- *Lathe blanks*
- *Cutting-off and grooving tools*
- *Thread-cutting tools*
- *Lathe tools and chisels*
- *Clamp holders*
- *Boring bars*
- *Indexable inserts*
- *Knurling tools*

**18**

**18.3 – 18.134**

- *Circular cutters*
- *Minimum quantity lubrication systems*
- *Coolant hoses*
- *Lubricants and concentrates*
- *Emulsion-mixing devices*
- *Refractometers*
- *Belt skimmers*
- *Thread tallow*
- *Swarf hooks*

**19**

**19.1 – 19.10**

# Our suppliers for LATHE TOOLS:

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= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Info — Overview of external clamp holders

### "S" clamping system

| Type | SCLCR/L 95° | SDJCR/L 93° | SDNCN 62.5° | SRDCN 90° | SSDCN 45° | STGCR/L 90° |
|---|---|---|---|---|---|---|
| For indexable inserts | CC.. | DC.. | DC.. | RC.. | SC.. | TC.. |
| Article number | 18405 - 18406 | 18407 - 18410 | 18411 | 18400 | 18402 | 18416 - 18417 |
| Catalogue page | 18.33 | 18.33 | 18.34 | 18.34 | 18.34 | 18.35 |

| Type | SVJBR/L 93° | SVJCR/L 93° | SVHCR/L 107.5° | SVVCN 72.5° | SVGCR/L 90° | SVXCR/L 113° |
|---|---|---|---|---|---|---|
| For indexable inserts | VB.. | VC.. | VC.. | VC.. | VC.. | VC.. |
| Article number | 18420 - 18421 | 18418 - 18419 | 18424 - 18425 | 18428 | 18413 | 18429 |
| Catalogue page | 18.35 | 18.35 | 18.36 | 18.37 | 18.36 | 18.37 |

### "C" clamping system

| Type | CKJNR/L 93° |
|---|---|
| For indexable inserts | KNUX |
| Article number | 18430 - 18431 |
| Catalogue page | 18.38 |

### "P" clamping system

| Type | PCKNR/L 75° | PCLNR/L 95° | PWLNR/L 95° | PSSNR/L 45° |
|---|---|---|---|---|
| For indexable inserts | CN.. | CN.. | WN.. | SN.. |
| Article number | 18442 - 18443 | 18444 - 18445 | 18446 - 18447 | 18448 - 18449 |
| Catalogue page | 18.38 | 18.39 | 18.39 | 18.39 |

| Type | PSDNN 45° | PTGNR/L 90° | PDJNR/L 93° |
|---|---|---|---|
| For indexable inserts | SN.. | TN.. | DN.. |
| Article number | 18450 | 18451 - 18452 | 18453 - 18454 |
| Catalogue page | 18.40 | 18.40 | 18.40 |

### "M" clamping system

| Type | MTJNR/L 93° | MVJNR/L 93° | MWLNR/L 95° |
|---|---|---|---|
| For indexable inserts | TN.. | VN.. | WN.. |
| Article number | 18460 - 18461 | 18464 - 18465 | 18462 - 18463 |
| Catalogue page | 18.41 | 18.41 | 18.41 |



## Info — Overview of boring bars

### "S" clamping system

| Type | SCLCR/L 95° | STFCR/L 90° | SDUCR/L 93° | SDQCR/L 107.5° | SVJCR/L 93° |
|---|---|---|---|---|---|
| For indexable inserts | CC.. | TC.. | DC.. | DC.. | VCMT/VCGT |
| Article number | 18482 - 18487 | 18490 - 18491 | 18494 - 18519 | 18498 - 18501 | 18509 |
| Catalogue page | 18.49 - 18.50 | 18.51 | 18.51 - 18.52 | 18.53 | 18.53 |

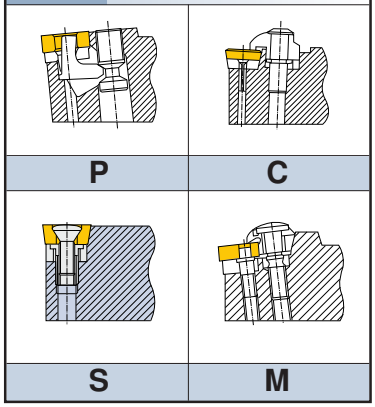
| Type | SVUCR/L 93° | SVXCR/L 113° | SVLCR/L 95° | SVVCR/L 72.5° | SV95CR/L 95° | SVQCR/L 107.5° |
|---|---|---|---|---|---|---|
| For indexable inserts | VC.. | VCMT/VCGT | VCMT/VCGT | VCMT/VCGT | VCMT/VCGT | VC.. |
| Article number | 18512 - 18513 | 18510 | 18511 | 18514 | 18515 | 18516 - 18517 |
| Catalogue page | 18.54 | 18.54 | 18.54 - 18.55 | 18.55 | 18.55 | 18.56 |

### "P" clamping system

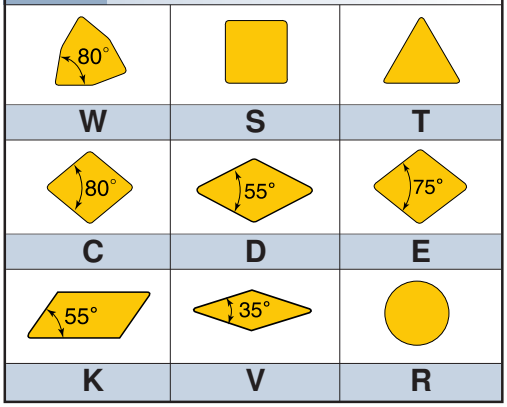
| Type | PCLNR/L 95° | PDUNR/L 93° | PWLNR/L 95° |
|---|---|---|---|
| For inserts | CN.. | DN.. | WN.. |
| Article number | 18522 - 18523 | 18526 - 18527 | 18530 - 18531 |
| Catalogue page | 18.56 | 18.56 | 18.57 |

# Standard designation for ISO clamp holders (I)

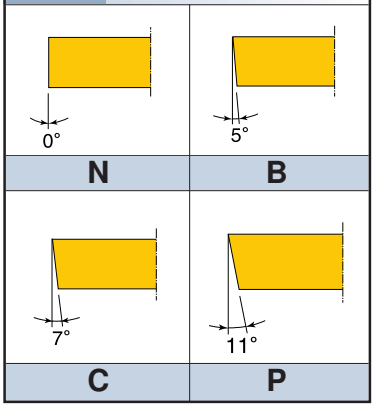
## 1 CLAMPING SYSTEM

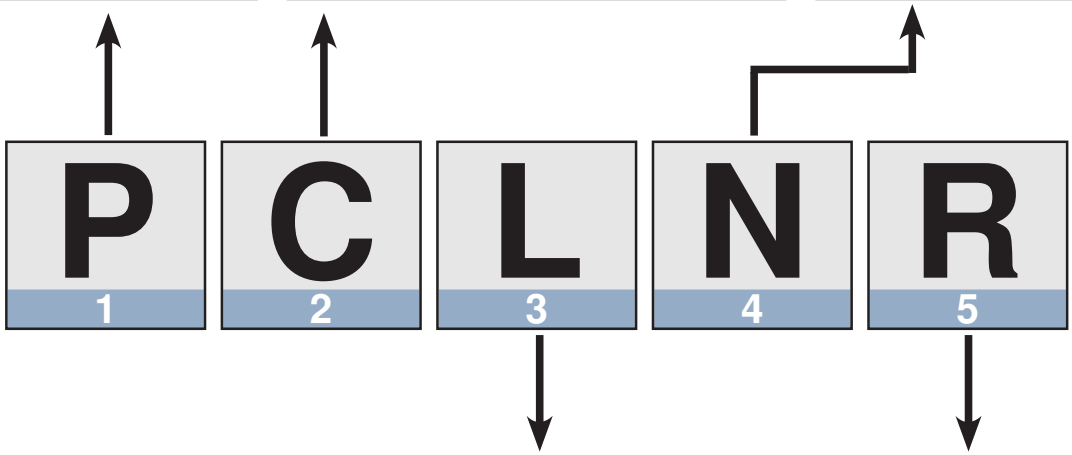



## 2 INSERT SHAPE




## 4 CLEARANCE ANGLE

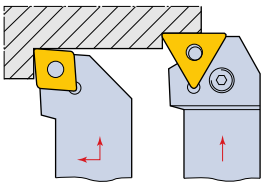


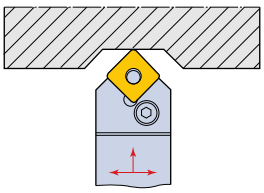

## 3 SETTING ANGLE

| Symbol | Shape | Symbol | Shape | Symbol | Shape |
|---|---|---|---|---|---|
| A | 90° | J | 93° | V | 72.5° |
| | 90° | K | 75° | W | 60° |
| B | 75° | L | 95° | X | Special |
| | 75° | M | 50° | C | 90° |
| D | 45° | N | 63° | H | 85° |
| E | 60° | R | 75° | Q | 45° |
| F | 90° | S | 45° | | |
| G | 90° | T | 60° | | |
| | 90° | U | 93° | | |

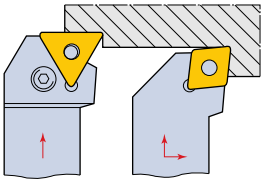
## 5 CUTTING DIRECTION



R



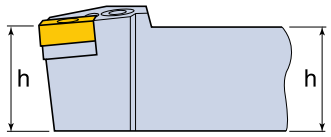
N



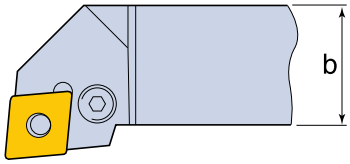
L

# Standard designation for ISO clamp holders (II)

## 6 SHANK HEIGHT




## 7 SHANK WIDTH

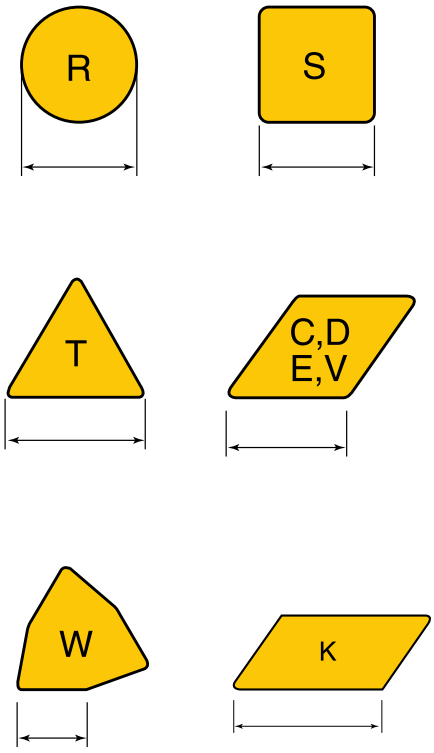



| 25 | 25 | M | 12 |
|---|---|---|---|
| 6 | 7 | 8 | 9 |

## 8 LENGTH OF HOLDER


| L (mm) | Symbol | L (mm) | Symbol |
|---|---|---|---|
| 32 | A | 160 | N |
| 40 | B | 170 | P |
| 50 | C | 180 | Q |
| 60 | D | 200 | R |
| 70 | E | 250 | S |
| 80 | F | 300 | T |
| 90 | G | 350 | U |
| 100 | H | 400 | V |
| 110 | J | 450 | W |
| 125 | K | 500 | Y |
| 140 | L | Special | X |
| 150 | M | | |

## 9 CUTTING EDGE LENGTH

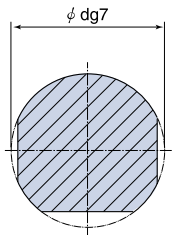


# Info — Standard designation for ISO boring bars

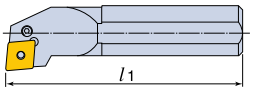
## 1 BORING BAR

| | |
|---|---|
| **S** | Steel shank |
| **A** | Steel shank with IKZ |
| **AH** | HSS shank with IKZ |
| **C** | Solid carbide shank |
| **E** | Solid carbide shank with IKZ |

## 2 SHANK Ø

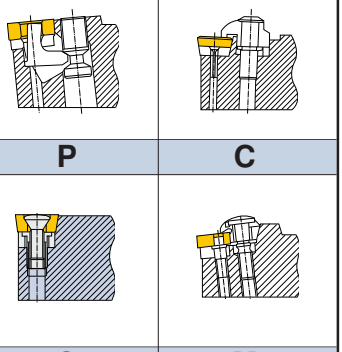



## 3 LENGTH OF HOLDER




| | | | |
|---|---|---|---|
| **K** | 125 | **U** | 350 |
| **M** | 150 | **V** | 400 |
| **Q** | 180 | **W** | 450 |
| **R** | 200 | **Y** | 500 |
| **S** | 250 | **X** | Special |
| **T** | 300 | | |

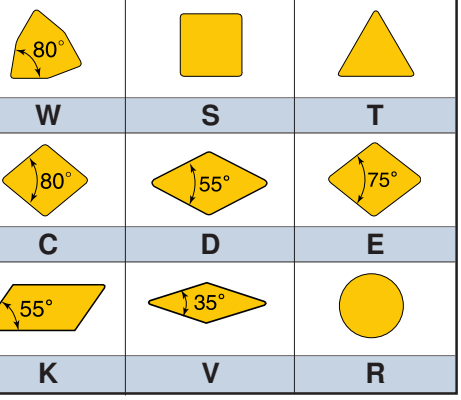
## 4 CLAMPING SYSTEM



| | |
|---|---|
| **P** | **C** |
| **S** | **M** |

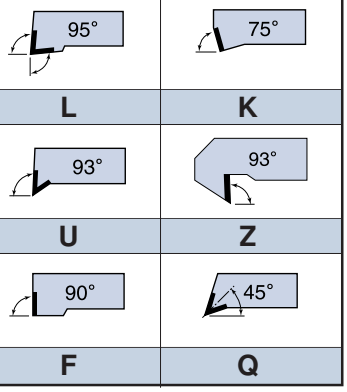
| S | 32 | S | - | C | T | F | P | R | - | 16 | - | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | | 4 | 5 | 6 | 7 | 8 | | 9 | | 10 |

## 5 INSERT SHAPE



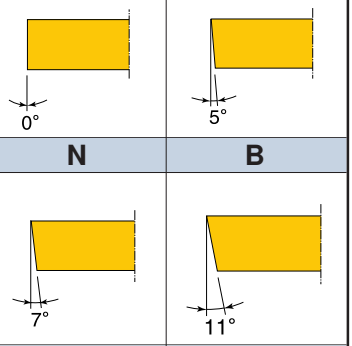

| | | |
|---|---|---|
| **W** | **S** | **T** |
| **C** | **D** | **E** |
| **K** | **V** | **R** |

## 6 SETTING ANGLE



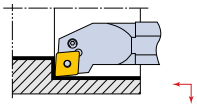
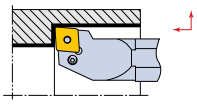

| | |
|---|---|
| **L** | **K** |
| **U** | **Z** |
| **F** | **Q** |

## 7 CLEARANCE ANGLE

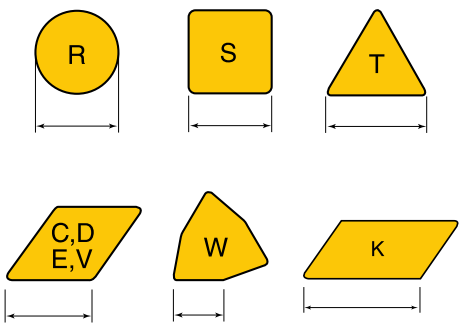



| | |
|---|---|
| **N** | **B** |
| **C** | **P** |

## 8 CUTTING DIRECTION

| | |
|---|---|
| **R** |  |
| **L** |  |

## 9 CUTTING EDGE LENGTH




## 10 ADDITIONAL INFORMATION

This information is not part of the standard, and is therefore optional to the supplier.

According to ISO, for external and internal machining. For use on NC and CNC-controlled machine tools, but also for use on conventional lathes.

Cutting tools that can be equipped with cemented-carbide cutting edges of various grades and types, as well as with TiN, TiC and al-O-N-coated carbides, offer specific solutions for practically all machining tasks. Cutting data and machiningperformances are optimised.

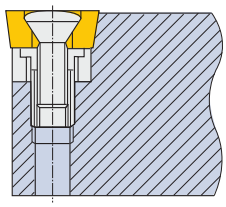
A broad range of chip breakers break chips into short pcs. – a prerequisite for use on modern machine tools with enclosed work areas.

**ISO indexable insert clamp holders and boring bars are deliverable with four different clamping systems:**

## System S

for indexable inserts with centre bore.

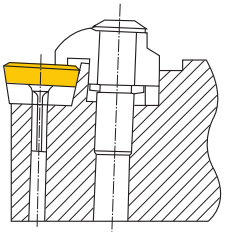
**Mounted with central screw.**



## System C

for indexable inserts without bore (plates according to DIN 4968).

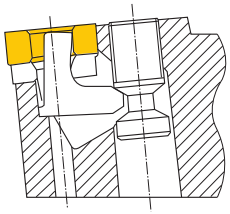
**Mounted only with adjustable clamp.**



## System P

for indexable inserts with centre bore.

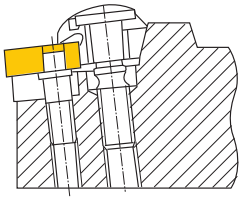
**Mounted with clamping lever.**



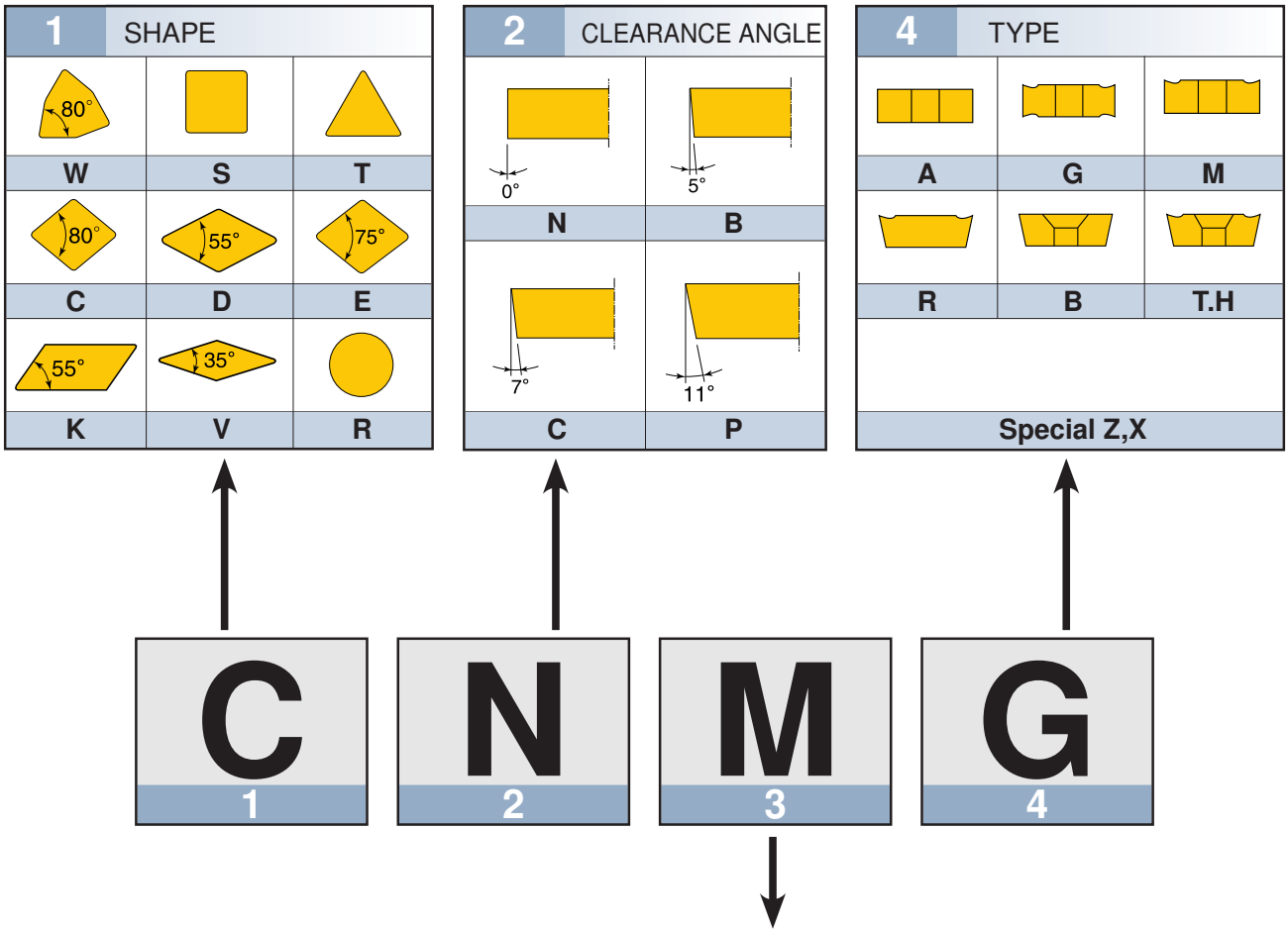
## System M

for indexable inserts with centre bore.

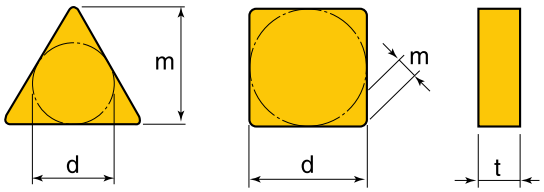
**Mounted with adjustable wedge clamping device.**



# Standard designation for ISO indexable inserts (I)




## 3 TOLERANCE

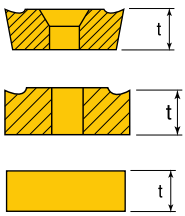



| Tolerance class | m | t | d |
|---|---|---|---|
| A | ± 0.005 | ± 0.025 | ± 0.025 |
| G | ± 0.025 | ± 0.13 | ± 0.025 |
| M | ± 0.08 - ± 0.18 | ± 0.13 | ± 0.05 - ± 0.13 |
| U | ± 0.13 - ± 0.38 | ± 0.13 | ± 0.08 - ± 0.25 |

| In-circle diameter | Tolerance | | | |
|---|---|---|---|---|
| | m | | d | |
| | M | U | M | U |
| 6.35 | ± 0.08 | ± 0.13 | ± 0.05 | ± 0.08 |
| 9.52 | ± 0.08 | ± 0.13 | ± 0.05 | ± 0.08 |
| 12.70 | ± 0.13 | ± 0.20 | ± 0.08 | ± 0.13 |
| 15.87 | ± 0.15 | ± 0.27 | ± 0.10 | ± 0.18 |
| 19.05 | ± 0.15 | ± 0.27 | ± 0.10 | ± 0.18 |
| 25.40 | ± 0.18 | ± 0.38 | ± 0.13 | ± 0.25 |
| 31.75 | ± 0.18 | ± 0.38 | ± 0.13 | ± 0.25 |

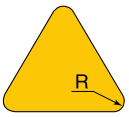
# Standard designation for ISO indexable inserts (II)

**6 THICKNESS**



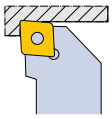

01 = 1.59
T1 = 1.98
02 = 2.38
03 = 3.18
T3 = 3.97
04 = 4.76
05 = 5.56
06 = 6.35
07 = 7.94
09 = 9.52

**7 CORNER RADIUS**

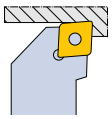



00 = acute
02 = 0.2 mm
04 = 0.4 mm
05 = 0.5 mm
08 = 0.8 mm
12 = 1.2 mm
16 = 1.6 mm
20 = 2.0 mm
24 = 2.4 mm
32 = 3.2 mm

**8 CUTTING DIRECTION**



R Right-hand version



L Left-hand version

**9 CHIP FORMING DESIGNATION**

| 12 | 04 | 08 | ( R ) | |
|---|---|---|---|---|
| 5 | 6 | 7 | 8 | 9 |

## 5

| In-circle (mm) | Cutting edge length (mm) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | C | D | E | R | S | T | V | W | K |
| 5.56 | 05 | 06 | | | 05 | 09 | 09 | 03 | |
| 6.35 | 06 | 07 | | | 06 | 11 | 11 | 04 | |
| 8.00 | | | | 08 | | | | | |
| 9.52 | 09 | 11 | | 09 | 09 | 16 | 16 | 06 | 16 |
| 10.00 | | 12 | | 10 | | | | | |
| 12.00 | | | | 12 | | | | | |
| 12.70 | 12 | 15 | 13 | | 12 | 22 | 22 | 08 | |
| 15.88 | 16 | 19 | | 15 | 15 | 27 | 27 | 10 | |
| 16.00 | | | | 16 | | | | | 16 |
| 19.05 | 19 | 23 | | 19 | 19 | 33 | 33 | 13 | |
| 20.00 | | | | 20 | | | | | |
| 25.00 | | | | 25 | | | | | |
| 25.40 | 25 | 31 | | 25 | 25 | 44 | | | |

# Technical information for ISO indexable inserts (I)

ATORN®

## Selection of carbide grades

| ISO | Grade | Material | ISO area | Recommended area of application |
|---|---|---|---|---|
| P<br>K | HC7610 | Steel<br>GG, GGG | P01-P20<br>K15-K25 | Highly wear-resistant grade for small to medium chip cross-sections,<br>high cutting speeds under good conditions |
| P<br>K | HC7620 | Steel<br>GG, GGG | P10-P30<br>K25-K35 | Wear-resistant grade for medium to large chip cross-sections,<br>medium to high cutting speeds under good to moderate conditions |
| P | HC7630 | Steel | P20-P40 | Very tough grade for medium to large chip cross-sections,<br>medium cutting speeds under moderate and poor conditions |
| M<br>P | HC7510 | FE<br>Steel | M01-M20<br>P15-P25 | Highly wear-resistant grade for small to medium chip cross-sections,<br>high cutting speeds under good conditions |
| M<br>S | HC7520 | FE<br>Materials that are difficult to machine | M10-M30<br>S15-S25 | Wear-resistant grade for medium to large chip cross-sections,<br>medium to high cutting speeds under good to moderate conditions |
| M<br>S | HC7530 | FE<br>Materials that are difficult to machine | M20-M40<br>S25-S35 | Very tough grade for medium to large chip cross-sections,<br>medium cutting speeds under moderate and poor conditions |
| M<br>P<br>S | HC7810 | FE<br>Steel<br>Super alloys | M01-M20<br>P01-P15<br>S01-S20 | Highly wear-resistant grade for small to medium chip cross-sections,<br>high cutting speeds under good conditions |
| M<br>P<br>S | HC7820 | FE<br>Steel<br>Super alloys | M10-M30<br>P15-P25<br>S10-S30 | Wear-resistant grade for medium to large chip cross-sections,<br>medium to high cutting speeds under good to moderate conditions |
| M<br>P<br>S | HC7830 | FE<br>Steel<br>Super alloys | M20-M40<br>P25-P35<br>S20-S40 | Very tough grade for medium to large chip cross-sections,<br>medium cutting speeds under moderate and poor conditions |
| N<br>M | HC6310 | Aluminium, copper<br>FE | N05-N15<br>M01-M05 | Wear-resistant grade for small to medium chip cross-sections,<br>medium cutting speeds under good conditions |
| N | HW6310 | Aluminium, copper, plastics | N05-N15 | Wear-resistant grade for small to medium chip cross-sections,<br>medium cutting speed under good conditions |

## Geometry selection guide

| ISO | Processing | Depth of chip mm | Feed mm/revolution | Negative insert geometry | Positive insert geometry |
|---|---|---|---|---|---|
| P | Finishing | 0.2-1.5 | 0.04-0.20 | - | FU1 |
| | | 0.5-2.0 | 0.10-0.30 | FP | FP |
| | Medium machining | 1.5-5.0 | 0.20-0.50 | MP | MP |
| | Roughing | 2.5-10.0 | 0.25-0.80 | RP5 | |
| K | Finishing | 0.2-1.5 | 0.04-0.20 | - | FU1 |
| | | 0.5-2.0 | 0.10-0.30 | MP | - |
| | Medium machining | 1.5-5.0 | 0.20-0.50 | RP5 | MP |
| | Roughing | 5.0-15.0 | 0.50-1.5 | RP5 | MP |
| M | Finishing | 0.5-2.0 | 0.10-0.30 | FM | - |
| | Medium machining | 1.5-5.0 | 0.20-0.50 | MM | MP |
| | Roughing | 5.0-15.0 | 0.50-1.5 | RM | - |
| N | Finishing | 0.2-1.5 | 0.04-0.20 | - | FU1 |
| | | 0.5-2.0 | 0.10-0.30 | - | MN |
| | Medium machining | 1.5-5.0 | 0.20-0.50 | - | MN |
| | Roughing | 5.0-15.0 | 0.50-1.5 | - | - |
| S | Finishing | 0.2-1.5 | 0.04-0.20 | - | FU1 |
| | | 0.5-2.0 | 0.10-0.30 | FM | - |
| | Medium machining | 1.5-5.0 | 0.20-0.50 | MM | MP |
| | Roughing | 5.0-15.0 | 0.50-1.5 | RM | - |

| | | Negative insert geometry | Positive insert geometry |
|---|---|---|---|
| Other influences | Fine finishing | - | FU1/MN |
| | Cut interruption | RP5 | MP |
| | Vibration tendency | FP/FM | FP |
| | Unstable machine conditions | FP/FM | FP |
| | Copy milling | FP/MP/FM/MM | FP/MP |

**FU1** Extremely positively ground chip breaker for universal finishing work
Very positively ground chip breaker for low cutting depths and very high surface qualities
Extremely low cutting forces with excellent chip breaking
Optimised geometry for long-chipping steels and austenitic stainless steel

**FM** Chip breaker optimised for low cutting depths and high surface qualities when finishing steel and stainless steel
Very positively curved chip breaker geometry, which also ensures good temperature dissipation, keeps the cutting forces low and offers good chip control

**MM** Universal chip breaker with very positive geometry, offers a broad infeed range for machining stainless steels and special alloys
Optimised chip breaker for good temperature dissipation, very good chip control and excellent surfaces

**RM** Robust chip breaker with soft cut, offers a broad infeed range for unfavourable cutting conditions in stainless steel
Ensures very soft cuts with large infeeds and offers good surface qualities
At high cutting depths and feeds, this chip breaker still ensures very soft chip deformation
This chip breaker also ensures good temperature dissipation





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Cutting data guideline values

| ISO | Material | Conditions | | Cutting speed $v_c$ (m/min) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Negative indexable insert | | | | | | | | | Positive indexable insert | | | | | | | |
| | | | | HC7610 | HC7620 | HC7630 | HC7510 | HC7520 | HC7530 | HC7810 | HC7820 | HC7830 | HC7610 | HC7620 | HC7630 | HC7520 | HC7530 | HC7810 | HC7820 | HC6310 | HW6310 |
| P | Unalloyed carbon steel | 0.05-0.25% C | | 340-590 | 300-500 | 240-430 | 300-500 | – | – | 250-270 | 220-230 | 200-220 | 410-530 | 330-450 | 290-430 | – | – | 370-490 | 310-410 | – | – |
| | | 0.25-0.55% C | | 230-360 | 180-300 | 140-240 | 180-300 | – | – | 190-210 | 160-180 | 150-160 | 250-320 | 210-270 | 190-240 | – | – | 280-390 | 230-330 | – | – |
| | | 0.55-0.80% C | | 280-400 | 220-320 | 170-260 | 220-320 | – | – | 160-180 | 130-150 | 110-130 | 290-360 | 240-290 | 210-260 | – | – | 240-290 | 190-230 | – | – |
| | | | | 210-300 | 160-250 | 110-200 | 160-250 | – | – | 160-180 | 130-140 | 120-130 | 210-270 | 160-230 | 140-200 | – | – | 310-350 | 250-290 | – | – |
| | Low-alloy steel | Unhardened | | 280-440 | 220-370 | 190-300 | 220-370 | – | – | 150-170 | 120-140 | 100-120 | 290-400 | 240-330 | 210-300 | – | – | 320-360 | 260-310 | – | – |
| | | Tempered | | 190-300 | 140-250 | 110-190 | 140-250 | – | – | – | – | – | 210-270 | 160-230 | 140-190 | – | – | 160-200 | 120-160 | – | – |
| | High-alloy steel | Annealed | | 210-460 | 160-380 | 120-300 | 160-380 | – | – | 150-170 | 110-130 | 90-110 | 290-420 | 240-340 | 210-300 | – | – | 300-340 | 230-280 | – | – |
| | Tool steel | | | 210-460 | 160-380 | 120-300 | 160-380 | – | – | 150-200 | 140-190 | 120-170 | 290-420 | 240-340 | 210-300 | – | – | 260-300 | 170-210 | – | – |
| | | | | 100-230 | 80-170 | 60-110 | 80-170 | – | – | 110-170 | 100-140 | 80-110 | 120-210 | 100-150 | 80-110 | – | – | 90-120 | 70-100 | – | – |
| M | Stainless steel | martensitic/ferritic | | 150-270 | 110-210 | 100-160 | 110-210 | 130-190 | 110-150 | 130-260 | 110-240 | 90-200 | 170-240 | 130-190 | 110-160 | 130-170 | 110-140 | – | – | – | – |
| | | austenitic | | – | – | – | 130-310 | 110-260 | 90-220 | 110-170 | 90-150 | 70-130 | – | – | – | 110-240 | 90-200 | – | – | 200-220 | – |
| K | GG | Low tensile strength | | 210-500 | 180-440 | – | – | – | – | – | – | – | 260-450 | 230-400 | – | – | – | 450-530 | 430-480 | – | – |
| | | High tensile strength | | 130-270 | 110-240 | – | – | – | – | – | – | – | 170-250 | 150-220 | – | – | – | 230-280 | 160-210 | – | – |
| | SGI | Ferritic | | 150-290 | 140-260 | – | – | – | – | – | – | – | 190-260 | 160-230 | – | – | – | 250-300 | 180-230 | – | – |
| | | Pearlitic | | 130-210 | 110-180 | – | – | – | – | – | – | – | 140-190 | 130-160 | – | – | – | 160-210 | 110-160 | – | – |
| | Malleable iron | Short-chipping | | 230-330 | 200-300 | – | – | – | – | – | – | – | 250-300 | 230-270 | – | – | – | 230-280 | 200-250 | – | – |
| | | long-chipping | | 110-240 | 100-220 | – | – | – | – | – | – | – | 140-220 | 130-260 | – | – | – | 190-240 | 160-210 | – | – |
| N | Wrought aluminium alloys | Non-hardenable | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1560-2880 | 1300-2400 |
| | | Hardenable | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 360-900 | 300-750 |
| | Cast aluminium alloys | max. 12% Si, non-hardenable | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 360-960 | 300-800 |
| | | max. 12% Si, hardenable | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 240-600 | 200-500 |
| | Copper and copper alloys (bronze/brass) | Free-machining alloy, Pb > 1% | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 320-720 | 270-600 |
| | | Brass, red bronze | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 300-480 | 250-400 |
| | | Bronze, lead-free copper, electrolytic copper | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 160-340 | 130-280 |
| | Non-metallic materials | Thermosetting plastics, fibre-reinforced plastics | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 240-360 | 200-300 |
| | | Hard rubber | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 360-540 | 300-450 |
| S | High-temperature-resistant alloy | Fe-based | Annealed | – | – | – | – | – | – | 65-100 | 60-90 | 50-80 | – | – | – | 60-90 | 50-80 | – | – | 90-110 | – |
| | | | Hardened | – | – | – | – | – | – | 55-80 | 50-70 | 40-60 | – | – | – | 50-70 | 40-60 | – | – | 70-80 | – |
| | | Ni- or Co-based | Annealed | – | – | – | – | – | – | 55-80 | 50-70 | 30-60 | – | – | – | 40-70 | 30-60 | – | – | 50-60 | – |
| | | | Hardened | – | – | – | – | – | – | 45-70 | 40-60 | 30-50 | – | – | – | 50-70 | 30-80 | – | – | 25-60 | – |
| | | | Cast | – | – | – | – | – | – | 35-60 | 30-50 | 20-40 | – | – | – | 30-50 | 20-40 | – | – | 25-50 | – |
| | Titanium alloy | Pure titanium | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 160-220 | – |
| | | Alpha + beta alloys, hardened | | – | – | – | – | – | – | – | 40-70 | – | – | – | – | 40-60 | – | – | – | 60-100 | – |

HW

## Coated carbide grades:

H 42 (HC - P30) Multi-layer coating, excellent toughness. Medium to coarse machining, also stainless steel, also higher cutting speeds.
H 45 (HC - P25) TiCN-coated. Carbon steel, stainless steel, alloy steel, tool steel.
H 60 (HC - P15) Ceramic Al-O-N multi-layer coating. Excellent resistance to wear and lime scale. Multi-range grade for general machining.

## Uncoated carbide grades:

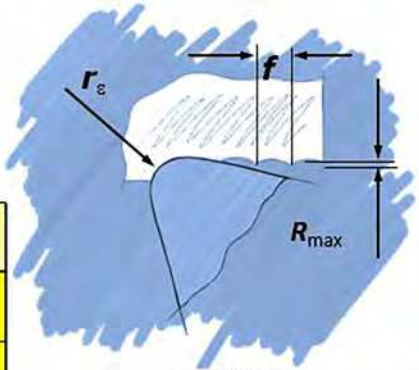
H 12 (HW - P25) Balanced ratio of wear resistance and toughness in the medium working range of steel machining.
H 20 (HW - K15) Good toughness and stability.
General machining of short-chipping cast iron materials, turning of non-ferrous metals (Al and Cu alloys) and plastics.
H25-ALU Very well suited for simple to medium machining of aluminium.

## Cermet:

H 05 (HT - P10) For simple and finish-turning of steel and spheroidal cast iron at medium to high cutting speeds and feed rates. Low adhesion, therefore also well suited to machining stainless steel.

| | **P** Unalloyed and alloyed steel and cast steel, stainless, ferritic steel and cast steel | | | | | | **M** Stainless, austenitic steel and cast steel | | | | **K** Grey, malleable, nodular graphite iron, non-ferrous metals, plastics | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DIN ISO 513** | **P01** | **P10** | **P20** | **P30** | **P40** | **P50** | **M10** | **M20** | **M30** | **M40** | **K01** | **K10** | **K20** | **K30** |
| **HC carbide coated** | | | H 42 | | | | | | H 42 | | | | H 42 | |
| | | | | H 45 | | | | | | | | | | H 45 |
| **HW carbide uncoated** | | H 12 | | | | | | | | | | H 20 | | |
| | | | | | | | | | | | | H 25 | | |
| **HT Cermet** | | H 05 | | | | | H 05 | | | | | | | |

## Surface quality




**Theoretical $R_a$ / $R_z$ values as a function of feed and corner radius**

| Corner radius $r_\varepsilon$ mm | Round plate D mm | $R_a$ / $R_z$ [µm] 0.4 / 1.6 | 1.6 / 6.3 | 3.2 / 12.5 | 6.3 / 25 | 8 / 32 | 32 / 100 |
|---|---|---|---|---|---|---|---|
| | | Feed f [mm] | | | | | |
| 0.2 | | 0.05 | 0.08 | 0.13 | | | |
| 0.4 | | 0.07 | 0.11 | 0.17 | 0.22 | | |
| 0.8 | | 0.10 | 0.15 | 0.24 | 0.30 | 0.38 | |
| 1.2 | | | 0.19 | 0.29 | 0.37 | 0.47 | |
| 1.6 | | | | 0.34 | 0.43 | 0.54 | 1.08 |
| 2.4 | | | | 0.42 | 0.53 | 0.66 | 1.32 |
| | 6 | 0.20 | 0.31 | 0.49 | 0.62 | | |
| | 8 | 0.23 | 0.36 | 0.56 | 0.72 | | |
| | 10 | 0.25 | 0.40 | 0.63 | 0.80 | 1.00 | |
| | 12 | | 0.44 | 0.69 | 0.88 | 1.10 | |
| | 16 | | 0.51 | 0.80 | 1.01 | 1.26 | 2.54 |
| | 20 | | | 0.89 | 1.13 | 1.42 | 2.94 |
| | 25 | | | | 1.26 | 1.58 | 3.33 |

Example: $r$ = 0,8 mm
$R_z$ = 4 µm
$f$ = ?

$$f = \sqrt{\frac{R_{max} \cdot 8 \cdot r_\varepsilon}{1000}}$$

$$f = \sqrt{\frac{4 \cdot 8 \cdot 0{,}8}{1000}} = 0{,}16 \text{ mm}$$

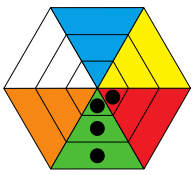
# Grade description and chip deflection step overview

CUTTING SOLUTIONS BY CERATIZIT

CUTTING SOLUTIONS BY CERATIZIT PREMIUM PARTNER

## H10T

**HW-K15**



Ductility
0 2 4 6 8 10

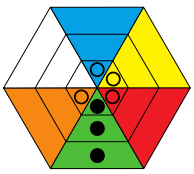
Wear resistance
0 2 4 6 8 10

**Properties/Application:**

- Ideally suited to aluminium
- High wear resistance
- High heat resistance
- Low adhesion

## AMZ

**HC-K10**



Ductility
0 2 4 6 8 10

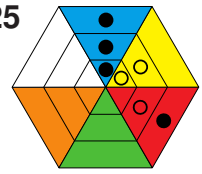
Wear resistance
0 2 4 6 8 10

**Properties/Application:**

- Ideally suited to aluminium, cast iron
- Low adhesion

## CTCP125

**HC-P25**
**HC-M20**
**HC-K30**



Ductility
0 2 4 6 8 10

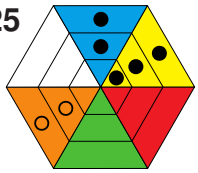
Wear resistance
0 2 4 6 8 10

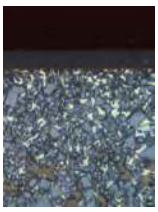
**Properties/Application:**

- Ideally suited to steel and cast materials
- High wear resistance
- High toughness

## CTPM125

**HC-P35**
**HC-M25**





Ductility
0 2 4 6 8 10

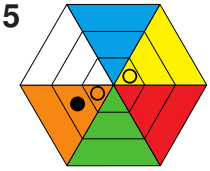
Wear resistance
0 2 4 6 8 10

**Properties/Application:**

- Ideally suited to stainless steels and high-alloy materials
- High wear resistance
- High toughness

## CTP5115

**HC-M15**
**HC-S15**



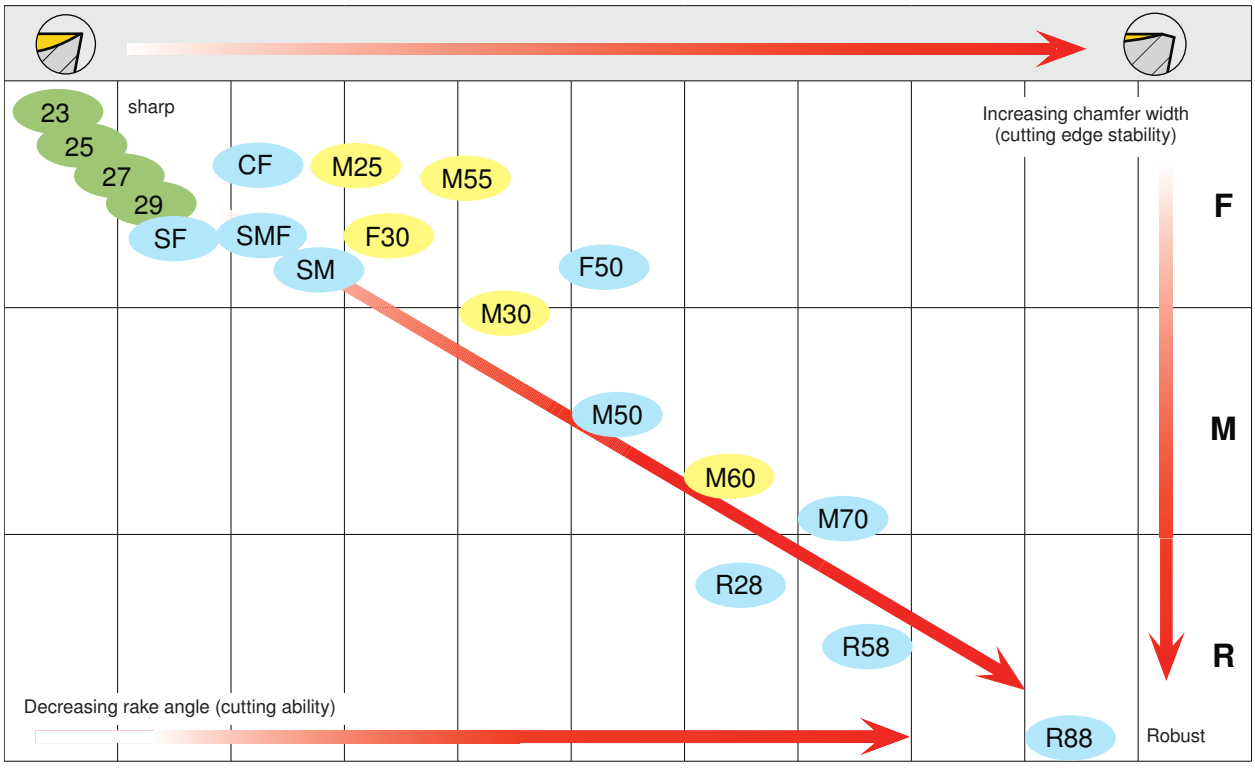
Ductility
0 2 4 6 8 10

Wear resistance
0 2 4 6 8 10

**Properties/Application:**

- Ideally suited to titanium, titanium alloys, heat-resistant and highly heat-resistant steels
- Very high wear resistance

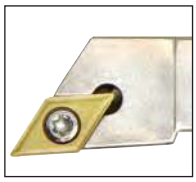
## Chip deflection step overview, turning

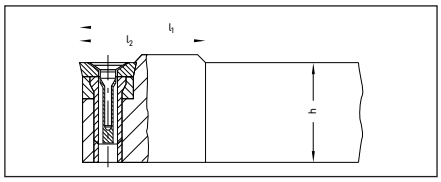



Lathe tools

# Info — Clamp holder system S

Clamp holder for indexable inserts
with centre bore.
Mounted with central screw.

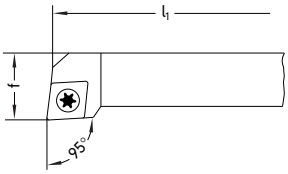





## 18405 - 18406 Clamp holder SCLCR/L

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert CC.**




18405

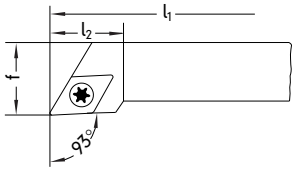
| ISO designation | $l_1$ mm | f mm | For indexable inserts | Right 18405 | ... | Left 18406 | ... |
|---|---|---|---|---|---|---|---|
| SCLCR/L 1010 E06 | 70 | 12 | CC.. 0602.. | | 102 | | 102 |
| SCLCR/L 1212 F09-T3 | 80 | 16 | CC.. 09T3.. | | 103 | | 103 |
| SCLCR/L 1616 H09-T3 | 100 | 20 | CC.. 09T3.. | | 104 | | 104 |
| SCLCR/L 2020 K09-T3 | 125 | 20 | CC.. 09T3.. | | 105 | | 105 |
| SCLCR/L 1616 H12 | 100 | 20 | CC.. 1204.. | | 106 | | 106 |
| SCLCR/L 2020 K12 | 125 | 25 | CC.. 1204.. | | 107 | | 107 |
| SCLCR/L 2525 M12 | 150 | 32 | CC.. 1204.. | | 108 | | 108 |

| Spare parts | | Clamping screw | | Wrench | | Support plate | | Insert nut | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18472 | ... | 51809 | ... |
| 6 mm | 8 | | 723 | | 403 | | | | | | |
| 9 mm | 15 | | 724 | | 406 | | 712 | | 720 | | 107 |
| 12 mm | 15 | | 722 | | 406 | | 741 | | 723 | | 109 |

## 18407 - 18410 Clamp holder SDJCR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert DC..**




18407

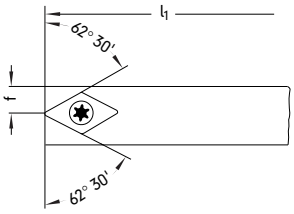
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18407 | ... | Left 18410 | ... |
|---|---|---|---|---|---|---|---|---|
| SDJCR/L 1010 E07 | 70 | 17 | 12 | DC.. 0702.. | | 102 | | 102 |
| SDJCR/L 1212 F11 | 80 | 29 | 16 | DC.. 11T3.. | | 103 | | 103 |
| SDJCR/L 1616 H11 | 100 | 29 | 20 | DC.. 11T3.. | | 104 | | 104 |
| SDJCR/L 2020 K11 | 125 | 29 | 25 | DC.. 11T3.. | | 105 | | 105 |
| SDJCR/L 2525 M11 | 150 | 33 | 32 | DC.. 11T3.. | | 106 | | 106 |

| Spare parts | | Clamping screw | | Wrench | | Support plate | | Insert nut | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18472 | ... | 51809 | ... |
| 7 mm | 8 | | 723 | | 403 | | | | | | |
| 11 mm | 15 | | 724 | | 406 | | 713 | | 720 | | 108 |

## 18411 Clamp holder SDNCN

**Design**
**Angle of attack 62° 30'.**

**Applications**
**For indexable insert DC..**



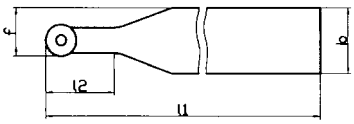

18411

| ISO designation | $l_1$ mm | f mm | For indexable inserts | Neutral 18411 ... |
|---|---|---|---|---|
| SDNCN 1010 E07 | 70 | 5.0 | DC.. 0702.. | 102 |
| SDNCN 1212 F11 | 80 | 6.0 | DC.. 11T3.. | 103 |
| SDNCN 1616 H11 | 100 | 8.0 | DC.. 11T3.. | 104 |
| SDNCN 2020 K11 | 125 | 10.0 | DC.. 11T3.. | 105 |
| SDNCN 2525 M11 | 150 | 12.5 | DC.. 11T3.. | 106 |

| Spare parts | | Clamping screw 10 | Wrench | Support plate | Insert nut | Key |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 ... | 52529 ... | 18471 ... | 18472 ... | 51809 ... |
| 7 mm | 8 | | 723 | 403 | | |
| 11 mm | 15 | | 724 | 406 | 713 | 720 107 |

## 18400 Clamp holder SRDCN

**Applications**
**For indexable insert RC.**




18400

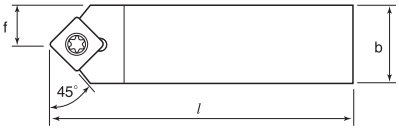
| ISO designation | b mm | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Neutral 18400 ... |
|---|---|---|---|---|---|---|
| SRDCN 1010 E06 | 10 | 70 | 10 | 8.0 | RC.. 0602.. | 098 |
| SRDCN 1212 F06 | 12 | 80 | 12 | 9.0 | RC.. 0602.. | 099 |
| SRDCN 1616 H06 | 16 | 100 | 12 | 11.0 | RC.. 0602.. | 100 |
| SRDCN 1010 E08 | 10 | 70 | 12 | 9.0 | RC.. 0803.. | 101 |
| SRDCN 1616 H08 | 16 | 100 | 16 | 12.0 | RC.. 0803.. | 103 |

| Spare parts | | Clamping screw 10 | Wrench |
|---|---|---|---|
| Plate size | TORX® size T | 18470 ... | 52529 ... |
| 6 mm | 8 | 723 | 403 |
| 8 mm | 8 | 721 | 403 |

## 18402 Clamp holder SSDCN

**Design**
**Angle of attack 45°.**

**Applications**
**For indexable insert SCM..**




18402

| ISO designation | b mm | l mm | f mm | For indexable inserts | Neutral 18402 ... |
|---|---|---|---|---|---|
| SSDCN 1212 F09 | 12 | 80 | 6.0 | SCM. 09T3.. | 098 |
| SSDCN 1616 H09 | 16 | 100 | 8.0 | SCM. 09T3.. | 099 |
| SSDCN 2020 K09 | 20 | 125 | 10.0 | SCM. 09T3.. | 100 |
| SSDCN 1616 H12 | 16 | 100 | 8.0 | SCM. 1204.. | 101 |
| SSDCN 2020 K12 | 20 | 125 | 10.0 | SCM. 1204.. | 102 |
| SSDCN 2525 M12 | 25 | 150 | 12.5 | SCM. 1204.. | 103 |

| Spare parts | | Clamping screw 10 | Wrench | Support plate | Insert nut | Key |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 ... | 52529 ... | 18471 ... | 18472 ... | 51809 ... |
| 9 mm | 15 | | 738 | 406 | | |
| 12 mm | 15 | | 722 | 406 | 716 | 723 109 |



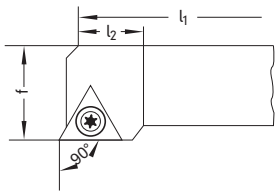


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18416 - 18417 Clamp holder STGCR/L

**Design**
**Angle of attack 90°.**

**Applications**
**For indexable insert TC..**




18416

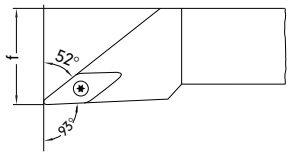
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18416 | ... | Left 18417 | ... |
|---|---|---|---|---|---|---|---|---|
| STGCR/L 1616 H11 | 100 | 16 | 20 | TC.. 1102.. | | 100 | | 100 |
| STGCR/L 1616 H16 | 100 | 20 | 20 | TC.. 16T3.. | | 101 | | 101 |
| STGCR/L 2020 K16 | 125 | 20 | 25 | TC.. 16T3.. | | 102 | | 102 |
| STGCR/L 2525 M16 | 150 | 20 | 32 | TC.. 16T3.. | | 103 | | 103 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Insert nut | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18472 | ... | 51809 | ... |
| 11 mm | 8 | | 723 | | 403 | | | | | | |
| 16 mm | 15 | | 724 | | 406 | | 721 | | 720 | | 107 |

## 18420 - 18421 Clamp holder SVJBR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert VB..**




18420

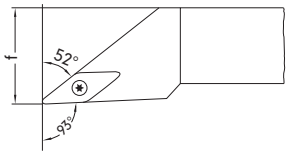
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18420 | ... | Left 18421 | ... |
|---|---|---|---|---|---|---|---|---|
| SVJBR K16/L 2020 | 125 | 36 | 25 | VB. 1604.. | | 102 | | 102 |
| SVJBR M16/L 2525 | 150 | 36 | 32 | VB. 1604.. | | 103 | | 103 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Insert nut | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18472 | ... | 51809 | ... |
| 16 mm | 15 | | 724 | | 406 | | 733 | | 720 | | 107 |

## 18418 - 18419 Clamp holder SVJCR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert VC..**




18418

| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18418 | ... | Left 18419 | ... |
|---|---|---|---|---|---|---|---|---|
| SVJCR/L 1212 F11 | 80 | 23 | 16 | VC. 1103.. | | 102 | | 102 |
| SVJCR/L 1616 H11 | 100 | 23 | 20 | VC. 1103.. | | 103 | | 103 |
| SVJCR/L 2020 K11 | 125 | 23 | 25 | VC. 1103.. | | 104 | | 104 |
| SVJCR/L 1616 H16 | 100 | 34 | 20 | VC. 1604.. | | 107 | | 107 |
| SVJCR/L 2020 K16 | 125 | 34 | 25 | VC. 1604.. | | 108 | | 108 |
| SVJCR/L 2525 M16 | 150 | 35 | 32 | VC. 1604.. | | 109 | | 109 |

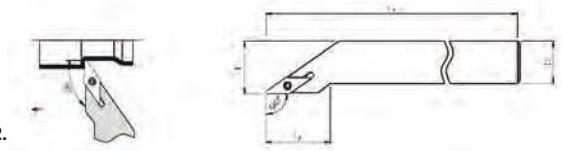
| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Insert nut | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18472 | ... | 51809 | ... |
| 11 mm | 8 | | 723 | | 403 | | | | | | |
| 16 mm | 15 | | 737 | | 406 | | 719 | | 719 | | 106 |

## 18413 Mini clamp holder SVGCR/L

ATORN®

**Design**
**Angle of attack 90°.**

**Applications**
**For indexable inserts VC. 0702.**



18413

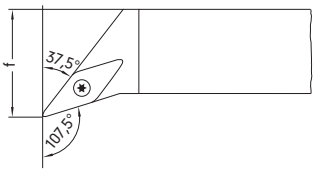
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18413 ... | Left 18413 ... |
|---|---|---|---|---|---|---|
| SVGCR/L 0808 K07 | 125 | 15 | 8.5 | VCMT/VCGT 0702.. | 101 | 111 |
| SVGCR/L 1010 M07 | 150 | 15 | 10.5 | VCMT/VCGT 0702.. | 102 | 112 |
| SVGCR/L 1212 M07 | 150 | 18 | 12.5 | VCMT/VCGT 0702.. | 103 | 113 |

## 18424 - 18425 Clamp holder SVHCR/L

HW

**Design**
**Angle of attack 107.5°.**

**Applications**
**For indexable insert VC..**




18424

| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18424 ... | Left 18425 ... |
|---|---|---|---|---|---|---|
| SVHCR/L 2020 K16 | 125 | 27 | 25 | VC. 1604.. | 201 | 201 |
| SVHCR/L 2525 M16 | 150 | 27 | 32 | VC. 1604.. | 202 | 202 |

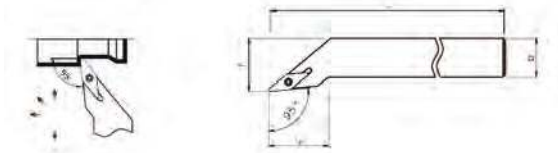
| Spare parts | | Clamping screw 10 | Wrench | Support plate | Insert nut | Key |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 ... | 52529 ... | 18471 ... | 18472 ... | 51809 ... |
| 16 mm | 15 | 724 | 406 | 733 | 720 | 107 |

## 18405 - 18406 Mini clamp holder SVLCR/L

ATORN®

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert VC..**



18405

| ISO designation | $l_1$ mm | f mm | For indexable inserts | Right 18405 ... | Left 18406 ... |
|---|---|---|---|---|---|
| SVLCR/L 0808 D07 | 60 | 10 | VC. 0702.. | 095 | 095 |
| SVLCR/L 1010 E07 | 70 | 12 | VC. 0702.. | 096 | 096 |
| SVLCR/L 1212 F07 | 80 | 16 | VC. 0702.. | 097 | 097 |

| Spare parts | | Clamping screw 10 | Wrench | Support plate | Insert nut | Key |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 ... | 52529 ... | 18471 ... | 18472 ... | 51809 ... |
| 6 mm | 8 | 723 | 403 | | | |
| 9 mm | 15 | 724 | 406 | 712 | 720 | 107 |
| 12 mm | 15 | 722 | 406 | 741 | 723 | 109 |

## 18428 Clamp holder SVVCN

**Design**
**Angle of attack 72.5°.**

**Applications**
**For indexable insert VC..**

18428

| ISO designation | $l_1$ mm | f mm | For indexable inserts | Neutral 18428 | ... |
|---|---|---|---|---|---|
| SVVCN 0808 K07 | 125 | 4.0 | VC. 0702 | | 098 |
| SVVCN 1010 M07 | 150 | 5.0 | VC. 0702 | | 099 |
| SVVCN 1212 M07 | 150 | 6.0 | VC. 0702 | | 100 |
| SVVCN 1212 F11 | 80 | 6.0 | VC. 1103.. | | 101 |
| SVVCN 1616 H11 | 100 | 8.0 | VC. 1103.. | | 102 |
| SVVCN 2020 K11 | 125 | 10.0 | VC. 1103.. | | 103 |
| SVVCN 2020 K16 | 125 | 10.0 | VC. 1604.. | | 105 |
| SVVCN 2525 M16 | 150 | 12.5 | VC. 1604.. | | 106 |

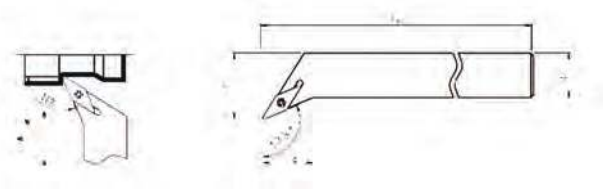
| Spare parts | | Clamping screw 18470 | ... | Wrench 52529 | ... | Support plate 18471 | ... | Insert nut 18472 | ... | Key 51809 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | | | | | | | | | | |
| 11 mm | 8 | | | 723 | | 403 | | | | | |
| 16 mm | 15 | | | 737 | | 406 | | 729 | | 720 | 107 |

## 18429 Mini clamp holder SVXCR/L

**Design**
**Angle of attack 113°.**

**Applications**
**For indexable insert VC**

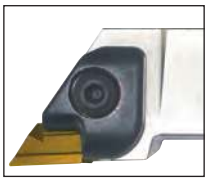
18429

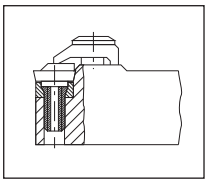


| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18429 | ... | Left 18429 | ... |
|---|---|---|---|---|---|---|---|---|
| SVXCR/L 0808 D07 | 60 | 15 | 10 | VC. 0702 | | 101 | | 111 |
| SVXCR/L 1010 E07 | 70 | 15 | 12 | VC. 0702 | | 102 | | 112 |
| SCXCR/L 1212 F07 | 80 | 18 | 16 | VC.. 0702 | | 103 | | 113 |

## Info — Clamp holder system C

For indexable inserts without bore.
Mounted only with adjustable clamp for DIN 4968 indexable inserts.

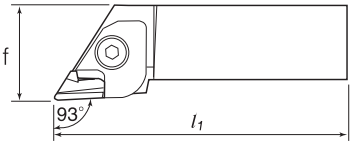




## 18430 - 18431 Clamp holder CKJNR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert KNUX 1604.**




18430

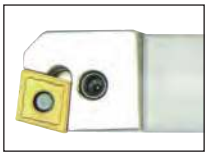
| ISO designation | $l_1$ mm | f mm | For indexable inserts | Right 18430 | ... | Left 18431 | ... |
|---|---|---|---|---|---|---|---|
| CKJNR/L 2525 M16 | 150 | 32 | KNUX 1604.. | | 101 | | 101 |
| CKJNR/L 3225 P16 | 170 | 32 | KNUX 1604.. | | 102 | | |

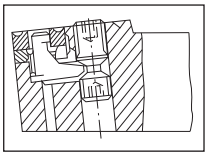
| Spare parts | Bracket | ... | Key | ... |
|---|---|---|---|---|
| Plate size | 18470 | ... | 51809 | ... |
| 16 mm right | | 801 | | 109 |
| 16 mm left | | 802 | | 109 |

| Spare parts | Shim | ... | Screw for bracket | ... | Key | ... |
|---|---|---|---|---|---|---|
| Plate size | 18474 | ... | 18475 | ... | 51809 | ... |
| 16 mm right | | 801 | | 801 | | 106 |
| 16 mm left | | 802 | | 801 | | 106 |

## Info — Clamp holder system P

For indexable inserts with centre bore.
Mounted with clamping lever.

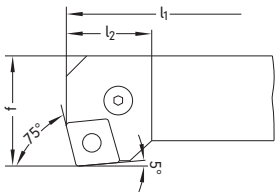




## 18442 - 18443 Clamp holder PCKNR/L

**Design**
**Angle of attack 75°.**

**Applications**
**For indexable insert CN..**




18442

| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18442 | ... | Left 18443 | ... |
|---|---|---|---|---|---|---|---|---|
| PCKNR/L 2020 K12 | 125 | 25 | 25 | CN .. 1204.. | | 301 | | 301 |
| PCKNR/L 2525 M12 | 150 | 25 | 32 | CN .. 1204.. | | 302 | | 302 |

| Spare parts | TORX® size T | Clamping screw 10 | ... | Key | ... | Support plate | ... | Sleeve 10 | ... | Clamping lever | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 12 mm | 15 | | 730 | | 406 | | 725 | | 720 | | 720 |



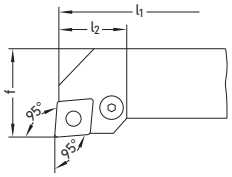


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18444 - 18445 Clamp holder PCLNR/L

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert CN..**




18444

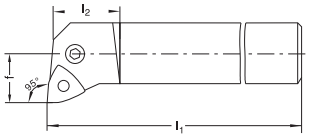
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18444 | ... | Left 18445 | ... |
|---|---|---|---|---|---|---|---|---|
| PCLNR/L 2020 K12 | 125 | 28 | 25 | CN .. 1204.. | | 301 | | 301 |
| PCLNR/L 2525 M12 | 150 | 33 | 32 | CN .. 1204.. | | 302 | | 302 |
| PCLNR/L 3225 P12 | 170 | 33 | 32 | CN .. 1204.. | | 303 | | 303 |
| PCLNR/L 2525 M16 | 150 | 33 | 32 | CN .. 1606.. | | 304 | | 304 |
| PCLNR/L 3225 P16 | 170 | 33 | 32 | CN .. 1606.. | | 305 | | 305 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 12 mm | 15 | | 730 | | 406 | | 725 | | 720 | | 720 |
| 16 mm | 10 | | 734 | | 405 | | 739 | | 726 | | 727 |

## 18446 - 18447 Clamp holder PWLNR/L

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert WN..**




18446

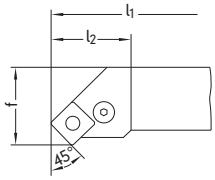
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18446 | ... | Left 18447 | ... |
|---|---|---|---|---|---|---|---|---|
| PWLNR/L 2020 K06 | 125 | 28 | 25 | WN .. 0604.. | | 299 | | 299 |
| PWLNR/L 2525 M06 | 150 | 33 | 32 | WN .. 0604.. | | 300 | | 300 |
| PWLNR/L 2020 K08 | 125 | 28 | 25 | WN .. 0804.. | | 301 | | 301 |
| PWLNR/L 2525 M08 | 150 | 33 | 32 | WN .. 0804.. | | 302 | | 302 |
| PWLNR/L 3225 P08 | 170 | 33 | 32 | WN .. 0804.. | | 304 | | 304 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 6 mm | 10 | | 733 | | 405 | | 738 | | 725 | | 726 |
| 8 mm | 15 | | 730 | | 406 | | 734 | | 720 | | 720 |

## 18448 - 18449 Clamp holder PSSNR/L

**Design**
**Angle of attack 45°.**

**Applications**
**For indexable insert SN..**




18448

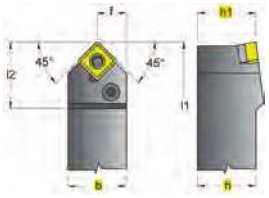
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18448 | ... | Left 18449 | ... |
|---|---|---|---|---|---|---|---|---|
| PSSNR/L 2020 K12 | 125 | 30 | 25 | SN .. 1204.. | | 301 | | 301 |
| PSSNR/L 2525 M12 | 150 | 30 | 32 | SN .. 1204.. | | 302 | | 302 |
| PSSNR/L 3225 P12 | 170 | 32 | 32 | SN .. 1204.. | | 303 | | 303 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 12 mm | 15 | | 730 | | 406 | | 730 | | 720 | | 720 |

## 18450 Clamp holder PSDNN

**Design**
**Angle of attack 45°.**

**Applications**
**For indexable insert SN..**




18450

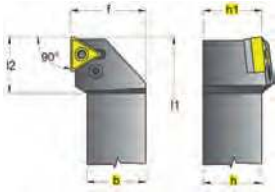
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Neutral 18450 ... |
|---|---|---|---|---|---|
| PSDNN 2020 K12 | 125 | 28 | 10.3 | SN .. 1204.. | 301 |
| PSDNN 2525 M12 | 150 | 29 | 12.8 | SN .. 1204.. | 302 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 12 mm | 15 | | 730 | | 406 | | 730 | | 720 | | 720 |

## 18451 - 18452 Clamp holder PTGNR/L

**Design**
**Angle of attack 90°.**

**Applications**
**For indexable insert TN..**




18451

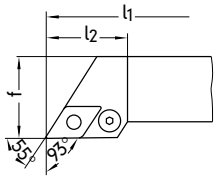
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18451 ... | Left 18452 ... |
|---|---|---|---|---|---|---|
| PTGNR/L 2020 K16 | 125 | 20 | 25 | TN .. 1604.. | 301 | 301 |
| PTGNR/L 2525 M16 | 150 | 21 | 32 | TN .. 1604.. | 302 | 302 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 16 mm | 9 | | 731 | | 404 | | 731 | | 721 | | 721 |

## 18453 - 18454 Clamp holder PDJNR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert DN..**




18453

| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18453 ... | Left 18454 ... |
|---|---|---|---|---|---|---|
| PDJNR/L 1616 H11 | 100 | 31 | 20 | DN .. 1104.. | 298 | 298 |
| PDJNR/L 2020 K11 | 125 | 28 | 25 | DN .. 1104.. | 299 | 299 |
| PDJNR/L 2020 K15 | 125 | 35 | 25 | DN .. 1506.. | 301 | 301 |
| PDJNR/L 2525 M15 | 150 | 39 | 32 | DN .. 1506.. | 302 | 302 |
| PDJNR/L 3225 P15 | 170 | 33 | 32 | DN .. 1506.. | 303 | 303 |

| Spare parts | | Clamping screw 10 | | Wrench | | Support plate | | Sleeve 10 | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 11 mm | 10 | | 733 | | 405 | | 737 | | 725 | | 725 |
| 15 mm | 15 | | 732 | | 406 | | 732 | | 720 | | 722 |

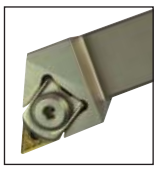


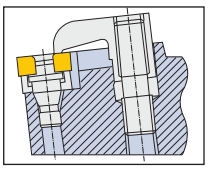

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Info — Clamp holder system M

HW

For indexable inserts with centre bore.
Mounted with adjustable clamp.



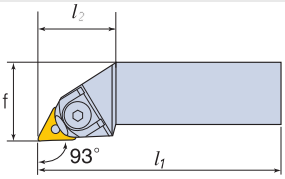


## 18460 - 18461 Clamp holder MTJNR/L

HW

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert TNM..**




18460

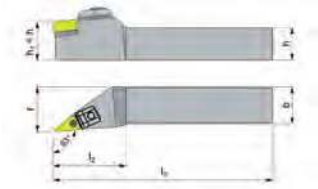
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18460 | ... | Left 18461 | ... |
|---|---|---|---|---|---|---|---|---|
| MTJNR/L 2020-K16 | 125 | 32 | 25 | TNM .. 16.. | | 201 | | 201 |
| MTJNR/L 2525-M16 | 150 | 32 | 32 | TNM .. 16.. | | 202 | | 202 |

| Spare parts | Key | | Clamping pin | | Bracket | | Shim | |
|---|---|---|---|---|---|---|---|---|
| Plate size | 51809 | ... | 18471 | ... | 18472 | ... | 18473 | ... |
| 16 mm | 106 | | 601 | | 601 | | 601 | |

## 18464 - 18465 Clamp holder MVJNR/L

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert VN..**



18464

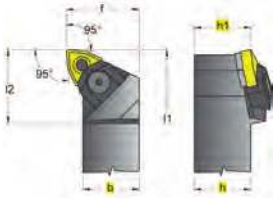
| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18464 | ... | Left 18465 | ... |
|---|---|---|---|---|---|---|---|---|
| MVJNR/L 2020-K16 | 125 | 32 | 25 | VN .. 16.. | | 101 | | 101 |
| MVJNR/L 2525-M16 | 150 | 32 | 32 | VN .. 16.. | | 102 | | 102 |

| Spare parts | Key | | Clamping pin | | Bracket | | Shim | |
|---|---|---|---|---|---|---|---|---|
| Plate size | 51809 | ... | 18471 | ... | 18472 | ... | 18473 | ... |
| 16 mm | 107 | | 601 | | 604 | | 604 | |

## 18462 - 18463 Clamp holder MWLNR/L

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert WN..**




18462

| ISO designation | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18462 | ... | Left 18463 | ... |
|---|---|---|---|---|---|---|---|---|
| MWLNR/L 2020-K08 | 125 | 34 | 25 | WN .. 08.. | | 204 | | 204 |
| MWLNR/L 2525-M08 | 150 | 34 | 32 | WN .. 08.. | | 205 | | 205 |
| MWLNR/L 3232-P08 | 170 | 35 | 40 | WN .. 08.. | | 206 | | 206 |

| Spare parts | Key | | Clamping pin | | Bracket | | Shim | |
|---|---|---|---|---|---|---|---|---|
| Plate size | 51809 | ... | 18471 | ... | 18472 | ... | 18473 | ... |
| 8 mm | 107 | | 602 | | 603 | | 603 | |

## Info — Clamp holder system MaxiLock D

CUTTING SOLUTIONS BY CERATIZIT

The number-one choice for machining with negative centre hole plates.
**Reliable and precise positioning** of the indexable insert thanks to **double clamping action** of the clamping element.
Delivered with 1 spare shim.

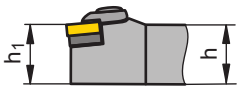
- Clamping element
- Indexable insert
- Shim
- Pin
- Screw

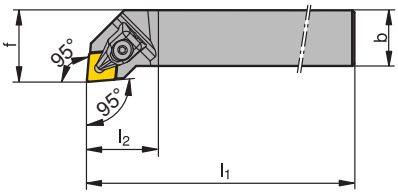
## 19500 Clamp holder MaxiLock D DCLN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 95°**

**Applications**
**For indexable insert CN..**




19500

| ISO designation | $h_1$ mm | h mm | b mm | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 19500 | ... | Left 19500 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DCLNR/L 2020 K12 | 20 | 20 | 20 | 125 | 32 | 25 | CN.. 1204.. | | 101 | | 201 |
| DCLNR/L 2525 M12 | 25 | 25 | 25 | 150 | 32 | 32 | CN.. 1204.. | | 102 | | 202 |
| DCLNR/L 3225 P12 | 32 | 32 | 25 | 170 | 32 | 32 | CN.. 1204.. | | 103 | | 203 |



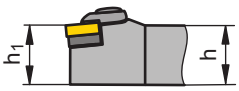

| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| CN.. 1204.. | M 4.5 x 12.0 | U-CN12T3 | SET-02-D | IP 15 | | 102 | | 101 | | 102 | | 407 |

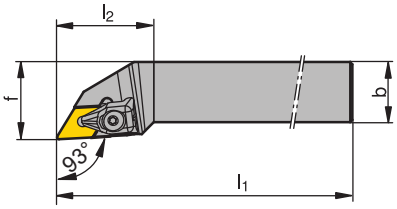
## 19501 Clamp holder MaxiLock D DDJN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 93°**

**Applications**
**For indexable insert DN..**




19501

| ISO designation | $h_1$ mm | h mm | b mm | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 19501 | ... | Left 19501 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DDJNR/L 1616 H11 | 16 | 16 | 16 | 100 | 33 | 20 | DN.. 1104.. | | 101 | | 201 |
| DDJNR/L 2020 K11 | 20 | 20 | 20 | 125 | 40 | 25 | DN.. 1104.. | | 102 | | 202 |
| DDJNR/L 2020 K15 | 20 | 20 | 20 | 125 | 40 | 25 | DN.. 1506.. | | 103 | | 203 |
| DDJNR/L 2525 M15 | 25 | 25 | 25 | 150 | 40 | 32 | DN.. 1506.. | | 104 | | 204 |
| DDJNR/L 3225 P15 | 32 | 32 | 25 | 170 | 40 | 32 | DN.. 1506.. | | 105 | | 205 |




| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| DN.. 1104.. | M 3.0 x 7.0 | U-DN1103-D | SET-01L-D | IP 9 | | 101 | | 102 | | 101 | | 405 |
| DN.. 1506.. | M 4.5 x 12.0 | U-DN15T3-D | SET-02-D | IP 15 | | 102 | | 103 | | 102 | | 407 |





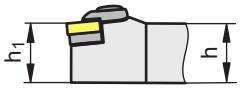
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

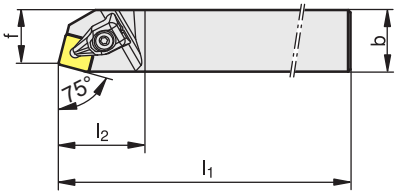
## 19502 Clamp holder MaxiLock D DSBN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 75°**

**Applications**
**For indexable insert SN..**




19502

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Right 19502 | ... | Left 19502 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DSBNR/L 2020 K12 | 20 | 20 | 20 | 125 | 35 | 17 | SN.. 1204.. | | 101 | | 201 |
| DSBNR/L 2525 M12 | 25 | 25 | 25 | 150 | 35 | 22 | SN.. 1204.. | | 102 | | 202 |
| DSBNR/L 3232 P15 | 32 | 32 | 32 | 170 | 42 | 27 | SN.. 1506.. | | 103 | | 203 |

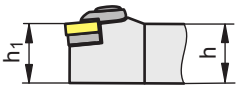
| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| SN.. 1204.. | M 4.5 x 12.0 | U-SN12T3-D | SET-02-D | IP 15 | | 102 | | 104 | | 102 | | 407 |
| SN.. 1506.. | M 5.0 x 14.0 | U-SN1504-D | SET-03-D | IP 20 | | | | 105 | | 103 | | 408 |

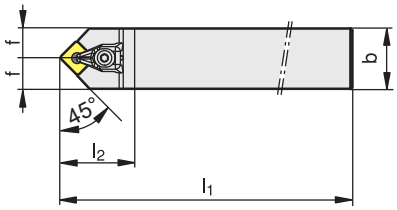
## 19503 Clamp holder MaxiLock D DSDN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 45°**

**Applications**
**For indexable insert SN..**




19503

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Neutral 19503 | ... |
|---|---|---|---|---|---|---|---|---|---|
| DSDNN 2020 K12 | 20 | 20 | 20 | 125 | 38 | 10 | SN.. 1204.. | | 101 |
| DSDNN 2525 M12 | 25 | 25 | 25 | 150 | 38 | 13 | SN.. 1204.. | | 102 |

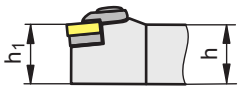
| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| SN.. 1204.. | M 4.5 x 12.0 | U-SN12T3-D | SET-02-D | IP 15 | | 102 | | 104 | | 102 | | 407 |

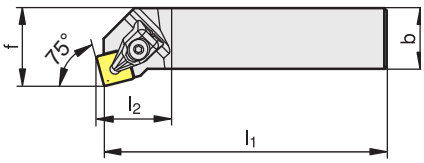
## 19504 Clamp holder MaxiLock D DSKN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 75°**

**Applications**
**For indexable insert SN..**




19504

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Right 19504 | ... | Left 19504 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DSKNR/L 2525 M12 | 25 | 25 | 25 | 150 | 31 | 32 | SN.. 1204.. | | 101 | | 201 |

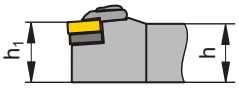
| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| SN.. 1204.. | M 4.5 x 12.0 | U-SN12T3-D | SET-02-D | IP 15 | | 102 | | 104 | | 102 | | 407 |

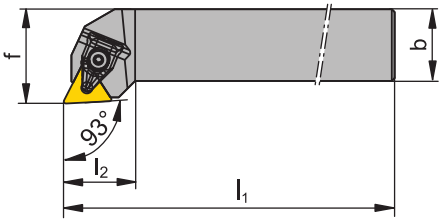
## 19505 Clamp holder MaxiLock D DTJN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 93°**

**Applications**
**For indexable insert TN..**




19505

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Right 19505 | ... | Left 19505 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DTJNR/L 2020 K16 | 20 | 20 | 20 | 125 | 23 | 25 | TN.. 1604.. | | 101 | | 201 |
| DTJNR/L 2525 M16 | 25 | 25 | 25 | 150 | 24 | 32 | TN.. 1604.. | | 102 | | 202 |



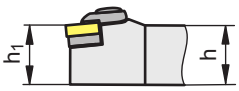

| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| TN.. 1604.. | M 3.0 x 7.0 | U-TN1603-D | SET-01-D | IP 9 | | 101 | | 106 | | 104 | | 405 |

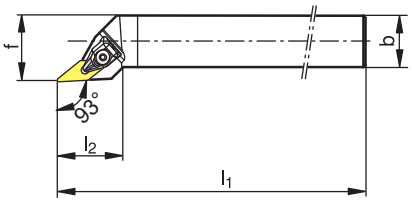
## 19506 Clamp holder MaxiLock D DVJN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 93°**

**Applications**
**For indexable insert VN..**




19506

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Right 19506 | ... | Left 19506 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DVJNR/L 2020 K16 | 20 | 20 | 20 | 125 | 39 | 25 | VN.. 1604.. | | 101 | | 201 |
| DVJNR/L 2525 M16 | 25 | 25 | 25 | 150 | 39 | 32 | VN.. 1604.. | | 102 | | 202 |



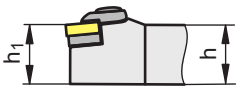

| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| VN.. 1604.. | M 3.0 x 7.0 | U-VN1603-D | SET-01L-D | IP 9 | | 101 | | 107 | | 101 | | 405 |

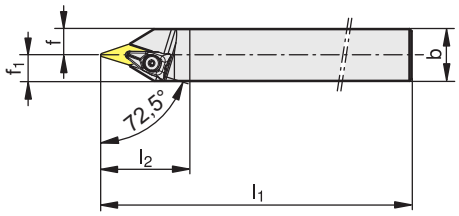
## 19507 Clamp holder MaxiLock D DVVN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 72°**

**Applications**
**For indexable insert VN..**




19507

| ISO designation | h1 mm | h mm | b mm | l1 mm | l2 mm | f mm | For indexable inserts | Neutral 19507 | ... |
|---|---|---|---|---|---|---|---|---|---|
| DVVNN 2020 K16 | 20 | 20 | 20 | 125 | 43 | 7.5 | VN.. 1604.. | | 101 |
| DVVNN 2525 M16 | 25 | 25 | 25 | 150 | 43 | 13.0 | VN.. 1604.. | | 102 |




| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| VN.. 1604.. | M 3.0 x 7.0 | U-VN1603-D | SET-01L-D | IP 9 | | 101 | | 107 | | 101 | | 405 |





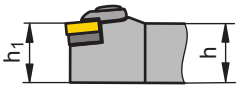
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

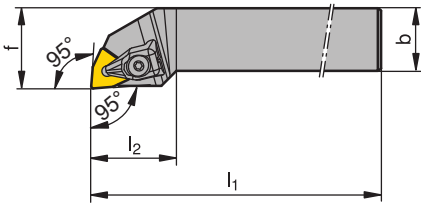
## 19508 Clamp holder MaxiLock D DWLN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Angle of attack 95°

**Applications**
For indexable insert WN..





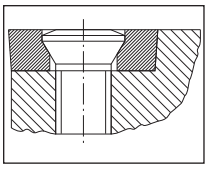
| ISO designation | $h_1$ mm | h mm | b mm | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 19508 | ... | Left 19508 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DWLNR/L 1616 H06 | 16 | 16 | 16 | 100 | 25 | 20 | WN.. 0604.. | | 101 | | 201 |
| DWLNR/L 2020 K06 | 20 | 20 | 20 | 125 | 27 | 25 | WN.. 0604.. | | 102 | | 202 |
| DWLNR/L 2020 K08 | 20 | 20 | 20 | 125 | 34 | 25 | WN.. 0804.. | | 103 | | 203 |
| DWLNR/L 2525 M06 | 25 | 25 | 25 | 150 | 27 | 32 | WN.. 0604.. | | 104 | | 204 |
| DWLNR/L 2525 M08 | 25 | 25 | 25 | 150 | 34 | 32 | WN.. 0804.. | | 105 | | 205 |

| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| WN.. 0604.. | M 3.0 x 7.0 | U-WN0603-D | SET-01-D | IP 9 | | 101 | | 108 | | 104 | | 405 |
| WN.. 0804.. | M 4.5 x 12.0 | U-WN08T3-D | SET-02-D | IP 15 | | 102 | | 109 | | 102 | | 407 |

## Info Boring bars system S

ATORN® HHW

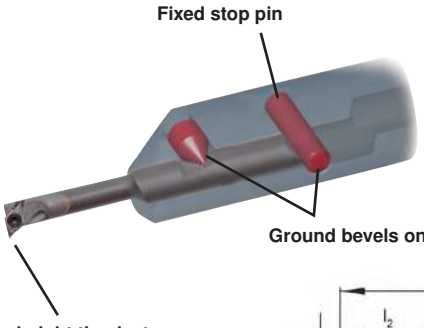
Indexable insert mounted with central screw.



## 18477 Miniature extractor range

ATORN®

- Innovative mini extractor range from diameter 4.8 mm with CD.., CP.., WC.., VC.. Indexable inserts
- Extremely economical and universal thanks to boring bar holder
- Innovative clamping technology for process-reliable series production




NEW

18477 101


18477 102-103


**18477 101-103**
**Design**
- With stop pin and fixing pin
- Innovative system with perfect fixing of the tool

| l mm | l1 mm | l2 mm | D mm | D2 mm | d mm | Miniature boring-bar holder 18477 | ... | Threaded bolt 18477 | ... | Coolant locking ring 18477 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 120 | 95 | 25 | 4 | 12 | 16 | | 101 | | 210 | | 212 |
| 120 | - | - | 6 | - | 16 | | 102 | | 211 | | |
| 120 | - | - | 8 | - | 16 | | 103 | | 211 | | |

Continued

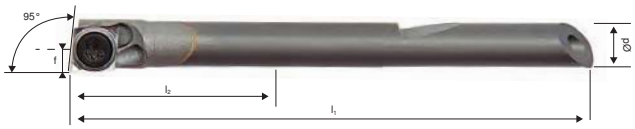
## 18477 Miniature extractor range

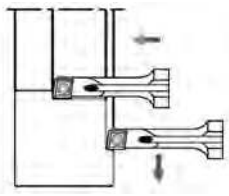
Continued

### 18477 104-105

**Design**
- Precision-manufactured boring bar made from solid carbide, with internal cooling
- Offset, type C
- Angle of attack 95°

**Applications**
Universal use for turning and facing and for longitudinal turning.



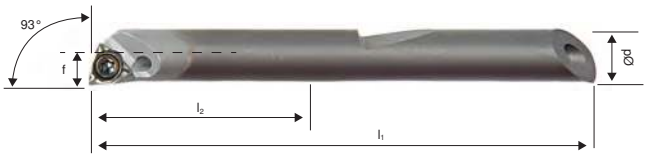
18477 104-105

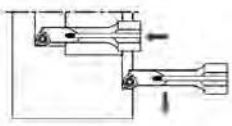
| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|
| E04-SCLDR04-AX | 4.8 | 4 | 24 | 46 | 2.4 | CD.. 0401 | 104 |
| E06-SCLDR04-AX | 6.8 | 6 | 37 | 65 | 3.4 | CD.. 0401 | 105 |

### 18477 106

**Design**
- Precision-manufactured boring bar made from solid carbide, with internal cooling
- Offset, type W
- Angle of attack 93°
- Positive body geometry ensures low cutting forces

**Applications**
Universal use for turning and facing and for longitudinal turning.



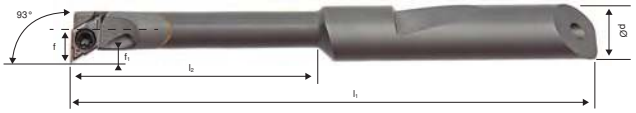



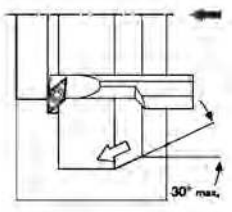
18477 106

| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|
| E06-SWUCR02-AX | 7.8 | 6 | 37 | 65 | 3.9 | WC.. 0201 | 106 |

### 18477 107-108

**Design**
- Precision-manufactured boring bar made from solid carbide, with internal cooling
- Offset, type D
- Angle of attack 93.5°
- Slim contour optimised for longitudinal and copy turning
- Positive body geometry ensures low cutting forces



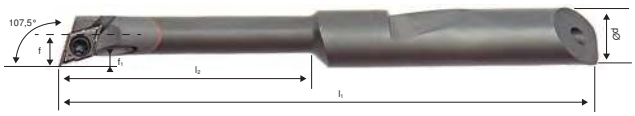



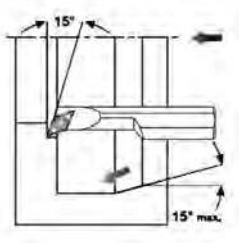

18477 107-108

| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | $f_1$ mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|---|
| E0406-SDUCR04-AX | 5.6 | 6 | 26 | 56 | 3 | 1.5 | DC.. 04.. | 107 |
| E0408-SDUCR04-AX | 5.6 | 8 | 26 | 57 | 3 | 1.5 | DC.. 04.. | 108 |

### 18477 109-110

**Design**
- Precision-manufactured boring bar made from solid carbide, with internal cooling
- Offset, type D
- Angle of attack 107.5°
- Slim contour optimised for longitudinal and copy turning
- Positive body geometry ensures low cutting forces




18477 109-110

| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | $f_1$ mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|---|
| E0406-SDQCR04-AX | 5.2 | 6 | 26 | 56 | 2.6 | 1.1 | DC.. 04.. | 109 |
| E0408-SDQCR04-AX | 5.2 | 8 | 26 | 57 | 2.6 | 1.1 | DC.. 04.. | 110 |

Continued

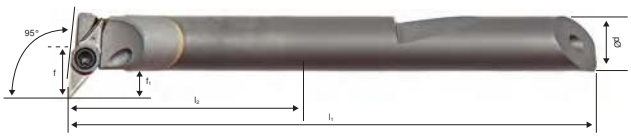
Continued

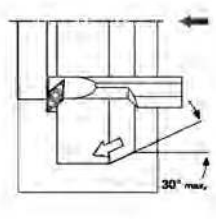
**18477 111-112**

**Design**
- Precision-manufactured boring bar made from solid carbide with internal cooling
- Offset, type V
- Angle of attack 95°
- Slim contour optimised for longitudinal and copy turning
- Positive body geometry ensures low cutting forces

NEW

18477 111-112



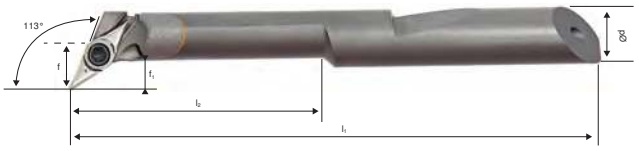

| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | $f_1$ mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|---|
| E0406-SVLRC05-AX | 9.2 | 6 | 26 | 56 | 6 | 3 | VC.. 05.. | 111 |
| E0408-SVLRC05-AX | 9.2 | 8 | 26 | 57 | 5 | 3 | VC.. 05.. | 112 |

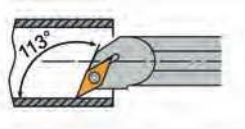
**18477 113-114**

**Design**
- Precision-manufactured boring bar made from solid carbide, with internal cooling
- Offset, type V
- Angle of attack 113°
- Slim contour optimised for longitudinal and copy turning
- Positive body geometry ensures low cutting forces

NEW

18477 113-114




| ISO designation | Ø D min. mm | d mm | $l_2$ mm | $l_1$ mm | f mm | $f_1$ mm | For indexable inserts | 18477 ... |
|---|---|---|---|---|---|---|---|---|
| E0406-SVXCR05-AX | 8.2 | 6 | 26 | 56 | 5 | 3 | VC.. 05.. | 113 |
| E0408-SVXCR05-AX | 9.2 | 8 | 26 | 57 | 5 | 3 | VC.. 05.. | 114 |

NEW

## Indexable inserts and spare parts

18477 201

18477 202

18477 203-204

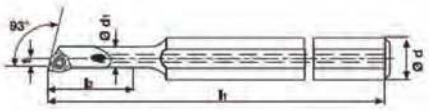
| Applications<br>Cemented carbide grade<br>Coating | | N<br>HC 6315<br>uncoated | | P<br>HC 7625<br>coated | | N<br>HW 6315<br>uncoated | |
|---|---|---|---|---|---|---|---|
| ISO Designation | | 18477 | ... | 18477 | ... | 18477 | ... |
| DCGT 04T002-MN | | | 201 | | | | |
| DCGT 04T002-FP1 | | | | | 202 | | |
| VCGT 050102-MN | | | | | | | 203 |
| VCGT 050102-FP1 | | | | | 204 | | |

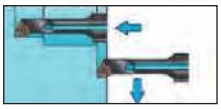
| Spare parts | | Clamping screw | |
|---|---|---|---|
| Screw size | TORX®size T | 18477 | ... |
| M2 x 3 | 6 | | 214 |
| M1.6 x 3.5 | 5 | | 215 |

## 18478 Mini boring bar SWUCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 93°.**
**Applications**
**For indexable inserts WCGT 0201..**





18478 105

18478 121-122

| ISO designation | Ø d mm | f mm | $d_1$ mm | $l_1$ mm | $l_2$ mm | Ø D min. mm | For indexable inserts | Steel/right 18478 ... | Steel/left 18478 ... |
|---|---|---|---|---|---|---|---|---|---|
| A 0508H SWUCR/L 02 | 8 | 2.9 | 5 | 100 | 18 | 5.8 | WCGT 0201 | 101 | 105 |
| A 0608H SWUCR/L 02 | 8 | 3.9 | 6 | 100 | 24 | 7.8 | WCGT 0201 | 102 | 106 |

| ISO designation | Ø d mm | f mm | $d_1$ mm | $l_1$ mm | $l_2$ mm | Ø D min. mm | For indexable inserts | Solid carbide/right 18478 ... | Solid carbide/left 18478 ... |
|---|---|---|---|---|---|---|---|---|---|
| E 0508H SWUCR/L 02 | 8 | 2.9 | 5 | 100 | 18 | 5.8 | WCGT 0201 | 111 | 115 |
| E 0608H SWUCR/L 02 | 8 | 3.9 | 6 | 100 | 24 | 7.8 | WCGT 0201 | 112 | 116 |

| ISO designation | Ø d mm | f mm | $l_1$ mm | Ø d mm | For indexable inserts | Solid carbide/right 18478 ... | Solid carbide/left 18478 ... |
|---|---|---|---|---|---|---|---|
| E 05F SWUCR/L 02 | 5 | 2.9 | 85 | 5.8 | WCGT 0201 | 121 | 125 |
| E 06G/L02 SWUCR | 6 | 3.9 | 95 | 7.8 | WCGT 0201 | 122 | 126 |

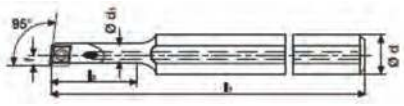
| Spare parts | | Clamping screw 18470 ... | Wrench 52529 ... |
|---|---|---|---|
| Plate size | TORX®size T | | |
| 2 mm | 7 | 749 | 402 |

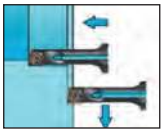
## 18479 Mini boring bar SCLDR/L with internal cooling

ATORN®

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable inserts CDGT 0401...**
**For special mini machining tasks and**
**for automated longitudinal turning machines**
**from diameter 4.8 mm.**





18479

| ISO designation | f mm | $d_1$ mm | $l_1$ mm | Ø D min. mm | For indexable inserts | Steel/right 18479 ... | Steel/left 18479 ... |
|---|---|---|---|---|---|---|---|
| A 04E SCLDR/L 04 | 2.4 | 4 | 70 | 4.8 | CDGT 0401.. | 101 | 111 |
| A 05E SCLDR/L 04 | 2.9 | 5 | 70 | 5.8 | CDGT 0401.. | 102 | 112 |
| A 06F SCLDR/L 04 | 3.4 | 6 | 80 | 6.8 | CDGT 0401.. | 103 | 113 |

| ISO designation | Ø d mm | f mm | $d_1$ mm | $l_1$ mm | $l_2$ mm | Ø D min. mm | For indexable inserts | Steel/right 18479 ... | Steel/left 18479 ... |
|---|---|---|---|---|---|---|---|---|---|
| A 0408H SCLDR/L 04 | 8 | 2.4 | 4 | 100 | 16 | 4.8 | CDGT 0401.. | 121 | 131 |
| A 0508H SCLDR/L 04 | 8 | 2.9 | 5 | 100 | 20 | 5.8 | CDGT 0401.. | 122 | 132 |
| A 0608H SCLDR/L 04 | 8 | 3.4 | 6 | 100 | 24 | 6.8 | CDGT 0401.. | 123 | 133 |

| ISO designation | f mm | $d_1$ mm | $l_1$ mm | Ø D min. mm | For indexable inserts | Solid carbide/right 18479 ... | Solid carbide/left 18479 ... |
|---|---|---|---|---|---|---|---|
| E 04F SCLDR/L 04 | 2.4 | 4 | 80 | 4.8 | CDGT 0401.. | 141 | 151 |
| E 05F SCLDR/L 04 | 2.9 | 5 | 80 | 5.8 | CDGT 0401.. | 142 | 152 |
| E 06G SCLDR/L 04 | 3.4 | 6 | 95 | 6.8 | CDGT 0401.. | 143 | 153 |

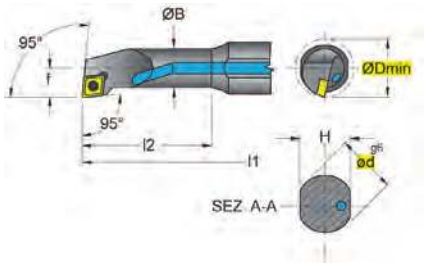
| ISO designation | Ø d mm | f mm | $d_1$ mm | $l_1$ mm | $l_2$ mm | Ø D min. mm | For indexable inserts | Solid carbide/right 18479 ... | Solid carbide/left 18479 ... |
|---|---|---|---|---|---|---|---|---|---|
| E 0408H SCLDR/L 04 | 8 | 2.4 | 4 | 100 | 16 | 4.8 | CDGT 0401.. | 161 | 171 |
| E 0508H SCLDR/L 04 | 8 | 2.9 | 5 | 100 | 20 | 5.8 | CDGT 0401.. | 162 | 172 |
| E 0608H SCLDR/L 04 | 8 | 3.4 | 6 | 100 | 24 | 6.8 | CDGT 0401.. | 163 | 173 |

| Spare parts | | Clamping screw 18470 ... | Wrench 52529 ... |
|---|---|---|---|
| Plate size | TORX®size T | | |
| 4 mm | 6 | 750 | 401 |

ATORN®

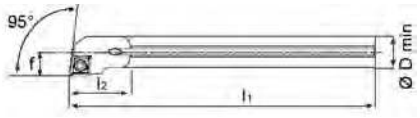
**Design**
**Angle of attack 95°, each with 1 boring bar, in case.**

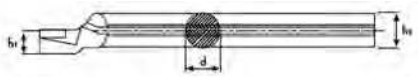
**Applications**
**For indexable insert CCMT 0602...**




18482 201-302

| 18482 201-302<br>Set contents | Ø D<br>mm | d<br>mm | f<br>mm | Ø B<br>mm | $l_1$<br>mm | $l_2$<br>mm | H<br>mm |
|---|---|---|---|---|---|---|---|
| 0608H-SCLCR/L-06 | 8.5 | 8 | 4 | 6 | 100 | 20 | 7 |
| 0810J-SCLCR/L-06 | 10.5 | 10 | 6 | 8 | 110 | 26 | 9 |
| 1012K-SCLCR/L-06 | 12.5 | 12 | 7 | 10 | 125 | 32 | 11 |
| 1216M-SCLCR/L-06 | 15.5 | 16 | 9 | 12 | 150 | 40 | 15 |




18482 401-402

| 18482 401-402<br>Set contents | d<br>mm | f<br>mm | $l_1$<br>mm | $l_2$<br>mm | $h_1$<br>mm | $h_2$<br>mm | Ø D min.<br>mm |
|---|---|---|---|---|---|---|---|
| E 08K SCLCR/L-06 | 8 | 5 | 125 | - | 3.5 | 7.5 | 11.0 |
| E 10K SCLCR/L-06 | 10 | 6 | 125 | 10 | 4.5 | 9.5 | 14.0 |
| E 12M SCLCR/L-06 | 12 | 8 | 150 | 10 | 5.5 | 11.5 | 17.0 |

| Set | Shank | Version | Content | 18482 ... |
|---|---|---|---|---|
| A-SCLCR-06 | Steel | Right | 4 pcs. | 201 |
| A-SCLCL-06 | Steel | Left | 4 pcs. | 202 |
| AH-SCLCR-06 | HSS | Right | 4 pcs. | 301 |
| AH-SCLCL-06 | HSS | Left | 4 pcs. | 302 |
| E-SCLCR-06 | Solid carbide | Right | 3 pcs. | 401 |
| E-SCLCL-06 | Solid carbide | Left | 3 pcs. | 402 |

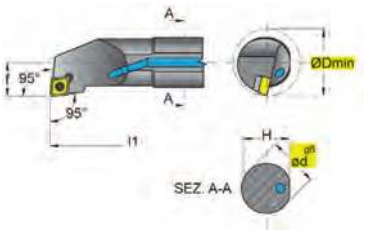
## 18484 - 18485 Boring bars SCLCR/L with internal cooling (steel + HSS)

ATORN®

**Design**
**Angle of attack 95°.**
**Applications**
**For indexable insert CC.**

**18484 197–207 + 18485 197–207**
**Quality**
**Steel.**

**18484 297–306 + 18485 297–306**
**Quality**
**HSS.**




18484

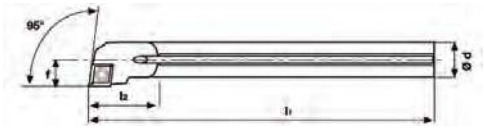
| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Steel/right 18484 | ... | HSS/right 18484 | ... | Steel/left 18485 | ... | HSS/left 18485 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A/AH0608H-SCLCR/L-06 | 8.5 | 8 | 4.0 | 100 | 7.00 | CC .. 0602.. | | 197 | | 297 | | 197 | | 297 |
| A/AH0810J-SCLCR/L-06 | 10.5 | 10 | 6.0 | 110 | 9.00 | CC .. 0602.. | | 198 | | 298 | | 198 | | 298 |
| A/AH1012K-SCLCR/L-06 | 12.5 | 12 | 7.0 | 125 | 11.00 | CC .. 0602.. | | 199 | | 299 | | 199 | | 299 |
| A/AH1216M-SCLCR/L-06 | 15.5 | 16 | 9.0 | 150 | 15.00 | CC .. 0602.. | | 200 | | 300 | | 200 | | 300 |
| A08H-SCLCR/L-06 | 10.0 | 8 | 5.0 | 100 | 7.60 | CC .. 0602.. | | 201 | | | | 201 | | |
| A10K-SCLCR/L-06 | 12.0 | 10 | 7.0 | 125 | 9.50 | CC .. 0602.. | | 202 | | | | 202 | | |
| A12L-SCLCR/L-06 | 16.0 | 12 | 9.0 | 150 | 11.50 | CC .. 0602.. | | 203 | | | | 203 | | |
| A16Q-SCLCR/L-09 | 20.0 | 16 | 11.0 | 180 | 15.25 | CC .. 09T3.. | | 204 | | | | 204 | | |
| A20R-SCLCR/L-09 | 25.0 | 20 | 13.0 | 200 | 19.00 | CC .. 09T3.. | | 205 | | | | 205 | | |
| A25R-SCLCR/L-12 | 32.0 | 25 | 17.0 | 200 | 24.00 | CC .. 1204.. | | 207 | | | | 207 | | |
| AH08K-SCLCR/L-06 | 10.0 | 8 | 5.0 | 125 | 7.60 | CC .. 0602.. | | | | 301 | | | | 301 |
| AH10K-SCLCR/L-06 | 12.0 | 10 | 6.0 | 125 | 9.50 | CC .. 0602.. | | | | 302 | | | | 302 |
| AH12M-SCLCR/L-06 | 14.0 | 12 | 7.0 | 150 | 11.50 | CC .. 0602.. | | | | 303 | | | | 303 |
| AH16Q-SCLCR/L-09 | 18.0 | 16 | 11.0 | 180 | 15.25 | CC .. 09T3.. | | | | 304 | | | | 304 |
| AH20R SCLCR/L-09 | 23.0 | 20 | 13.0 | 200 | 19.00 | CC .. 09T3.. | | | | 305 | | | | 305 |
| AH25R-SCLCR/L-12 | 28.0 | 25 | 15.5 | 200 | 24.00 | CC .. 1204.. | | | | 306 | | | | 306 |

| Spare parts | | | Clamping screw 10 | ... | Wrench | ... |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | | 18470 | | 52529 | |
| 6 mm/rod 0608/0810 | 7 | | | 740 | | 402 |
| 6 mm/rod 1012/1216 | 8 | | | 741 | | 403 |
| 6 mm/rod 08 | 7 | | | 740 | | 402 |
| 6 mm/rod 10/12 | 8 | | | 741 | | 403 |
| 9 mm/rod 16/20 | 15 | | | 742 | | 406 |
| 12 mm/rod 25 | 15 | | | 722 | | 406 |

## 18486 - 18487 Solid-carbide boring bars SCLCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 95°.**
**Applications**
**For indexable insert CC.**




18486

| ISO designation | Ø d mm | $l_1$ mm | $l_2$ mm | f mm | Ø D min. mm | For indexable inserts | Right 18486 | ... | Left 18487 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| E08K-SCLCR/L-06 | 8 | 125 | 10 | 5 | 9.0 | CC.. 0602.. | | 101 | | 101 |
| E10K-SCLCR/L-06 | 10 | 125 | 10 | 6 | 11.0 | CC.. 0602.. | | 102 | | 102 |
| E12M-SCLCR/L-06 | 12 | 150 | 10 | 8 | 13.0 | CC.. 0602.. | | 103 | | 103 |
| E16R-SCLCR/L-09 | 16 | 200 | 16 | 10 | 18.0 | CC.. 09T3.. | | 104 | | 104 |
| E20S-SCLCR/L-09 | 20 | 250 | 16 | 12 | 23.0 | CC.. 09T3.. | | 105 | | 105 |

| Spare parts | | | Clamping screw 10 | ... | Wrench | ... |
|---|---|---|---|---|---|---|
| Plate size | TORX® size T | | 18470 | | 52529 | |
| 6 mm/rod 08 | 7 | | | 740 | | 402 |
| 6 mm/rod 10/12 | 8 | | | 741 | | 403 |
| 9 mm/rod 9/12/16 | 15 | | | 742 | | 406 |





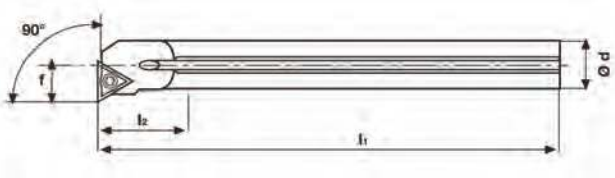
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18490 - 18491 Boring bars STFCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 90°.**

**Applications**
**For indexable insert TC..**




18490

| ISO designation | Ø D mm | d mm | $l_1$ mm | $l_2$ mm | f mm | For indexable inserts | Right 18490 | ... | Left 18491 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A10K-STFCR/L-11 | 14 | 10 | 125 | 16 | 7 | TC.. 1102.. | | 201 | | 201 |
| A12L-STFCR/L-11 | 18 | 12 | 140 | 20 | 9 | TC.. 1102.. | | 202 | | 202 |
| A16Q-STFCR/L-11 | 22 | 16 | 180 | 25 | 11 | TC.. 1102.. | | 203 | | 203 |
| A20R-STFCR/L-16 | 26 | 20 | 200 | 32 | 13 | TC.. 16T3.. | | 204 | | 204 |
| A25R-STFCR/L-16 | 34 | 25 | 200 | 40 | 17 | TC.. 16T3.. | | 205 | | 205 |
| A32S-STFCR/L-16 | 40 | 32 | 250 | 21 | 22 | TC.. 16T3.. | | 206 | | 206 |
| A40T-STFCR/L-16 | 49 | 40 | 300 | 21 | 27 | TC.. 16T3.. | | 207 | | 207 |

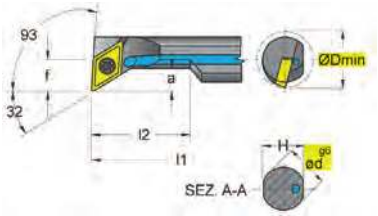

| Spare parts | | Clamping screw 10 | | Wrench | |
|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... |
| 11 mm | 8 | | 715 | | 403 |
| 16 mm | 15 | | 742 | | 406 |

## 18494 Boring bar sets SDUCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 93.5°, each with 1 boring bar, in case.**

**Applications**
**For indexable insert DCMT 0702...**




18494

| 18494 101–201 Set contents | Ø D mm | Ø d mm | f mm | a mm | $l_1$ mm | $l_2$ mm | AR | H mm |
|---|---|---|---|---|---|---|---|---|
| A0810H-SDUCR/L-07 | 12.5 | 10 | 7 | 4 | 100 | 22 | 15° | 9 |
| A1012K-SDUCR/L-07 | 15.5 | 12 | 9 | 5 | 125 | 28 | 13° | 11 |
| A1216M-SDUCR/L-07 | 19.5 | 16 | 11 | 5 | 150 | 36 | 10° | 15 |

| 18494 301–302 Set contents | Ø D mm | Ø d mm | f mm | a mm | $l_1$ mm | $l_2$ mm | AR | H mm |
|---|---|---|---|---|---|---|---|---|
| E0810H-SDUCR/L-07 | 12.5 | 10 | 7 | 4 | 100 | 22 | 15° | 9 |
| E1012K-SDUCR/L-07 | 15.5 | 12 | 9 | 5 | 125 | 28 | 13° | 11 |

| Set | Shank | Version | Contents | 18494 | ... |
|---|---|---|---|---|---|
| A-SDUCR-07 | Steel | Right | 3 pcs. | | 101 |
| A-SDUCL-07 | Steel | Left | 3 pcs. | | 102 |
| AH-SDUCR-07 | HSS | Right | 3 pcs. | | 201 |
| AH-SDUCL-07 | HSS | Left | 3 pcs. | | 202 |
| E-SDUCR-07 | Solid carbide | Right | 2 pcs. | | 301 |
| E-SDUCL-07 | Solid carbide | Left | 2 pcs. | | 302 |

## 18496 - 18497 Boring bars SDUCR/L with internal cooling (steel + HSS)

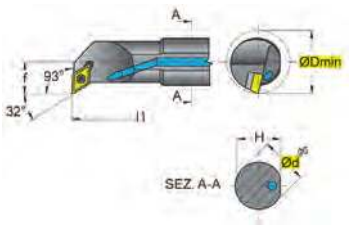
**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert DC..**

**18496 197-207 + 18497 102-197**
HW
**Quality**
**Steel.**

**18496 297-304 + 18497 297-304**
ATORN®
**Quality**
**HSS.**

18496




| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Steel/right 18496 | ... | HSS/right 18496 | ... | Steel/left 18497 | ... | HSS/left 18497 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A/AH0810H-SDUCR/L-07 | 12.5 | 10 | 7.0 | 100 | 9.00 | DC .. 0702.. | | 197 | | 297 | | 197 | | 297 |
| A/AH1012K-SDUCR/L-07 | 15.5 | 12 | 9.0 | 125 | 11.00 | DC .. 0702.. | | 198 | | 298 | | 198 | | 298 |
| A/AH1216M-SDUCR/L-07 | 19.5 | 16 | 11.0 | 150 | 15.00 | DC .. 0702.. | | 199 | | 299 | | 199 | | 299 |
| A12L-SDUCR/L-07 | 16.0 | 12 | 9.0 | 125 | 11.50 | DC .. 0702.. | | 202 | | | | 102 | | |
| A16Q-SDUCR/L-07 | 20.0 | 16 | 11.0 | 150 | 15.25 | DC .. 0702.. | | 203 | | | | 103 | | |
| A20R-SDUCR/L-11 | 25.0 | 20 | 13.0 | 180 | 19.00 | DC .. 11T3.. | | 205 | | | | 105 | | |
| A25R-SDUCR/L-11 | 32.0 | 25 | 17.0 | 200 | 24.00 | DC .. 11T3.. | | 206 | | | | 106 | | |
| A32S-SDUCR/L-11 | 40.0 | 32 | 22.0 | 250 | 31.00 | DC .. 11T3.. | | 207 | | | | 107 | | |
| AH10K-SDUCR/L-07 | 14.0 | 10 | 8.3 | 125 | 9.00 | DC .. 0702.. | | | | 301 | | | | 301 |
| AH12M-SDUCR/L-07 | 16.0 | 12 | 9.3 | 150 | 11.00 | DC .. 0702.. | | | | 302 | | | | 302 |
| AH16Q-SDUCR/L-07 | 20.0 | 16 | 11.3 | 180 | 15.00 | DC .. 0702.. | | | | 303 | | | | 303 |
| AH20R-SDUCR/L-11 | 26.0 | 20 | 16.1 | 200 | 19.00 | DC .. 11T3.. | | | | 304 | | | | 304 |

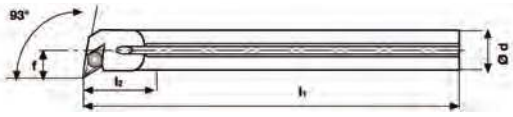
| Spare parts Plate size | TORX® size T | Clamping screw 10 18470 | ... | Wrench 52529 | ... |
|---|---|---|---|---|---|
| 7 mm/rod 0810/1012/1216 | 7 | | 740 | | 402 |
| 7 mm/rod 12 | 8 | | 715 | | 403 |
| 7 mm/rod 16 | 8 | | 720 | | 403 |
| 11 mm/rod 20/25 | 15 | | 724 | | 406 |
| 11 mm/rod 32 mm | 15 | | 724 | | 406 |

## 18518 - 18519 Solid-carbide boring bars SDUCR/L with internal cooling

ATORN®
**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert DC..**

18518




| ISO designation | Ø d mm | $l_1$ mm | $l_2$ mm | f mm | Ø D min. mm | For indexable inserts | Right 18518 | ... | Left 18519 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| E10K SDUCR/L-07 | 10 | 125 | 10.0 | 7 | 12.0 | DC.. 0702.. | | 101 | | 101 |
| E12M-SDUCR/L-07 | 12 | 150 | 12.5 | 9 | 15.0 | DC.. 0702.. | | 102 | | 102 |
| E16R-SDUCR/L-07 | 16 | 200 | 16.5 | 11 | 19.0 | DC.. 0702.. | | 103 | | 103 |
| E20S-SDUCR/L-11 | 20 | 250 | 20.5 | 13 | 23.0 | DC.. 11T3.. | | 104 | | 104 |

| Spare parts Plate size | TORX® size T | Clamping screw 10 18470 | ... | Wrench 52529 | ... |
|---|---|---|---|---|---|
| 7 mm | 8 | | 741 | | 403 |
| 11 mm | 15 | | 742 | | 406 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

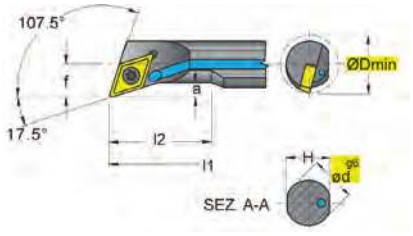
## 18498 Boring bar sets SDQCR/L with internal cooling

ATORN®

**Set ADQ 0812 R/L 07**

**Design**
Three pcs., angle of attack 107.5°, each with one boring bar, in case.

**Applications**
For indexable insert DCMT 0702…




18498

| Version | 18498 | ... |
|---|---|---|
| Right | | 201 |
| Left | | 202 |

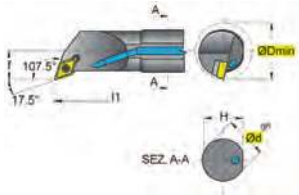
| Set contents | Ø D mm | Ø d mm | f mm | a mm | $l_1$ mm | $l_2$ mm | AR | H mm |
|---|---|---|---|---|---|---|---|---|
| A0810H-SDQCR/L-07 | 12.5 | 10 | 7 | 3 | 100 | 22 | 15° | 9 |
| A1012K-SDQCR/L-07 | 15.5 | 12 | 9 | 4 | 125 | 28 | 13° | 11 |
| A1216M-SDQCR/L-07 | 19.5 | 16 | 11 | 5 | 150 | 36 | 10° | 15 |

## 18500 - 18501 Boring bars SDQCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 107.5°.**

**Applications**
**For indexable insert DC..**




18500

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18500 | ... | Left 18501 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A0810H-SDQCR/L-07 | 12.5 | 10 | 7 | 100 | 9.00 | DC .. 0702.. | | 098 | | 098 |
| A1012K-SDQCR/L-07 | 15.5 | 12 | 9 | 125 | 11.00 | DC .. 0702.. | | 099 | | 099 |
| A1216M-SDQCR/L-07 | 19.5 | 16 | 11 | 150 | 15.00 | DC .. 0702.. | | 100 | | 100 |
| A12L-SDQCR/L-07 | 18.0 | 12 | 9 | 140 | 11.50 | DC .. 0702.. | | 102 | | 102 |
| A16Q-SDQCR/L-07 | 22.0 | 16 | 11 | 180 | 15.25 | DC .. 0702.. | | 103 | | 103 |
| A20Q-SDQCR/L-07 | 25.0 | 20 | 13 | 180 | 19.00 | DC .. 0702.. | | 104 | | 104 |
| A20R-SDQCR/L-11 | 26.0 | 20 | 13 | 200 | 19.00 | DC .. 11T3.. | | 105 | | 105 |
| A25R-SDQCR/L-11 | 34.5 | 25 | 17 | 200 | 24.00 | DC .. 11T3.. | | 106 | | 106 |

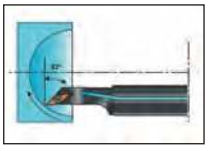
| Spare parts | | Clamping screw 18470 | ... | Wrench 52529 | ... |
|---|---|---|---|---|---|
| Plate size | TORX® size T | | | | |
| 7 mm/rod 0810/1012/1216 | 7 | | 740 | | 402 |
| 7 mm/rod 12/16/20 | 8 | | 741 | | 403 |
| 11 mm/rod 20 | 15 | | 742 | | 406 |
| 11 mm/rod 25 | 15 | | 742 | | 406 |

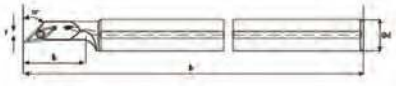
## 18509 Mini boring bar SVJCR/L with internal cooling

ATORN®

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable inserts VCMT/VCGT 0702..**





18509

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Steel/right 18509 | ... | Steel/left 18509 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A 10K SVJCR/L 07 | 13 | 10 | 1.5 | 125 | 18 | VCMT/VCGT 0702.. | | 101 | | 111 |
| A 12L SVJCR/L 07 | 13 | 12 | 2.0 | 140 | 18 | VCMT/VCGT 0702.. | | 102 | | 112 |

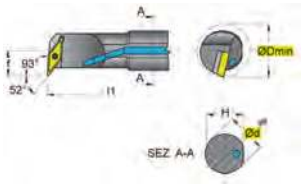
| Spare parts | | Clamping screw 18470 | ... | Wrench 52529 | ... |
|---|---|---|---|---|---|
| Plate size | TORX® size T | | | | |
| 7 mm | 6 | | 748 | | 401 |

## 18512 - 18513 Boring bars SVUCR/L with internal cooling

ATORN®

Design
Angle of attack 93°.

Applications
For indexable insert VC..




18512

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18512 | ... | Left 18513 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A25R-SVUCR/L-16 | 32 | 25 | 17 | 200 | 24 | VC .. 1604.. | | 103 | | 103 |
| A32S-SVUCR/L-16 | 40 | 32 | 22 | 250 | 31 | VC .. 1604.. | | 104 | | 104 |

| Spare parts | | Clamping screw | | Wrench | |
|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... |
| 16 mm | 8 | | 741 | | 403 |

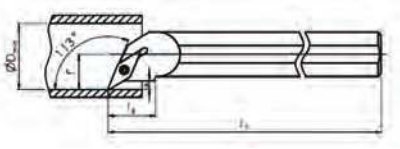
## 18510 Mini boring bars SVXCR/L with internal cooling

ATORN®

Design
Angle of attack 113°.

Applications
For indexable inserts VCMT/VCGT 0702..

18510




| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Steel/right 18510 | ... | Steel/left 18510 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A 10H SVXCR/L 07 | 12.5 | 10 | 7 | 100 | 22 | VCMT/VCGT 0702 | | 101 | | 111 |
| A 12K SVXCR/L 07 | 15.5 | 12 | 9 | 125 | 28 | VCMT/VCGT 0702 | | 102 | | 112 |
| A 16M SVXCR/L 07 | 17.5 | 16 | 11 | 150 | 36 | VCMT/VCGT 0702 | | 103 | | 113 |

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Solid carbide/right 18510 | ... | Solid carbide/left 18510 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| E 10H SVXCR/L 07 | 12.5 | 10 | 7 | 100 | 32 | VCMT/VCGT 0702.. | | 121 | | 131 |
| E 12K SVXCR/L 07 | 15.5 | 12 | 9 | 125 | 40 | VCMT/VCGT 0702.. | | 122 | | 132 |
| E 16M SVXCR/L 07 | 19.5 | 16 | 11 | 150 | 55 | VCMT/VCGT 0702.. | | 123 | | 133 |

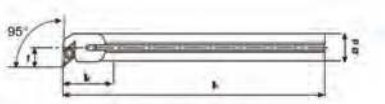
| Spare parts | | Clamping screw | | Wrench | |
|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... |
| 7 mm | 6 | | 748 | | 401 |

## 18511 Mini boring bars SVLCR/L with internal cooling

ATORN®

Design
Angle of attack 95°.

Applications
For indexable inserts VCMT/VCGT 0702..




18511

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Steel/right 18511 | ... | Steel/left 18511 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A 10H SVLCR/L 07 | 12.5 | 10 | 7 | 100 | 22 | VCMT/VCGT 0702.. | | 101 | | 111 |
| A 12K SVLCR/L 07 | 15.5 | 12 | 9 | 125 | 28 | VCMT/VCGT 0702.. | | 102 | | 112 |
| A 16M SVLCR/L 07 | 19.5 | 16 | 11 | 150 | 36 | VCMT/VCGT 0702.. | | 103 | | 113 |

Continued

## 18511 Mini boring bars SVLCR/L with internal cooling

Continued ▶

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Solid carbide/right 18511 ... | Solid carbide/left 18511 ... |
|---|---|---|---|---|---|---|---|---|
| E 10H SVLCR/L 07 | 12.5 | 10 | 7 | 100 | 32 | VCMT/VCGT 0702.. | 121 | 131 |
| E 12K SVLCR/L 07 | 15.5 | 12 | 9 | 125 | 40 | VCMT/VCGT 0702.. | 122 | 132 |
| E 16M SVLCR/L 07 | 19.5 | 16 | 11 | 150 | 55 | VCMT/VCGT 0702.. | 123 | 133 |

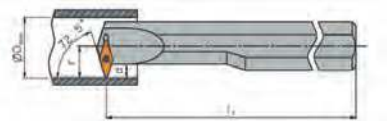
Spare parts

| Plate size | TORX® size T | Clamping screw 10 | 18470 ... | Wrench 52529 ... |
|---|---|---|---|---|
| 7 mm | 6 | | 748 | 401 |

## 18514 Mini boring bars SVVCR/L with internal cooling

ATORN®

Design
Angle of attack 72.5°.
Applications
For indexable inserts VCMT/VCGT 0702..



18514

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Steel/right 18514 ... | Steel/left 18514 ... |
|---|---|---|---|---|---|---|---|---|
| A 10H SVVCR/L 07 | 13.5 | 10 | 8 | 100 | 22 | VCMT/VCGT 0702.. | 101 | 111 |
| A 12K SVVCR/L 07 | 15.5 | 12 | 9 | 125 | 28 | VCMT/VCGT 0702.. | 102 | 112 |
| A 16M SVVCR/L 07 | 17.5 | 16 | 11 | 150 | 36 | VCMT/VCGT 0702.. | 103 | 113 |

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Solid carbide/right 18514 ... | Solid carbide/left 18514 ... |
|---|---|---|---|---|---|---|---|---|
| E 10H SVVCR/L 07 | 13.5 | 10 | 8 | 100 | 32 | VCMT/VCGT 0702.. | 121 | 131 |
| E 12K SVVCR/L 07 | 15.5 | 12 | 9 | 125 | 40 | VCMT/VCGT 0702.. | 122 | 132 |
| E 16M SVVCR/L 07 | 17.5 | 16 | 11 | 150 | 55 | VCMT/VCGT 0702.. | 123 | 133 |

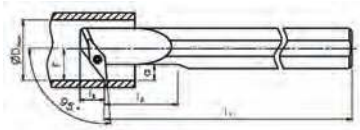
Spare parts

| Plate size | TORX® size T | Clamping screw 10 | 18470 ... | Wrench 52529 ... |
|---|---|---|---|---|
| 7 mm | 6 | | 748 | 401 |

## 18515 Mini boring bars SV95CR/L with internal cooling

ATORN®

Design
Angle of attack 95°.
Applications
For indexable inserts VCMT/VCGT 0702..



18515

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Steel/right 18515 ... | Steel/left 18515 ... |
|---|---|---|---|---|---|---|---|---|
| A 10H SV95CR/L 07 | 12.5 | 10 | 7 | 100 | 22 | VCMT/VCGT 0702.. | 101 | 111 |
| A 12K SV95CR/L 07 | 15.5 | 12 | 9 | 125 | 28 | VCMT/VCGT 0702.. | 102 | 112 |
| A 16M SV95CR/L 07 | 17.5 | 16 | 11 | 150 | 36 | VCMT/VCGT 0702.. | 103 | 113 |

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | $l_2$ mm | For indexable inserts | Solid carbide/right 18515 ... | Solid carbide/left 18515 ... |
|---|---|---|---|---|---|---|---|---|
| E 10H SV95CR/L 07 | 12.5 | 10 | 7 | 100 | 32 | VCMT/VCGT 0702.. | 121 | 131 |
| E 12K SV95CR/L 07 | 15.5 | 12 | 9 | 125 | 40 | VCMT/VCGT 0702.. | 122 | 132 |
| E 16M SV95CR/L 07 | 17.5 | 16 | 11 | 150 | 55 | VCMT/VCGT 0702.. | 123 | 133 |

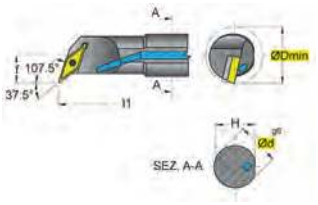
Spare parts

| Plate size | TORX® size T | Clamping screw 10 | 18470 ... | Wrench 52529 ... |
|---|---|---|---|---|
| 7 mm | 6 | | 748 | 401 |

## 18516 - 18517 Boring bars SVQCR/L with internal cooling

**Design**
**Angle of attack 107.5°.**

**Applications**
**For indexable insert VC..**



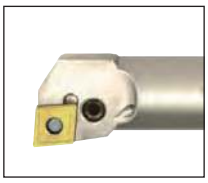

18516

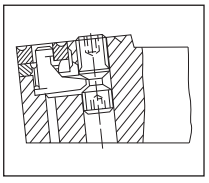
| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18516 | ... | Left 18517 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A25R-SVQCR/L-16 | 32 | 25 | 17 | 200 | 24 | VC .. 1604.. | | 103 | | 103 |

| Spare parts | | Clamping screw 10 | | Wrench | |
|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... |
| 16 mm/rod 25 | 15 | 742 | | 406 | |

## Info Boring bars system P

Indexable insert mounted with clamping lever.

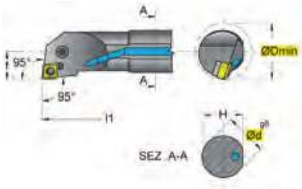




## 18522 - 18523 Boring bars PCLNR/L with internal cooling

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert CN..**




18522

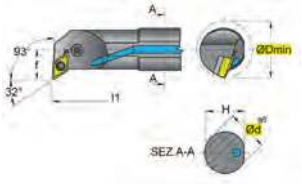
| ISO designation | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18522 | ... | Left 18523 | ... |
|---|---|---|---|---|---|---|---|---|---|
| A25S-PCLNR/L-12 | 25 | 17 | 250 | 23.0 | CN .. 1204.. | | 201 | | 201 |
| A32S-PCLNR/L-12 | 32 | 22 | 250 | 30.0 | CN .. 1204.. | | 202 | | 202 |

| Spare parts | | Clamping screw | | Wrench | | Support plate | | Sleeve | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 12 mm/rod 25 | 10 | | 745 | | 405 | | 605 | | 605 | | 605 |

## 18526 - 18527 Boring bars PDUNR/L with internal cooling

**Design**
**Angle of attack 93°.**

**Applications**
**For indexable insert DN..**




18526

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18526 | ... | Left 18527 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A32S-PDUNR/L-15 | 40 | 32 | 22 | 250 | 31.0 | DN .. 1506.. | | 204 | | 204 |
| A40T-PDUNR/L-15 | 50 | 40 | 27 | 300 | 38.5 | DN .. 1506.. | | 205 | | 205 |

| Spare parts | | Clamping screw | | Wrench | | Support plate | | Sleeve | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 15 mm | 10 | | 605 | | 405 | | 606 | | 605 | | 606 |



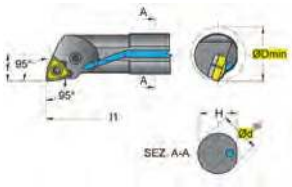


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18530 - 18531 Boring bars PWLNR/L with internal cooling

**Design**
**Angle of attack 95°.**

**Applications**
**For indexable insert WN..**



18530

| ISO designation | Ø D mm | Ø d mm | f mm | $l_1$ mm | H mm | For indexable inserts | Right 18530 | ... | Left 18531 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| A25S-PWLNR/L-08 | 32 | 25 | 17 | 250 | 23.0 | WN .. 0804.. | | 201 | | 201 |
| A32S-PWLNR/L-08 | 40 | 32 | 22 | 250 | 30.0 | WN .. 0804.. | | 202 | | 202 |

| Spare parts | | Clamping screw | | Wrench | | Support plate | | Sleeve | | Clamping lever | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plate size | TORX® size T | 18470 | ... | 52529 | ... | 18471 | ... | 18474 | ... | 18475 | ... |
| 8 mm | 10 | | 605 | | 405 | | 607 | | 605 | | 605 |

## Info Boring bars system MaxiLock D

CUTTING SOLUTIONS BY CERATIZIT

The number-one choice for machining with negative centre hole plates.
**Reliable and precise positioning** of the indexable insert thanks to **double clamping action** of the clamping element.
Delivered with 1 spare shim.

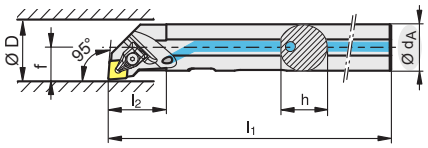
- Clamping element
- Indexable insert
- Shim
- Pin
- Screw

## 19550 Boring bars MaxiLock D DCLN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 95°**

**Applications**
**For indexable inserts CN..**




19550

| ISO designation | Ø $d_A$ mm | h mm | $l_1$ mm | $l_2$ mm | f mm | Ø Dmin mm | For indexable inserts | Right 19550 | ... | Left 19550 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A25R DCLNR/L 12 | 25 | 24 | 200 | 36 | 17 | 32 | CN.. 1204.. | | 101 | | 201 |
| A32S DCLNR/L 12 | 32 | 31 | 250 | 40 | 22 | 40 | CN.. 1204.. | | 102 | | 202 |
| A40T DCLNR/L 12 | 40 | 39 | 300 | 45 | 27 | 50 | CN.. 1204.. | | 103 | | 203 |

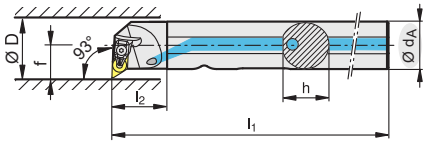
| Spare parts | | | | | Screw | | Shim | | Bracket | | Key | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | ... | 19991 | ... | 19992 | ... | 51932 | ... |
| CN.. 1204.. | M 4.5 x 12.0 | U-CN12T3 | SET-02-D | IP 15 | | 102 | | 101 | | 102 | | 407 |

## 19551 Boring bars MaxiLock D DDUN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 93°**

**Applications**
**For indexable inserts DN..**





| ISO designation | Ø $d_A$ mm | h mm | $l_1$ mm | $l_2$ mm | f mm | Ø Dmin mm | For indexable inserts | Right 19551 | ... | Left 19551 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A25R DDUNR/L 11 | 25 | 24 | 200 | 30 | 17 | 32 | DN.. 1104.. | | 101 | | 201 |
| A32S DDUNR/L 11 | 32 | 31 | 250 | 40 | 22 | 40 | DN.. 1104.. | | 102 | | 202 |
| A40T DDUNR/L 15 | 40 | 39 | 300 | 45 | 27 | 50 | DN.. 1506.. | | 103 | | 203 |

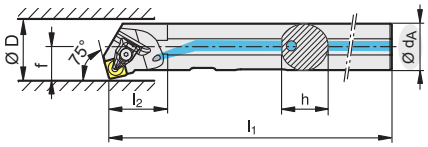
| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| DN.. 1104.. | M 3.0 x 7.0 | U-DN1103-D | SET-01L-D | IP 9 | | 101 | | 102 | | 101 | | 405 |
| DN.. 1506.. | M 4.5 x 12.0 | U-DN15T3-D | SET-02-D | IP 15 | | 102 | | 103 | | 102 | | 407 |

## 19552 Boring bars MaxiLock D DSKN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 75°**

**Applications**
**For indexable inserts SN..**





| ISO designation | Ø $d_A$ mm | h mm | $l_1$ mm | $l_2$ mm | f mm | Ø Dmin mm | For indexable inserts | Right 19552 | ... | Left 19552 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A32S DSKNR/L 12 | 32 | 31 | 250 | 44 | 22 | 40 | SN.. 1204.. | | 101 | | 201 |

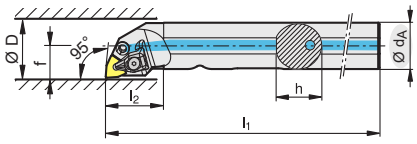
| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| SN.. 1204.. | M 4.5 x 12.0 | U-SN12T3-D | SET-02-D | IP 15 | | 102 | | 104 | | 102 | | 407 |

## 19553 Boring bars MaxiLock D DWLN

CUTTING SOLUTIONS BY CERATIZIT

**Design**
**- Angle of attack 95°**

**Applications**
**For indexable inserts WN..**





| ISO designation | Ø $d_A$ mm | h mm | $l_1$ mm | $l_2$ mm | f mm | Ø Dmin mm | For indexable inserts | Right 19553 | ... | Left 19553 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A25R DWLNR/L 06 | 25 | 24 | 200 | 32 | 17 | 32 | WN.. 0604.. | | 101 | | 201 |
| A32S DWLNR/L 08 | 32 | 31 | 250 | 40 | 22 | 40 | WN.. 0804.. | | 102 | | 202 |
| A40T DWLNR/L 08 | 40 | 39 | 300 | 45 | 27 | 50 | WN.. 0804.. | | 103 | | 203 |

| Spare parts | | | | | Screw | ... | Shim | ... | Bracket | ... | Key | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For indexable inserts Size | Screw | Shim | Bracket | Key | 19990 | | 19991 | | 19992 | | 51932 | |
| WN.. 0604.. | M 3.0 x 7.0 | U-WN0603-D | SET-01-D | IP 9 | | 101 | | 108 | | 104 | | 405 |
| WN.. 0804.. | M 4.5 x 12.0 | U-WN08T3-D | SET-02-D | IP 15 | | 102 | | 109 | | 102 | | 407 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18550 Indexable inserts CCGT

ALU

ATORN®

**Design**
- Positive 7°
- 80° tip angle
- Clamping depth approx. 0.2–4.0 mm for aluminium and non-ferrous metals

**18550 301-308**
**Design**
- Polished chip breaker for reducing build-up edge formation when machining aluminium

**Applications**
For turning aluminium and other non-ferrous metals.

**18550 401-408**
**Applications**
For turning aluminium and other non-ferrous metals.
For finishing stainless materials.

18550 101-108 | 18550 200-208 | 18550 301-308 | 18550 401-408




| Applications | | | | | | P K | P K | N | N M |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 7810 | HC 7820 | HW 6310 | HC 6310 |
| Coating | | | | | | coated | coated | uncoated | coated |
| ISO Designation | Clamping depth approx. mm | Thickness mm | r mm | | | 18550 ... | 18550 ... | 18550 ... | 18550 ... |
| CCGT 060201-FU1 | 0.1–1.5 | 2.38 | 0.1 | 10 pcs. | | | 200 NEW | | |
| CCGT 060202-FU1 | 0.2–2.0 | 2.38 | 0.2 | 10 pcs. | | 101 NEW | 201 NEW | | |
| CCGT 060202-MN | 0.2–1.5 | 2.38 | 0.2 | 10 pcs. | | | | 301 | 401 |
| CCGT 060204-FU1 | 0.2–2.5 | 2.38 | 0.4 | 10 pcs. | | 102 NEW | 202 NEW | | |
| CCGT 060204-MN | 0.3–1.8 | 2.38 | 0.4 | 10 pcs. | | | | 302 | 402 |
| CCGT 09T301-FU1 | 0.1–1.5 | 3.97 | 0.1 | 10 pcs. | | | 205 NEW | | |
| CCGT 09T302-FU1 | 0.2–2.0 | 3.97 | 0.2 | 10 pcs. | | 106 NEW | 206 NEW | | |
| CCGT 09T302-MN | 0.2–2.0 | 3.97 | 0.2 | 10 pcs. | | | | 303 | 403 |
| CCGT 09T304-FU1 | 0.2–2.5 | 3.97 | 0.4 | 10 pcs. | | 107 NEW | 207 NEW | | |
| CCGT 09T304-MN | 0.3–2.5 | 3.97 | 0.4 | 10 pcs. | | | | 304 | 404 |
| CCGT 09T308-FU1 | 0.3–3.0 | 3.97 | 0.8 | 10 pcs. | | 108 NEW | 208 NEW | | |
| CCGT 09T308-MN | 0.5–3.0 | 3.97 | 0.8 | 10 pcs. | | | | 305 | 405 |
| CCGT 120402-MN | 0.2–3.5 | 4.76 | 0.2 | 10 pcs. | | | | 306 | 406 |
| CCGT 120404-MN | 0.2–4.0 | 4.76 | 0.4 | 10 pcs. | | | | 307 | 407 |
| CCGT 120408-MN | 0.5–5.0 | 4.76 | 0.8 | 10 pcs. | | | | 308 | 408 |

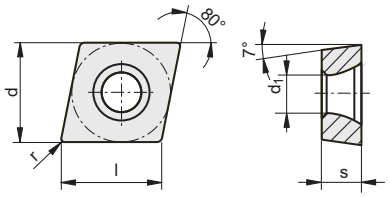
## 19600 Indexable inserts CCGT

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Positive 7°
- 80° tip angle
- Polished indexable insert for reducing built-up edge formation

**19600 101-108**
**Applications**
For machining aluminium and non-ferrous metals.

**19600 201-307**
**Applications**
Coated grade for machining aluminium and stainless and acid-resistant materials.




19600


- 27


- 25P

| Applications | | | | | | | N | N M | N M |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | H10T | AMZ | AMZ |
| Coating | | | | | | | uncoated | PVD | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19600 ... | 19600 ... | 19600 ... |
| CCGT 060202FN-27 | 6.4 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | 101 | 201 | |
| CCGT 060202FN-25P | 6.4 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | | | 301 |
| CCGT 060204FN-27 | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 102 | 202 | |
| CCGT 060204FN-25P | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | | 302 |
| CCGT 09T302FN-27 | 9.7 | 9.52 | 3.97 | 4.4 | 0.2 | 10 pcs. | 103 | 203 | |
| CCGT 09T302FN-25P | 9.7 | 9.52 | 3.97 | 4.4 | 0.2 | 10 pcs. | | | 303 |
| CCGT 09T304FN-27 | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 104 | 204 | |
| CCGT 09T304FN-25P | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | | 304 |
| CCGT 09T308FN-25P | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | | 305 |
| CCGT 09T308FN-27 | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 105 | 205 | |
| CCGT 120402FN-27 | 12.9 | 12.70 | 4.76 | 5.5 | 0.2 | 10 pcs. | 106 | 206 | |
| CCGT 120404FN-27 | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | 107 | 207 | |
| CCGT 120404FN-25P | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | | | 306 |
| CCGT 120408FN-27 | 12.9 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | 108 | 208 | |
| CCGT 120408FN-25P | 12.9 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | | | 307 |

## 18551 Indexable inserts CCMT

ATORN®

Positive 7°, 80° tip angle.

**CCMT .....-WP**
With WIPER cutting geometry (same surface quality with double feed, twice the surface quality with the same feed).

**CCMT .....-FP**
**Applications**
For finishing.

**CCMT .....-MP**
**Applications**
For mid-range machining.

18551 210-624


– WP


– FP


– MP

| Applications | | | | | P K | | P K | | P | | M | | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7610 | | HC 7620 | | HC 7630 | | HC 7520 | | HC 7530 | |
| Coating | | | | | coated | | coated | | coated | | coated | | coated | |
| ISO Designation | Clamping depth Approx. mm | Thickness mm | r mm | | 18551 | ... | 18551 | ... | 18551 | ... | 18551 | ... | 18551 | ... |
| CCMT 09T304-WP | 0.5–4.0 | 3.97 | 0.4 | 10 pcs. | | | | 305 | | 405 | | | | |
| CCMT 09T308-WP | 0.7–4.0 | 3.97 | 0.8 | 10 pcs. | | | | 306 | | 406 | | | | |
| CCMT 120404-WP | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | | | 307 | | 407 | | | | |
| CCMT 120408-WP | 0.7–4.0 | 4.76 | 0.8 | 10 pcs. | | | | 308 | | 408 | | | | |
| CCMT 060202-FP | 0.1–1.0 | 2.38 | 0.2 | 10 pcs. | | 210 | | 310 | | | | 525 NEW | | |
| CCMT 060204-FP | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | | 211 | | 311 | | | | 526 NEW | | |
| CCMT 09T302-FP | 0.1–1.0 | 3.97 | 0.2 | 10 pcs. | | 212 | | 312 | | | | | | |
| CCMT 09T304-FP | 0.1–1.5 | 3.97 | 0.4 | 10 pcs. | | 213 | | 313 | | | | 527 NEW | | |
| CCMT 09T308-FP | 0.1–1.5 | 3.97 | 0.8 | 10 pcs. | | | | | | | | 528 NEW | | |
| CCMT 120404-FP | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | | 214 | | 314 | | | | | | |
| CCMT 120408-FP | 0.1–2.5 | 4.76 | 0.8 | 10 pcs. | | 215 | | 315 | | | | | | |
| CCMT 060204-MP | 0.5–2.5 | 2.38 | 0.4 | 10 pcs. | | | | 320 | | 420 | | 520 | | 620 |
| CCMT 09T304-MP | 0.4–3.0 | 3.97 | 0.4 | 10 pcs. | | | | 321 | | 421 | | 521 | | 621 |
| CCMT 09T308-MP | 0.6–4.0 | 3.97 | 0.8 | 10 pcs. | | | | 322 | | 422 | | 522 | | 622 |
| CCMT 120408-MP | 0.6–5.0 | 4.76 | 0.8 | 10 pcs. | | | | 323 | | 423 | | 523 | | 623 |
| CCMT 120412-MP | 0.8–5.0 | 4.76 | 1.2 | 10 pcs. | | | | | | | | 524 | | 624 |

## 18553 Indexable insert CCMT

ATORN®

18553

NEW


- FM


- MM

| Applications | | | | | P K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7820 |
| Coating | | | | | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18553 ... |
| CCMT 060202-FM | 0.1–1.0 | 2.38 | 0.2 | 10 pcs. | 210 |
| CCMT 060204-FM | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | 211 |
| CCMT 060204-MM | 0.4–2.5 | 2.38 | 0.4 | 10 pcs. | 219 |
| CCMT 09T302-FM | 0.1–1.0 | 3.97 | 0.2 | 10 pcs. | 212 |
| CCMT 09T304-FM | 0.1–1.5 | 3.97 | 0.4 | 10 pcs. | 213 |
| CCMT 09T304-MM | 0.4–3.0 | 3.97 | 0.4 | 10 pcs. | 214 |
| CCMT 09T308-FM | 0.1–1.5 | 3.97 | 0.8 | 10 pcs. | 221 |
| CCMT 09T308-MM | 0.6–4.0 | 3.97 | 0.8 | 10 pcs. | 222 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 19601 Indexable insert CCMT

CUTTING SOLUTIONS BY CERATIZIT

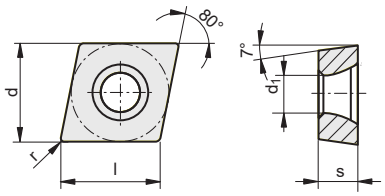
**Design**
- Positive 7°
- 80° tip angle

**19601 101-108**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

19601 101-108


- M25


- M55




| Applications | | | | | | | PM | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 | |
| Coating | | | | | | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19601 | ... |
| CCMT 060204EN-M25 | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 101 |
| CCMT 060204EN-M55 | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 102 |
| CCMT 09T304EN-M25 | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | 103 |
| CCMT 09T308EN-M25 | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 104 |
| CCMT 09T308EN-M55 | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 105 |
| CCMT 09T304EN-M55 | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | 106 |
| CCMT 120404EN-M55 | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | | 107 |
| CCMT 120408EN-M55 | 12.9 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | | 108 |

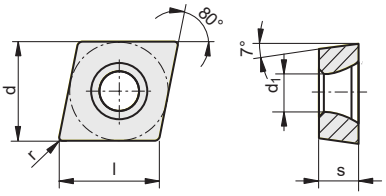
**19601 201-214**
**Applications**
For machining steels and cast iron.

19601 201-214


- SF


- SM


- SMF




| Applications | | | | | | | PK | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 | |
| Coating | | | | | | | CVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19601 | ... |
| CCMT 060204EN-SF | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 201 |
| CCMT 060204EN-SM | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 202 |
| CCMT 060204EN-SMF | 6.4 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 203 |
| CCMT 09T304EN-SF | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | 204 |
| CCMT 09T304EN-SM | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | 205 |
| CCMT 09T304EN-SMF | 9.7 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | 206 |
| CCMT 09T308EN-SF | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 207 |
| CCMT 09T308EN-SM | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 208 |
| CCMT 09T308EN-SMF | 9.7 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 209 |
| CCMT 120404EN-SF | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | | 210 |
| CCMT 120404EN-SM | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | | 211 |
| CCMT 120404EN-SMF | 12.9 | 12.70 | 4.76 | 5.5 | 0.4 | 10 pcs. | | 212 |
| CCMT 120408EN-SF | 12.9 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | | 213 |
| CCMT 120408EN-SM | 12.9 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | | 214 |

## 18552 Indexable inserts CDGT

ATORN®

18552 101-103

| Applications | | | N | PH | |
|---|---|---|---|---|---|
| Cemented carbide grade | | | HW 6315 | HC 7625 | |
| Coating | | | uncoated | coated | |
| ISO designation | r mm | | 18552 ... | 18552 | ... |
| CDGT 040101-MN | 0.1 | 10 pcs. | 101 | | |
| CDGT 040102-MN | 0.2 | 10 pcs. | 102 | | |
| CDGT 040104-MN | 0.4 | 10 pcs. | 103 | | |
| CDGT 040102FN | 0.2 | 10 pcs. | | | 114 |
| CDGT 040104FN | 0.4 | 10 pcs. | | | 116 |

## 18554 Indexable inserts CNMG

ATORN®

**Design**
Negative 0°, 80° tip angle.

**CNMG .....-FP + CNMG .....-FM**
**Applications**
For finishing.

**CNMG .....-MP + CNMG .....-MM**
**Applications**
For mid-range machining.

**CNMG .....-RP5 + CNMG .....-RM**
**Applications**
For roughing.

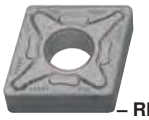
**CNMG .....-WP**
**Design**
With WIPER cutting geometry (same surface quality with double feed, twice the surface quality with the same feed).

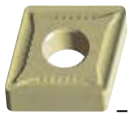
18554


– FP


– FM


– MP
– MM


– RP5


– RM


– WP

| Applications | | | | | PK | | PK | | P | | M | | M | | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7610 | | HC 7620 | | HC 7630 | | HC 7510 | | HC 7520 | | HC 7530 | |
| Coating | | | | | coated | | coated | | coated | | coated | | coated | | coated | |
| ISO designation | clamping depth approx. mm | Thickness mm | r mm | | 18554 | ... | 18554 | ... | 18554 | ... | 18554 | ... | 18554 | ... | 18554 | ... |
| CNMG 120404-FP | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | | 105 | | 205 | | | | | | | | |
| CNMG 120408-FP | 0.2–2.0 | 4.76 | 0.8 | 10 pcs. | | 106 | | 206 | | | | | | | | |
| CNMG 120404-FM | 0.2–1.0 | 4.76 | 0.4 | 10 pcs. | | | | | | | | 505 | | 605 | | |
| CNMG 120408-FM | 0.4–1.5 | 4.76 | 0.8 | 10 pcs. | | | | | | | | 506 | | 606 | | |
| CNMG 120404-MP | 0.5–2.0 | 4.76 | 0.4 | 10 pcs. | | | | 211 | | 411 | | | | | | |
| CNMG 120408-MP | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | | | | 212 | | 412 | | | | | | |
| CNMG 120412-MP | 0.8–3.5 | 4.76 | 1.2 | 10 pcs. | | | | | | 413 | | | | | | |
| CNMG 120404-MM | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | | | | | | | | | 610 | | 710 |
| CNMG 120408-MM | 0.6–5.0 | 4.76 | 0.8 | 10 pcs. | | | | | | | | | | 611 | | 711 |
| CNMG 120412-MM | 1.0–5.0 | 4.76 | 1.2 | 10 pcs. | | | | | | | | | | | | 712 |
| CNMG 120408-RP5 | 1.0–6.0 | 4.76 | 0.8 | 10 pcs. | | 120 NEW | | 221 | | 420 | | | | | | |
| CNMG 120412-RP5 | 1.0–6.0 | 4.76 | 1.2 | 10 pcs. | | 121 NEW | | 222 | | 421 | | | | | | |
| CNMG 120408-RM | 1.2–4.0 | 4.76 | 0.8 | 10 pcs. | | | | | | | | | | 615 | | 715 |
| CNMG 120412-RM | 1.5–4.5 | 4.76 | 1.2 | 10 pcs. | | | | | | | | | | | | 716 |
| CNMG 120408-WP | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | | | | 227 | | | | | | | | |

## 18555 Indexable insert CNMG

ATORN®

18555



- MM


- RM


- FM

| Applications | | | | | PMS | | PMS | | PMS | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7810 | | HC 7820 | | HC 7830 | |
| Coating | | | | | coated | | coated | | coated | |
| ISO designation | clamping depth approx. mm | Thickness mm | r mm | | 18555 | ... | 18555 | ... | 18555 | ... |
| CNMG 120404-FM | 0.2–1.0 | 4.76 | 0.4 | 10 pcs. | | | | 205 | | |
| CNMG 120404-MM | 0.5–3.0 | 4.76 | 0.4 | 10 pcs. | | 110 | | 210 | | 310 |
| CNMG 120408-FM | 0.4–1.5 | 4.76 | 0.8 | 10 pcs. | | | | 206 | | |
| CNMG 120408-MM | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | | 111 | | 211 | | 311 |
| CNMG 120408-RM | 1.2–5.0 | 4.76 | 0.8 | 10 pcs. | | | | 115 | | |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

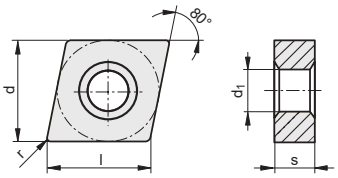
## 19603 Indexable insert CNMG

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Negative 0°
- 80° tip angle

**19603 101-108**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

**19603 201-203**
**Applications**
For machining difficult materials such as titanium and titanium alloys, creep-resistant and highly creep-resistant materials.

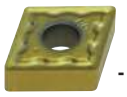



19603 101-203


- F30

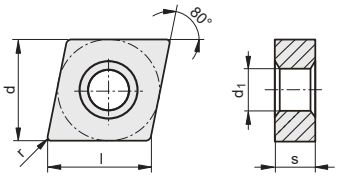

- M30


- M60


- M34

| Applications | | | | | | | PM | | S | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | CTPM125 | | CTP5115 | |
| Coating | | | | | | | PVD | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19603 | ... | 19603 | ... |
| CNMG 120404EN-F30 | 12.9 | 12.7 | 4.76 | 5.16 | 0.4 | 10 pcs. | | 101 | | |
| CNMG 120408EN-F30 | 12.9 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 102 | | |
| CNMG 120408EN-M30 | 12.9 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 103 | | |
| CNMG 120412EN-M30 | 12.9 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 104 | | |
| CNMG 120416EN-M30 | 12.9 | 12.7 | 4.76 | 5.16 | 1.6 | 10 pcs. | | 105 | | |
| CNMG 120408EN-M60 | 12.9 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 106 | | |
| CNMG 120412EN-M60 | 12.9 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 107 | | |
| CNMG 120416EN-M60 | 12.9 | 12.7 | 4.76 | 5.16 | 1.6 | 10 pcs. | | 108 | | |
| CNMG 120404EN-M34 | 12.9 | 12.7 | 4.76 | 5.16 | 0.4 | 10 pcs. | | | | 201 |
| CNMG 120408EN-M34 | 12.9 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | | | | 202 |
| CNMG 120412EN-M34 | 12.9 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | | | | 203 |

**19603 301-311**
**Applications**
For machining steels and cast iron.




19603 301-311


- F50


- M50


- M70

| Applications | | | | | | | PK | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 | |
| Coating | | | | | | | CVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19603 | ... |
| CNMG 120404EN-F50 | 12.9 | 12.70 | 4.76 | 5.16 | 0.4 | 10 pcs. | | 301 |
| CNMG 120404EN-M50 | 12.9 | 12.70 | 4.76 | 5.16 | 0.4 | 10 pcs. | | 302 |
| CNMG 120408EN-M50 | 12.9 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 304 |
| CNMG 120412EN-M50 | 12.9 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 305 |
| CNMG 120408EN-M70 | 12.9 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 306 |
| CNMG 120412EN-M70 | 12.9 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 307 |
| CNMG 160612EN-M70 | 16.1 | 15.88 | 6.35 | 6.35 | 1.2 | 10 pcs. | | 308 |
| CNMG 160616EN-M70 | 16.1 | 15.88 | 6.35 | 6.35 | 1.6 | 10 pcs. | | 309 |
| CNMG 190612EN-M70 | 19.3 | 19.05 | 6.35 | 7.94 | 1.2 | 10 pcs. | | 310 |
| CNMG 190616EN-M70 | 19.3 | 19.05 | 6.35 | 7.94 | 1.6 | 10 pcs. | | 311 |

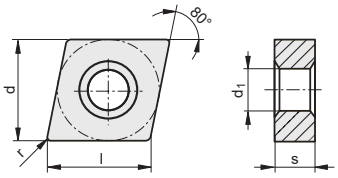
## 19604 Indexable inserts CNMM

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Negative 0°
- 80° tip angle
- Roughing insert on one side for extreme operati-

ons

**Applications**
For machining steels and cast iron.




19604


- R28


- R58

| Applications | | | | | | | PK | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 | |
| Coating | | | | | | | CVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19604 | ... |
| CNMM 120408EN-R28 | 12.9 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | | 101 |
| CNMM 120412EN-R28 | 12.9 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 102 |
| CNMM 120416EN-R28 | 12.9 | 12.7 | 4.76 | 5.16 | 1.6 | 10 pcs. | | 103 |
| CNMM 120412EN-R58 | 12.9 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | | 104 |
| CNMM 120416EN-R58 | 12.9 | 12.7 | 4.76 | 5.16 | 1.6 | 10 pcs. | | 105 |

## 18560 Indexable inserts DCMT

ATORN®

**Design**
Positive 7°, 55° tip angle.

**DCMT .....-FP**
**Applications**
For finishing.

**DCMT .....-MP**
**Applications**
For mid-range machining.


– FP


– MP

18560

| Applications | | | | | P M | P K | P K | P | M | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | H 05 | HC 7610 | HC 7620 | HC 7630 | HC 7520 | HC 7530 | |
| Coating | | | | | uncoated | coated | coated | coated | coated | coated | |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18560 ... | 18560 ... | 18560 ... | 18560 ... | 18560 ... | 18560 ... | |
| DCMT 11T304-MT | - | 3.97 | 0.4 | 10 pcs. | 324 | | | | | | |
| DCMT 070202-FP | 0.1–1.0 | 2.38 | 0.2 | 10 pcs. | | 101 | 201 | | 514 NEW | | |
| DCMT 070204-FP | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | | 102 | 202 | | 515 NEW | | |
| DCMT 11T302-FP | 0.1–1.0 | 3.97 | 0.2 | 10 pcs. | | 103 | 203 | | 516 NEW | | |
| DCMT 11T304-FP | 0.1–1.5 | 3.97 | 0.4 | 10 pcs. | | 104 | 204 | | 517 NEW | | |
| DCMT 11T308-FP | 0.1–1.5 | 3.97 | 0.8 | 10 pcs. | | | | | 518 NEW | | |
| DCMT 070204-MP | 0.4–2.0 | 2.38 | 0.4 | 10 pcs. | | | 210 | 410 | 510 | 610 | |
| DCMT 070208-MP | 0.6–2.0 | 2.38 | 0.8 | 10 pcs. | | | 211 | 411 | 511 | | |
| DCMT 11T304-MP | 0.4–3.0 | 3.97 | 0.4 | 10 pcs. | | | 212 | 412 | 512 | 612 | |
| DCMT 11T308-MP | 0.6–4.0 | 3.97 | 0.8 | 10 pcs. | | | 213 | 413 | 513 | 613 | |

## 18561 Indexable insert DCMT

ATORN®

NEW


- FM


- MM

18561

| Applications | | | | | P K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7820 |
| Coating | | | | | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18561 ... |
| DCMT 070202-FM | 0.1–1.0 | 2.38 | 0.2 | 10 pcs. | 201 |
| DCMT 070204-FM | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | 202 |
| DCMT 11T302-FM | 0.1–1.0 | 3.97 | 0.2 | 10 pcs. | 203 |
| DCMT 11T304-FM | 0.1–1.5 | 3.97 | 0.4 | 10 pcs. | 204 |
| DCMT 11T304-MM | 0.4–3.0 | 3.97 | 0.4 | 10 pcs. | 212 |
| DCMT 11T308-FM | 0.1–1.5 | 3.97 | 0.8 | 10 pcs. | 205 |
| DCMT 11T308-MM | 0.6–4.0 | 3.97 | 0.8 | 10 pcs. | 213 |



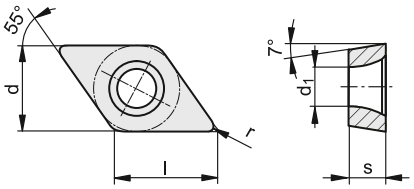


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Positive 7°
- 55° tip angle

**19608 101-109**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.



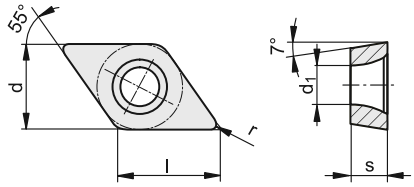

19608 101-109


- M25


- M55

| Applications | | | | | | | PM |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 |
| Coating | | | | | | | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19608 ... |
| DCMT 070202EN-M25 | 7.75 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | 101 |
| DCMT 070204EN-M25 | 7.75 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 102 |
| DCMT 070204EN-M55 | 7.75 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 103 |
| DCMT 070208EN-M55 | 7.75 | 6.35 | 2.38 | 2.8 | 0.8 | 10 pcs. | 104 |
| DCMT 11T302EN-M25 | 11.60 | 9.52 | 3.97 | 4.4 | 0.2 | 10 pcs. | 105 |
| DCMT 11T304EN-M25 | 11.60 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 106 |
| DCMT 11T304EN-M55 | 11.60 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 107 |
| DCMT 11T308EN-M25 | 11.60 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 108 |
| DCMT 11T308EN-M55 | 11.60 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 109 |

**19608 201-206**
**Applications**
For machining steels and cast iron.




19608 201-206


- SF


- SM


- SMF

| Applications | | | | | | | PK |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19608 ... |
| DCMT 11T304EN-SF | 11.6 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 201 |
| DCMT 11T304EN-SM | 11.6 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 202 |
| DCMT 11T304EN-SMF | 11.6 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 203 |
| DCMT 11T308EN-SF | 11.6 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 204 |
| DCMT 11T308EN-SM | 11.6 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 205 |
| DCMT 11T308EN-SMF | 11.6 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 206 |

## 18564 Indexable inserts DCGT

ALU

ATORN®

**Design**
- Positive 7°
- 55° tip angle
- Clamping depth approx. 0.2–4.0 mm for aluminium and non-ferrous metals

**18564 101-108**
**Design**
- Extremely positive, ground chip breaker for finishing stainless steels, special alloys and steel
- Extremely low cutting forces, excellent chip breaking with very high degrees of hardness and wear resistance

**18564 200-208**
**Design**
- Very positive chip breaker for finishing stainless steels, special alloys and steel
- Very low cutting forces, good chip breaking with medium hardness and wear resistance

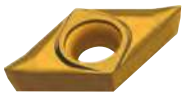
**18564 301-305**
**Design**
- Polished chip breaker for reducing built-up edge formation when machining aluminium

**Applications**
For turning aluminium and other non-ferrous metals.

**18564 401-405**
**Applications**
For turning aluminium and other non-ferrous metals. For finishing stainless materials.

18564 101-108 | 18564 200-208 | 18564 301-305 | 18564 401-405



| Applications | | | | | | P K S | | P K S | | N | | N M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 7810 | | HC 7820 | | HW 6310 | | HC 6310 | |
| Coating | | | | | | coated | | coated | | uncoated | | coated | |
| ISO Designation | Clamping depth approx. mm | Thickness mm | r mm | | | 18564 | ... | 18564 | ... | 18564 | ... | 18564 | ... |
| DCGT 070101-FU1 | 0.1–1.5 | 2.38 | 0.1 | 10 pcs. | | | | 200 NEW | | | | | |
| DCGT 070202-FU1 | 0.2–2.0 | 2.38 | 0.2 | 10 pcs. | | 101 NEW | | 201 NEW | | | | | |
| DCGT 070202-MN | 0.2–1.5 | 2.38 | 0.2 | 10 pcs. | | | | | | | 301 | | 401 |
| DCGT 070204-FU1 | 0.2–2.5 | 2.38 | 0.4 | 10 pcs. | | 102 NEW | | 202 NEW | | | | | |
| DCGT 070204-MN | 0.3–1.8 | 2.38 | 0.4 | 10 pcs. | | | | | | | 302 | | 402 |
| DCGT 11T301-FU1 | 0.1–1.5 | 3.97 | 0.1 | 10 pcs. | | | | 205 NEW | | | | | |
| DCGT 11T302-FU1 | 0.2–2.0 | 3.97 | 0.2 | 10 pcs. | | 106 NEW | | 206 NEW | | | | | |
| DCGT 11T302-MN | 0.2–2.0 | 3.97 | 0.2 | 10 pcs. | | | | | | | 303 | | 403 |
| DCGT 11T304-FU1 | 0.2–2.5 | 3.97 | 0.4 | 10 pcs. | | 107 NEW | | 207 NEW | | | | | |
| DCGT 11T304-MN | 0.3–2.5 | 3.97 | 0.4 | 10 pcs. | | | | | | | 304 | | 404 |
| DCGT 11T308-FU1 | 0.3–3.0 | 3.97 | 0.8 | 10 pcs. | | 108 NEW | | 208 NEW | | | | | |
| DCGT 11T308-MN | 0.5–3.0 | 3.97 | 0.8 | 10 pcs. | | | | | | | 305 | | 405 |

## 19607 Indexable insert DCGT

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Positive 7°
- 55° tip angle
- Polished indexable insert for reducing built-up edge formation

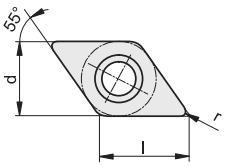
**19607 101-105**
**Applications**
For machining aluminium and non-ferrous metals.

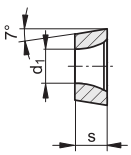
**19607 201-304**
**Applications**
Coated grade for machining aluminium and stainless and acid-resistant materials.

19607


- 27


- 25P




| Applications | | | | | | | | N | | N M | | N M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | H10T | | AMZ | | AMZ | |
| Coating | | | | | | | | uncoated | | PVD | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | | 19607 | ... | 19607 | ... | 19607 | ... |
| DCGT 070202FN-27 | 7.75 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | | | 101 | | 201 | | |
| DCGT 070202FN-25P | 7.75 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | | | | | | | 301 |
| DCGT 070204FN-27 | 7.75 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | | 102 | | 202 | | |
| DCGT 070204FN-25P | 7.75 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | | | | | | 302 |
| DCGT 11T302FN-27 | 11.60 | 9.52 | 3.97 | 4.4 | 0.2 | 10 pcs. | | | 103 | | 203 | | |
| DCGT 11T304FN-25P | 11.60 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | | | | | | 303 |
| DCGT 11T304FN-27 | 11.60 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | | | 104 | | 204 | | |
| DCGT 11T308FN-27 | 11.60 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | | 105 | | 205 | | |
| DCGT 11T308FN-25P | 11.60 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | | | | | | 304 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18566 Indexable inserts DNMG

ATORN®

**Design**
Negative 0°, 55° tip angle.

**DNMG .....-FP**
**DNMG .....-FM**
**Applications**
**For finishing.**

**DNMG .....-MP**
**DNMG .....-MM**
**Applications**
For mid-range machining.

**DNMG .....-RP5**
**DNMG .....-RM**
**Applications**
For roughing.


– FP


– FM

18566


– MP
– MM


– RP5


– RM

| Applications | | | | | P K | P K | P | M | M | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7610 | HC 7620 | HC 7630 | HC 7510 | HC 7520 | HC 7530 |
| Coating | | | | | coated | coated | coated | coated | coated | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18566 ... | 18566 ... | 18566 ... | 18566 ... | 18566 ... | 18566 ... |
| DNMG 110408-FP | 0.2–2.0 | 4.76 | 0.8 | 10 pcs. | | 202 | | | | |
| DNMG 150604-FP | 0.1–1.5 | 6.35 | 0.4 | 10 pcs. | | 203 | | | | |
| DNMG 110408-FM | 0.4–1.5 | 4.76 | 0.8 | 10 pcs. | | | | 506 | | |
| DNMG 150604-FM | 0.2–1.0 | 6.35 | 0.4 | 10 pcs. | | | | 507 | 607 | |
| DNMG 110404-MP | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | 210 | 410 | | | |
| DNMG 110408-MP | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | 211 | | | | |
| DNMG 150604-MP | 0.5–4.0 | 6.35 | 0.4 | 10 pcs. | | 212 | 412 | | | |
| DNMG 150608-MP | 0.6–5.0 | 6.35 | 0.8 | 10 pcs. | | 213 | 413 | | | |
| DNMG 150604-MM | 0.5–4.0 | 6.35 | 0.4 | 10 pcs. | | | | | 615 | 715 |
| DNMG 150608-MM | 0.6–5.0 | 6.35 | 0.8 | 10 pcs. | | | | | 616 | |
| DNMG 150608-RP5 | 1.0–5.0 | 6.35 | 0.8 | 10 pcs. | 120 NEW | 220 | 420 | | | |
| DNMG 150612-RP5 | 1.0–6.0 | 6.35 | 1.2 | 10 pcs. | | 221 | | | | |
| DNMG 150608-RM | 1.2–4.0 | 6.35 | 0.8 | 10 pcs. | | | | | 620 | |

## 18567 Indexable inserts DNMG

ATORN®

18567

NEW


- MM

| Applications | | | | | P M S |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7820 |
| Coating | | | | | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18567 ... |
| DNMG 110404-MM | 0.5–2.0 | 4.76 | 0.4 | 10 pcs. | 213 |
| DNMG 110408-MM | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | 214 |
| DNMG 150608-MM | 0.8–3.0 | 6.35 | 0.8 | 10 pcs. | 216 |

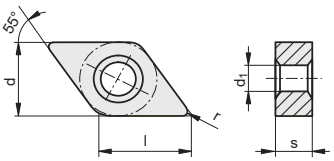
## 19610 Indexable insert DNMG

CUTTING SOLUTIONS BY CERATIZIT

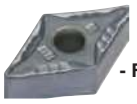
**Design**
- Negative 0°
- 55° tip angle

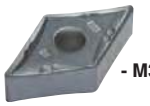
**19610 101-110**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

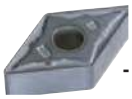
**19610 201-202**
**Applications**
For machining difficult materials such as titanium and titanium alloys, creep-resistant and highly creep-resistant materials.

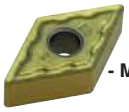



19610 101-202


- F30

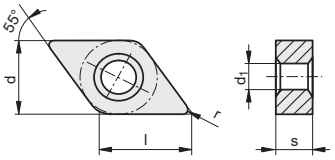

- M30


- M60


- M34

| Applications | | | | | | | PM | S |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | CTPM125 | CTP5115 |
| Coating | | | | | | | PVD | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19610 ... | 19610 ... |
| DNMG 110404EN-F30 | 11.6 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 101 | |
| DNMG 110408EN-F30 | 11.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 102 | |
| DNMG 150604EN-F30 | 15.5 | 12.70 | 6.35 | 5.16 | 0.4 | 10 pcs. | 103 | |
| DNMG 150608EN-F30 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | 104 | |
| DNMG 110408EN-M30 | 11.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 105 | |
| DNMG 110412EN-M30 | 11.6 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 106 | |
| DNMG 150608EN-M30 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | 107 | |
| DNMG 150612EN-M30 | 15.5 | 12.70 | 6.35 | 5.16 | 1.2 | 10 pcs. | 108 | |
| DNMG 150608EN-M60 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | 109 | |
| DNMG 150612EN-M60 | 15.5 | 12.70 | 6.35 | 5.16 | 1.2 | 10 pcs. | 110 | |
| DNMG 150608EN-M34 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | | 201 |
| DNMG 150612EN-M34 | 15.5 | 12.70 | 6.35 | 5.16 | 1.2 | 10 pcs. | | 202 |

**19610 301-310**
**Applications**
For machining steels and cast iron.




19610 301-310


- F50


- M50


- M70

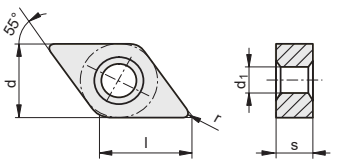
| Applications | | | | | | | PK |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19610 ... |
| DNMG 110404EN-F50 | 11.6 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 301 |
| DNMG 110404EN-M50 | 11.6 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 302 |
| DNMG 110408EN-M50 | 11.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 303 |
| DNMG 150604EN-F50 | 15.5 | 12.70 | 6.35 | 5.16 | 0.4 | 10 pcs. | 304 |
| DNMG 150604EN-M50 | 15.5 | 12.70 | 6.35 | 5.16 | 0.4 | 10 pcs. | 305 |
| DNMG 150608EN-M50 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | 307 |
| DNMG 150612EN-M50 | 15.5 | 12.70 | 6.35 | 5.16 | 1.2 | 10 pcs. | 308 |
| DNMG 110412EN-M70 | 11.6 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 309 |
| DNMG 150608EN-M70 | 15.5 | 12.70 | 6.35 | 5.16 | 0.8 | 10 pcs. | 310 |

## 19611 Indexable inserts DNMM

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Negative 0°
- 55° tip angle

**Applications**
For machining steels and cast iron.




19611


- R28


- R58

| Applications | | | | | | | PK |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19611 ... |
| DNMM 150612EN-R28 | 15.5 | 12.7 | 6.35 | 5.16 | 1.2 | 10 pcs. | 101 |
| DNMM 150616EN-R28 | 15.5 | 12.7 | 6.35 | 5.16 | 1.6 | 10 pcs. | 102 |
| DNMM 150612EN-R58 | 15.5 | 12.7 | 6.35 | 5.16 | 1.2 | 10 pcs. | 103 |
| DNMM 150616EN-R58 | 15.5 | 12.7 | 6.35 | 5.16 | 1.6 | 10 pcs. | 104 |



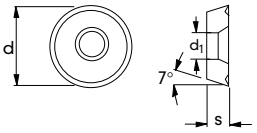


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18570 Indexable insert RCGT

ALU

**Design**
Positive 7°, with sintered chip breaker. Designed specifically for aluminium alloys, extremely profiled chip breakers, optimally sharp-edged tip, precision-ground version, excellent surface.

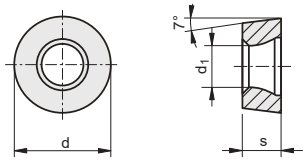



18570

| | | | | | | |
|---|---|---|---|---|---|---|
| **Applications** | | | | | N | |
| **Cemented carbide grade** | | | | | H 25 | |
| **Coating** | | | | | uncoated | |
| **ISO designation** | **d mm** | **s mm** | **$d_1$ mm** | | 18570 | ... |
| RCGT 0803 MO-2 | 8.0 | 3.18 | 3.4 | 10 pcs. | | 101 |

## 18572 Indexable inserts RCMT

**Design**
Positive 7°, with sintered chip breaker.




18572

| | | | | | | |
|---|---|---|---|---|---|---|
| **Applications** | | | | | P M K | |
| **Cemented carbide grade** | | | | | H 42 | |
| **Coating** | | | | | coated | |
| **ISO designation** | **d mm** | **s mm** | **$d_1$ mm** | | 18572 | ... |
| RCMT 0602 MO | 6 | 2.38 | 2.8 | 10 pcs. | | 210 |
| RCMT 0803 MO | 8 | 3.18 | 3.4 | 10 pcs. | | 220 |
| RCMT 10T3 MO | 10 | 3.97 | 4.4 | 10 pcs. | | 230 |

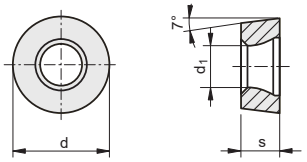
## 19625 Indexable insert RCMT

CUTTING SOLUTIONS BY CERATIZIT

19625

**Design**
- Positive 7°

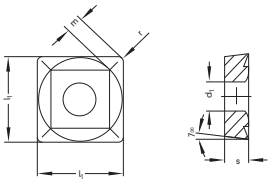
**Applications**
For machining steels and cast iron.




| | | | | | | |
|---|---|---|---|---|---|---|
| **Applications** | | | | | P K | |
| **Cemented carbide type** | | | | | CTCP125 | |
| **Coating** | | | | | CVD | |
| **ISO designation** | **d mm** | **s mm** | **$d_1$ mm** | | 19625 | ... |
| RCMT 1003MOSN-SM | 10 | 3.18 | 4.0 | 10 pcs. | | 101 |
| RCMT 1204MOSN-SM | 12 | 4.76 | 4.9 | 10 pcs. | | 102 |
| RCMT 1606MOSN-SM | 16 | 6.35 | 5.3 | 10 pcs. | | 103 |
| RCMT 2006MOSN-SM | 20 | 6.35 | 6.5 | 10 pcs. | | 104 |

## 18578 Indexable insert SCMT

**Design**
- Positive 7°
- 90° tip angle
- With sintered chip breaker




- MT


- MP

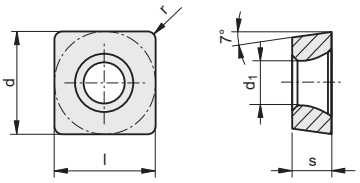
18578

**Applications**
**Cemented carbide grade**
**Coating**

| ISO designation | $l_1$ mm | s mm | r mm | $d_1$ mm | | P M K H 42 coated 18578 ... | P K HC 7620 coated 18578 ... |
|---|---|---|---|---|---|---|---|
| SCMT 060204 | 6.30 | 2.38 | 0.4 | 2.8 | 10 pcs. | 211 | |
| SCMT 09T308-MP | 9.52 | 3.97 | 0.8 | 4.4 | 10 pcs. | | 221 |
| SCMT 120408-MT | 12.70 | 4.76 | 0.8 | 5.5 | 10 pcs. | 231 | |

## 19612 Indexable insert SCMT

**Design**
- Positive 7°
- 90° tip angle



19612 101-102

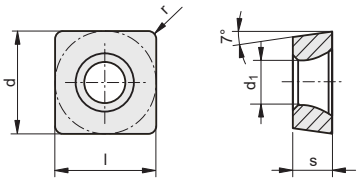

- M55

**19612 101-102**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

**Applications**
**Cemented carbide type**
**Coating**

| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | P M CTPM125 PVD 19612 ... |
|---|---|---|---|---|---|---|---|
| SCMT 09T308EN-M55 | 9.52 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 101 |
| SCMT 120408EN-M55 | 12.70 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | 102 |

**19612 201-207**
**Applications**
For machining steels and cast iron.



19612 201-207


- SF


- SM

**Applications**
**Cemented carbide type**
**Coating**

| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | P K CTCP125 CVD 19612 ... |
|---|---|---|---|---|---|---|---|
| SCMT 09T304EN-SF | 9.52 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 201 |
| SCMT 09T304EN-SM | 9.52 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 202 |
| SCMT 09T308EN-SF | 9.52 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 203 |
| SCMT 09T308EN-SM | 9.52 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 204 |
| SCMT 120408EN-SF | 12.70 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | 205 |
| SCMT 120408EN-SM | 12.70 | 12.70 | 4.76 | 5.5 | 0.8 | 10 pcs. | 206 |
| SCMT 120412EN-SM | 12.70 | 12.70 | 4.76 | 5.5 | 1.2 | 10 pcs. | 207 |

## 18582 Indexable inserts SNMG

**Design**
- Negative 0°
- 90° tip angle

**SNMG.....-MP**
**Applications**
For mid-range machining.

**SNMG.....-RP**
**Applications**
For roughing.


– MP


– RP

18582

**Applications**
**Cemented carbide grade**
**Coating**

| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | P K HC 7620 coated 18582 ... | P HC 7630 coated 18582 ... |
|---|---|---|---|---|---|---|
| SNMG 120408-MP | 0.6–5.0 | 4.76 | 0.8 | 10 pcs. | 302 | 402 |
| SNMG 120412-MP | 1.0–5.0 | 4.76 | 1.2 | 10 pcs. | | 403 |
| SNMG 120408-RP | 1.0–6.0 | 4.76 | 0.8 | 10 pcs. | 306 | 406 |





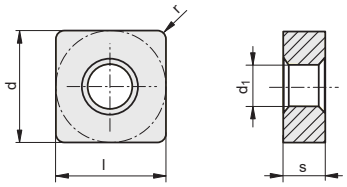
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 19613 Indexable inserts SNMG

CUTTING SOLUTIONS BY CERATIZIT

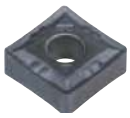
**Design**
- Negative 0°
- 90° tip angle

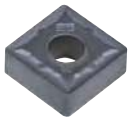
**19613 101-107**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.




19613 101-107


- F30

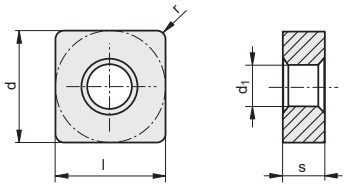

- M30

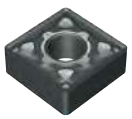

- M60

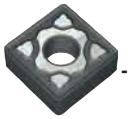
| Applications | | | | | | | P M |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 |
| Coating | | | | | | | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19613 ... |
| SNMG 120404EN-F30 | 12.7 | 12.7 | 4.76 | 5.16 | 0.4 | 10 pcs. | 101 |
| SNMG 120408EN-F30 | 12.7 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | 102 |
| SNMG 120408EN-M30 | 12.7 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | 103 |
| SNMG 120408EN-M60 | 12.7 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | 104 |
| SNMG 120412EN-M30 | 12.7 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | 105 |
| SNMG 120412EN-M60 | 12.7 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | 106 |
| SNMG 120416EN-M60 | 12.7 | 12.7 | 4.76 | 5.16 | 1.6 | 10 pcs. | 107 |

**19613 201-203**
**Applications**
For machining steels and cast iron.

19613 201-203





- M50


- M70

| Applications | | | | | | | P K |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19613 ... |
| SNMG 120408EN-M50 | 12.7 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | 201 |
| SNMG 120412EN-M50 | 12.7 | 12.7 | 4.76 | 5.16 | 1.2 | 10 pcs. | 202 |
| SNMG 120408EN-M70 | 12.7 | 12.7 | 4.76 | 5.16 | 0.8 | 10 pcs. | 203 |

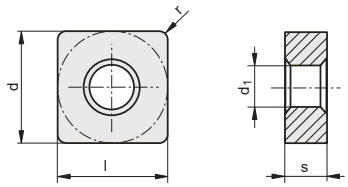
## 19614 Indexable inserts SNMM

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Negative 0°
- 90° tip angle
- Roughing insert on one side for extreme operations

**Applications**
For machining steels and cast iron.

19614





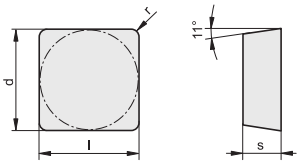
- R28


- R58

| Applications | | | | | | | P K |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19614 ... |
| SNMM 150612EN-R28 | 15.88 | 15.88 | 6.35 | 6.35 | 1.2 | 10 pcs. | 101 |
| SNMM 150616EN-R28 | 15.88 | 15.88 | 6.35 | 6.35 | 1.6 | 10 pcs. | 102 |
| SNMM 150612EN-R58 | 15.88 | 15.88 | 6.35 | 6.35 | 1.2 | 10 pcs. | 103 |
| SNMM 150616EN-R58 | 15.88 | 15.88 | 6.35 | 6.35 | 1.6 | 10 pcs. | 104 |

## 18590 Indexable inserts SPUN

**Design**
- Positive 11°
- 90° tip angle
- Without chip breaker




18590

| Applications | | | | | | P M | P M K |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | H 12 | H 42 |
| Coating | | | | | | uncoated | uncoated |
| ISO designation | d+l mm | s mm | r mm | | | 18590 ... | 18590 ... |
| SPUN 120308 | 12.7 | 3.18 | 0.8 | 10 pcs. | | 316 | 320 |

## 18593 Indexable inserts TCGT

ALU

**Design**
Positive 7°, 60° tip angle. Clamping depth approx. 0.2–6.0 mm for aluminium and non-ferrous metals.

**Applications**
For turning aluminium and other non-ferrous metals.
For finishing stainless materials.

18593

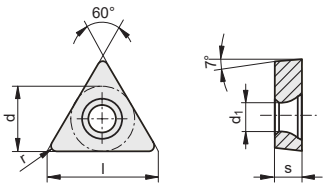
| Applications | | | | | | N M |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 6310 |
| Coating | | | | | | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | | 18593 ... |
| TCGT 110204-MN | 0.3–1.8 | 2.38 | 0.4 | 10 pcs. | | 202 |

## 19615 Indexable insert TCGT

**Design**
- Positive 7°
- 60° tip angle
- Polished indexable insert for reducing built-up edge formation

**19615 101-103**
**Applications**
For machining aluminium and non-ferrous metals.

**19615 202-203**
**Applications**
Coated grade for machining aluminium and stainless and acid-resistant materials.




19615

| Applications | | | | | | | | N | N M |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | H10T | AMZ |
| Coating | | | | | | | | uncoated | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | | 19615 ... | 19615 ... |
| TCGT 110202FN-27 | 11.0 | 6.35 | 2.38 | 2.8 | 0.2 | 10 pcs. | | 101 | |
| TCGT 110204FN-27 | 11.0 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | | 102 | 202 |
| TCGT 16T308FN-27 | 16.5 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | | 103 | 203 |

## 18594 Indexable inserts TCMT

**Design**
- Positive 7°
- 60° tip angle

**Applications**
For mid-range machining.

18594

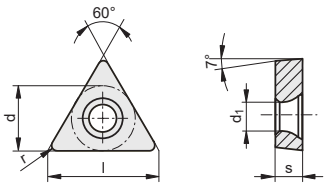
| Applications | | | | | | P K | P | M | M |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 7620 | HC 7630 | HC 7520 | HC 7530 |
| Coating | | | | | | coated | coated | coated | coated |
| ISO Designation | Clamping depth approx. mm | Thickness mm | r mm | | | 18594 ... | 18594 ... | 18594 ... | 18594 ... |
| TCMT 110204-MP | 0.4–3.0 | 2.38 | 0.4 | 10 pcs. | | | 302 | 402 | 502 |
| TCMT 16T304-MP | 0.4–3.0 | 3.97 | 0.4 | 10 pcs. | | 104 | 304 | 404 | |
| TCMT 16T308-MP | 0.6–4.0 | 3.97 | 0.8 | 10 pcs. | | 105 | 305 | | 505 |

## 19616 Indexable insert TCMT

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Positive 7°
- 60° tip angle

**19616 101-106**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.



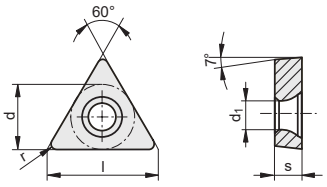

19616 101-106


- M55


- M25

| Applications | | | | | | | PM |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 |
| Coating | | | | | | | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19616 ... |
| TCMT 090204EN-M55 | 9.6 | 5.56 | 2.38 | 2.5 | 0.4 | 10 pcs. | 101 |
| TCMT 110204EN-M25 | 11.0 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 102 |
| TCMT 110204EN-M55 | 11.0 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 103 |
| TCMT 16T304EN-M25 | 16.5 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 104 |
| TCMT 16T308EN-M25 | 16.5 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 105 |
| TCMT 16T308EN-M55 | 16.5 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 106 |

**19616 201-208**
**Applications**
For machining steels and cast iron.




19616 201-208


- SM


- SF

| Applications | | | | | | | PK |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19616 ... |
| TCMT 090204EN-SM | 9.6 | 5.56 | 2.38 | 2.5 | 0.4 | 10 pcs. | 201 |
| TCMT 110204EN-SF | 11.0 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 202 |
| TCMT 110204EN-SM | 11.0 | 6.35 | 2.38 | 2.8 | 0.4 | 10 pcs. | 203 |
| TCMT 110208EN-SF | 11.0 | 6.35 | 2.38 | 2.8 | 0.8 | 10 pcs. | 204 |
| TCMT 16T304EN-SF | 16.5 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 205 |
| TCMT 16T304EN-SM | 16.5 | 9.52 | 3.97 | 4.4 | 0.4 | 10 pcs. | 206 |
| TCMT 16T308EN-SF | 16.5 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 207 |
| TCMT 16T308EN-SM | 16.5 | 9.52 | 3.97 | 4.4 | 0.8 | 10 pcs. | 208 |

## 18598 Indexable inserts TNMG

ATORN®

**Design**
Negative 0°, 60° tip angle.

**TNMG .....-FP**
**Applications**
For finishing.

**TNMG .....-MP**
**TNMG .....-MM**
**Applications**
For mid-range machining.

**TNMG .....-RP**
**Applications**
For roughing.

18598


– FP


– MP
– MM


– RP

| Applications | | | | | | PK | | M | | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 7620 | | HC 7520 | | HC 7530 | |
| Coating | | | | | | coated | | coated | | coated | |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | | 18598 | ... | 18598 | ... | 18598 | ... |
| TNMG 160404-FP | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | | | 402 | | | | |
| TNMG 160404-MP | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | | 410 | | | | |
| TNMG 160408-MP | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | | 411 | | | | |
| TNMG 160408-MM | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | | | | 714 | | 814 |
| TNMG 160408-RP | 1.0–5.0 | 4.76 | 0.8 | 10 pcs. | | | 415 | | | | |
| TNMG 160412-RP | 1.0–5.0 | 4.76 | 1.2 | 10 pcs. | | | 416 | | | | |

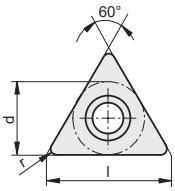
## 19618 Indexable insert TNMG

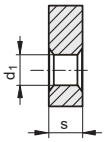
CUTTING SOLUTIONS BY CERATIZIT

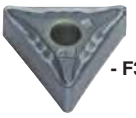
**Design**
- Negative 0°
- 60° tip angle

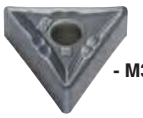
**19618 101-106**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

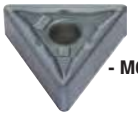
19618 101-106





- F30


- M30

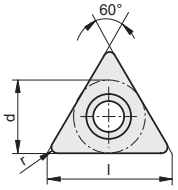

- M60

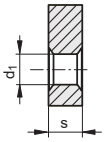
**Applications** P M
**Cemented carbide type** CTPM125
**Coating** PVD

| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19618 ... |
|---|---|---|---|---|---|---|---|
| TNMG 160404EN-F30 | 16.5 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 101 |
| TNMG 160408EN-F30 | 16.5 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 102 |
| TNMG 160408EN-M30 | 16.5 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 103 |
| TNMG 160412EN-M30 | 16.5 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 104 |
| TNMG 160408EN-M60 | 16.5 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 105 |
| TNMG 160412EN-M60 | 16.5 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 106 |

**19618 202-209**
**Applications**
For machining steels and cast iron.

19618 202-209





- F50


- M50


- M70

**Applications** P K
**Cemented carbide type** CTCP125
**Coating** CVD

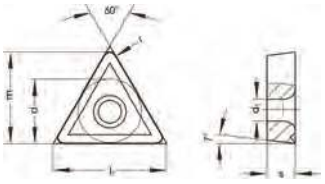
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19618 ... |
|---|---|---|---|---|---|---|---|
| TNMG 160404EN-F50 | 16.5 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 208 NEW |
| TNMG 160404EN-M50 | 16.5 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 202 |
| TNMG 160408EN-F50 | 16.5 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 209 NEW |
| TNMG 160408EN-M50 | 16.5 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 204 |
| TNMG 160412EN-M50 | 16.5 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 205 |
| TNMG 220408EN-M70 | 22.0 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 206 |
| TNMG 220412EN-M70 | 22.0 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | 207 |




= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18603 Indexable inserts TPMR

**Design**
Positive 11°, 60° tip angle, with sintered chip breaker.



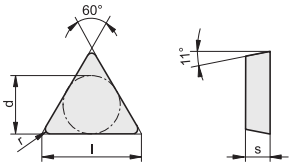

18603

**Applications**
**Cemented carbide grade**
**Coating**

| ISO designation | $l_1$ mm | s mm | r mm | d mm | | P M K H 42 coated 18603 ... |
|---|---|---|---|---|---|---|
| TPMR 160304 | 16.5 | 3.18 | 0.4 | 9.52 | 10 pcs. | 210 |
| TPMR 160308 | 16.5 | 3.18 | 0.8 | 9.52 | 10 pcs. | 220 |

## 18607 Indexable inserts TPUN

**Design**
Positive 11°, 60° tip angle, without chip breaker.




18607

**Applications**
**Cemented carbide grade**
**Coating**

| ISO designation | l mm | s mm | r mm | d mm | | P M K H 42 coated 18607 ... |
|---|---|---|---|---|---|---|
| TPUN 160304 | 16.5 | 3.18 | 0.4 | 9.52 | 10 pcs. | 230 |

## 18611 Indexable inserts VCGT

ALU

ATORN®

**Design**
- Positive 7°
- 35° tip angle
- Clamping depth approx. 0.2–6.0 mm for aluminium and non-ferrous metals

**18611 095-105**
**Design**
Polished chip breaker for reducing built-up edge formation when machining aluminium.
**Applications**
For turning aluminium and other non-ferrous metals.

**18611 301-305**
**Applications**
For turning aluminium and other non-ferrous metals.
For finishing stainless materials.

18611 201-204 | 18611 400-404 | 18611 095-105 | 18611 301-305

**Applications**
**Cemented carbide grade**
**Coating**

| ISO Designation | Clamping depth approx. mm | Thickness mm | r mm | | P K HC 7810 coated 18611 ... | P K HC 7820 coated 18611 ... | N HW 6310 uncoated 18611 ... | N M HC 6310 coated 18611 ... |
|---|---|---|---|---|---|---|---|---|
| VCGT 070201-MN | 0.1–1.5 | 2.38 | 0.1 | 10 pcs. | | | 095 | |
| VCGT 070202-MN | 0.1–1.5 | 2.38 | 0.2 | 10 pcs. | | | 096 | |
| VCGT 070204-MN | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | | | 097 | |
| VCGT 110301-FU1 | 0.1–1.5 | 3.18 | 0.1 | 10 pcs. | | 400 NEW | | |
| VCGT 110302-FU1 | 0.2–2.0 | 3.18 | 0.2 | 10 pcs. | 201 NEW | 401 NEW | | |
| VCGT 110302-MN | 0.2–1.5 | 3.18 | 0.2 | 10 pcs. | | | 101 | 301 |
| VCGT 110304-FU1 | 0.2–2.5 | 3.18 | 0.4 | 10 pcs. | 202 NEW | 402 NEW | | |
| VCGT 110304-MN | 0.3–1.8 | 3.18 | 0.4 | 10 pcs. | | | 102 | 302 |
| VCGT 160402-FU1 | 0.2–2.0 | 4.76 | 0.2 | 10 pcs. | 203 NEW | 403 NEW | | |
| VCGT 160404-FU1 | 0.2–2.5 | 4.76 | 0.4 | 10 pcs. | 204 NEW | 404 NEW | | |
| VCGT 160404-MN | 0.3–2.5 | 4.76 | 0.4 | 10 pcs. | | | 104 | 304 |
| VCGT 160408-MN | 0.5–3.0 | 4.76 | 0.8 | 10 pcs. | | | 105 | 305 |

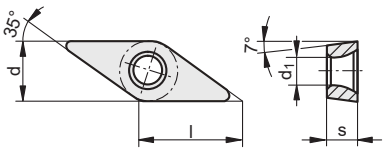
## 19620 Indexable insert VCGT

CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Positive 7°
- 35° tip angle
- Polished indexable insert for reducing built-up edge formation

**19620 101-105**
**Applications**
For machining aluminium and non-ferrous metals.

**19620 201-204**
**Applications**
Coated grade for machining aluminium and stainless and acid-resistant materials.



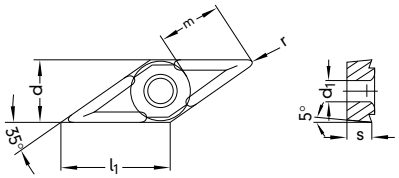

19620

| Applications | | | | | | | N | | NM | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | H10T | | AMZ | |
| Coating | | | | | | | uncoated | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19620 | ... | 19620 | ... |
| VCGT 110302FN-27 | 11.1 | 6.35 | 3.18 | 2.9 | 0.2 | 10 pcs. | | 101 | | 201 |
| VCGT 110304FN-27 | 11.1 | 6.35 | 3.18 | 2.9 | 0.4 | 10 pcs. | | 102 | | 202 |
| VCGT 160404FN-27 | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 103 | | 203 |
| VCGT 160408FN-27 | 16.6 | 9.52 | 4.76 | 4.4 | 0.8 | 10 pcs. | | 104 | | 204 |
| VCGT 160412FN-27 | 16.6 | 9.52 | 4.76 | 4.4 | 1.2 | 10 pcs. | | 105 | | |

## 18612 Indexable inserts VBGT

ALU

**Design**
- Positive 5°
- 35° tip angle
- With sintered chip breaker
- Designed specifically for aluminium alloys
- Extremely profiled chip breaker
- Optimally sharp-edged tip
- Precision-ground version
- Excellent surface



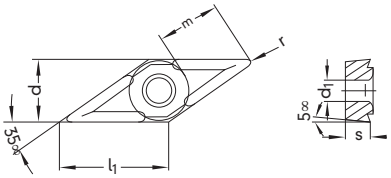

18612

| Applications | | | | | | | N | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | H 25 | |
| Coating | | | | | | | uncoated | |
| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | | 18612 | ... |
| VBGT 160404-2 | 16.6 | 4.76 | 0.4 | 9.52 | 4.4 | 10 pcs. | | 101 |

## 18614 Indexable inserts VBMT

ATORN®

**Design**
- Positive 5°
- 35° tip angle
- With sintered chip breaker




18614

– SP
– SM

| Applications | | | | | | | PM | | PK | | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | H 05 | | HC 7620 | | HC 7520 | |
| Coating | | | | | | | uncoated | | coated | | coated | |
| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | | 18614 | ... | 18614 | ... | 18614 | ... |
| VBMT 160404 | 16.6 | 4.76 | 0.4 | 9.52 | 4.4 | 10 pcs. | | 304 | | | | |
| VBMT 160404-SP | 16.6 | 4.76 | 0.4 | 9.52 | 4.4 | 10 pcs. | | | | 310 | | |
| VBMT 160408-SP | 16.6 | 4.76 | 0.8 | 9.52 | 4.4 | 10 pcs. | | | | 320 | | |
| VBMT 160404-SM | 16.6 | 4.76 | 0.4 | 9.52 | 4.4 | 10 pcs. | | | | | | 311 |
| VBMT 160408-SM | 16.6 | 4.76 | 0.8 | 9.52 | 4.4 | 10 pcs. | | | | | | 321 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18615 Indexable inserts VCMT

ATORN®

**Design**
- Positive 7°
- 35° tip angle

**VCMT .....-FP + -FP1**
**Applications**
For finishing.

**VCMT .....-MP**
**Applications**
For mid-range machining.

18615


– FP


FP1


– MP

| Applications | | | | | P K | | P K | | P H | | P | | M | | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7610 | | HC 7620 | | HC 7625 | | HC 7630 | | HC 7520 | | HC 7530 | |
| Coating | | | | | coated | | coated | | coated | | coated | | coated | | coated | |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18615 | ... | 18615 | ... | 18615 | ... | 18615 | ... | 18615 | ... | 18615 | ... |
| VCMT 070202-FP1 | 0.1–1.5 | 2.38 | 0.2 | 10 pcs. | | | | | | 095 | | | | | | |
| VCMT 070204-FP1 | 0.1–1.5 | 2.38 | 0.4 | 10 pcs. | | | | | | 096 | | | | | | |
| VCMT 110302-FP | 0.1–1.0 | 3.18 | 0.2 | 10 pcs. | | 101 | | 301 | | | | | | 514 NEW | | |
| VCMT 110304-FP | 0.1–1.5 | 3.18 | 0.4 | 10 pcs. | | 102 | | 302 | | | | | | 515 NEW | | |
| VCMT 160402-FP | 0.1–1.0 | 4.76 | 0.2 | 10 pcs. | | 103 | | 303 | | | | | | 516 NEW | | |
| VCMT 160404-FP | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | | 104 | | 304 | | | | | | 517 NEW | | |
| VCMT 160408-FP | 0.1–1.5 | 4.76 | 0.8 | 10 pcs. | | | | | | | | | | 518 NEW | | |
| VCMT 110304-MP | 0.4–2.5 | 3.18 | 0.4 | 10 pcs. | | | | 310 | | | | 410 | | 510 | | 610 |
| VCMT 110308-MP | 0.6–3.0 | 3.18 | 0.8 | 10 pcs. | | | | 311 | | | | | | 511 | | |
| VCMT 160404-MP | 0.4–2.5 | 4.76 | 0.4 | 10 pcs. | | | | 312 | | | | 412 | | 512 | | 612 |
| VCMT 160408-MP | 0.6–3.0 | 4.76 | 0.8 | 10 pcs. | | | | 313 | | | | 413 | | | | 613 |

## 18616 Indexable insert VCMT

ATORN®

18616


NEW


- FM

| Applications | | | | | P K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7820 |
| Coating | | | | | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18616 ... |
| VCMT 110302-FM | 0.1–1.0 | 3.18 | 0.2 | 10 pcs. | 201 |
| VCMT 110304-FM | 0.1–1.5 | 3.18 | 0.4 | 10 pcs. | 202 |
| VCMT 160404-FM | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | 204 |
| VCMT 160408-FM | 0.1–1.5 | 4.76 | 0.8 | 10 pcs. | 205 |

## 19621 Indexable inserts VCMT/VCGT

CUTTING SOLUTIONS BY CERATIZIT

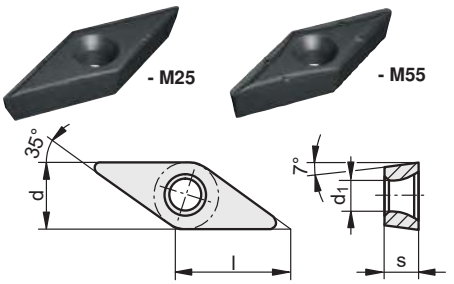
**Design**
- Positive 7°
- 35° tip angle

**19621 101-103**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

**19621 201-208**
**Applications**
For machining steels and cast iron.

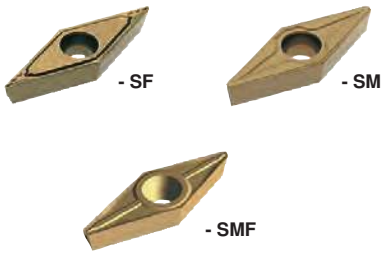
| Applications | | | | | | | P M | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 | |
| Coating | | | | | | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19621 | ... |
| VCMT 160404EN-M25 | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 101 |
| VCMT 160404EN-M55 | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 102 |
| VCMT 160408EN-M55 | 16.6 | 9.52 | 4.76 | 4.4 | 0.8 | 10 pcs. | | 103 |

19621 101-103




| Applications | | | | | | | P K | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 | |
| Coating | | | | | | | CVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19621 | ... |
| VCGT 110304EN-SF | 11.1 | 6.35 | 3.18 | 2.9 | 0.4 | 10 pcs. | | 201 |
| VCGT 110308EN-SF | 11.1 | 6.35 | 3.18 | 2.9 | 0.8 | 10 pcs. | | 202 |
| VCMT 160404EN-SF | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 203 |
| VCMT 160404EN-SM | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 204 |
| VCMT 160404EN-SMF | 16.6 | 9.52 | 4.76 | 4.4 | 0.4 | 10 pcs. | | 205 |
| VCMT 160408EN-SF | 16.6 | 9.52 | 4.76 | 4.4 | 0.8 | 10 pcs. | | 206 |
| VCMT 160408EN-SM | 16.6 | 9.52 | 4.76 | 4.4 | 0.8 | 10 pcs. | | 207 |
| VCMT 160408EN-SMF | 16.6 | 9.52 | 4.76 | 4.4 | 0.8 | 10 pcs. | | 208 |

19621 201-208




## 19622 Indexable inserts VNMG

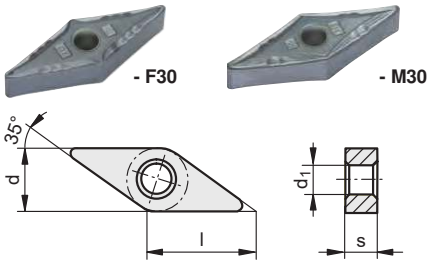
CUTTING SOLUTIONS BY CERATIZIT

**Design**
- Negative 0°
- 35° tip angle

**19622 101-103**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.

| Applications | | | | | | | P M | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 | |
| Coating | | | | | | | PVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19622 | ... |
| VNMG 160404EN-F30 | 16.6 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | | 101 |
| VNMG 160408EN-F30 | 16.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | | 102 |
| VNMG 160408EN-M30 | 16.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | | 103 |

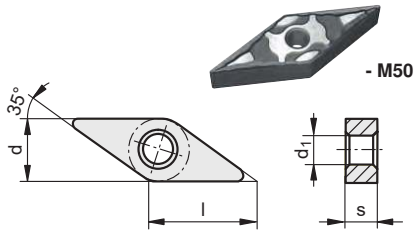
19622 101-103




**19622 201-203**
**Applications**
For machining steels and cast iron.

| Applications | | | | | | | P K | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 | |
| Coating | | | | | | | CVD | |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19622 | ... |
| VNMG 160404EN-M50 | 16.6 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | | 201 |
| VNMG 160408EN-M50 | 16.6 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | | 202 |
| VNMG 160412EN-M50 | 16.6 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | | 203 |

19622 201-203

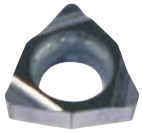



## 18619 Indexable inserts WCGT

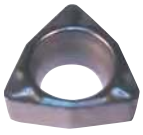
ATORN®

| Applications | | | N | | N | |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | HW 6315 | | HC 7625 | |
| Coating | | | uncoated | | uncoated | |
| ISO designation | r mm | | 18619 | ... | 18619 | ... |
| WCGT 020101-MN | 0.1 | 10 pcs. | | 101 | | |
| WCGT 020102-MN | 0.2 | 10 pcs. | | 102 | | |
| WCGT 020104-MN | 0.4 | 10 pcs. | | 103 | | |
| WCMT 020102 | 0.2 | 10 pcs. | | | | 201 |
| WCMT 020104 | 0.4 | 10 pcs. | | | | 202 |

18619 101-103



18619 201-202







= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18620 Indexable inserts WNMG

ATORN®

**Design**
- Negative 0°
- 80° tip angle

**WNMG .....-WP**
**Design**
With WIPER cutting geometry (same surface quality with double feed, twice the surface quality with the same feed).

**WNMG .....-FP**
**WNMG .....-FM**
**Applications**
For finishing.

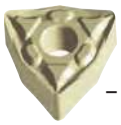
**WNMG .....-MP**
**WNMG .....-MM**
**Applications**
For mid-range machining.

**WNMG .....-RP5**
**WNMG .....-RM**
**Applications**
For roughing.

18620

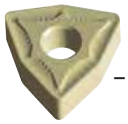

– WP


– FP


– FM


– MP
– MM


– RP5


– RM

| Applications | | | | | P K | P K | P | M | M | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7610 | HC 7620 | HC 7630 | HC 7510 | HC 7520 | HC 7530 |
| Coating | | | | | coated | coated | coated | coated | coated | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18620 ... | 18620 ... | 18620 ... | 18620 ... | 18620 ... | 18620 ... |
| WNMG 080408-WP | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | | 201 | | | | |
| WNMG 080412-WP | 1.5–4.0 | 4.76 | 1.2 | 10 pcs. | 102 | | | | | |
| WNMG 080404-FP | 0.1–1.5 | 4.76 | 0.4 | 10 pcs. | | 207 | | | | |
| WNMG 080408-FP | 0.2–2.0 | 4.76 | 0.8 | 10 pcs. | | 208 | | | | |
| WNMG 060404-FM | 0.2–1.0 | 4.76 | 0.4 | 10 pcs. | | | | 510 | | |
| WNMG 080404-FM | 0.2–1.0 | 4.76 | 0.4 | 10 pcs. | | | | 512 | 612 | |
| WNMG 060404-MP | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | 211 | | | | |
| WNMG 060408-MP | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | 212 | | | | |
| WNMG 080404-MP | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | 213 | 413 | | | |
| WNMG 080408-MP | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | 214 | 414 | | | |
| WNMG 080412-MP | 1.0–6.0 | 4.76 | 1.2 | 10 pcs. | | 215 | | | | |
| WNMG 060404-MM | 0.5–4.0 | 4.76 | 0.4 | 10 pcs. | | | | | | 720 |
| WNMG 060408 MM | 0.6–4.0 | 4.76 | 0.8 | 10 pcs. | | | | | 621 | 721 |
| WNMG 080408 MM | 0.6–5.0 | 4.76 | 0.8 | 10 pcs. | | | | | 622 | 722 |
| WNMG 080408-RP5 | 1.0–6.0 | 4.76 | 0.8 | 10 pcs. | 120 NEW | 220 | 420 | | | |
| WNMG 080412-RP5 | 1.0–6.0 | 4.76 | 1.2 | 10 pcs. | | 221 | | | | |
| WNMG 080408-RM | 1.2–4.0 | 4.76 | 0.8 | 10 pcs. | | 625 | 725 | | | |

## 18621 Indexable inserts WNMG

ATORN®

18621

NEW


- MM

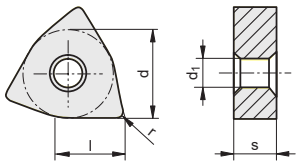
| Applications | | | | | P M S | P M S |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 7820 | HC 7830 |
| Coating | | | | | coated | coated |
| ISO designation | Clamping depth approx. mm | Thickness mm | r mm | | 18621 ... | 18621 ... |
| WNMG 080404-MM | 0.5–3.0 | 4.76 | 0.4 | 10 pcs. | 221 | 321 |
| WNMG 080408-MM | 0.8–3.0 | 4.76 | 0.8 | 10 pcs. | 222 | 322 |

CUTTING SOLUTIONS BY CERATIZIT

19623 101-112

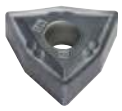
**Design**
- Negative 0°
- 80° tip angle

**19623 101-112**
**Applications**
For machining steels, as well as stainless and acid-resistant materials.





- F30

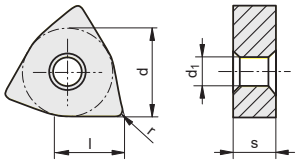

- M30

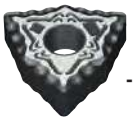

- M60

| Applications | | | | | | | P M |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTPM125 |
| Coating | | | | | | | PVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19623 ... |
| WNMG 060404EN-F30 | 6.50 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 101 |
| WNMG 060408EN-F30 | 6.50 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 102 |
| WNMG 060408EN-M30 | 6.50 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 103 |
| WNMG 060408EN-M60 | 6.50 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 104 |
| WNMG 060412EN-M30 | 6.50 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 105 |
| WNMG 060412EN-M60 | 6.50 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 106 |
| WNMG 080404EN-F30 | 8.69 | 12.70 | 4.76 | 5.16 | 0.4 | 10 pcs. | 107 |
| WNMG 080408EN-F30 | 8.69 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 108 |
| WNMG 080408EN-M30 | 8.69 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 109 |
| WNMG 080412EN-M30 | 8.69 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | 110 |
| WNMG 080408EN-M60 | 8.69 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 111 |
| WNMG 080412EN-M60 | 8.69 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | 112 |

**19623 201-210**
**Applications**
For machining steels and cast iron.

19623 201-210





- F50


- M50


- M70

| Applications | | | | | | | P K |
|---|---|---|---|---|---|---|---|
| Cemented carbide type | | | | | | | CTCP125 |
| Coating | | | | | | | CVD |
| ISO designation | l mm | d mm | s mm | $d_1$ mm | r mm | | 19623 ... |
| WNMG 060404EN-F50 | 6.50 | 9.52 | 4.76 | 3.81 | 0.4 | 10 pcs. | 201 |
| WNMG 060408EN-M50 | 6.50 | 9.52 | 4.76 | 3.81 | 0.8 | 10 pcs. | 203 |
| WNMG 060412EN-M50 | 6.50 | 9.52 | 4.76 | 3.81 | 1.2 | 10 pcs. | 204 |
| WNMG 080404EN-F50 | 8.69 | 12.70 | 4.76 | 5.16 | 0.4 | 10 pcs. | 205 |
| WNMG 080408EN-M50 | 8.69 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 207 |
| WNMG 080412EN-M50 | 8.69 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | 208 |
| WNMG 080408EN-M70 | 8.69 | 12.70 | 4.76 | 5.16 | 0.8 | 10 pcs. | 209 |
| WNMG 080412EN-M70 | 8.69 | 12.70 | 4.76 | 5.16 | 1.2 | 10 pcs. | 210 |



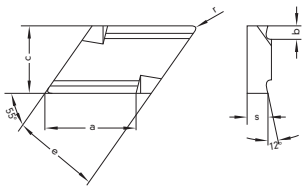

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18623 Indexable inserts KNUX

ATORN®

**Design**
- **Negative 0°**
- **55°** tip angle
- With sintered chip breaker

18623



| Applications | | | | | | | P M K | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | HC 6640 | |
| Coating | | | | | | | coated | |
| **ISO designation** | **a mm** | **s mm** | **r mm** | **b mm** | **e mm** | | **18623** | **...** |
| **KNUX 160405R-11** | 16 | 4.76 | 0.5 | 2.2 | 9.52 | 10 pcs. | | **210** |
| **KNUX 160405L-11** | 16 | 4.76 | 0.5 | 2.2 | 9.52 | 10 pcs. | | **220** |
| **KNUX 160410R-12** | 16 | 4.76 | 1.0 | 3.2 | 9.52 | 10 pcs. | | **230** |
| **KNUX 160410L-12** | 16 | 4.76 | 1.0 | 3.2 | 9.52 | 10 pcs. | | **240** |

## 18626 - 18629 Indexable inserts (negative)

ALU

HW

**Design**
- Excellent chip control, surfaces, toughness and wear characteristics
- Twice the number of cutting edges per indexable insert

**Applications**
Up to approx. 5 mm clamping depth. In standard clamp holders.

**18626**
- **Negative**
- **80°** tip angle

**18627**
- **Negative**
- **55°** tip angle

**18628**
- Triangular
- **Negative**

**18629**
- **Negative**
- **35°** tip angle

| | 18626 | | 18627 | | 18628 | | 18629 | |
|---|---|---|---|---|---|---|---|---|
| Applications | N | | N | | N | | N | |
| Cemented carbide grade | LT 05 | | LT 05 | | LT 05 | | LT 05 | |
| Coating | coated | | coated | | coated | | coated | |
| **ISO designation** | **18626** | **...** | **18627** | **...** | **18628** | **...** | **18629** | **...** |
| **CNGG 120404-AL** | | **101** | | | | | | |
| **CNGG 120408-ALU** | | **102** | | | | | | |
| **DNGG 110404-AL** | | | | **101** | | | | |
| **DNGG 110408-AL** | | | | **102** | | | | |
| **TNGG 160404-AL** | | | | | | **101** | | |
| **VNGG 160404-AL** | | | | | | | | **101** |
| **VNGG 160408-AL** | | | | | | | | **102** |

## Info 18638 - 18646 Ceramic inserts for turning (H 77) cast iron and hardened steels

- For hard fine turning of steels up to 58 HRC
- For finishing of GG + GGG
- Main application of GG + GGG

**Advantage:**
- Complex grinding is not necessary

**Areas of application of H 77**

- For industrial applications in hard fine turning of hardened steel workpieces such as gears, bevel drive gears, drive shafts, pinions and selector sleeves. In these applications, hardened steels with a hardness of up to 58 HRC are usually machined, where hard fine turning replaces grinding of the workpieces.
- For finishing and fine finishing when turning and milling workpieces made of GG and GGG, where close dimensional and form tolerances and high surface qualities are required.

## Cutting data recommendations for simple and fine turning with H 77

**Grey cast iron with scaled graphite GG**

| Operation | Hardness HB | Cutting speed $v_c$ (m/min) | | Cutting depth $a_p$ (mm) | Feed rate f (mm/U) |
|---|---|---|---|---|---|
| | | Reference value | Total area | | |
| Finishing | 140-210 | 800 | 400-1200 | 0.31-1.0 | 0.20-0.60 |
| | 220-240 | 600 | 300-800 | | |
| | 250-280 | 400 | 150-500 | | |
| Fine finishing | 140-240 | 550 | 300-650 | 0.2-0.5 | 0.08-0.25 |
| | 240-280 | 400 | 150-500 | | |

**Cast iron with nodular graphite GGG**

| Operation | Tensile strength $R_m$ (N/mm²) | Cutting speed $v_c$ (m/min) | | Cutting depth $a_p$ (mm) | Feed rate f (mm/U) |
|---|---|---|---|---|---|
| | | Reference value | Total area | | |
| Finishing | 400-600 | 400 | 250-600 | 0.30-1.0 | 0.20-0.40 |
| | 700 | 350 | 150-400 | | |
| Fine finishing | 400-600 | 400 | 250-600 | 0.25-0.5 | 0.08-0.20 |
| | 700 | 350 | 150-400 | | |

## Cutting data recommendations for simple and fine milling with H 77

**Grey cast iron and black malleable cast iron with multi-tooth milling cutters**

| Operation | Hardness HB | Cutting speed $v_c$ (m/min) | | Cutting depth $a_p$ (mm) | Feed rate f (mm/U) | | | |
|---|---|---|---|---|---|---|---|---|
| | | Reference value | Total area | | Reference value | Total area for setting angle K | | |
| | | | | | | 45° | 75° | 80/90° |
| Finishing | 190-210 | 700 | 200-900 | 0.5-1.0 | 0.12 | 0.10-0.20 | 0.10-0.15 | 0.08-0.15 |
| | 220-240 | 500 | 200-700 | | | | | |
| | 250-280 | 400 | 200-500 | | | | | |
| Fine finishing | 190-210 | 700 | 200-900 | 0.1-0.5 | 0.10 | 0.08-0.15 | 0.08-0.15 | 0.05-0.12 |
| | 220-240 | 500 | 200-700 | | | | | |
| | 250-280 | 400 | 200-500 | | | | | |

## Cutting data recommendations for hard turning with H 77

**Hardened steel**

| Hardness HB | Cutting speed $v_c$ (m/min) | | Reference value for stress thickness (mm) |
|---|---|---|---|
| | Reference value | Total area | |
| 48 | 250 | 60-300 | ≤ 0.18 |
| 52 | 200 | 50-220 | ≤ 0.16 |
| 56 | 180 | 40-200 | ≤ 0.14 |
| 60 | 150 | 30-180 | ≤ 0.12 |

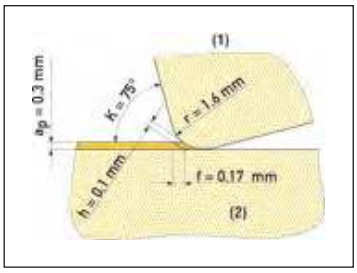
### Determination of the feed rate when turning hardened steel

| Cutting depth $a_p$ (mm) | Indexable insert corner radius $r_e$ (mm) | | |
|---|---|---|---|
| | 0.4 | 0.8 | 1.2 |
| 0.1 | 1.5 | 2.1 | 2.5 |
| 0.2 | 1.15 | 1.6 | 1.8 |
| 0.3 | 1.0 | 1.3 | 1.5 |
| 0.4 | 1.0 | 1.2 | 1.3 |
| 0.5 | – | 1.1 | 1.2 |

$f = h \cdot M$

Conversion factor M for inserts with corner radius $r_{ea}$

Factor M




**Typical operating conditions for hard turning**
(1) = Indexable insert
(2) = Workpiece

Lathe tools

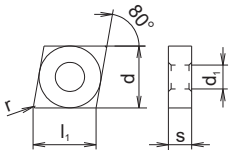


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18638 Ceramic indexable inserts CNGA

GG(G) 58 HRC

**Design**
**Rhombic,** negative 0°, 80° tip angle.
**Quality**
**Mixed ceramic $Al_2O_3$ - TiCN (H 77).**



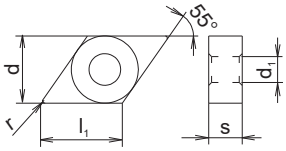

18638

| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | KH 18638 ... |
|---|---|---|---|---|---|---|
| CNGA 120408 T02020 | 12.9 | 4.76 | 0.8 | 12.7 | 5.16 | 301 |
| CNGA 120412 T02020 | 12.9 | 4.76 | 1.2 | 12.7 | 5.16 | 302 |

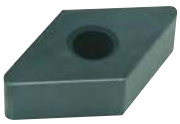
## 18640 Ceramic indexable inserts DNGA

GG(G) 58 HRC

**Design**
**Rhombic,** negative 0°, 55° tip angle.
**Quality**
**Mixed ceramic $Al_2O_3$ - TiCN (H 77).**




18640

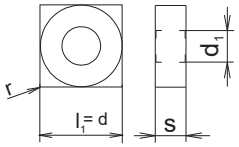


| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | KH 18640 ... |
|---|---|---|---|---|---|---|
| DNGA 150608 T02020 | 15.5 | 7.94 | 0.8 | 12.7 | 5.16 | 101 |
| DNGA 150612 T02020 | 15.5 | 7.94 | 1.2 | 12.7 | 5.16 | 102 |

## 18642 Ceramic indexable inserts SNGA

GG(G) 58 HRC

**Design**
**Square,** negative 0°, 90° tip angle.
**Quality**
**Mixed ceramic $Al_2O_3$ - TiCN (H 77).**



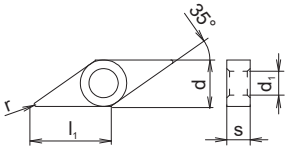

18642

| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | KH 18642 ... |
|---|---|---|---|---|---|---|
| SNGA 120408 T02020 | 12.7 | 4.76 | 0.8 | 12.7 | 5.16 | 201 |
| SNGA 120412 T02020 | 12.7 | 4.76 | 1.2 | 12.7 | 5.16 | 202 |

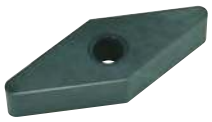
## 18646 Ceramic indexable inserts VNGA

GG(G) 58 HRC

**Design**
**Rhombic,** negative 0°, 35° tip angle.
**Quality**
**Mixed ceramic $Al_2O_3$ - TiCN (H 77).**




18646



| ISO designation | $l_1$ mm | s mm | r mm | d mm | $d_1$ mm | KH 18646 ... |
|---|---|---|---|---|---|---|
| VNGA 160404 T02020 | 16.5 | 4.76 | 0.4 | 9.52 | 3.81 | 101 |
| VNGA 160408 T02020 | 16.5 | 4.76 | 0.8 | 9.52 | 3.81 | 102 |

## 18649 Mini CBN indexable inserts

ATORN®

**18649**
**Design**
- **Sharp-edged**
- Corners with cubic crystalline boron nitride
- Also for severely interrupted cut
- Cutting edge lasered

NEW

### 18649 001-003 + 18649 101-103

**Design**
- Positive 15°
- Tip angle 80°
- Cutting edge length 1.6 mm

18649 001-003
18649 101-103

| Applications: | hardened steel 42–68 HRC ABC30B/A | | cast iron/special alloys ABC15B/A | |
|---|---|---|---|---|
| ISO designation | 18649 | ... | 18649 | ... |
| CDGW 040101 | | 001 | | 101 |
| CDGW 040102 | | 002 | | 102 |
| CDGW 040104 | | 003 | | 103 |

### 18649 004-006 + 18649 104-106

**Design**
- Positive 11°
- Tip angle 80°
- Cutting edge length 2.0 mm

18649 004-006
18649 104-106

| Applications: | hardened steel 42–68 HRC ABC30B/A | | cast iron/special alloys ABC15B/A | |
|---|---|---|---|---|
| ISO designation | 18649 | ... | 18649 | ... |
| CPGW 05T101 | | 004 | | 104 |
| CPGW 05T102 | | 005 | | 105 |
| CPGW 05T104 | | 006 | | 106 |

### 18649 007-009 + 18649 107-109

**Design**
- Positive 7°
- Tip angle 55°
- Cutting edge length 2.0 mm

18649 007-009
18649 107-109

| Applications: | hardened steel 42–68 HRC ABC30B/A | | cast iron/special alloys ABC15B/A | |
|---|---|---|---|---|
| ISO designation | 18649 | ... | 18649 | ... |
| DCGW 04T001 | | 007 | | 107 |
| DCGW 04T002 | | 008 | | 108 |
| DCGW 04T004 | | 009 | | 109 |

### 18649 010-012 + 18649 110-112

**Design**
- Positive 7°
- Tip angle 35°
- Cutting edge length 2.0 mm

18649 010-012
18649 110-112

| Applications: | hardened steel 42–68 HRC ABC30B/A | | cast iron/special alloys ABC15B/A | |
|---|---|---|---|---|
| ISO designation | 18649 | ... | 18649 | ... |
| VCGW 050101 | | 010 | | 110 |
| VCGW 050102 | | 011 | | 111 |
| VCGW 050104 | | 012 | | 112 |

### 18649 013-015 + 18649 113-115

**Design**
- Positive 7°
- Tip angle 80°
- Cutting edge length 1.6 mm

18649 013-015
18649 113-115

| Applications: | hardened steel 42–68 HRC ABC30B/A | | cast iron/special alloys ABC15B/A | |
|---|---|---|---|---|
| ISO designation | 18649 | ... | 18649 | ... |
| WCGW 020101 | | 013 | | 113 |
| WCGW 020102 | | 014 | | 114 |
| WCGW 020104 | | 015 | | 115 |

# Info 18650 - 18659 ISO indexable inserts CBN

ATORN®

**Design**
- Carbide plate with soldered CBN insert
- Cost savings due to the elimination of grinding
- **F = sharp-edged:** For fine finishing with continuous cut
- **T = chamfered:** for interrupted cut

**Quality**
- **ABC 10** (ISO K01-K25, S01-S15)
  For grey cast iron (GG 25), super alloys, sintered steels
- **ABC 15** (ISO K10-K30, S01-S15)
  For grey cast iron e.g. GG 25 or super alloys such as Inconel or titanium
- **ABC 25** (ISO K05-K20, S05-S25, H01-H25)
  For hard turning of 54-62 HRC (dry machining)
- **ABC 30** (ISO K10-K30, H10-H30)
  For hard turning of 54-62 HRC

## 18650 CBN indexable inserts CCGW

ATORN®

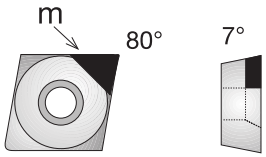
**Design**
- Positive 7°
- 80° tip angle
- Cutting edge length m = 2.5–3.0 mm depending on cutting edge radius

**18650 301-305 + 501-505**
**Design**
F = sharp-edged.

**18650 401-405 + 601-605**
**Design**
T = chamfered 20° x 0.15 mm.

18650

| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18650 ... | 18650 ... | 18650 ... | 18650 ... |
| CCGW 060202 | 301 | 401 | 501 | 601 |
| CCGW 060204 | 302 | 402 | 502 | 602 |
| CCGW 09T304 | 303 | 403 | 503 | 603 |
| CCGW 09T308 | 304 | 404 | 504 | 604 |
| CCGW 120404 | 305 | 405 | 505 | 605 |




## 18651 CBN indexable inserts CNGA

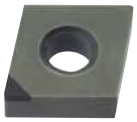
ATORN®

**Design**
- Negative 0°
- 80° tip angle
- Cutting edge length m = 2.5–3.0 mm depending on cutting edge radius

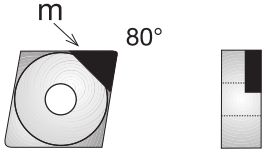
**18651 301-302 + 501-502**
**Design**
F = sharp-edged.

**18651 401-402 + 601-602**
**Design**
T = chamfered 20° x 0.15 mm.

18651



| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18651 ... | 18651 ... | 18651 ... | 18651 ... |
| CNGA 120404 | 301 | 401 | 501 | 601 |
| CNGA 120408 | 302 | 402 | 502 | 602 |



## 18652 CBN indexable inserts DCGW

65 HRC | GG(G)

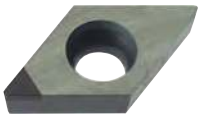
ATORN®

**Design**
- Positive 7°
- 55° tip angle
- With sintered chip breaker
- Cutting edge length m = 2.5–3.0 mm depending on cutting edge radius

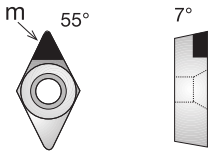
**18652 301-305 + 501-505**
**Design**
F = sharp-edged.

**18652 401-405 + 601-605**
**Design**
T = chamfered 20° x 0.15 mm.

18652



| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18652 ... | 18652 ... | 18652 ... | 18652 ... |
| DCGW 070202 | 301 | 401 | 501 | 601 |
| DCGW 070204 | 302 | 402 | 502 | 602 |
| DCGW 11T302 | 303 | 403 | 503 | 603 |
| DCGW 11T304 | 304 | 404 | 504 | 604 |
| DCGW 11T308 | 305 | 405 | 505 | 605 |




## 18653 CBN indexable inserts DNGA

65 HRC | GG(G)

ATORN®

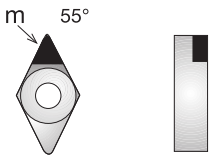
**Design**
- Negative 0°
- 55° tip angle
- Cutting edge length m = 3.0–3.5 mm depending on cutting edge radius

**18653 301-302 + 501-502**
**Design**
F = sharp-edged.

**18653 401-402 + 601-602**
**Design**
T = chamfered 20° x 0.15 mm.

18653

| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18653 ... | 18653 ... | 18653 ... | 18653 ... |
| DNGA 150604 | 301 | 401 | 501 | 601 |
| DNGA 150608 | 302 | 402 | 502 | 602 |




## 18657 CBN indexable inserts TNGA

65 HRC | GG(G)

ATORN®

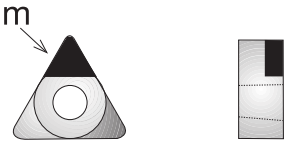
**Design**
- Negative 0°
- 60° tip angle
- Cutting edge length m = 3.0–3.5 mm depending on cutting edge radius

**18657 301-302 + 501-502**
**Design**
F = sharp-edged.

**18657 401-402 + 601-602**
**Design**
T = chamfered 20° x 0.15 mm.

18657

| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18657 ... | 18657 ... | 18657 ... | 18657 ... |
| TNGA 160404 | 301 | 401 | 501 | 601 |
| TNGA 160408 | 302 | 402 | 502 | 602 |




## 18659 CBN indexable inserts VNGA

65 HRC | GG(G)

ATORN®

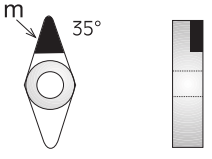
**Design**
- Negative 0°
- 35° tip angle
- Cutting edge length m = 4.4–5.0 mm depending on cutting edge radius.

**18659 301-302 + 501-502**
**Design**
F = sharp-edged.

**18659 401-402 + 601-602**
**Design**
T = chamfered 20° x 0.15 mm.

18659

| | ABC10/F | ABC10/T | ABC25/F | ABC25/T |
|---|---|---|---|---|
| ISO designation | 18659 ... | 18659 ... | 18659 ... | 18659 ... |
| VNGA 160404 | 301 | 401 | 501 | 601 |
| VNGA 160408 | 302 | 402 | 502 | 602 |



## Info

## 18664 - CVD thick film diamond indexable inserts

ATORN®

NEW

VHM NE

**CVD thick film diamond - the hardest tool material in the world!**

The ultra-hard tool material „CVD thick film diamond" has the **highest degrees of hardness and wear resistance** of all the tool materials tested.

Significantly sharper cutting edges thanks to innovative laser technology. PCD, as a tool material, has clear disadvantages compared to „CVD thick film diamond" due to its soft metallic binding phase. Numerous tests have revealed that the soft binding phase of the PCD in particular is damaged by the abrasive particles. This means that diamond crystals break away due to compromised anchoring in the tool material matrix. If used correctly, CVD thick film diamond can deliver three to ten times the service life possible with PCD.

**Applications:**
- Aluminium
- Copper
- Brass
- Ceramic
- Zirconium
- Cemented carbide
- GFRP/CFRP
- Graphite

ALU CU MS Keramik Zirkon Hart-metall GFK CFK Graphit Kunst-stoffe

## 18664 Mini CVD thick film diamond indexable inserts

VHM NE

ATORN®

**Design**
- **Sharp-edged**
- Corners with CVD thick film diamond
- Cutting edge lasered

NEW

### 18664 001-003

**Design**
- Positive 15°
- Tip angle 80°
- Cutting edge length 1.6 mm

| | AVC |
|---|---|
| ISO designation | 18664 ... |
| CDGW 040101 | 001 |
| CDGW 040102 | 002 |
| CDGW 040104 | 003 |

18664 001-003

### 18664 101-103

**Design**
- Positive 11°
- Tip angle 80°
- Cutting edge length 2.0 mm

| | AVC |
|---|---|
| ISO designation | 18664 ... |
| CPGW 05T101 | 101 |
| CPGW 05T102 | 102 |
| CPGW 05T104 | 103 |

18664 101-103

### 18664 201-203

**Design**
- Positive 7°
- Tip angle 55°
- Cutting edge length 2.0 mm

| | AVC |
|---|---|
| ISO designation | 18664 ... |
| DCGW 04T001 | 201 |
| DCGW 04T002 | 202 |
| DCGW 04T004 | 203 |

18664 201-203

### 18664 301-303

**Design**
- Positive 7°
- Tip angle 35°
- Cutting edge length 2.0 mm

| | AVC |
|---|---|
| ISO designation | 18664 ... |
| VCGW 050101 FN | 301 |
| VCGW 050102 FN | 302 |
| VCGW 050104 FN | 303 |

18664 301-303

### 18664 401-403

**Design**
- Positive 7°
- Tip angle 80°
- Cutting edge length 1.6 mm

| | AVC |
|---|---|
| ISO designation | 18664 ... |
| WCGW 020101 FN | 401 |
| WCGW 020102 FN | 402 |
| WCGW 020104 FN | 403 |

18664 401-403

## Info — 18660 - 18663 PKD (polycrystalline diamond) ISO indexable inserts

ATORN®

- Carbide plate with soldered PKD insert
- **Quality ADC** (ISO N05-N40)

**Use:** Fine finishing and finishing of all non-ferrous metals and non-ferrous materials with small amounts of abrasive fillers.

ALU

**Cutting data recommendations:**

| ISO | Material | Vc m/min. | Feed rate f mm/U |
|---|---|---|---|
| N | Aluminium alloys below 3% Si | 200 - 2,500 | 0.05 - 0.40 |
| | Aluminium alloys up to 12% Si | 150 - 2,000 | 0.05 - 0.40 |
| | Aluminium alloys up to approx. 21% Si | 100 - 1,800 | 0.05 - 0.40 |
| | Brass-magnesium-zinc alloys | 200 - 2,000 | 0.05 - 0.40 |
| | Copper-bronze-lead alloys | 200 - 1,500 | 0.05 - 0.40 |
| | Duroplastics and thermoplastics with or without fillers, e.g.: CFK, GFK and epoxy resins | 100 - 1,000 | 0.05 - 0.20 |

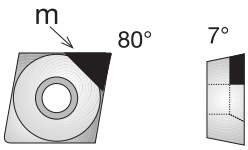
## 18660 PCD indexable inserts CCGW

ALU

ATORN®

**Design**
- **Sharp-edged**
- Positive 7°
- 80° tip angle
- Cutting edge length m = 3.2–4.3 mm

18660




| ISO designation | ADC/F 18660 ... |
|---|---|
| CCGW 060202 | 201 |
| CCGW 060204 | 202 |
| CCGW 09T304 | 204 |
| CCGW 09T308 | 205 |
| CCGW 120404 | 206 |

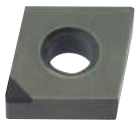
## 18661 PCD indexable inserts CNGA

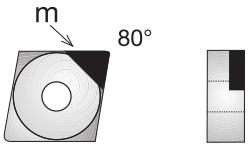
ALU

ATORN®

**Design**
- **Sharp-edged**
- Negative 0°
- 80° tip angle
- Cutting edge length m = 6.0 mm

18661






| ISO designation | ADC/F 18661 ... |
|---|---|
| CNGA 120404 | 201 |
| CNGA 120408 | 202 |

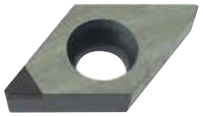
## 18662 PCD indexable inserts DCGW

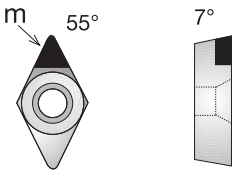
ALU

ATORN®

**Design**
- **Sharp-edged**
- Positive 7°
- 55° tip angle
- Cutting edge length m = 3.4–4.7 mm.

18662






| ISO designation | ADC/F 18662 ... |
|---|---|
| DCGW 070202 | 201 |
| DCGW 070204 | 202 |
| DCGW 11T302 | 203 |
| DCGW 11T304 | 204 |
| DCGW 11T308 | 205 |

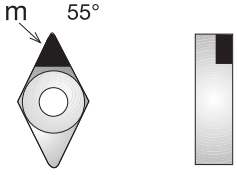
## 18663 PCD indexable inserts DNGA

ALU

ATORN®

**Design**
- **Sharp-edged**
- Negative 0°
- 55° tip angle
- Cutting edge length m = 6.0 mm

18663




| ISO designation | ADC/F 18663 ... |
|---|---|
| DNGA 150604 | 201 |
| DNGA 150608 | 202 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Info — 18665 - ISO Ultra Power indexable inserts

ATORN®

NEW

VHM | NE

Properties of **Ultra PCD**:

- Much sharper cutting edges thanks to innovative laser technology
- **Service life three to five times longer compared to standard PCD and CVD-D**
- **Significantly better surfaces compared to standard PCD and CVD-D**
- Can be used for most non-ferrous materials that cannot be machined with PCD

Hartmetall | Keramik | Graphit | GFK CFK | Kunststoffe

**Applications:**

- Cemented carbide with Co binder
- Cemented carbide with Ni binder
- Ceramic
- Graphite
- Non-ferrous materials that cannot be machined with PCD

## 18665 — Mini ISO Ultra Power indexable inserts

VHM | NE

ATORN®

**18665**
**Design**
- **Sharp-edged**
- Corners with polycrystalline diamond
- Cutting edge lasered

NEW

### 18665 001-003

**Design**
- Positive 15°
- Tip angle 80°
- Cutting edge length 1.6 mm

| ISO designation | APC 18665 ... |
|---|---|
| CDGW 040101 | 001 |
| CDGW 040102 | 002 |
| CDGW 040104 | 003 |

18665 001-003

### 18665 101-103

**Design**
- Positive 11°
- Tip angle 80°
- Cutting edge length 2.0 mm

| ISO designation | APC 18665 ... |
|---|---|
| CPGW 05T101 | 101 |
| CPGW 05T102 | 102 |
| CPGW 05T104 | 103 |

18665 101-103

### 18665 201-203

**Design**
- Positive 7°
- Tip angle 55°
- Cutting edge length 2.0 mm

| ISO designation | APC 18665 ... |
|---|---|
| DCGW 04T001 | 201 |
| DCGW 04T002 | 202 |
| DCGW 04T004 | 203 |

18665 201-203

### 18665 301-303

**Design**
- Positive 7°
- Tip angle 35°
- Cutting edge length 2.0 mm

| ISO designation | APC 18665 ... |
|---|---|
| VCGW 050101 | 301 |
| VCGW 050102 | 302 |
| VCGW 050104 | 303 |

18665 301-303

### 18665 401-403

**Design**
- Positive 7°
- Tip angle 80°
- Cutting edge length 1.6 mm

| ISO designation | APC 18665 ... |
|---|---|
| WCGW 020101 | 401 |
| WCGW 020102 | 402 |
| WCGW 020104 | 403 |

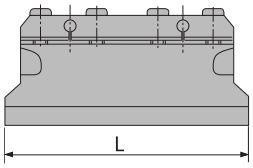
18665 401-403

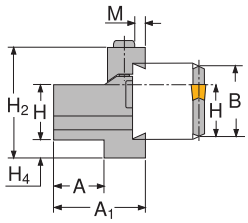
## 18670 Basic holder for blades

ATORN®

**Design**
Delivered without blade.
**Applications**
For clockwise and anti-clockwise rotation.

***Note:***
***Dimension B corresponds to the construction height of the blade.***



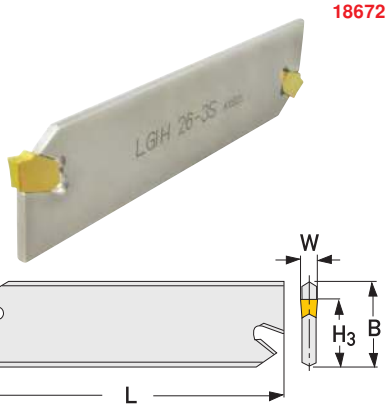

18670

| Designation | B mm | H mm | A mm | M mm | L mm | $A_1$ mm | $H_4$ mm | $H_2$ mm | Screw | 18670 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ATBN 16-2** | 19 | 16 | 16 | 2.0 | 76 | 26 | 4 | 30 | SR-M5 x 25 | | 101 |
| **ATBN 16-5** | 26 | 16 | 16 | 4.0 | 76 | 30 | 12 | 38 | SR-M6 x 30 | | 102 |
| **ATBN 19-5** | 26 | 19 | 19 | 5.0 | 87 | 33 | 9 | 38 | SR-M6 x 30 | | 103 |
| **ATBN 20-5** | 26 | 20 | 19 | 4.0 | 87 | 33 | 8 | 38 | SR-M6 x 30 | | 104 |
| **ATBN 20-6** | 32 | 20 | 19 | 5.5 | 100 | 35 | 13 | 48 | SR-M6 x 40 | | 105 |
| **ATBN 25-6** | 32 | 25 | 20 | 5.5 | 110 | 36 | 8 | 48 | SR-M6 x 40 | | 106 |
| **ATBN 32-6** | 32 | 32 | 28 | 5.5 | 120 | 44 | 3 | 48 | SR-M6 x 40 | | 107 |

## 18672 Blades

**Design**
Without depth stop.
**Applications**
For clockwise and anti-clockwise rotation. For holding cutting inserts art. no. 18674–18675.
For basic holder art. no. 18670.

18672

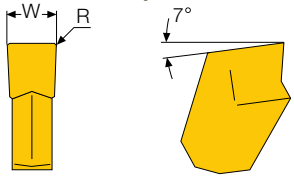



| Designation | $D_{max}$ mm | W mm | B mm | L mm | $H_3$ mm | 18672 | ... |
|---|---|---|---|---|---|---|---|
| **SGIH 26-2** | 50 | 2.2 | 26 | 110 | 21.4 | | 102 |
| **SGIH 26-3** | 75 | 3.1 | 26 | 110 | 21.4 | | 103 |
| **SGIH 26-4** | 80 | 4.1 | 26 | 110 | 21.4 | | 104 |
| **SGIH 32-2** | 40 | 2.2 | 32 | 150 | 25.0 | | 107 |
| **SGIH 32-3** | 100 | 3.1 | 32 | 150 | 25.0 | | 108 |
| **SGIH 32-4** | 100 | 4.1 | 32 | 150 | 25.0 | | 109 |
| **SGIH 32-5** | 120 | 5.1 | 32 | 150 | 25.0 | | 110 |

## 18674 Cutting inserts for grooving and cutting off

**Design**
Neutral.
**Applications**
Suitable for blades art. no. 18672.

18674

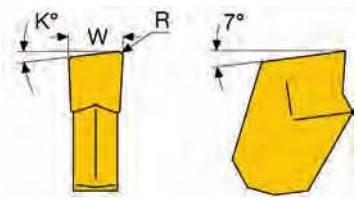



| Applications | | | | P M K | |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | H 42 | |
| Coating | | | | coated | |
| **Designation** | **W±0.1 mm** | **R±0.05 mm** | | **18674** | **...** |
| **GTN-2** | 2.2 | 0.16 | 10 pcs. | | 113 |
| **GTN-3** | 3.1 | 0.20 | 10 pcs. | | 114 |
| **GTN-4** | 4.1 | 0.24 | 10 pcs. | | 115 |
| **GTN-5** | 5.1 | 0.28 | 10 pcs. | | 116 |

## 18675 Cutting inserts for cutting off

**Design**
Right.
**Applications**
Suitable for blades art. no. 18672.

18675




| Applications | | | | | P M K | |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | H 42 | |
| Coating | | | | | coated | |
| **Designation** | **W±0.1 mm** | **K°** | **R±0.05 mm** | | **18675** | **...** |
| **GTR-3-4D** | 3.1 | 4° | 0.20 | 10 pcs. | | 225 |
| **GTR-4-4D** | 4.1 | 4° | 0.24 | 10 pcs. | | 230 |




= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

# Recess turning with A-CUT (art. no. 18680 - 18701)

ATORN®

The A-CUT system covers a wide range of machining operations. It is unique because of its flexibility and economy. There are five different types of cutting inserts and a wide range of holders.

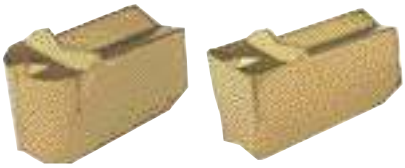
**Possible operations of the A-CUT system:**
- Tapping and grooving
- Deep precision engravings
- Turning and copying
- Undercutting and fine turning
- Groove milling
- Axial grooving

A-CUT cutting inserts are offered with chip breakers in four different geometries. Each is designed for optimal performance in a specific application. Choose the geometry that best suits your application.

**Geometry C**
**AIMC** cutting inserts are ideal for tapping and grooving most steel materials, alloyed steel and stainless steel. They have a strong cutting edge which makes them the first choice for hard materials and rough conditions conditions at medium to high feed rates.

**Geometry J**
**AIMJ** cutting inserts are ideal for tapping and grooving in general operations involving low feed rates on carbon steel, alloy steel and austenitic stainless steel. The cutting edge has a positive clamping angle, making this design a first choice for soft materials, small diameters and thin-walled parts.

**Geometry V**
**AIPV** cutting inserts are designed for machining precision recesses, for free turning and for profile work (width tolerance +/- 0.02 mm). These cutting inserts are available with different corner radii. The V-version has a multi-directional chip breaker.



**Geometry F**
**AIMF** cutting inserts have been specially developed for axial and frontal grooving. The cutting edge height for small diameters has been designed to be centred to allow the grooves to be widened by a series of overlapping grooves.

## Selection of cemented carbide grade

| | A-CUT quality | ISO | Physical properties HRa, BBF= bending strength… N/mm² | Material | Recommended application area |
|---|---|---|---|---|---|
| **Uncoated** | HW 3410 | K10-K20 | HRa 92.5 BBF 2.250 N/mm² | Cast iron with lamellar graphite over HB 220, malleable cast iron, aluminium and aluminium-silicon, copper alloys, phenolic resin laminate and highly heat-resistant alloys | For medium machining and finishing at medium cutting speeds and feed rates |
| **Coated** | HC 3630 | P20-P40 | CVD coated Multilayer TiC+TiCN+TiN | Carbon steel, alloy steel, cast steel, malleable cast iron, austenitic steel, martensitic stainless steel, free-cutting steel | Suitable for medium-heavy finishing and roughing, machining with interrupted cut |
| | HC 3635 | P25-P45 M20-M30 K20-K40 | PVD coated TiCN | Steel, alloy steel, stainless steel | For general applications at medium cutting speeds and in unstable machine conditions |

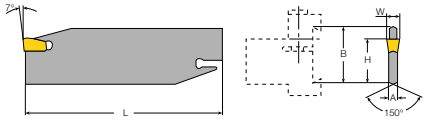
## 18680 Blades A-CUT

ATORN®

18680

**Applications**
For **cutting off** and **deep grooving.**
For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

***Note:***
*Blades should not be used for turning or copy turning operations.*
*Delivered without cutting inserts.*





| Designation | B mm | W mm | A mm | L mm | H mm | Max. workpiece Ø mm | Matching basic holder | 18680 | ... |
|---|---|---|---|---|---|---|---|---|---|
| **AH 101 19 2** | 19 | 2.2 | 1.6 | 86 | 15.7 | 38 | ATBN 16-2 | | 202 |
| **AH 101 26 2** | 26 | 2.2 | 1.6 | 110 | 21.4 | 50 | ATBN 16-5/ATBN 19-5/ATBN 20-5 | | 204 |
| **AH 101 26 3** | 26 | 3.1 | 2.4 | 110 | 21.4 | 75 | ATBN 16-5/ATBN 19-5/ATBN 20-5 | | 205 |
| **AH 101 26 4** | 26 | 4.1 | 3.2 | 110 | 21.4 | 80 | ATBN 16-5/ATBN 19-5/ATBN 20-5 | | 206 |
| **AH 101 32 2** | 32 | 2.2 | 1.6 | 150 | 24.8 | 50 | ATBN 20-6/ATBN 25-6/ATBN 32-6 | | 209 |
| **AH 101 32 3** | 32 | 3.1 | 2.4 | 150 | 24.8 | 100 | ATBN 20-6/ATBN 25-6/ATBN 32-6 | | 210 |
| **AH 101 32 4** | 32 | 4.1 | 3.2 | 150 | 24.8 | 100 | ATBN 20-6/ATBN 25-6/ATBN 32-6 | | 211 |
| **AH 101 32 5** | 32 | 5.1 | 4.0 | 150 | 24.8 | 125 | ATBN 20-6/ATBN 25-6/ATBN 32-6 | | 212 |
| **AH 101 32 6** | 32 | 6.4 | 5.2 | 150 | 24.8 | 125 | ATBN 20-6/ATBN25-6/ATBN 32-6 | | 213 |

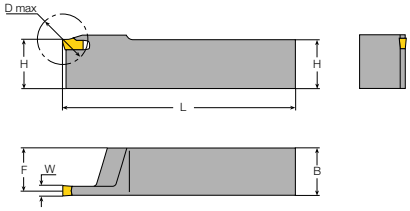
## 18681 Clamp holder A-CUT

ATORN®

18681

**Applications**
For **cutting off** and **grooving**. For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

***Note:***
*Clamp holders should not be used for turning (use clamp holder art. no. 18682 for this operation).*
*Delivered with ejector, without cutting inserts.*





| Designation | H mm | W mm | B mm | L mm | F mm | Max. workpiece Ø mm | Right 18681 | ... | Left 18681 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| **AHR/L 201 1212 2** | 12 | 2.2 | 12 | 110 | 11.2 | 32 | | 201 | | 301 |
| **AHR/L 201 1212 3** | 12 | 3.1 | 12 | 110 | 10.8 | 32 | | 202 | | 302 |
| **AHR/L 201 1616 2** | 16 | 2.2 | 16 | 110 | 15.2 | 32 | | 203 | | 303 |
| **AHR/L 201 1616 3** | 16 | 3.1 | 16 | 110 | 14.8 | 35 | | 204 | | 304 |
| **AHR/L 201 2020 2** | 20 | 2.2 | 20 | 110 | 19.2 | 35 | | 206 | | 306 |
| **AHR/L 201 2020 3** | 20 | 3.1 | 20 | 120 | 18.8 | 52 | | 207 | | 307 |
| **AHR/L 201 2020 4** | 20 | 4.1 | 20 | 120 | 18.4 | 57 | | 208 | | 308 |
| **AHR/L 201 2525 3** | 25 | 3.1 | 25 | 150 | 23.8 | 56 | | 209 | | 309 |
| **AHR/L 201 2525 4** | 25 | 4.1 | 25 | 150 | 23.4 | 65 | | 210 | | 310 |

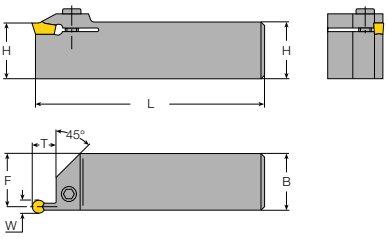
## 18682 Clamp holder A-CUT

ATORN®

18682

**Applications**
For **cutting off, grooving** and **turning**.
For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

***Note:***
*Cutting inserts AIMC and AIMJ (art. no. 18687–18692) should be used only for grooving.*
*Delivered without cutting inserts.*
*For clamping screw, see art. no. 18685.*





| Designation | H mm | W mm | B mm | L mm | F mm | T mm | Clamping screw | Right 18682 | ... | Left 18682 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AHR/L 211 1616 3** | 16 | 3.1 | 16 | 100 | 14.7 | 9.9 | M5 x 16 | | 201 | | 301 |
| **AHR/L 211 1616 4** | 16 | 4.1 | 16 | 100 | 14.2 | 13.0 | M5 x 16 | | 202 | | 302 |
| **AHR/L 211 2020 3** | 20 | 3.1 | 20 | 125 | 18.7 | 9.9 | M5 x 20 | | 203 | | 303 |
| **AHR/L 211 2020 4** | 20 | 4.1 | 20 | 125 | 18.2 | 13.0 | M5 x 20 | | 204 | | 304 |
| **AHR/L 211 2525 3** | 25 | 3.1 | 25 | 150 | 23.7 | 9.9 | M5 x 20 | | 205 | | 305 |
| **AHR/L 211 2525 4** | 25 | 4.1 | 25 | 150 | 23.2 | 13.0 | M5 x 25 | | 206 | | 306 |
| **AHR/L 211 2525 5** | 25 | 5.1 | 25 | 150 | 22.7 | 13.0 | M5 x 25 | | 207 | | 307 |
| **AHR/L 211 2525 6** | 25 | 6.4 | 25 | 150 | 22.2 | 16.0 | M5 x 25 | | 208 | | 308 |



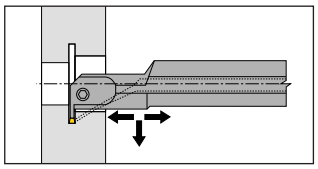


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

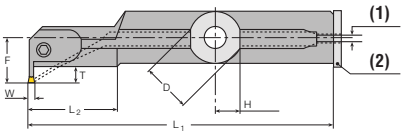
## 18684 Boring bars A-CUT with internal cooling

ATORN®

**Design**
**With internal coolant supply.** Seal thread R 1/8. When using the seal, the boring bar can be shortened by up to 100 mm.
**Applications**
For **internal turning** and **grooving.** For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).



***Note:***
*Cutting inserts AIMC and AIMJ (art. no. 18687–18692) should be used only for grooving. For best results, the cutting edge height should be above the centre by dimension C. Supplied complete with clamping screw (art. no. 18685), TORX® key T20 and seal, **without** cutting inserts.*




**(1)** Sealing thread
**(2)** Seal

18684

| Designation | D mm | Smallest bore Ø in mm | Tmax mm | C mm | W mm | F mm | $L_1$ mm | $L_2$ mm | H mm | Clamping screw | Right 18684 | ... | Left 18684 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AHR/L 619 25C 2 | 25 | 35 | 6.5 | 0.3 | 2.2 | 20.0 | 200 | 51.0 | 11.5 | SR 76-1021 | | 201 | | 301 |
| AHR/L 619 25C 3 | 25 | 47 | 8.0 | 0.5 | 3.1 | 20.8 | 200 | 51.0 | 11.5 | SR 76-1022 | | 202 | | 302 |
| AHR/L 619 25C 4 | 25 | 47 | 8.0 | 0.5 | 4.1 | 20.8 | 200 | 51.0 | 11.5 | SR 76-1022 | | 203 | | 303 |
| AHR/L 619 32C 2 | 32 | 43 | 7.5 | 0.3 | 2.2 | 25.0 | 250 | 63.5 | 14.5 | SR 76-1022 | | 204 | | 304 |
| AHR/L 619 32C 3 | 32 | 52 | 10.0 | 0.5 | 3.1 | 26.6 | 250 | 57.0 | 14.5 | SR 76-1022 | | 205 | | 305 |
| AHR/L 619 32C 4 | 32 | 52 | 10.0 | 0.5 | 4.1 | 26.6 | 250 | 51.0 | 14.0 | SR 76-1022 | | 206 | | 306 |
| AHR/L 619 40C 4 | 40 | 47 | 12.0 | 0.5 | 4.1 | 33.0 | 300 | 51.0 | 18.0 | SR 76-1022 | | 210 | | 310 |

## 18685 Replacement clamping screws for A CUT holder

ATORN®

**Applications**
For A CUT clamp holder, art. no. 18682 and A-CUT boring bars, art. no. 18684.

18685

| Designation | | 18685 | ... |
|---|---|---|---|
| M5 x 16 hexagon socket | 10 pcs. | | 101 |
| M5 x 20 hexagon socket | 10 pcs. | | 102 |
| M5 x 25 hexagon socket | 10 pcs. | | 103 |
| M6 x 25 hexagon socket | 10 pcs. | | 104 |
| SR 76-1021 TORX® | 10 pcs. | | 105 |
| SR 76-1022 TORX® | 10 pcs. | | 106 |

## 18687 - 18689 Cutting inserts A-CUT AIMC

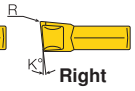
ATORN®

**Design**
**With chip breaker geometry C (strong cutting edge).**

**Applications**
For **cutting off and grooving** in most steels, alloyed steel and stainless steel. For hard materials and rough conditions with mid-range to high feed rates.


Neutral

Left




Right

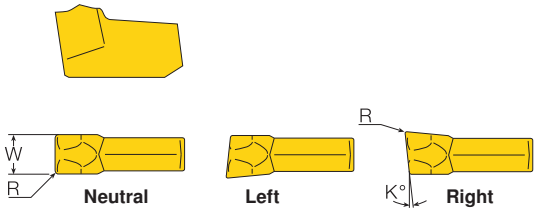
18687 - 18689

| Applications | | | | | NK HW 3410 uncoated | | PMK HC 3635 coated | | P HC 3630 coated | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | | | |
| Coating | | | | | | | | | | |
| Designation | W +/-0.1 mm | K degrees | R mm | | 18687 | ... | 18688 | ... | 18689 | ... |
| AIMC 1.6 | 1.6 | 0 | 0.16 | 5 pcs. | | 301 | | | | 501 |
| AIMC 2 | 2.2 | 0 | 0.20 | 5 pcs. | | 302 | | 402 | | 502 |
| AIMC 2 6L | 2.2 | 6 | 0.20 | 5 pcs. | | 303 | | | | 503 |
| AIMC 2 6R | 2,2 | 6 | 0.20 | 5 pcs. | | 304 | | | | 504 |
| AIMC 3 | 3.1 | 0 | 0.20 | 5 pcs. | | 305 | | 405 | | 505 |
| AIMC 3 6L | 3.1 | 6 | 0.20 | 5 pcs. | | 306 | | 406 | | 506 |
| AIMC 3 6R | 3.1 | 6 | 0.20 | 5 pcs. | | 307 | | 407 | | 507 |
| AIMC 4 | 4.1 | 0 | 0.25 | 5 pcs. | | 308 | | 408 | | 508 |
| AIMC 4 6L | 4.1 | 6 | 0.25 | 5 pcs. | | 309 | | | | 509 |
| AIMC 4 6R | 4.1 | 6 | 0.25 | 5 pcs. | | 310 | | | | 510 |
| AIMC 5 | 5.1 | 0 | 0.30 | 5 pcs. | | 311 | | 411 | | 511 |
| AIMC 5 6L | 5.1 | 6 | 0.30 | 5 pcs. | | 312 | | | | 512 |
| AIMC 5 6R | 5.1 | 6 | 0.30 | 5 pcs. | | 313 | | | | 513 |
| AIMC 6 | 6.4 | 0 | 0.35 | 5 pcs. | | 314 | | 414 | | 514 |
| AIMC 6 6L | 6.4 | 6 | 0.35 | 5 pcs. | | 315 | | | | 515 |
| AIMC 6 6R | 6.4 | 6 | 0.35 | 5 pcs. | | 316 | | | | 516 |

## 18690 - 18692 Cutting inserts A-CUT AIMJ

ATORN®

**Design**
With chip breaker geometry J (cutting edge with positive chip angle).
**Applications**
For **cutting off and grooving** in general operations at low feed rates with carbon steel, alloy steel and austenitic, stainless steel. For soft materials, small diameters and thin-walled parts.



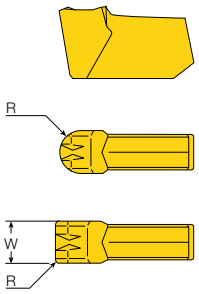

18690 - 18692

| Applications | | | | | N K | P M K | P |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HW 3410 | HC 3635 | HC 3630 |
| Coating | | | | | uncoated | coated | coated |
| Designation | W+/-0.1 mm | K degrees | R mm | | 18690 ... | 18691 ... | 18692 ... |
| AIMJ 2 | 2.2 | 0 | 0.20 | 5 pcs. | 301 | 401 | 501 |
| AIMJ 2 6L | 2.2 | 6 | 0.20 | 5 pcs. | 302 | 402 | 502 |
| AIMJ 2 6R | 2.2 | 6 | 0.20 | 5 pcs. | 303 | 403 | 503 |
| AIMJ 3 | 3.1 | 0 | 0.20 | 5 pcs. | 304 | 404 | 504 |
| AIMJ 3 6L | 3.1 | 6 | 0.20 | 5 pcs. | 305 | 405 | 505 |
| AIMJ 3 6R | 3.1 | 6 | 0.20 | 5 pcs. | 306 | 406 | 506 |
| AIMJ 4 | 4.1 | 0 | 0.25 | 5 pcs. | 307 | 407 | 507 |
| AIMJ 4 6L | 4.1 | 6 | 0.25 | 5 pcs. | 308 | | 508 |
| AIMJ 4 6R | 4.1 | 6 | 0.25 | 5 pcs. | 309 | 409 | 509 |
| AIMJ 5 | 5.1 | 0 | 0.30 | 5 pcs. | 310 | | 510 |

## 18695 Cutting inserts A-CUT AIPV

ATORN®

**Design**
With chip breaker geometry V (multi-directional chip breaker).
**Applications**
For machining **precision grooves,** for **free-turning** and for **profiling.**




18695

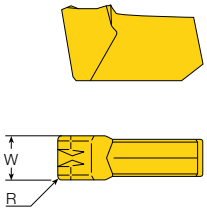
| Applications | | | | | P M K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 3635 |
| Coating | | | | | coated |
| Designation | W+/-0.02 mm | R mm | | | 18695 ... |
| AIPV 3.00E 0.40 | 3 | 0.4 | 5 pcs. | | 201 |
| AIPV 4.00E 0.40 | 4 | 0.4 | 5 pcs. | | 202 |
| AIPV 6.00E 0.40 | 6 | 0.4 | 5 pcs. | | 204 |

| Applications | | | | | P M K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 3635 |
| Coating | | | | | coated |
| Designation | W+/-0.02 mm | R mm | | | 18695 ... |
| AIPV 3.00E 1.50 | 3 | 1.5 | 5 pcs. | | 205 |
| AIPV 4.00E 2.00 | 4 | 2.0 | 5 pcs. | | 206 |
| AIPV 6.00E 3.00 | 6 | 3.0 | 5 pcs. | | 208 |

## 18696 Cutting inserts A-CUT AIPV

ATORN®

**Design**
With chip breaker geometry V (multi-directional chip breaker).
**Applications**
For machining **circlip grooves.**




18696

| Applications | | | | | P M K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 3635 |
| Coating | | | | | coated |
| Designation | W+/-0.02 mm | R mm | | | 18696 ... |
| AIPV 1.85 0.10 | 1.85 | 0.10 | 5 pcs. | | 201 |
| AIPV 2.00 0.20 | 2.00 | 0.20 | 5 pcs. | | 202 |
| AIPV 2.15 0.15 | 2.15 | 0.15 | 5 pcs. | | 203 |
| AIPV 2.65 0.15 | 2.65 | 0.15 | 5 pcs. | | 204 |

| Applications | | | | | P M K |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 3635 |
| Coating | | | | | coated |
| Designation | W+/-0.02 mm | R mm | | | 18696 ... |
| AIPV 3.00 0.20 | 3.00 | 0.20 | 5 pcs. | | 205 |
| AIPV 4.00 0.20 | 4.00 | 0.20 | 5 pcs. | | 207 |
| AIPV 4.15 0.15 | 4.15 | 0.15 | 5 pcs. | | 208 |

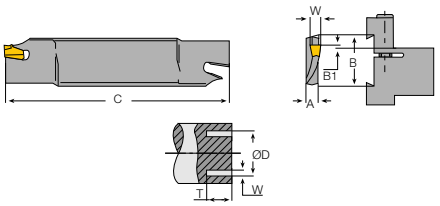



= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18700 Blades for axial grooving A-CUT

ATORN®

**Design**
**Right.**
**Applications**
For machining **diameters 35–700 mm.**
For cutting inserts AIMF (art. no. 18701).
Delivered **without** cutting inserts.





18700

| Designation | For cutting insert | W mm | B mm | Min./max. Ø mm | Tmax mm | A mm | B1 mm | C mm | Right 18700 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| **AH 106 35R-2** | AIMF 2N | 2.1 | 32 | 35–46 | 20 | 5.2 | 0.8 | 150 | | 201 |
| **AH 106 45R-2** | AIMF 2N | 2.1 | 32 | 45–61 | 20 | 5.2 | 0.8 | 150 | | 202 |
| **AH 106 60R-2** | AIMF 2N | 2.1 | 32 | 60–80 | 20 | 5.2 | 0.8 | 150 | | 203 |
| **AH 106 80R-2** | AIMF 2N | 2.1 | 32 | 79–102 | 20 | 4.0 | 0.8 | 150 | | 204 |
| **AH 106 100R-2** | AIMF 2N | 2.1 | 32 | 101–132 | 20 | 4.0 | 0 | 150 | | 205 |
| **AH 106 75R-3** | AIMF 3N | 3.0 | 32 | 65–92 | 20 | 5.2 | 1.0 | 150 | | 206 |
| **AH 106 90R-3** | AIMF 3N | 3.0 | 32 | 90–122 | 20 | 5.2 | 0.2 | 150 | | 207 |
| **AH 106 120R-3** | AIMF 3N | 3.0 | 32 | 120–160 | 25 | 5.2 | 0 | 150 | | 208 |
| **AH 106 80R-4** | AIMF 4N | 4.0 | 32 | 80–155 | 30 | 5.2 | 2.5 | 150 | | 209 |
| **AH 106 150R-4** | AIMF 4N | 4.0 | 32 | 150–500 | 30 | 5.2 | 2.5 | 150 | | 210 |
| **AH 106 80R-5** | AIMF 5N | 5.0 | 32 | 80–162 | 32 | 5.2 | 2.5 | 150 | | 211 |
| **AH 106 150R-5** | AIMF 5N | 5.0 | 32 | 150–600 | 35 | 5.2 | 2.5 | 150 | | 212 |
| **AH 106 90R-6** | AIMF 6N | 6.0 | 32 | 90–150 | 32 | 8.0 | 2.5 | 150 | | 213 |
| **AH 106 150R-6** | AIMF 6N | 6.0 | 32 | 148–700 | 35 | 5.2 | 2.5 | 150 | | 214 |

## 18701 Cutting inserts for axial grooving A-CUT AIMF

ATORN®

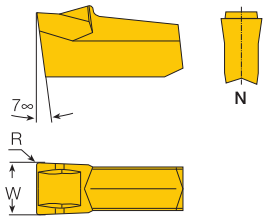
**Design**
With chip breaker geometry F.
**Applications**
Designed specifically for **axial and face grooving.**
The cutting edge height for small diameters is centred to allow the grooves to be expanded through a series of overlapping recesses. After the first recess, the groove width can be increased in both directions.

***Note:***
*AIMF cutting inserts are* **not** *interchangeable with AIMC, AIMJ or AIPV cutting inserts (art. no. 18687–18696).*

18701

**Applications** P M K
**Cemented carbide grade** HC 3630
**Coating** coated

| Designation | Version | W +/-0.1 mm | R mm | For ØD mm | | 18701 | ... |
|---|---|---|---|---|---|---|---|
| **AIMF 2N** | Neutral | 2.1 | 0.20 | from 35 | 5 pcs. | | 101 |
| **AIMF 3N** | Neutral | 3.0 | 0.30 | from 54 | 5 pcs. | | 104 |
| **AIMF 4N** | Neutral | 4.0 | 0.25 | from 35 | 5 pcs. | | 107 |
| **AIMF 5N** | Neutral | 5.0 | 0.25 | from 40 | 5 pcs. | | 108 |
| **AIMF 6N** | Neutral | 6.0 | 0.25 | from 44 | 5 pcs. | | 109 |

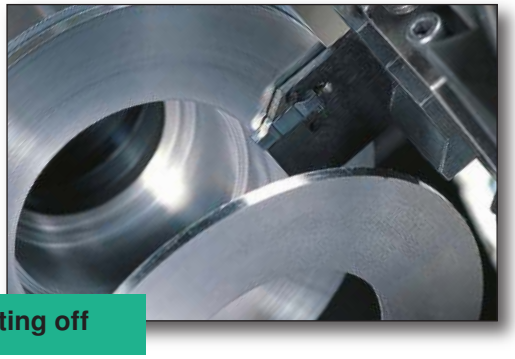


## Info — Introduction of the T-clamp system (art. no. 18710–18762)

### The user's guide provides the basic information that allows users to familiarise themselves with the extensive benefits of the T-Clamp system.

The T-clamp system permits multi-functional applications in just one system:

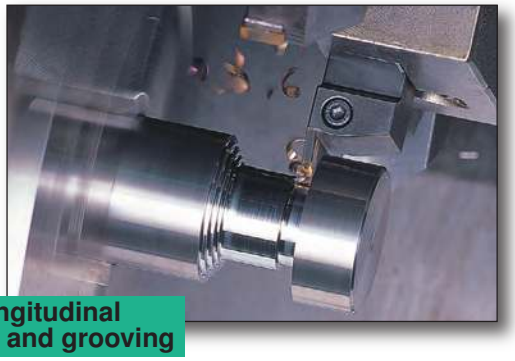
- Deep grooving
- Cutting off and grooving
- External turning
- Longitudinal turning and grooving
- Precision grooving and ramping
- Axial grooving and turning and facing
- External grooving



Cutting off

### Cutting Inserts

- Repeat accuracy
- Sintered chip breakers
- An upper and lower half-radius position the cutting insert precisely and firmly
- TDJ/C universal, double-sided cutting inserts for turning and grooving
- TSJ/C-universal, single-sided cutting insert for deep grooving and cutting off
- TDT universal, double-sided cutting inserts for longitudinal turning and grooving



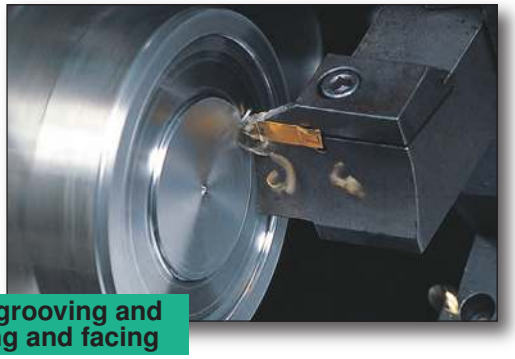
Longitudinal turning and grooving

### One-piece tool

- Simple, accurate and reliable positioning
- Top and bottom guidance of the cutting insert in the holder
- No additional spare parts
- Use of standard mounts

### Integrated tools with shank

- Simple, accurate and reliable positioning
- Top and bottom guidance of the cutting insert in the holder
- Firm hold against lateral forces
- No additional spare parts
- Standard shank dimensions

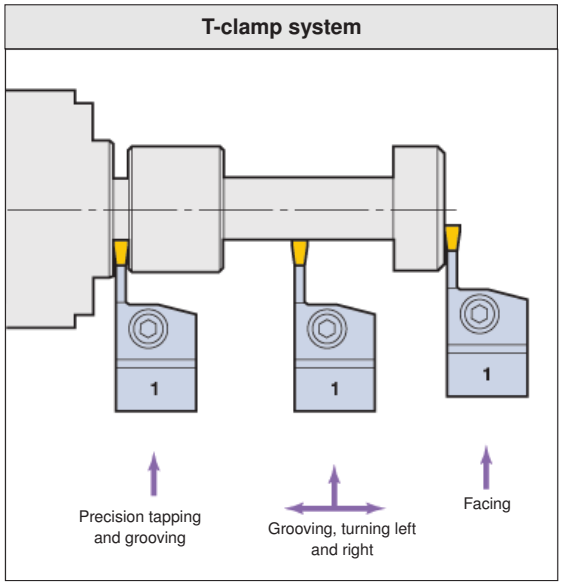


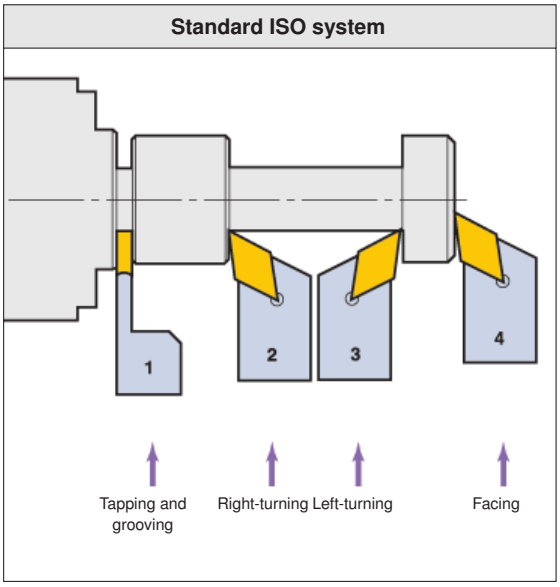
Axial grooving and turning and facing

### Benefits of the T-Clamp system

- T-clamp is deliverable as a double-sided or one-sided cutting insert for maximum profitability
- Multi-functional use
- Clockwise and anti-clockwise rotation, grooving and cutting off with a single tool
- T-clamp replaces one or more ISO tools
- Reduces the number of tools per machining operation
- Fewer types of inserts and tool holders in the magazine
- Shorter set-up times
- Shorter settings and faster lead time
- Reduces the need for presettings
- Less machine operating time
- The outstanding surface quality achieved by rough turning can replace the finishing step

# T-clamp system compared to standard ISO system




## Recommended machine data

**Face turning**

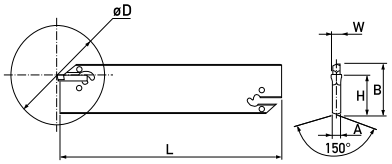
| Material | | Hardness Brinell HB | H 20 | H 45 |
|---|---|---|---|---|
| | | | Cutting speed (m/min) | |
| **Unalloyed steel** | 0,2%C | 150 | | 110 - 140 |
| | 0,45%C | 190 | | 100 - 130 |
| | 0,83%C | 250 | | 90 - 110 |
| **Alloy steel** | | < 200 | | 80 - 110 |
| | | 200 - 250 | | 75 - 120 |
| | | 275 - 325 | | 70 - 90 |
| | | 325 - 375 | | 60 - 75 |
| | | 375 - 425 | | 45 - 55 |
| **Stainless steel** | Martensit | 175 - 225 | | 100 - 135 |
| | | 275 - 325 | | 70 - 95 |
| | Austenit | 135 - 175 | | 50 - 65 |
| **Cast steel** | Kohlenstoff | - 150 | | 105 - 135 |
| | | 150 - 200 | | 85 - 100 |
| | legiert | 200 - 250 | | 75 - 90 |
| **Malleable cast iron** | kurzspanig | 110 - 145 | 90 - 100 | |
| | langspanig | 200 - 250 | 70 - 90 | |
| **Cast iron** | geringe Festigkeit | 180 | 115 - 140 | |
| | hohe Festigkeit | 250 | 80 - 100 | |
| **Nodular graphite iron** | ferritisch | 160 | 85 - 105 | |
| | pearlitisch | 250 | 80 - 100 | |
| **Hard cast iron** | | 400 | 20 | |
| **Bronze alloy** | 120 - 200 | 110 - 120 | | |
| **Lead alloy** | 80 - 150 | 150 - 165 | | |
| **Brass, red brass** | 60 - 110 | 115 - 125 | | |
| **Phosphor bronze** | 85 - 110 | 80 - 90 | | |
| **Aluminium alloy** | 150 - 200 | 200 - 240 | | |
| **Non-heat-resistant** | 30 - 80 | 600 - 700 | | |
| **Heat-resistant** | 80 - 120 | 250 - 300 | | |
| **Aluminium alloy, cast iron** | | 300 - 340 | | |
| **Magnesium** | 40 - 60 HRB | 225 - 265 | | |
| | 60 - 90 HRB | 230 - 250 | | |
| **Electrolytic copper** | 50 - 85 | 90 - 100 | | |

• When turning lengthwise, increase the cutting speed by 20-30%

## 18710 Blades

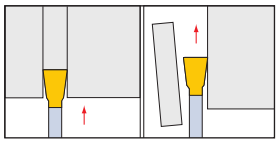
**Applications**
For clockwise and anti-clockwise rotation. For holding cutting inserts art. no. 18747–18750.

***Note:***
*Supplied**without** special key.*
*Basic holder for blades,*
*see art. no. 18670 105-107.*




18710

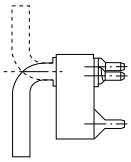
| Type | B mm | L mm | H mm | A mm | W mm | For cutting inserts | Dmax mm | 18710 | ... |
|---|---|---|---|---|---|---|---|---|---|
| TGB 32-2 | 32 | 150 | 24.8 | 1.6 | 1.9-2.5 | TDC/TDJ | 40 | | 101 |
| TGB 32-3 | 32 | 150 | 24.8 | 2.4 | 2.4–3.3 | TDC/TDJ/TSJ | 50 | | 102 |
| TGB 32-4 | 32 | 150 | 24.8 | 3.2 | 3.2–4.3 | TDC/TDJ/TSJ | 100 | | 103 |
| TGB 32-5 | 32 | 150 | 24.8 | 4.0 | 4.2–5.3 | TDC/TDJ/TSJ | 120 | | 104 |



## 18711 Special key

**Applications**
For blades art. no. 18710.

18711

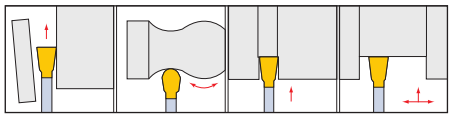


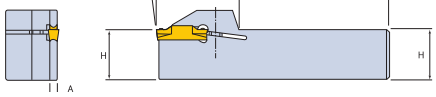
| | 18711 | ... |
|---|---|---|
| | | 101 |

## 18715 - 18716 Clamp holder for longitudinal turning and grooving

**Applications**
For holding cutting inserts
art. no. 18747-18756 and 18760.

18715



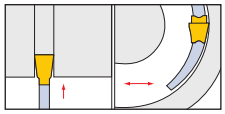


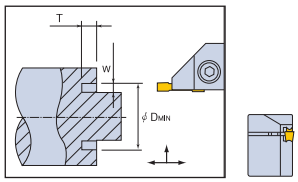

| Type | H mm | B mm | L mm | F mm | E mm | A mm | W mm | Tmax mm | For cutting inserts | Screw size | Right 18715 | ... | Left 18716 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTER/L 1616-2 | 16 | 16 | 110 | 14.95 | 32 | 1.6 | 1.9–2.5 | 12 | TDC/TDJ | M 5 x 0.8 | | 101 | | 101 |
| TTER/L 2020-2 | 20 | 20 | 125 | 18.95 | 32 | 1.6 | 1.9–2.5 | 12 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 102 | | 102 |
| TTER/L 2525-2 | 25 | 25 | 150 | 23.95 | 32 | 1.6 | 1.9–2.5 | 12 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 103 | | 103 |
| TTER/L 1616-3 | 16 | 16 | 110 | 14.95 | 32 | 2.1 | 2.4–3.2 | 12 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 104 | | 104 |
| TTER/L 2020-3 | 20 | 20 | 125 | 18.95 | 32 | 2.1 | 2.4–3.2 | 12 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 105 | | 105 |
| TTER/L 2525-3 | 25 | 25 | 150 | 23.95 | 32 | 2.1 | 2.4–3.2 | 12 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 106 | | 106 |
| TTER/L 1616-4 | 16 | 16 | 110 | 14.55 | 32 | 2.9 | 3.2–4.2 | 15 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 107 | | 107 |
| TTER/L 2020-4 | 20 | 20 | 125 | 18.55 | 32 | 2.9 | 3.2–4.2 | 15 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 108 | | 108 |
| TTER/L 2525-4 | 25 | 25 | 150 | 23.55 | 32 | 2.9 | 3.2–4.2 | 15 | TDC/TDJ/TSJ/TDT | M 5 x 0.8 | | 109 | | 109 |
| TTER/L 2020-5 | 20 | 20 | 125 | 18.05 | 37 | 3.9 | 4.2–5.2 | 20 | TDC/TDJ/TSJ/TDT | M 6 x 1.0 | | 110 | | 110 |
| TTER/L 2525-5 | 25 | 25 | 150 | 23.05 | 37 | 3.9 | 4.2–5.2 | 20 | TDC/TDJ/TSJ/TDT | M 6 x 1.0 | | 111 | | 111 |

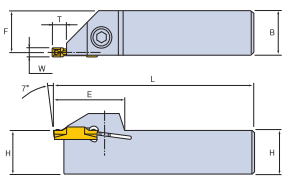
## 18719 - 18720 Clamp holder for external and axial grooving

**Applications**
For holding cutting inserts
art. no. 18747–18760.

18719






| Type | H mm | B mm | L mm | F mm | E mm | Wmax mm | Tmax mm | Ø Dmin mm | For cutting inserts | Screw size | Right 18719 | ... | Left 18720 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TGFR/L 1616-4 | 16 | 16 | 110 | 14.55 | 32 | -4.3 | 6 | 30 | TDC/TDJ/TSJ/TDT/TDFT-E | M 5 x 0.8 | | 101 | | 101 |
| TGFR/L 2020-4 | 20 | 20 | 125 | 18.55 | 32 | -4.3 | 6 | 30 | TDC/TDJ/TSJ/TDT/TDFT-E | M 5 x 0.8 | | 102 | | 102 |
| TGFR/L 2525-4 | 25 | 25 | 150 | 23.55 | 32 | -4.3 | 6 | 30 | TDC/TDJ/TSJ/TDT/TDFT-E | M 5 x 0.8 | | 103 | | 103 |

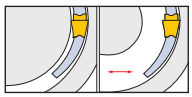


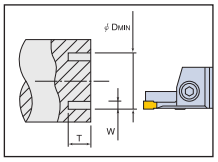

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

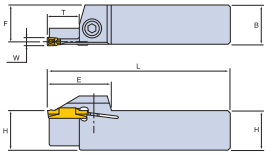
## 18731 - 18732 Clamp holder for axial deep grooving and turning and facing

**Applications**
For holding cutting inserts art. no. 18752–18758.
Diameter D mm = diameter range for axial grooving.
After the recess, the diameter for turning and facing is unlimited.

18731





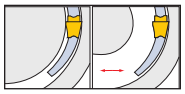


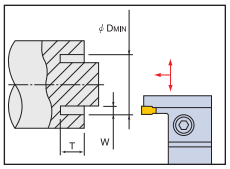
| Type | H mm | B mm | L mm | F mm | E mm | W mm | Tmax mm | Ø D mm | For cutting inserts | Screw size | Right 18731 | ... | Left 18732 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTFR/L 25-30-4 | 25 | 25 | 150 | 23.55 | 32 | 4 | 12 | 22–40 | TDT/TDFT-E | M 5 x 0.8 | | 101 | | 101 |
| TTFR/L 25-40-4 | 25 | 25 | 150 | 23.55 | 32 | 4 | 15 | 32–50 | TDT/TDFT-E | M 5 x 0.8 | | 102 | | 102 |
| TTFR/L 25-50-4 | 25 | 25 | 150 | 23.55 | 32 | 4 | 15 | 42–60 | TDT/TDFT-E | M 5 x 0.8 | | 103 | | 103 |
| TTFR/L 25-60-4 | 25 | 25 | 150 | 23.55 | 32 | 4 | 15 | 52–85 | TDT/TDFT-E | M 5 x 0.8 | | 104 | | 104 |

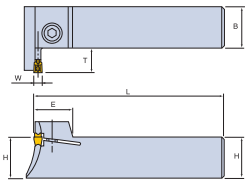
## 18735 - 18736 Clamp holder for axial deep grooving and turning and facing

**Applications**
For holding cutting inserts art. no. 18752–18758.
Diameter D mm = diameter range for axial grooving.
After the recess, the diameter for turning and facing is unlimited.

18735





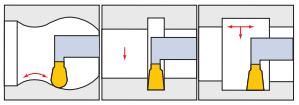


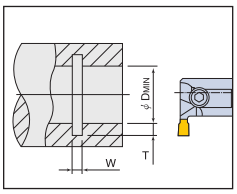
| Type | H mm | B mm | L mm | E mm | W mm | Tmax mm | Ø D mm | For cutting inserts | Screw size | Right 18735 | ... | Left 18736 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTFPR/L 25-30-4 | 25 | 25 | 150 | 18 | 4 | 12 | 22–40 | TDT TDFT-E/ | M 5 x 0.8 | | 301 | | 301 |
| TTFPR/L 25-40-4 | 25 | 25 | 150 | 18 | 4 | 15 | 32-50 | TDT TDFT-E/ | M 5 x 0.8 | | 302 | | 302 |
| TTFPR/L 25-50-4 | 25 | 25 | 150 | 18 | 4 | 15 | 42-60 | TDT TDFT-E/ | M 5 x 0.8 | | 303 | | 303 |
| TTFPR/L 25-60-4 | 25 | 25 | 150 | 18 | 4 | 15 | 52–85 | TDT TDFT-E/ | M 5 x 0.8 | | 304 | | 304 |

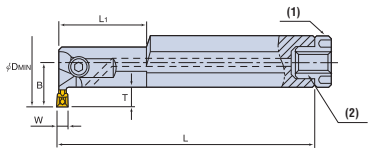
## 18739 - 18740 Boring bars for longitudinal turning and grooving

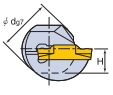
**Applications**
For holding cutting inserts art. no. 18762.

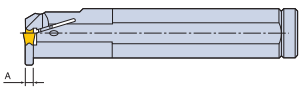
18739











| Type | Right 18739 | ... | Left 18740 | ... |
|---|---|---|---|---|
| TTIR/L 20-3C | | 101 | | 101 |
| TTIR 20-4C/L | | 102 | | 102 |
| TTIR 25-4C/L | | 103 | | 103 |
| TTIR 25-5C/L | | 104 | | 104 |
| TTIR 32-5C/L | | 105 | | 105 |

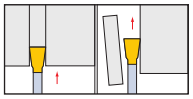
| Type | Ø d mm | L mm | L1 mm | B mm | H mm | W mm | A mm | Tmax mm | Ø Dmin mm | For cutting inserts | Seal (1) | Sealing threads (2) | Screw size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTIR/L 20-3C | 20 | 160 | 40 | 15.8 | 9.0 | 3 | 2.1 | 6.5 | 25 | TDIT-E | PL20 | M 6 | M 5 x 0.8 |
| TTIR/L 20-4C | 20 | 160 | 40 | 15.8 | 9.0 | 4 | 2.9 | 6.5 | 25 | TDIT-E | PL20 | M 6 | M 5 x 0.8 |
| TTIR/L 25-4C | 25 | 200 | 40 | 17.5 | 11.5 | 4 | 2.9 | 5.8 | 25 | TDIT-E | PL25 | R 1/8 | M 5 x 0.8 |
| TTIR/L 25-5C | 25 | 200 | 40 | 17.3 | 11.5 | 5 | 3.9 | 6.5 | 31 | TDIT-E | PL25 | R 1/8 | M 6 x 1.0 |
| TTIR/L 32-5C | 32 | 250 | 60 | 20.8 | 14.0 | 5 | 3.9 | 6.5 | 31 | TDIT-E | PL32 | R 1/8 | M 6 x 1.0 |

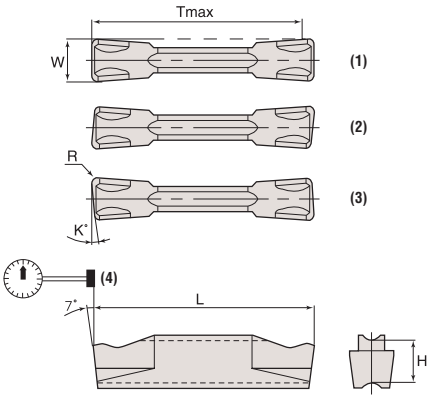
## 18747 Cutting inserts TDC

**Design**
Double-edged, with chip breaker type -C-.
**Applications**
For blades and clamp holder
art. no. 18710–18724.

18747

***Note:***
***(1)** = neutral,*
***(2)** = left,*
***(3)** = right,*
***(4)** = tolerance +/- 0.1 mm.*



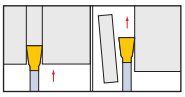



| Applications | | | | | | | | NK H 20 | | PK H 45 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | | | | |
| Type | W +/-0.05 mm | R | L mm | K | H mm | Tmax mm | | 18747 | ... | 18747 | ... |
| TDC 2 | 2 | 0.2 | 20 | – | 4.7 | 19 | 10 pcs. | 101 | | 201 | |
| TDC 2-6R | 2 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | | | 202 | |
| TDC 2-6L | 2 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 103 | | 203 | |
| TDC 3 | 3 | 0.2 | 20 | – | 4.7 | 19 | 10 pcs. | 104 | | 204 | |
| TDC 3-6R | 3 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 105 | | 205 | |
| TDC 3-6L | 3 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 106 | | 206 | |
| TDC 4 | 4 | 0.3 | 20 | – | 4.7 | 19 | 10 pcs. | 107 | | 207 | |
| TDC 4-4R | 4 | 0.3 | 20 | 4° | 4.7 | 19 | 10 pcs. | 108 | | 208 | |
| TDC 4-4L | 4 | 0.3 | 20 | 4° | 4.7 | 19 | 10 pcs. | 109 | | 209 | |
| TDC 5 | 5 | 0.3 | 25 | – | 5.2 | 24 | 10 pcs. | 110 | | 210 | |

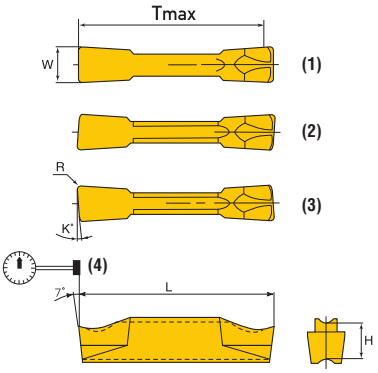
## 18748 Cutting inserts TDJ

**Design**
Double-edged, with chip breaker type -J-.
**Applications**
For blades and clamp holder art. no. 18710–18720 and 18727–18728.

***Note:***
***(1)** = neutral,*
***(2)** = left,*
***(3)** = right,*
***(4)** = tolerance +/- 0.1 mm.*



18748

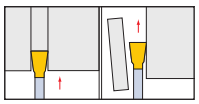



| Applications | | | | | | | | NK H 20 | | PK H 45 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | | | | |
| Type | W +/-0.05 mm | R | L mm | K | H mm | Tmax mm | | 18748 | ... | 18748 | ... |
| TDJ 2 | 2 | 0.2 | 20 | – | 4.7 | 19 | 10 pcs. | 101 | | 201 | |
| TDJ 2-6R | 2 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 102 | | 202 | |
| TDJ 2-6L | 2 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 103 | | 203 | |
| TDJ 3 | 3 | 0.2 | 20 | – | 4.7 | 19 | 10 pcs. | 104 | | 204 | |
| TDJ 3-6R | 3 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 105 | | 205 | |
| TDJ 3-6L | 3 | 0.2 | 20 | 6° | 4.7 | 19 | 10 pcs. | 106 | | 206 | |
| TDJ 4 | 4 | 0.3 | 20 | – | 4.7 | 19 | 10 pcs. | 107 | | 207 | |
| TDJ 4-4R | 4 | 0.3 | 20 | 4° | 4.7 | 19 | 10 pcs. | 108 | | 208 | |
| TDJ 4-4L | 4 | 0.3 | 20 | 4° | 4.7 | 19 | 10 pcs. | 109 | | 209 | |
| TDJ 5 | 5 | 0.3 | 25 | – | 5.2 | 24 | 10 pcs. | 110 | | 210 | |

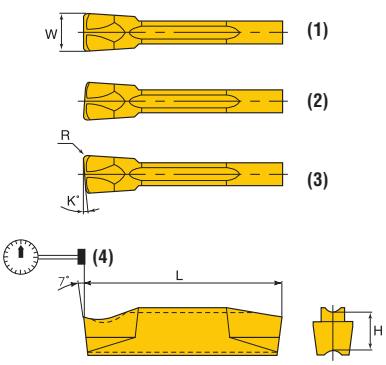
## 18750 Cutting inserts TSJ

**Design**
Single edged, with chip former type -J-.
**Applications**
For blades and clamp holder art. no. 18710–18720 and 18727–18728.

***Note:***
***(1)** = neutral,*
***(2)** = left,*
***(3)** = right,*
***(4)** = tolerance +/- 0.1 mm.*



18750




| Applications | | | | | | | | NK H 20 | | PK H 45 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | | | | |
| Type | W +/-0.05 mm | R | L mm | K | H mm | | | 18750 | ... | 18750 | ... |
| TSJ 3 | 3 | 0.2 | 20 | – | 4.7 | 10 pcs. | | 101 | | 201 | |
| TSJ 3-6R | 3 | 0.2 | 20 | 6° | 4.7 | 10 pcs. | | 102 | | 202 | |
| TSJ 3-6L | 3 | 0.2 | 20 | 6° | 4.7 | 10 pcs. | | | | 203 | |
| TSJ 4 | 4 | 0.3 | 20 | – | 4.7 | 10 pcs. | | 104 | | 204 | |
| TSJ 4-4R | 4 | 0.3 | 20 | 4° | 4.7 | 10 pcs. | | | | 205 | |
| TSJ 5 | 5 | 0.3 | 25 | – | 5.2 | 10 pcs. | | 107 | | 207 | |

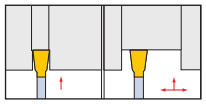



= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

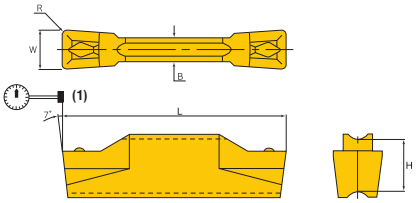
## 18752 Precision cutting inserts TDT-E

**Design**
Double-edged, with chip breaker type -T-.
**Applications**
For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

***Note:***
***(1)*** *= tolerance +/- 0.025 mm.*



18752

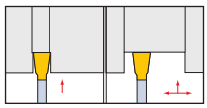



| Applications / Cemented carbide grade | | | | | | | NK H 20 | | PMK H 42 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | W +/-0.02 mm | R +/-0.05 | B mm | L mm | H mm | | 18752 | ... | 18752 | ... |
| TDT 3.00E-0.40 | 3 | 0.4 | 2.2 | 20 | 4.7 | 10 pcs. | 101 | | 201 | |
| TDT 4.00E-0.40 | 4 | 0.4 | 3.0 | 20 | 4.7 | 10 pcs. | 102 | | 202 | |
| TDT 4.00E-0.80 | 4 | 0.8 | 3.0 | 20 | 4.7 | 10 pcs. | 103 | | | |
| TDT 5.00E-0.40 | 5 | 0.4 | 4.0 | 25 | 5.2 | 10 pcs. | 104 | | 204 | |
| TDT 5.00E-0.80 | 5 | 0.8 | 4.0 | 25 | 5.2 | 10 pcs. | 105 | | 205 | |

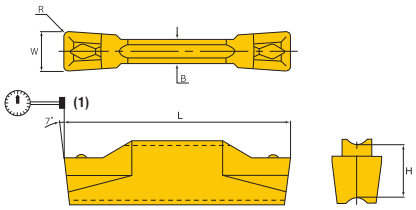
## 18754 Cutting inserts TDT-E

**Design**
Double-edged, with chip breaker type -T-.
**Applications**
For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

***Note:***
***(1)*** *= tolerance +/- 0.1 mm.*



18754

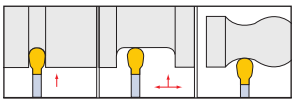



| Applications / Cemented carbide grade | | | | | | | NK H 20 | | PMK H 42 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | W +/-0.05 mm | R | B mm | L mm | H mm | | 18754 | ... | 18754 | ... |
| TDT 3E-0.4 | 3 | 0.4 | 2.2 | 20 | 4.7 | 10 pcs. | 101 | | 201 | |
| TDT 4E-0.4 | 4 | 0.4 | 3.0 | 20 | 4.7 | 10 pcs. | 102 | | 202 | |

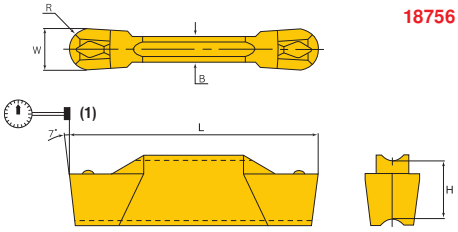
## 18756 Precision cutting inserts TDT-E

**Design**
Double-edged, with chip breaker type -T-.
**Applications**
For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

***Note:***
***(1)*** *= tolerance +/- 0.025 mm.*



18756

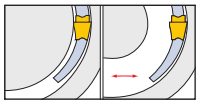



| Applications / Cemented carbide grade | | | | | | | NK H 20 | | PMK H 42 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | W +/-0.02 mm | R +/-0.05 | B mm | L mm | H mm | | 18756 | ... | 18756 | ... |
| TDT 3.00E-1.50 | 3 | 1.5 | 2.2 | 20 | 4.7 | 10 pcs. | 101 | | 201 | |
| TDT 4.00E-2.00 | 4 | 2.0 | 3.0 | 20 | 4.7 | 10 pcs. | 102 | | 202 | |
| TDT 5.00E-2.50 | 5 | 2.5 | 4.0 | 25 | 5.2 | 10 pcs. | 103 | | 203 | |

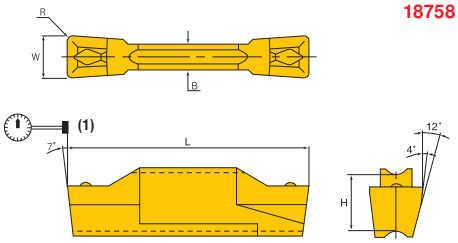
## 18758 Cutting inserts TDFT-E

**Design**
Double-edged, with chip breaker type -T-.
**Applications**
For clamp holders art. no. 18719–18724 and 18731–18736.

***Note:***
***(1)*** *= tolerance +/- 0.1 mm.*



18758



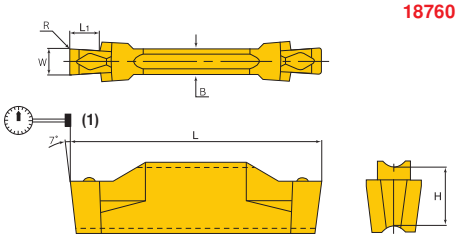

| Applications / Cemented carbide grade | | | | | | | NK H 20 | | PMK H 42 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | W +/-0.02 mm | R | B mm | L mm | H mm | | 18758 | ... | 18758 | ... |
| TDFT 3E-0.40R | 3 | 0.4 | 2.2 | 20 | 4.7 | 10 pcs. | 101 | | 201 | |
| TDFT 3E-0.40L | 3 | 0.4 | 2.2 | 20 | 4.7 | 10 pcs. | 102 | | 202 | |
| TDFT 4E-0.40R | 4 | 0.4 | 3.0 | 20 | 4.7 | 10 pcs. | 103 | | 203 | |
| TDFT 4E-0.40L | 4 | 0.4 | 3.0 | 20 | 4.7 | 10 pcs. | 104 | | 204 | |

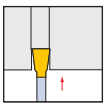
## 18760 Precision cutting inserts TDT

**Design**
Double-edged, with chip breaker type -T-.
**Applications**
For clamp holders and boring bars art. no. 18715–18720, 18727–18728 and 18739–18744.

***Note:***
***(1)*** *= tolerance +/- 0.025 mm.*

18760



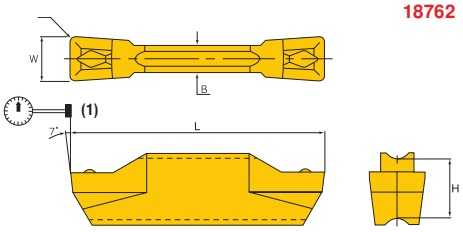
| Applications | | | | | | | | NK | | PMK | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | | H 20 | | H 42 | |
| Type | W +/-0.02 mm | R | B mm | L mm | L1 mm | H mm | | 18760 | ... | 18760 | ... |
| TDT 1.00-0.00 | 1.00 | 0.00 | 2.2 | 20 | 2.5 | 4.7 | 10 pcs. | | 101 | | 301 |
| TDT 1.30-0.00 | 1.30 | 0.00 | 2.2 | 20 | 2.5 | 4.7 | 10 pcs. | | 102 | | 302 |
| TDT 1.60-0.10 | 1.60 | 0.10 | 2.2 | 20 | 2.5 | 4.7 | 10 pcs. | | 103 | | 303 |
| TDT 1.85-0.10 | 1.85 | 0.10 | 2.2 | 20 | 3.5 | 4.7 | 10 pcs. | | 104 | | 304 |
| TDT 2.15-0.15 | 2.15 | 0.15 | 2.2 | 20 | 3.5 | 4.7 | 10 pcs. | | 105 | | 305 |
| TDT 2.65-0.15 | 2.65 | 0.15 | 2.2 | 20 | 5.0 | 4.7 | 10 pcs. | | 106 | | 306 |
| TDT 3.15-0.15 | 3.15 | 0.15 | 2.2 | 20 | 5.0 | 4.7 | 10 pcs. | | 107 | | 307 |
| TDT 4.15-0.15 | 4.15 | 0.15 | 3.0 | 20 | 5.0 | 4.7 | 10 pcs. | | 108 | | 308 |
| TDT 5.15-0.15 | 5.15 | 0.15 | 4.0 | 25 | 5.0 | 5.2 | 10 pcs. | | | | 309 |

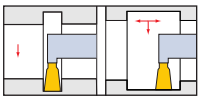
## 18762 Precision cutting inserts TDIT-E

**Design**
Double-edged.
**Applications**
For boring bars art. no. 18739–18744.

***Note:***
***(1)*** *= tolerance +/- 0.025 mm.*

18762



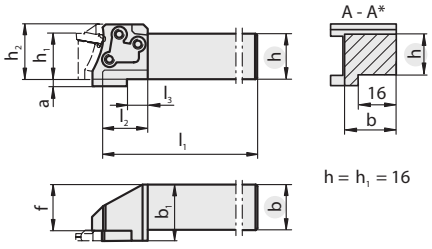



| Applications | | | | | | | NK | | PMK | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | H 20 | | H 42 | |
| Type | W +/-0.02 mm | R +/-0.05 | B mm | L mm | H mm | | 18762 | ... | 18762 | ... |
| TDIT 3.00E-0.40 | 3 | 0.4 | 2.2 | 20 | 4.7 | 10 pcs. | | 101 | | 301 |
| TDIT 4.00E-0.40 | 4 | 0.4 | 3.0 | 20 | 4.7 | 10 pcs. | | 102 | | 302 |
| TDIT 4.00E-0.80 | 4 | 0.8 | 3.0 | 20 | 4.7 | 10 pcs. | | 103 | | 303 |
| TDIT 5.00E-0.40 | 5 | 0.4 | 4.0 | 25 | 5.2 | 10 pcs. | | 104 | | 304 |
| TDIT 5.00E-0.80 | 5 | 0.8 | 4.0 | 25 | 5.2 | 10 pcs. | | 105 | | 305 |

19650

CUTTING SOLUTIONS BY CERATIZIT

**Modular basic holder MSS shank 0°**



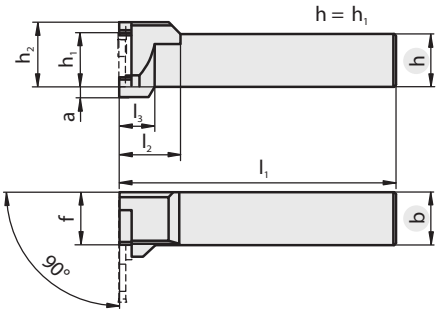

19650

| Size | Designation | h mm | b mm | f mm | $b_1$ mm | $h_2$ mm | $l_1$ mm | $l_2$ mm | Right 19650 ... | Left 19650 ... |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | MSS-E20R/L00-2020J | 20 | 20 | 20.1 | 24.3 | 24 | 110 | 20 | 101 | 201 |
| 25 | MSS-E25R/L00-2525L | 25 | 25 | 25.5 | 31.0 | 30 | 140 | 25 | 102 | 202 |
| 32 | MSS-E32R/L00-3225N | 32 | 25 | 25.5 | 31.0 | 38 | 160 | 32 | 103 | 203 |

19651

CUTTING SOLUTIONS BY CERATIZIT

**Modular basic holder MSS shank 90°**




19651

| Size | Designation | h mm | b mm | f mm | $h_2$ mm | $l_1$ mm | $l_2$ mm | Right 19651 ... | Left 19651 ... |
|---|---|---|---|---|---|---|---|---|---|
| 20 | MSS-E20R/L90-2020J | 20 | 20 | 20 | 24 | 110 | 20 | 101 | 201 |
| 25 | MSS-E25R/L90-2525L | 25 | 25 | 25 | 30 | 140 | 28 | 102 | 202 |
| 32 | MSS-E32R/L90-3225N | 32 | 25 | 32 | 38 | 160 | 34 | 103 | 203 |

**Spare parts** — **Clamping screw**

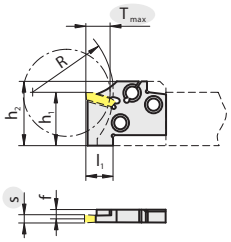
| For size | Clamping screw | 19699 ... |
|---|---|---|
| 20 | M 4 x 14 | 101 |
| 25 | M 5 x 18 | 102 |
| 32 | M 6 x 20 | 103 |

## 19653 - 19658 Cutting Inserts GX/SX external for modular recessing system MSS

**19653**

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 16** (without parting inserts)



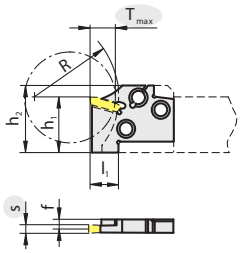

19653

| Size | Designation | Tmax mm | f mm | $l_1$ mm | $h_1$ mm | $h_2$ mm | R mm | Indexable inserts | Right 19653 | ... | Left 19653 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | MSS-E20R/L12-GX16-1 | 12 | 3.74 | 13 | 20 | 24 | 30.0 | GX16-1.. | | 101 | | 201 |
| 20 | MSS-E20R/L12-GX16-2 | 12 | 3.40 | 13 | 20 | 24 | 30.0 | GX16-2.. | | 102 | | 202 |
| 20 | MSS-E20R/L12-GX16-3 | 12 | 2.93 | 13 | 20 | 24 | 30.0 | GX16-3.. | | 103 | | 203 |
| 25 | MSS-E25R/L12-GX16-1 | 12 | 5.25 | 13 | 25 | 30 | 37.5 | GX16-1.. | | 104 | | 204 |
| 25 | MSS-E25R/L12-GX16-2 | 12 | 4.90 | 13 | 25 | 30 | 37.5 | GX16-2.. | | 105 | | 205 |
| 25 | MSS-E25R/L12-GX16-3 | 12 | 4.43 | 13 | 25 | 30 | 37.5 | GX16-3.. | | 106 | | 206 |
| 25 | MSS-E25R/L12-GX16-4 | 12 | 3.80 | 13 | 25 | 30 | 37.5 | GX16-4.. | | 107 | | 207 |

**19654**

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 24** (without parting inserts)



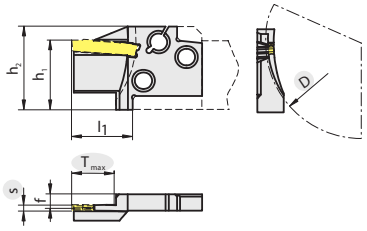

19654

| Size | Designation | Tmax mm | f mm | $l_1$ mm | $h_1$ mm | $h_2$ mm | R mm | Indexable inserts | Right 19654 | ... | Left 19654 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | MSS-E20R/L21-GX24-2 | 21 | 3.40 | 22 | 20 | 24 | 30.0 | GX24-2.. | | 101 | | 201 |
| 20 | MSS-E20R/L21-GX24-3 | 21 | 3.00 | 22 | 20 | 24 | 30.0 | GX24-3.. | | 102 | | 202 |
| 25 | MSS-E25R/L21-GX24-2 | 21 | 4.90 | 22 | 25 | 30 | 37.5 | GX24-2.. | | 103 | | 203 |
| 25 | MSS-E25R/L21-GX24-3 | 21 | 4.43 | 22 | 25 | 30 | 37.5 | GX24-3.. | | 104 | | 204 |
| 25 | MSS-E25R/L21-GX24-4 | 21 | 3.80 | 22 | 25 | 30 | 37.5 | GX24-4.. | | 105 | | 205 |
| 32 | MSS-E32R/L21-GX24-2 | 21 | 4.95 | 22 | 32 | 38 | 48.0 | GX24-2.. | | 106 | | 206 |
| 32 | MSS-E32R/L21-GX24-3 | 21 | 4.43 | 22 | 32 | 38 | 48.0 | GX24-3.. | | 107 | | 207 |
| 32 | MSS-E32R/L21-GX24-4 | 21 | 3.80 | 22 | 32 | 38 | 48.0 | GX24-4.. | | 108 | | 208 |

**19655**

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 24 axial** (without cutting indexable inserts)




19655

| Size | Designation | Tmax mm | f mm | $l_1$ mm | $h_1$ mm | $h_2$ mm | Dmin mm | Dmax mm | Indexable inserts | Right 19655 | ... | Left 19655 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | MSS-E25R/L15-GX24-2 A50-70 | 15 | 4.90 | 22 | 25 | 30 | 50 | 70 | GX24-2.. | | 101 | | 201 |
| 25 | MSS-E25R/L15-GX24-2 A70-100 | 16 | 4.90 | 22 | 25 | 30 | 70 | 100 | GX24-2.. | | 102 | | 202 |
| 25 | MSS-E25R/L15-GX24-2 A100-150 | 17 | 4.90 | 22 | 25 | 30 | 100 | 150 | GX24-2.. | | 103 | | 203 |
| 25 | MSS-E25R/L15-GX24-3 A50-70 | 15 | 4.43 | 22 | 25 | 30 | 50 | 70 | GX24-3.. | | 104 | | 204 |
| 25 | MSS-E25R/L15-GX24-3 A70-100 | 15 | 4.43 | 22 | 25 | 30 | 70 | 100 | GX24-3.. | | 105 | | 205 |
| 25 | MSS-E25R/L15-GX24-3 A100-150 | 15 | 4.43 | 22 | 25 | 30 | 100 | 150 | GX24-3.. | | 106 | | 206 |
| 25 | MSS-E25R/L15-GX24-3 A150-300 | 15 | 4.43 | 22 | 25 | 30 | 150 | 300 | GX24-3.. | | 107 | | 207 |

Continued





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

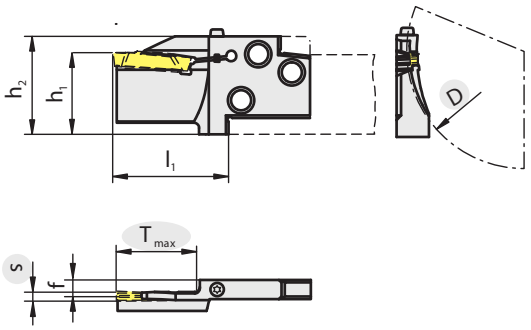
Continued

**19656**

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 24 axial long**
(without cutting indexable inserts)

***Note:***
*Axial modules in long version can be clamped on both sides.*







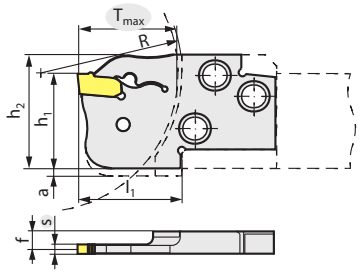
19656

| Size | Designation | Tmax mm | f mm | $l_1$ mm | $h_1$ mm | $h_2$ mm | Dmin mm | Dmax mm | Indexable inserts | Right 19656 | ... | Left 19656 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **25** | MSS-E25R/L21-GX24-3 AS50-70 | 21 | 4.43 | 35 | 25 | 30 | 50 | 70 | GX24-3.. | | **101** | | **201** |
| **25** | MSS-E25R/L21-GX24-3 AS70-100 | 21 | 4.43 | 35 | 25 | 30 | 70 | 100 | GX24-3.. | | **102** | | **202** |
| **25** | MSS-E25R/L21-GX24-3 AS100-150 | 21 | 4.43 | 35 | 25 | 30 | 100 | 150 | GX24-3.. | | **103** | | **203** |
| **25** | MSS-E25R/L21-GX24-3 AS150-300 | 21 | 4.43 | 35 | 25 | 30 | 150 | 300 | GX24-3.. | | **104** | | **204** |
| **25** | MSS-E25R/L25-GX24-4 AS50-70 | 25 | 3.80 | 35 | 25 | 30 | 50 | 70 | GX24-4.. | | **105** | | **205** |
| **25** | MSS-E25R/L25-GX24-4 AS70-100 | 25 | 3.80 | 35 | 25 | 30 | 70 | 100 | GX24-4.. | | **106** | | **206** |
| **25** | MSS-E25R/L25-GX24-4 AS100-150 | 25 | 3.80 | 35 | 25 | 30 | 100 | 150 | GX24-4.. | | **107** | | **207** |
| **25** | MSS-E25R/L25-GX24-4 AS150-300 | 25 | 3.80 | 35 | 25 | 30 | 150 | 300 | GX24-4.. | | **108** | | **208** |

**19658**

CUTTING SOLUTIONS BY CERATIZIT

**Inserts SX external**
(without cutting indexable inserts)




19658

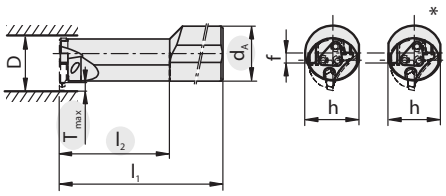
| Size | Designation | S mm | Tmax mm | f mm | $l_1$ mm | $h_1$ mm | $h_2$ mm | R mm | a mm | Indexable inserts | Right 19658 | ... | Left 19658 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **20** | MSS-E20R/L20-SX2 | 2 | 20 | 3.57 | 22 | 20 | 24 | 30.0 | 3 | SX..2 | | **101** | | **201** |
| **20** | MSS-E20R/L20-SX3 | 3 | 20 | 3.20 | 22 | 20 | 24 | 30.0 | 3 | SX..3 | | **102** | | **202** |
| **25** | MSS-E25R/L20-SX2 | 2 | 20 | 5.07 | 22 | 25 | 30 | 37.5 | - | SX..2 | | **103** | | **203** |
| **25** | MSS-E25R/L25-SX3 | 3 | 25 | 4.70 | 27 | 25 | 30 | 37.5 | - | SX..3 | | **104** | | **204** |
| **25** | MSS-E25R/L35-SX3 | 4 | 35 | 4.70 | 37 | 25 | 30 | 37.5 | - | SX..3 | | **105** | | **205** |
| **25** | MSS-E25R/L25-SX4 | 4 | 25 | 4.30 | 27 | 25 | 30 | 37.5 | - | SX..4 | | **106** | | **206** |
| **25** | MSS-E25R/L35-SX4 | 4 | 35 | 4.30 | 37 | 25 | 30 | 37.5 | - | SX..4 | | **107** | | **207** |

## 19660 - 19661 Modular recessing system MSS boring bars

19660

CUTTING SOLUTIONS BY CERATIZIT

**Modular recessing system**
**MSS boring bar 1.5 x D**



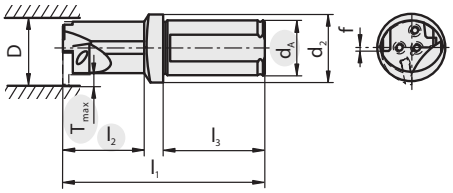

19660

| Size | Designation | $l_2$ mm | $d_1$ mm | $d_2$ mm | f mm | $l_1$ mm | $l_3$ mm | $T_{max}$ mm | $D_{min.}$ mm | Insert | Right 19660 | ... | Left 19660 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **16** | MSS-I16R/L90-1.5D-N | 24 | 20 | 25 | 1.0 | 82 | 50 | 4 | 20 | MSS-I16R/L | | 101 | | 201 |
| **20** | MSS-I20R/L90-1.5D-N | 30 | 20 | 25 | 1.0 | 87 | 50 | 5 | 25 | MSS-I20R/L | | 102 | | 202 |
| **25** | MSS-I25R/L90-1.5D-N | 38 | 25 | 32 | 1.5 | 102 | 56 | 6 | 32 | MSS-I25R/L | | 103 | | 203 |
| **32** | MSS-I32R/L90-1.5D-N | 48 | 32 | 40 | 2.0 | 119 | 60 | 9 | 40 | MSS-I32R/L | | 104 | | 204 |

19661

CUTTING SOLUTIONS BY CERATIZIT

**Modular recessing system**
**MSS boring bar 2.5 x D**




| Size | Designation | $l_2$ mm | $d_1$ mm | f mm | $l_1$ mm | $T_{max}$ mm | $D_{min.}$ mm | Insert | Right 19661 | ... | Left 19661 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **16** | MSS-I16R/L90-2.5D-N | 40 | 20 | 4.5 | 180 | 4 | 20 | MSS-I16R/L | | 101 | | 201 |
| **20** | MSS-I20R/L90-2.5D-N | 50 | 25 | 6.0 | 200 | 5 | 25 | MSS-I20R/L | | 102 | | 202 |
| **25** | MSS-I25R/L90-2.5D-N | 63 | 32 | 7.0 | 250 | 6 | 32 | MSS-I25R/L | | 103 | | 203 |
| **32** | MSS-I32R/L90-2.5D-N | 80 | 40 | 9.5 | 300 | 9 | 40 | MSS-I32R/L | | 104 | | 204 |

**Spare parts** — **Clamping screw**

| For size | Clamping screw | 19699 | ... |
|---|---|---|---|
| **16** | M 2.5 x 10.0 | | 104 |
| **20** | M 3.0 x 11.0 | | 105 |
| **25** | M 3.5 x 12.5 | | 106 |
| **32** | M 4.5 x 17.0 | | 107 |





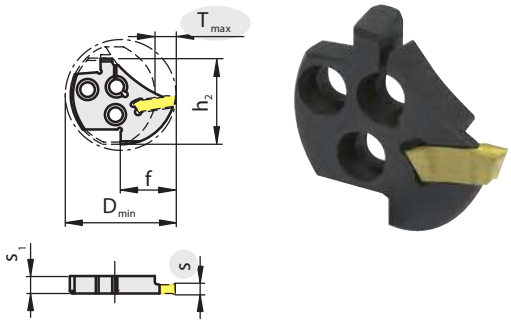
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

19663

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 09** (without parting inserts)

19663



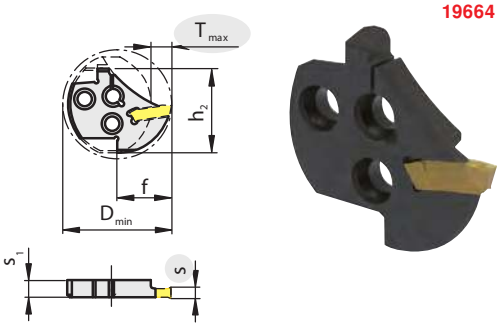

| Size | Designation | Tmax mm | f mm | $s_1$ mm | $h_2$ mm | $D_{min.}$ mm | Indexable inserts | Right 19663 | ... | Left 19663 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | MSS-I16R/L04-GX09-1 | 4 | 10.0 | 3.8 | 16.4 | 20 | GX09-1.. | | 101 | | 201 |
| 16 | MSS-I16R/L04-GX09-2 | 4 | 10.0 | 3.8 | 16.4 | 20 | GX09-2.. | | 102 | | 202 |
| 20 | MSS-I20R/L05-GX09-1 | 5 | 12.0 | 3.8 | 20.4 | 25 | GX09-1.. | | 103 | | 203 |
| 20 | MSS-I20R/L05-GX09-2 | 5 | 12.0 | 3.8 | 20.4 | 25 | GX09-2.. | | 104 | | 204 |
| 25 | MSS-I25R/L06-GX09-1 | 6 | 15.5 | 3.8 | 24.9 | 32 | GX09-1.. | | 105 | | 205 |
| 25 | MSS-I25R/L06-GX09-2 | 6 | 15.5 | 3.8 | 24.9 | 32 | GX09-2.. | | 106 | | 206 |

19664

CUTTING SOLUTIONS BY CERATIZIT

**Inserts GX 16** (without parting inserts)

19664




| Size | Designation | Tmax mm | f mm | $s_1$ mm | $h_2$ mm | $D_{min.}$ mm | Indexable inserts | Right 19664 | ... | Left 19664 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | MSS-I32R/L09-GX16-1 | 9 | 20 | 5.9 | 32.2 | 40 | GX16-1.. | | 101 | | 201 |
| 32 | MSS-I32R/L09-GX16-2 | 9 | 20 | 5.9 | 32.2 | 40 | GX16-2.. | | 102 | | 202 |
| 32 | MSS-I32R/L09-GX16-3 | 9 | 20 | 5.9 | 32.2 | 40 | GX16-3.. | | 103 | | 203 |
| 32 | MSS-I32R/L09-GX16-4 | 9 | 20 | 5.9 | 32.2 | 40 | GX16-4.. | | 104 | | 204 |

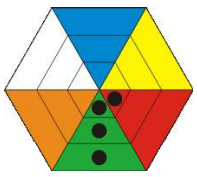


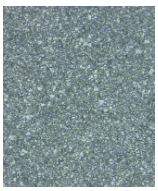
## Info Modular burring system MSS

### Grade description

CUTTING SOLUTIONS BY CERATIZIT

**H216T**
**HW-K15**



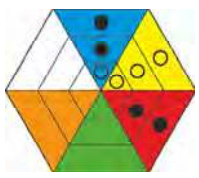


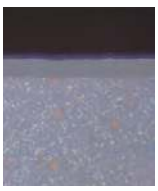
**Ductility**
0 2 4 6 8 10

**Wear resistance**
0 2 4 6 8 10

**Properties/Application:**
- Ideally suited to aluminium
- High wear resistance
- High heat resistance
- Low adhesion

**CTCP335**
**HC-P35**
**HC-M30**
**HC-K35**



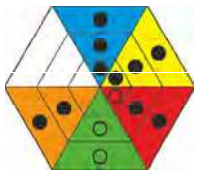


**Ductility**
0 2 4 6 8 10

**Wear resistance**
0 2 4 6 8 10

**Properties/Application:**
- Very good wear resistance
- Good oxidation resistance
- High toughness
- Good heat resistance

**CTP1340**
**HC-P30**
**HC-M25**
**HC-K30**



**Ductility**
0 2 4 6 8 10

**Wear resistance**
0 2 4 6 8 10

**Properties/Application:**
- Excellent "all-round grade"
- Ideal for stainless steels
- High cutting edge stability

## 19670 - 19672 Cutting inserts for modular recessing system MSS

19670

CUTTING SOLUTIONS BY CERATIZIT

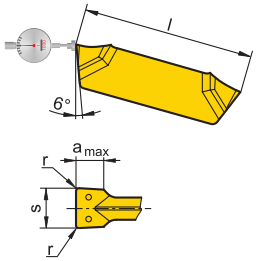
Cutting inserts for system GX-E

19670


- 27P


- M40

| Applications | | | | | | P M K S | | N | |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | CTP1340 | | H216T | |
| Coating | | | | | | PVD | | uncoated | |
| Designation | s mm | l mm | r mm | $a_{max}$ mm | | 19670 | ... | 19670 | ... |
| GX09-1E2.00N0.20-M40 | 2 | 9 | 0.2 | 1.5 | 10 pcs. | | 101 | | |
| GX09-2E3.00N0.30-M40 | 3 | 9 | 0.3 | 2.0 | 10 pcs. | | 102 | | |
| GX16-1E2.00N0.20-27P | 2 | 16 | 0.2 | 2.0 | 10 pcs. | | | | 201 |
| GX16-1E2.00N0.20-M40 | 2 | 16 | 0.2 | 2.0 | 10 pcs. | | 103 | | |
| GX16-2E3.00N0.30-27P | 3 | 16 | 0.3 | 3.0 | 10 pcs. | | | | 202 |
| GX16-2E3.00N0.30-M40 | 3 | 16 | 0.3 | 3.0 | 10 pcs. | | 104 | | |
| GX16-3E4.00N0.40-27P | 4 | 16 | 0.4 | 3.5 | 10 pcs. | | | | 203 |
| GX16-3E4.00N0.40-M40 | 4 | 16 | 0.4 | 3.5 | 10 pcs. | | 105 | | |
| GX24-2E3.00N0.30-27P | 3 | 24 | 0.3 | 3.5 | 10 pcs. | | | | 204 |
| GX24-2E3.00N0.30-M40 | 3 | 24 | 0.3 | 3.5 | 10 pcs. | | 106 | | |
| GX24-3E4.00N0.40-27P | 4 | 24 | 0.4 | 4.0 | 10 pcs. | | | | 205 |
| GX24-3E4.00N0.40-M40 | 4 | 24 | 0.4 | 4.0 | 10 pcs. | | 107 | | |




19671

CUTTING SOLUTIONS BY CERATIZIT

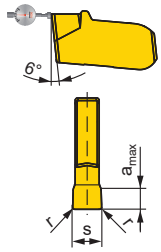
Cutting inserts for system SX

19671


- 27P


- M2

| Applications | | | | | | P M K S | | N | |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | CTP1340 | | H216T | |
| Coating | | | | | | PVD | | uncoated | |
| Designation | s mm | l mm | r mm | $a_{max}$ mm | | 19671 | ... | 19671 | ... |
| SX E2.00N0.20-27P | 2 | 11 | 0.2 | 1.5 | 10 pcs. | | | | 201 |
| SX E2.00N0.20-M2 | 2 | 11 | 0.2 | 1.5 | 10 pcs. | | 101 | | |
| SX E3.00N0.30-27P | 3 | 11 | 0.3 | 2.0 | 10 pcs. | | | | 202 |
| SX E3.00N0.30-M2 | 3 | 11 | 0.3 | 2.0 | 10 pcs. | | 102 | | |
| SX E4.00N0.40-27P | 4 | 13 | 0.4 | 2.5 | 10 pcs. | | | | 203 |

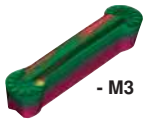



19672

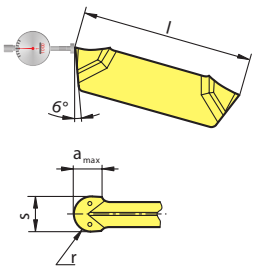
CUTTING SOLUTIONS BY CERATIZIT

Cutting inserts for system GX-R

19672


- M3

| Applications | | | | | | P M K S | | P K | |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | CTP1340 | | CTCP335 | |
| Coating | | | | | | PVD | | Ti(C,N)+Al2O3 | |
| Designation | s mm | l mm | r mm | $a_{max}$ mm | | 19672 | ... | 19672 | ... |
| GX16-2R1.50N | 3 | 16.0 | 1.5 | 1.5 | 10 pcs. | | 101 | | |
| GX16-3R2.00N | 4 | 16.0 | 2.0 | 2.0 | 10 pcs. | | 102 | | |
| GX16-3R2.50N | 5 | 16.0 | 2.5 | 2.5 | 10 pcs. | | 103 | | |
| GX24-2R1.50N-M3 | 3 | 24.4 | 1.5 | 1.5 | 10 pcs. | | | | 201 |
| GX24-3R2.00N-M3 | 4 | 24.4 | 2.0 | 2.5 | 10 pcs. | | | | 202 |
| GX24-3R3.00N-M3 | 5 | 24.4 | 2.5 | 3.0 | 10 pcs. | | | | 203 |



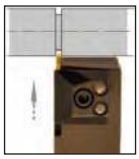
# Clamp holder for recessing system DED

Dümmel WERKZEUGFABRIK

18765

**Design**
Solid clamp holder from 42 CrMo4V tempered toapprox. 1300 N/mm². Powerful clamping element guided by two cylinderpins.

**Applications**
For three-edged indexable inserts (art. no. 18768–18770).




**Holder R/L..1-D grooving depth to 4 mm**

| Designation | H +/- 0.1 mm | B +/- 0.1 mm | L1 mm | L2 mm | T max. mm | For grooving inserts | right 18765 | ... | left 18765 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| R/L 207.1212.1-D | 12 | 12 | 100 | 24 | 4 | DED.00.. / DED.01.. | | 101 | | 201 |
| R/L 207.1616.1-D | 16 | 16 | 125 | 22 | 4 | DED.00.. / DED.01.. | | 102 | | 202 |
| R/L 207.2020.1-D | 20 | 20 | 125 | 21 | 4 | DED.00.. / DED.01.. | | 103 | | 203 |
| R/L 207.2525.1-D | 25 | 25 | 150 | - | 4 | DED.00.. / DED.01.. | | 104 | | 204 |

**Holder R/L..2-D grooving depth to 6 mm**

| Designation | H +/- 0.1 mm | B +/- 0.1 mm | L1 mm | L2 mm | T max. mm | For grooving inserts | right 18765 | ... | left 18765 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| R/L 207.1212.2-D | 12 | 12 | 100 | 24 | 6 | DED.02.. | | 105 | | 205 |
| R/L 207.1616.2-D | 16 | 16 | 125 | 22 | 6 | DED.02.. | | 106 | | 206 |
| R/L 207.2020.2-D | 20 | 20 | 125 | 21 | 6 | DED.02.. | | 107 | | 207 |
| R/L 207.2525.2-D | 25 | 25 | 150 | - | 6 | DED.02.. | | 108 | | 208 |

**Holder R/L..3-D grooving depth to 6 mm**

| Designation | H +/- 0.1 mm | B +/- 0.1 mm | L1 mm | L2 mm | T max. mm | For grooving inserts | right 18765 | ... | left 18765 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| R/L 207.1212.3-D | 12 | 12 | 100 | 24 | 6 | DED.03.. | | 109 | | 209 |
| R/L 207.1616.3-D | 16 | 16 | 125 | 22 | 6 | DED.03.. | | 110 | | 210 |
| R/L 207.2020.3-D | 20 | 20 | 125 | 21 | 6 | DED.03.. | | 111 | | 211 |
| R/L 207.2525.3-D | 25 | 25 | 150 | - | 6 | DED.03.. | | 112 | | 212 |

**Holder R/L..4-D grooving depth to 6 mm**

| Designation | H +/- 0.1 mm | B +/- 0.1 mm | L1 mm | L2 mm | T max. mm | For grooving inserts | right 18765 | ... | left 18765 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| R/L 207.1616.4-D | 16 | 16 | 125 | 22 | 6 | DED.04.. / DED.05.. | | 113 | | 213 |
| R/L 207.2020.4-D | 20 | 20 | 125 | 21 | 6 | DED.04.. / DED.05.. | | 114 | | 214 |
| R/L 207.2525.4-D | 25 | 25 | 150 | - | 6 | DED.04.. / DED.05.. | | 115 | | 215 |

| Spare parts | Clamping screw | | Guide pin | | Adjustable clamp right | | Adjustable clamp left | |
|---|---|---|---|---|---|---|---|---|
| For holders | 18767 | ... | 18767 | ... | 18767 | ... | 18767 | ... |
| R/L 207...1.2.3.4-D | | 101 | | 102 | | | | |
| R/L 0.780...2.3.4-D | | 101 | | 102 | | | | |
| R/L 207...1.2.3-D | | | | | | 103 | | 105 |
| R/L 0.780...2.3.-D | | | | | | 103 | | 105 |
| R/L 207...4-D | | | | | | 104 | | 106 |
| R/L 0.780...4.-D | | | | | | 104 | | 106 |



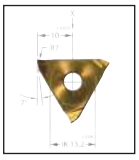
For suitable indexable inserts, see next page

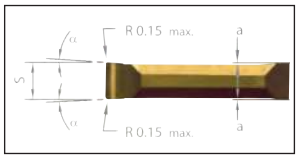
## 18768 - 18770 Indexable inserts for recessing system DED

**Design**
- 3 cutting edges
- Sintered version
- Positive, ground cutting edge geometries
- Extremely soft cut
- Low cutting forces
- Cutting-off insert with chip breaker
- High thermal and chemical stability
- Low friction coefficients

**Applications**
Universal use for practically every material. Limited use for dry machining.

**Quality**
**Cemented carbide ultra-fine grain HC 8620/ TiAlN-coated.**






**18768**

Dümmel WERKZEUGFABRIK

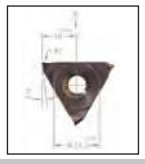
- For locking grooves in accordance with DIN 471/472

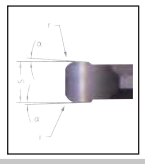
| Designation | Groove dimension mm | S -0.05 mm | Clearance angle Alpha bottom | Clearance angle Alpha top | a +/-0.02 mm | for Clamp holder type | 18768 | ... |
|---|---|---|---|---|---|---|---|---|
| DED.0050.00-D | 0.50 | 0.57 | 0.5° | 1° | 0.07 | R/L..1-D | | 101 |
| DED.0060.00-D | 0.60 | 0.67 | 0.5° | 1° | 0.07 | R/L..1-D | | 102 |
| DED.0070.00-D | 0.70 | 0.77 | 0.5° | 1° | 0.08 | R/L..1-D | | 103 |
| DED.0080.00-D | 0.80 | 0.87 | 0.5° | 1° | 0.08 | R/L..1-D | | 104 |
| DED.0090.00-D | 0.90 | 0.97 | 0.5° | 1° | 0.08 | R/L..1-D | | 105 |
| DED.0100.00-D | 1.00 | 1.07 | 0.5° | 1° | 0.09 | R/L..1-D | | 106 |
| DED.0110.00-D | 1.10 | 1.24 | 3° | 3° | 0.15 | R/L..1-D | | 107 |
| DED.0130.00-D | 1.30 | 1.44 | 3° | 3° | 0.15 | R/L..1-D | | 108 |
| DED.0160.00-D | 1.60 | 1.74 | 3° | 3° | 0.20 | R/L..1-D | | 110 |
| DED.0185.00-D | 1.85 | 1.99 | 3° | 3° | 0.20 | R/L..1-D | | 111 |
| DED.0215.00-D | 2.15 | 2.29 | 3° | 3° | 0.20 | R/L..2-D | | 113 |
| DED.0265.00-D | 2.65 | 2.79 | 3° | 3° | 0.20 | R/L..2-D | | 115 |
| DED.0315.00-D | 3.15 | 3.29 | 3° | 3° | 0.20 | R/L..3-D | | 117 |
| DED.0415.00-D | 4.15 | 4.29 | 3° | 3° | 0.20 | R/L..4-D | | 119 |
| DED.0515.00-D | 5.15 | 5.29 | 3° | 3° | 0.20 | R/L..4-D | | 120 |

**18769**

Dümmel WERKZEUGFABRIK

- For copy and precision turning



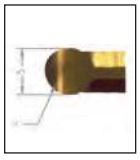


| Designation | S +0.03 mm | r mm | Clearance angle Alpha bottom | Clearance angle Alpha top | For clamp holder type | 18769 | ... |
|---|---|---|---|---|---|---|---|
| DED.0150.02-D | 1.5 | 0.2 | 4° | 3° | R/L..1-D | | 101 |
| DED.0200.02-D | 2.0 | 0.2 | 4° | 3° | R/L..1-D | | 102 |
| DED.0200.04-D | 2.0 | 0.4 | 4° | 3° | R/L..1-D | | 103 |
| DED.0300.02-D | 3.0 | 0.2 | 4° | 3° | R/L..2-D | | 105 |
| DED.0300.06-D | 3.0 | 0.6 | 4° | 3° | R/L..2-D | | 106 |
| DED.0300.08-D | 3.0 | 0.8 | 4° | 3° | R/L..2-D | | 107 |
| DED.0400.02-D | 4.0 | 0.2 | 4° | 3° | R/L..3-D | | 109 |
| DED.0400.08-D | 4.0 | 0.8 | 4° | 3° | R/L..3-D | | 110 |
| DED.0400.12-D | 4.0 | 1.2 | 4° | 3° | R/L..3-D | | 111 |

**18770 101-104**

Dümmel WERKZEUGFABRIK

- Full radius for grooving 0.5 to 1.6 mm groove width

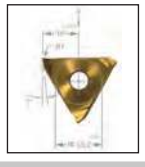


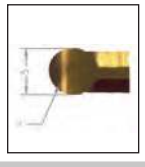
| Designation | S +/-0.05 mm | r mm | T mm | For clamp holder type | 18770 | ... |
|---|---|---|---|---|---|---|
| DED.0002.05-D | 0.5 | 0.25 | 0.20 | R/L..1-D | | 101 |
| DED.0005.10-D | 1.0 | 0.50 | 0.35 | R/L..1-D | | 102 |
| DED.0006.12-D | 1.2 | 0.60 | 0.40 | R/L..1-D | | 103 |
| DED.0008.16-D | 1.6 | 0.80 | 0.55 | R/L..1-D | | 104 |

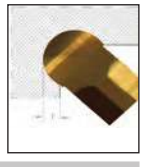
**18770 106-110**

Dümmel WERKZEUGFABRIK

- Full radius for grooving 2.0 to 5.0 mm groove width







| Designation | S +/-0.05 mm | r mm | T mm | For clamp holder type | 18770 | ... |
|---|---|---|---|---|---|---|
| DED.0010.20-D | 2.0 | 1.00 | 0.70 | R/L..2-D | | 106 |
| DED.0012.25-D | 2.5 | 1.25 | 0.85 | R/L..2-D | | 107 |
| DED.0015.30-D | 3.0 | 1.50 | 1.00 | R/L..3-D | | 108 |
| DED.0020.40-D | 4.0 | 2.00 | 1.20 | R/L..4-D | | 109 |
| DED.0025.50-D | 5.0 | 2.50 | 1.50 | R/L..4-D | | 110 |

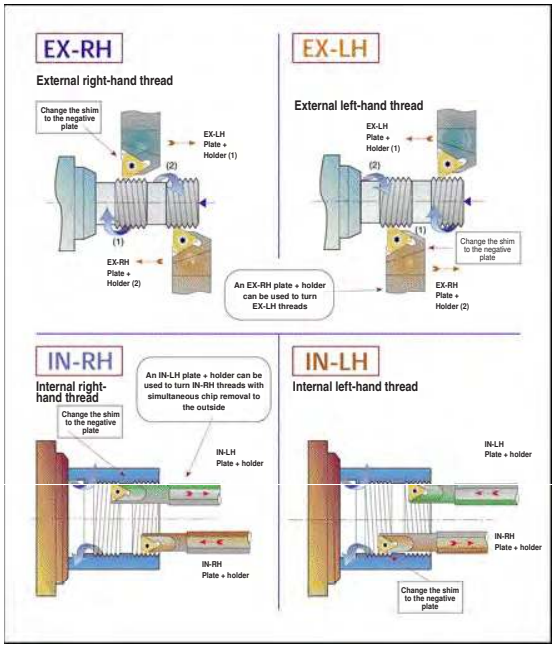




= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Info — Turning threads

**HW 5615 (K10 - K30)** Uncoated carbide grade for non-ferrous metals, aluminium and cast iron.
**HC 5615 (P25 - P35)** TiN-coated fine grain quality for heat-treated steels and high-alloy steel (25 HRC upwards) at medium to low cutting speeds.
**HC 5630 (P20 - P50 / K25 - K40)** TiAlN-coated ultra-fine grain grade for stainless steels and exotic materials and for general machining at medium to high cutting speeds.




### Carbide grades and choice of cutting speeds

| | Uncoated HW 5615 | Coated HC 5615 | Coated HC 5630 |
|---|---|---|---|
| Non-ferrous metals and aluminium | 120 - 200 | - | 140 - 290 |
| General structural steels | - | 100 - 200 | 90 - 240 |
| High-alloy structural steels | - | 80 - 160 | 80 - 170 |
| Alloy steel | - | 50 - 120 | 90 - 130 |
| Cast steel | - | 90 - 150 | 120 - 180 |
| Stainless steels | - | - | 70 - 130 |
| Cast iron | 60 - 100 | - | 70 - 160 |

Cutting speeds are specified with a tolerance range.
In most cases, selection of a medium cutting speed to start with is recommended. For high-strength steels, the cutting speed must be reduced.

## 18774 - 18775 Threaded plate set

ATORN®

**Design**
- In case

**Applications**
Universal for producing a broad range of thread pitches for a limited quantity of workpcs..

18774

| Set contents |
|---|
| **1 clamp holder right** |
| **1 each of cemented-carbide threaded plate grade HC 5615, part profile 60°,** 16 .. A60 (pitch 0.5–1.5 mm) and 16 .. G60 (pitch 1.75–3.0 mm) |
| **1 cemented-carbide threaded plate grade HC 5615, full profile 60°,** Pitch 0.75/1.00/1.25/1.50/1.75/2.00/2.50/3.00 mm |
| **1 TORX® key** |
| **1 replacement clamping screw** |

| Male thread set | Holder Ø mm | 18774 | ... |
|---|---|---|---|
| KEG 20 | 20 | | 102 |

| Female thread set | Holder Ø mm | 18775 | ... |
|---|---|---|---|
| KIG 20 | 20 | | 102 |

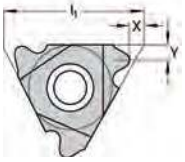
## 18776 Cemented-carbide threaded plates external

ATORN®

**Design**
Right, **part profile 60°,** external, ground.

***Note:***
*Different pitches and left version are deliverable on request.*

18776




| Applications | | | | | | | P | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | HC 5615 | |
| Coating | | | | | | | coated | |
| Designation | Pitch mm | Pitch TPI | $l_1$ mm | x mm | y mm | | 18776 | ... |
| 16 ER A60 | 0.50–1.5 | 48–16 | 16 | 0.8 | 0.9 | 10 pcs. | | 302 |
| 16 ER G60 | 1.75–3.0 | 14–8 | 16 | 1.2 | 1.7 | 10 pcs. | | 303 |

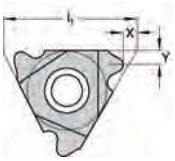
## 18777 Cemented-carbide threaded plates internal

ATORN®

**Design**
Right, **part profile 60°,** internal, ground.

***Note:***
*Different pitches and left version are deliverable on request.*

18777



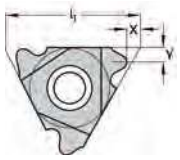

| Applications | | | | | | | P | |
|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | | HC 5615 | |
| Coating | | | | | | | coated | |
| Designation | Pitch mm | Pitch TPI | $l_1$ mm | x mm | y mm | | 18777 | ... |
| 16 IR A60 | 0.50–1.5 | 48–16 | 16 | 0.8 | 0.9 | 10 pcs. | | 302 |
| 16 IR G60 | 1.75–3.0 | 14–8 | 16 | 1.2 | 1.7 | 10 pcs. | | 303 |

## 18778 Cemented-carbide threaded plates DIN 405 external

ATORN®

**Design**
Right, **full profile Round thread,** external, ground.

***Note:***
*Different pitches and left version are deliverable on request.*



18778

| Applications | | | | | | P |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 |
| Coating | | | | | | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | **18778 ...** |
| 16 ER 10 RD | 10 | 16 | 1.1 | 1.2 | 10 pcs. | 101 |
| 16 ER 8 RD | 8 | 16 | 1.4 | 1.3 | 10 pcs. | 102 |
| 16 ER 6 RD | 6 | 16 | 1.5 | 1.7 | 10 pcs. | 103 |

## 18780 Clamp holder (male thread)

ATORN®

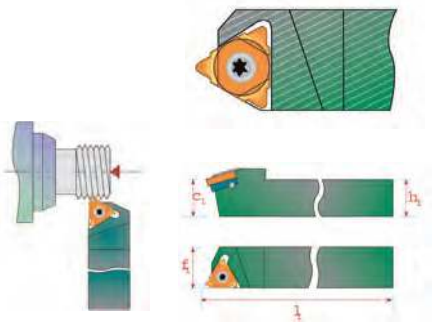
***Note:***
*Different shank diameters are deliverable on request.*

**18780 103-118**
**Design**
Right, pitch angle 1.5°.

**18780 203-218**
**Design**
Left, pitch angle 1.5°.

18780

18780 116



| | | | | | Right | | Left | |
|---|---|---|---|---|---|---|---|---|
| **Designation** | **$h_1 = c_1$ mm** | **$l_1$ mm** | **$f_1$ mm** | **Clamping screw** | **18780** | **...** | **18780** | **...** |
| SER/L 1616 H16 | 16 | 100 | 16 | S 16 | 103 | | 203 | |
| SER/L 2020 K16 | 20 | 125 | 20 | S 16 | 106 | | 206 | |
| SER/L 2525 M16 | 25 | 150 | 25 | S 16 | 109 | | 209 | |
| SER/L 2525 M22 | 25 | 150 | 25 | S 22 | 112 | | 212 | |
| SER/L 3232 P22 | 32 | 170 | 32 | S 22 | 115 | | 215 | |
| SER/L 3232 P22U | 32 | 170 | 32 | S 22 | 116 | | | |
| SER/L 2525 M27 | 25 | 150 | 32 | S 27 | 117 | | 217 | |
| SER/L 3232 P27 | 32 | 170 | 32 | S 27 | 118 | | 218 | |

## 18781 Cemented-carbide threaded plates external

ATORN®

**Design**
**Full profile ISO, metric 60°,** external, ground.

***Note:***
*Different pitches are deliverable on request.*

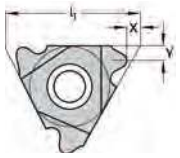
**18781 210-226**
**Design**
Right.

**18781 310-335**
**Design**
Right.

**18781 410-435**
**Design**
Right.

**18781 510-535**
**Design**
**Left.**

18781



| Applications | | | | | | N M K | P | N P M K | P |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HW 5615 | HC 5615 | HC 5630 | HC 5615 |
| Coating | | | | | | uncoated | coated | coated | coated |
| **Designation** | **Pitch mm** | **$l_1$ mm** | **x mm** | **y mm** | | **18781 ...** | **18781 ...** | **18781 ...** | **18781 ...** |
| 16 ER/L 0.5 ISO | 0.50 | 16 | 0.6 | 0.6 | 10 pcs. | 210 | 310 | 410 | 510 |
| 16 ER/L 0.75 ISO | 0.75 | 16 | 0.6 | 0.6 | 10 pcs. | 211 | 311 | 411 | 511 |
| 16 ER/L 0.8 ISO | 0.80 | 16 | 0.6 | 0.6 | 10 pcs. | 212 | 312 | 412 | 512 |
| 16 ER/L 1.0 ISO | 1.00 | 16 | 0.7 | 0.7 | 10 pcs. | 213 | 313 | 413 | 513 |
| 16 ER/L 1.25 ISO | 1.25 | 16 | 0.8 | 0.9 | 10 pcs. | 214 | 314 | 414 | 514 |
| 16 ER/L 1.5 ISO | 1.50 | 16 | 0.8 | 1.0 | 10 pcs. | 215 | 315 | 415 | 515 |
| 16 ER/L 1.75 ISO | 1.75 | 16 | 0.9 | 1.2 | 10 pcs. | 216 | 316 | 416 | 516 |
| 16 ER/L 2.0 ISO | 2.00 | 16 | 1.0 | 1.3 | 10 pcs. | 217 | 317 | 417 | 517 |
| 16 ER/L 2.5 ISO | 2.50 | 16 | 1.1 | 1.5 | 10 pcs. | 218 | 318 | 418 | 518 |
| 16 ER/L 3.0 ISO | 3.00 | 16 | 1.2 | 1.6 | 10 pcs. | 219 | 319 | 419 | 519 |
| 22 ER/L 3.5 ISO | 3.50 | 22 | 1.6 | 2.3 | 10 pcs. | 225 | 325 | 425 | 525 |
| 22 ER/L 4.0 ISO | 4.00 | 22 | 1.6 | 2.3 | 10 pcs. | 226 | 326 | 426 | 526 |
| 22 ER/L 4.5 ISO | 4.50 | 22 | 1.7 | 2.4 | 10 pcs. | | 327 | 427 | 527 |
| 22 ER/L 5.0 ISO | 5.00 | 22 | 1.7 | 2.5 | 10 pcs. | | 328 | 428 | 528 |
| 27 ER/L 6.0 ISO | 6.00 | 27 | 2.0 | 2.9 | 10 pcs. | | 335 | 435 | 535 |





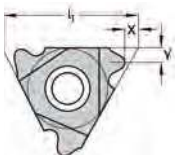
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18783 Cemented-carbide threaded plates external

ATORN®

**Design**
Right, **full profile BSW 55°,** external, ground.

***Note:***
*Different pitches and left version are deliverable on request.*



18783

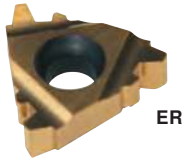
| Applications | | | | | | P | NPMK |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 | HC 5630 |
| Coating | | | | | | coated | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | 18783 ... | 18783 ... |
| 16 ER 28 W | 28 | 16 | 0.6 | 0.7 | 10 pcs. | 319 | 419 |
| 16 ER 19 W | 19 | 16 | 0.8 | 1.0 | 10 pcs. | 320 | 420 |
| 16 ER 16 W | 16 | 16 | 0.9 | 1.1 | 10 pcs. | 322 | 422 |
| 16 ER 14 W | 14 | 16 | 1.0 | 1.2 | 10 pcs. | 323 | 423 |
| 16 ER 11 W | 11 | 16 | 1.1 | 1.5 | 10 pcs. | 325 | 425 |

## 18785 Cemented-carbide threaded plates DIN 103 external

ATORN®

**Design**
Right, **full profile trapezoidal 30°,** external, ground.

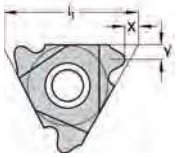
***Note:***
*Different pitches and left version are deliverable on request.*



ER

18785

U ER



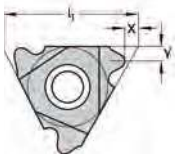
| Applications | | | | | | P | NPMK |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 | HC 5630 |
| Coating | | | | | | coated | coated |
| **Designation** | **Pitch mm** | **$l_1$ mm** | **x mm** | **y mm** | | 18785 ... | 18785 ... |
| 16 ER 2TR | 2 | 16 | 1.0 | 1.3 | 10 pcs. | 310 | |
| 16 ER 3TR | 3 | 16 | 1.3 | 1.5 | 10 pcs. | 311 | 411 |
| 22 ER 4TR | 4 | 22 | 1.8 | 1.9 | 10 pcs. | 315 | 415 |
| 22 ER 5TR | 5 | 22 | 2.0 | 2.4 | 10 pcs. | 316 | 416 |
| 22 U ER 6TR | 6 | 22 U | 2.0 | 11.0 | 10 pcs. | 317 | 417 |
| 22 U ER 7TR | 7 | 22 U | 2.3 | 11.0 | 10 pcs. | 318 | 418 |

## 18787 Cemented-carbide threaded plates external

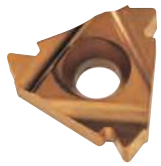
ATORN®

**Design**
Right, **full profile UN,** external, ground.

***Note:***
*Different pitches and left version are deliverable on request.*



18787

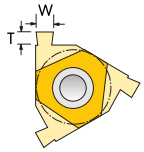


| Applications | | | | | | P |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 |
| Coating | | | | | | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | 18787 ... |
| 16 ER 20 UN | 20 | 16 | 0.8 | 0.9 | 10 pcs. | 110 |
| 16 ER 18 UN | 18 | 16 | 0.8 | 1.0 | 10 pcs. | 111 |
| 16 ER 16 UN | 16 | 16 | 0.9 | 1.1 | 10 pcs. | 112 |
| 16 ER 12 UN | 12 | 16 | 1.1 | 1.4 | 10 pcs. | 115 |

## 18788 Cemented-carbide indexable inserts for o-rings, external

ATORN®

**Applications**
For clamp holder, external right or internal left.



18788

| Applications | | | | NPMK |
|---|---|---|---|---|
| Cemented carbide grade | | | | HC 5640 |
| Coating | | | | coated |
| **Designation** | **W mm** | **T mm** | | 18788 ... |
| 16 ER/IL 1.00 | 1.00 | 1.40 | 10 pcs. | 401 |
| 16 ER/IL 1.20 | 1.20 | 1.60 | 10 pcs. | 402 |
| 16 ER/IL 1.40 | 1.40 | 1.80 | 10 pcs. | 403 |
| 16 ER/IL 1.70 | 1.70 | 2.00 | 10 pcs. | 404 |
| 16 ER/IL 1.95 | 1.95 | 2.00 | 10 pcs. | 405 |
| 16 ER/IL 2.25 | 2.25 | 2.25 | 10 pcs. | 406 |

## 18786 Cemented-carbide indexable inserts for grooving

ATORN®

**Applications**
For clamp holder, external right or internal left.

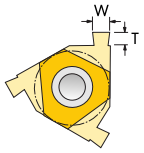

18786

| Applications | | | | | P K | |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | HC 5640 | |
| Coating | | | | | coated | |
| **Designation** | **R +/- 0.04 mm** | **T mm** | | **Suitable for shim** | **18786** | **...** |
| **16 ER/IL R 0.5** | 0.5 | 1.4 | 10 pcs. | AE 16-0 | | **401** |
| **16 ER/IL R 0.6** | 0.6 | 1.6 | 10 pcs. | AE 16-0 | | **402** |
| **16 ER/IL R 0.9** | 0.9 | 2.0 | 10 pcs. | AE 16-0 | | **403** |
| **16 ER/IL R 1.0** | 1.0 | 2.0 | 10 pcs. | AE 16-0 | | **404** |
| **16 ER/IL R 1.1** | 1.1 | 2.15 | 10 pcs. | AE 16-0 | | **405** |
| **16 ER/IL R 1.2** | 1.2 | 2.25 | 10 pcs. | AE 16-0 | | **406** |

## 18802 Cemented-carbide indexable inserts for o-rings, internal

ATORN®

**Applications**
For clamp holder internal right or external left.




18802

| Applications | | | | N P M K | |
|---|---|---|---|---|---|
| Cemented carbide grade | | | | HC 5640 | |
| Coating | | | | coated | |
| **Designation** | **W mm** | **T mm** | | **18802** | **...** |
| **16 IR/EL 1.00** | 1.00 | 1.40 | 10 pcs. | | **401** |
| **16 IR/EL 1.20** | 1.20 | 1.60 | 10 pcs. | | **402** |
| **16 IR/EL 1.40** | 1.40 | 1.80 | 10 pcs. | | **403** |
| **16 IR/EL 1.70** | 1.70 | 2.00 | 10 pcs. | | **404** |
| **16 IR/EL 1.95** | 1.95 | 2.00 | 10 pcs. | | **405** |
| **16 IR/EL 2.25** | 2.25 | 2.25 | 10 pcs. | | **406** |

## 18790 Mini threaded plate sets

ATORN®

**Design**
For female thread, part profile, right.
Incl. 1 TX key and 2 replacement screws.

**18790 101**
**Contents KU 60 M**
**1 boring bar,** shank 12 mm (art. no. 18791 101),
**10 threaded plates** part profile metric 60° for pitches 0.5–1.25 (art. no. 18793 101).

**18790 103**
**Contents KM 60 M**
**1 boring bar,** shank 16 mm (art. no. 18791 102),
**10 threaded plates** part profile metric 60° for pitches 0.5–1.5 (art. no. 18793 102).

18790

| | 18790 | ... |
|---|---|---|
| **KU 60 M** | | **101** |
| **KM 60 M** | | **103** |

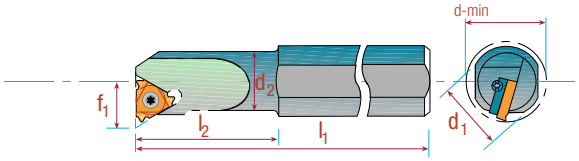
## 18791 Mini boring bars

ATORN®

**Design**
**Female thread, steel.**

**18791 101-102**
**Design**
Right.

**18791 201-202**
**Design**
**Left.**


18791

| | | | | | | | | Right | | Left | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Designation** | **$d_1$ mm** | **$d_2$ mm** | **$l_1$ mm** | **$l_2$ mm** | **d min. mm** | **$f_1$ mm** | **Clamping screw** | **18791** | **...** | **18791** | **...** |
| **SIR/L 0005 H06** | 12 | 5.1 | 100 | 12 | 6.0 | 4.3 | S 06 | | **101** | | **201** |
| **SIR/L 0007 K08** | 16 | 6.6 | 125 | 18 | 7.8 | 5.3 | S 08 | | **102** | | **202** |

## 18792 Clamping screws

**Applications**
For mini clamp holder (art. no. 18791).

18792

| | TORX®-Size | | 18792 | ... |
|---|---|---|---|---|
| **S 06** | T 6 | 10 pcs. | | **101** |
| **S 08** | T 6 | 10 pcs. | | **102** |

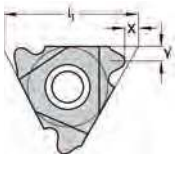
## 18793 Mini threaded plate, internal

ATORN®

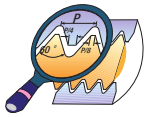
**Design**
Part profile, **metric 60°, BSW 55°,** internal, ground.
**Quality**
**HC 5640.**

**18793 101-105**
**Design**
Right.

**18793 201-205**
**Design**
Left.



18793



| Designation | Profile | $l_1$ mm | Pitch | | Right 18793 ... | Left 18793 ... |
|---|---|---|---|---|---|---|
| **06 IR/L A 60** | 60° | 6 | 0.5–1.25 | 10 pcs. | 101 | 201 |
| **08 IR/L A 60** | 60° | 8 | 0.5–1.50 | 10 pcs. | 102 | 202 |
| **06 IR/L A 55** | 55° | 6 | 48 - 20 | 10 pcs. | 104 | 204 |
| **08 IR/L A 55** | 55° | 8 | 48–16 | 10 pcs. | 105 | 205 |

## 18794 Solid-carbide boring bars with internal cooling

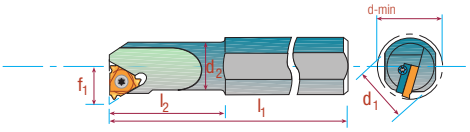
ATORN®

**Design**
**For use without shims.**
**Applications**
Particularly suitable for long overhang and small bore diameters to prevent vibrations and sagging.

**18794 101-103**
**Design**
Right.

**18794 201-203**
**Design**
Left.

18794




| Designation | $d_1$ mm | $d_2$ mm | d min. mm | $l_1$ mm | $l_2$ mm | $f_1$ mm | Clamping screw | Right with internal cooling 18794 ... | Left with internal cooling 18794 ... |
|---|---|---|---|---|---|---|---|---|---|
| **SIR/L 0010 M11CB** | 10 | 10 | 12 | 150 | - | 7.4 | S 11 | 101 | 201 |
| **SIR/L 0012 P11CB** | 12 | 12 | 15 | 170 | - | 8.4 | S 11 | 102 | 202 |
| **SIR/L 0016 R16CB** | 16 | 16 | 19 | 200 | - | 11.7 | S 16S | 103 | 203 |

## 18795 Boring bars (female thread)

ATORN®

**Applications**
For female thread cutting.

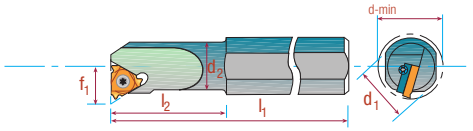
***Note:***
*Different shank diameters on request.*

**18795 101-112**
**Design**
Right, pitch angle 1.5°.

**18795 201-212**
**Design**
**Left,** pitch angle 1.5°.

**18795 501-506**
**Design**
Right, **with internal coolant supply,** pitch angle 1.5°.

18795




18795 111

| Designation | $d_1$ mm | $d_2$ mm | d min. mm | $l_1$ mm | $l_2$ mm | $f_1$ mm | Clamping screw | Right 18795 ... | Left 18795 ... |
|---|---|---|---|---|---|---|---|---|---|
| **SIR/L 0010 K11** | 16 | 10 | 12 | 125 | 25 | 7.4 | S 11 | 101 | 201 |
| **SIR/L 0013 L11** | 16 | 13 | 15 | 140 | 32 | 8.9 | S 11 | 102 | 202 |
| **SIR/L 0016 P16** | 20 | 16 | 19 | 170 | 40 | 11.7 | S 16S | 104 | 204 |
| **SIR/L 0020 P16** | 20 | 20 | 24 | 170 | – | 13.7 | S 16 | 105 | 205 |
| **SIR/L 0025 R16** | 25 | 25 | 29 | 200 | – | 16.2 | S 16 | 106 | 206 |
| **SIR/L 0025 R22** | 25 | 25 | 29 | 200 | – | 18.1 | S 22 | 109 | 209 |
| **SIR/L 0032 S22** | 32 | 32 | 38 | 250 | – | 21.6 | S 22 | 110 | 210 |
| **SIR/L 0032 S22U** | 32 | 32 | 38 | 250 | – | 24.4 | S 22 | 111 | |
| **SIR/L 0032 S27** | 32 | 32 | 40 | 250 | – | 22.6 | S 27 | 112 | 212 |

| Designation | $d_1$ mm | $d_2$ mm | d min. mm | $l_1$ mm | $l_2$ mm | $f_1$ mm | Clamping screw | Right with internal cooling 18795 ... |
|---|---|---|---|---|---|---|---|---|
| **SIR 0010 K11B** | 16 | 10 | 12 | 125 | 25 | 7.4 | S 11 | 501 |
| **SIR 0013 M16B** | 16 | 13 | 16 | 150 | 32 | 10.2 | S 16S | 503 |
| **SIR 0016 P16B** | 20 | 16 | 19 | 170 | 40 | 11.7 | S 16S | 504 |
| **SIR 0020 P16B** | 20 | 20 | 24 | 170 | - | 13.7 | S 16 | 505 |
| **SIR 0025 R16B** | 25 | 25 | 29 | 200 | - | 16.2 | S 16 | 506 |

## 18796 Cemented-carbide threaded plates internal

ATORN®

**Design**
**Full profile ISO, metric 60°,** internal, ground.

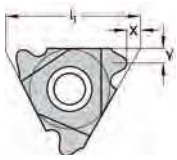
***Note:***
*Different pitches are deliverable on request.*

**18796 205-224**
**Design**
Right.

**18796 305-328**
**Design**
Right.

**18796 405-428**
**Design**
Right.

**18796 505-528**
**Design**
**Left.**



18796

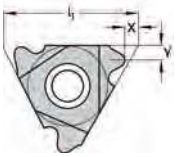
| Applications | | | | | | N M K | P | N P M K | N P M K |
|---|---|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HW 5615 | HC 5615 | HC 5630 | HC 5630 |
| Coating | | | | | | uncoated | coated | coated | coated |
| **Designation** | **Pitch mm** | **$l_1$ mm** | **x mm** | **y mm** | | 18796 ... | 18796 ... | 18796 ... | 18796 ... |
| **11 IR/L 0.5 ISO** | 0.50 | 11 | 0.6 | 0.6 | 10 pcs. | 205 | 305 | 405 | 505 |
| **11 IR/L 0.75 ISO** | 0.75 | 11 | 0.6 | 0.6 | 10 pcs. | 208 | 308 | 408 | 508 |
| **11 IR/L 0.8 ISO** | 0.80 | 11 | 0.6 | 0.6 | 10 pcs. | 209 | 309 | 409 | 509 |
| **11 IR/L 1.0 ISO** | 1.00 | 11 | 0.6 | 0.7 | 10 pcs. | 210 | 310 | 410 | 510 |
| **11 IR/L 1.25 ISO** | 1.25 | 11 | 0.8 | 0.8 | 10 pcs. | 211 | 311 | 411 | 511 |
| **11 IR/L 1.5 ISO** | 1.50 | 11 | 0.8 | 1.0 | 10 pcs. | 212 | 312 | 412 | 512 |
| **11 IR/L 1.75 ISO** | 1.75 | 11 | 0.8 | 1.1 | 10 pcs. | 213 | 313 | 413 | 513 |
| **16 IR/L 1.0 ISO** | 1.00 | 16 | 0.6 | 0.7 | 10 pcs. | 214 | 314 | 414 | 514 |
| **16 IR/L 1.25 ISO** | 1.25 | 16 | 0.8 | 0.9 | 10 pcs. | 216 | 316 | 416 | 516 |
| **16 IR/L 1.5 ISO** | 1.50 | 16 | 0.8 | 1.0 | 10 pcs. | 217 | 317 | 417 | 517 |
| **16 IR/L 1.75 ISO** | 1.75 | 16 | 0.9 | 1.2 | 10 pcs. | 218 | 318 | 418 | 518 |
| **16 IR/L 2.0 ISO** | 2.00 | 16 | 1.0 | 1.3 | 10 pcs. | 219 | 319 | 419 | 519 |
| **16 IR/L 2.5 ISO** | 2.50 | 16 | 1.1 | 1.5 | 10 pcs. | 220 | 320 | 420 | 520 |
| **16 IR/L 3.0 ISO** | 3.00 | 16 | 1.1 | 1.5 | 10 pcs. | 221 | 321 | 421 | 521 |
| **22 IR/L 3.5 ISO** | 3.50 | 22 | 1.6 | 2.3 | 10 pcs. | 223 | 323 | 423 | 523 |
| **22 IR/L 4.0 ISO** | 4.00 | 22 | 1.6 | 2.3 | 10 pcs. | 224 | 324 | 424 | 524 |
| **22 IR/L 4.5 ISO** | 4.50 | 22 | 1.6 | 2.4 | 10 pcs. | | 326 | 426 | 526 |
| **22 IR/L 5.0 ISO** | 5.00 | 22 | 1.6 | 2.3 | 10 pcs. | | 327 | 427 | 527 |
| **27 IR/L 6.0 ISO** | 6.00 | 27 | 1.8 | 2.5 | 10 pcs. | | 328 | 428 | 528 |

## 18798 Cemented-carbide threaded plates internal

ATORN®

**Design**
Right, **full profile BSW 55°,** internal, ground.

***Note:***
*Different pitches and left version are deliverable on request.*



18798

| Applications | | | | | | P | N P M K |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 | HC 5630 |
| Coating | | | | | | coated | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | 18798 ... | 18798 ... |
| **11 IR 28 W** | 28 | 11 | 0.6 | 0.7 | 10 pcs. | 319 | 419 |
| **11 IR 19 W** | 19 | 11 | 0.8 | 1.0 | 10 pcs. | 320 | 420 |
| **11 IR 16 W** | 16 | 11 | 0.9 | 1.1 | 10 pcs. | 322 | 422 |
| **11 IR 14 W** | 14 | 11 | 0.9 | 1.1 | 10 pcs. | 323 | 423 |
| **11 IR 12 W** | 12 | 11 | 1.0 | 1.1 | 10 pcs. | 324 | 424 |
| **11 IR 11 W** | 11 | 11 | 0.9 | 1.2 | 10 pcs. | 325 | 425 |
| **16 IR 28 W** | 28 | 16 | 0.6 | 0.7 | 10 pcs. | 339 | 439 |
| **16 IR 19 W** | 19 | 16 | 0.8 | 1.0 | 10 pcs. | 340 | 440 |
| **16 IR 16 W** | 16 | 16 | 0.9 | 1.1 | 10 pcs. | 342 | 442 |
| **16 IR 14 W** | 14 | 16 | 1.0 | 1.2 | 10 pcs. | 343 | 443 |
| **16 IR 12 W** | 12 | 16 | 1.1 | 1.4 | 10 pcs. | 344 | 444 |
| **16 IR 11 W** | 11 | 16 | 1.1 | 1.5 | 10 pcs. | 345 | 445 |





= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## 18800 Cemented-carbide threaded plates DIN 103 internal

ATORN®

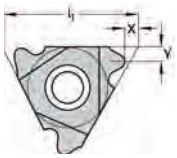
**Design**
Right, **full profile trapezoidal 30°,** internal, ground.

***Note:***
*Different pitches and left version are deliverable on request.*


U IR


18800
IR

| Applications | | | | | | P | N P M K |
|---|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 | HC 5630 |
| Coating | | | | | | coated | coated |
| **Designation** | **Pitch mm** | **$l_1$ mm** | **x mm** | **y mm** | | **18800 ...** | **18800 ...** |
| **16 IR 3TR** | 3 | 16 | 1.3 | 1.5 | 10 pcs. | 305 | 405 |
| **22 IR 4TR** | 4 | 22 | 1.8 | 1.9 | 10 pcs. | 306 | 406 |
| **22 IR 5TR** | 5 | 22 | 2.0 | 2.4 | 10 pcs. | 307 | 407 |
| **22 U IR 6TR** | 6 | 22 U | 2.0 | 11.0 | 10 pcs. | 308 | 408 |
| **22 U IR 7TR** | 7 | 22 U | 2.3 | 11.0 | 10 pcs. | 309 | 409 |

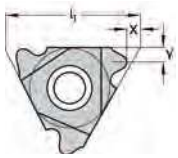


## 18804 Cemented-carbide threaded plates DIN 405 internal

ATORN®

**Design**
Right, **full profileround thread,** internal, ground.

***Note:***
*Different pitches and left version are deliverable on request.*




18804

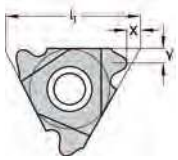
| Applications | | | | | | P |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 |
| Coating | | | | | | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | **18804 ...** |
| **16 IR 8 RD** | 8 | 16 | 1.4 | 1.4 | 10 pcs. | 102 |
| **16 IR 6 RD** | 6 | 16 | 1.4 | 1.5 | 10 pcs. | 103 |
| **22 IR 6 RD** | 6 | 22 | 1.5 | 1.7 | 10 pcs. | 104 |
| **22 IR 4 RD** | 4 | 22 | 2.2 | 2.3 | 10 pcs. | 105 |

## 18803 Cemented-carbide threaded plates internal

ATORN®

**Design**
**Right, full profileUN, internal, ground.**

***Note:***
*Different pitches and left version are deliverable on request.*



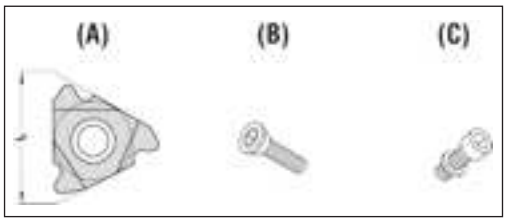

18803

| Applications | | | | | | P |
|---|---|---|---|---|---|---|
| Cemented carbide grade | | | | | | HC 5615 |
| Coating | | | | | | coated |
| **Designation** | **Pitch TPI** | **$l_1$ mm** | **x mm** | **y mm** | | **18803 ...** |
| **16 IR 14 UN** | 14 | 16 | 0.9 | 1.2 | 10 pcs. | 113 |
| **16 IR 12 UN** | 12 | 16 | 1.1 | 1.4 | 10 pcs. | 115 |

## Info

## 18805 - 18807 Spare parts for threaded plates

| Plate size (A) | | Clamping screw (B) | Screw with washer (C) |
|---|---|---|---|
| 11 (1/4) | Internal | S 11 | |
| 16 (3/8) | External | S 16 | A 16 |
| | Internal | S 16 | A 16 |
| 22 (1/2) | External | S 22 | A 22 |
| | Internal | S 22 | A 22 |
| 27 (5/8) | External | S 27 | A 27 |




## 18805 Clamping screws for threaded plates

18805

| | | 18805 ... |
|---|---|---|
| S 11 (1/4) | 10 pcs. | 101 |
| S 16 (3/8) | 10 pcs. | 102 |
| S 16 S | 10 pcs. | 105 |
| S 22 (1/2) | 10 pcs. | 103 |
| S 27 (5/8) | 10 pcs. | 104 |

## 18806 Screws for shims

18806

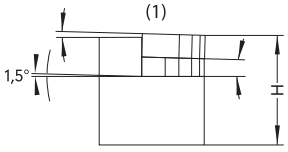
| | 18806 ... |
|---|---|
| A 16 (3/8) | 101 |
| A 22 (1/2) | 102 |
| A 27 (5/8) | 103 |

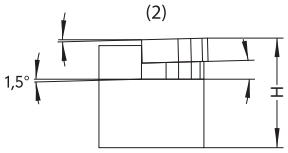
## 18807 Standard and special shims

18807

**Applications**
Standard shims with **positive** pitch angle (cutting edges from right to left) are used when **cutting a right-hand thread with a right-hand tool (1).** Special shims with **negative** pitch angle (cutting edges from left to right) are used when **cutting a right-hand thread with a left-hand tool** or a **left-hand thread with a right-hand tool (2).**

**Important:**
Dimension H remains constant for every shim combination.




| Edge size $l_1$ mm | For clamp holder | Pitch angle | Edge designation | 18807 ... |
|---|---|---|---|---|
| 16 (3/8) | SER ... / SIL ... | 1.5° | AE 16 | 102 |
| 16 (3/8) | SEL ... / SIR ... | 1.5° | AI 16 | 103 |
| 16 (3/8) | SER ... / SIL ... | −1.5° | AE 16-1.5 | 106 |
| 16 (3/8) | SEL ... / SIR ... | −1.5° | AI 16-1.5 | 107 |
| 22 (1/2) | SER ... / SIL ... | 1.5° | AE 22 | 110 |
| 22 (1/2) | SEL ... / SIR ... | 1.5° | AI 22 | 111 |
| 22 U (1/2) | SER ... / SIL ... | 1.5° | AE 22 U | 112 |
| 22 U (1/2) | SEL ... / SIR ... | 1.5° | AI 22 U | 113 |
| 22 (1/2) | SER ... / SIL ... | −1.5° | AE 22-1.5 | 114 |
| 22 (1/2) | SEL ... / SIR ... | −1.5° | AI 22-1.5 | 115 |
| 27 (5/8) | SER ... / SIL ... | 1.5° | AE 27 | 116 |
| 27 (5/8) | SEL ... / SIR ... | 1.5° | AI 27 U | 117 |
| 27 (5/8) | SER ... / SIL ... | −1.5° | AE 27 -1.5 | 118 |
| 27 (5/8) | SEL ... / SIR ... | −1.5° | AI 27 -1.5 | 119 |

# Info — 18820-18829 UNISIX clamped lathe chisels range, type PM

KOMET

The tried-and-tested lathe chisel range for conventional centre lathes.
For using KOMET-UNISIX cemented-carbide indexable inserts with a total of six cutting edges.
Mounted with special clamping screw accessible from above.

## 18820 Offset side turning clamp holder PM

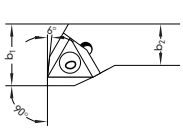
KOMET

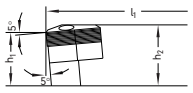
**Design**
Right.

***Note:***
*When using left indexable inserts, the clamp holder can be used for turning and facing.*

18820

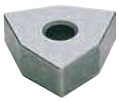
| Type | $b_2$ x $h_2$ x $l_1$ mm | For Unisix insert | $h_1$ mm | $b_1$ mm | 18820 | ... |
|---|---|---|---|---|---|---|
| **PM 1/16** | 16 x 17.7 x 140 | P1 | 15.7 | 19.8 | | 201 |
| **PM 1** | 16 x 21.7 x 140 | P1 | 19.7 | 19.8 | | 202 |
| **PM 2** | 20 x 26.1 x 165 | P2 | 23.7 | 24.0 | | 203 |




## 18822 Replacement intermediate layers

18822



| Type | For holder | 18822 | ... |
|---|---|---|---|
| **16** | PM 1/16 | | 101 |
| **1** | PM 1 | | 102 |
| **2** | PM 2 | | 103 |

## 18823 Replacement clamping screws

18823

| Size | For holder | | 18823 | ... |
|---|---|---|---|---|
| **M 4.5 x 14.5** | PM 1/16 | 10 pcs. | | 101 |
| **M 4.5 x 18.7** | PM 1 | 10 pcs. | | 102 |
| **M 4.5 x 22.5** | PM 2 | 10 pcs. | | 103 |

## 18828 - 18829 Cemented-carbide indexable inserts KOMET-UNISIX

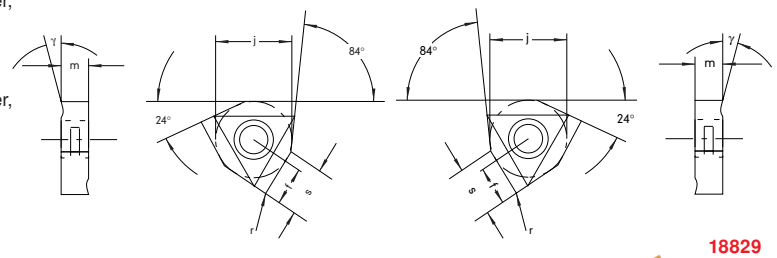
KOMET

**Applications**
In clamp holder art. no. 18820. Designed as six-edged indexable insert (84° tip angle) with six cutting edges. Indexable inserts with chip breakers have a positive chip angle of 18°, insert has a 5° incline in the holder, and this creates a positive chip angle of 13°. (for long-chipping materials: steel, steel casting, etc.). All indexable inserts can be interchanged within one holder size.

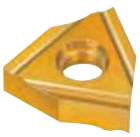
**18828**
With chip breaker, right positive.

**18829**
With chip breaker, left positive.

18828 18829




18829



| Tip size | j mm | s mm | m mm | f mm | g | r |
|---|---|---|---|---|---|---|
| **P1/W04 42...** | 12.0 | 7.5 | 4.5 | 6.642 | 18° | 0.2 |
| **P2/W04 50...** | 15.0 | 9.5 | 5.0 | 8.285 | 18° | 0.4 |

| right | | P M K HM quality P 25 | ... | P M HM quality P 40 | ... | N P M K HM quality K 10 | ... |
|---|---|---|---|---|---|---|---|
| **Plate size** | | 18828 | ... | 18828 | ... | 18828 | ... |
| **P1/W04 42 480.02** | 10 pcs. | | 120 | | 122 | | 123 |
| **P2/W04 50 480.04** | 10 pcs. | | 128 | | 130 | | |

| left | | P M K HM quality P 25 | ... | P M HM quality P 40 | ... | N P M K HM quality K 10 | ... |
|---|---|---|---|---|---|---|---|
| **Plate size** | | 18829 | ... | 18829 | ... | 18829 | ... |
| **P1/W04 42 180.02** | 10 pcs. | | 120 | | 122 | | 123 |
| **P2/W04 50 180.04** | 10 pcs. | | 128 | | 130 | | |

## Info — 18835 - 18841 Clamped lathe chisel range

KOMET

The modern high-performance tool range. With standard, interchangeable cutter holders, hardened, for compact three-sided positioning of the indexable insert. Primarily for use on conventional lathes.
All clamped lathe chisels complete with cutter holder and TX clamping screw. Without key and indexable insert.

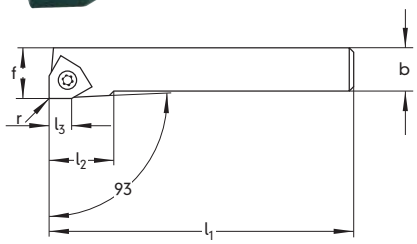
## 18835 Clamped lathe chisels

KOMET

**Design**
Angle of attack 93°, right.
**Applications**
For Unisix indexable inserts, positive.

***Note:***
*Replacement clamping screws, see art. no. 18840.*

18835


| Designation | $l_1$ mm | $l_2$ mm | $l_3$ mm | f mm | r mm | b mm | For indexable insert | Replacement clamping screw | Right 18835 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| SWLCR 1010 E05 | 70 | 15 | 5.3 | 12 | 0.2 | 10 | W29.. 24.. | N00 57511/T8 | | 103 |
| SWLCR 1212 F05 | 80 | 18 | 5.3 | 16 | 0.2 | 12 | W29.. 24.. | N00 57511/T8 | | 104 |
| SWLCR 1616 H06 | 100 | 20 | 6.6 | 20 | 0.2 | 16 | W29.. 34.. | N00 57521/T10 | | 105 |
| SWLCR 2020 K07 | 125 | 24 | 7.9 | 25 | 0.2 | 20 | W29.. 42.. | N00 57531/T15 | | 106 |

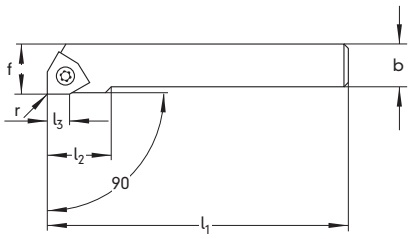
## 18836 Clamped lathe chisels

KOMET

**Design**
Angle of attack 90°, right.
**Applications**
For Unisix indexable inserts, positive.

***Note:***
*Replacement clamping screws, see art. no. 18840.*

18836




| Designation | $l_1$ mm | $l_2$ mm | $l_3$ mm | f mm | r mm | b mm | For indexable insert | Replacement clamping screw | Right 18836 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| SWGCR 1010 E05 | 70 | 15 | 5.3 | 12 | 0.2 | 10 | W29.. 24.. | N00 57511/T8 | | 103 |
| SWGCR 1212 F05 | 80 | 19 | 5.3 | 16 | 0.2 | 12 | W29.. 24.. | N00 57511/T8 | | 104 |
| SWGCR 1616 H06 | 100 | 20 | 6.6 | 20 | 0.2 | 16 | W29.. 34.. | N00 57521/T10 | | 105 |
| SWGCR 2020 K07 | 125 | 25 | 7.9 | 25 | 0.2 | 20 | W29.. 42.. | N00 57531/T15 | | 106 |

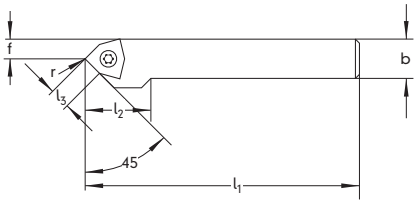
## 18838 Clamped lathe chisels

KOMET

**Design**
Angle of attack 45°, right.
**Applications**
For Unisix indexable inserts, positive.

***Note:***
*Replacement clamping screws, see art. no. 18840.*

18838




| Designation | $l_1$ mm | $l_2$ mm | $l_3$ mm | f mm | r mm | b mm | For indexable insert | Replacement clamping screw | Right 18838 | ... |
|---|---|---|---|---|---|---|---|---|---|---|
| SWDCR 1010 E05 | 70 | 17 | 5.3 | 5 | 0.2 | 10 | W29.. 24.. | N00 57511/T8 | | 103 |
| SWDCR 1212 F05 | 80 | 18 | 5.3 | 6 | 0.2 | 12 | W29.. 24.. | N00 57511/T8 | | 104 |
| SWDCR 1616 H06 | 100 | 23 | 6.6 | 8 | 0.2 | 16 | W29.. 34.. | N00 57521/T10 | | 105 |
| SWDCR 2020 K07 | 125 | 10 | 7.9 | 10 | 0.2 | 20 | W29.. 42.. | N00 57531/T15 | | 106 |

## 18840 Replacement clamping screws

KOMET

**Applications**
For KOMET clamped lathe chisels
art. no. 18835–18838.

18840

| Designation | Size | | 18840 | ... |
|---|---|---|---|---|
| N00 57511 | M 2.5 x 7.2 | 10 pcs. | | 101 |
| N00 57521 | M 3.5 x 7.3 | 10 pcs. | | 102 |
| N00 57531 | M 4.5 x 9 | 10 pcs. | | 103 |

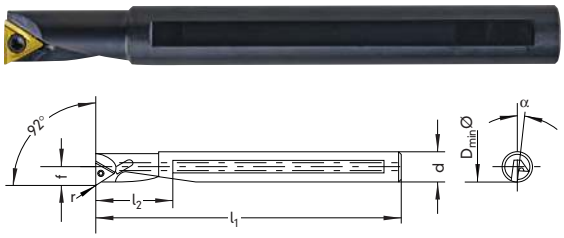
## 18839 Clamped lathe chisels (boring bars)

KOMET

**Design**
Angle of attack 92°, right, **with internal coolant supply.**
**Applications**
For Unisix indexable inserts, positive.

***Note:***
*Replacement clamping screws see art. no. 18841.*

18839






Right

| Designation | Dmin mm | d mm | $l_1$ mm | $l_2$ mm | f mm | r mm | a | For indexable inserts | Replacement clamping screw | 18839 | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **UJ 0410 R** | 7.9 | 8 | 85 | 15 | 3.95 | 0.2 | 8° 30' | W30.. 04.. | N00 56021/T6 | | 102 |
| **UJ 0420 R** | 9.9 | 10 | 95 | 20 | 4.95 | 0.2 | 5° 30' | W30.. 04.. | N00 56021/T6 | | 103 |
| **UJ 0430 R** | 11.9 | 12 | 110 | 25 | 5.95 | 0.2 | 7° 30' | W30.. 14.. | N00 56101/T8 | | 104 |
| **UJ 0450 R** | 15.9 | 16 | 120 | 30 | 7.95 | 0.2 | 5° | W30.. 14.. | N00 56101/T8 | | 105 |

## 18841 Replacement clamping screws

KOMET

**Applications**
For KOMET clamped lathe chisels (boring bars) art. no. 18939.

| Designation | Size | | 18841 | ... |
|---|---|---|---|---|
| **N00 56021** | M 2 x 3.6 | 10 pcs. | | 101 |
| **N00 56101** | M 2.6 x 5.1 | 10 pcs. | | 102 |

18841

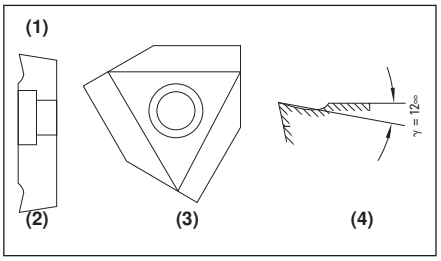
## Info 18842 - 18845 indexable inserts Unisix

KOMET

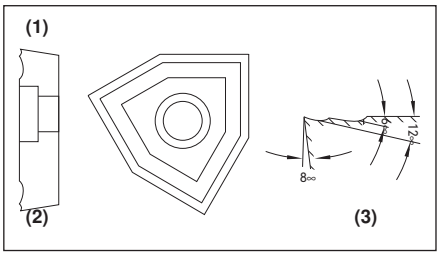
**Made from cemented carbide, standard version.**
High-performance indexable inserts with three positively ground chip breakers. 8° clearance angle, 12° chip angle (a) and 84° tip angle (with P 800). Fastening screw countersunk. Free chip flow.

**Cemented carbide grades:**

| | |
|---|---|
| **P 25 M** | uncoated, for steel machining |
| **K 10** | uncoated, for grey cast iron and non-ferrous metals |
| **BK6425** | TiN-coated for steel machining |
| **BK7615** | coated, for grey cast iron and hardened steels |




**(1)** P plate,
**(2)** Standard,
**(3)** Right-cutting,
**(4)** Flute shape.



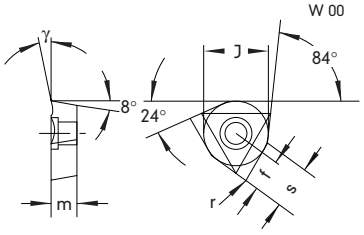

**(1)** P plate,
**(2)** Standard,
**(3)** Flute shape.

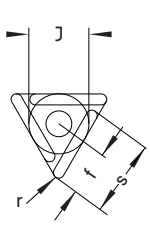
## 18842 Indexable inserts Unisix

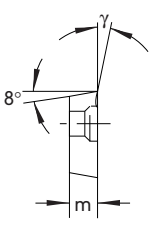
KOMET

**Design**
With ground chip breaker, **right.**

W 30




W00

W30

18842

N P M K

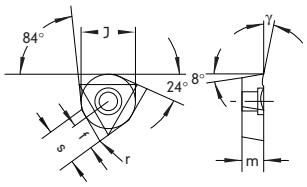
| Cemented carbide grade | | | | | | | uncoated P 25 M | | K 10 | | coated BK6425 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Insert size** | J mm | m mm | s mm | f mm | r mm | | 18842 | ... | 18842 | ... | 18842 | ... |
| **W00 34420.02** | 10.0 | 3.0 | 6.6 | 5.531 | 0.2 | 10 pcs. | | 113 | | 114 | | 116 |
| **W00 42420.02** | 12.0 | 3.8 | 7.9 | 6.642 | 0.2 | 10 pcs. | | 123 | | 124 | | 126 |
| **W00 50420.04** | 15.0 | 4.3 | 9.9 | 8.285 | 0.4 | 10 pcs. | | 133 | | 134 | | 136 |
| **W30 04420.03** | 4.0 | 1.8 | 3.5 | 3.245 | 0.3 | 10 pcs. | | 143 | | 144 | | 146 |
| **W30 14420.04** | 5.6 | 2.5 | 4.5 | 4.557 | 0.4 | 10 pcs. | | 153 | | 154 | | 156 |

## 18843 Indexable inserts Unisix

KOMET

**Version**
With ground chip breaker, **left.**

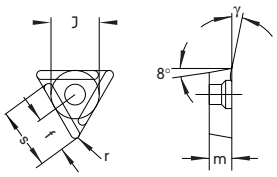
W 00




18843

W00

W 30




W30

N P M K

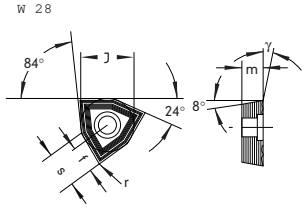
| Cemented carbide grade | | | | | | | uncoated P 25 M | | K 10 | | coated BK6425 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Insert size | J mm | m mm | s mm | f mm | r mm | | 18843 | ... | 18843 | ... | 18843 | ... |
| W00 34120.02 | 10.0 | 3.0 | 6.6 | 5.531 | 0.2 | 10 pcs. | | 113 | | 114 | | 116 |
| W00 42120.02 | 12.0 | 3.8 | 7.9 | 6.642 | 0.2 | 10 pcs. | | 123 | | 124 | | 126 |
| W00 50120.04 | 15.0 | 4.3 | 9.9 | 8.285 | 0.4 | 10 pcs. | | 133 | | 134 | | 136 |
| W30 04120.03 | 4.0 | 1.8 | 3.5 | 3.245 | 0.3 | 10 pcs. | | 143 | | 144 | | 146 |
| W30 14120.04 | 5.6 | 2.5 | 4.5 | 4.557 | 0.4 | 10 pcs. | | 153 | | 154 | | 156 |

## 18844 Indexable inserts Unisix

KOMET

**Version**
With positively sintered breaker geometry, cutting edges rounded, standard version.

W 28




18844

W28

N P M K

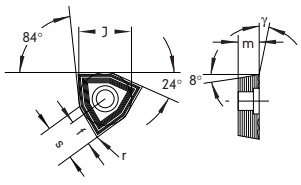
| Cemented carbide grade | | | | | | | uncoated P 25 M | | K 10 | | coated BK6425 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Insert size | J mm | m mm | s mm | f mm | r mm | | 18844 | ... | 18844 | ... | 18844 | ... |
| W28 34000.04 | 10.0 | 3.0 | 6.6 | 5.509 | 0.4 | 10 pcs. | | 113 | | 114 | | 116 |
| W28 42000.04 | 12.0 | 3.8 | 7.9 | 6.619 | 0.4 | 10 pcs. | | | | 124 | | |
| W28 50000.04 | 15.0 | 4.3 | 9.9 | 8.285 | 0.4 | 10 pcs. | | 133 | | 134 | | 136 |

## 18845 Indexable inserts Unisix

KOMET

With positively sintered breaker geometry, cutting edges chamfered and rounded, reinforced version.

W 29




18845

W29

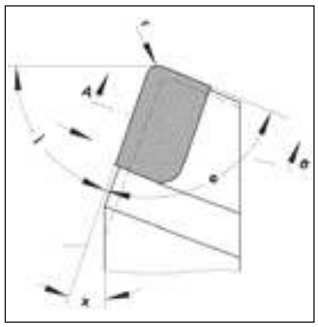
| Cemented carbide grade | | | | | | | uncoated P 25 M | | coated BK6425 | | coated BK7615 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Insert size | J mm | m mm | s mm | f mm | r mm | | 18845 | ... | 18845 | ... | 18845 | ... |
| W29 24010.04 | 8.0 | 3.8 | 5.3 | 4.398 | 0.4 | 10 pcs. | | 103 | | 104 | | |
| W29 24010.04 | 8.0 | 3.8 | 5.3 | 4.398 | 0.4 | 10 pcs. | | | | | | 105 |
| W29 34010.04 | 10.0 | 3.8 | 6.6 | 5.509 | 0.4 | 10 pcs. | | 113 | | 114 | | |
| W29 34010.04 | 10.0 | 3.8 | 6.6 | 5.509 | 0.4 | 10 pcs. | | | | | | 115 |
| W29 34010.08 | 10.0 | 3.8 | 6.6 | 5.465 | 0.8 | 10 pcs. | | | | 118 | | |
| W29 42010.04 | 12.0 | 4.8 | 7.9 | 6.619 | 0.4 | 10 pcs. | | 123 | | 124 | | |
| W29 42010.08 | 12.0 | 4.8 | 7.9 | 6.575 | 0.8 | 10 pcs. | | 127 | | 128 | | |
| W29 42010.08 | 12.0 | 4.8 | 7.9 | 6.575 | 0.8 | 10 pcs. | | | | | | 129 |

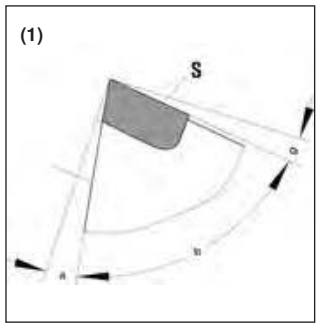


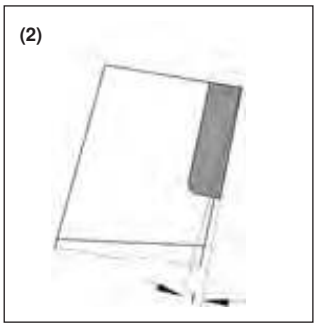


= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

## Reference values for machining with carbide turning tools






(1) = Cut A - B
(2) = View Z
H = Main cutting edge
F = Clearance surface
S = Chip surface
a = Clearance angle
g = Chip angle
b = Wedge angle
l = Tilt angle
e = Corner angle
j = Setting angle
w = Main cutting angle

| Material | Strength or hardness ($N/mm^2$) | Roughing and interrupted cuts | | | | | | Finishing and semi-finishing | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HM grade | Feed rate (mm/rev) | Cutting speed (m/min) | Cutting edge angle a° | g° | l° | HM grade | Feed rate (mm/rev) | Cutting speed (m/min) | Cutting edge angle a° | g° | l° |
| Construction steels | < 500 | P 20 | 0.4 - 0.8 | 70 - 120 | 6 | 10 - 12 | 4 | | | | | | |
| | | P 25/30 | 0.6 - 1.2 | 60 - 90 | 6 | 10 - 12 | 4 | P 10 | 0.1 - 0.4 | 160 - 220 | 6 | 12 | 0 |
| | | | | | | | | K 20 | 0.1 - 0.6 | 120 - 160 | 6 | 12 | 4 |
| Structural and tempering steels | 500 - 700 | | | | | | | | | | | | |
| | | P 25/30 | 0.6 - 1.2 | 50 - 80 | 6 | 10 - 12 | 4 | P 10 | 0.1 - 0.4 | 150 - 200 | 6 | 12 | 4 |
| | | | | | | | | P 20 | 0.4 - 0.8 | 60 - 120 | 6 | 12 | 4 |
| | | | | | | | | P 10 | 0.1 - 0.4 | 120 - 180 | 6 | 12 | 4 |
| | 700 - 1000 | P 25/30 | 0.6 - 1.2 | 35 - 75 | 6 | 10 | 4 | M 10/M 20 | 0.1 - 0.3 | 80 - 150 | 6 | 12 | 4 |
| | | | | | | | | P 20 | 0.4 - 0.8 | 60 - 100 | 6 | 12 | 4 |
| Manganese, chrome, chrome molybdenum and other alloy steels | 850 - 1000 | | | | | | | P 10 | 0.1 - 0.4 | 70 - 140 | 6 | 12 | 4 |
| | | P 25/30 | 0.6 - 1.2 | 25 - 60 | 6 | 6 | 4 | M 10/M 20 | 0.1 - 0.3 | 60 - 110 | 6 | 12 | 4 |
| | | | | | | | | P 20 | 0.4 - 0.8 | 50 - 90 | 6 | 12 | 4 |
| | 1000 - 1400 | P 20 | 0.3 - 0.6 | 30 - 70 | 6 | 6 | 4 | P 10 | 0.1 - 0.4 | 40 - 100 | 6 | 6 | 4 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.3 | 35 - 60 | 6 | 6 | 4 |
| | | P 25/30 | 0.5 - 1.2 | 20 - 40 | 6 | 6 | 4 | | | | | | |
| Tool steels | 1500 - 1800 | P 20 | 0.2 - 0.6 | 25 - 40 | 6 | 0 | 6 | P 10 | 0.1 - 0.3 | 45 - 55 | 6 | 0 | 4 |
| | | | | | | | | K 10 | 0.1 - 0.5 | 10 - 45 | 6 | 0 | 6 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.5 | 10 - 45 | 6 | 0 | 6 |
| Stainless steels | 600 - 700 | | | | | | | P 10 | 0.1 - 0.2 | 70 - 120 | 6 | 12 - 15 | 4 |
| | | P 20 | 0.1 - 0.4 | 50 - 70 | 6 | 12 | 4 | M 10/M 20 | 0.1 - 0.3 | 50 - 100 | 6 | 12 - 15 | 4 |
| | | | | | | | | K 20 | 0.2 - 0.4 | 40 - 80 | 6 | 12 | 6 |
| Hardened steels | > 500 HRC | K 10 | 0.1 - 0.4 | 4 - 15 | 6 | 0 | -6 | | | | | | |
| | | M 20 | 0.1 - 0.4 | 4 - 15 | 6 | -5 | -6 | | | | | | |
| Cast steel | < 500 | P 25/30 | 0.3 - 1.2 | 40 - 90 | 6 | 12 | 4 | P 10 | 0.1 - 0.2 | 130 - 180 | 6 | 12 | 4 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.4 | 100 - 160 | 6 | 12 | 4 |
| | | | | | | | | P 20 | 0.2 - 0.8 | 80 - 120 | 6 | 12 | 4 |
| | 500 - 700 | P 25/30 | 0.3 - 1.2 | 36 - 80 | 6 | 12 | 4 | P 10 | 0.1 - 0.2 | 90 - 130 | 6 | 6 | 4 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.4 | 60 - 130 | 6 | 6 | 4 |
| | | | | | | | | P 20 | 0.2 - 0.8 | 50 - 100 | 6 | 12 | 4 |
| Grey cast iron | < 200 HB | K 20 | > 0.5 | 40 - 90 | 6 | 6 | 4 | K 10 | 0.1 - 0.5 | 50 - 100 | 6 | 6 | 4 |
| | > 200 HB | K 20 | 0.3 - 1.2 | 30 - 70 | 6 | 6 | 4 | K 10 | 0.1 - 0.5 | 40 - 80 | 6 | 6 | 4 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.5 | 40 - 60 | 6 | 6 | 4 |
| Alloyed grey cast iron | 200 - 250 MHB | M 10/M 20 | 0.1 - 1.0 | 20 - 35 | 6 | 6 | 4 | K 10 | 0.1 - 1.0 | 25 - 40 | 6 | 6 | 4 |
| Black malleable cast iron | < 220 HB | K 20 | > 0.4 | 40 - 50 | 6 | 4 | 4 | K 10 | 0.1 - 0.4 | 50 - 80 | 6 | 6 | 4 |
| | | | | | | | | M 10/M 20 | 0.1 - 0.4 | 70 - 100 | 6 | 6 | 4 |
| Hard cast iron | 65 - 90 Shore | K 10 | | 4 - 12 | 6 | 0 | 0 | | | | | | |
| | > 90 Shore | K 10 | | 2 - 5 | 6 | 0 | 0 | | | | | | |
| Copper | | K 20 | 0.3 - 0.6 | 400 - 500 | 10 | 18 | 0 | K 10 | 0.1 - 0.3 | 450 - 600 | 10 | 18 | 0 |
| Red bronze | | K 20 | 0.3 - 0.6 | 400 - 500 | 10 | 12 | 0 | K 10 | 0.1 - 0.3 | 450 - 600 | 10 | 12 | 0 |
| Zinc alloy | | K 20 | 0.3 - 0.6 | 200 - 250 | 6 | 10 | 0 | K 10 | 0.1 - 0.3 | 200 - 300 | 6 | 10 | 0 |
| Pure aluminium | | K 20 | 0.3 - 0.6 | 400 - 1000 | 8 | 20 | 0 | K 10 | 0.1 - 0.3 | 500 - 1200 | 8 | 20 | 0 |