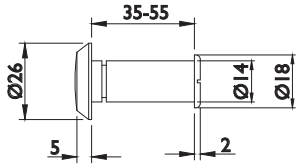



| Material<br>Ø 76 mm | Symbol | Shape | Article no. |
|---|---|---|---|
| **Stainless steel** | WC | Round | **2000 300 054** |
| **Stainless steel** | No smoking | Round | **2000 300 055** |
| **Stainless steel** | Barrier-free | Round | **2000 300 056** |
| **Stainless steel** | Arrow | Round | **2000 300 057** |
| **Stainless steel** | Women | Round | **2000 300 058** |
| **Stainless steel** | Men | Round | **2000 300 059** |
| **Stainless steel** | Pull | Round | **2000 300 060** |
| **Stainless steel** | Push | Round | **2000 300 061** |
| **H x W 126 x 126 mm** | | | |
| **Stainless steel** | WC | Square | **2000 300 062** |
| **Stainless steel** | No smoking | Square | **2000 300 063** |
| **Stainless steel** | Barrier-free | Square | **2000 300 064** |
| **Stainless steel** | Arrow | Square | **2000 300 065** |
| **Stainless steel** | Women | Square | **2000 300 066** |
| **Stainless steel** | Men | Square | **2000 300 067** |
| **Stainless steel** | Pull | Square | **2000 300 068** |
| **Stainless steel** | Push | Square | **2000 300 069** |

## Peephole

180° viewing angle · Outside diameter 26 mm · For 14 mm door borehole · Suitable for door thickness 35–55 mm · Quick and easy assembly for standard 14 mm door borehole · Material brass · Surface chrome-plated






| Surface | Article no. |
|---|---|
| **Chrome-plated** | **2000 300 075** |




# 10. Construction Equipment

# Construction equipment for every area of use with the TECWERK brand




## TECWERK CONSTRUCTION EQUIPMENT – RELIABLE HELPERS FOR EVERY BUILDING SITE

Efficient construction work requires reliable equipment that combines performance, precision and robustness. TECWERK offers a comprehensive range of construction equipment developed specifically for the demanding requirements of the construction trades. Whether in structural engineering, interior finishing, gardening and landscaping or renovation work – our products impress with durability, ergonomics and practical functionality.

As an authorised TECWERK specialist dealer, we support you in making your on-site processes efficient and safe. Well-engineered tools and equipment enable you to optimise workflows, reduce downtime and ensure quality results – day after day. Together, we create working environments you can rely on.

### Practical variety

Our assortment covers all application areas – from masonry and plastering to tiling, sealing and general construction and gardening work. This ensures you are optimally equipped for every task.

### Quality to standard

Our construction equipment is manufactured in accordance with recognised standards such as DIN 5131 B. This guarantees consistently high quality, precision and safety – from the hatchet to the vacuum lifter.

### Reliability in every detail

All TECWERK construction equipment is designed for tough on-site use, day after day. Robust materials, stable connections and ergonomic handles ensure safe and comfortable working – even during long periods of use.

### Efficiency through ergonomics

Many tools feature ergonomic handles made of high-quality beechwood that sit comfortably in the hand and reduce fatigue. The result: greater comfort, better control and maximum productivity.

**TECWERK – Construction equipment that combines performance with precision. Together, we create efficient, safe and modern working environments in the construction trades.**

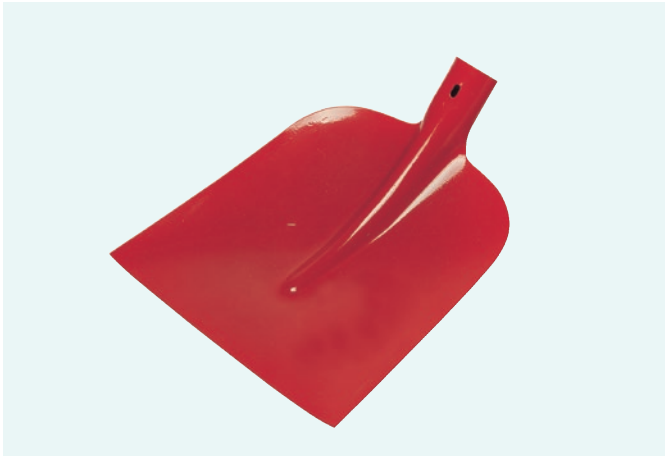
## Precise work in masonry, jointing and plastering – robust and versatile.




### Bricklayer's trowel

Page 461

L: 160 mm, W: 110 mm, stainless steel, beech handle
**Order no. 2000 816716**



### Holstein shovel

Page 465

Specially hardened, red powder-coated, without handle
**Order no. 2000 818412**

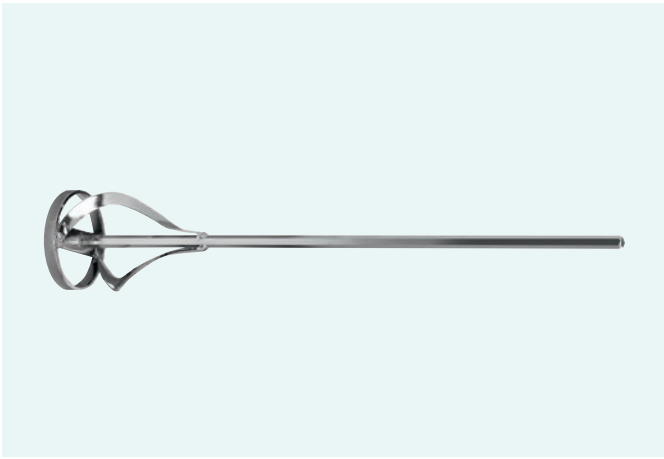



### Hatchet

Page 468

DIN 5131 B, double safety wedge
**Order no. 2000 815503**

## Perfect mixing of adhesives, plaster or paint – for uniform results without effort.



### Paint/plaster stirrer

Page 463

For liquid materials of low viscosity
**Order no. 2000 816562**



### Block lifter

Page 466

Adjustable 90–330 mm, designed for tiles
**Order no. 2000 818714**




### Gas heater

Page 470

1.5 m gas hose and safety shut-off, weight: 4.2 kg
**Order no. 2000 818288**



## Tile chisel

Chromium-vanadium steel · Octagonal · Forged · Hardened · Tempered drive head · Enamelled finish

| Overall L [mm] | Shank cross-section [mm] | Cutting edge W [mm] | Type | Article no. |
|---|---|---|---|---|
| **100** | 8 | 10 | Flat | **2000 817 170** |
| **100** | 8 | - | Pointed | **2000 817 171** |




## Silicone spatula 5 in 1

Tool for smoothing silicone and acrylic joints · Made in Germany · Made of high-quality plastic
1 pc. on card

| Length [mm] | Width [mm] | Article no. |
|---|---|---|
| **85** | 15 | **2300 000 212** |



## Smoothing trowel

Perfect for applying and removing gypsum and plaster

| L x W x Th [mm] | Toothing | Handle design | Support | Sheet | Article no. |
|---|---|---|---|---|---|
| **270 x 130 x 3** | - | Plastic, angled | Plastic | Plastic | **2000 816 755** |
| **280 x 130 x 0.7** | - | Beech, unvarnished, angled | Aluminium | Hardened steel | **2000 816 756** |
| **280 x 130 x 0.7** | - | Beech, varnished, angled | Aluminium | Stainless steel | **2000 816 757** |
| **280 x 130 x 0.7** | - | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 758** |
| **280 x 130 x 0.7** | 4x 4 | Beech, varnished, angled | Aluminium | Stainless steel | **2000 816 759** |
| **280 x 130 x 0.7** | 6x 6 | Beech, varnished, angled | Aluminium | Stainless steel | **2000 816 760** |
| **280 x 130 x 0.7** | 8x 8 | Beech, varnished, angled | Polyamide with glass fibres | Stainless steel | **2000 816 761** |
| **280 x 130 x 0.7** | 10x10 | Beech, varnished, angled | Aluminium | Stainless steel | **2000 816 762** |
| **280 x 130 x 0.7** | 12x12 | Beech, varnished, angled | Polyamide with glass fibres | Stainless steel | **2000 816 763** |
| **280 x 130 x 0.7** | 4x 4 | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 764** |
| **280 x 130 x 0.7** | 6x 6 | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 765** |
| **280 x 130 x 0.7** | 8x 8 | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 766** |
| **280 x 130 x 0.7** | 10x10 | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 767** |
| **280 x 130 x 0.7** | 12x12 | 2 components | Polyamide with glass fibres | Stainless steel | **2000 816 768** |
| **280 x 130 x 0.7** | 6x 6 | Beech, unvarnished, angled | Aluminium | Hardened steel | **2000 816 769** |
| **280 x 130 x 0.7** | 8x 8 | Beech, unvarnished, angled | Aluminium | Hardened steel | **2000 816 770** |



## Swiss smoothing trowel

From rust-free stainless steel · Beechwood handle

| L x W x Th [mm] | Article no. |
|---|---|
| **500 x 130 x 0.7** | **2000 816 771** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Smoothing trowel
Hardened steel · Beechwood handle



| L x W x Th [mm] | Article no. |
|---|---|
| 500 x 90/75 x 1.2 | 2000 816 772 |

## Bricklayer's trowel
Beechwood handle



| Length [mm] | Handle design | Neck | Sheet | Article no. |
|---|---|---|---|---|
| 160 | Bright | S shape | Hardened steel, ground | 2000 816 713 |
| 180 | Bright | S shape | Hardened steel, ground | 2000 816 714 |
| 200 | Bright | S shape | Hardened steel, ground | 2000 816 715 |
| 160 | Enamelled finish | S shape | Stainless steel | 2000 816 716 |
| 180 | Enamelled finish | S shape | Stainless steel | 2000 816 717 |
| 200 | Enamelled finish | S shape | Stainless steel | 2000 816 718 |
| 160 | Bright | Straight | Hardened steel, ground | 2000 816 719 |
| 180 | Bright | Straight | Hardened steel, ground | 2000 816 720 |

## Bricklayer's trowel, Berlin
S neck · Hardened steel · Ground blade · Beechwood handle



| Length [mm] | Article no. |
|---|---|
| 200 | + 2000 816 727 |
| 220 | + 2000 816 728 |
| 240 | + 2000 816 729 |

## Plastering trowel, Bern
Beechwood handle



| Length [mm] | Handle design | Neck | Sheet | Article no. |
|---|---|---|---|---|
| 120 | Enamelled finish | Straight | Hardened steel, ground | 2000 816 721 |
| 140 | Enamelled finish | Straight | Stainless steel | 2000 816 722 |
| 160 | Enamelled finish | Straight | Stainless steel | 2000 816 723 |
| 120 | Bright | Straight | Hardened steel, ground | 2000 816 724 |
| 140 | Bright | Straight | Hardened steel, ground | 2000 816 725 |
| 160 | Bright | Straight | Hardened steel, ground | 2000 816 726 |

## Plastering trowel, Hamburg
From rust-free stainless steel · Beechwood handle



| Length [mm] | Material | Handle design | Article no. |
|---|---|---|---|
| 140 | Stainless steel | Enamelled finish | 2000 816 743 |

## Pointing trowel
Hardened steel · Ground blade · Beechwood handle



| L x W [mm] | Article no. |
|---|---|
| 180 x 8 | 2000 816 748 |
| 180 x 10 | 2000 816 749 |
| 180 x 12 | 2000 816 750 |



## Adhesive spreading trowel

For the easy adhesion of blocks, such as porous concrete and sand-lime bricks · Faster and much more precise work than with conventional bricklaying

| Width [mm] | Article no. |
|---|---|
| 115 | + 2000 816 215 |
| 175 | + 2000 816 216 |
| 240 | + 2000 816 217 |



## Pointing trowel

Beechwood handle

| Length [mm] | Handle design | Neck | Sheet | Article no. |
|---|---|---|---|---|
| 160 | Bright | Straight | Hardened, ground steel | 2000 816 744 |
| 160 | Enamelled finish | Straight | Stainless steel | 2000 816 745 |



## Cat's tongue trowel

Beechwood handle

| Length [mm] | Handle design | Neck | Sheet | Material | Article no. |
|---|---|---|---|---|---|
| 160 | Bright | Straight | Hardened, ground steel | Steel | 2000 816 746 |
| 160 | Enamelled finish | Straight | Stainless steel | Stainless steel | 2000 816 747 |



## Moulding trowel

From rust-free stainless steel · Beechwood handle

| Width [mm] | Handle design | Sheet | Neck | Article no. |
|---|---|---|---|---|
| 50 | Beech, unvarnished | Hardened steel, ground | Straight | 2000 816 730 |
| 60 | Beech, unvarnished | Hardened steel, ground | Straight | 2000 816 731 |
| 80 | Beech, unvarnished | Hardened steel, ground | Straight | 2000 816 732 |
| 100 | Beech, unvarnished | Hardened steel, ground | Straight | 2000 816 733 |
| 40 | Beech, varnished | Stainless steel | Straight | 2000 816 734 |
| 50 | Beech, varnished | Stainless steel | Straight | 2000 816 735 |
| 60 | Beech, varnished | Stainless steel | Straight | 2000 816 736 |
| 80 | Beech, varnished | Stainless steel | Straight | 2000 816 737 |
| 100 | Beech, varnished | Stainless steel | Straight | 2000 816 738 |
| 50 | 2 components | Stainless steel | Straight | 2000 816 739 |
| 60 | 2 components | Stainless steel | Straight | 2000 816 740 |
| 80 | 2 components | Stainless steel | Straight | 2000 816 741 |
| 100 | 2 components | Stainless steel | Straight | 2000 816 742 |



## Moulding trowel

Flexible shovels · Made of steel · Plastic crossbeam

| Width [mm] | Article no. |
|---|---|
| 16 | 2000 816 751 |
| 24 | 2000 816 752 |



## Painter's spatula

**Rustproof, acid-resistant stainless steel** · Ground blade · Flexible · High-gloss polished · With flat-oval, blue plastic handle

| Width [mm] | Handle | Article no. |
|---|---|---|
| 40 | Plastic, flat-oval, blue | 2000 816 547 |
| 60 | Plastic, flat-oval, blue | 2000 816 548 |
| 80 | Plastic, flat-oval, blue | 2000 816 549 |
| 100 | Plastic, flat-oval, blue | 2000 816 553 |

## Paint/plaster stirrer

Galvanised · For liquid materials with a low viscosity · E.g. wall paints, emulsion paints, varnishes, grouting compounds, etc.



| Mixing paddle Ø [mm] | Length [mm] | Volume of mixture [kg] | Connection [mm] | Article no. |
|---|---|---|---|---|
| **70** | 400 | 10 | Hexagonal, AF 8 | **2000 816 562** |
| **80** | 400 | 15 | Hexagonal, AF 8 | **2000 816 563** |
| **100** | 600 | 20 | Hexagonal, AF 10 | **2000 816 564** |

## Helical ribbon mixer

Galvanised · For tough, highly viscous materials · E.g. tile adhesives, fillers, adhesive mortar, pastes, etc.



| Mixing paddle Ø [mm] | Length [mm] | Volume of mixture [kg] | Connection [mm] | Article no. |
|---|---|---|---|---|
| **70** | 400 | 10 | Hexagonal, AF 8 | **2000 816 566** |
| **85** | 400 | 8 | Hexagonal, AF 8 | **2000 816 567** |
| **95** | 500 | 10 | Hexagonal, AF 10 | **2000 816 568** |

## Mortar stirrer

Galvanised and yellow chromated · For particularly tough materials · E.g. ready-mixed plaster, ready-mixed mortar, screed, insulation protection, etc. · M14 thread, clockwise, for agitators



| Mixing paddle Ø [mm] | Length [mm] | Volume of mixture [kg] | Connection | Article no. |
|---|---|---|---|---|
| **120** | 600 | 30 | M14 | **2000 816 574** |
| **140** | 600 | 40 | M14 | **2000 816 575** |
| **160** | 600 | 60 | M14 | **2000 816 576** |

## Chalk line reel

Body made of die-cast magnesium · Extremely light and robust · Push-system: The crank does not rotate when pushing on the axis and pulling out the cord · Hardened hook with angled prongs: Can be nailed onto edges · 100 % integrated storage space for the hook in the body · Large internal colour powder capacity · With steel eyelet at the cord outlet · Flat edges on both sides so that the chalk line roller can lie perfectly horizontal · With stainless steel belt clip





| Cord length [m] | Crank lift | Article no. |
|---|---|---|
| **30** | - | **2000 816 645** |
| **30** | Passing switch 5:1 | **2000 816 646** |

## Chalk for chalk line

For chalk line reel · In practical container with filler




| Colour | Contents [g] | Article no. |
|---|---|---|
| **Blue** | 250 | **2000 816 651** |
| **Red** | 250 | **2000 816 650** |
| **White** | 250 | **2000 816 649** |
| **Blue** | 1000 | **2000 816 652** |
| **Red** | 1000 | **2000 816 653** |



## Vacuum lifter

**Body made of impact-resistant ABS plastic** · Suitable for any material with flat and gas-tight surfaces such as glass, plastic, metal, coated wood, marble, tiles, etc. · Suction easily applied by moving the handle bar or tilting lever

| Load-bearing capacity [kg] | Head Ø [mm] | Article no. |
|---|---|---|
| **45** | 118 | **2000 817 213** |



## Pump vacuum lifter

1-head plastic body · With built-in hand-operated pump · Suction via pump strokes · Vent lever secured to prevent inadvertent actuation · Rubber disc with 3 sealing lips · Handle Ø 3.5 cm
**Supplied in plastic case**

| Load-bearing capacity [kg] | Head Ø [mm] | Article no. |
|---|---|---|
| **120** | 200 | **2000 817 243** |



## Vacuum lifter

**Body made of impact-resistant ABS plastic** · Suitable for any material with flat and gas-tight surfaces such as glass, plastic, metal, coated wood, marble, tiles, etc. · Suction easily applied by moving the handle bar or tilting lever

| Load-bearing capacity [kg] | Head Ø [mm] | Article no. |
|---|---|---|
| **80** | 118 | **2000 817 214** |



## Vacuum lifter

**Aluminium body** · Suitable for any material with flat and gas-tight surfaces such as glass, plastic, metal, coated wood, marble, tiles, etc. · Suction easily applied by tilting lever

| Load-bearing capacity [kg] | Head Ø [mm] | Article no. |
|---|---|---|
| **80** | 118 | **2000 817218** |



## Vacuum lifter

**Aluminium body** · Suitable for any material with flat and gas-tight surfaces such as glass, plastic, metal, coated wood, marble, tiles, etc. · Suction easily applied by tilting lever

| Load-bearing capacity [kg] | Head Ø [mm] | Article no. |
|---|---|---|
| **100** | 118 | **2000 817 219** |



## Roll head pry bar

Nickel-plated

| Length [mm] | Article no. |
|---|---|
| **400** | **2000 812 549** |



## Pry bar

Nickel-plated

| Length [mm] | Article no. |
|---|---|
| **400** | **2000 812 536** |

## Holstein shovel

Specially hardened · Red powder-coated · **Without handle** · Roughened cutting edge
Suitable for handle article no. 4000 815 705



| Size | Dimensions of sheet [mm] | Type | Article no. |
|---|---|---|---|
| **2** | 270 x 250 | 3/4 raised | **2000 818 412** |

## Holstein shovel

Specially hardened · Red · **Without handle** · Roughened cutting edge
Suitable for handle article no. 4000 815 705



| Size | Dimensions of sheet [mm] | Type | Article no. |
|---|---|---|---|
| **2** | 270 x 250 | 1/2 raised | **2000 818 414** |

## Dutch hoe

Specially hardened · Red powder-coated · **Without handle** · Roughened cutting edge
Matching handle, see article no. 4000 815 705



| Size | Type | Dimensions of sheet [mm] | Article no. |
|---|---|---|---|
| **2** | 3/4 raised | 300 x 250 | **2000 818 417** |

## Frankfurt shovel

Red · Specially hardened · **Without handle** · Roughened cutting edge
Suitable for handle article no. 4000 815 705



| Size | Dimensions of sheet [mm] | Article no. |
|---|---|---|
| **5** | 290 x 270 | **2000 818 404** |

## Frankfurt shovel

Red powder-coated · Specially hardened · **Without handle** · Roughened cutting edge
Suitable for handle article no. 4000 815 705



| Size | Dimensions of sheet [mm] | Article no. |
|---|---|---|
| **5** | 300 x 270 | **2000 818 402** |

## Builder's spade

Powder-coated · With step protection and ash T-handle 850 mm



| Dimensions of sheet [mm] | Article no. |
|---|---|
| **285 x 185** | **2000 819 147** |



## Flag and block paving cutter

Hardened spindles made from a single piece with a fixed, hardened blade can be rotated up to 4 times · The advanced eccentric mechanism ensures minimal required force and makes cutting effortless and precise, even with intensive use · Catch plate equipped with a practical scale that makes it easy to measure cutting sizes and diagonal cuts · This feature improves the precision and efficiency of work

| Type | 3300-0000-004 |
|---|---|
| Cutting height [mm] | 10–120 |
| Cut width [mm] | 330 |
| Weight [kg] | 41 |
| | ⛟ |
| **Article no.** | **2000 818 718** |



## Block lifter

Panel lifter 90–330 mm designed for tiles · Adjustable from 90 mm to 330 mm and therefore suitable for all standard panel lifters · Equipped with two spring steel blades

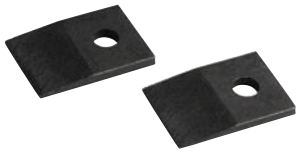
| Gripping range [mm] | Dead weight [kg] | Article no. |
|---|---|---|
| **90–330** | 5 | **2000 818 714** |



## Block lifter

For quickly removing a clinker brick from new or old paving · This clinker brick remover makes it easy – simply insert a knife on both sides of the clinker brick into the ground and pull it out in no time at all

| Gripping range [mm] | Dead weight [kg] | Article no. |
|---|---|---|
| **20–300** | 5 | **2000 818 719** |



## Replacement blade

For block lifters article no. 2000 818 714 and 2000 818 719 · 2 pc. in blister pack

| Length [mm] | Packaging | Article no. |
|---|---|---|
| **50** | Loose | **2000 818 717** |



## Rubber hammer

For the alignment of paving stones before final laying · The long-handled hammer is ergonomically shaped and easy to operate while standing · With easily replaceable, highly wear-resistant rubber caps · The rectangular shape of the rubber caps allows the hammer to remain vertical after use

| Head Ø [mm] | Head L [mm] | Article no. |
|---|---|---|
| **50** | 80 | **2000 818 715** |

## Alignment bar

Easy and improved laying of stones · With a length of 1000 mm, this tool offers an ideal balance between handling and range, making it suitable for a large number of applications · Powder-coated to ensure maximum durability and long-lasting performance even under the toughest conditions · Easy blade replacement



| Weight [kg] | Article no. |
|---|---|
| 2.7 | 2000 818 710 |

## Replacement blade

Blade for alignment bar article no. 2000 818 710



| Packaging | Article no. |
|---|---|
| Loose | 2000 818 716 |

## Kerb grab

Powder-coated · For precise positioning of kerbstones, edging stones, gutters and similar stones · A special feature of the block carrier is that the wire remains free during use, allowing you to concentrate on placing the stones without being hindered by obstacles



| Gripping range [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|
| 0–350 | 150 | 2000 818 711 |

## Lifter

Specifically for lifting kerbstones · Can be positioned face-to-face thanks to the one-sided angled bracket that is positioned on the kerbstone that has already been laid · Longitudinal grip, therefore usable in confined spaces · No deflection of the plumb line · For manual use · Lift support eye



| Gripping range [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|
| 500–1080 | 150 | 2000 818 712 |

## Step lifter

Clamp is suitable for lifting and moving tyres, steps, L-stones and corner edges · Easy to adjust in width with the locking pin · Equipped with a practical automatic switching mechanism, meaning that the clamp automatically engages and disengages: fully emptied · Equipped with a rubber jaw and Widia points as standard



| Gripping range [mm] | Load-bearing capacity [kg] | Article no. |
|---|---|---|
| 50–600 | 600 | 2000 818 713 |



## Hatchet Rheinische Form

**DIN 5131 B** · Forged from tool steel · Fully ground · Polished cutting edge · With varnished ash wood crowbar-shaped handle · 2-fold safety wedging

| Weight [g] | Length of handle [mm] | Article no. |
|---|---|---|
| **600** | 360 | **2000 815 503** |
| **800** | 380 | **2000 815 504** |
| **1000** | 400 | **2000 815 508** |



## Wood axe Rheinische Form

**DIN 7294 B** · Forged from tool steel · Fully ground · Polished cutting edge · With varnished ash wood crowbar-shaped handle · 3-fold safety wedging

| Weight [g] | Length of handle [mm] | Article no. |
|---|---|---|
| **1250** | 700 | **2000 815 530** |
| **1400** | 800 | **2000 815 531** |
| **1600** | 800 | **2000 815 532** |
| **2000** | 900 | **2000 815 533** |



## Gardening fork

Tang · Lightweight type · Four bayonet tines · Overall length 1130 mm · **With ash T-handle 850 mm, Ø 36 mm**

| Tine length [mm] | Article no. |
|---|---|
| **280** | **2000 818 564** |



## Edging spades

With step · Painted FSC ash T-handle, 850 mm

| Length [mm] | Weight [kg] | Article no. |
|---|---|---|
| **1155** | 1.34 | **2000 818 806** |



## Joint scrubber

With interchangeable brass head and spike

| | Article no. |
|---|---|
| | **2000 818 805** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Joint scraper
For removing grass, moss and weeds



| W x L [mm] | Article no. |
|---|---|
| 70 x 1555 | 2000 818 800 |

## Grubber
3 tines · Handle 1.40 m



| Working width [mm] | Article no. |
|---|---|
| 75 | 2000 818 804 |

## Leaf rake
With sturdy plastic tines



| Working width [mm] | Article no. |
|---|---|
| 430 | 2000 818 802 |

## Leaf rake
With handle 1.4 m



| No. of tines | Working width [mm] | Article no. |
|---|---|---|
| 22 tines | 415 | 2000 818 801 |

## Rake
Aluminium rake with stroke edge on the top side · Galvanised handle socket · For flattening and levelling of all earth and chip surfaces · For preparing the seeding sites · For landscaping



| No. of tines | Working width [mm] | Article no. |
|---|---|---|
| 14 | 350 | 2000 818 803 |

## Waste gripping tongs
Made of aluminium · For collecting waste · Internal mechanism · Grippers are slip-resistant · Gripper opening 65 mm



| Length [mm] | Weight [kg] | Article no. |
|---|---|---|
| 920 | 0.25 | 2000 818 002 |



## Gas heater Blue Flame

The environmentally-friendly Blue Flame 4,200 Watt gas heater (with thermostat and piezo ignition) impresses with its powerful heat output and low consumption · Ideal for heating gazebos, awnings and roofed terraces as well as in all other well-ventilated areas outdoor areas that are protected against the weather · Gas cylinder size 5 kg or 11 kg (net weight)

**Seasonal article**




| Model | Blue Flame |
|---|---|
| Heat output [kW] | 2.1–4.2 |
| Equipment connection pressure [bar] | 0.05 |
| Equipment connection value [kg/h] | Max. 0.33 |
| Weight [kg] | 11 |
| L x W x H [mm] | 400 x 290 x 740 |
| **Article no.** | **2000 818 286** |




IP44

## Gas heater

Complete with pressure reducer, 1.5 m gas hose and emergency shut-off

**Seasonal article**

| Model | REF 10 | REF 15 | REF 30 A |
|---|---|---|---|
| Air capacity [m³/h] | 500 | 500 | 1400 |
| Heat output [kW] | 10 | 16 | 30 |
| Heat level | Non-adjustable | Non-adjustable | Adjustable between 21 kW and 30 kW |
| Equipment connection pressure [bar] | 0.3 | 0.5 | 1.5 |
| Equipment connection value [kg/h] | 0.81 | 1.22 | 1.48–2.16 |
| Mains voltage [Hz] | 230 / 50 V / Hz | 230 / 50 V / Hz | 220–240 V/50 |
| Nominal input power [W] | 28 | 28 | 75 |
| Weight [kg] | 4.2 | 4.5 | 7.8 |
| L x W x H [mm] | 330 x 210 x 320 | 380 x 210 x 320 | 570 x 270 x 400 |
| **Article no.** | **2000 818 288** | **2000 818 289** | **2000 818 290** |




# 11. Personal Protective Equipment

# Protection from head to toe with the TECWERK brand




Head, eye, respiratory protection & ear defenders from page 474
Hand protection from page 478
Workwear and protective clothing from page 482
Protective footwear from page 482
First aid & hygiene from page 484

## TECWERK PERSONAL PROTECTIVE EQUIPMENT – SAFETY YOU CAN TRUST

Work safety is more than a legal obligation – it is an expression of responsibility towards your employees. TECWERK offers a comprehensive assortment of personal protective equipment (PPE) that meets the highest safety requirements and supports everyday work in the skilled trades, industry and construction. From head to toe – our products combine protection, comfort and durability, ensuring your employees can work safely and efficiently at all times.

As an authorised TECWERK specialist dealer, we assist you in selecting the right safety solutions. Our goal: a safe, healthy and productive working environment that meets legal requirements, such as DGUV guidelines – while also improving the efficiency of your processes. Together, we create safe workplaces through systematic solutions.

### Safety by design

TECWERK products provide comprehensive protection in all working environments – from workshops and building sites to production facilities. Well-engineered concepts ensure maximum safety while supporting your teams' productivity.

### Reliable quality

All TECWERK work safety products comply with current safety standards and regulations. The combination of robust workmanship, durable materials and well-engineered details ensures maximum cost-effectiveness and long service life.

### Ergonomics meets comfort

Our protective equipment is designed for long periods of use. Ergonomic designs and high-quality materials ensure freedom of movement and lasting comfort.

### Sustainability as a responsibility

At TECWERK, environmental protection is also a priority when it comes to work safety. Sustainable manufacturing processes, recyclable materials and long-lasting product concepts make an active contribution to conserving resources.

TECWERK – Safety, comfort and quality for your daily work.
Together, we create safe, healthy and high-performance working environments.

## Optimal protection for sensitive body areas – compliant, comfortable and durable.




### Safety goggles

Page 474

100 % UVA and UVB protection thanks to UV-400 lenses
**Order no. 2000 370080**

## Protection against heat, cuts and strain – for maximum safety in every task.




### Gloves

Page 481

Certified according to OEKO-TEX® Standard 100
**Order no. 2000 371025**

## Stability, flexibility and ergonomic comfort for long working days.



### Safety boots

Page 483

Penetration-resistant Safe & Flex® Plus midsole
**Order no. 2720 000622**

## Respond quickly, ensure infection protection and promote long-term health.




### First-aid kit

Page 484

Made of ABS plastic, designed specifically for the construction sector
**Order no. 2000 386040**




### Hand washing paste

Page 485

Cleaning area: Moderate/heavy soiling
**Order no. 2000 386552**




### Wiping roll

Page 486

Surface weight per ply 20 g/m² = 60 g/m² total
**Order no. 2000 469241**



## Safety goggles Daylight Basic I

**EN 166 · For visitors** · Fully transparent polycarbonate · Impact-resistant · Lightweight
**Suitable for spectacle wearers**

| Type | Oculars marking | Article no. |
|---|---|---|
| **Clear lenses** | 2C-1,2 AS 1FT | **2000 370 031** |

## Safety goggles Daylight Basic

**EN 166** · Scratch-resistant polycarbonate lenses · 100 % UV protection up to 385 nm · Lightweight, anti-fog and comfortable goggles



2000 370 018



2000 370 019



2000 370 020

| Type | Oculars marking | Article no. |
|---|---|---|
| **Black temples, clear lens** | 2C-1,2 AS 1F | **2000 370 018** |
| **Black temples, smoke lens** | 5-3,1 AS 1 F | **2000 370 019** |
| **Black temples, yellow lens** | 2C-1,2 AS 1 F | **2000 370 020** |

## Safety goggles Daylight One

**EN 166** · Highly impact-resistant polycarbonate lenses · Scratch-resistant · 100 % UV protection up to 385 nm · Anti-fog · Lightweight, fashionable goggles



2000 370 002



2000 370 003

| Type | Oculars marking | Article no. |
|---|---|---|
| **Clear temples, clear lens** | 2C-1,2 AS 1 FT | **2000 370 002** |
| **Black temples, smoke lens** | 5-3,1 AS 1 FT | **2000 370 003** |

## Safety goggles Daylight Modern

**EN 166, EN 170** · Anti-fog polycarbonate lens · Innovative temple geometry enables the comfortable wearing of ear defenders and other PPE · Perfect fit · Sporty and modern



Similar to figure

| Type | Oculars marking | Article no. |
|---|---|---|
| **Black/dark blue temples, clear lens** | 2C-1.2 1 FT – 166 FT CE | **2000 370 086** |

## Safety goggles DAYLIGHT PREMIUM

**EN 166** · Shatter-proof polycarbonate lenses · Optical class 1 · Anti-scratch coating · 100 % UVA and UVB protection with UV-400 lenses · Anti-fog · Ultra light design · High-grade plastic frame · Maximum comfort and safety



2000 370 080



2000 370 081

| Type | Oculars marking | Article no. |
|---|---|---|
| **Dark blue temples, clear lens** | 2C-1,2 AS 1 FT | **2000 370 080** |
| **Dark blue temples, smoke lens** | 5-3,1 AS 1 FT | **2000 370 081** |



## Safety goggles Daylight Flex

**EN 166, EN 170** · Highly impact-resistant polycarbonate lens, permanently anti-fog · State-of-the-art safety goggles

2-component technology: Extremely comfortable due to perfect fit through individual lens angle adjustment

| Type | Oculars marking | Article no. |
|---|---|---|
| **Grey/dark blue temples, clear lens** | 2C-1,2 AS 1 FT | **2000 370 075** |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## All-round vision safety goggles Daylight Basic II

**EN 166** · Made of plastic · Side ventilation ports · Adjustable rubber strap
**Can be worn over prescription glasses**



| Type | Oculars marking | Article no. |
|---|---|---|
| **Plastic lens, clear** | AS 1 BT 9 | + **2000 370 022** |

## All-round vision safety goggles DAYLIGHT TOP

**EN 166** · Panoramic field of vision · Tough polycarbonate lens · Anti-fog · Optical grade 1 · Two-component frame for maximum comfort · **Suitable for spectacle wearers** · Can be worn with half-face masks · Adjustable rubber strap · Indirect ventilation



| Type | Oculars marking | Article no. |
|---|---|---|
| **Frame blue, lens clear** | AS 1 BT 9 | **2000 370 055** |

## Ear plug SAFELINE I

**With cord** · Reusable shaped ear plugs with cord · Soft flanges for optimum fit without adjusting size · Very comfortable to wear · The smooth and dirt-repellent surface of the ear plug is easy to clean using soap and water · Supplied in practical storage box with belt clip

**EN 353-2:2020 / (SNR) = 32 dB / H-value = 33 dB (A) / M-value = 30 dB (A) / L-value = 28 dB (A)**




| Type | Article no. |
|---|---|
| **1 pair / box** | + **2000 370 288** |

## Banded ear plug SAFELINE V

Very robust polycarbonate headband · PU earplugs for multiple reuse · Very light and comfortable to wear · Earplugs are replaceable

**EN 352-2:2020 / (SNR) = 24 dB (A) / H-value = 27 dB (A) / M-value = 20 dB (A) / L-value = 19 dB (A)**



| | Article no. |
|---|---|
| | **2000 370 293** |

## Ear plug dispenser SAFELINE IV

**Empty** · Dispenser can be wall-mounted or free-standing · Ear plugs dispensed by a slight turning movement · Collecting tray prevents plugs from falling onto the floor



| Type | Article no. |
|---|---|
| **Dispenser for 300 pairs without filling** | **2000 370 414** |

## Ear plug SAFELINE III

Soft PU · Blue · Supplied loose in a large polythene bag · Conical shape · Very comfortable to wear · Permanent reforming · Excellent attenuation

**EN 352-2:2020 / (SNR) = 38 dB (A) / H-value = 37 dB (A) / M-value = 36 dB (A) / L-value = 34 dB (A)**



| Type | Article no. |
|---|---|
| **300 pairs / pack** | **2000 370 415** |



## Ear defender SAFELINE VI

Ear defenders with high attenuation yet light weight and narrow profile · Padded head band, extremely comfortable to wear · Large adjustment range · Soft wide sealing rings · Extremely long-lasting quality · Modern design

**EN 352-1:2020 / (SNR) = 30 dB (A) / H-value = 31 dB (A) / M-value = 29 dB (A) / L-value = 22 dB (A)**

| Colour of capsule | Weight [g] | Article no. |
|---|---|---|
| **Black/green** | 210 | **2000 370 289** |



## Ear defender SAFELINE VII

High insulation · Capsules made of ABS plastic · Wide, cushioned wire band · Soft ear cushions minimise head pressure and heat accumulation and offer optimum comfort

**EN 352-1:2020 / (SNR) = 32 dB (A) / H-value = 32 dB (A) / M-value = 31 dB (A) / L-value = 24 dB (A)**

| Colour of capsule | Weight [g] | Article no. |
|---|---|---|
| **Black/yellow** | 210 | **2000 370 408** |



## Ear defender SAFELINE VIII

Ear defender with extremely high attenuation · Two-point suspension made of spring steel ensures low contact pressure, even with continuous use · Continuously adjustable · Soft wide sealing rings and ample space under the capsules for wearing comfort stand for particularly durable quality

**EN 352-1:2020 / (SNR) = 32 dB (A) / H-value = 33 dB (A) / M-value = 31 dB (A) / L-value = 25 dB (A)**

| Colour of capsule | Weight [g] | Article no. |
|---|---|---|
| **Black/red** | 271 | **2000 370 409** |

## Bump cap Daylight Base-Cap 1

**EN 812/A1** · 100 % cotton fabric · Internal plastic shell made of polypropylene · Individually packaged · Effective head protection against skin abrasions and impact hazards · With high wearer acceptance due to modern design · Size 54–59 cm

**Application:** Use only in areas where no safety helmet is required by law, effective protection for work where there is a high risk of bumping the head, e.g. maintenance, repair or assembly work.





| Colour | Article no. |
|---|---|
| **Dark blue** | **2000 370 550** |
| **Black** | **2000 370 551** |

## Bump cap Daylight Base-Cap II

Complies with **DIN EN 812:2012** · Elastic shell made of ABS plastic, removable for cleaning · Air slits · Absorbent towelling sweat band · Elastic strap to adjust to head size · Reflective stripes on the sides for increased visibility · 5 cm visor length · Size 52–65 cm









| Colour | Article no. |
|---|---|
| **Blue** | **2000 370 382** |
| **Black** | **2000 370 383** |
| **Neon orange** | **2000 370 384** |
| **Neon yellow** | **2000 370 385** |

## Respirator Snake

Without valve · Provides protection against non-toxic and harmful dust, solid and aqueous particles and aerosols to 10 times the limit value · Filter class: **DIN EN 149:2001 FFP2 NR** · Shaped and foam-lined nose area with flexible nose clip · Comfortable and skin-friendly tight fit
This respirator has a shelf life of up to 4 years (in original packaging)





| Model | Article no. |
|---|---|
| **Snake · FFP2 NR** | **2000 370 611** |

## Respirator Snake

With cool-down exhalation valve · Provides protection against slightly toxic and harmful dust, solid and aqueous particles and aerosols to 10 times the limit value · Filter class: **DIN EN 149:2001 FFP2 NR** · Shaped and foam-lined nose area with flexible nose clip · Comfortable and skin-friendly tight fit · The valve facilitates exhalation and prevents heat accumulation in the mask
This respirator has a shelf life of up to 4 years (in original packaging)



| Model | Article no. |
|---|---|
| **Snake-FFP2 NR** | **2000 370 609** |

## Respirator Snake

With cool-down exhalation valve · Protection against toxic and highly toxic dust, solid and aqueous particles and aerosols up to 30 times the limit value · Filter class: **DIN EN 149:2001 FFP3 NR** · Shaped nose area with flexible nose clip · Wide, comfortable inner sealing lip filled with cotton for an effective, safe seal · Comfortable and skin-friendly tight fit · The valve facilitates exhalation and prevents heat accumulation in the mask
This respirator has a shelf life of up to 4 years (in original packaging)





| Model | Article no. |
|---|---|
| **Snake-FFP3 NR** | **2000 370 610** |

## Respirator Shark

With cool-down exhalation valve · **Folding** · Provides protection against slightly toxic and harmful dust, solid and aqueous particles and aerosols to 10 times the limit value · Filter class: **DIN EN 149:2001 FFP2/V D NR** · Foam padded comfortable nose area with flexible nose clip · Comfortable and skin-friendly tight fit · The valve facilitates exhalation and prevents heat accumulation in the mask · Simplified storage and transport in hygienic individual packaging
[1] D = dolomite dust test
This respirator has a life of 4 years



| Model | Article no. |
|---|---|
| **Shark-FFP2/V D NR** | **2000 370 612** |

## Respirator Shark

With cool-down exhalation valve · **Folding** · Protection against toxic and highly toxic dust, solid and aqueous particles and aerosols up to 30 times the limit value · Filter class: **DIN EN 149:2001 FFP3/V D NR** · With flexible nose clip · With wide, comfortable, cotton-padded inner sealing lip for comfortable wear and high safety · Comfortable and skin-friendly tight fit · The valve facilitates exhalation and prevents heat accumulation in the mask · Simplified storage and transport in hygienic individual packaging
[1] D = dolomite dust test
This respirator has a shelf life of up to 4 years (in original packaging)





| Model | Article no. |
|---|---|
| **Shark-FFP3/V D NR** | **2000 370 613** |




4143X

## Glove Weser

Complies with **EN 388** · Cat. II · Made of **high-quality split leather** · Canvas cuff · Lined · Double stitchings
**Application:** Construction industry, assembly work, machine operation, mechanical loads, drivers, forklift drivers, road construction

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | ○ | ○ | | ○ |

| Size | Length approx. [mm] | Article no. Blue |
|---|---|---|
| **10** | 270 | **2000 371 105** |




3142X

## Glove Elbe

Complies with **EN 388** · Cat. II · Made of robust **full-grain leather** · Canvas cuff · Lined · Double stitchings
**Application:** Construction industry, assembly work, machine operation, mechanical loads, drivers, forklift drivers, road construction

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | ○ | ○ | | ○ |

| Size | Length approx. [mm] | Article no. Blue |
|---|---|---|
| **10** | 270 | **2000 371 106** |




3134X

## Glove Top Rhein

Complies with **EN 388** · Cat. II · Made of robust **full-grain leather** · Lined · Double stitchings · Canvas cuff · Waterproofed finish is resistant to moisture · Waterproof and oil-repellent
**Application:** Construction industry, assembly work, machine operation, mechanical loads, drivers, forklift drivers, road construction

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | ○ | ○ | | ○ |

| Size | Length approx. [mm] | Article no. Beige |
|---|---|---|
| **10** | 280 | **2000 371 107** |




3143X 413X4X

## Welder's glove Granada

Complies with **EN 388** · **EN 407** · **EN 12477** type A · Cat. II · Material: **Full-grain/split leather** · Strong split leather cuff · Only the palm and index finger made of leather grain leather · Tested for harmful substances · High abrasion resistance · Strong leather · Very high tear propagation resistance and puncture resistance
**Application:** Metal, steel and heavy industries, foundries, suitable for autogenous and MIG/MAG welding

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | |

| Size | Length approx. [mm] | Article no. Grey |
|---|---|---|
| **10** | 350 | **2000 371 210** |




## Welder's glove Mexico Z

Complies with **EN 388 · EN 407 · EN 12477** type B · Cat. II · Material: **Goat nappa leather** with cuff · With keystone thumb · Tested for harmful substances · Durable, comfortable · Breathable
**Application:** Maintenance work, automotive industry, electrical, assembly and power plant industry, argon welding and electrowelding, erection welding/cutting, TIG welding




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | |

| Size | Length approx. [mm] | Article no. Grey |
|---|---|---|
| 9 | 350 | 2000 371 211 |
| 10 | 350 | 2000 371 212 |
| 11 | 350 | 2000 371 220 |



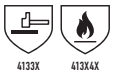

## Welder's glove Mexico Z Super

Complies with **EN 388 · EN 407 · EN 12477** type B · Cat. II · Material: **Premium goat nappa leather** · Waterproof (water and oil-repellent) · Tested for harmful substances · With KEVLAR® yarn · Breathable
**Application:** Metal, steel and heavy industry, wood, construction and road-building industry, electrical, assembly and power plant industry, argon welding, electrowelding and WIG welding, erection welding/cutting
**Kevlar® is a registered trademark of E. I. DuPont Co. Z. b**




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | |

| Size | Length approx. [mm] | Article no. Yellow/grey |
|---|---|---|
| 9 | 350 | 2000 371 218 |
| 10 | 350 | 2000 371 213 |
| 11 | 350 | 2000 371 219 |



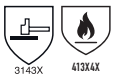

## Welder's glove Mühlheim I Super

Complies with **EN 388 · EN 407 · EN 12477** type A · Cat. II · Material: **High-quality split leather** · Fully lined · Tested for harmful substances · High abrasion resistance · High abrasion resistance · Strong leather with high tear propagation resistance and piercing resistance · Breathable
**Application:** Welding under extreme mechanical loads · Metal processing · Automotive and shipbuilding industry, foundries, suitable for autogenous welding, MIG/MAG welding, gas shielded arc welding and WIG welding




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | |

| Size | Length approx. [mm] | Article no. Yellow |
|---|---|---|
| 10 | 350 | 2000 371 214 |




## Welder's glove Mühlheim II Super

Complies with **EN 388 · EN 407 · EN 12477** type A · Cat. II · Material: **High-quality full-grain/split leather** · Fully lined · High abrasion resistance · Strong leather with high tear propagation resistance and piercing resistance · Breathable
**Application:** Welding under extreme mechanical loads · Metal processing · Automotive and shipbuilding industry, foundries, suitable for autogenous welding, MIG/MAG welding, gas shielded arc welding and WIG welding




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | |

| Size | Length approx. [mm] | Article no. Yellow |
|---|---|---|
| 9 | 350 | 2000 371 217 |
| 10 | 350 | 2000 371 215 |
| 11 | 350 | 2000 371 216 |



2111X

## Glove Donau

Complies with **EN 388** · Cat. II · Material: **Nappa leather** with stretch fabric back · Hook-and-loop fastener for a secure fit · Keystone thumb
**Application:** Work requiring leather gloves and sensitivity at the same time, construction industry, work related to product protection

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ○ | ● | ○ | ● | | ● |

| Size | Article no. Natural/blue |
|---|---|
| 8 | 2000 371 135 |
| 9 | 2000 371 136 |
| 10 | 2000 371 137 |
| 11 | 2000 371 138 |





2121X

## Glove Main

Complies with **EN 388** · Cat. II · Material: **Premium goat nappa leather** · With black stretch fabric back and hook-and-loop fastener · Very comfortable to wear · Sensitive touch · Microfabrics
**Application:** Precision work, precision engineering, assembly of warm small parts, tool handling, dispatch and packaging

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ○ | ● | ○ | ● | | ● |

| Size | Article no. Black/natural colours |
|---|---|
| 8 | 2000 371 111 |
| 9 | 2000 371 112 |
| 10 | 2000 371 113 |
| 11 | 2000 371 114 |



4131X

## Glove Whitestar NPU

Complies with **EN 388** · Cat. II · Material: Nylon · White **PU coating** on palm and fingertips
**Application:** Outdoor work, high-tech industry, packaging, warehousing

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ○ | ● | ● | | ● |

| Size | Article no. White |
|---|---|
| 6 (S) | 2000 371 596 |
| 7 (M) | 2000 371 597 |
| 8 (L) | 2000 371 598 |
| 9 (XL) | 2000 371 599 |
| 10 (XXL) | 2000 371 600 |
| 11 (XXXL) | 2000 371 601 |



4131X

## Glove Blackstar NPU

Complies with **EN 388** · Cat. II · Material: Nylon · Black **PU coating** on palm and fingertips
**Application:** Outdoor work, high-tech industry, packaging, warehousing

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ○ | ● | ● | | ● |

| Size | Article no. Black |
|---|---|
| 6 (S) | 2000 371 603 |
| 7 (M) | 2000 371 604 |
| 8 (L) | 2000 371 605 |
| 9 (XL) | 2000 371 606 |
| 10 (XXL) | 2000 371 607 |
| 11 (XXXL) | 2000 371 608 |

[1] price per pair



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

4131X

## Glove Flex / Flex N

Complies with **EN 388** · Cat. II · Material: 3-yarn support fabric, mottled grey · Palm and fingertips with black **nitrile microfoam coating** · Sensitive touch · High abrasion resistance · Secure fit and grip · Comfortable to wear · Breathable back · Touchscreen-capable · **Certified to Eco-Tex® standard 100**
**Application:** For work in high-tech industries and in cleanrooms, packaging




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ● | ● | ● | | ● |

| Size | Length approx. [mm] | Article no. |
|---|---|---|
| **Flex, without dot grip pattern, grey/black** | | |
| **8** | 250 | **2000 371 023** |
| **9** | 250 | **2000 371 024** |
| **10** | 250 | **2000 371 025** |
| **11** | 250 | **2000 371 026** |
| **Flex N, palm with dot grip pattern, grey/black** | | |
| **8** | 250 | **2000 371 028** |
| **9** | 250 | **2000 371 029** |
| **10** | 250 | **2000 371 030** |
| **11** | 250 | **2000 371 031** |

4111X

## Glove Neckar

Complies with **EN 388** · **EN 420** · Cat. II · Material: Strong, **high-grade nitrile coating** · Rugged protection when handling sharp-edged materials · Liquid-repellent · Effectively repels grease and oil · With safety cuff · High abrasion resistance · Elasticated cuff · Lining 100 % cotton
**Application:** For handling concrete and building materials, e.g. for paving work, sheet metal working, cast parts, metal working, waste disposal







| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | | ○ | | |

| Size | Length approx. [mm] | Article no. |
|---|---|---|
| **Blue – Partially coated** | | |
| **9** | 240 | **2000 371 272** |
| **10** | 240 | **2000 371 273** |
| **Blue – Fully coated** | | |
| **10** | 240 | **2000 371 277** |

3111X

## Glove Ems

**Premium quality** · Complies with **EN 388** · **EN 420** · Cat. II · Material: Exceptionally **high-grade nitrile coating** · Back partially coated · Knitted cuff · Comfortable to wear · Oil and grease-repellent · High abrasion resistance · Double-dipped · Lining: 100 % cotton
**Application:** Assembly work, mechanical engineering, automotive industry, forestry and agriculture, plastics machining and sheet metal working




| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | ○ | ● | | ○ |

| Size | Article no. Yellow |
|---|---|
| **8** | **2000 371 274** |
| **9** | **2000 371 275** |
| **10** | **2000 371 276** |



3011X

## Glove Lippe

Complies with **EN 388** · **EN 420** · Cat. II · Material: **Extra-high-grade nitrile coating** · Back partially coated · Knitted cuff · Comfortable to wear · Oil and grease-repellent · Single-dipped · Lining: 100 % cotton
**Application:** Assembly work, mechanical engineering, automotive industry, forestry and agriculture, plastics machining and sheet metal working

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| ● | ● | ○ | ● | | ○ |

| Size | Length approx. [mm] | Article no. Yellow |
|---|---|---|
| 7 | 255 | 2000 371 280 |
| 8 | 255 | 2000 371 281 |
| 9 | 255 | 2000 371 282 |
| 10 | 255 | 2000 371 283 |



3X31B

## Cut-resistant glove Mosel

Complies with **EN 388** · Cat. II · Material: 18-partition, **high-density polyethylene** (abbreviation HDP) with fibreglass · **With nitrile foam coating and nitrile reinforcement in the thumb** · **Cut resistance level B** · Comfortable to wear · Perfect fit and grip
**Application:** For precise work in high-tech sectors, the glass industry, electronics industry, car assembly, metal processing, assembly

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ○ | ● | ● | | ○ |

| Size | Length approx. [mm] | Article no. Green/black |
|---|---|---|
| 7 | 240 | 2000 371 877 |
| 8 | 240 | 2000 371 878 |
| 9 | 240 | 2000 371 879 |
| 10 | 240 | 2000 371 880 |
| 11 | 240 | 2000 371 881 |



214XX

## Glove Isar

Complies with **EN 388** · Cat. II · Material: Layered, Cotton liner, polyamide coating · **With non-slip dot grip pattern**, blue · **Fingertip reinforcement** · Superb fit · Highly durable · Also suitable for dirty areas due to colouring · 13-gauge knit
**Application:** Light to moderately heavy mechanical jobs, plastics processing, automotive sectors

| Building/Garden | Craft | Industry | Assembly/Workshop | Food | Logistics |
|---|---|---|---|---|---|
| | ○ | ● | ● | | ● |

| Size | Length approx. [mm] | Article no. Blue |
|---|---|---|
| 7 | 255 | 2000 371 233 |
| 8 | 255 | 2000 371 234 |
| 9 | 255 | 2000 371 235 |
| 10 | 255 | 2000 371 236 |



## Safety shoe Rügen

Complies with **DIN EN ISO 20345:2022** · **S3S FO SR** · Upper material: Soft pull-up leather with inserts made of laminated leather with carbon fibre and reflective yoke piping, water-repellent · Breathable liner · **Plastic cap** · **Puncture-resistant Save & Flex® Plus midsole** · Breathable and abrasion-resistant footbed · Duo PU outsole · **Metal-free** ·
Width 11

| Size | Article no. Black |
|---|---|
| 38 | 2720 000 598 |
| 39 | 2720 000 599 |
| 40 | 2720 000 600 |
| 41 | 2720 000 601 |
| 42 | 2720 000 602 |
| 43 | 2720 000 603 |
| 44 | 2720 000 604 |
| 45 | 2720 000 605 |
| 46 | 2720 000 606 |
| 47 | 2720 000 607 |
| 48 | 2720 000 608 |







▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

## Safety boot Juist

Complies with **DIN EN ISO 20345:2022 · S3S FO SR** · Upper material: Soft pull-up leather with inserts made of laminated leather with carbon fibre and reflective yoke piping, water-repellent · Breathable liner · **Plastic cap** · **Puncture-resistant Save & Flex® Plus midsole** · Breathable and abrasion-resistant footbed · Duo PU outsole · **Metal-free** · Width 11



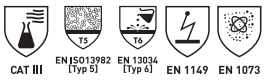
| Size | Article no. Black |
|---|---|
| 39 | 2720 000 619 |
| 40 | 2720 000 620 |
| 41 | 2720 000 621 |
| 42 | 2720 000 622 |
| 43 | 2720 000 623 |
| 44 | 2720 000 624 |
| 45 | 2720 000 625 |
| 46 | 2720 000 626 |
| 47 | 2720 000 627 |
| 48 | 2720 000 628 |

## Soft shell jacket

Material: 96 % polyester / 4 % spandex, approx. 300 g/m² · TPU membrane · **Windproof · Water column: 8,000 mm · Breathability: 1000 g/m² / 24 h · Detachable hood** · 2 blue side pockets and 1 blue chest pocket, each with zip fastener · Fleece lining in collar · Adjustable sleeve end with hook-and-loop fastener



| Size | Article no. Black |
|---|---|
| M | 2000 379 341 |
| L | 2000 379 342 |
| XL | 2000 379 343 |
| XXL | 2000 379 344 |
| XXXL | 2000 379 345 |




## Protective overall CoverTex®

**CAT III, type 5 + 6, EN 13034:2005 + A1:2009, EN ISO 13982-1:2004, EN 1073-2:2003, EN 1149-6:2008**

With green seams · Antistatic · Breathable · Three-part hood · Elasticated for optimum adjustment of hood · External seams · Gusset · Elasticated waist · Elasticated cuffs on arms and legs · Zip cover

**Areas of application:** Asbestos removal, pharmaceutical industry, handling fibrous insulating material (glass and stone wool), wood and metal processing, resin processing, protection against low-toxicity chemicals, light splashes of various cleaning liquids, inspection and maintenance work for machines and systems



| Size | Article no. Blue | Article no. White |
|---|---|---|
| L | 2000 379 990 | 2000 379 993 |
| XL | 2000 379 991 | 2000 379 994 |
| XXL | 2000 379 992 | 2000 379 995 |
| XXXL | 2000 375 916 | 2000 375 918 |




## Protective overall CoverStar® – CS 500

**Cat. III / type 5 6 (5 B + 6 B), EN 13034:2005 + A1:2009, EN ISO 13982-1:2004, EN 14126:2003, EN 1073-2:2002, EN 1149-5:2008, EN 369**

Polypropylene spunbonded fabric with laminated film – technology with membrane, breathable · Particularly tear-resistant, robust and low-lint material · Antistatic finish prevents static charge and reduces safety risks · Highly comfortable thanks to its textile character ensures a better working environment · Very comfortable to wear · Three-part hood with elasticated face for optimal adjustment · Three-part leg gusset · Double zip flap · Self-stopping zip reduces accidental opening and safety risks · Elasticated arms, legs and waist · Suitable for clean rooms · 2-way zip · Thumb loop

**Areas of application:** Asbestos removal, clean room applications, e.g. pharmaceutical industry, handling fibrous insulating material (glass and stone wool), wood and metal processing, resin processing, protection against low-toxicity chemicals, light splashes of various cleaning liquids, inspection and maintenance work for machines and systems, food industry, hospitals, salvage work, landfill remediation, criminal investigations in rescue organisations such as the fire brigade, technical relief, emergency medical services police, civil protection units, airport authorities, customs organisations



| Size | Article no. White |
|---|---|
| L | 2000 379 999 |
| XL | 2000 379 996 |
| XXL | 2000 379 997 |
| XXXL | 2000 379 998 |




## First-aid case BAUBRANCHE

**DIN 13157-2021** · Made of ABS plastic · Filled · Impact-resistant · Shape-retaining and temperature resistant · Specifically for the construction industry · The case can be disassembled into individual parts for cleaning · All-round rubber seal, therefore protected against splashing water and dust · Incl. wall bracket · 2 identically sized case shells · Variable compartment and transparent covers · Easy-action screw closures · Integrated handle · Orange

| W x H x D approx. [mm] | Article no. |
|---|---|
| 260 x 170 x 110 | 2000 386 040 |




## Car first-aid bag ultraTRAFFIC BAG

**DIN 13164-2022** · Nylon bag · Filled

| W x H x D approx. [mm] | Article no. |
|---|---|
| 150 x 70 x 240 | 2000 386 005 |



## Disinfectant and soap dispensers

Manual soap and hand disinfectant dispenser · Freely fillable · ABS plastic housing · Fill level display · Precise dosage · Suitable for all 1 l Euro bottles · For wall or pillar mounting incl. assembly set · Durable plastic pump
**Scope of supply:** Dispenser + empty bottle
**Areas of application:** Clinics, doctors' surgeries, health and care facilities, laboratories, rescue stations, commercial kitchens, food industry and everywhere where the highest hygienic standards have to be maintained
Contents not included!





Contents not included



Contents not included



Contents not included

| H x W x D approx. [mm] | Contents [l] | Material | Article no. |
|---|---|---|---|
| 165 x 95 x 290 | 1 | ABS | 2000 386 541 |




## Skin protection cream

Against changing working substances · Broad spectrum of protection against changing working substances, e.g. when alternating between water-mixed and non-water-miscible cooling lubricants · With dual operating principle · With moisturising glycerine · Panthenol supports the natural regeneration of the skin · Silicone-free · Scented · For protecting the skin when handling watery or oily working substances as well as changing skin stresses, can also be used under protective gloves
**Application:** Apply on clean and dry hands before work

| Container | Contents [ml] | Article no. |
|---|---|---|
| Bottle | 250 | 2000 386 560 |



▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.



## Skin cleanser

Mild washing lotion for skin and hair · Mild cleaning power · Biodegradable surfactants · Adapted to human skin's pH value · Soap-free · Scented · **For light to moderate soiling** · **Cleaning level: 1**
**Application:** Washrooms in office buildings, public facilities, general industrial areas




| Container | Contents [l] | Suitable for | Article no. |
|---|---|---|---|
| **Vario bottle** | 2 | 4707 010 009 | **2000 386 566** |



## Hand washing paste

Skin-friendly, soap- and solvent-free cleaning concentrate · Optimal hand cleaning thanks to highly concentrated active washing substances in combination with softwood sawdust, a natural abrasive that is kind to your skin · The skin-neutral pH value helps protect your skin's protective acid mantle · **Cleaning level: 2**
**Application:** Against medium to heavy soiling in industry and trade

**Dosage/application:** Add a small amount (2–4 g) to your moistened hands and rub in, wash with a little water until the dirt is dissolved, rinse thoroughly with plenty of water and dry well




| Container | Contents [l] | Article no. |
|---|---|---|
| **Bucket** | 10 | **2000 386 552** |



## Hand cleaner Power

Flowable hand washing paste with natural abrasives · Very strong cleaning power · Adapted to human skin's pH value · Soap-free · Solvent-free · Scented · In case of heavy soiling by predominantly water-insoluble occupational substances based on grease and pigment, e.g. oils, greases, soot, metal dust, graphite · **Cleaning level: 3**
**Application:** For removing heaving soiling In industrial areas and logistics




2000 386 567




2000 386 568




2000 386 571

| Container | Contents | Suitable for | Article no. |
|---|---|---|---|
| **Bottle** | 500 ml | - | **2000 386 567** |
| **Vario bottle** | 2 l | 4707 010 009 | **2000 386 568** |
| **Canister** | 10 l | 8000 339 356 | **2000 386 571** |



## Skin care emulsion

For the whole body · Fast absorption · Supports skin care and regeneration · With moisturising allantoin · O/W emulsion · Panthenol is anti-inflammatory and accelerates wound healing · Silicone-free · Lightly scented · For permanent care of normal and irritated skin after work, suitable for care of hands, face and the whole body
**Application:** For industrial areas and health care, offices and public washrooms, especially for employees with excessively dry skin Apply to clean and dry hands after work




| Container | Contents [ml] | Article no. |
|---|---|---|
| **Bottle** | 250 | **2000 386 570** |



## Cleaning wipe WK 70 Z

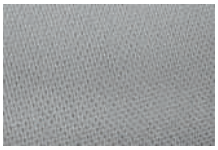
Multi-purpose textile wipe for dry and wet wiping jobs · Made from environmentally friendly 100 % viscose with no synthetic fibres · Absorbent, strong when wet, tear-resistant and abrasion-resistant · Very economical · Low-lint · Solvent-resistant, silicone-free and food-grade · White, z-fold
**PU = 12 x 50 wipes**

| Type | Colour | Container | Contents | L x W approx. [mm] | Article no. |
|---|---|---|---|---|---|
| **Z-fold** | White | Carton | 600 wipes | 380 x 290 | **2000 469 505** |




## Cleaning wipe WK 70

Multi-purpose textile wipe for dry and wet wiping jobs · Made from environmentally friendly 100 % viscose with no synthetic fibres · Absorbent as strong when wet, tear-resistant and abrasion-resistant · Very economical · Low-lint · Solvent-resistant, silicone-free and food-grade · White
**Floor stand not included!**






| Type | Colour | Suitable for | Container | Contents | L x W approx. [mm] | Article no. |
|---|---|---|---|---|---|---|
| **1-ply** | White | 9000 469 003, 9000 469 206, 9000 469 004, 9000 469 207 | Roll | 500 wipes | 380 x 290 | **2000 469 501** |




## Cleaning wipe WK 20

Tissue quality · 100 % recycled paper from selected raw materials (no printed products) · Surface weight per layer 20 g/m² = 40 g/m² · Particularly absorbent and therefore high absorption of liquid substances, such as oil and water · Economical · Colourfast with solvents · Embossed · Bonded plies · Perforated · **Particularly low-lint** · Food-safe · Made in Germany
**Floor stand not included!**
**Applications:** Industry, vehicle workshops, vehicle manufacturers and preparation, food processing industry

| Type | Colour | Suitable for | Container | Contents | L x W approx. [mm] | Article no. |
|---|---|---|---|---|---|---|
| **2-ply, embossed** | Blue | 9000 469 003, 9000 469 206, 9000 469 004, 9000 469 207 | Roll | 500 wipes | 360 x 380 | **2000 469 240** |




## Cleaning wipe WK 30

Tissue quality · 100 % recycled paper from selected raw materials (no printed products) · Surface weight per layer 20 g/m² = 60 g/m² · Particularly absorbent and therefore high absorption of liquid substances, such as oil and water · Economical · Colourfast with solvents · Embossed · Bonded plies · Perforated · **Particularly low-lint** · Food-safe · Made in Germany
**Floor stand not included!**
**Applications:** Industry, vehicle workshops, vehicle manufacturers and preparation, food processing industry

| Type | Colour | Suitable for | Container | Contents | L x W approx. [mm] | Article no. |
|---|---|---|---|---|---|---|
| **3-ply, embossed** | Blue | 9000 469 003, 9000 469 206, 9000 469 004, 9000 469 207 | Roll | 500 wipes | 360 x 380 | **2000 469 241** |





▷ = no stock item. Procurement takes place after receipt of order. ⛟ = delivery by carrier + = fraction of the PU possible • = delivery time on request
You will find the explanation of the symbols before the index.

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## § Information on product-related laws and regulations

**Hazardous substances/REACH information requirements/RoHS:**
As a specialist retailer within the NORDWEST Handel AG group, we deal in products that are classified as articles under chemical law. We are therefore subject to the information requirements set out in Article 33 of the REACH Regulation if a product we supply contains a substance of very high concern (SVHC) in a mass concentration of more than 0.1 per cent. Within the framework of our general terms and conditions of purchase and high quality and product safety standards, extensive precautions have been taken to ensure that our products comply with REACH. From today's perspective and according to the information provided by our suppliers, we are not aware that our products contain SVHC substances in a mass concentration exceeding 0.1 per cent. If we receive information to this effect from our suppliers and thereby become aware that the 0.1 per cent mass threshold for an SVHC substance is exceeded in our products, among other things, we will inform you. The same measures are also taken to ensure compliance with the EU's RoHS Directive.

**Batteries BattG:**
As an end user, you are legally obliged to return used batteries/rechargeable batteries. Batteries must not be disposed of with household waste/residual waste. Used batteries may contain harmful substances that can damage the environment or your health if not stored or disposed of properly. Free return to sales outlets is limited to the disposal of normal quantities for end users and to used batteries that the distributor carries or has carried in its range as new batteries. Furthermore, used batteries and rechargeable batteries can also be returned to municipal collection points or recycling centres. The crossed-out wheelie bin symbol means that you must not dispose of batteries and rechargeable batteries in household waste. The symbols on the batteries have the following meanings:



Pb: Battery contains lead
Cd: Battery contains cadmium
Hg: Battery contains mercury

**Electrical and electronic equipment ElektroG:**
The European WEEE Directive (Waste of Electrical and Electronic Equipment) was implemented in German law by the Act on the Marketing, Return and Environmentally Sound Disposal of Electrical and Electronic Equipment (ElektroG). The aim of the ElektroG is to protect health and the environment from harmful substances in electrical and electronic equipment and to reduce waste volumes through reuse or recycling. For this reason, all electrical and electronic products are marked with the symbol of a crossed-out wheelie bin, supplemented by a black bar where applicable. Devices with this label must not be disposed of with residual waste, but must be returned for recycling. Because old electrical and electronic equipment contains valuable resources as well as harmful substances, proper disposal is an important issue.

At https://e-schrott-entsorgen.org/, you can find more information on how to dispose of old electrical and electronic equipment easily and correctly. Please note that you are responsible for deleting all personal data on old devices yourself. For safety reasons, batteries and rechargeable batteries that are not enclosed in the device, such as in a cordless screwdriver, should be disposed of separately. Furthermore, lamps/light bulbs should be removed from the devices (only if this can be done without causing damage). These should then be disposed of in an environmentally friendly manner. Electrical and electronic equipment can also be handed in at municipal collection points (recycling centres) or at collection points set up by manufacturers and distributors in accordance with the ElektroG (Electrical and Electronic Equipment Act).



**Packaging VerpackG:**
The Packaging Act (VerpackG) aims to prevent or reduce the impact of packaging waste on the environment. Packaging waste should primarily be avoided and, in addition, recycled. Please contact your specialist dealer for information on the possible return of 'packaging not subject to system participation' (transport and commercial packaging).

**Safety data sheets/technical data sheets/instructions for use**
Current safety data sheets, technical data sheets and instructions for use for the relevant products can be found at
www.nordwest.com/downloads

**Data Regulation (EU) 2023/2854 (EU Data Act)**
As manufacturers and downstream sellers, rental companies or lessors are obliged to provide users with information on affected products, the product data sheets or technical documentation can be downloaded via online links provided (e.g. in NIS, DataConnect or in the e-shops). These then show how the data generated by the product can be accessed. Please note: The regulation does not concern data protection within the meaning of the GDPR, but rather the technical usability of product data.




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