

AHB

TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

(800) 991-4225

www.ahbinc.com

ISO Certified

customerservice@ahbinc.com

ph HORN ph



boehlerit

BOEHLERIT DREHEN

BOEHLERIT TURNING

2020/2021



**DAS WERKZEUG
HORN TOOLS**

Die neuen Kataloge von HORN – Maßstäbe für Ihre Produktivität

Von der Einzelteil- bis zur Serienfertigung, bei Standard- oder Sonderanwendungen: Unsere Werkzeuge bieten Ihnen schnelle, wirtschaftliche und qualitativ hochwertige Lösungen.

Die aktuellen HORN-Kataloge sind in folgende Themen aufgegliedert:

- Stechdrehen
- Supermini und Mini Innenbearbeitung
- Modulare Haltersysteme
- Hochharte Schneidstoffe
- Frässysteme
- Bohren und Reiben
- VHM-Fräswerkzeuge
- Boehlerit Drehen
- Boehlerit Fräsen

Bei der Wahl der individuellen Schnittparameter unterstützen Sie unsere Tabellen mit praxiserprobten Erfahrungswerten. Nutzen Sie das Fachwissen unserer Innen- und Außendienstmitarbeiter. Denn wir kennen den Markt und haben für Ihre Aufgaben und Herausforderungen die passenden Lösungen.



Lothar Horn
Geschäftsführer
Paul Horn GmbH



Markus Horn
Geschäftsführer
Paul Horn GmbH



Matthias Rommel
Geschäftsführer
Paul Horn GmbH

New catalogues from HORN - benchmarks for productivity

From single part to series production, for standard or special applications: our tools offer you fast, economical and high quality solutions.

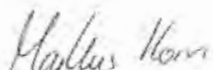
The current HORN catalogues are divided into the following sections:

- Grooving
- Supermini & Mini Internal Machining
- Modular Holder Systems
- Ultra Hard Cutting Materials
- Milling Systems
- Drilling / Reaming
- Solid Carbide Mills
- Milling Catalogue Boehlerit
- Turning Catalogue Boehlerit

To assist you when choosing cutting parameters, our tables provide proven empirical values. Take advantage of the expertise of our office staff and sales engineers, because we know the market well and have the right solutions for your applications and challenges.



Lothar Horn
CEO
Paul Horn GmbH



Markus Horn
CEO
Paul Horn GmbH



Matthias Rommel
CEO
Paul Horn GmbH

Inhaltsübersicht

Content

| | | |
|--|---|-----|
| Drehen | Turning | 4 |
| Programmübersicht | Range of tools | 6 |
| Technologievorteile, Kundennutzen | Technological advantages, customer benefits | 15 |
| Spanformstufengeometrien | Chip groove geometries | 16 |
| Schnitttiefen der Spanformstufengeometrien | Depth of cut for chip groove geometries | 24 |
| Sortenübersicht, Schneidstoffsorten | Grade overview, cutting materials | 25 |
| ISO-Bezeichnungssysteme | ISO-designation systems | 28 |
| Wendeschneidplatten | Indexable inserts | 34 |
| Klemmhalter | Tool holders | 63 |
| Technische Hinweise | Technical hints | 114 |
| Dreh-Bohr-Werkzeug Pentatec® | Turning-Drilling-Tool Pentatec® | 135 |
| Fünf Bearbeitungsoperationen, ein Werkzeug | Five machining operations, one tool | 137 |
| Technische Hinweise | Technical hints | 138 |
| Bezeichnungssystem | Designation system | 140 |
| Halterprogramm | Tool holders | 141 |
| Wendeschneidplatten | Indexable inserts | 142 |
| Sortenübersicht | Grade overview | 143 |
| Schnittparameter | Cutting parameters | 144 |
| Gewindedrehen | Thread Turning | 149 |
| Wendeschneidplatten | Indexable inserts | 151 |
| Klemmhalter | Tool holders | 166 |
| Technische Hinweise | Technical hints | 169 |
| Anhang | Attachment | 177 |
| Werkstoff-Vergleichstabelle | Comparison of material standards | 180 |
| Vergleich ISO- zu ANSI-Kennzeichnung | Comparison ISO- and ANSI-designation | 188 |
| Härte Vergleichstabelle | Hardness comparison table | 191 |

Nachdruck, auch auszugsweise, ist nur mit unserer Zustimmung gestattet. Alle Rechte vorbehalten. Irrtümer, Satz- oder Druckfehler berechtigen nicht zu irgendwelchen Ansprüchen. Abbildungen, Ausführungen und Maße entsprechen dem neuesten Stand bei Herausgabe dieses Kataloges. Technische Änderungen müssen vorbehalten sein. Die bildliche Darstellung der Produkte muss nicht in jedem Falle und in allen Einzelheiten dem tatsächlichen Aussehen entsprechen. This publication may not be reprinted in whole or part without our express permission. All right reserved. No rights may be derived from any errors in content or from typographical or typesetting errors. Diagrams, features and dimensions represent the current status on the date of issue of this catalogue. We reserve the right to make technical changes. The visual appearance of the products may not necessarily correspond to the actual appearance in all cases or in every detail.

Drehen
Turning

phi HORN phi

boehlerit



| Drehen | Turning | |
|--|--|-----------|
| Programmübersicht | Range of tools | |
| Werkzeuge und Wendeschneidplatten für die Außenbearbeitung | Tools and indexable inserts for external machining | 6 |
| Werkzeuge und Wendeschneidplatten für die Innenbearbeitung | Tools and indexable inserts for internal machining | 12 |
| Technologievorteile, Kundennutzen | Technological advantages, customer benefits | 15 |
| Spanformstufengeometrien | Chip groove geometries | 16 |
| Schnitttiefe der Spanformgeometrien | Depth of cut for chipbreaker | 24 |
| Sortenübersicht | Grade overview | 25 |
| ISO-Bezeichnungssysteme | ISO-designation systems | 28 |
| Wendeschneidplatten | Indexable inserts | 34 |
| Klemmhalter | Tool holders | 63 |
| Technische Hinweise | Technical hints | |
| Klemmhalter-Spannsysteme | Tool holder – clamping systems | 114 |
| Wahl des Spannsystems | Selecting a clamping system | 115 |
| Wahl der Werkzeuge für die Innenbearbeitung | Selecting tools for internal machining | 116 |
| Wahl der Wendeplattengröße | Selecting the indexable insert size | 117 |
| Wahl der Wendeplattenform | Selecting the indexable insert shape | 118 |
| Schlichtbearbeitung | Finishing | 120 |
| Formeln für die Drehbearbeitung | Formulas for machining work | 122 |
| Maßnahmen bei Drehproblemen | Options against machining problems | 123 |
| Schnittwertempfehlungen | Cutting data recommendations | 124 |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 72,5° | Klemmhalter Tool holder Wendeplatte Indexable inserts | BM51576 XCGT... | 89 |
| | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | DCLNR/L CN... | 64 |
| | 93° | Klemmhalter Tool holder Wendeplatte Indexable inserts | DDJNR/L DN... | 64 |
| | 45° | Klemmhalter Tool holder Wendeplatte Indexable inserts | DSSNR/L SN... | 64 |
| | 90° | Klemmhalter Tool holder Wendeplatte Indexable inserts | DTJNR/L 16 TN... | 65 |
| | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | DWLNR/L WN... | 65 |
| | 45° | Klemmhalter Tool holder Wendeplatte Indexable inserts | MSSNR/L SN... | 66 |
| | 93° | Klemmhalter Tool holder Wendeplatte Indexable inserts | MTJNR/L TN... | 66 |
| | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | MWLNR/L WN... | 67 |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 75° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PCBNR/L CN... | 68 |
| | 75° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PCKNR/L CN... | 68 |
| | 95° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PCLNR/L CN... | 68 |
| | | Klemmhalter mit Innenkühlung Tool holder with coolant Wendepplatte Indexable inserts | PCLNR/L CN | 94 |
| | | | | |
| | 93° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PDJNR/L DN... | 69 |
| | | Klemmhalter mit Innenkühlung Tool holder with coolant Wendepplatte Indexable inserts | PDJNR/L DN... | 94 |
| | | | | |
| | 93° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PDJNR/L 14 DN... 14... | 69 |
| | 63° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PDNNR/L DN... | 69 |
| | | | | |
| | - | Klemmhalter Tool holder Wendepplatte Indexable inserts | PRDCN RC... | 70 |
| | | | | |
| | - | Klemmhalter Tool holder Wendepplatte Indexable inserts | PRGCR/L RC... | 70 |
| | | | | |
| | - | Klemmhalter Tool holder Wendepplatte Indexable inserts | PRSCR/L RC... | 70 |
| | | | | |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 75° | Klemmhalter Tool holder | PSBNR/L | 71 |
| | | Wendepplatte Indexable inserts | SN... | |
| | 45° | Klemmhalter Tool holder | PSDNN | 71 |
| | | Wendepplatte Indexable inserts | SN... | |
| | 75° | Klemmhalter Tool holder | PSKNR/L | 71 |
| | | Wendepplatte Indexable inserts | SN... | |
| | 45° | Klemmhalter Tool holder | PSSNR/L | 72 |
| | | Wendepplatte Indexable inserts | SN... | |
| | 90° | Klemmhalter Tool holder | PTFNR/L | 73 |
| | | Wendepplatte Indexable inserts | TN... | |
| | 90° | Klemmhalter Tool holder | PTGNR/L | 73 |
| | | Wendepplatte Indexable inserts | TN... | |
| | 60° | Klemmhalter Tool holder | PTTNR/L | 73 |
| | | Wendepplatte Indexable inserts | TN... | |
| | 95° | Klemmhalter Tool holder | PWLNRL/L | 74 |
| | | Wendepplatte Indexable inserts | WN... | |
| | | Klemmhalter mit Innenkühlung Tool holder with coolant | PWLNRL/L | 94 |
| | | Wendepplatte Indexable inserts | WN... | |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 90° | Klemmhalter Tool holder | SCFCR/L | 75 |
| | | Wendepplatte Indexable inserts | CC... | |
| | 95° | Klemmhalter Tool holder | SCLCR/L | 76 |
| | | Wendepplatte Indexable inserts | CC... | 92 |
| | | Klemmhalter mit Innenkühlung Tool holder with coolant | SCLCR/L | |
| | 50° | Wendepplatte Indexable inserts | CC... | 76 |
| | | Klemmhalter Tool holder | SCMCN | |
| | 75° | Wendepplatte Indexable inserts | CC... | 77 |
| | | Klemmhalter Tool holder | SCRCL/L | |
| | 45° | Wendepplatte Indexable inserts | CC... | 77 |
| | | Klemmhalter Tool holder | SCSCR/L | |
| | 90° | Wendepplatte Indexable inserts | DC... | 78 |
| | | Klemmhalter Tool holder | SDACR/L | |
| | 107,5° | Wendepplatte Indexable inserts | DC... | 78 |
| | | Klemmhalter Tool holder | SDHCR/L | |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 93° | Klemmhalter Tool holder | SDJCR/L | 78 |
| | | Wendepplatte Indexable inserts | DC... | |
| | 93° | Klemmhalter mit Innenkühlung Tool holder with coolant | SDJCR/L | 92 |
| | | Wendepplatte Indexable inserts | DC... | |
| | 62,5° | Klemmhalter Tool holder | SDNCN | 79 |
| | | Wendepplatte Indexable inserts | DC... | |
| | - | Klemmhalter Tool holder | SRDCN | 80 |
| | | Wendepplatte Indexable inserts | RC... | |
| | - | Klemmhalter Tool holder | SRGCR/L | 80 |
| | | Wendepplatte Indexable inserts | RC... | |
| | 75° | Klemmhalter Tool holder | SSBCR/L | 81 |
| | | Wendepplatte Indexable inserts | SC... | |
| | 45° | Klemmhalter Tool holder | SSDCN | 81 |
| | | Wendepplatte Indexable inserts | SC... | |
| | 75° | Klemmhalter Tool holder | SSKCR/L | 81 |
| | | Wendepplatte Indexable inserts | SC... | |
| | 45° | Klemmhalter Tool holder | SSSCR/L | 82 |
| | | Wendepplatte Indexable inserts | SC... | |
| | 90° | Klemmhalter Tool holder | STACR/L | 83 |
| | | Wendepplatte Indexable inserts | TC... | |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|--|-------------------------------------|-----------------|
| | 90° | Klemmhalter Tool holder | STCCN | 83 |
| | | Wendepplatte Indexable inserts | TC... | |
| | 90° | Klemmhalter Tool holder | STFCR/L | 83 |
| | | Wendepplatte Indexable inserts | TC... | |
| | 90° | Klemmhalter Tool holder | STGCR/L | 84 |
| | | Wendepplatte Indexable inserts | TC... | |
| | 107,5° | Klemmhalter Tool holder | SVHBR/L | 85 |
| | | Wendepplatte Indexable inserts | VB... | |
| | 107,5° | Klemmhalter Tool holder | SVHCR/L | 85 |
| | | Wendepplatte Indexable inserts | VC... | |
| | 93° | Klemmhalter Tool holder | SVJBR/L | 86 |
| | | Wendepplatte Indexable inserts | VB... | |
| | 93° | Klemmhalter Tool holder | SVJCR/L | 86 |
| | | Wendepplatte Indexable inserts | VC... | |
| | | Klemmhalter mit Innenkühlung Tool holder with coolant | SVJCR/L | 93 |
| | 72,5° | Wendepplatte Indexable inserts | VC... | |
| | | Klemmhalter Tool holder | SVVBN | 87 |
| | 72,5° | Wendepplatte Indexable inserts | VB... | |
| | | Klemmhalter Tool holder | SVVCN | 87 |
| | 72,5° | Wendepplatte Indexable inserts | VC... | |
| | | Klemmhalter Tool holder | SVVCN | 87 |

**Programmübersicht
Range**

Werkzeuge und Wendepplatten für die Außenbearbeitung
Tool holders and indexable inserts for external machining

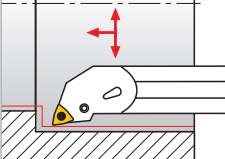
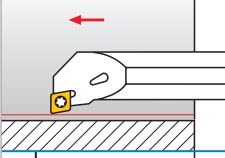
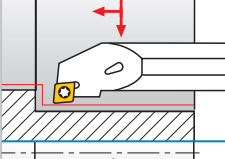
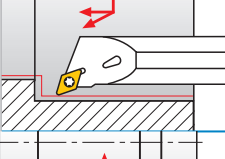
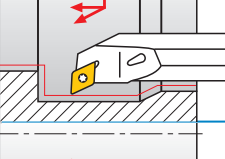
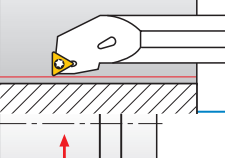
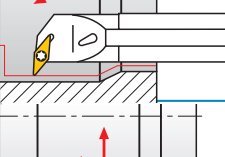
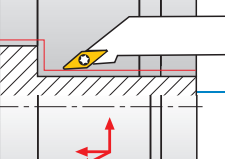
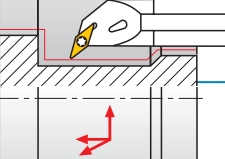
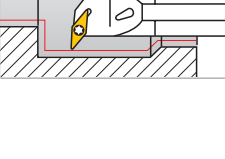


| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|---|-------------------------------------|-----------------|
| | 100° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SVZCR/L VC... | 87 |
| | 95° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SWLCR/L WC... | 88 |

**Programmübersicht
Range**

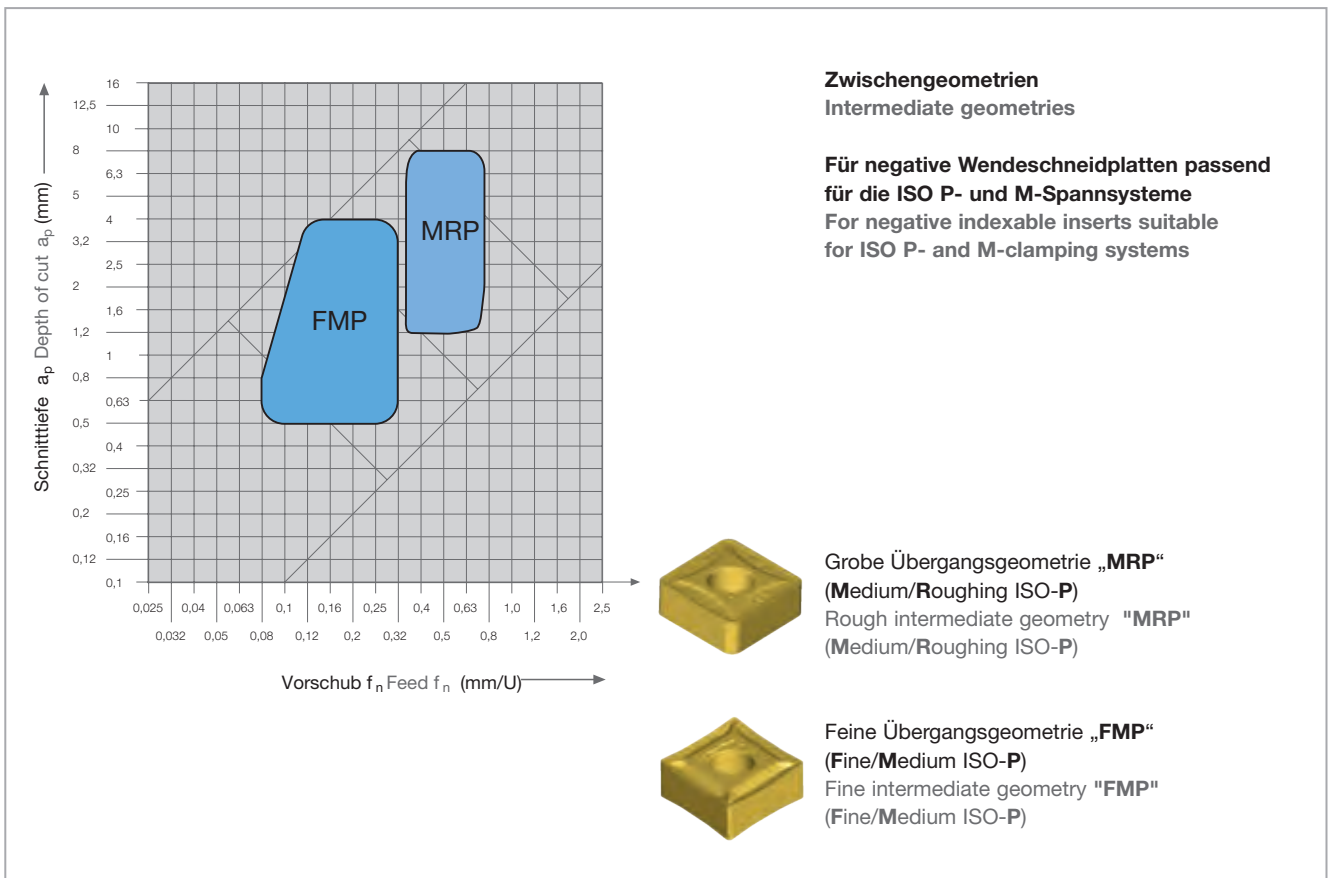
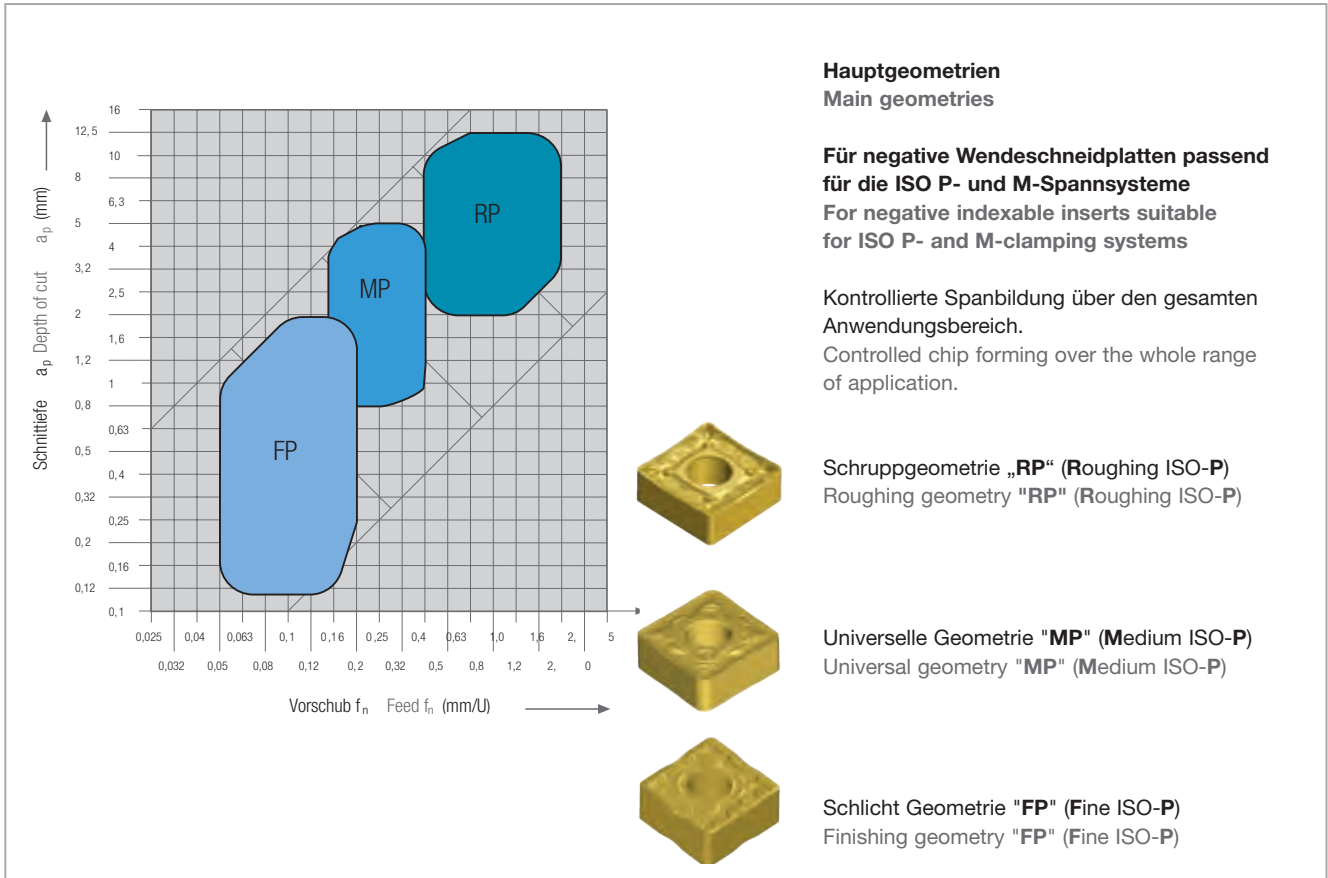
Werkzeuge und Wendepplatten für die Innenbearbeitung
Tool holders and indexable inserts for internal machining

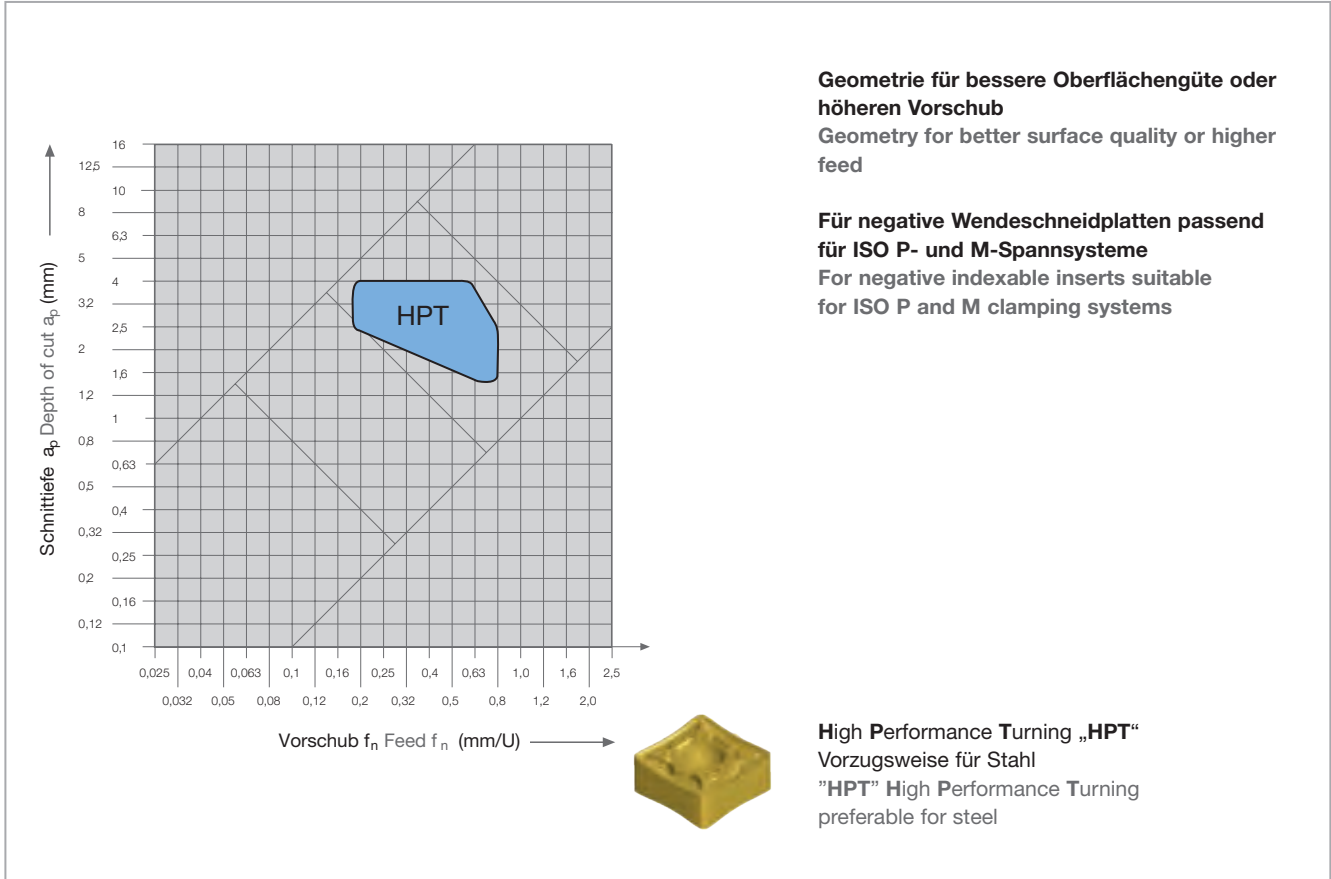
| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|---|-------------------------------------|-----------------|
| | 95° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PCLNR/L CN... | 98 |
| | 95° | Klemmhalter Tool holder Wendepplatte Indexable inserts | 29629/29529 CN... | 98 |
| | 93° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PDUNR/L DN... | 99 |
| | 93° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PDUNR/L 14 DN... | 99 |
| | 75° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PSKNR/L SN... | 100 |
| | 90° | Klemmhalter Tool holder Wendepplatte Indexable inserts | PTFNR/L TN... | 100 |

| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---|--------------------------------|--|-------------------------------------|-----------------|
|  | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | PWLNRL/ WN... | 101 |
|  | 90° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SCFCR/L CC... | 102 |
|  | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SCLCR/L CC... | 103 |
|  | 107,5° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SDQCR/L DC... | 105 |
|  | 93° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SDUCR/L DC... | 106 |
|  | 90° | Klemmhalter Tool holder Wendeplatte Indexable inserts | STFCR/L TC... | 108 |
|  | 95° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SVLCR/L VC... | 108 |
|  | 5° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SVOCR/L VC... | 108 |
|  | 107,5° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SVQCR/L VC... | 109 |
|  | 93° | Klemmhalter Tool holder Wendeplatte Indexable inserts | SVUBR/L VB... | 109 |

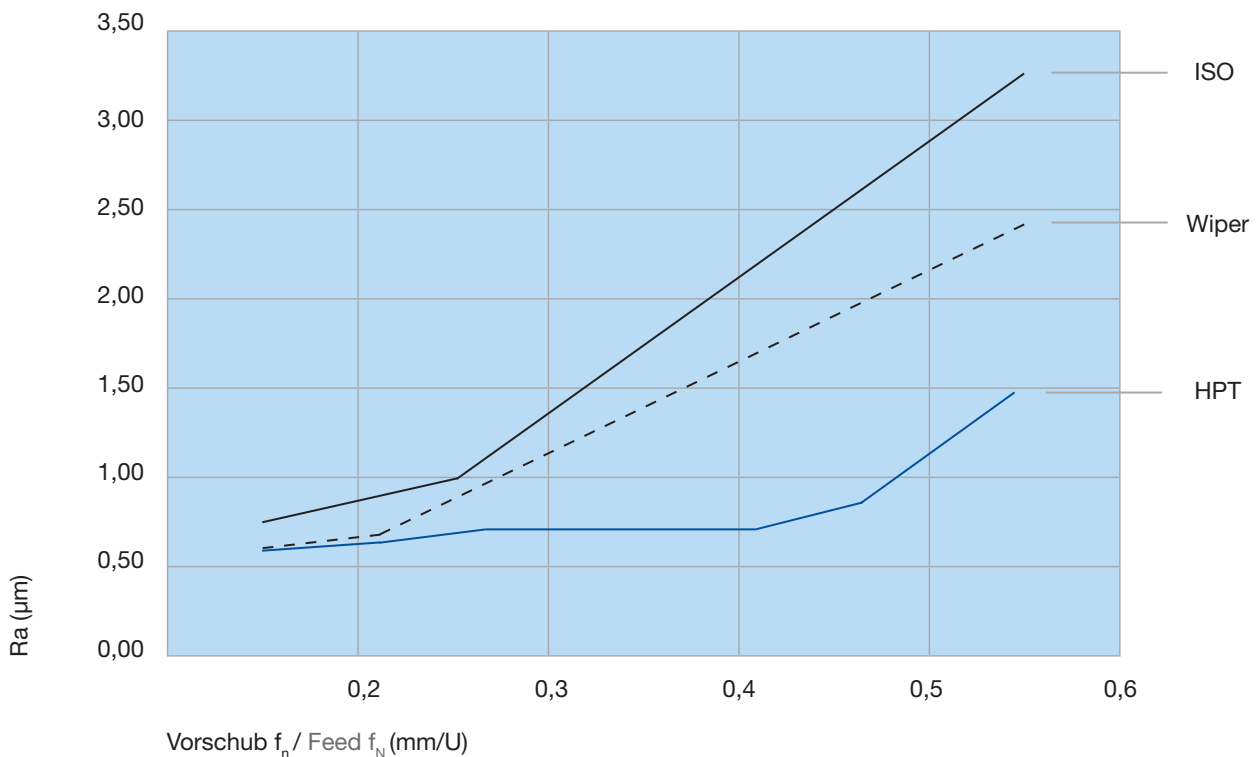
| Schnitttrichtung Cutting direction | Anstellwinkel Setting angle | Werkzeug Tool | Bestellbezeichnung Ordering Code | Seiten Pages |
|---------------------------------------|--------------------------------|---|-------------------------------------|-----------------|
| | 93° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SVUCR/L VC... | 109 |
| | 72,25° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SVVCR/L VC... | 110 |
| | 113° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SVXCR/L VC... | 110 |
| | 5° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SV95CR/L | 111 |
| | 95° | Klemmhalter Tool holder Wendepplatte Indexable inserts | SWLCR/L WC... | 112 |
| | 92° | Klemmhalter Tool holder Wendepplatte Indexable inserts | S74P TP... | 113 |

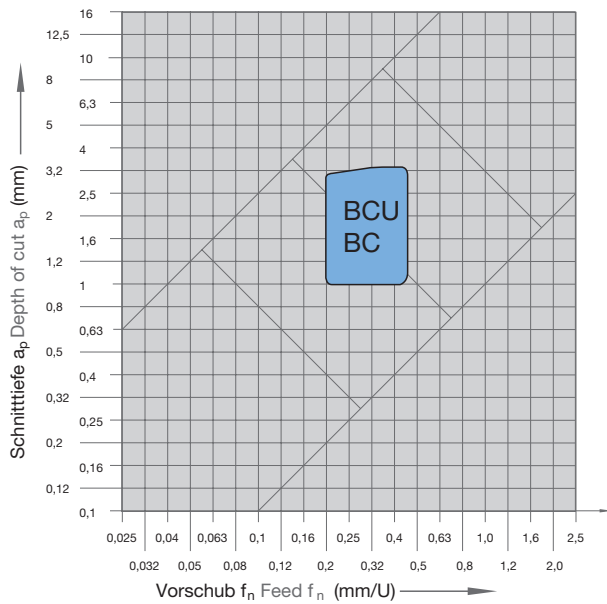
| | | | |
|--|--|--|--|
| <p>Im "Spankanal" optimierte Spanleitstufe mit besonders weichem Schnitt Chip breaker optimised in the chip channel; remarkably soft cut</p> | | <p>Geringere Reibung ergibt geringere Neigung zum Kolkverschleiß und daher längere Standzeiten</p> | <p>Reduced friction therefore less cratering, resulting in prolonged tool life</p> |
| <p>Größe des Eckenradius und Anwendungsbereiches mitgepresst Corner radius dimension and application range are pressed along in the process</p> | | <p>Einfache Zuordnung der Wendeplatten</p> | <p>Simple allocation of indexable inserts</p> |
| <p>Neuentwickelte Spanformer Newly developed chip breaker</p> | | <p>Optimaler Spanbruch</p> | <p>Optimized chip breaking</p> |
| <p>Schneidkantenbereich in der Mitte stabilisiert, optimierte Mikrogeometrie Cutting edge area stabilised in the middle; optimised microgeometry</p> | | <p>Keine Ausbrüche bei Spanschlag - Drehen gegen die Schulter</p> | <p>No breakage at chip impact - turning against the shoulder</p> |
| <p>Spanschlag-Protector Chip impact protector</p> | | <p>Keine Ausbrüche durch Spanschlag beim Drehen gegen die Schulter</p> | <p>No chippings of the cutting edge caused by chip impact when turning against the shoulder</p> |
| <p>Spezielle Spangeometrie mit auf Kleinteile abgestimmten Eckenradien Special chip geometry with corner radius for little parts</p> | | <p>Guter Spanbruch und weicher Schnitt</p> | <p>Good chip breakage and smooth cut</p> |
| <p>Positive Makrogeometrie und scharfe Mikrogeometrie Positive macrogeometry and sharp microgeometry</p> | | <p>Guter Spanbruch auf schwerer-spanbaren Werkstoffen z.B.: (Superlegierungen)</p> | <p>Good chip breaking characteristics on materials that are notoriously difficult to machine e.g. (superalloys)</p> |
| <p>Optimierte Gradientenhartmetalle Optimised gradient carbides</p> | | <p>Speziell auf den jeweiligen Anwendungsfall abgestimmte Hartmetallsorten für besondere Sicherheit</p> | <p>Carbide gradient grades tailored to specific applications for extra-high safety levels</p> |
| <p>Dicke MT-CVD-Schicht Thick MT-CVD layer</p> | | <p>Bewährte Nanolockverbindungen. Besonders dicke MT-CVD-Schichten bei LCP15T und LCP25T gewährleisten Standzeitsteigerungen bis zu 60 %</p> | <p>Proven Nanolock compound. LCP15T and LCP25T with especially thick MT-CVD layer allow 60 % increase of tool life</p> |





Ra - Werte / Ra - Values CNMG 120408 ISO / HPT / Wiper





Geometrie zum Kopierdrehen
Geometry for copy turning

Für negative Wendeschneidplatten passend
für das ISO P- und M-Spannsystem
For negative indexable inserts suitable
for ISO P- and M-clamping system

Nur für Innenbearbeitung!
Only for internal machining!

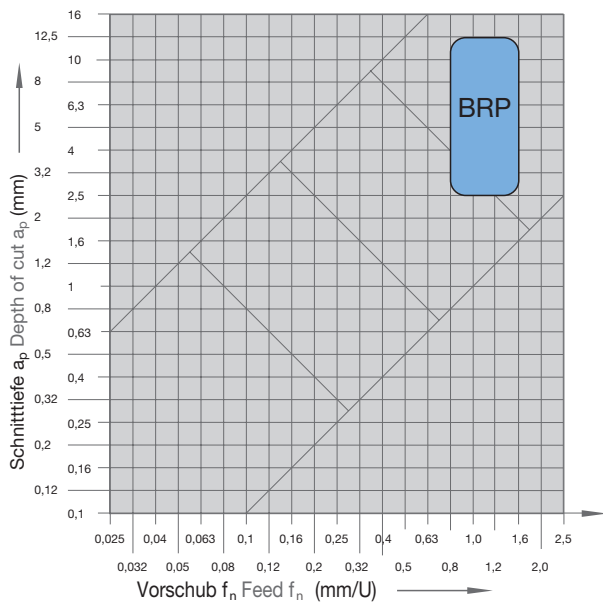
***) Achtung: Bei Verwendung von BC - Geometrieplatte**
linke Platten für rechte Halter und rechte Platten für
linken Halter verwenden!

***) Attention: When working with BC - Geometry inserts,**
please use lefthand inserts with righthand holders
and righthand inserts with lefthand holders.



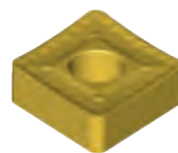
Geometrie zum Drehen „BCU“
(Boehlerit Copy Universal)
Geometry for turning “BCU”
(Boehlerit Copy Universal)

Geometrie zum Kopierdrehen „BC“
(Boehlerit Copying *)
Geometry “BC” (Boehlerit Copying *)

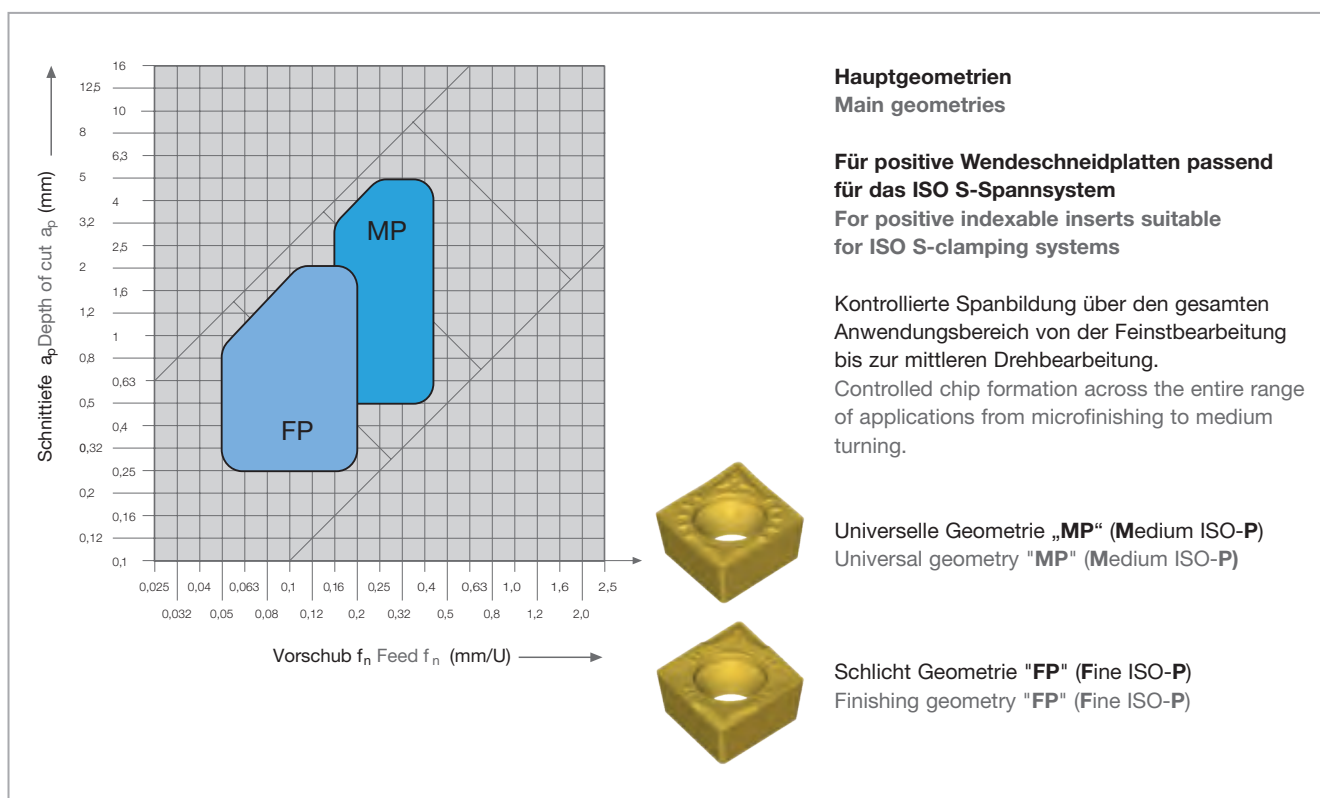
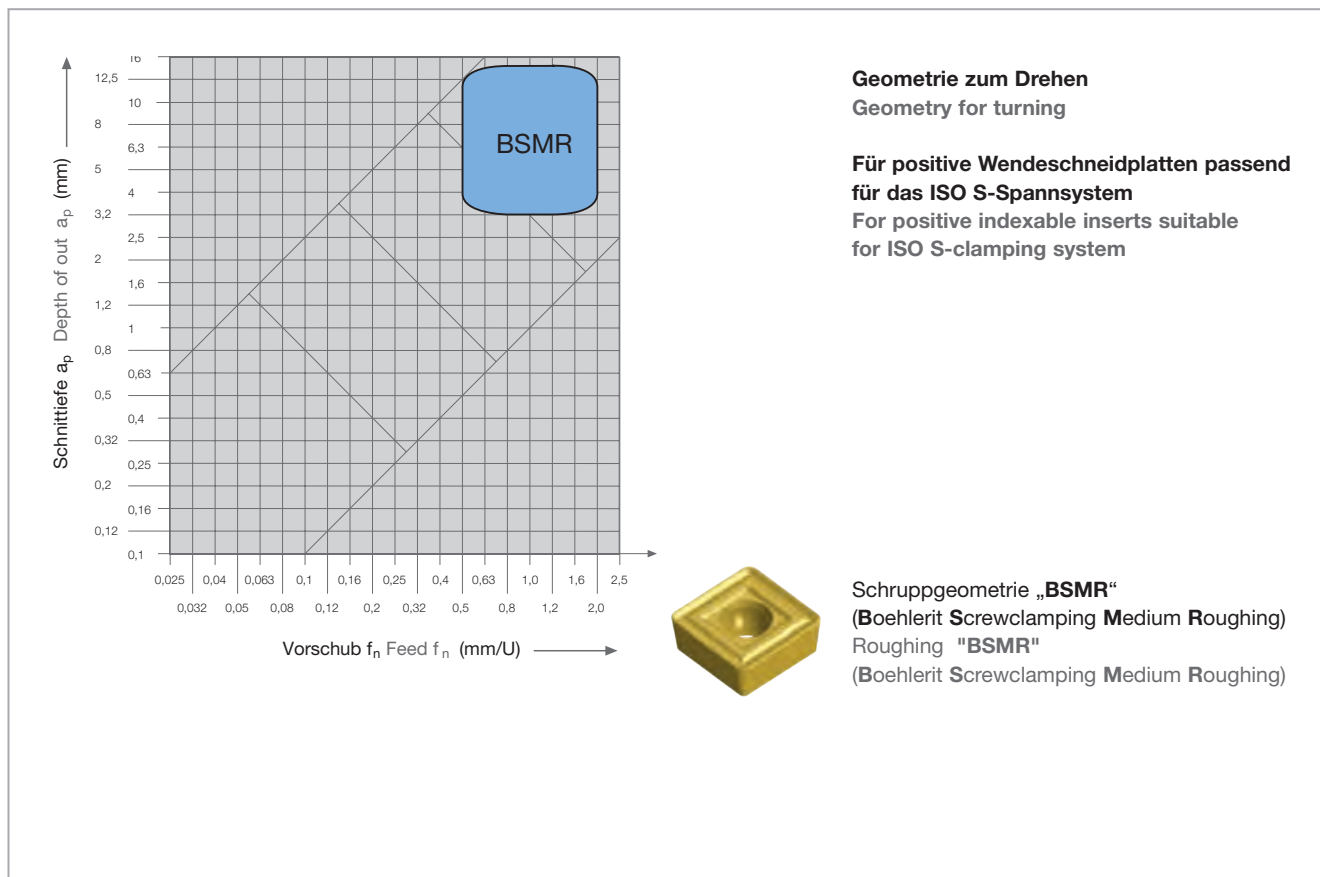


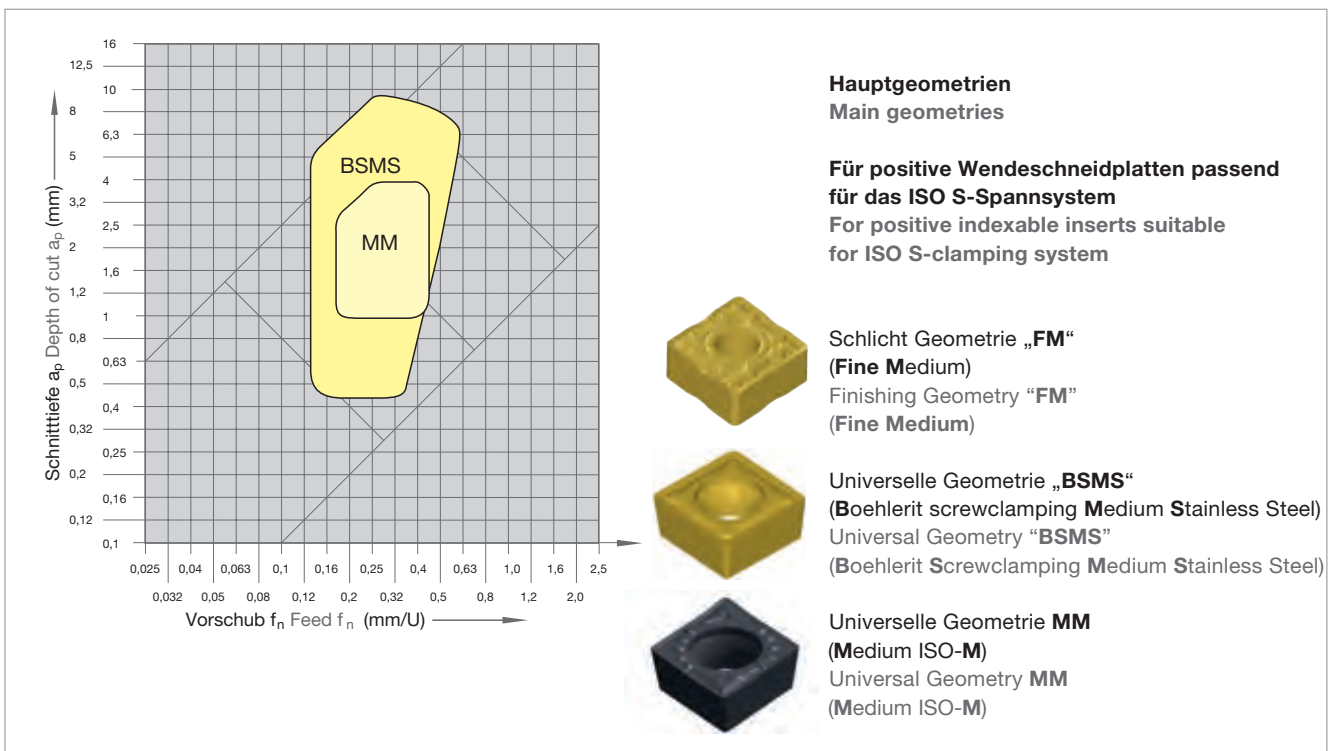
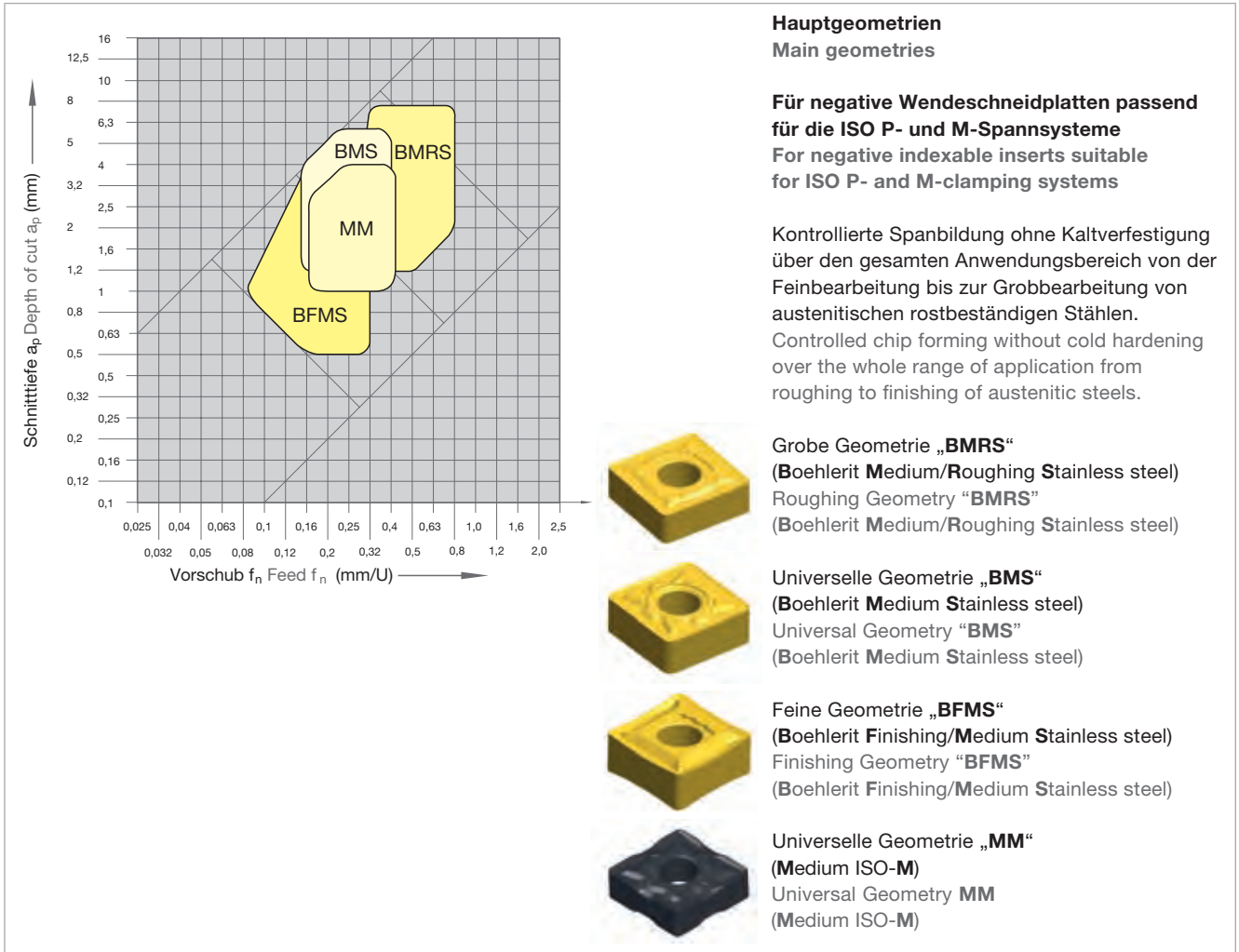
Schruppgeometrien
Roughing geometries

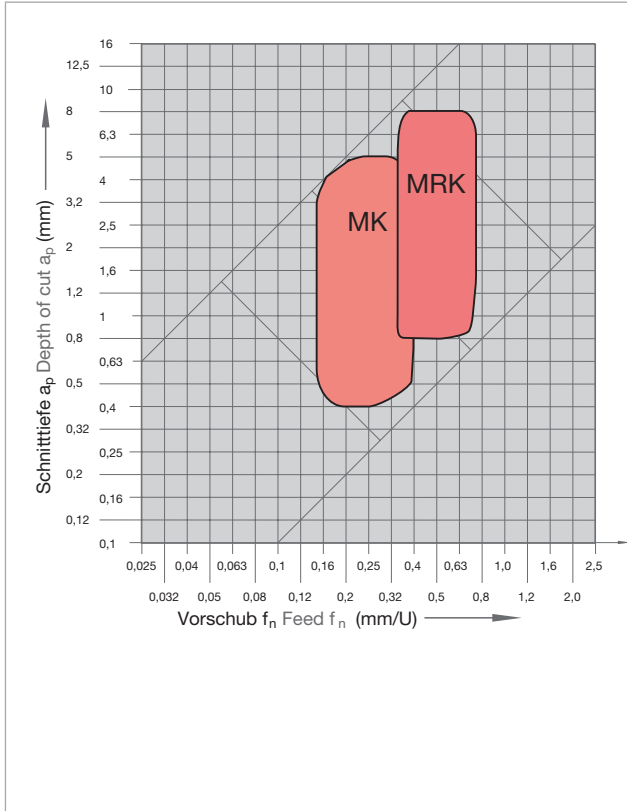
Für negative Wendeschneidplatten passend
für ISO P- und M-Spannsysteme
For negative indexable inserts suitable
for ISO P- and M-clamping systems



Schruppgeometrie „BRP“
(Boehlerit Roughing ISO-P)
“BRP” Roughing
(Boehlerit Roughing ISO-P)







Hauptgeometrien
Main geometries

Für negative Wendeschneidplatten passend
für die ISO P- und M-Spannsysteme
For negative indexable inserts suitable
for ISO P- and M-clamping systems

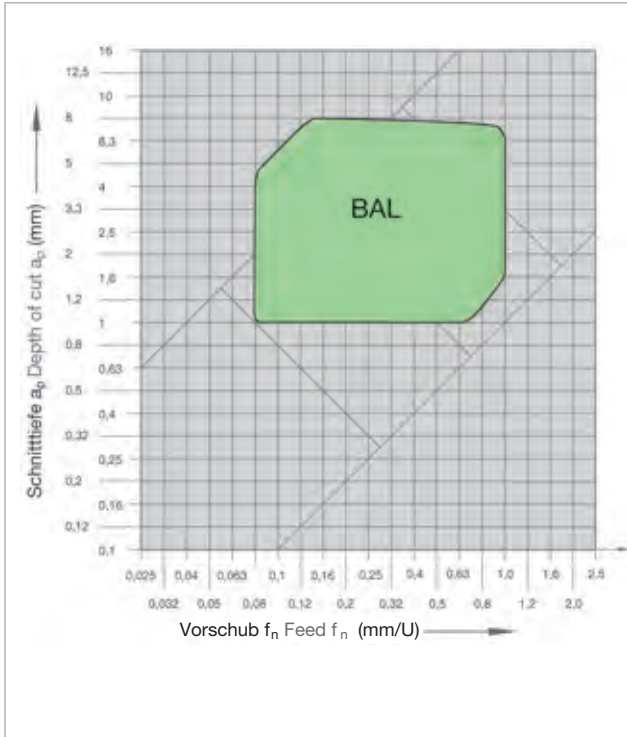
Kontrollierte Spanbildung über den gesamten Anwendungsbereich von der Mittel- bis zur groben Schruppbearbeitung.
 Controlled chip forming over the whole range from medium to roughing application.



Schruppgeometrie „MRK“ (**Medium Roughing** ISO K) vorzugsweise für Guss
 “MRK” roughing geometry (**Medium Roughing** ISO K) preferably for cast iron



Universelle Geometrie „MP“ (**Medium** ISO K) vorzugsweise für Guss
 Universal “BM” geometry (**Medium** ISO K) preferably for cast iron



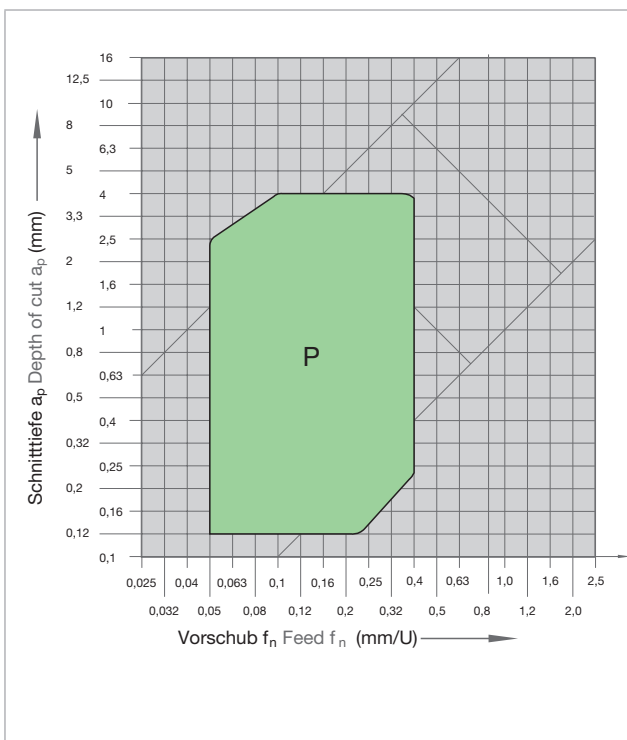
Hauptgeometrie für Aluminium
Geometry for aluminium machining

Für positive Wendeschneidplatten passend für das ISO S-Spannsystem
For positive indexable inserts suitable for ISO S-clamping system

Auch hervorragend zum Schlichten von rostfreien Stählen geeignet.
Best suitable for finishing of stainless steels also.



Geometrie für Aluminium „BAL“
(Boehlerit-ALuminium)
Geometry “BAL”
(Boehlerit ALuminium)



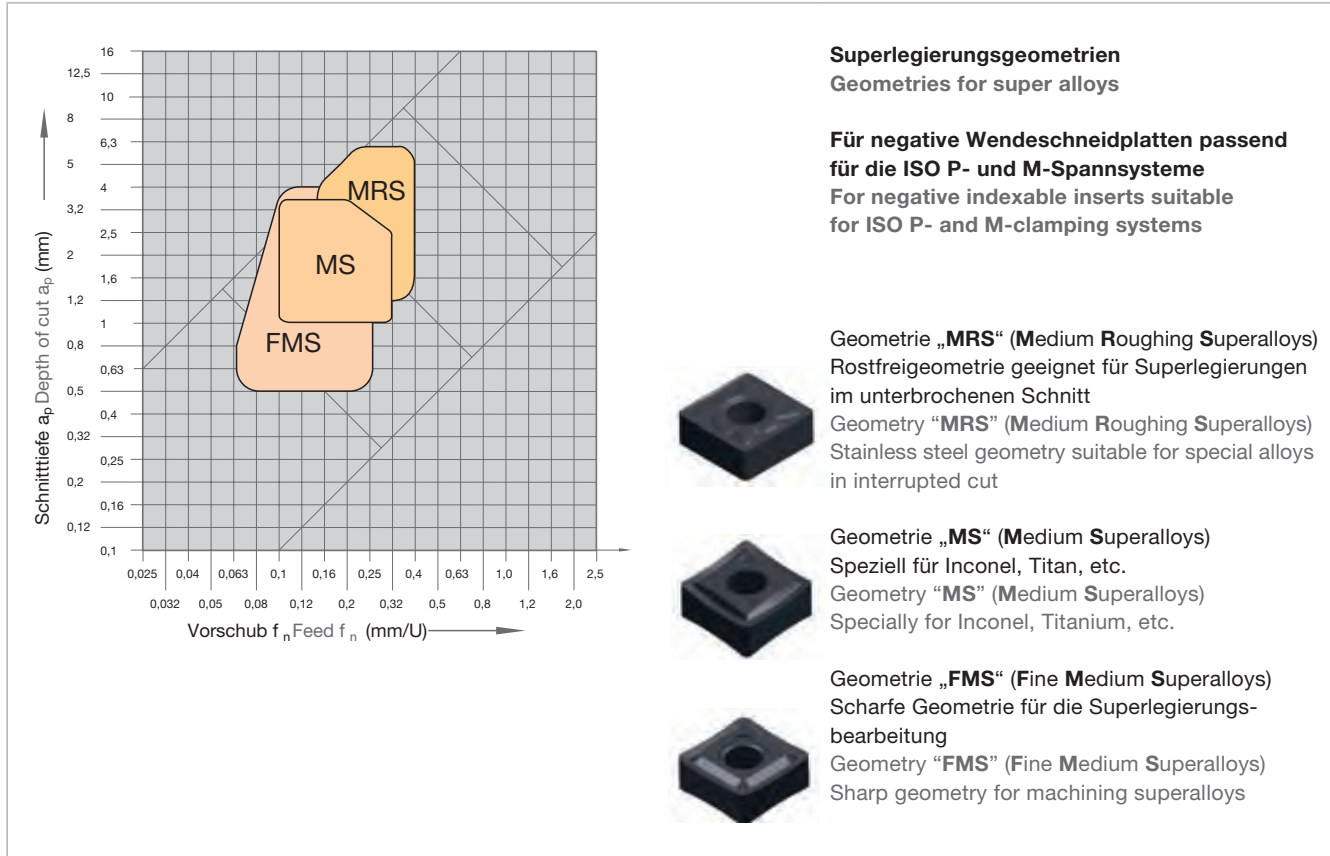
Hauptgeometrie für Kunststoff
Geometry for plastic machining

Für positive Wendeschneidplatten passend für das ISO S-Spannsystem
For positive indexable inserts suitable for ISO S-clamping system

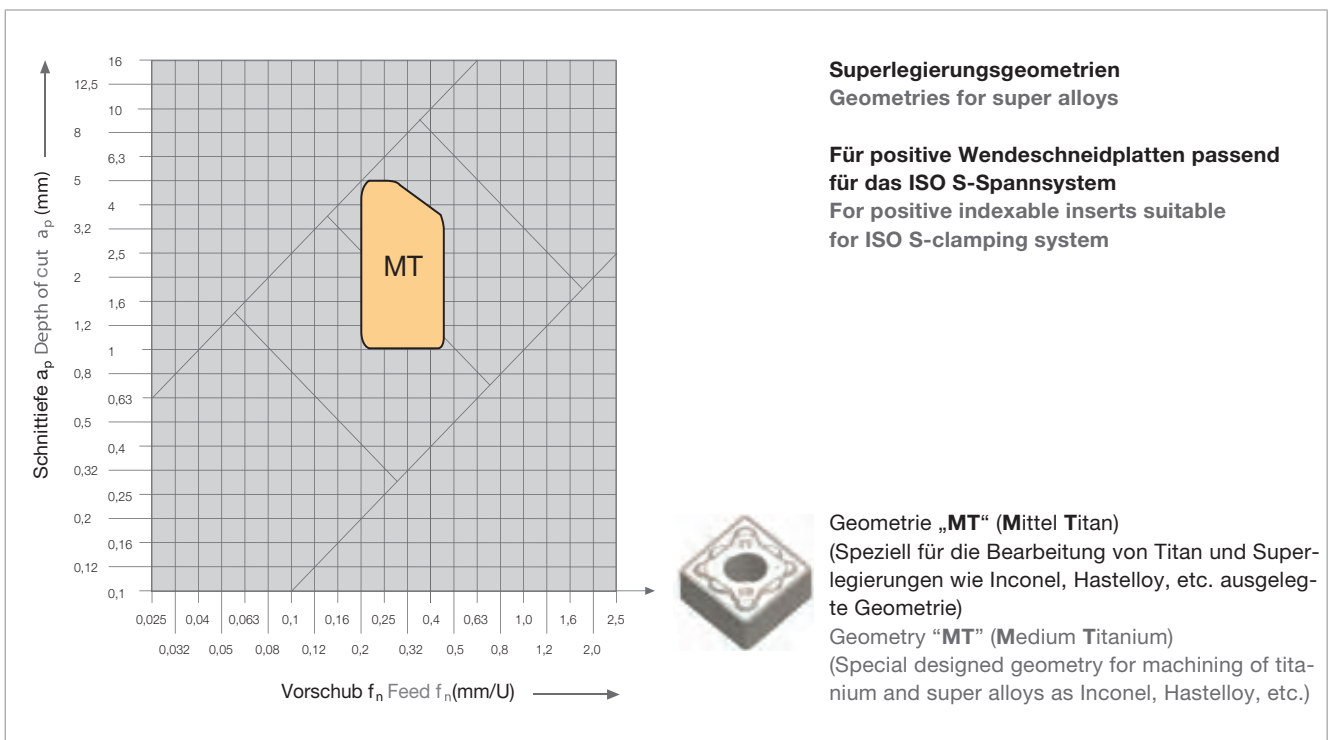


Geometrie für Kunststoff „P“
(Boehlerit-Plastik)
Geometry “P”
(Boehlerit Plastics)

Spanformstufengeometrien für Superlegierungen Chip groove geometries for super alloys



Spanformstufengeometrien für Titan und Superlegierungen Chip groove geometries for titanium and super alloys



Schnitttiefen der Spanformstufengeometrien
Depth of cut for chipbreaker



| | a_p mm | 0,5 | 1 | 1,5 | 2 | 2,5 | 3 | 3,5 | 4 | 4,5 | 5 | 5,5 | 6 | 6,5 | 7 | 7,5 | 8 | 8,5 | 9 | 9,5 | 10 | 11 | 12 |
|---|-----------|------------|---|-------|---|-----|--------|-----|---|-----|---|-----|---|-----|---|------|---|-----|---|-------------|----|------|----|
| Schlichten f (mm/U) Finishing f (mm/rev) | 0,05–0,2 | | | FP FM | | | | | | | | | | | | | | | | | | | |
| | 0,1–0,3 | | | | | | FMP | | | | | | | | | | | | | | | | |
| | 0,1–0,3 | | | | | | FMS | | | | | | | | | | | | | | | | |
| | 0,1–0,3 | | | | | | BFMS | | | | | | | | | | | | | | | | |
| Mittlere Bearbeitung f (mm/U) Medium machining f (mm/rev) | 0,2–0,4 | | | | | | MS | | | | | | | | | | | | | | | | |
| | 0,15–0,4 | | | MM | | | | | | | | | | | | | | | | | | | |
| | 0,16–0,4 | | | MP MK | | | | | | | | | | | | | | | | | | | |
| | 0,16–0,4 | | | | | | BMS | | | | | | | | | | | | | | | | |
| | 0,2–0,45 | | | | | | MT | | | | | | | | | | | | | | | | |
| | 0,2–0,5 | | | | | | MRS | | | | | | | | | | | | | | | | |
| | 0,15–0,4 | | | | | | BM | | | | | | | | | | | | | | | | |
| | 0,2–0,6 | | | | | | HPT | | | | | | | | | | | | | | | | |
| | 0,2–0,5 | | | | | | | | | | | | | | | | | | | | | BSMS | |
| | 0,15–0,65 | | | | | | | | | | | | | | | | | | | | | BAL | |
| | 0,1–1,0 | | | | | | | | | | | | | | | | | | | | | P | |
| | 0,2–0,45 | | | | | | BC BCU | | | | | | | | | | | | | | | | |
| 0,35–0,6 | | | | | | | | | | | | | | | | BMRS | | | | | | | |
| Schruppen f (mm/U) Roughing f (mm/rev) | 0,5–2,0 | BSMR | | | | | | | | | | | | | | | | | | | | | |
| | 0,32–0,8 | | | | | | | | | | | | | | | | | | | MRP MRK BMR | | | |
| | 0,4–1,6 | RP BR, BRP | | | | | | | | | | | | | | | | | | | | | |

Sortenübersicht
Grade overview



| Sorte Grade | ISO | Anwendungsbereich Application range | Werkstoffgruppe Material group | | | | | | Bearbeitungsverfahren Application | | | | | |
|----------------|--------|--|-----------------------------------|-----------------------|----------------------------|-------------------------------------|---|---------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------------------|------------------------|----------------------|
| | | | P | M | K | N | S | H | T | M | D | S | G | P |
| | | | Stahl Steel | Rostfrei Stainless | Grauguss Grey cast iron | NE-Metalle Non-ferrous metals | Hochwärmfest High tempera- ture materials | Harte Werkstoffe Hard materials | Drehen Turning | Fräsen Milling | Bohren Drilling | Gewinde- bearbeitung Threading | Einstechen Grooving | Abstechen Parting |
| LCP15T | HC-P15 | | ■ | | | | | | | ● | | | | |
| | HC-K15 | | | | □ | | | | | ● | | | | |
| LCP25T | HC-P25 | | ■ | | | | | | | ● | | | | |
| | HC-M25 | | | □ | | | | | | ● | | | | |
| LC240F | HC-P40 | | ■ | | | | | | | ● | | | | |
| | HC-M40 | | | □ | | | | | | ● | | | | |
| LCM20T | HC-M20 | | | ■ | | | | | | ● | | | | |
| | HC-S20 | | | | | | | □ | | ● | | | | |
| BCM25T | HC-M25 | | | ■ | | | | | | ● | | | | |
| | HC-P30 | | □ | | | | | | | ● | | | | |
| BCM40T | HC-M40 | | | ■ | | | | | | ● | | | | |
| | HC-S40 | | | | | | | □ | | ● | | | | |
| LC435D | HC-M35 | | | ■ | | | | | | ● | | | | |
| | HC-P35 | | □ | | | | | | | ● | | | | |
| LCM45T | HC-M40 | | | ■ | | | | | | ● | | ● | | |
| | HC-P35 | | □ | | | | | | | ● | | ● | | |
| BCK10T | HC-K10 | | | | ■ | | | | | ● | | | | |
| | HC-K15 | | | | ■ | | | | | ● | | | | |
| BCK20T | HC-K20 | | | | ■ | | | | | ● | | | | |
| LW610 | HW-K10 | | | | | ■ | | | | ● | | ● | | |
| LC610T | HC-K10 | | □ | ■ | □ | ■ | | | | ● | | | | |
| LC415X | HC-S15 | | | □ | | | | ■ | | ● | | | | |
| LC415Z | HC-S15 | | | □ | | | | ■ | | ● | | | | |
| BCS10T | HC-M10 | | | | | | | ■ | | ● | | | | |
| | HC-S10 | | | □ | | | | | | ● | | | | |
| BCS20T | HC-M20 | | | | | | | ■ | | ● | | | | |
| | HC-S20 | | | □ | | | | | | ● | | | | |
| LW611 | HW-K10 | | | | ■ | □ | | | | ● | | | | |

Anwendungsschwerpunkt
Application peak

Gesamtbereich nach ISO 513
Full range to ISO 513

■ Hauptanwendung
Main application

□ Weitere Anwendungen
Further applications

● Standardsorte
Standard grade

Schneidstoffsorten

Hauptsorten beschichtet

- **LCP15T (HC-P15, HC-K15)**

Verschleißfeste Stahlsorte für den nichtunterbrochenen Schnitt für hohe Schnittgeschwindigkeiten bis 300 m/min. Als Nebenanwendung auch für die Bearbeitung von Guss geeignet.

- **LCP25T (HC-P25, HC-M25)**

(Universelle Drehsorte)
Hauptsorte zum Drehen von Stahlwerkstoffen und leicht zerspanbaren rostbeständigen Stahl bei mittleren Schnittgeschwindigkeiten, auch bei unterbrochenem Schnitt. Diese Mehrbereichssorte zeichnet sich durch hohe Verschleißfestigkeit und ausgezeichnete Zähigkeitseigenschaften in einem breiten Einsatzspektrum aus.

- **LC240F (HC-P40, HC-M40)**

Die Stahldrehsorte Steeltec LC240F gewährleistet durch das Zusammenspiel eines extrem zähen Hartmetalls mit der „Nanolock gelb MT-CVD-Schicht“ höchste Performance im stark unterbrochenen Schnitt.

- **LCM20T (HC-M20, HC-S20)**

Drehsorte für die Bearbeitung von austenitischen Werkstoffen im hohen Schnittgeschwindigkeitsbereich von 170 - 220 m/min.

- **BCM25T (HC-M25, HC-P25)**

Drehsorte für austenitische rostfreie Stähle im mittleren bis hohen Schnittgeschwindigkeitsbereich.

- **BCM40T (HC-M40, HC-S40)**

Sehr zähe Rostfreisorte für niedrige Schnittgeschwindigkeiten geeignet, als Alternative auch auf Stahl und Superlegierungen einsetzbar.

- **LC435D (HC-M35, HC-P35)**

Hauptsorte zu Drehen von austenitischen rostfreien Stählen bei mittleren Schnittgeschwindigkeiten. Erweiterte Anwendung für Superlegierungen.

- **LCM45T (HC-M40, HC-P40)**

Extrem zähes, relativ feinkörniges Hartmetallsubstrat. Ideale Sorte zum Drehen von austenitischen rostfreien Stählen im mittleren Schnittgeschwindigkeitsbereich.

- **BCK10T (HC-K10-K15)**

Gusssorte im Bereich K10, optimal für die Bearbeitung von Guss im nicht unterbrochenen Schnitt.

- **BCK20T (HC-K20)**

Gussdrehsorte im Bereich K20, optimal für die Bearbeitung von GG- und GGG- Materialien. Schnittgeschwindigkeiten bis 400m/min auf GG möglich.

- **LC610T (HC-K10)**

Ideale Sorte für die Bearbeitung von Aluminiumwerkstoffen und NE-Metallen. Durch eine hauchdünne Micropuls® Plasma-CVD TiAlN Schicht ebenfalls hervorragend für die Schlichtzerspannung von rostfreien Stählen und Grauguss geeignet.

- **BCS10T (HC-M10, HC-S10)**

Sorte für das Drehen von Titan. Ausgewähltes temperaturstabiles Hartmetall plus TiBN - Plasma - Beschichtung.

- **LC415X (HC-S15)**

Feinstkornsorte mit dünner PVD-Beschichtung. Hervorragend geeignet für die Klein- und Kleinstteillfertigung wie z.B. der Uhrenindustrie und Medizintechnik. Bevorzugte Materialien wie Inconel, Titan und Rostfreistahl.

- **LC415Z (HC-S15)**

Spezielle Feinstkornsorte für die Bearbeitung von Superlegierungen wie Inconel, Titan, etc.

- **BCS20T (HC-M20, HC-S20)**

Zähere Alternativsorte zur LC415Z für die Bearbeitung von Superlegierungen wie Inconel, Hastelloy, Waspaloy, etc.

Hauptsorten unbeschichtet

- **LW610 (HW-K10)**

Drehsorte mit hoher Verschleißfestigkeit für die Bearbeitung von Aluminiumlegierungen und NE-Metallen bei mittleren bis hohen Schnittgeschwindigkeiten, auch unter ungünstigen Bedingungen.

- **LW611 (HW-K05, HW-K15)**

Zum Drehen von Hartguss, Grauguss mit Kugelgraphit und legiertem Grauguss sowie für Aluminium und Aluminiumlegierungen. Drehen von hochvergüteten und gehärteten Stählen, auch für Manganhartstähle.

Cutting grades

Main grades, coated

- **LCP15T (HC-P15, HC-K15)**

Wear resistant steel grade for not interrupted cut for high cutting speeds up to 300 m/min. As secondary application also for machining of cast iron.

- **LCP25T (HC-P25, HC-M25)**

(Universal turning grade)

Main grade for machining steel materials and easily machinable stainless steels at medium cutting speeds, including interrupted cutting work. This general purpose grade is characterised by the properties of high durability and excellent toughness across a wide range of applications.

- **LC240F (HC-P40, HC-M40)**

The LC240F Steeltec steel turning grade guarantees maximum performance in heavy interrupted cutting thanks to the combination of an extremely tough carbide with the „Nanolock yellow MT-CVD layer“.

- **LCM20T (HC-M20, HC-S20)**

Turning grade for machining of austenitic materials in the high cutting speed area of 170 – 220 m/min.

- **BCM25T (HC-M25, HC-P25)**

Turning grade for austenitic stainless steels in medium and high cutting speed area.

- **BCM40T (HC-M40, HC-S40)**

Very tough stainless grade for low cutting speeds suitable, also as alternative applicable on steel and super alloys.

- **LC435D (HC-M35, HC-P35)**

Main grade for turning of austenitic stainless steels at medium cutting speeds. Applicable also for super alloys.

- **LCM45T (HC-M40, HC-P40)**

Extreme tough, relative fine grained carbide substrate. Ideal grade for turning of austenitic stainless steel in the medium cutting speed area.

- **BCK10T (HC-K10-K15)**

Cast iron grades in K10 range, optimum for machining cast iron in an uninterrupted cut.

- **BCK20T (HC-K20)**

Cast iron turning grade for the area K15. Optimal for machining GG- and GGG- materials. Possible cutting speeds for GG up to 400 m/min.

- **LC610T (HC-K10)**

The ideal grade for working aluminium materials and other non-ferrous metals. Thanks to a very thin microplus® plasma CVD TiAlN coating it is also excellent for finish machining of stainless steels and grey cast iron.

- **BCS10T (HC-M10, HC-S10)**

Grade for turning of titanium. Selected temperature stable carbide plus TiBN - Plasma coating.

- **LC415X (HC-S15)**

Submicron grade with thin PVD-coating. Excellent appropriate for the production of small and smallest parts, f.e. watch industry and medical engineering. Preferred materials such as Inconel, titanium and stainless steel.

- **LC415Z (HC-S15)**

Special submicron grade for machining super alloys such as Inconel, titanium, etc.

- **BCS20T (HC-M20, HC-S20)**

Tough alternative grade to LC415Z for machining of super alloys as Inconel, Hastelloy, Waspaloy, etc.

Main grades, uncoated

- **LW610 (HW-K10)**

Turning grade with high wear resistance for machining of aluminium alloys, and non-ferrous metals at medium to higher cutting speeds, even under unfavourable machining conditions.

- **LW611 (HW-K05, HW-K15)**

For turning chilled iron casting, grey cast iron with spheroidal graphite and alloyed grey cast iron as well as for aluminium and aluminium alloys. Turning high grade and hardened steels, also for austenitic manganese steels.

| W | | |
|------------|--|------|
| Grundform | | |
| Basic form | | |
| A | | 85° |
| B | | 82° |
| C | | 80° |
| D | | 55° |
| E | | 75° |
| H | | 120° |
| K | | 55° |
| L | | 90° |
| M | | 86° |
| O | | 135° |
| P | | 108° |
| R | | - |
| S | | 90° |
| T | | 60° |
| V | | 35° |
| W | | 80° |

| N | |
|-----------------|--|
| Freiwinkel | |
| Clearance angle | |
| A | |
| B | |
| C | |
| D | |
| E | |
| F | |
| G | |
| N | |
| P | |
| O | |

Freiwinkel, bei denen besondere Angaben erforderlich sind
Clearance angle requiring special indication

| M | | | |
|--|----------------------|----------|---------------|
| Toleranzklasse | | | |
| Tolerance classes | | | |
| Zulässige Abweichung für Limits of tolerance | | | |
| | m | s | d |
| A | ±0,005 ¹⁾ | ±0,025 | ±0,025 |
| C | ±0,013 | ±0,025 | ±0,025 |
| E | ±0,025 | ±0,025 | ±0,025 |
| F | ±0,005 ¹⁾ | ±0,025 | ±0,013 |
| G | ±0,025 | ±0,13 | ±0,025 |
| H | ±0,013 | ±0,025 | ±0,013 |
| J | ±0,005 ¹⁾ | ±0,025 | ±0,05 – ±0,15 |
| K | ±0,013 ¹⁾ | ±0,025 | ±0,05 – ±0,15 |
| L | ±0,025 | ±0,025 | ±0,05 – ±0,15 |
| M | ±0,08 – ±0,20 | ±0,13 | ±0,05 – ±0,15 |
| U | ±0,13 – ±0,38 | ±0,13 | ±0,08 – ±0,25 |
| | d | m | d |
| M | 6,35 | ±0,08 | ±0,05 |
| | 9,52 | ±0,08 | ±0,05 |
| | 12,7 | ±0,13 | ±0,08 |
| | 15,88 | ±0,15 | ±0,10 |
| | 19,05 | ±0,15 | ±0,10 |
| U | 6,35 | ±0,13 | ±0,08 |
| | 9,52 | ±0,13 | ±0,08 |
| | 12,7 | ±0,20 | ±0,13 |
| | 15,88 | ±0,27 | ±0,18 |
| | 19,05 | ±0,27 | ±0,18 |
| | 25,4 | ±0,38 | ±0,25 |

Wendeschneidplatte mit ungerader Seitenanzahl
Indexable insert with unequal number of sides

Wendeschneidplatte mit gerader Seitenanzahl
Indexable insert with equal number of sides

¹⁾ Gelten in der Regel für Wendeschneidplatten mit geschliffenen Planschneiden.
*) Der Berechnung der „m“-Maße liegt der genaue Zoll-Radius zugrunde.

¹⁾ Generally used for indexable inserts with ground face cutting edges.
*) The calculation for the “m” measurement is based on the precise radius in inches.

| G | |
|--|--|
| Plattentyp | |
| Type of insert | |
| A | |
| ohne Spanformrinne, mit Befestigungsloch without chip breaker, with cylindrical fixation hole | |
| F | |
| mit Spanformrinne auf beiden Spanflächen, ohne Befestigungsloch Chip breaker at both sides, without fixation hole | |
| G | |
| mit Spanformrinne auf beiden Spanflächen, mit Befestigungsloch Chip breaker at both sides, with cylindrical fixation hole | |
| M | |
| mit Spanformrinne auf einer Spanfläche, mit Befestigungsloch Chip breaker at one side, with cylindrical fixation hole | |
| N | |
| ohne Spanformrinne, ohne Befestigungsloch without chip breaker, without fixation hole | |
| Q | |
| ohne Spanformrinne, mit Kegelloch beidseitig without chip breaker, with fixation hole conical from both sides | |
| R | |
| mit Spanformrinne auf einer Spanfläche, ohne Befestigungsloch Chip breaker at one side, without fixation hole | |
| T | |
| mit Spanformrinne auf einer Spanfläche, Kegelloch einseitig Chip breaker at one side, with conical fixation hole | |
| U | |
| mit Spanformrinne auf beiden Spanflächen, Kegelloch beidseitig Chip breaker at both sides, with fixation hole conical from both sides | |
| W | |
| ohne Spanformrinne, Kegelloch einseitig without chip breaker, with conical fixation hole | |
| X | |
| mit Besonderheiten nach Zeichnung with special features to drawing | |

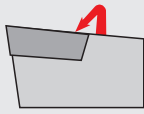


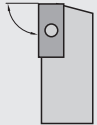
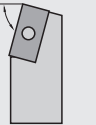
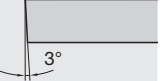
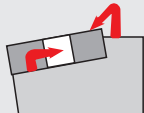




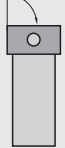

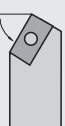
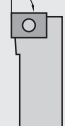
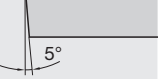
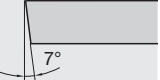
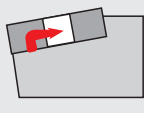



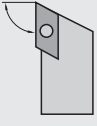
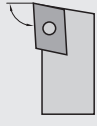
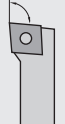
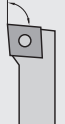
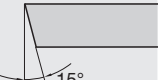

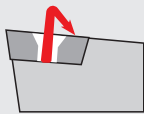








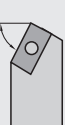

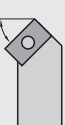



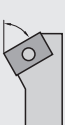

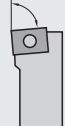

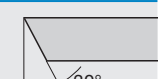
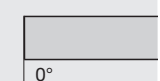
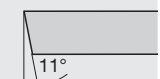
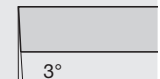
| 06 Schneidkantenlänge Length of cutting edge | |
|---|---------------------|
| A | |
| B | |
| C | |
| E | |
| D | |
| H | |
| K | |
| L | |
| M | |
| O | |
| P | |
| R | |
| S | |
| T | |
| V | |
| W | |
| Beispiele: Examples: | |
| 06 | l = 6,350 mm |
| 09 | l = 9,525 mm |
| 11 | l = 11,000 mm |
| 12 | l = 12,700 mm |
| 15 | l = 15,880 mm |
| 16 | l = 16,500 mm |
| 19 | l = 19,050 mm |
| 22 | l = 22,000 mm |
| 25 | l = 25,400 mm |
| 27 | l = 27,500 mm |
| 33 | l = 33,000 mm |

| 04 Dicke Thickness | |
|---------------------------------|--------------------|
| | |
| | |
| | |
| Beispiele: Examples: | |
| 01 | s = 1,59 mm |
| T1 | s = 1,98 mm |
| 02 | s = 2,38 mm |
| 03 | s = 3,18 mm |
| T3 | s = 3,97 mm |
| 04 | s = 4,76 mm |
| 05 | s = 5,56 mm |
| 06 | s = 6,35 mm |
| 07 | s = 7,94 mm |
| 09 | s = 9,52 mm |
| 12 | s = 12,70 mm |

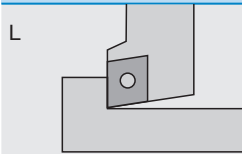
| 04 Schneidenecke Corner radius | |
|---|------------------------|
| | |
| Beispiele: Examples: | |
| 00 | r = max 0,2 mm |
| 04 | r = 0,4 mm ±0,1 |
| 08 | r = 0,8 mm ±0,1 |
| 12 | r = 1,2 mm ±0,1 |
| 16 | r = 1,6 mm ±0,1 |
| 20 | r = 2,0 mm ±0,1 |
| 24 | r = 2,4 mm ±0,1 |
| 25 | r = 2,5 mm ±0,1 |

| Schneidenausführung Edge condition | |
|---------------------------------------|--|
| F | scharfe Schneide sharp cutting edges |
| E | Schneiden gerundet Rounded cutting edges |
| S | Schneiden gefast und gerundet Chamfered and rounded cutting edges |
| T | Schneiden gefast Chamfered cutting edges |
| K | Schneiden doppelt gefast Double-chamfered cutting edges |
| P | Schneiden doppelt gefast und verrundet Double-chamfered and rounded cutting edges |

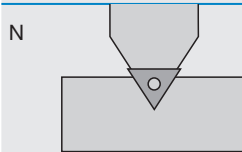
| Schnitttrichtung Cutting direction | |
|---------------------------------------|--|
| L | Wendeschneidplatte kann nur linksschneidend verwendet werden The indexable insert can only be used for cuts to the left |
| N | Wendeschneidplatte kann rechts- und linksschneidend verwendet werden The indexable insert can be used for cuts either to the left or to the right |
| R | Wendeschneidplatte kann nur rechtsschneidend verwendet werden The indexable insert can only be used for cuts to the right |

| P Befestigungsart Type of fixation | C Wendeplattenform Indexable insert shape | L Klemmhalterform Tool holder shape | N Wendeplattenfreiwinkel Insert clearance angle |
|---|---|--|--|
| C  Von oben geklemmt Fixation from above | A  85° B  82° | A  90° B  75° | A  3° |
| M  Von oben und über Bohrung geklemmt Fixation from above and through a hole | C D  80° E  55° F  75° H  120° | C  90° D  45° E  60° F  90° | B  5° C  7° |
| P  Über Bohrung geklemmt Fixation through a hole | K  55° L  90° M  86° | G  90° J  93° H  107,5° L  95° | D  15° E  20° |
| S  Durch Bohrung geschraubt Fixation by screw through a conical hole | O  135° P  108° R  - S  90° T  60° V  35° W  80° | K  75° N  63° M  50° S  45° R  75° U  93° T  60° W  60° V  72,5° Y  85° | F  25° G  30° N  0° P  11° O  3° |
| | | | Freiwinkel, bei denen besondere Angaben erforderlich sind Clearance angle requiring special indication |

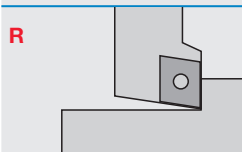
R
Schnittrichtung
Cutting direction



Klemhalter kann nur linksschneidend verwendet werden
The tool holder can only be used for cuts to the left

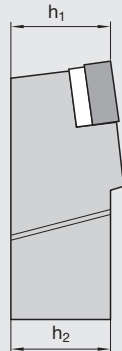


Klemhalter kann rechts- und linksschneidend verwendet werden
The tool holder can be used for cuts either to the left or to the right



Klemhalter kann nur rechtsschneidend verwendet werden
The tool holder can only be used for cuts to the right

25
Schneidenhöhe
Cutting height

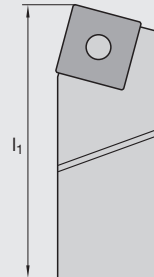


Bei Klemmwerkzeugen entspricht die Schneidhöhe (h_1) im allgemeinen der Schafthöhe (h_2). Ausgenommen sind Kurzklemmhalter und Klemmwerkzeuge zum Innendrehen.
For clamped tools, the cutting height (h_1) generally corresponds to the shaft height (h_2). The exceptions to this include cartridge toolholders and clamped tools for internal turning.

25
Schaftbreite
Shank width



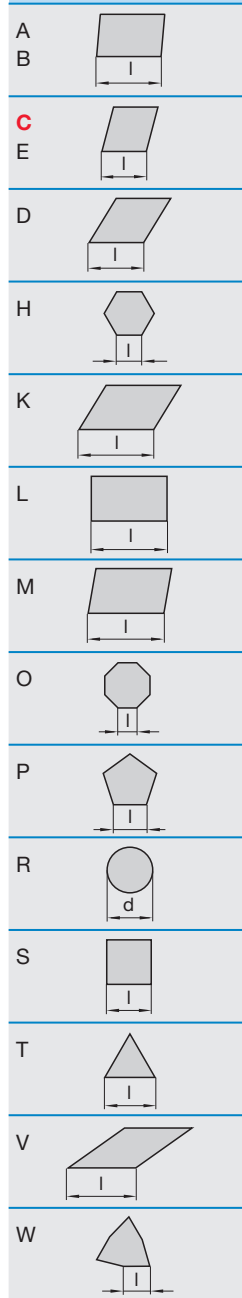
M
Werkzeuglänge
Tool length



Kennbuchstaben für die Längen l_1
Code letters for the length l_1

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

12
Schneidkantenlänge
Cutting edge length



Beispiele:
Examples:

| | |
|-----------|---|
| 06 | $l = 6,350 \text{ mm}$ |
| 09 | $l = 9,525 \text{ mm}$ |
| 11 | $l = 11,000 \text{ mm}$ |
| 12 | $l = 12,700 \text{ mm}$ |
| 15 | $l = 15,880 \text{ mm}$ |
| 16 | $l = 16,500 \text{ mm}$ |
| 19 | $l = 19,050 \text{ mm}$ |
| 22 | $l = 22,000 \text{ mm}$ |
| 25 | $l = 25,400 \text{ mm}$ |
| 27 | $l = 27,500 \text{ mm}$ |
| 33 | $l = 33,000 \text{ mm}$ |

| S Werkstoff des Körpers Material used for main body | | |
|--|---|--|
| Kennbuchstabe Identification letter | Werkstoff des Körpers Material used for main body | Konstruktionsmerkmale Features of design |
| S | Stahlschaft Solid steel | keine none |
| A | | mit innerer Kühlmittelzuführung with internal coolant supply |
| B | | mit Vibrationsdämpfung with vibration damping |
| D | | mit Vibrationsdämpfung und innerer Kühlmittelzuführung with vibration damping and internal coolant supply |
| C | Hartmetallschaft mit Stahlkopf Hard metal with steel head | keine none |
| E | | mit innerer Kühlmittelzuführung with internal coolant supply |
| F | | mit Vibrationsdämpfung with vibration damping |
| G | | mit Vibrationsdämpfung und innerer Kühlmittelzuführung with vibration damping and internal coolant supply |
| H | | Schwermetall Heavy metal |
| J | mit innerer Kühlmittelzuführung with internal coolant supply | |

| 32 Schaftdurchmesser Shank diameter |
|--|
| |
| 08 |
| 10 |
| 12 |
| 16 |
| 20 |
| 25 |
| 32 |
| 40 |
| 50 |

| T Werkzeuflänge Tool length |
|--|
| |

| P Befestigungsart Type of fixation |
|--|
| C Von oben geklemmt Fixation from above |
| M Von oben und über Bohrung geklemmt Fixation from above and through a hole |

Kennbuchstaben für die Längen
Code letters for the length

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

| |
|--|
| P Über Bohrung geklemmt Fixation through a hole |
|--|

| |
|--|
| S Durch Bohrung geschraubt Fixation by screw through a conical hole |
|--|

| C Wendepplattenform Indexable insert shape | | |
|--|--|------|
| A | | 85° |
| B | | 82° |
| C | | 80° |
| D | | 55° |
| E | | 75° |
| H | | 120° |
| K | | 55° |
| L | | 90° |
| M | | 86° |
| O | | 135° |
| P | | 108° |
| R | | - |
| S | | 90° |
| T | | 60° |
| V | | 35° |
| W | | 80° |

| L Klemmhalterform Tool holder shape | | |
|---|--|------|
| F | | 90° |
| K | | 75° |
| L | | 95° |
| S | | 45° |
| U | | 93° |
| Q | | 107° |

| N Wendepplattenfreiwinkel Insert clearance angle | | |
|--|--|----------------|
| A | | 3° |
| B | | 5° |
| C | | 7° |
| D | | 15° |
| E | | 20° |
| F | | 25° |
| G | | 30° |
| N | | 0° |
| P | | 11° |
| O | | α° |

Freiwinkel, bei denen besondere Angaben erforderlich sind.
Clearance angle requiring special indication.

| R Schnitttrichtung Cutting direction | |
|--|--|
| L | |
| <p>Halter kann nur linksschneidend verwendet werden Boring bar suitable for operation to the left only</p> | |
| R | |
| <p>Halter kann nur rechtsschneidend verwendet werden Boring bar suitable for operation to the right only</p> | |

| 12 Schneidkantenlänge Cutting edge length | |
|---|--|
| A | |
| B | |
| C | |
| E | |
| D | |
| H | |
| K | |
| L | |
| M | |
| O | |
| P | |
| R | |
| S | |
| T | |
| V | |
| W | |

Beispiele:
Examples:

- 06 l = 6,350 mm
- 09 l = 9,525 mm
- 11 l = 11,000 mm
- 12 l = 12,700 mm**
- 15 l = 15,880 mm
- 16 l = 16,500 mm
- 19 l = 19,050 mm
- 22 l = 22,000 mm
- 25 l = 25,400 mm
- 27 l = 27,500 mm
- 33 l = 33,000 mm

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|--|
| | | | | | | HC | | | | | | HW | | HC | | HW | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | | |
| CCGT...BAL | CCGT 060202-BAL | 6,40 | 6,35 | 2,38 | 0,2 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 060204-BAL | 6,40 | 6,35 | 2,38 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 09T302-BAL | 9,70 | 9,52 | 3,97 | 0,2 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 09T304-BAL | 9,70 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 09T308-BAL | 9,70 | 9,52 | 3,97 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 120404-BAL | 12,90 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| | CCGT 120408-BAL | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| CCGT E.-BC | CCGT 060204 EL-BC | 6,40 | 6,35 | 2,38 | 0,4 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 060204 ER-BC | 6,40 | 6,35 | 2,38 | 0,4 | | ● | | | ● | | | | | | | | | | | | | | | |
| | CCGT 060208 EL-BC | 6,40 | 6,35 | 2,38 | 0,8 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 060208 ER-BC | 6,40 | 6,35 | 2,38 | 0,8 | | ● | | | ● | | | | | | | | | | | | | | | |
| | CCGT 09T304 EL-BC | 9,70 | 9,52 | 3,97 | 0,4 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 09T304 ER-BC | 9,70 | 9,52 | 3,97 | 0,4 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 09T308 EL-BC | 9,70 | 9,52 | 3,97 | 0,8 | | ● | | | ● | | | | | | | | | | | | | | | |
| | CCGT 09T308 ER-BC | 9,70 | 9,52 | 3,97 | 0,8 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 120408 EL-BC | 12,90 | 12,70 | 4,76 | 0,8 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 120408 ER-BC | 12,90 | 12,70 | 4,76 | 0,8 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| | CCGT 120412 EL-BC | 12,90 | 12,70 | 4,76 | 1,2 | | ● | ● | | ● | | | | | | | | | | | | | | | |
| CCGT 120412 ER-BC | 12,90 | 12,70 | 4,76 | 1,2 | | ● | | | ● | | | | | | | | | | | | | | | | |
| CCMT....BSMR | CCMT 250924-BSMR | 25,80 | 25,40 | 9,52 | 2,4 | ● | ● | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCMT....BSMS | CCMT 09T304-BSMS | 9,70 | 9,52 | 3,97 | 0,4 | | | | | ● | | | | | | | | | | | | | | | |
| | CCMT 09T308-BSMS | 9,70 | 9,52 | 3,97 | 0,8 | | | | | ● | | | | | | | | | | | | | | | |
| | CCMT 120404-BSMS | 12,90 | 12,70 | 4,76 | 0,4 | | | | | ● | | | | | | | | | | | | | | | |
| | CCMT 120408-BSMS | 12,90 | 12,70 | 4,76 | 0,8 | | | | | ● | | | | | | | | | | | | | | | |
| CCMT....F. | CCMT 060202-FP | 6,40 | 6,35 | 2,38 | 0,2 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 060204-FP | 6,40 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 060208-FP | 6,40 | 6,35 | 2,38 | 0,8 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 09T304-FP | 9,70 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 09T308-FP | 9,70 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 120404-FP | 12,90 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | | | | | | | | | |
| | CCMT 060202-FM | 6,40 | 6,35 | 2,38 | 0,2 | | | | | | ● | ● | | | | | | | | | | | | | |
| | CCMT 060204-FM | 6,40 | 6,35 | 2,38 | 0,4 | | | | | | ● | ● | | | | | | | | | | | | | |
| | CCMT 09T304-FM | 9,70 | 9,52 | 3,97 | 0,4 | | | | ● | ● | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CCGT 060202-BAL LC610T

Werkzeuge siehe Seiten 75-77 / 92 / 102 - 104
For tool holders see pages 75-77 / 92 / 102 - 104
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW/HCHW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| CCMT...MM  | CCMT 060202-MM | 6,40 | 6,35 | 2,38 | 0,2 | | | | ● | ● | | | | | | | |
| | CCMT 060204-MM | 6,40 | 6,35 | 2,38 | 0,4 | | | | ● | ● | | | | | | | |
| | CCMT 09T304-MM | 9,70 | 9,52 | 3,97 | 0,4 | | | | ● | | | | | | | | |
| | CCMT 09T308-MM | 9,70 | 9,52 | 3,97 | 0,8 | | | | ● | | | | | | | | |
| | CCMT 120404-MM | 12,90 | 12,70 | 4,76 | 0,4 | | | | | ● | | | | | | | |
| | CCMT 120408-MM | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | ● | | | | | | |
| CCMT...MK  | CCMT 09T304 MK | 9,70 | 9,52 | 3,97 | 0,4 | | | | | | | ● | ● | | | | |
| | CCMT 09T308 MK | 9,70 | 9,52 | 3,97 | 0,8 | | | | | | | ● | ● | | | | |
| | CCMT 120408 MK | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | ● | ● | | | | |
| CCMT...MP  | CCMT 060202-MP | 6,40 | 6,35 | 2,38 | 0,2 | ● | ● | | | | | | | | | | |
| | CCMT 060204-MP | 6,40 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | |
| | CCMT 060208-MP | 6,40 | 6,35 | 2,38 | 0,8 | ● | ● | | | | | | | | | | |
| | CCMT 09T304-MP | 9,70 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | |
| | CCMT 09T308-MP | 9,70 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | |
| | CCMT 120404-MP | 12,90 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | CCMT 120408-MP | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| CCMT...MT  | CCMT 09T304-MT | 9,70 | 9,52 | 3,97 | 0,4 | | | | | | | | | | ● | ● | |
| CCMW...  | CCMW 09T304 | 9,70 | 9,52 | 3,97 | 0,4 | | | | | | | ● | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CCMT 060202-MM LCM20T

● Verfügbar ab Lager Available from stock

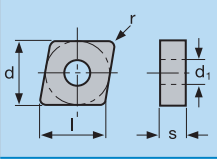
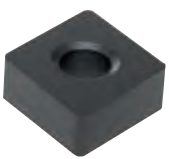



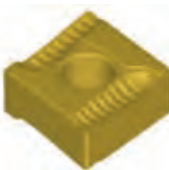
Werkzeuge siehe Seiten 75-77 / 92 / 102 - 104
For tool holders see pages 75-77 / 92 / 102 - 104
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | |
|--|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X |
| | CNGG 120408-BCU | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | ● | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | CNGG 120404-FMS | 12,90 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | ● | ● |
| | CNGG 120408-FMS | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | ● | ● |
| | CNGG 120412-FMS | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | ● | ● |
| | | | | | | | | | | | | | | | | | | |
| | CNGG 120404-MS | 12,90 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | ● | |
| | CNGG 120408-MS | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | ● | |
| | CNGG 120412-MS | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | ● | |
| | | | | | | | | | | | | | | | | | | |
| | CNGG 120408-MRS | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | ● | ● |
| | CNGG 120412-MRS | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | ● | ● |
| | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CNGG 120408-BCU LC415Z

Werkzeuge siehe Seiten 64 / 68 / 94
For tool holders see pages 64 / 68 / 94
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|---------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|
| | | | | | | HC | | | | HW/HCHW | | | HC | | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | |
| CNMA  | CNMA 120408 | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | ● | ● | | | | | | | | | |
| | CNMA 120412 | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | ● | ● | | | | | | | | |
| | CNMA 190616 | 19,30 | 19,05 | 6,35 | 1,6 | | | | | | | | | | ● | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| CNMG....-BFMS  | CNMG 090304-BFMS | 9,70 | 9,52 | 3,18 | 0,4 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 120404-BFMS | 12,90 | 12,70 | 4,76 | 0,4 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 120408-BFMS | 12,90 | 12,70 | 4,76 | 0,8 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 120412-BFMS | 12,90 | 12,70 | 4,76 | 1,2 | | | | ● | ● | ● | | | | | | | | | | | | |
| CNMG....-BMRS  | CNMG 120408-BMRS | 12,90 | 12,70 | 4,76 | 0,8 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 120412-BMRS | 12,90 | 12,70 | 4,76 | 1,2 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 160612-BMRS | 16,10 | 15,87 | 6,35 | 1,2 | | | | ● | ● | ● | | | | | | | | | | | | |
| | CNMG 160616-BMRS | 19,30 | 19,05 | 6,35 | 1,6 | | | | | ● | ● | | | | | | | | | | | | |
| | CNMG 190612-BMRS | 19,30 | 19,05 | 6,35 | 1,2 | | | | ● | ● | ● | | | | | | | | | | | | |
| CNMG....-BMS  | CNMG 120408-BMS | 12,90 | 12,70 | 4,76 | 0,8 | | | | ● | | | | | | | | | | | | | | |
| | CNMG 120412-BMS | 12,90 | 12,70 | 4,76 | 1,2 | | | | ● | | | | | | | | | | | | | | |
| | CNMG 160612-BMS | 16,10 | 15,87 | 6,35 | 1,2 | | | | ● | | | | | | | | | | | | | | |
| CNMG....E.-BC  | CNMG 120404 EL-BC | 12,90 | 12,70 | 4,76 | 0,4 | ● | ● | | ● | | | | | | | | | | | | | | |
| | CNMG 120404 ER-BC | 12,90 | 12,70 | 4,76 | 0,4 | ● | | | ● | | | | | | | | | | | | | | |
| | CNMG 120408 EL-BC | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | ● | | | | | | | | | | | | | | |
| | CNMG 120408 ER-BC | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | ● | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CNMA 120408 BCK10T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 64 -68 / 94 / 98
 For tool holders see pages 64 -68 / 94 / 98
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|-----------------------------|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| CNMG....-FMP | CNMG 120404-FMP | 12,90 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | CNMG 120408-FMP | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| CNMG....FP | CNMG 120404-FP | 12,90 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | CNMG 120408-FP | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| CNMG...-HPT | CNMG 120408-HPT | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| | CNMG 120412-HPT | 12,90 | 12,70 | 4,76 | 1,2 | ● | ● | | | | | | | | | | |
| CNMG....-MK | CNMG 120404-MK | 12,90 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | |
| | CNMG 120408-MK | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | CNMG 120412-MK | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | |
| | CNMG 120416-MK | 12,90 | 12,70 | 4,76 | 1,6 | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CNMG 120404 FMP LCP15T

Werkzeuge siehe Seiten 64 / 68 / 94 / 98
 For tool holders see pages 64 / 68 / 94 / 98
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | Sorte Grade | | | | Sorte Grade | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------------------------------------|-------------|-------|------|-----|-------------|--------|--------|--------|---------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|--|--|
| | | l | d | s | r | HC | | | | HW/HCHW | | | | HC | | | | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BOS10T | BOS20T | | | | | |
| | CNMG....-MM | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CNMG 120408-MM | 12,90 | 12,70 | 4,76 | 0,8 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 120412-MM | 12,90 | 12,70 | 4,76 | 1,2 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 160612-MM | 16,10 | 15,87 | 4,76 | 1,2 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 160616-MM | 16,10 | 15,87 | 6,35 | 1,6 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 190612-MM | 19,30 | 19,05 | 6,35 | 1,2 | | | | • | | • | • | | | | | | | | | | | | | | |
| CNMG 190616-MM | 19,30 | 19,05 | 6,35 | 1,6 | | | | • | | • | • | | | | | | | | | | | | | | | |
| | CNMG....-MP | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CNMG 090308-MP | 9,70 | 9,52 | 3,18 | 0,8 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 120408-MP | 12,90 | 12,70 | 4,76 | 0,8 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 120412-MP | 12,90 | 12,70 | 4,76 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 120416-MP | 12,90 | 12,70 | 4,76 | 1,6 | • | • | | | | | | | | | | | | | | | | | | | |
| | CNMG 160608-MP | 16,10 | 15,87 | 6,35 | 0,8 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 160612-MP | 16,10 | 15,87 | 6,35 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 160616-MP | 16,10 | 15,87 | 6,35 | 1,6 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 190612-MP | 19,30 | 19,05 | 6,35 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| CNMG 190616-MP | 19,30 | 19,05 | 6,35 | 1,6 | • | • | • | | | | | | | | | | | | | | | | | | | |
| | CNMG....-MRK | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CNMG 120408-MRK | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | • | • | | | | | | | | | | |
| | CNMG 120412-MRK | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | • | • | | | | | | | | | | |
| | CNMG 120416-MRK | 12,90 | 12,70 | 4,76 | 1,6 | | | | | | | | | | • | • | | | | | | | | | | |
| | CNMG 160612-MRK | 16,10 | 16,10 | 6,35 | 1,2 | | | | | | | | | | • | • | | | | | | | | | | |
| CNMG 160616-MRK | 16,10 | 16,10 | 6,35 | 1,6 | | | | | | | | | | • | • | | | | | | | | | | | |
| | CNMG....-MRM | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CNMG 120408-MRM | 12,90 | 12,70 | 4,76 | 0,8 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 120412-MRM | 12,90 | 12,70 | 4,76 | 1,2 | | | | • | | • | • | | | | | | | | | | | | | | |
| | CNMG 160608-MRM | 16,10 | 15,87 | 6,35 | 0,8 | | | | • | | • | • | | | | | | | | | | | | | | |
| CNMG 160612-MRM | 16,10 | 15,87 | 6,35 | 1,2 | | | | • | | • | • | | | | | | | | | | | | | | | |
| | CNMG....-MRP | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CNMG 120408-MRP | 12,90 | 12,70 | 4,76 | 0,8 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 120412-MRP | 12,90 | 12,70 | 4,76 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 120416-MRP | 12,90 | 12,70 | 4,76 | 1,6 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 160608-MRP | 16,10 | 15,87 | 6,35 | 0,8 | • | • | | | | | | | | | | | | | | | | | | | |
| | CNMG 160612-MRP | 16,10 | 15,87 | 6,35 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 160616-MRP | 16,10 | 15,87 | 6,35 | 1,6 | • | • | • | | | | | | | | | | | | | | | | | | |
| | CNMG 190612-MRP | 19,30 | 19,05 | 6,35 | 1,2 | • | • | • | | | | | | | | | | | | | | | | | | |
| CNMG 190616-MRP | 19,30 | 19,05 | 6,35 | 1,6 | • | • | • | | | | | | | | | | | | | | | | | | | |
| CNMG 190624-MRP | 19,30 | 19,05 | 6,35 | 2,4 | • | • | • | | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CNMG 120408-MM LCM20T

Werkzeuge siehe Seiten 64 / 68 / 94 / 98
For tool holders see pages 64 / 68 / 94 / 98
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

• Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|-------------------------|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| CNMG....-MS | CNMG 120404-MS | 12,90 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | |
| | CNMG 120408-MS | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | CNMG 120412-MS | 12,90 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| CNMG...-MT | CNMG 120408-MT | 12,90 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| CNMM....-RP | CNMM 120408-RP | 12,90 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | CNMM 120412-RP | 12,90 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | CNMM 160612-RP | 16,10 | 15,87 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | CNMM 160616-RP | 16,10 | 15,87 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | CNMM 190612-RP | 19,30 | 19,05 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | CNMM 190616-RP | 19,30 | 19,05 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | CNMM 190624-RP | 19,30 | 19,05 | 6,35 | 2,4 | ● | ● | ● | | | | | | | | | |
| CNMM....-BR | CNMM 190616-BR | 19,30 | 19,05 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| CNMM....-BRP | CNMM 250724-BRP | 25,80 | 25,40 | 7,94 | 2,4 | ● | ● | ● | | | | | | | | | |
| | CNMM 250924-BRP | 25,80 | 25,40 | 9,52 | 2,4 | ● | ● | ● | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces CNMG 120404-MS LC415Z

● Verfügbar ab Lager Available from stock

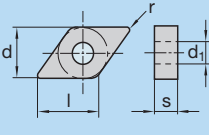

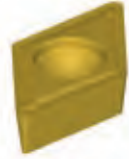
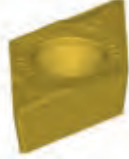


Werkzeuge siehe Seiten 64 / 68 / 94 / 98
For tool holders see pages 64 / 68 / 94 / 98
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | |
|--|-------------------------------------|-------|------|------|------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X |
| | DCGT 0702008 | 7,70 | 6,35 | 2,38 | 0,08 | | | | | | | | | | | | ● | |
| | DCGT 0702015 | 7,70 | 6,35 | 2,38 | 0,15 | | | | | | | | | | | | ● | |
| | DCGT 11T3015 | 11,60 | 9,52 | 3,97 | 0,15 | | | | | | | | | | | | ● | |
| | DCGT 11T3035 | 11,60 | 9,52 | 3,97 | 0,35 | | | | | | | | | | | | ● | |
| | DCGT 070202-BAL | 7,70 | 6,35 | 2,38 | 0,2 | | | | | | | | | | | | ● | ● |
| | DCGT 070204-BAL | 7,70 | 6,35 | 2,38 | 0,4 | | | | | | | | | | | | ● | ● |
| | DCGT 11T302-BAL | 11,60 | 9,52 | 3,97 | 0,2 | | | | | | | | | | | | ● | ● |
| | DCGT 11T304-BAL | 11,60 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | ● | ● |
| | DCGT 11T308-BAL | 11,60 | 9,52 | 3,97 | 0,8 | | | | | | | | | | | | | |
| | DCGT 070204 EL-BC | 7,70 | 6,35 | 2,38 | 0,4 | ● | ● | | ● | | | | | | | | | |
| | DCGT 070204 ER-BC | 7,70 | 6,35 | 2,38 | 0,4 | ● | ● | | ● | | | | | | | | | |
| | DCGT 11T304 EL-BC | 11,60 | 9,52 | 3,97 | 0,4 | ● | ● | | ● | | | | | | | | | |
| | DCGT 11T304 ER-BC | 11,60 | 9,52 | 3,97 | 0,4 | ● | ● | | ● | | | | | | | | | |
| | DCGT 11T308 EL-BC | 11,60 | 9,52 | 3,97 | 0,8 | ● | ● | ● | ● | | | | | | | | | |
| | DCGT 11T308 ER-BC | 11,60 | 9,52 | 3,97 | 0,8 | ● | ● | ● | ● | | | | | | | | | |
| | DCGT 0702008 FL-BC | 7,70 | 6,35 | 2,38 | 0,08 | | | | | | | | | | | | | ● |
| | DCGT 0702008 FR-BC | 7,70 | 6,35 | 2,38 | 0,08 | | | | | | | | | | | | | ● |
| | DCGT 0702015 FL-BC | 7,70 | 6,35 | 2,38 | 0,15 | | | | | | | | | | | | | ● |
| | DCGT 0702015 FR-BC | 7,70 | 6,35 | 2,38 | 0,15 | | | | | | | | | | | | | ● |
| | DCGT 11T3015 FL-BC | 11,60 | 9,52 | 3,97 | 0,15 | | | | | | | | | | | | | ● |
| | DCGT 11T3015 FR-BC | 11,60 | 9,52 | 3,97 | 0,15 | | | | | | | | | | | | | ● |
| | DCGT 11T3035 FL-BC | 11,60 | 9,52 | 3,97 | 0,35 | | | | | | | | | | | | | ● |
| | DCGT 11T3035 FR-BC | 11,60 | 9,52 | 3,97 | 0,35 | | | | | | | | | | | | | ● |
| | DCGT 04T002-FM | 4,0 | 3,1 | 1,2 | 0,2 | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DCGT 0702008 LC415X

● Verfügbar ab Lager Available from stock

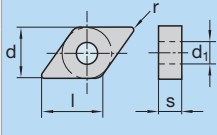
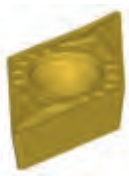



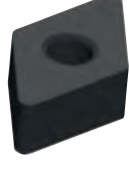
Werkzeuge siehe Seiten 78 / 79 / 92 / 105 -107
 For tool holders see pages 78 / 79 / 92 / 105 - 107
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

|  Bestellbezeichnung Ordering code | Sorte Grade | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|-------|------|------|-----|--------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|--------|--------|--------|--------|
| | | | | | | HC | | | | | | HW/HCHW | | HC | | | | | | | |
| | l | d | s | r | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T |
| DCGT....-P  | DCGT 04T002-P | 3,8 | 3,1 | 1,2 | 0,2 | | | | | | | | | | | ▲ | ▲ | | | | |
| DCMT....-BSMS  | DCMT 11T304-BSMS | 11,60 | 9,52 | 3,97 | 0,4 | | | | | ● | | | | | | | | | ● | | |
| | DCMT 11T308-BSMS | 11,60 | 9,52 | 3,97 | 0,8 | | | | | ● | | | | | | | | | | | |
| DCMT....-F.  | DCMT 070202-FP | 7,70 | 6,35 | 2,38 | 0,2 | ● | ● | | | | | | | | | | | | | ● | |
| | DCMT 070204-FP | 7,70 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | | | | | |
| | DCMT 11T302-FP | 11,60 | 9,52 | 3,97 | 0,2 | ● | ● | | | | | | | | | | | | | | |
| | DCMT 11T304-FP | 11,60 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | | | | | |
| | DCMT 070202-FM | 7,70 | 6,35 | 2,38 | 0,2 | | | | ● | ● | | | | | | | | | | | |
| | DCMT 070204-FM | 7,70 | 6,35 | 2,38 | 0,4 | | | | | ● | ● | | | | | | | | | | |
| | DCMT 11T302-FM | 11,60 | 9,52 | 3,97 | 0,2 | | | | ● | ● | | | | | | | | | | | |
| | DCMT 11T304-FM | 11,60 | 9,52 | 3,97 | 0,4 | | | | | ● | ● | | | | | | | | | | |
| DCMT....-MK  | DCMT 070202-MK | 7,70 | 6,35 | 2,38 | 0,2 | | | | | | | ● | ● | | | | | | | | |
| | DCMT 070204-MK | 7,70 | 6,35 | 2,38 | 0,4 | | | | | | | ● | ● | | | | | | | | |
| | DCMT 11T304-MK | 11,60 | 9,52 | 3,97 | 0,4 | | | | | | | ● | ● | | | | | | | | |
| | DCMT 11T308-MK | 11,60 | 9,52 | 3,97 | 0,8 | | | | | | | ● | | | | | | | | | |
| DCMT....-MM  | DCMT 070204-MM | 7,70 | 6,35 | 2,38 | 0,4 | | | | | ● | | | | | | | | | | | |
| | DCMT 11T304-MM | 11,60 | 9,52 | 3,97 | 0,4 | | | | | ● | ● | | | | | | | | | | |
| | DCMT 11T308-MM | 11,60 | 9,52 | 3,97 | 0,8 | | | | | ● | ● | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DCGT 040102-P LC610T

Werkzeuge siehe Seiten 78 / 79 / 92 / 105 - 107
For tool holders see pages 78 / 79 / 92 / 105 - 107
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| DCMT....-MP  | DCMT 070204-MP | 7,70 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | |
| | DCMT 11T304-MP | 11,60 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | |
| | DCMT 11T308-MP | 11,60 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| DCMT...MT  | DCMT 11T304-MT | 11,60 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | ● | ● |
| | DCMT 11T308-MT | 11,60 | 9,52 | 3,97 | 0,8 | | | | | | | | | | | ● | ● |
| | | | | | | | | | | | | | | | | | |
| DCMW....  | DCMW 11T304 | 11,60 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | ● | |
| | DCMW 11T308 | 11,60 | 9,52 | 3,97 | 0,8 | | | | | | | | | | | ● | |
| | | | | | | | | | | | | | | | | | |
| DNGG...-FMS  | DNGG 150404-FMS | 15,50 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | ● | ● |
| | DNGG 150408-FMS | 15,50 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | ● | ● |
| | DNGG 150412-FMS | 15,50 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | ● | ● |
| | DNGG 150604-FMS | 15,50 | 12,70 | 6,35 | 0,4 | | | | | | | | | | | ● | ● |
| | DNGG 150608-FMS | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | ● | ● |
| | DNGG 150612-FMS | 15,50 | 12,70 | 6,35 | 1,2 | | | | | | | | | | | ● | ● |
| | | | | | | | | | | | | | | | | | |
| DNMA...  | DNMA 150608 | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | ● | |
| | DNMA 150612 | 15,50 | 12,70 | 6,35 | 1,2 | | | | | | | | | | | ● | |
| | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DCMT 070204-MP LCP15T

Werkzeuge siehe Seiten 64 / 69 / 78 / 79 / 92 / 94 / 99 / 105 - 107
 For tool holders see pages 64 / 69 / 78 / 79 / 92 / 94 / 99 / 105 - 107
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124




● Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | |
|--------------------------|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X |
| | DNMG 110404-BFMS | 11,60 | 9,52 | 4,76 | 0,4 | | | | ● | ● | ● | | | | | | | |
| | DNMG 110408-BFMS | 11,60 | 9,52 | 4,76 | 0,8 | | | | | | ● | | | | | | | |
| | DNMG 150604-BFMS | 15,50 | 12,70 | 6,35 | 0,4 | | | | ● | ● | ● | | | | | | | |
| | DNMG 150608-BFMS | 15,50 | 12,70 | 6,35 | 0,8 | | | | ● | ● | ● | | | | | | | |
| | DNMG 150612-HPT | 15,50 | 12,70 | 6,35 | 1,2 | ● | ● | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | DNMG 150608-BMRS | 15,50 | 12,70 | 6,35 | 0,8 | | | | | ● | ● | ● | | | | | | |
| | DNMG 150612-BMRS | 15,50 | 12,70 | 6,35 | 1,2 | | | | | ● | ● | ● | | | | | | |
| | DNMG 110408-BMS | 11,60 | 9,52 | 4,76 | 0,8 | | | | | ● | | | | | | | | |
| | DNMG 150408-BMS | 15,50 | 12,70 | 4,76 | 0,8 | | | | | ● | | | | | | | | |
| | DNMG 150608-BMS | 15,50 | 12,70 | 6,35 | 0,8 | | | | | ● | | | | | | | | |
| | DNMG 150612-BMS | 15,50 | 12,70 | 6,35 | 1,2 | | | | | ● | | | | | | | | |
| | DNMG 110404 EL-BC | 11,60 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | | |
| | DNMG 110404 ER-BC | 11,60 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | | |
| | DNMG 110408 EL-BC | 11,60 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 110408 ER-BC | 11,60 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150404 EL-BC | 15,50 | 12,70 | 4,76 | 0,4 | | ● | | | | | | | | | | | |
| | DNMG 150404 ER-BC | 15,50 | 12,70 | 4,76 | 0,4 | | ● | | | | | | | | | | | |
| | DNMG 150408 EL-BC | 15,50 | 12,70 | 4,76 | 0,8 | | ● | | | | | | | | | | | |
| | DNMG 150408 ER-BC | 15,50 | 12,70 | 4,76 | 0,8 | | ● | | | | | | | | | | | |
| | DNMG 150604 EL-BC | 15,50 | 12,70 | 6,35 | 0,4 | ● | ● | ● | | ● | | | | | | | | |
| | DNMG 150604 ER-BC | 15,50 | 12,70 | 6,35 | 0,4 | ● | ● | ● | | ● | | | | | | | | |
| DNMG 150608 EL-BC | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | ● | | | | | | | | | |
| DNMG 150608 ER-BC | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | ● | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DNMG 110404-BFMS LCM20T

Werkzeuge siehe Seiten 64 / 69 / 94 / 99
For tool holders see pages 64 / 69 / 94 / 99
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X |
|  | DNMG 110404-FMP | 11,60 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | | |
| | DNMG 110408-FMP | 11,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | |
| | DNMG 150408-FMP | 15,50 | 12,70 | 4,76 | 0,8 | | ● | | | | | | | | | | | |
| | DNMG 150604-FMP | 15,50 | 12,70 | 6,35 | 0,4 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150608-FMP | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | | |
|  | DNMG 110404-FP | 11,60 | 9,52 | 4,76 | 0,4 | ● | ● | | | | | | | | | | | |
| | DNMG 110408-FP | 11,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | |
| | DNMG 150404-FP | 15,50 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | | |
| | DNMG 150408-FP | 15,50 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | |
| | DNMG 150604-FP | 15,50 | 12,70 | 6,35 | 0,4 | ● | ● | | | | | | | | | | | |
| | DNMG 150608-FP | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | | | | | | | | | | | |
|  | DNMG 110404-MK | 11,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | | |
| | DNMG 110408-MK | 11,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | |
| | DNMG 150608-MK | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | | | |
|  | DNMG 110408-MP | 11,60 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150408-MP | 15,50 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150412-MP | 15,50 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150608-MP | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150612-MP | 15,50 | 12,70 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150616-MP | 15,50 | 12,70 | 6,35 | 1,6 | ● | ● | | | | | | | | | | | |
|  | DNMG 150608-MRK | 15,50 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | |
| | DNMG 150612-MRK | 15,50 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | |
| | DNMG 150408-MRP | 15,50 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | |
| | DNMG 150412-MRP | 15,50 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150608-MRP | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150612-MRP | 15,50 | 12,70 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150616-MRP | 15,50 | 12,70 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | | |
| | DNMG 150608-MRM | 15,50 | 12,70 | 6,35 | 0,8 | | | | ● | | ● | ● | | | | | | |
| DNMG 150612-MRM | 15,50 | 12,70 | 6,35 | 1,2 | | | | ● | | ● | ● | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DNMG 110404-FMP LCP15T

Werkzeuge siehe Seiten 64 / 69 / 94 / 99
For tool holders see pages 64 / 69 / 94 / 99
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

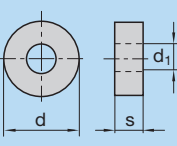




● Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | |
|--|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z |
| | DNMG 110404-MM | 11,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | | | |
| | DNMG 110408-MM | 11,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 150404-MM | 15,50 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | |
| | DNMG 150408-MM | 15,50 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 150604-MM | 15,50 | 12,70 | 6,35 | 0,4 | | | | | | | | | | | | | | |
| | DNMG 150608-MM | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 150612-MM | 15,50 | 12,70 | 6,35 | 1,2 | | | | | | | | | | | | | | |
| | DNMG 150404-MS | 15,50 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | |
| | DNMG 150408-MS | 15,50 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 150412-MS | 15,50 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | |
| | DNMG 150604-MS | 15,50 | 12,70 | 6,35 | 0,4 | | | | | | | | | | | | | | |
| | DNMG 150608-MS | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 150612-MS | 15,50 | 12,70 | 6,35 | 1,2 | | | | | | | | | | | | | | |
| | DNMG 150608-MT | 15,50 | 12,70 | 6,35 | 0,8 | | | | | | | | | | | | | | |
| | DNMG 140405TL20 | 14,00 | 11,95 | 4,76 | 0,5 | ● | ● | | | | | | | | | | | | |
| | DNMG 140405TR20 | 14,00 | 11,95 | 4,76 | 0,5 | ● | ● | | | | | | | | | | | | |
| | DNMG 140405TL25 | 14,00 | 11,95 | 4,76 | 0,5 | | ● | | | | | | | | | | | | |
| | DNMG 140405TR25 | 14,00 | 11,95 | 4,76 | 0,5 | ● | ● | | | | | | | | | | | | |
| | DNMG 140410TL25 | 14,00 | 11,95 | 4,76 | 1,0 | ● | ● | | | | | | | | | | | | |
| | DNMG 140410TR25 | 14,00 | 11,95 | 4,76 | 1,0 | ● | ● | | | | | | | | | | | | |
| | DNMM 150608-RP | 15,50 | 12,70 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | | | |
| | DNMM 150612-RP | 15,50 | 12,70 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | | | |
| | DNMM 150616-RP | 15,50 | 12,70 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces DNMG 110404-MM LCM20T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 64 / 69 / 94 / 99
For tool holders see pages 64 / 69 / 94 / 99
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | |
|--|-------------------------------------|---|-------|------|---|-------------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|
| | | | | | | HC | | | | | | HW/HCHW | | | HC | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | |
| RCGT....-BAL  | RCGT 0602MO-BAL | - | 6,00 | 2,38 | - | | | | | | | | | | | | | | | | | | |
| | RCGT 0803MO-BAL | - | 8,00 | 3,18 | - | | | | | | | | | | | | | | | | | | |
| | RCGT 1003MO-BAL | - | 10,00 | 3,18 | - | | | | | | | | | | | | | | | | | | |
| | RCGT 1204MO-BAL | - | 12,00 | 4,76 | - | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| RCMT....MO  | RCMT 0602MO | - | 6,00 | 2,38 | - | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| RCMT...MT  | RCMT 1606-MT | - | 16,00 | 6,35 | - | | | | | | | | | | | | | | | | | | |
| | RCMT 2006-MT | - | 20,00 | 6,35 | - | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| RCMX....MO  | RCMX 1003MO | - | 10,00 | 3,18 | - | | | | | | | | | | | | | | | | | | |
| | RCMX 1204MO | - | 12,00 | 4,76 | - | | | | | | | | | | | | | | | | | | |
| | RCMX 1606MO | - | 16,00 | 6,35 | - | | | | | | | | | | | | | | | | | | |
| | RCMX 2006MO | - | 20,00 | 6,35 | - | | | | | | | | | | | | | | | | | | |
| | RCMX 2507MO | - | 25,00 | 7,94 | - | | | | | | | | | | | | | | | | | | |
| | RCMX 3209MO | - | 32,00 | 9,52 | - | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces RCGT 0602MO-BAL LC610T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 70 / 80
For tool holders see pages 70 / 80
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|
| | | | | | | HC | | | | | | HW | | | HC | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | |
| SCGT...-BAL  | SCGT 120408-BAL | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | |
| SCMT...  | SCMT 120404 | 12,70 | 12,70 | 4,76 | 0,4 | | | ● | | | | | | | | | | | | | | | | |
| SCMT...-BSM  | SCMT 09T308-BSM | 9,52 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | | | | | | | | |
| | SCMT 120408-BSM | 12,70 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | | | | | | | |
| SCMT....-BSMR  | SCMT 250924-BSMR | 25,40 | 25,40 | 9,52 | 2,4 | ● | ● | ● | | | | | | | | | | | | | | | | |
| SCMT....-BSMS  | SCMT 120408-BSMS | 12,70 | 12,70 | 4,76 | 0,8 | | | | ● | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces SCGT 120408-BAL LC610T

● Verfügbar ab Lager Available from stock

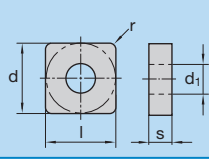

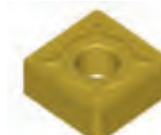
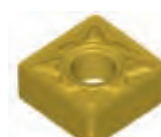

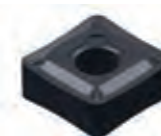
Werkzeuge siehe Seiten 81 / 82
For tool holders see pages 81 / 82
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW/HCHW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| SCMT....-BSR  | SCMT 250916-BSR | 25,40 | 25,40 | 9,52 | 1,6 | ● | ● | ● | | | | | | | | | |
| | SCMT 250924-BSR | 25,40 | 25,40 | 9,52 | 2,4 | ● | ● | | | | | | | | | | |
| SCMT....-FP  | SCMT 09T304-FP | 9,52 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | |
| | SCMT 09T308-FP | 9,52 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | |
| | SCMT 120404-FP | 12,70 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| SCMT....-MK SCMT....-MP  | SCMT 120408-MK | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | SCMT 09T308-MP | 9,52 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | |
| | SCMT 120408-MP | 12,70 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| | SCMT 120412-MP | 12,70 | 12,70 | 4,76 | 1,2 | ● | ● | | | | | | | | | | |
| SCMW....  | SCMW 09T304 | 9,52 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | |
| | SCMW 120404 | 12,70 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | |
| SNMA....  | SNMA 120408 | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | SNMA 120412 | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | |
| | SNMA 120416 | 12,70 | 12,70 | 4,76 | 1,6 | | | | | | | | | | | | |
| | SNMA 190616 | 19,05 | 19,05 | 4,76 | 1,6 | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces SCMT 2509216-BSR LCP15T

Werkzeuge siehe Seiten 64 / 66 / 71 - 72 / 81 - 82 / 100
 For tool holders see pages 64 / 66 / 71 - 72 / 81 - 82 / 100
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | |
|--|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|---|--|
| | | | | | | HC | | | | HW | | HC | | HC | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | |
| SNMG...-BFMS  | SNMG 090304-BFMS | 9,52 | 9,52 | 3,18 | 0,4 | | | | | ● | ● | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| SNMG...-BMRS  | SNMG 120408-BMRS | 12,70 | 12,70 | 4,76 | 0,8 | | | | | ● | | | | | | | | | | | | | |
| | SNMG 120412-BMRS | 12,70 | 12,70 | 4,76 | 1,2 | | | | | ● | ● | | | | | | | | | | | | |
| | SNMG 190612-BMRS | 19,05 | 19,05 | 6,35 | 1,2 | | | | | ● | ● | | | | | | | | | | | | |
| | SNMG 190616-BMRS | 19,05 | 19,05 | 6,35 | 1,6 | | | | | | ● | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| SNMG...-BMS  | SNMG 120408-BMS | 12,70 | 12,70 | 4,76 | 0,8 | | | | | ● | | | | | | | | | | | | | |
| | SNMG 120412-BMS | 12,70 | 12,70 | 4,76 | 1,2 | | | | | ● | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| SNMG....-FMP  | SNMG 090304-FMP | 9,52 | 9,52 | 3,18 | 0,4 | ● | ● | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| SNMG....-FMS  | SNMG 120408-FMS | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | ● | | |
| | SNMG 120412-FMS | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | ● | |
| | | | | | | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces SNMG 090304-BFMS LC435D

Werkzeuge siehe Seiten 64 / 66 / 71 / 72 / 100
 For tool holders see pages 64 / 66 / 71 / 72 / 100
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

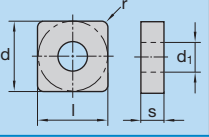




● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| SNMG....-FP  | SNMG 120404-FP | 12,70 | 12,70 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| SNMG....-MM  | SNMG 120408-MM | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | ● | ● | | | | | |
| | SNMG 120412-MM | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | ● | ● | | | | | |
| | SNMG 150612-MM | 15,87 | 15,87 | 6,35 | 1,2 | | | ● | | | ● | ● | | | | | |
| | SNMG 150616-MM | 15,87 | 15,87 | 6,35 | 1,6 | | | ● | | | ● | ● | | | | | |
| | SNMG 190612-MM | 19,05 | 19,05 | 6,35 | 1,2 | | | ● | | | ● | ● | | | | | |
| | SNMG 190616-MM | 19,05 | 19,05 | 6,35 | 1,6 | | | ● | | | ● | ● | | | | | |
| SNMG....-MK SNMG....-MP  | SNMG 120408-MK | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | ● | ● | | | |
| | SNMG 120412-MK | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | | | ● | ● | | | |
| | SNMG 120408-MP | 12,70 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | SNMG 120412-MP | 12,70 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMG 150608-MP | 15,87 | 15,87 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | |
| | SNMG 190612-MP | 19,05 | 19,05 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| SNMG....-MRK  | SNMG 120408-MRK | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | ● | ● | | | |
| | SNMG 120412-MRK | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | | | ● | ● | | | |
| | SNMG 150612-MRK | 15,87 | 15,87 | 4,76 | 1,2 | | | | | | | | ● | ● | | | |
| | SNMG 190612-MRK | 19,05 | 19,05 | 6,35 | 1,2 | | | | | | | | ● | ● | | | |
| | SNMG 190616-MRK | 19,05 | 19,05 | 6,35 | 1,6 | | | | | | | | ● | ● | | | |
| SNMG...-MRP  | SNMG 120408-MRP | 12,70 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | SNMG 120412-MRP | 12,70 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMG 150608-MRP | 15,87 | 15,87 | 6,35 | 0,8 | ● | ● | ● | | | | | | | | | |
| | SNMG 150612-MRP | 15,87 | 15,87 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMG 150616-MRP | 15,87 | 15,87 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | SNMG 190612-MRP | 19,05 | 19,05 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMG 190616-MRP | 19,05 | 19,05 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces SNMG 120404-FP LCP15T

Werkzeuge siehe Seiten 64 / 66 / 71 / 72 / 100
For tool holders see pages 64 / 66 / 71 / 72 / 100
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

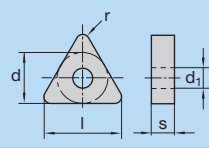

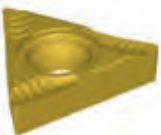
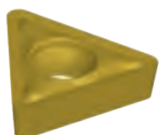
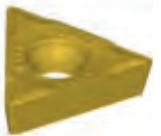
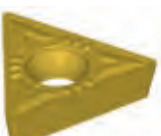
● Verfügbar ab Lager Available from stock

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|--|-------------------------------------|--------|--------|--------|--------|-------------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T |
| SNMG....-MRS  | SNMG 120408-MRS | 12,70 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | |
| | SNMG 120412-MRS | 12,70 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | |
| SNMM...-BR  | SNMM 190616-BR | 19,05 | 19,05 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | SNMM 190624-BR | 19,05 | 19,05 | 6,35 | 2,4 | ● | ● | ● | | | | | | | | | |
| | SNMM 250724-BR | 25,40 | 25,40 | 7,94 | 2,4 | | ● | ● | | | | | | | | | |
| | SNMM 250924-BR | 25,40 | 25,40 | 9,52 | 2,4 | | ● | ● | | | | | | | | | |
| SNMM....-BRP  | SNMM 250724-BRP | 25,40 | 25,40 | 7,94 | 2,4 | ● | ● | ● | | | | | | | | | |
| | SNMM 250732-BRP | 25,40 | 25,40 | 7,94 | 3,2 | ● | ● | ● | | | | | | | | | |
| | SNMM 250924-BRP | 25,40 | 25,40 | 9,52 | 2,4 | ● | ● | ● | | | | | | | | | |
| | SNMM 250932-BRP | 25,40 | 25,40 | 9,52 | 3,2 | ● | ● | ● | | | | | | | | | |
| SNMM....-RP  | SNMM 120408-RP | 12,70 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | SNMM 120412-RP | 12,70 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMM 150612-RP | 15,87 | 15,87 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMM 150616-RP | 15,87 | 15,87 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | SNMM 190612-RP | 19,05 | 19,05 | 6,35 | 1,2 | ● | ● | ● | | | | | | | | | |
| | SNMM 190616-RP | 19,05 | 19,05 | 6,35 | 1,6 | ● | ● | ● | | | | | | | | | |
| | SNMM 190624-RP | 19,05 | 19,05 | 6,35 | 2,4 | ● | ● | ● | | | | | | | | | |
| | SNMM 190632-RP | 19,05 | 19,05 | 6,35 | 3,2 | | ● | ● | | | | | | | | | |
| | SNMM 250724-RP | 25,40 | 25,40 | 7,94 | 2,4 | | ● | ● | | | | | | | | | |
| SNMM....  | SNMM 250716 | 25,40 | 25,40 | 7,94 | 1,6 | | | ● | | | | | | | | | |
| | SNMM 250724 | 25,40 | 25,40 | 7,94 | 2,4 | | ● | ● | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces SNMG 120408-MRS LC415Z

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 64 / 66 / 71 / 72 / 100
For tool holders see pages 64 / 66 / 71 / 72 / 100
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW/HC | | | HW | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
|  | TCGT 110204-BAL | 11,00 | 6,35 | 2,38 | 0,4 | | | | | | | | | | | | |
| | TCGT 16T304-BAL | 16,50 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | |
|  | TCGT 110204 EL-BC | 11,00 | 6,35 | 2,38 | 0,4 | ● | ● | | ● | | | | | | | | |
| | TCGT 110204 ER-BC | 11,00 | 6,35 | 2,38 | 0,4 | ● | | | | | | | | | | | |
| | TCGT 16T304 EL-BC | 16,50 | 9,52 | 3,97 | 0,4 | ● | ● | | ● | | | | | | | | |
| | TCGT 16T304 ER-BC | 16,50 | 9,52 | 3,97 | 0,4 | ● | ● | | ● | | | | | | | | |
| | TCGT 16T308 EL-BC | 16,50 | 9,52 | 3,97 | 0,8 | ● | ● | | ● | | | | | | | | |
| | TCGT 16T308 ER-BC | 16,50 | 9,52 | 3,97 | 0,8 | ● | ● | | ● | | | | | | | | |
|  | TCMT 110204-BSMS | 11,00 | 6,35 | 2,38 | 0,4 | | | | ● | | | | | | | | |
| | TCMT 110208-BSMS | 11,00 | 6,35 | 2,38 | 0,8 | | | | ● | | | | | | | | |
| | TCMT 16T304-BSMS | 16,50 | 9,52 | 3,97 | 0,4 | | | | ● | | | | | | | | |
| | TCMT 16T308-BSMS | 16,50 | 9,52 | 3,97 | 0,8 | | | | ● | | | | | | | | |
|  | TCMT 110202-FP | 11,00 | 6,35 | 2,38 | 0,2 | ● | ● | | | | | | | | | | |
| | TCMT 110204-FP | 11,00 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | |
|  | TCMT 110204-MP | 11,00 | 6,35 | 2,38 | 0,4 | ● | ● | | | | | | | | | | |
| | TCMT 110208-MP | 11,00 | 6,35 | 2,38 | 0,8 | ● | ● | | | | | | | | | | |
| | TCMT 16T304-MP | 16,50 | 9,52 | 3,97 | 0,4 | ● | ● | | | | | | | | | | |
| | TCMT 16T308-MP | 16,50 | 9,52 | 3,97 | 0,8 | ● | ● | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces TCGT 110204-BAL LC610T

Werkzeuge siehe Seiten 83 / 84 / 108
For tool holders see pages 83 / 84 / 108
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

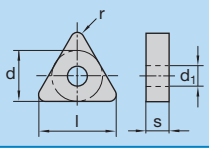





● Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|--|
| | | | | | | HC | | | | | | HW | | | HC | | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | | |
| TCMW... | TCMW 110204 | 11,00 | 6,35 | 2,38 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| | TCMW 16T304 | 16,50 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| TNMA... | TNMA 160408 | 16,50 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| | TNMA 160412 | 16,50 | 9,52 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | |
| | TNMA 220416 | 22,00 | 12,70 | 4,76 | 1,6 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| TNMG...-BFMS | TNMG 160404-BFMS | 16,50 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | | | | | | | | | |
| | TNMG 160408-BFMS | 16,50 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| TNMG....-BMS | TNMG 160408-BMS | 16,50 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| | TNMG 160412-BMS | 16,50 | 9,52 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | |
| | TNMG 220408-BMS | 22,00 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | |
| | TNMG 220412-BMS | 22,00 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | |
| TNMG....-E.-BC | TNMG 160404 EL-BC | 16,50 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | | | | | | | | | |
| | TNMG 160404 ER-BC | 16,50 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | | | | | | | | | |
| | TNMG 160408 EL-BC | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | | | | | | | | |
| | TNMG 160408 ER-BC | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces TCMW 110204 LW611

Werkzeuge siehe Seiten 65 / 66 / 73 / 83 / 84 / 100 / 108
 For tool holders see pages 65 / 66 / 73 / 83 / 84 / 100 / 108
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

● Verfügbar ab Lager Available from stock

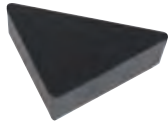
|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW/HCHW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| TNMG...-FMP  | TNMG 160404-FMP | 16,50 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | |
| | TNMG 160408-FMP | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TNMG 160412-FMP | 16,50 | 9,52 | 4,76 | 1,2 | | ● | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| TNMG....-FP  | TNMG 160404 FP | 16,50 | 9,52 | 4,76 | 0,4 | ● | ● | | | | | | | | | | |
| | TNMG 160408 FP | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| TNMG....-MK TNMG....-MP  | TNMG 160408-MK | 16,50 | 9,52 | 4,76 | 0,8 | | | | | | | ● | ● | | | | |
| | | | | | | | | | | | | | | | | | |
| | TNMG 160408-MP | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TNMG 160412-MP | 16,50 | 9,52 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | TNMG 160416-MP | 16,50 | 9,52 | 4,76 | 1,6 | ● | ● | ● | | | | | | | | | |
| | TNMG 220408-MP | 22,00 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TNMG 220412-MP | 22,00 | 12,70 | 4,76 | 1,2 | ● | ● | | | | | | | | | | |
| TNMM....-RP  | TNMM 160408-RP | 16,50 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TNMM 220408-RP | 22,00 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TNMM 220412-RP | 22,00 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| TPMR...-FM  | TPMR 110304-FM | 11,00 | 6,35 | 3,18 | 0,4 | ● | ● | ● | | | | | | | | | |
| | TPMR 110308-FM | 11,00 | 6,35 | 3,18 | 0,8 | ● | ● | ● | | | | | | | | | |
| | TPMR 160304-FM | 16,50 | 9,52 | 3,18 | 0,4 | ● | ● | ● | | | | | | | | | |
| | TPMR 160308-FM | 16,50 | 9,52 | 3,18 | 0,8 | ● | ● | ● | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces TNMG 160404-FMP LCP15T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 65 / 66 / 73 / 100 / 113
For tool holders see pages 65 / 66 / 73 / 100 / 113
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | | | | | Sorte Grade | | | | | | | | | | | | | | | | | | |
|----------------|--|-------|------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|
| | | l | d | s | r | HC | | | | | | HW | | | HC | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | |
| TPUN... | TPUN 160308 | 16,50 | 9,52 | 3,18 | 0,8 | | | | | | | | | | | | | ● | | | | | | |



| | Bestellbezeichnung Ordering code | | | | | Sorte Grade | | | | | | | | | | | | | | | | | | |
|----------------|--|-------|------|-------|------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|---|--|--|
| | | l | d | s | r | HC | | | | | | HW | | | HC | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | |
| VBMT... | VBMT 160404 | 16,60 | 9,52 | 4,760 | 0,4 | ● | ● | | | | | | | | | | | | | | | | | |
| | VBMT 160408 | 16,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | | | | | | | |
| | VBMT 160412 | 16,60 | 9,52 | 4,76 | 1,2 | ● | ● | | | | | | | | | | | | | | | | | |
| | VBMT 160404-MM | 16,60 | 9,52 | 4,76 | 0,4 | | | | | ● | ● | | | | | | | | | | | | | |
| | VBMT 160408-MM | 16,60 | 9,52 | 4,76 | 0,8 | | | | | ● | ● | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| VCGT... | VCGT 1103008 | 11,10 | 6,35 | 3,18 | 0,08 | | | | | | | | | | | | | | | | | ● | | |
| | VCGT 1103015 | 11,10 | 6,35 | 3,18 | 0,15 | | | | | | | | | | | | | | | | | ● | | |



Bestellbeispiel Order example: 10 Stück 10 pieces TPUN 160308 LW610

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 85 - 87 / 93 / 108 - 110 / 113
For tool holders see pages 85 - 87 / 93 / 108 - 110 / 113
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
|  | VCGT 110302-BAL | 11,10 | 6,35 | 3,18 | 0,2 | | | | | | | | | | | | |
| | VCGT 110304-BAL | 11,10 | 6,35 | 3,18 | 0,4 | | | | | | | | | | | | |
| | VCGT 160402-BAL | 16,60 | 9,52 | 4,76 | 0,2 | | | | | | | | | | | | |
| | VCGT 160404-BAL | 16,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | |
| | VCGT 160408-BAL | 16,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | |
| | VCGT 160412-BAL | 16,60 | 9,52 | 4,76 | 1,2 | | | | | | | | | | | | |
| | VCGT 220530-BAL | 22,10 | 12,70 | 5,56 | 3,0 | | | | | | | | | | | | |
|  | VCGT 050102-FM | 5,40 | 3,10 | 1,59 | 0,2 | | | | | | | | | | | | |
|  | VCGT 050102-P | 5,40 | 3,10 | 1,59 | 0,2 | | | | | | | | | | | | |
| | VCGT 070202-P | 6,85 | 3,97 | 2,38 | 0,2 | | | | | | | | | | | | |
| | VCGT 070204-P | 6,85 | 3,97 | 2,38 | 0,4 | | | | | | | | | | | | |
| | VCGT 110302-P | 11,10 | 6,37 | 3,18 | 0,2 | | | | | | | | | | | | |
| | VCGT 110304-P | 11,10 | 6,37 | 3,18 | 0,4 | | | | | | | | | | | | |
| | VCGT 160404-P | 16,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | |
| | VCGT 160408-P | 16,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | |
|  | VCMT 160404-BSMS | 16,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | |
| | VCMT 160408-BSMS | 16,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | |
| | VCMT 160412-BSMS | 16,60 | 9,52 | 4,76 | 1,2 | | | | | | | | | | | | |
|  | VCMT 070202-FP | 6,85 | 3,97 | 2,38 | 0,2 | | | | | | | | | | | | |
| | VCMT 070204-FP | 6,85 | 3,97 | 2,38 | 0,4 | | | | | | | | | | | | |
| | VCMT 110302-FP | 11,10 | 6,37 | 3,18 | 0,2 | | | | | | | | | | | | |
| | VCMT 110304-FP | 11,10 | 6,35 | 3,18 | 0,4 | | | | | | | | | | | | |
| | VCMT 160404-FP | 16,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | |
| | VCMT 160408-FP | 16,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | |
| | VCMT 070202-FM | 6,85 | 3,97 | 2,38 | 0,2 | | | | | | | | | | | | |
| | VCMT 070204-FM | 6,85 | 3,97 | 2,38 | 0,4 | | | | | | | | | | | | |
| | VCMT 110302-FM | 11,10 | 6,35 | 3,18 | 0,2 | | | | | | | | | | | | |
| | VCMT 110304-FM | 11,10 | 6,35 | 3,18 | 0,4 | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces VCGT 110302-BAL LC610T

Werkzeuge siehe Seiten 85-87 / 93 / 108 - 111
For tool holders see pages 85-87 / 93 / 108 - 111
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

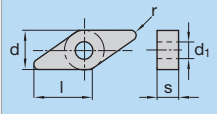

● Verfügbar ab Lager Available from stock

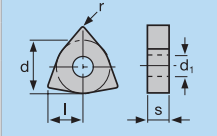



| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | |
|--|-------------------------------------|-------|------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z |
| | VCMT 160404-MP | 16,60 | 9,52 | 4,76 | 0,4 | ● | ● | | | | | | | | | | | | |
| | VCMT 160408-MP | 16,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | | |
| | VCMT 160404-MM | 16,60 | 9,52 | 4,76 | 0,4 | | | | ● | | ● | | | | | | | | |
| | VCMT 160408-MM | 16,60 | 9,52 | 4,76 | 0,8 | | | | ● | | ● | | | | | | | | |
| | VCMT 160412-MM | 16,60 | 9,52 | 4,76 | 1,2 | | | | | | ● | | | | | | | | |
| | VNMG 160404-FP | 16,60 | 9,52 | 4,76 | 0,4 | ● | ● | | | | | | | | | | | | |
| | VNMG 160408-FP | 16,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | | |
| | VNMG 160408-FMP | 16,60 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | | | |
| | VNMG 160404-FMS | 16,60 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | | ● | |
| | VNMG 160408-FMS | 16,60 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | ● | |
| | VNMG 160408-MP | 16,60 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | | |
| | VNMG 160412-MP | 16,60 | 9,52 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces VCMT 160404-MP LCP15T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 67 / 85-87 / 93 / 109
For tool holders see pages 67 / 85-87 / 93 / 109
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | |
|--|--|-------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T |
| VPGT....-BAL  | VPGT 220516-BAL | 22,10 | 12,70 | 5,56 | 1,6 | | | | | | | | | | | | | | | |

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | |
|--|--|------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T |
| WCGT....-BAL  | WCGT 06T302-BAL | 6,50 | 9,52 | 3,97 | 0,2 | | | | | | | | | | | | | | | |
| | WCGT 06T304-BAL | 6,50 | 9,52 | 3,97 | 0,4 | | | | | | | | | | | | | | | |
| | WCGT 06T308-BAL | 6,50 | 9,52 | 3,97 | 0,8 | | | | | | | | | | | | | | | |
| | WCGT 080404-BAL | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | |
| | WCGT 080408-BAL | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | |
| WNGG....-FMS  | WNGG 060408-FMS | 6,50 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | | |
| | WNGG 080404-FMS | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | |
| | WNGG 080408-FMS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | |
| | WNGG 080412-FMS | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | |
| WNGG....-MS  | WNGG 080404-MS | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | |
| | WNGG 080408-MS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | |
| | WNGG 080412-MS | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces VPGT 220516-BAL LW610

Werkzeuge siehe Seiten 65 / 67 / 74 / 88 / 95 / 101 / 112
 For tool holders see pages 65 / 67 / 74 / 88 / 95 / 101 / 112
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

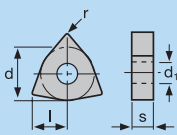





● Verfügbar ab Lager Available from stock

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-------------------------------------|------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--|--|--|--|--|
| | | | | | | HC | | | | | | HW | | | HC | | | | | | | | | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X | LC415Z | BCS10T | BCS20T | | | | | |
| WNMA... | WNMA 080408 | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMA 080412 | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | | |
| WNMG...-BFMS | WNMG 060404-BFMS | 6,50 | 9,52 | 4,76 | 0,4 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080404-BFMS | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080408-BFMS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| WNMG...-BMRS | WNMG 080408-BMRS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080412-BMRS | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | | |
| WNMG...-BMS | WNMG 060408-BMS | 6,50 | 9,52 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080408-BMS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080412-BMS | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080416-BMS | 8,60 | 12,70 | 4,76 | 1,6 | | | | | | | | | | | | | | | | | | | | | |
| WNMG...-E.-BC | WNMG 080404 ER-BC | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080408 EL-BC | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080408 ER-BC | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080412 EL-BC | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | | |
| | WNMG 080412 ER-BC | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces WNMA 080408 BCK10T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 65 / 67 / 74 / 95 / 101
For tool holders see pages 65 / 67 / 74 / 95 / 101
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

|  | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|---|-------------------------------------|------|-------|------|-----|-------------|--------|--------|--------|--------|--------|---------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW/HCHW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
|  | WNMG 060404-FMP | 6,50 | 9,52 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | |
| | WNMG 060408-FMP | 6,50 | 9,52 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| | WNMG 080404-FMP | 8,60 | 12,70 | 4,76 | 0,4 | ● | ● | ● | | | | | | | | | |
| | WNMG 080408-FMP | 8,60 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
|  | WNMG 080408-HPT | 8,60 | 12,70 | 4,76 | 0,8 | ● | ● | | | | | | | | | | |
| | WNMG 080412-HPT | 8,60 | 12,70 | 4,76 | 1,2 | ● | ● | | | | | | | | | | |
|  | WNMG 060404-MM | 6,50 | 9,52 | 4,76 | 0,4 | | | | | | ● | | | | | | |
| | WNMG 080408-MM | 8,60 | 12,70 | 4,76 | 0,8 | | | ● | | ● | | | | | | | |
| | WNMG 080412-MM | 8,60 | 12,70 | 4,76 | 1,2 | | | ● | | ● | | | | | | | |
| | WNMG 080416-MM | 8,60 | 12,70 | 4,76 | 1,6 | | | | | ● | | | | | | | |
|  | WNMG 060408-MK | 6,50 | 9,52 | 4,76 | 0,8 | | | | | | ● | ● | | | | | |
| | WNMG 080404-MK | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | ● | ● | | | | | |
| | WNMG 080408-MK | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | ● | ● | | | | | |
| | WNMG 080412-MK | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | ● | ● | | | | | |
|  | WNMG 060408-MP | 8,60 | 9,52 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | WNMG 080408-MP | 8,60 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | |
| | WNMG 080412-MP | 8,60 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | |
| | WNMG 080416-MP | 8,60 | 12,70 | 4,76 | 1,6 | ● | ● | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces WNMG 060404-FMP LCP15T

● Verfügbar ab Lager Available from stock

Werkzeuge siehe Seiten 65 / 67 / 74 / 95 / 101
For tool holders see pages 65 / 67 / 74 / 95 / 101
Schnittdatenrichtwerte siehe ab Seite 124
For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | | |
|--|-------------------------------------|------|-------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|
| | | | | | | HC | | | | | | HW | | | HC | | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 | LC415X |
| WNMG....-MRK WNMG....-MRP | WNMG 080408-MRK | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | | |
| | WNMG 080412-MRK | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | | |
| | WNMG 080408-MRP | 8,60 | 12,70 | 4,76 | 0,8 | ● | ● | ● | | | | | | | | | | |
| | WNMG 080412-MRP | 8,60 | 12,70 | 4,76 | 1,2 | ● | ● | ● | | | | | | | | | | |
| | WNMG 080416-MRP | 8,60 | 12,70 | 4,76 | 1,6 | ● | ● | ● | | | | | | | | | | |
| WNMG....-MS | WNMG 080404-MS | 8,60 | 12,70 | 4,76 | 0,4 | | | | | | | | | | | ● | | |
| | WNMG 080408-MS | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | ● | |
| | WNMG 080412-MS | 8,60 | 12,70 | 4,76 | 1,2 | | | | | | | | | | | | ● | |
| WNMG...-MT | WNMG 080408-MT | 8,60 | 12,70 | 4,76 | 0,8 | | | | | | | | | | | | ● ● | |
| WNMG....-MRM | WNMG 080408-MRM | 8,60 | 12,70 | 4,76 | 0,8 | | | | ● | | ● | ● | | | | | | |
| | WNMG 080412-MRM | 8,60 | 12,70 | 4,76 | 1,2 | | | | ● | | ● | ● | | | | | | |

Bestellbeispiel Order example: 10 Stück 10 pieces WNMG 080408-MRK BCK10T

Werkzeuge siehe Seiten 65 / 67 / 74 / 95 / 101
 For tool holders see pages 65 / 67 / 74 / 95 / 101
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

| | Bestellbezeichnung Ordering code | l | d | s | r | Sorte Grade | | | | | | | | | | | |
|----------------------|-------------------------------------|---|------|------|-----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| | | | | | | HC | | | | | | HW | | | HC | | |
| | | | | | | LCP15T | LCP25T | LC240F | LCM20T | LC435D | BCM25T | BCM40T | BCK10T | BCK20T | LW611 | LC610T | LW610 |
| XCGT...-P | XCGT 260407-P | - | 9,52 | 4,76 | 0,7 | | | | | | | | | | | | ● |
| | XCGT 260410-P | - | 9,52 | 4,76 | 1,0 | | | | | | | | | | | | ● |
| | XCGT 280408-P | - | 9,45 | 4,76 | 0,8 | | | | | | | | | | | | ● |

Bestellbeispiel Order example: 10 Stück 10 pieces XCGT 260407-P LW610

Werkzeuge siehe Seiten 89
 For tool holders see pages 89
 Schnittdatenrichtwerte siehe ab Seite 124
 For cutting data standard values see from page 124

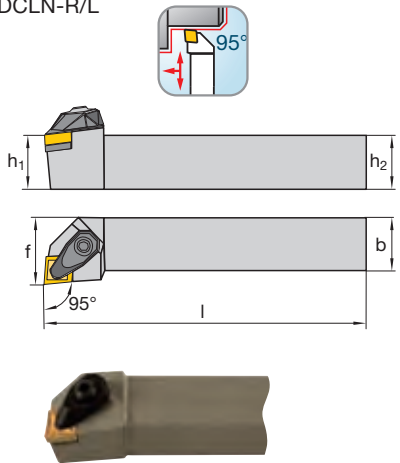
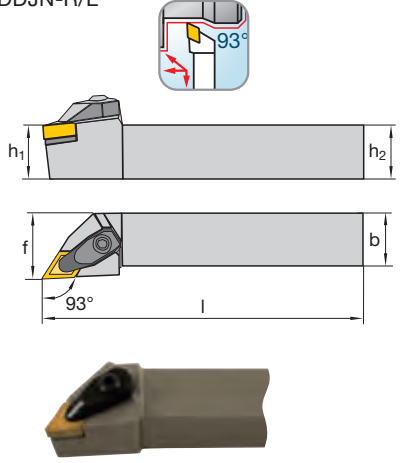
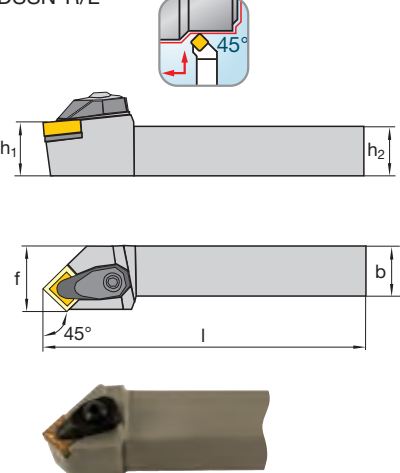
● Verfügbar ab Lager Available from stock

Klemmhalter
Außenbearbeitung
Tool holders
external machining



D-Klemmhalter Außenbearbeitung
Tool holders type D, external machining



| | Bestellbezeichnung Ordering Code | Ident No. | h_1 = h_2 | b | f | l | Verfüg- barkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|-----------|---------------------|-----|-----|-----|------------------------------------|--|---------------|
| DCLN-R/L  | DCLNR 2020 K12 | 5009529 | 20 | 20 | 25 | 125 | ● | CN... 1204.. | 36-40 |
| | DCLNL 2020 K12 | 5009531 | 20 | 20 | 25 | 125 | ○ | | |
| | DCLNR 2525 M12 | 5009454 | 25 | 25 | 32 | 150 | ● | | |
| | DCLNL 2525 M12 | 5009455 | 25 | 25 | 32 | 150 | ● | | |
| DDJN-R/L  | DDJNR 2020 K15 | 5009527 | 20 | 20 | 25 | 125 | ● | DN... 1506.. | 43-46 |
| | DDJNL 2020 K15 | 5009528 | 20 | 20 | 25 | 125 | ○ | | |
| | DDJNR 2525 M15 | 5009452 | 25 | 25 | 32 | 150 | ● | | |
| | DDJNL 2525 M15 | 5009453 | 25 | 25 | 32 | 150 | ● | | |
| DSSN-R/L  | DSSNR 2020 K12 | 5009462 | 20 | 20 | 25 | 125 | ● | SN... 1204.. | 49-52 |
| | DSSNL 2020 K12 | 5009463 | 20 | 20 | 25 | 125 | ○ | | |
| | DSSNR 2525 M12 | 5009456 | 25 | 25 | 32 | 150 | ● | | |
| | DSSNL 2525 M12 | 5009457 | 25 | 25 | 32 | 150 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

Bestellbeispiel: 1 Stück DCLNR 2020 K12
 Order example: 1 piece DCLNR 2020 K12

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

D-Klemmhalter Außenbearbeitung
Tool holders type D, external machining



| | Bestellbezeichnung Ordering Code | Ident No. | h_1 = h_2 | b | f | l | Verfüg- barkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|------------------|-------------------------------------|-----------|---------------------|----|----|-----|------------------------------------|--|---------------|
| DTJNR | DTJNR 2020 K16 | 5009460 | 20 | 20 | 25 | 125 | ● | TN... 1604.. | 54-55 |
| | DTJNL 2020 K16 | 5009461 | 20 | 20 | 25 | 125 | ○ | | |
| | DTJNR 2525 M16 | 5009285 | 25 | 25 | 32 | 150 | ● | | |
| | DTJNL 2525 M16 | 5009451 | 25 | 25 | 32 | 150 | ○ | | |
| DWLNR | DWLNR 2020 K08 | 5009459 | 20 | 20 | 25 | 125 | ● | WN... 0804.. | 59-62 |
| | DWLNL 2020 K08 | 5009458 | 20 | 20 | 25 | 125 | ○ | | |
| | DWLNR 2525 M08 | 5009284 | 25 | 25 | 32 | 150 | ● | | |
| | DWLNL 2525 M08 | 5009283 | 25 | 25 | 32 | 150 | ● | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
Righthand version as shown, lefthand version mirrorlike

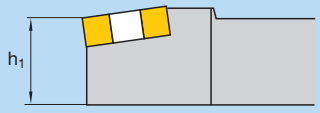

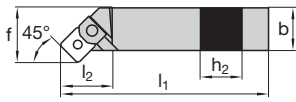


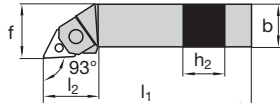

| Ersatzteile Spare parts | Bestellbezeichnung Ordering Code | | | | | | | | | |
|-------------------------|----------------------------------|-------|---------|-----------|---------|---------|-------------|---------|--------|--|
| | | | | | | | Symbolfoto! | | | |
| | | M6210 | V6020 | V01-A0030 | | | | | | |
| DCLNR/L 2020 K12 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013600 | S8012P | |
| DCLNR/L 2525 M12 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013600 | S8012P | |
| DDJNR/L 2020 K15 | 5013591 | DT02N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013601 | S5515P | |
| DDJNR/L 2525 M15 | 5013591 | DT02N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013601 | S5515P | |
| DSSNR/L 2020 K12 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013604 | S9012P | |
| DSSNR/L 2525 M12 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5013607 | VD0408 | 5013604 | S9012P | |
| DTJNR/L 2020 K16 | 5013594 | DT03N | 5013609 | 5013595 | 5013610 | 5013608 | VD0308 | 5013602 | S6016D | |
| DTJNR/L 2525 M16 | 5013594 | DT03N | 5013609 | 5013595 | 5013610 | 5013608 | VD0308 | 5013602 | S6016D | |
| DWLNR/L 2020 K08 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5030344 | VD0408B | 5013603 | S8008P | |
| DWLNR/L 2525 M08 | 5013589 | DT01N | 5013609 | 5013595 | 5013610 | 5030344 | VD0408B | 5013603 | S8008P | |

Bestellbeispiel: 1 Stück DTJNR 2020 K16
Order example: 1 piece DTJNR 2020 K16

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

M-Klemmhalter Außenbearbeitung
Tool holders type M, external machining



|  h ₁ | Bestellbezeichnung Ordering Code | | Ident No. | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|---------------|-----------|---------------------------------------|-----|----------------|----------------|----|-------------------------------|--|---------------|
| | MSSN-R/L | MSSNR 3232P19 | 6406095 | 32 | 32 | 170 | 44 | 40 | | | |
|    | MSSNL 3232P19 | 6406094 | 32 | 32 | 170 | 44 | 40 | ○ | | | |
| | MTJN-R/L | MTJNR 2020K16 | 6406122 | 20 | 20 | 125 | 34 | 25 | ● | TN.. 16.. | 54-55 |
|    | MTJNL 2020K16 | 6406118 | 20 | 20 | 125 | 34 | 25 | ○ | | | |
| | MTJNR 2525M16 | 6406123 | 25 | 25 | 150 | 34 | 32 | ● | | | |
| | MTJNL 2525M16 | 6406119 | 25 | 25 | 150 | 34 | 32 | ● | | | |
| | MTJNR 2525M22 | 6406124 | 25 | 25 | 150 | 35 | 32 | ● | TN.. 22.. | 54-55 | |
| | MTJNL 2525M22 | 6406120 | 25 | 25 | 150 | 35 | 32 | ● | | | |
| | MTJNR 3225P22 | 6406125 | 32 | 25 | 170 | 35 | 40 | ○ | | | |
| | MTJNL 3225P22 | 6406121 | 32 | 25 | 170 | 35 | 40 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts MSSNR/L.. | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|--|--|---|---|---|
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Spannpratzen- satz Clampset |  Schraube Screw |  Stift Pin |  Schlüssel Key |
| 19 | 3232 | B08-S1847 | D08-S19SP* | A11-05008 | E08-07925 | V01-A0040 |
| | | | | | | |
| | | | | | | |

| Ersatzteile Spare parts MTJNR/L.. | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|--|--|---|---|---|
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Spannpratzen- satz Clampset |  Gewindestift Threadpin |  Stift Pin |  Schlüssel Key |
| 16 | 2020-2525 | B08-13416 | D08-12016* | - | E08-11645 | V01-A0050 |
| 22 | 2525-3225 | B08-T2047 | D08-T22SP | A01-06100 | E08-051K8 | V01-A0030 |
| | | | | | | |

Bestellbeispiel: 1 Stück MSSNR 3232P19
 Order example: 1 piece MSSNR 3232P19

Lieferung ohne Schlüssel
 Delivery without key

*Spannpratze und Schraube Sonderausführung/Set
 Clampset with screw special edition/set

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

M-Klemmhalter Außenbearbeitung
Tool holders type M, external machining



| | Bestellbezeichnung Ordering Code | Ident No. | $h_1 = h_2$ | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|-----------------------------|-------------------------------------|-----------|-------------|----|-------|-------|------|-------------------------------|---|---------------|
| MVJN-R/L | MVJNR 2020K16 | 5110666 | 20 | 20 | 125 | 42 | 26 | ● | VN.. 16 | 58 |
| | MVJNL 2020K16 | 5110667 | 20 | 20 | 125 | 42 | 26 | ● | | |
| | MVJNR 2525M16 | 6418107 | 25 | 25 | 150 | 42 | 52 | ● | | |
| | MVJNL 2525M16 | 5110668 | 25 | 25 | 150 | 42 | 52 | ● | | |
| MVVNN | MVVNN 2020K16 | 5110669 | 20 | 20 | 125 | 46 | 10 | ● | VN.. 16 | 58 |
| | MVVNN 2525M16 | 5110670 | 25 | 25 | 150 | 46 | 12,5 | ● | | |
| MWLN-R/L | MWLN R 2020K06 | 6406136 | 20 | 20 | 125 | 26 | 25 | ● | WN.. 06.. | 59-61 |
| | MWLN L 2020K06 | 6406127 | 20 | 20 | 125 | 26 | 25 | ○ | | |
| | MWLN R 2525M06 | 6406139 | 25 | 25 | 150 | 26 | 32 | ● | | |
| | MWLN L 2525M06 | 6406130 | 25 | 25 | 150 | 26 | 32 | ● | | |
| | MWLN R 3225P06 | 6406142 | 32 | 25 | 170 | 26 | 32 | ○ | | |
| | MWLN L 3225P06 | 6406133 | 32 | 25 | 170 | 26 | 32 | ○ | | |
| | MWLN R 2020K08 | 6406138 | 20 | 20 | 125 | 34 | 25 | ● | WN.. 08.. | 59-62 |
| | MWLN L 2020K08 | 6406129 | 20 | 20 | 125 | 34 | 25 | ● | | |
| | MWLN R 2525M08 | 6406141 | 25 | 25 | 150 | 34 | 32 | ● | | |
| | MWLN L 2525M08 | 6406132 | 25 | 25 | 150 | 34 | 32 | ● | | |
| | MWLN R 3225P08 | 6406143 | 32 | 25 | 170 | 34 | 32 | ○ | | |
| | MWLN L 3225P08 | 6406134 | 32 | 25 | 170 | 34 | 32 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts MWLN R/L.. | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|----------------------------------|-----------------------------------|-------------------|--------------|------------------|
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Spannpratzen- satz Clampset | Schraube Screw | Stift Pin | Schlüssel Key |
| 06 | 2020-3225 | B08-W0632 | D08-W06SP | A14-30006 | E08-05610 | V01-A0020 |
| 08 | 2020-3225 | B01-W0831 | D08-12008* | - | E08-11662 | V01-A0025 |
| Ersatzteile Spare parts MV.NR/L.. | | | | | | |
| 16 | 2020-2525 | B09-V1633 | Bm56018 | Bm56017 | E08-03713 | V02-T1500 |

Bestellbeispiel: 1 Stück MVJNR 2020K16
 Order example: 1 piece MVJNR 2020K16

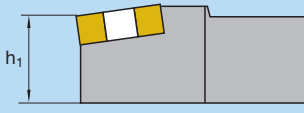
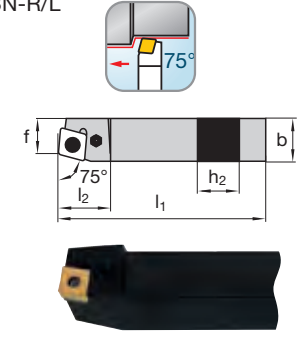
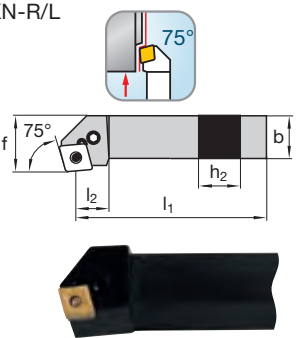
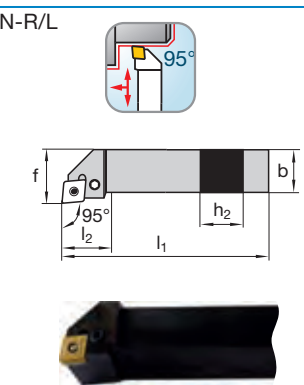

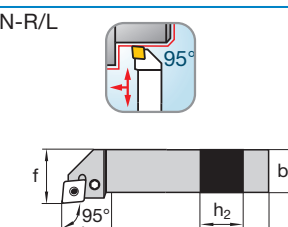
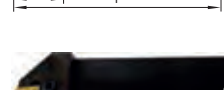
Lieferung ohne Schlüssel
 Delivery without key

*Spannpratze und Schraube Sonderausführung/Set
 Clampset with screw special edition/set

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  PCBN-R/L   | Bestellbezeichnung Ordering Code | | Ident No. | $h_1 = h_2$ | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|---|---|----------------------|-----------|-------------|------|-------|-------|-----------|-------------------------------|---|---------------|
| | PCKN-R/L   | PCKNR 2525M12 | 6406213 | 25 | 25 | 150 | 27,7 | 22 | ● | CN.. 12.. | 36-40 |
| PCKNL 2525M12 | | 6406210 | 25 | 25 | 150 | 27,7 | 22 | ● | | | |
| PCKNR 2525M16 | | 6406214 | 25 | 25 | 150 | 31,7 | 22 | ○ | CN.. 16.. | | |
| PCKNL 2525M16 | | 6406211 | 25 | 25 | 150 | 31,7 | 22 | ○ | | | |
| PCKNR 3232P19 | | 6406216 | 32 | 32 | 170 | 37,9 | 27 | ● | CN.. 19.. | | |
| PCKNL 3232P19 | | 6406212 | 32 | 32 | 170 | 37,9 | 27 | ● | | | |
| PCLN-R/L   | PCLNR 1616H09 | 6406232 | 16 | 16 | 100 | 23 | 20 | ○ | CN.. 09.. | 36-40 | |
| | PCLNL 1616H09 | 6406221 | 16 | 16 | 100 | 23 | 20 | ○ | | | |
| | PCLNR 1616H12 | 6406233 | 16 | 16 | 100 | 26,1 | 20 | ● | CN.. 12.. | | |
| | PCLNL 1616H12 | 6406222 | 16 | 16 | 100 | 26,1 | 20 | ● | | | |
| | PCLNR 2020K12 | 6406234 | 20 | 20 | 125 | 27,4 | 25 | ● | | | |
| | PCLNL 2020K12 | 6406223 | 20 | 20 | 125 | 27,4 | 25 | ● | | | |
| PCLNR 2525M12 | 6406235 | 25 | 25 | 150 | 28 | 32 | ● | | | | |
| PCLNL 2525M12 | 6406224 | 25 | 25 | 150 | 38 | 32 | ● | | | | |
| PCLNR 3225P12 | 6406238 | 32 | 32 | 170 | 38 | 40 | ● | CN.. 16.. | | | |
| PCLNL 3225P12 | 6406227 | 32 | 25 | 170 | 38 | 40 | ● | | | | |
| PCLNR 2525M16 | 6406236 | 25 | 25 | 150 | 28 | 32 | ● | | | | |
| PCLNL 2525M16 | 6406225 | 25 | 25 | 150 | 28 | 32 | ● | | | | |
| PCLNR 3232P16 | 6406239 | 32 | 32 | 170 | 32,6 | 40 | ● | CN.. 19.. | | | |
| PCLNL 3232P16 | 6406229 | 32 | 32 | 170 | 32,6 | 40 | ● | | | | |
| PCLNR 2525M19 | 6406237 | 25 | 25 | 150 | 38 | 32 | ○ | CN.. 19.. | | | |
| PCLNL 2525M19 | 6406226 | 25 | 25 | 150 | 38 | 32 | ○ | | | | |
| PCLNR 3232P19 | 6406240 | 32 | 32 | 170 | 38 | 40 | ● | | | | |
| PCLNL 3232P19 | 6406230 | 32 | 32 | 170 | 38 | 40 | ● | | | | |
| PCLNR 3225P19 | 6406228 | 32 | 25 | 170 | 38 | 40 | ○ | | | | |
| PCLNL 3225P19 | 6406228 | 32 | 25 | 170 | 38 | 40 | ○ | | | | |
| PCLNR 4040S19 | 6406241 | 40 | 40 | 250 | 38 | 50 | ● | CN.. 19.. | | | |
| PCLNL 4040S19 | 6406231 | 40 | 40 | 250 | 38 | 50 | ● | | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|---|---|--|---|---|---|
| PC.NR/L | |  |  |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Hebel Lever | Spannschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 09 | 1616 | B01-C0931 | D02-09120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| 12 | 1616-3225 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 16 | 2525-3232 | B01-C1547 | D02-15173 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 |
| 19 | 2525-4040 | B01-C1847 | D02-19210 | A03-10270 | E01-11011 | V10-30000 | V01-A0040 |

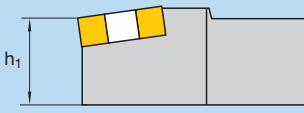

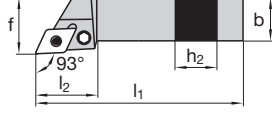


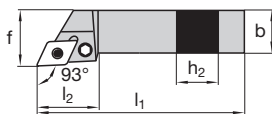


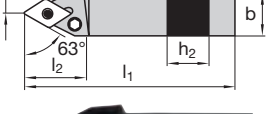


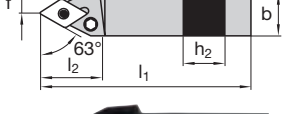

Bestellbeispiel: 1 Stück PCBNR 2525M12
 Order example: 1 piece PCBNR 2525M12

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  | | Bestellbezeichnung Ordering Code | Ident No. | h_1 $=$ h_2 | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|---|--|-------------------------------------|-----------|-----------------------|-----|-------|-------|-----|-------------------------------|--|---------------|
| PDJN-R/L    | PDJNR 1616H11 | 6406255 | 16 | 16 | 100 | 30 | 20 | ● | DN.. 11.. | 44-46 | |
| | PDJNL 1616H11 | 6406244 | 16 | 16 | 100 | 30 | 20 | ● | | | |
| | PDJNR 2020K11 | 6406256 | 20 | 20 | 125 | 30 | 25 | ● | | | |
| | PDJNL 2020K11 | 6406245 | 20 | 20 | 125 | 30 | 25 | ● | | | |
| | PDJNR 2525M11 | 6406259 | 25 | 25 | 150 | 30 | 32 | ● | | | |
| | PDJNL 2525M11 | 6406248 | 25 | 25 | 150 | 30 | 32 | ● | | | |
| | PDJN-R/L    | PDJNR 2020K15 | 6406258 | 20 | 20 | 125 | 34,7 | 25 | ● | DN.. 15.. | 43-46 |
| | | PDJNL 2020K15 | 6406247 | 20 | 20 | 125 | 34,7 | 25 | ● | | |
| | | PDJNR 2525M15 | 6406261 | 25 | 25 | 150 | 34,7 | 32 | ● | | |
| | | PDJNL 2525M15 | 6406250 | 25 | 25 | 150 | 34,7 | 32 | ● | | |
| PDJNR 3225P15 | | 6406263 | 32 | 25 | 170 | 34,7 | 32 | ● | | | |
| PDJNL 3225P15 | | 6406252 | 32 | 25 | 170 | 34,7 | 32 | ● | | | |
| PDJNR 3232P15 | | 6406264 | 32 | 32 | 170 | 34,7 | 40 | ● | | | |
| PDJNL 3232P15 | | 6406253 | 32 | 32 | 170 | 34,7 | 40 | ● | | | |
| PDJN-R/L    | PDJNR 2020K14 | 6406257 | 20 | 20 | 125 | 34,7 | 25 | ○ | DN.. 14.. | 46 | |
| | PDJNL 2020K14 | 6406246 | 20 | 20 | 125 | 34,7 | 25 | ○ | | | |
| | PDJNR 2525M14 | 6406260 | 25 | 25 | 150 | 34,7 | 32 | ● | | | |
| | PDJNL 2525M14 | 6406249 | 25 | 25 | 150 | 34,7 | 32 | ● | | | |
| | PDJNR 3225P14 | 6406262 | 32 | 25 | 170 | 34,7 | 32 | ● | | | |
| | PDJNL 3225P14 | 6406251 | 32 | 25 | 170 | 34,7 | 32 | ○ | | | |
| | PDJNL 4025R14 | 6406254 | 40 | 25 | 200 | 34,7 | 32 | ○ | | | |
| PDNN-R/L    | PDNNR 2525M11 | 6406270 | 25 | 25 | 150 | 30 | 12,5 | ● | DN.. 11.. | 44-46 | |
| | PDNNL 2525M11 | 6406266 | 25 | 25 | 150 | 30 | 12,5 | ○ | | | |
| | PDNNR 2525M15 | 6406271 | 25 | 25 | 150 | 36,5 | 12,5 | ● | DN.. 15.. | 43-46 | |
| | PDNNL 2525M15 | 6406267 | 25 | 25 | 150 | 36,5 | 12,5 | ● | | | |
| | PDNNR 3225P15 | 6406272 | 32 | 25 | 170 | 36,5 | 12,5 | ● | | | |
| | PDNNL 3225P15 | 6406268 | 32 | 25 | 170 | 36,5 | 12,5 | ● | | | |
| | PDNNR 4025P15 | 6406273 | 40 | 25 | 170 | 36,5 | 12,5 | ○ | | | |
| | PDNNL 4025P15 | 6406269 | 40 | 25 | 170 | 36,5 | 12,5 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|---|---|---|---|---|---|
| PD.NR/L | |  |  |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Hebel Lever | Spann- schraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 11 | 1616–2525 | B01-D1131 | D02-10120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| 14 | 2020–4025 | B01-D1331 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ¹⁾ | 2020–4025 | B01-D1448 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ²⁾ | 2020–4025 | B01-D1447 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ³⁾ | 2020–4025 | B01-D1432 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ⁴⁾ | 2020–4025 | B01-D1431 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |

Für WSP DNMG 1504../ for insert DNMG 1504..

Für WSP DNMG 1506../ for insert DNMG 1506..

¹⁾ s = 4,76 mm, r = 0,4; 0,8 mm

³⁾ s = 6,35 mm, r = 0,4; 0,8 mm

²⁾ s = 4,76 mm, r = 1,2; 1,6 mm

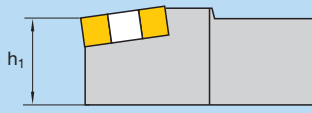
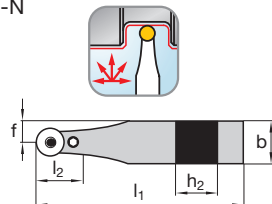

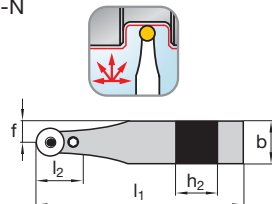
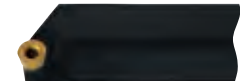
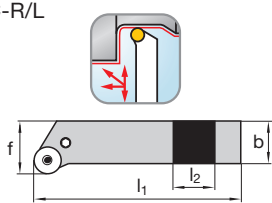

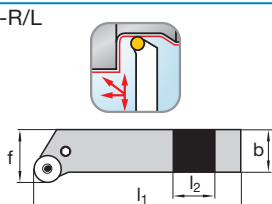

⁴⁾ s = 6,35 mm, r = 1,2; 1,6 mm

Lieferung ohne Schlüssel
 Delivery without key





● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  PRDC-N   | Bestellbezeichnung | Ident No. | h ₁ | h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit | Passende | Seite | |
|---|--------------------|-----------|----------------|----------------|-----|----------------|----------------|---|---------------|--------------|-------|--|
| | Ordering Code | | = | | | | | | Availability | Wendeplatten | Page | |
| PRDC-N   | PRDCN 2020M10 | 6406279 | 20 | 20 | 150 | 22 | 10 | | ● | RCMX 10.. | 47 | |
| | PRDCN 2525M10 | 6406280 | 25 | 25 | 150 | 22 | 12,5 | | ● | | | |
| | PRDCN 2525M12 | 6406281 | 25 | 25 | 150 | 24 | 12,5 | | ● | RCMX 12.. | 47 | |
| | PRDCN 3225P12 | 6406282 | 32 | 25 | 170 | 24 | 12,5 | | ● | | | |
| | PRDCN 3225P16 | 6406283 | 32 | 25 | 170 | 28 | 12,5 | | ● | RCMX 16.. | 47 | |
| | PRDCN 3232P20 | 6406284 | 32 | 32 | 170 | 32 | 16 | | ● | RCMX 20.. | 47 | |
| | PRDCN 4040S25 | 6406285 | 40 | 40 | 250 | 42 | 20 | | ● | RCMX 25.. | 47 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| PRGC-R/L   | PRGCR 2525M12 | 6406292 | 25 | 25 | 150 | | 32 | | ○ | RCMX 12.. | 47 | |
| | PRGCL 2525M12 | 6406286 | 25 | 25 | 150 | | 32 | | ● | | | |
| | PRGCR 3225P12 | 6406293 | 32 | 25 | 170 | | 32 | | ● | | | |
| | PRGCL 3225P12 | 6406287 | 32 | 25 | 170 | | 32 | | ○ | | | |
| | PRGCR 3225P16 | 6406294 | 32 | 25 | 170 | | 32 | | ● | RCMX 16.. | 47 | |
| | PRGCL 3225P16 | 6406288 | 32 | 25 | 170 | | 32 | | ● | | | |
| | PRGCR 3232P16 | 6406295 | 32 | 32 | 170 | | 40 | | ○ | | | |
| | PRGCL 3232P16 | 6406289 | 32 | 32 | 170 | | 40 | | ○ | | | |
| | PRGCR 3232P20 | 6406296 | 32 | 32 | 170 | | 40 | | ● | RCMX 20.. | 47 | |
| | PRGCL 3232P20 | 6406290 | 32 | 32 | 170 | | 40 | | ● | | | |
| PRSCR-R/L   | PRSCR 2020K10 | 6406302 | 20 | 20 | 125 | | 25 | | ● | RCMX 10.. | 47 | |
| | PRSCR 2525M10 | 6406304 | 25 | 25 | 150 | | 32 | | ● | | | |
| | PRSCL 2525M10 | 6406298 | 25 | 25 | 150 | | 32 | | ● | | | |
| | PRSCR 2020K12 | 6406303 | 20 | 20 | 125 | | 25 | | ● | RCMX 12.. | 47 | |
| | PRSCL 2525M12 | 6406299 | 25 | 25 | 150 | | 32 | | ● | | | |
| | PRSCR 3225P12 | 6406306 | 32 | 25 | 170 | | 32 | | ● | | | |
| | PRSCL 3225P12 | 6406301 | 32 | 25 | 170 | | 32 | | ● | | | |
| | PRSCR 2525M16 | 6406305 | 25 | 25 | 150 | | 32 | | ● | RCMX 16.. | 47 | |
| | PRSCL 2525M16 | 6406300 | 25 | 25 | 150 | | 32 | | ● | | | |
| | PRSCR 3225P16 | 6406307 | 32 | 25 | 170 | | 32 | | ● | | | |
| PRSCR 3232P20 | 6406308 | 32 | 32 | 170 | | 40 | | ● | RCMX 20.. | 47 | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | | |
|-------------------------|-------------|---|---|--|---|---|---|--|
| PR.CR/L | |  |  |  |  |  |  | |
| Schneidkantenlänge | Schaftgröße | Unterlage | Hebel | Spannschraube | Spannhülse | Montagedorn | Schlüssel | |
| Cutting edge length | Shank size | Shim | Lever | Fixation screw | Shim pin | Assembly punch | Key | |
| 10 | 2020-2525 | B05-R0831 | D05-10118 | A03-05140 | E01-05405 | V10-10000 | V01-A0020 | |
| 12 | 2525-3225 | B05-R0931 | D05-12133 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 | |
| 16 | 2525-3225 | B05-R1347 | D05-17178 | A03-06210 | E01-07409 | V10-20000 | V01-A0025 | |
| 20 | 3232 | B05-R1747 | D05-19189 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 | |
| 25 | 4040 | B05-R2263 | D05-23235 | A03-10305 | E01-11011 | V10-30000 | V01-A0040 | |

Bestellbeispiel: 1 Stück PRDCN 2020M10
 Order example: 1 piece PRDCN 2020M10

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



| | Bestellbezeichnung Ordering Code | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|-------------------------|-------------------------------------|---------|---------------------------------------|-----|----------------|----------------|------|---|--|---------------|
| | Ident No. | | | | | | | | | |
| PSBN-R/L | PSBNR 2020K12 | 6406318 | 20 | 20 | 125 | 27,5 | 17 | ● | SN.. 12.. | 49-52 |
| | PSBNL 2020K12 | 6406310 | 20 | 20 | 125 | 27,5 | 17 | ● | | |
| | PSBNR 2525M12 | 6406319 | 25 | 25 | 150 | 27,5 | 22 | ● | | |
| | PSBNL 2525M12 | 6406311 | 25 | 25 | 150 | 27,5 | 22 | ● | | |
| | PSBNR 3225P12 | 6406320 | 32 | 25 | 170 | 32 | 22 | ○ | | |
| | PSBNL 3225P12 | 6406312 | 32 | 25 | 170 | 32 | 22 | ○ | | |
| | PSBNR 3232P15 | 6406321 | 32 | 32 | 170 | 32 | 27 | ○ | SN.. 15.. | 51-52 |
| | PSBNL 3232P15 | 6406313 | 32 | 32 | 170 | 32 | 27 | ○ | | |
| | PSBNR 3232P19 | 6406322 | 32 | 32 | 170 | 39,2 | 27 | ● | SN.. 19.. | 49-52 |
| | PSBNL 3232P19 | 6406314 | 32 | 32 | 170 | 39,2 | 27 | ● | | |
| | PSBNR 4040S19 | 6406323 | 40 | 40 | 250 | 38,5 | 35 | ● | | |
| | PSBNL 4040S19 | 6406315 | 40 | 40 | 250 | 38,5 | 35 | ● | | |
| | PSBNR 4040S25 | 6406324 | 40 | 40 | 250 | 47,5 | 35 | ● | SN.. 25.. | 52 |
| | PSBNL 4040S25 | 6406316 | 40 | 40 | 250 | 47,5 | 35 | ● | | |
| PSBNR 5050T25 | 6406325 | 50 | 50 | 300 | 49 | 43 | ● | | | |
| PSBNL 5050T25 | 6406317 | 50 | 50 | 300 | 49 | 43 | ● | | | |
| PSDN-N | PSDNN 1616H09 | 6406326 | 16 | 16 | 100 | 21 | 8,3 | ○ | SN.. 09.. | 50 |
| | PSDNN 2020K12 | 6406327 | 20 | 20 | 125 | 27,6 | 10,3 | ● | SN.. 12.. | 49-52 |
| | PSDNN 2525M12 | 6406328 | 25 | 25 | 150 | 27,6 | 12,8 | ● | | |
| | PSDNN 3225P19 | 6406329 | 32 | 25 | 170 | 40,4 | 13 | ○ | SN.. 19.. | 49-52 |
| | PSDNN 3232P19 | 6406330 | 32 | 32 | 170 | 40,4 | 12,5 | ● | | |
| PSKN-R/L | PSKNR 1616H09 | 6406338 | 16 | 16 | 100 | 18,7 | 20 | ○ | SN.. 09.. | 50 |
| | PSKNL 1616H09 | 6406331 | 16 | 16 | 100 | 18,7 | 20 | ○ | | |
| | PSKNR 2020K12 | 6406339 | 20 | 20 | 125 | 22,7 | 25 | ○ | SN.. 12.. | 49-52 |
| | PSKNL 2020K12 | 6406332 | 20 | 20 | 125 | 22,7 | 25 | ○ | | |
| | PSKNR 2525M12 | 6406340 | 25 | 25 | 150 | 26 | 32 | ○ | | |
| | PSKNL 2525M12 | 6406333 | 25 | 25 | 150 | 26 | 32 | ○ | | |
| | PSKNR 3225P12 | 6406342 | 32 | 25 | 170 | 26 | 32 | ○ | | |
| | PSKNL 3225P12 | 6406335 | 32 | 25 | 170 | 26 | 32 | ○ | | |
| | PSKNR 2525M15 | 6406341 | 25 | 25 | 150 | 30 | 32 | ○ | SN.. 15.. | 51-52 |
| | PSKNL 2525M15 | 6406334 | 25 | 25 | 150 | 30 | 32 | ○ | | |
| | PSKNR 3232P19 | 6406343 | 32 | 32 | 170 | 34 | 40 | ● | SN.. 19.. | 49-52 |
| | PSKNL 3232P19 | 6406336 | 32 | 32 | 170 | 34 | 40 | ● | | |
| | PSKNR 4040S19 | 6406344 | 40 | 40 | 250 | 38 | 50 | ○ | | |
| PSKNL 4040S19 | 6406337 | 40 | 40 | 250 | 38 | 50 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|----------------------------------|----------------|---|------------------------|----------------------------------|------------------|
| PS.NR/L | | | | | | | |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Hebel Lever | Spann- schraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 09 | 1616 | B01-S0931 | D02-09120 | A03-05095 | E01-05405 | V10-10000 | V01-A0025 |
| 12 | 2020-3225 | B01-S1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 | 2525-3232 | B01-S1547 | D02-15173 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 |
| 19 | 3232-4040 | B01-S1847 | D02-19210 | A03-10270 | E01-11011 | V10-30000 | V01-A0040 |
| 25 | 4040-5050 | B01-S2463 | D02-23250 | A03-12360 | E01-15212 | V10-50000 | V01-A0050 |

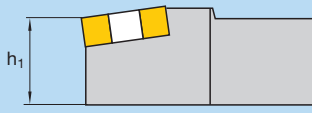

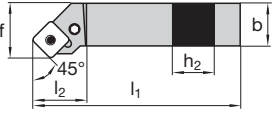

Bestellbeispiel: 1 Stück PSBNR 2020K12
 Order example: 1 piece PSBNR 2020K12

Lieferung ohne Schlüssel
 Delivery without key







● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  PSSN-R/L    | Bestellbezeichnung Ordering Code | | Ident No. | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|----------------------|-----------|---------------------------------------|-----|----------------|----------------|----|---|--|---------------|
| | | PSSNR 1616H09 | 6406352 | 16 | 16 | 100 | 21,2 | 20 | ● | SN.. 09.. | 50 |
| | PSSNL 1616H09 | 6406345 | 16 | 16 | 100 | 21,2 | 20 | ○ | | | |
| | PSSNR 2020K12 | 6406353 | 20 | 20 | 125 | 29,3 | 25 | ● | SN.. 12.. | 49-52 | |
| | PSSNL 2020K12 | 6406346 | 20 | 20 | 125 | 29,3 | 25 | ● | | | |
| | PSSNR 2525M12 | 6406354 | 25 | 25 | 150 | 29,3 | 32 | ● | | | |
| | PSSNL 2525M12 | 6406347 | 25 | 25 | 150 | 29,3 | 32 | ● | | | |
| | PSSNR 3225P12 | 6406356 | 32 | 25 | 170 | 32 | 32 | ○ | | | |
| | PSSNL 3225P12 | 6406349 | 32 | 25 | 170 | 32 | 32 | ○ | | | |
| | PSSNR 2525M15 | 6406355 | 25 | 25 | 150 | 29,3 | 32 | ● | SN.. 15.. | 51-52 | |
| | PSSNL 2525M15 | 6406348 | 25 | 25 | 150 | 29,3 | 32 | ○ | | | |
| | PSSNR 3232P19 | 6406357 | 32 | 32 | 170 | 40,2 | 40 | ○ | SN.. 19.. | 49-52 | |
| | PSSNL 3232P19 | 6406350 | 32 | 32 | 170 | 40,2 | 40 | ○ | | | |
| | PSSNR 4040S19 | 6406358 | 40 | 40 | 250 | 39,5 | 50 | ● | | | |
| | PSSNL 4040S19 | 6406351 | 40 | 40 | 250 | 39,5 | 50 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|---|---|--|---|---|---|
| PSSNR/L | |  |  |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Hebel Lever | Spann- schraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 09 | 1616 | B01-S0931 | D02-09120 | A03-05096 | E01-05405 | V10-10000 | V01-A0025 |
| 12 | 2020-3225 | B01-S1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 | 2525 | B01-S1547 | D02-15173 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 |
| 19 | 3232-4040 | B01-S1847 | D02-19210 | A03-10270 | E01-11011 | V10-30000 | V01-A0040 |
| | | | | | | | |

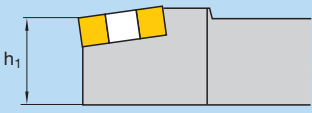

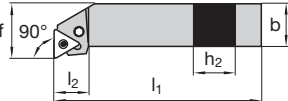


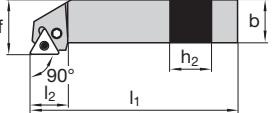




Bestellbeispiel: 1 Stück PSSNR 1616H09
 Order example: 1 piece PSSNR 1616H09

Lieferung ohne Schlüssel
 Delivery without key







● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  | Bestellbezeichnung Ordering Code | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|---------|---------------------------------------|-----|----------------|----------------|----|-------------------------------|--|---------------|
| | Ident No. | | | | | | | | | |
| PTFN-R/L    | PTFNR 1616H16 | 6406364 | 16 | 16 | 100 | 19,7 | 20 | ○ | TN.. 16.. | 54-55 |
| | PTFNL 1616H16 | 6406359 | 16 | 16 | 100 | 19,7 | 20 | ○ | | |
| | PTFNR 2020K16 | 6406365 | 20 | 20 | 125 | 20,2 | 25 | ● | TN.. 22.. | 54-55 |
| | PTFNL 2020K16 | 6406360 | 20 | 20 | 125 | 20,2 | 25 | ○ | | |
| | PTFNR 2525M16 | 6406366 | 25 | 25 | 150 | 20,2 | 32 | ● | TN.. 22.. | 54-55 |
| | PTFNL 2525M16 | 6406361 | 25 | 25 | 150 | 20,2 | 32 | ○ | | |
| | PTFNR 2525M22 | 6406367 | 25 | 25 | 150 | 25,2 | 32 | ● | TN.. 22.. | 54-55 |
| | PTFNL 2525M22 | 6406362 | 25 | 25 | 150 | 25,2 | 32 | ● | | |
| | PTFNR 3225P22 | 6406368 | 32 | 25 | 170 | 25,2 | 32 | ○ | TN.. 22.. | 54-55 |
| | PTFNL 3225P22 | 6406363 | 32 | 25 | 170 | 25,2 | 32 | ○ | | |
| PTGN-R/L    | PTGNR 1616H16 | 6406376 | 16 | 16 | 100 | 20 | 20 | ● | TN.. 16.. | 54-55 |
| | PTGNL 1616H16 | 6406369 | 16 | 16 | 100 | 20 | 20 | ○ | | |
| | PTGNR 2020K16 | 6406377 | 20 | 20 | 125 | 20 | 25 | ● | TN.. 22.. | 54-55 |
| | PTGNL 2020K16 | 6406370 | 20 | 20 | 125 | 20 | 25 | ○ | | |
| | PTGNR 2525M16 | 6406378 | 25 | 25 | 150 | 22,2 | 32 | ● | TN.. 22.. | 54-55 |
| | PTGNL 2525M16 | 6406371 | 25 | 25 | 150 | 22,2 | 32 | ○ | | |
| | PTGNR 3225P16 | 6406380 | 32 | 25 | 170 | 22,2 | 32 | ○ | TN.. 22.. | 54-55 |
| | PTGNL 3225P16 | 6406373 | 32 | 25 | 170 | 22,2 | 32 | ○ | | |
| | PTGNR 2525M22 | 6406379 | 25 | 25 | 150 | 25,2 | 32 | ● | TN.. 22.. | 54-55 |
| | PTGNL 2525M22 | 6406372 | 25 | 25 | 150 | 25,2 | 32 | ● | | |
| PTGNR 3232P22 | 6406381 | 32 | 32 | 170 | 28,7 | 40 | ○ | TN.. 22.. | 54-55 | |
| PTGNL 3232P22 | 6406374 | 32 | 32 | 170 | 28,7 | 40 | ○ | | | |
| PTTN-R/L    | PTTNR 2020K16 | 6406417 | 20 | 20 | 125 | 25,9 | 17 | ○ | TN.. 16.. | 54-55 |
| | PTTNL 2020K16 | 6406415 | 20 | 20 | 125 | 25,9 | 17 | ○ | | |
| | PTTNR 2525M22 | 6406418 | 25 | 25 | 150 | 31,9 | 22 | ○ | TN.. 22.. | 54-55 |
| | PTTNL 2525M22 | 6406416 | 25 | 25 | 150 | 31,9 | 22 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|---|---|---|---|---|---|
| PT.NR/L | |  |  |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Hebel Lever | Spann- schraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 16 | 1616 – 3225 | B01-T1527 | D02-09120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| 22 | 2525 – 3232 | B01-T2031 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| | | | | | | | |
| | | | | | | | |

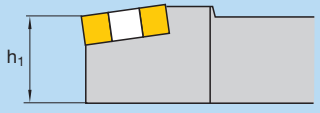

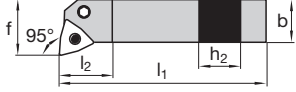

Bestellbeispiel: 1 Stück PTFNR 1616H16
Order example: 1 piece PTFNR 1616H16

Lieferung ohne Schlüssel
Delivery without key


● Verfügbar ab Lager Available from stock
○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung
Tool holders type P, external machining



|  Bestellbezeichnung Ordering Code | Ident No. | h ₁ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page | |
|---|-----------------------|---------------------|----|----------------|----------------|----|-------------------------------|--|---------------|-------|
| | | = h ₂ | | | | | | | | |
| PWLN-R/L    | PWLN R 1616H06 | 6406425 | 16 | 16 | 100 | 20 | 20 | ● | WN.. 06.. | 59-61 |
| | PWLN L 1616H06 | 6406419 | 16 | 16 | 100 | 20 | 20 | ○ | | |
| | PWLN R 2020K06 | 6406426 | 20 | 20 | 125 | 25 | 25 | ● | | |
| | PWLN L 2020K06 | 6406420 | 20 | 20 | 125 | 25 | 25 | ● | | |
| | PWLN R 2525M06 | 6406428 | 25 | 25 | 150 | 25 | 32 | ○ | | |
| | PWLN L 2525M06 | 6406422 | 25 | 25 | 150 | 25 | 32 | ○ | | |
| | PWLN R 2020K08 | 6406427 | 20 | 20 | 125 | 25 | 25 | ● | WN.. 08.. | 59-62 |
| | PWLN L 2020K08 | 6406421 | 20 | 20 | 125 | 25 | 25 | ● | | |
| | PWLN R 2525M08 | 6406429 | 25 | 25 | 150 | 25 | 32 | ● | | |
| | PWLN L 2525M08 | 6406423 | 25 | 25 | 150 | 25 | 32 | ● | | |
| | PWLN R 3225P08 | 6406430 | 32 | 25 | 170 | 25 | 32 | ● | | |
| | PWLN L 3225P08 | 6406424 | 32 | 25 | 170 | 25 | 32 | ● | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts PWLN R/L | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|--|---|---|---|---|---|
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Hebel Lever |  Spann- schraube Fixation screw |  Spannhülse Shim pin |  Montagedorn Assembly punch |  Schlüssel Key |
| 06 | 1616-2525 | B01-W0627 | D02-09120 | A03-06170 | E01-05807 | V10-10000 | V01-A0025 |
| 08 | 2020-3225 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| | | | | | | | |
| | | | | | | | |

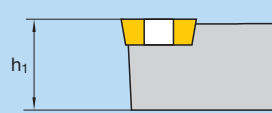
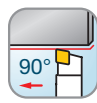
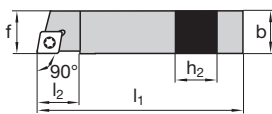


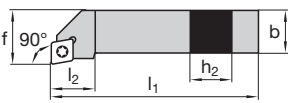

Bestellbeispiel: 1 Stück PWLN R 1616H06
 Order example: 1 piece PWLN R 1616H06

Lieferung ohne Schlüssel
 Delivery without key




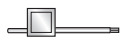
● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  Bestellbezeichnung Ordering Code | Ident No. | $h_1 = h_2$ | b | l_1 | l_2 | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page | | | |
|---|---------------|---------------|---------|-------|-------|-----|---|--|---------------|-----------|-----------|-------|
| | | | | | | | | | | | | |
| SCAC-R/L    | SCACR 0808D06 | 6406571 | 8 | 8 | 60 | 9 | 8 | ○ | CC.. 06.. | 34-35 | | |
| | SCACL 0808D06 | 6406562 | 8 | 8 | 60 | 9 | 8 | ○ | | | | |
| | SCACR 0808K06 | 6406572 | 8 | 8 | 125 | 9 | 8 | ○ | | | | |
| | SCACL 0808K06 | 6406563 | 8 | 8 | 125 | 9 | 8 | ○ | | | | |
| | SCACR 1010E06 | 6406573 | 10 | 10 | 70 | 9 | 10 | ○ | | | | |
| | SCACL 1010E06 | 6406564 | 10 | 10 | 70 | 9 | 10 | ○ | | | | |
| | SCACR 1010M06 | 6406574 | 10 | 10 | 150 | 9 | 10 | ○ | | | | |
| | SCACL 1010M06 | 6406565 | 10 | 10 | 150 | 9 | 10 | ○ | | | | |
| | SCACR 1212F09 | 6406575 | 12 | 12 | 80 | 13 | 12 | ○ | | | CC.. 09.. | 34-35 |
| | SCACL 1212F09 | 6406566 | 12 | 12 | 80 | 13 | 12 | ○ | | | | |
| | SCACR 1212M09 | 6406576 | 12 | 12 | 150 | 13 | 12 | ○ | | | | |
| | SCACL 1212M09 | 6406567 | 12 | 12 | 150 | 13 | 12 | ○ | | | | |
| | SCACR 1414M09 | 6406577 | 14 | 14 | 150 | 13 | 14 | ○ | | | | |
| | SCACL 1414M09 | 6406568 | 14 | 14 | 150 | 13 | 14 | ○ | | | | |
| | SCACR 1616H09 | 6406578 | 16 | 16 | 100 | 13 | 16 | ○ | | | CC.. 12.. | 34-35 |
| | SCACL 1616H09 | 6406569 | 16 | 16 | 100 | 13 | 16 | ○ | | | | |
| | SCACR 2020K12 | 6406579 | 20 | 20 | 125 | 17 | 20 | ○ | | | | |
| | SCACL 2020K12 | 6406570 | 20 | 20 | 125 | 17 | 20 | ○ | | | | |
| SCDC-L | SCDCL 0808K06 | 6406580 | 8 | 8 | 125 | 13 | 4 | ○ | CC.. 06.. | 34-35 | | |
| | SCDCL 1010M06 | 6406581 | 10 | 10 | 150 | 13 | 5 | ○ | CC.. 09.. | 34-35 | | |
| | SCDCL 1212M09 | 6406582 | 12 | 12 | 150 | 18 | 6 | ○ | | | | |
| | SCDCL 1414M09 | 6406583 | 14 | 14 | 150 | 18 | 7 | ○ | | | | |
| SCFC-R/L    | SCFCR 0808D06 | 6406589 | 8 | 8 | 60 | 10 | 8 | ○ | CC.. 06.. | 34-35 | | |
| | SCFCL 0808D06 | 6406584 | 8 | 8 | 60 | 10 | 8 | ○ | | | | |
| | SCFCR 1010E06 | 6406590 | 10 | 10 | 70 | 10 | 10 | ○ | | | | |
| | SCFCL 1010E06 | 6406585 | 10 | 10 | 70 | 10 | 10 | ○ | | | | |
| | | SCFCR 1212F09 | 6406591 | 12 | 12 | 80 | 13 | 12 | ○ | CC.. 09.. | 34-35 | |
| | | SCFCL 1212F09 | 6406586 | 12 | 12 | 80 | 13 | 12 | ○ | | | |
| | | SCFCR 1616H09 | 6406592 | 16 | 16 | 100 | 13 | 16 | ● | | | |
| | | SCFCL 1616H09 | 6406587 | 16 | 16 | 100 | 13 | 16 | ○ | | | |
| | | SCFCR 2020K12 | 6406593 | 20 | 20 | 125 | 17 | 20 | ● | CC.. 12.. | 34-35 | |
| | | SCFCL 2020K12 | 6406588 | 20 | 20 | 125 | 17 | 20 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|---|---|---|
| SC.CR/L | |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 06 | 0808–1010 | – | – | A02-25059 | V02-T0800 |
| 09 | 1212–1414 | – | – | A02-35082 | V02-T1500 |
| 09 | 1616–2020 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| 12 | 1616–2020 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 |

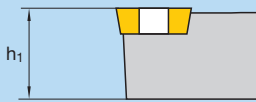
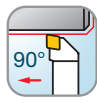
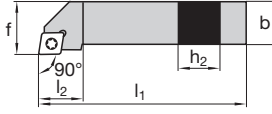
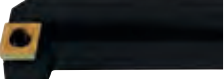

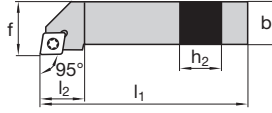


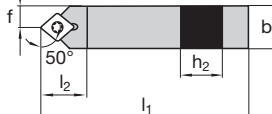

Bestellbeispiel: 1 Stück SCFCR 0808D06
 Order example: 1 piece SCFCR 0808D06

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | Bestellbezeichnung Ordering Code | | Ident No. | h_1 = h_2 | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|--|--|----------------------|-----------|------------------|-----|-------|-------|------|-------------------------------|---|---------------|
| | SCGC-R/L    | SCGCR 2020K12 | 6406595 | 20 | 20 | 125 | 17 | 25 | 25 | ○ | CC.. 12.. |
| | SCGCL 2020K12 | 6406594 | 20 | 20 | 125 | 17 | 25 | 25 | ○ | | |
| SCLC-R/L    | SCLCR 0808D06 | 6406614 | 8 | 8 | 60 | 9 | 8 | 8 | ● | CC.. 06.. | 34-35 |
| | SCLCL 0808D06 | 6406605 | 8 | 8 | 60 | 9 | 8 | 8 | ● | | |
| | SCLCR 1010E06 | 6406615 | 10 | 10 | 70 | 9 | 12 | 12 | ● | | |
| | SCLCR 1212F09 | 6406616 | 12 | 12 | 80 | 15 | 16 | 16 | ● | CC.. 09.. | 34-35 |
| | SCLCL 1212F09 | 6406607 | 12 | 12 | 80 | 15 | 16 | 16 | ● | | |
| | SCLCR 1616H09 | 6406617 | 16 | 16 | 100 | 17 | 20 | 20 | ● | | |
| | SCLCL 1616H09 | 6406608 | 16 | 16 | 100 | 17 | 20 | 20 | ● | | |
| | SCLCR 2020K09 | 6406619 | 20 | 20 | 125 | 17 | 25 | 25 | ● | | |
| | SCLCL 2020K09 | 6406610 | 20 | 20 | 125 | 17 | 25 | 25 | ● | | |
| | SCLCR 1616H12 | 6406618 | 16 | 16 | 100 | 20 | 20 | 20 | ● | CC.. 12.. | 34-35 |
| | SCLCL 1616H12 | 6406609 | 16 | 16 | 100 | 20 | 20 | 20 | ● | | |
| | SCLCR 2020K12 | 6406620 | 20 | 20 | 125 | 20 | 25 | 25 | ● | | |
| | SCLCL 2020K12 | 6406611 | 20 | 20 | 125 | 20 | 25 | 25 | ● | | |
| | SCLCR 2525M12 | 6406621 | 25 | 25 | 150 | 20 | 32 | 32 | ● | | |
| | SCLCL 2525M12 | 6406612 | 25 | 25 | 150 | 20 | 32 | 32 | ● | | |
| | SCLCR 3225P12 | 6406622 | 32 | 25 | 170 | 20 | 32 | 32 | ● | | |
| | SCLCL 3225P12 | 6406613 | 32 | 25 | 170 | 20 | 32 | 32 | ● | | |
| SCMC-N    | SCMCN 1616H12 | 6406623 | 16 | 16 | 100 | 25 | 8 | 8 | ○ | CC.. 12.. | 34-35 |
| | SCMCN 2020K12 | 6406624 | 20 | 20 | 125 | 25 | 10 | 10 | ● | | |
| | SCMCN 2525M12 | 6406625 | 25 | 25 | 150 | 25 | 12,5 | 12,5 | ● | | |
| | SCMCN 3225P12 | 6406626 | 32 | 25 | 170 | 25 | 12,5 | 12,5 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts SC.C.R/L | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|--|--|--|
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Gewindehülse Shim screw |  Klemmschraube Fixation screw |  Schlüssel Key |
| 06 | 0808 – 1010 | – | – | A02-25059 | V02-T0800 |
| 09 | 1212 | – | – | A02-35082 | V02-T1500 |
| 09 | 1616 – 2020 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| 12 | 1616 – 3225 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 |

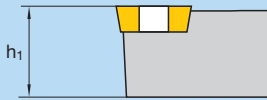

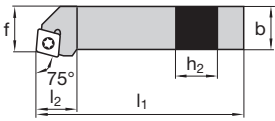


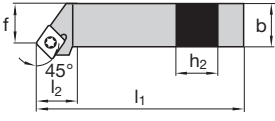

Bestellbeispiel: 1 Stück SCLCR 0808D06
 Order example: 1 piece SCLCR 0808D06

Lieferung ohne Schlüssel
 Delivery without key




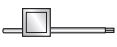
● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | Bestellbezeichnung Ordering Code | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page | |
|---|---|----------------------|---------------------------------------|---------|----------------|----------------|---------|-------------------------------|--|---------------|-------|
| | Ident No. | | | | | | | | | | |
| <p>SCRCR-R/L</p>    | SCRCR 0808D06 | 6406647 | 8 | 8 | 60 | 10 | 9 | ○ | CC.. 06.. | 34-35 | |
| | SCRCL 0808D06 | 6406638 | 8 | 8 | 60 | 10 | 9 | ○ | | | |
| | SCRCR 1010E06 | 6406648 | 10 | 10 | 70 | 10 | 11 | ○ | | | |
| | SCRCL 1010E06 | 6406639 | 10 | 10 | 70 | 10 | 11 | ○ | | | |
| | <p>SCRCR 1212F09</p> <p>SCRCR 1616H09</p> <p>SCRCR 2020K09</p> | 6406649 | 6406640 | 6406650 | 6406641 | 6406652 | 6406643 | | | CC.. 09.. | 34-35 |
| | | SCRCL 1212F09 | 6406640 | 12 | 12 | 80 | 16 | 13 | ○ | | |
| | | SCRCL 1616H09 | 6406641 | 16 | 16 | 100 | 17 | 17 | ○ | | |
| | | SCRCL 1616H09 | 6406641 | 16 | 16 | 100 | 17 | 17 | ○ | | |
| | | SCRCL 2020K09 | 6406652 | 20 | 20 | 125 | 17 | 22 | ○ | | |
| | | SCRCL 2020K09 | 6406643 | 20 | 20 | 125 | 17 | 22 | ○ | | |
| | <p>SCRCR 1616H12</p> <p>SCRCR 2020K12</p> <p>SCRCR 2525M12</p> <p>SCRCR 3225P12</p> | 6406651 | 6406642 | 6406653 | 6406644 | 6406654 | 6406645 | 6406655 | 6406646 | CC.. 12.. | 34-35 |
| | | SCRCL 1616H12 | 6406642 | 16 | 16 | 100 | 20 | 17 | ○ | | |
| | | SCRCL 2020K12 | 6406653 | 20 | 20 | 125 | 20 | 22 | ○ | | |
| | | SCRCL 2020K12 | 6406644 | 20 | 20 | 125 | 20 | 22 | ○ | | |
| | | SCRCL 2525M12 | 6406654 | 25 | 25 | 150 | 20 | 27 | ○ | | |
| | | SCRCL 2525M12 | 6406645 | 25 | 25 | 150 | 20 | 27 | ○ | | |
| | | SCRCL 3225P12 | 6406655 | 32 | 25 | 170 | 20 | 27 | ○ | | |
| | | SCRCL 3225P12 | 6406646 | 32 | 25 | 170 | 20 | 27 | ○ | | |
| <p>SCSCR-R/L</p>    | SCSCR 1616H12 | 6406660 | 16 | 16 | 100 | 20 | 20 | ○ | CC.. 12.. | 34-35 | |
| | SCSCL 1616H12 | 6406656 | 16 | 16 | 100 | 20 | 20 | ○ | | | |
| | SCSCR 2020K12 | 6406661 | 20 | 20 | 125 | 20 | 25 | ● | | | |
| | SCSCL 2020K12 | 6406657 | 20 | 20 | 125 | 20 | 25 | ○ | | | |
| | SCSCR 2525M12 | 6406662 | 25 | 25 | 150 | 20 | 32 | ● | | | |
| | SCSCL 2525M12 | 6406658 | 25 | 25 | 150 | 20 | 32 | ○ | | | |
| | SCSCR 3225P12 | 6406663 | 32 | 25 | 170 | 20 | 32 | ○ | | | |
| | SCSCL 3225P12 | 6406659 | 32 | 25 | 170 | 20 | 32 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts SC.CR/L | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|---|--|---|--|--|
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Gewindehülse Shim screw |  Klemm- schraube Fixation screw |  Schlüssel Key | |
| 06 | 0808 – 1010 | – | – | A02-25059 | V02-T0800 | |
| 09 | 1212 | – | – | A02-35082 | V02-T1500 | |
| 09 | 1616 – 2020 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 | |
| 12 | 1616 – 3225 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 | |

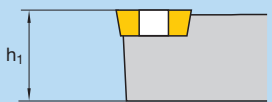
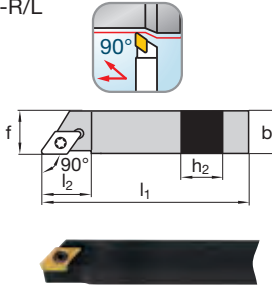
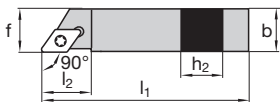
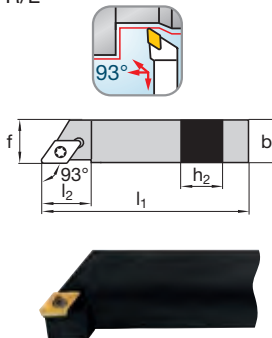
Bestellbeispiel: 1 Stück SCRCR 0808D06
 Order example: 1 piece SCRCR 0808D06

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | Bestellbezeichnung Ordering Code | | Ident No. | | h_1 | h_2 | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | | | |
|---|--|-----------------|---------------|---------|---------|-------|-----|-------|-------|-----|-------------------------------|---|---------------|-----------|-----------|-------|
| | SDACR | SDACL | SDHCR | SDHCL | SDJCR | SDJCL | | | | | | | | | | |
|  | SDACR 0808K07 | SDACL 0808K07 | 6406673 | 6406668 | 8 | 8 | 8 | 125 | 14 | 8 | ● | DC.. 07.. | 41-43 | | | |
| | SDACR 1010M07 | SDACL 1010M07 | 6406674 | 6406669 | 10 | 10 | 10 | 150 | 14 | 10 | ● | | | | | |
| | SDACR 1010X07-D | SDACL 1010X07-D | 6424956 | 6424954 | 10 | 10 | 10 | 115 | 15 | 10 | ○ | | | | | |
| | SDACR 1212M07 | SDACL 1212M07 | 6406675 | 6406670 | 12 | 12 | 12 | 150 | 14 | 12 | ● | | | | | |
| | SDACR 1212X07-D | SDACL 1212X07-D | 6424957 | 6424955 | 12 | 12 | 12 | 130 | 15 | 12 | ● | | | | | |
| | SDACR 1212M11 | SDACL 1212M11 | 6406676 | 6406671 | 12 | 12 | 12 | 150 | 21 | 12 | ● | | | DC.. 11.. | 41-43 | |
| | SDACR 1414M11 | SDACL 1414M11 | 6406677 | 6406672 | 14 | 14 | 14 | 150 | 21 | 14 | ○ | | | | | |
| | SDACR 1414M11 | SDACL 1414M11 | 6406677 | 6406672 | 14 | 14 | 14 | 150 | 21 | 14 | ● | | | | | |
| | SDACR 1414M11 | SDACL 1414M11 | 6406677 | 6406672 | 14 | 14 | 14 | 150 | 21 | 14 | ● | | | | | |
| |  | SDHCR 1010E07 | SDHCL 1010E07 | 6406683 | 6406678 | 10 | 10 | 10 | 70 | 5,5 | 12 | | | ○ | DC.. 07.. | 41-43 |
| | | SDHCR 1212F07 | SDHCL 1212F07 | 6406684 | 6406679 | 12 | 12 | 12 | 80 | 12 | 16 | | | ● | | |
| | | SDHCR 1212F07 | SDHCL 1212F07 | 6406684 | 6406679 | 12 | 12 | 12 | 80 | 12 | 16 | | | ○ | | |
| SDHCR 1616H11 | | SDHCL 1616H11 | 6406685 | 6406680 | 16 | 16 | 16 | 100 | 10,4 | 20 | ● | DC.. 11.. | 41-43 | | | |
| SDHCR 2020K11 | | SDHCL 2020K11 | 6406686 | 6406681 | 20 | 20 | 20 | 125 | 14 | 25 | ● | | | | | |
| SDHCR 2525M11 | | SDHCL 2525M11 | 6406687 | 6406682 | 25 | 25 | 25 | 150 | 20 | 32 | ● | | | | | |
| SDHCR 2525M11 | | SDHCL 2525M11 | 6406687 | 6406682 | 25 | 25 | 25 | 150 | 20 | 32 | ● | | | | | |
| SDHCR 2525M11 | | SDHCL 2525M11 | 6406687 | 6406682 | 25 | 25 | 25 | 150 | 20 | 32 | ● | | | | | |
| SDHCR 2525M11 | | SDHCL 2525M11 | 6406687 | 6406682 | 25 | 25 | 25 | 150 | 20 | 32 | ● | | | | | |
|  | | SDJCR 0808D07 | SDJCL 0808D07 | 6406717 | 6406708 | 8 | 8 | 8 | 60 | 13 | 10 | ○ | DC.. 07.. | 41-43 | | |
| | SDJCR 1010E07 | SDJCL 1010E07 | 6406718 | 6406709 | 10 | 10 | 10 | 70 | 13 | 12 | ● | | | | | |
| | SDJCR 1010X07-D | SDJCL 1010X07-D | 6424962 | 6424958 | 10 | 10 | 10 | 115 | 15 | 10 | ● | | | | | |
| | SDJCR 1212F07 | SDJCL 1212F07 | 6406719 | 6406710 | 12 | 12 | 12 | 80 | 14,5 | 16 | ● | | | | | |
| | SDJCR 1212F07 | SDJCL 1212F07 | 6406719 | 6406710 | 12 | 12 | 12 | 80 | 14,5 | 16 | ● | | | | | |
| | SDJCR 1212X07-D | SDJCL 1212X07-D | 6424963 | 6424959 | 12 | 12 | 12 | 130 | 15 | 12 | ○ | | | | | |
| | SDJCR 1212X07-D | SDJCL 1212X07-D | 6424959 | 6424959 | 12 | 12 | 12 | 130 | 15 | 12 | ● | | | | | |
| | SDJCR 1212F11 | SDJCL 1212F11 | 6406720 | 6406711 | 12 | 12 | 12 | 80 | 22 | 16 | ● | DC.. 11.. | | | 41-43 | |
| | SDJCR 1212X11-D | SDJCL 1212X11-D | 6424964 | 6424960 | 12 | 12 | 12 | 130 | 15 | 12 | ○ | | | | | |
| | SDJCR 1616H11 | SDJCL 1616H11 | 6406721 | 6406712 | 16 | 16 | 16 | 100 | 20 | 20 | ● | | | | | |
| | SDJCR 1616H11 | SDJCL 1616H11 | 6406712 | 6406712 | 16 | 16 | 16 | 100 | 20 | 20 | ● | | | | | |
| | SDJCR 1616X11-D | SDJCL 1616X11-D | 6424965 | 6424961 | 16 | 16 | 16 | 130 | 20 | 16 | ● | | | | | |
| | SDJCR 2020K11 | SDJCL 2020K11 | 6406722 | 6406713 | 20 | 20 | 20 | 125 | 20,5 | 25 | ● | | | | | |
| | SDJCR 2525M11 | SDJCL 2525M11 | 6406723 | 6406714 | 25 | 25 | 25 | 150 | 21,5 | 32 | ● | | | | | |
| | SDJCR 3225P11 | SDJCL 3225P11 | 6406725 | 6406716 | 32 | 25 | 25 | 150 | 21,25 | 32 | ● | | | | | |
| | SDJCR 3225P11 | SDJCL 3225P11 | 6406716 | 6406716 | 32 | 25 | 25 | 150 | 21,25 | 32 | ● | | | | | |
| | SDJCR 2525M15 | SDJCL 2525M15 | 6406724 | 6406715 | 25 | 25 | 25 | 150 | 26 | 32 | ● | | DC.. 15.. | | | |
| | SDJCR 2525M15 | SDJCL 2525M15 | 6406715 | 6406715 | 25 | 25 | 25 | 150 | 26 | 32 | ● | | | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

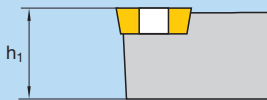
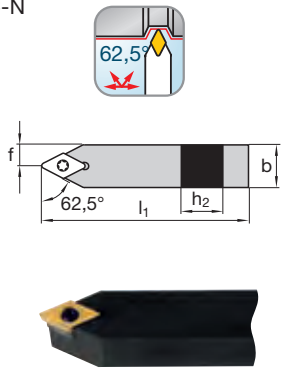
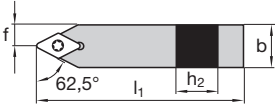
Bestellbeispiel: 1 Stück SDACR 0808K07
 Order example: 1 piece SDACR 0808K07

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  h ₁ | | | | | | | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|-----------|---------------------------------------|----|----------------|------|-------------------------------|--|---------------|
| | Bestellbezeichnung Ordering Code | Ident No. | h ₁ = h ₂ | b | l ₁ | f | | | |
| SDNC-N   | SDNCN 0808D07 | 6406734 | 8 | 8 | 60 | 4 | ○ | DC.. 07.. | 41-43 |
| | SDNCN 0808K07 | 6406735 | 8 | 8 | 125 | 4 | ○ | | |
| | SDNCN 1010E07 | 6406736 | 10 | 10 | 70 | 5 | ● | | |
| | SDNCN 1010M07 | 6406737 | 10 | 10 | 150 | 5 | ● | | |
| | SDNCN 1212F07 | 6406738 | 12 | 12 | 80 | 6 | ● | | |
| | SDNCN 1212M07 | 6406740 | 12 | 12 | 150 | 6 | ● | | |
| | SDNCN 1212F11 | 6406739 | 12 | 12 | 80 | 6 | ○ | DC.. 11.. | 41-43 |
| | SDNCN 1212M11 | 6406741 | 12 | 12 | 150 | 6 | ○ | | |
| | SDNCN 1414M11 | 6406742 | 14 | 14 | 150 | 7 | ○ | | |
| | SDNCN 1616H11 | 6406743 | 16 | 16 | 100 | 8 | ● | | |
| | SDNCN 2020K11 | 6406744 | 20 | 20 | 125 | 10 | ● | | |
| | SDNCN 2525M11 | 6406745 | 25 | 25 | 150 | 12,5 | ● | | |

| Ersatzteile Spare parts SD.CR/L | | Bestellbezeichnung Ordering Code | | | | | |
|---|---------------------------|---|--|---|--|--|--|
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Gewindehülse Shim screw |  Klemm- schraube Fixation screw |  Schlüssel Key | | |
| 07 | 0808 – 1212 | – | – | A02-25059 | V02-T0800 | | |
| 11 | 1212 – 1414 | – | – | A02-35082 | V02-T1500 | | |
| 11 | 1616 – 2525 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 | | |
| 15 | 2525 | B02-D1431 | E02-60045 | A02-45102 | V05-T1534 | | |

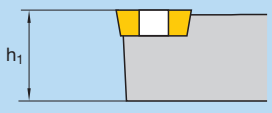
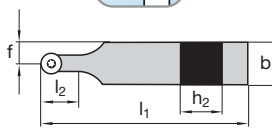


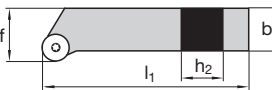

Bestellbeispiel: 1 Stück SDNCN 0808D07
 Order example: 1 piece SDNCN 0808D07

Lieferung ohne Schlüssel
 Delivery without key





- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  SRDC-N   | Bestellbezeichnung Ordering Code | | Ident No. | h_1 = h_2 | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|--|-------------------------------------|---------|-----------|---------------------|------|-------|-------|-----------|-------------------------------|---|---------------|
| | SRDCN 1212F06 | 6406989 | 12 | 12 | 80 | 12,4 | 6 | ● | RCGT 06.. | 47 | |
| SRDCN 1616H06 | 6406990 | 16 | 16 | 100 | 12,4 | 8 | ● | RCMT 06.. | | | |
| SRDCN 2020K06 | 6406994 | 20 | 20 | 125 | 12,4 | 10 | ● | | | | |
| SRDCN 2525M06 | 6406997 | 25 | 25 | 150 | 12,4 | 12,5 | ● | | | | |
| SRDCN 1616H08 | 6406991 | 16 | 16 | 100 | 16,4 | 8 | ○ | RCGT 08.. | 47 | | |
| SRDCN 2020K08 | 6406995 | 20 | 20 | 125 | 16,4 | 10 | ● | | | | |
| SRDCN 2525M08 | 6406998 | 25 | 25 | 150 | 16,4 | 12,5 | ● | | | | |
| SRDCN 1616H10 | 6406992 | 16 | 16 | 100 | 20,3 | 8 | ● | RCGT 10.. | 47 | | |
| SRDCN 2020K10 | 6406996 | 20 | 20 | 125 | 20,3 | 10 | ● | | | | |
| SRDCN 2525M10 | 6406999 | 25 | 25 | 150 | 20,3 | 12,5 | ● | | | | |
| SRGC-R/L    | SRGCR 1212F06 | 6407010 | 12 | 12 | 80 | 10 | 16 | ○ | RCGT 06.. | 47 | |
| SRGCL 1212F06 | 6407000 | 12 | 12 | 80 | 10 | 16 | ○ | RCMT 06.. | | | |
| SRGCR 1616H06 | 6407011 | 16 | 16 | 100 | 10 | 20 | ○ | RCMT 06.. | | | |
| SRGCL 1616H06 | 6407001 | 16 | 16 | 100 | 10 | 20 | ○ | RCMT 06.. | | | |
| SRGCR 2020K06 | 6407014 | 20 | 20 | 125 | 11,5 | 25 | ○ | | | | |
| SRGCL 2020K06 | 6407004 | 20 | 20 | 125 | 11,5 | 25 | ○ | | | | |
| SRGCR 2525M06 | 6407017 | 25 | 25 | 150 | 15 | 32 | ○ | | | | |
| SRGCL 2525M06 | 6407007 | 25 | 25 | 150 | 15 | 32 | ○ | | | | |
| SRGCR 1616H08 | 6407012 | 16 | 16 | 100 | 11 | 20 | ○ | RCGT 08.. | 47 | | |
| SRGCL 1616H08 | 6407002 | 16 | 16 | 100 | 11 | 20 | ○ | | | | |
| SRGCR 2020K08 | 6407015 | 20 | 20 | 125 | 12 | 25 | ○ | | | | |
| SRGCL 2020K08 | 6407005 | 20 | 20 | 125 | 12 | 25 | ○ | | | | |
| SRGCR 2525M08 | 6407018 | 25 | 25 | 150 | 16,4 | 32 | ○ | | | | |
| SRGCL 2525M08 | 6407008 | 25 | 25 | 150 | 16,4 | 32 | ○ | | | | |
| SRGCR 1616H10 | 6407013 | 16 | 16 | 100 | 12 | 20 | ○ | RCGT 10.. | 47 | | |
| SRGCL 1616H10 | 6407003 | 16 | 16 | 100 | 12 | 20 | ○ | | | | |
| SRGCR 2020K10 | 6407016 | 20 | 20 | 125 | 13,5 | 25 | ○ | | | | |
| SRGCL 2020K10 | 6407006 | 20 | 20 | 125 | 13,5 | 25 | ○ | | | | |
| SRGCR 2525M10 | 6407019 | 25 | 25 | 150 | 17 | 32 | ○ | | | | |
| SRGCL 2525M10 | 6407009 | 25 | 25 | 150 | 17 | 32 | ○ | | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts SR.CN/R/L | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|---|--|--|--|--|
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size |  Unterlage Shim |  Gewindehülse Shim screw |  Klemmschraube Fixation screw |  Schlüssel Key | |
| 06 | 1212-2525 | - | - | A02-25059 | V02-T0800 | |
| 08 | 1616-2525 | - | - | A13-30073 | V02-T1500 | |
| 10 | 1616-2525 | B09-R1025 | E09-F5035 | A13-35110 | V05-T1534 | |

Bestellbeispiel: 1 Stück SRDCN 1212F06
 Order example: 1 piece SRDCN 1212F06

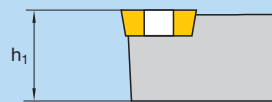

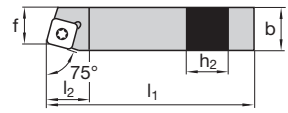
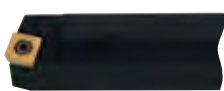

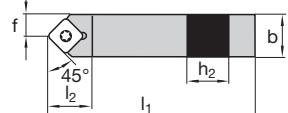


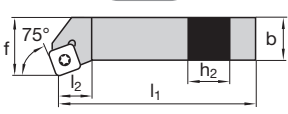

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung

Tool holders type S, external machining



|  | Bestellbezeichnung | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit | Passende | Seite | |
|--|---|----------------------|------------------------------------|----|----------------|----------------|------|---------------|-----------|-----------|--------------|
| | Ordering Code | Ident No. | | | | | | | | | Wendeplatten |
| SSBC-R/L    | SSBCR 1616H09 | 6407024 | 16 | 16 | 100 | 20 | 13 | ○ | SC.. 09.. | 48-49 | |
| | SSBCL 1616H09 | 6407020 | 16 | 16 | 100 | 20 | 13 | ○ | | | |
| | SSBCR 2020K09 | 6407025 | 20 | 20 | 125 | 20 | 17 | ○ | | | |
| | SSBCL 2020K09 | 6407021 | 20 | 20 | 125 | 20 | 17 | ○ | | | |
| | SSBCR 2020K12 | 6407026 | 20 | 20 | 125 | 20 | 17 | ○ | SC.. 12.. | 48-49 | |
| | SSBCL 2020K12 | 6407022 | 20 | 20 | 125 | 20 | 17 | ○ | | | |
| | SSBCR 2525M12 | 6407027 | 25 | 25 | 150 | 20 | 22 | ○ | | | |
| | SSBCL 2525M12 | 6407023 | 25 | 25 | 150 | 20 | 22 | ○ | | | |
| | SSDC-N    | SSDCN 1212F09 | 6407028 | 12 | 12 | 80 | 16 | 6 | ● | SC.. 09.. | 48-49 |
| | | SSDCN 1616H09 | 6407029 | 16 | 16 | 100 | 20 | 8 | ● | | |
| SSDCN 2020K09 | | 6407030 | 20 | 20 | 125 | 20 | 10 | ● | | | |
| SSDCN 1616H12 | | 6407031 | 16 | 16 | 100 | 25 | 8 | ○ | SC.. 12.. | 48-49 | |
| SSDCN 2020K12 | | 6407032 | 20 | 20 | 125 | 25 | 10 | ● | | | |
| SSDCN 2525M12 | | 6407033 | 25 | 25 | 150 | 25 | 12,5 | ● | | | |
| | | | | | | | | | | | |
| SSKC-R/L    | SSKCR 1616H09 | 6407039 | 16 | 16 | 100 | 22 | 20 | ● | SC.. 09.. | 48-49 | |
| | SSKCL 1616H09 | 6407034 | 16 | 16 | 100 | 22 | 20 | ○ | | | |
| | SSKCR 2020K09 | 6407041 | 20 | 20 | 125 | 22 | 25 | ○ | | | |
| | SSKCL 2020K09 | 6407036 | 20 | 20 | 125 | 22 | 25 | ○ | | | |
| | SSKCR 1616H12 | 6407040 | 16 | 16 | 100 | 23 | 20 | ○ | SC.. 12.. | 48-49 | |
| | SSKCL 1616H12 | 6407035 | 16 | 16 | 100 | 23 | 20 | ○ | | | |
| | SSKCR 2020K12 | 6407042 | 20 | 20 | 125 | 23 | 25 | ● | | | |
| | SSKCL 2020K12 | 6407037 | 20 | 20 | 125 | 23 | 25 | ○ | | | |
| | SSKCR 2525M12 | 6407043 | 25 | 25 | 150 | 23 | 32 | ● | | | |
| | SSKCL 2525M12 | 6407038 | 25 | 25 | 150 | 23 | 32 | ● | | | |
| | | | | | | | | | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | |
|---|---------------------------|---|---|---|---|--|
| SS.CN/R/L | |  |  |  |  | |
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key | |
| 09 | 1212 | - | - | A02-35082 | V02-T1500 | |
| 09 | 1616-2020 | B09-S0923 | E09-F5035 | A02-35096 | V05-T1534 | |
| 12 | 1616-2525 | B09-S1231 | E09-F6045 | A02-45102 | V05-T1534 | |

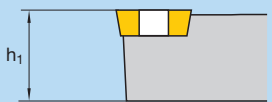

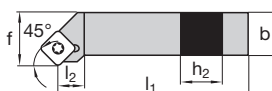

Bestellbeispiel: 1 Stück SSBCR 1616H09
 Order example: 1 piece SSBCR 1616H09

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | Bestellbezeichnung | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|---|----------------------|-----------|---------------------------------------|----|----------------|----------------|----|---|--|---------------|
| | Ordering Code | Ident No. | | | | | | | | |
| <p>SSSC-R/L</p>    | SSSCR 1212F09 | 6407051 | 12 | 12 | 80 | 18 | 16 | ● | SC.. 09.. | 48-49 |
| | SSSCL 1212F09 | 6407044 | 12 | 12 | 80 | 18 | 16 | ○ | | |
| | SSSCR 1616H09 | 6407052 | 16 | 16 | 100 | 20 | 20 | ● | | |
| | SSSCL 1616H09 | 6407045 | 16 | 16 | 100 | 20 | 20 | ○ | | |
| | SSSCR 2020K09 | 6407054 | 20 | 20 | 125 | 20 | 25 | ● | | |
| | SSSCL 2020K09 | 6407047 | 20 | 20 | 125 | 20 | 25 | ○ | SC.. 12.. | 48-49 |
| | SSSCR 1616H12 | 6407053 | 16 | 16 | 100 | 25 | 20 | ● | | |
| | SSSCL 1616H12 | 6407046 | 16 | 16 | 100 | 25 | 20 | ○ | | |
| | SSSCR 2020K12 | 6407055 | 20 | 20 | 125 | 25 | 25 | ● | | |
| | SSSCL 2020K12 | 6407048 | 20 | 20 | 125 | 25 | 25 | ○ | | |
| | SSSCR 2525M12 | 6407056 | 25 | 25 | 150 | 25 | 32 | ● | | |
| | SSSCL 2525M12 | 6407049 | 25 | 25 | 150 | 25 | 32 | ○ | | |
| | SSSCR 3225P12 | 6407057 | 32 | 25 | 170 | 25 | 32 | ○ | | |
| | SSSCL 3225P12 | 6407050 | 32 | 25 | 170 | 25 | 32 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|---|--|---|
| SSSCR/L | |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 09 | 1212 | – | – | A02-35082 | V02-T1500 |
| 09 | 1616–2020 | B09-S0923 | E09-F5035 | A02-35096 | V05-T1534 |
| 12 | 1616–3225 | B09-S1231 | E09-F6045 | A02-45102 | V05-T1534 |
| | | | | | |
| | | | | | |

Bestellbeispiel: 1 Stück SSSCR 1212F09
 Order example: 1 piece SSSCR 1212F09

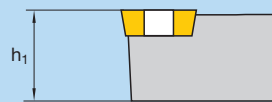
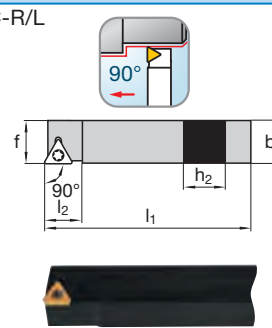
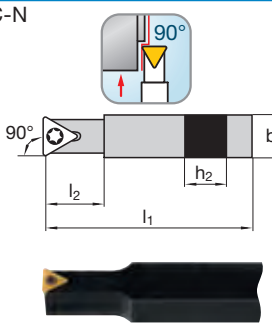
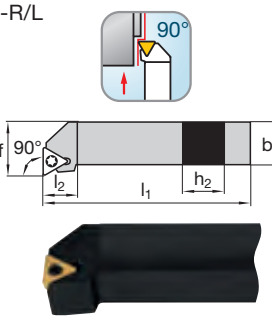
Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung

Tool holders type S, external machining



|  | Bestellbezeichnung | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|----------------------|-----------|---------------------------------------|----|----------------|----------------|----|-------------------------------|--|---------------|
| | Ordering Code | Ident No. | | | | | | | | |
| STAC-R/L  | STACR 1212K11 | 6407061 | 12 | 12 | 125 | 15 | 12 | ● | TC.. 11.. | 53-55 |
| | STACL 1212K11 | 6407058 | 12 | 12 | 125 | 15 | 12 | ○ | | |
| | STACR 1414K11 | 6407062 | 14 | 14 | 125 | 15 | 14 | ○ | | |
| | STACL 1414K11 | 6407059 | 14 | 14 | 125 | 15 | 14 | ○ | | |
| | STACR 1616K11 | 6407063 | 16 | 16 | 125 | 15 | 16 | ○ | | |
| | STACL 1616K11 | 6407060 | 16 | 16 | 125 | 15 | 16 | ○ | | |
| STCC-N  | STCCN 1010K11 | 6407074 | 10 | 10 | 125 | 15 | - | ○ | TC.. 11.. | 53-55 |
| | STCCN 1212K11 | 6407075 | 12 | 12 | 125 | 15 | - | ○ | | |
| | STCCN 1414K11 | 6407076 | 14 | 14 | 125 | 21 | - | ○ | | |
| | STCCN 1616K11 | 6407077 | 16 | 16 | 125 | 24 | - | ● | | |
| STFC-R/L  | STFCR 1212F11 | 6407104 | 12 | 12 | 80 | 15 | 16 | ● | TC.. 11.. | 53-55 |
| | STFCL 1212F11 | 6407100 | 12 | 12 | 80 | 15 | 16 | ○ | | |
| | STFCR 1616H16 | 6407105 | 16 | 16 | 100 | 20 | 20 | ○ | TC.. 16.. | 53-55 |
| | STFCL 1616H16 | 6407101 | 16 | 16 | 100 | 20 | 20 | ○ | | |
| | STFCR 2020K16 | 6407106 | 20 | 20 | 125 | 20 | 25 | ○ | | |
| | STFCL 2020K16 | 6407102 | 20 | 20 | 125 | 20 | 25 | ○ | | |
| | STFCR 2525M16 | 6407107 | 25 | 25 | 150 | 20 | 32 | ● | | |
| | STFCL 2525M16 | 6407103 | 25 | 25 | 150 | 20 | 32 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|---|---|---|
| ST.CR/L | |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
| 11 | 1010 – 1616 | – | – | A02-25059 | V02-T0800 |
| 16 | 1616 – 2525 | B09-T1631 | E09-F5035 | A02-35096 | V05-T1534 |
| | | | | | |
| | | | | | |
| | | | | | |

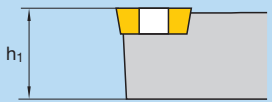

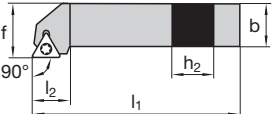

Bestellbeispiel: 1 Stück STACR 1212K11
 Order example: 1 piece STACR 1212 K11

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | Bestellbezeichnung | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|---|----------------------|-----------|---------------------------------------|----|----------------|----------------|----|---|--|---------------|
| | Ordering Code | Ident No. | | | | | | | | |
| STGC-R/L    | STGCR 1212F11 | 6407112 | 12 | 12 | 80 | 15 | 16 | ● | TC.. 11.. | 53-55 |
| | STGCL 1212F11 | 6407108 | 12 | 12 | 80 | 15 | 16 | ○ | | |
| | STGCR 1616H16 | 6407113 | 16 | 16 | 100 | 22 | 20 | ● | TC.. 16.. | 53-55 |
| | STGCL 1616H16 | 6407109 | 16 | 16 | 100 | 22 | 20 | ● | | |
| | STGCR 2020K16 | 6407114 | 20 | 20 | 125 | 22 | 25 | ● | | |
| | STGCL 2020K16 | 6407110 | 20 | 20 | 125 | 22 | 25 | ● | | |
| | STGCR 2525M16 | 6407115 | 25 | 25 | 150 | 22 | 32 | ● | | |
| | STGCL 2525M16 | 6407111 | 25 | 25 | 150 | 22 | 32 | ○ | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|---|--|---|
| STGCR/L | |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 11 | 1212 | - | - | A02-25059 | V02-T0800 |
| 16 | 1616-2525 | B09-T1631 | E09-F5035 | A02-35096 | V05-T1534 |
| | | | | | |
| | | | | | |

Bestellbeispiel: 1 Stück STGCR 1212F11
 Order example: 1 piece STGCR 1212 F11

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung

Tool holders type S, external machining



| | Bestellbezeichnung | | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|----------------------|----------------------|-----------|---------------------------------------|-----|----------------|----------------|----|-------------------------------|--|---------------|
| | Ordering Code | Ident No. | | | | | | | | |
| | SVHBR 2020K16 | 6407118 | 20 | 20 | 125 | 17 | 25 | ● | VB.. 16.. | 56 |
| | SVHBL 2020K16 | 6407116 | 20 | 20 | 125 | 17 | 25 | ● | | |
| | SVHBR 2525M16 | 6407119 | 25 | 25 | 150 | 26 | 32 | ● | | |
| | SVHBL 2525M16 | 6407117 | 25 | 25 | 150 | 26 | 32 | ● | | |
| | SVHCR 1212F11 | 6407130 | 12 | 12 | 80 | 11,4 | 16 | ● | VC.. 11.. | 56-57 |
| | SVHCL 1212F11 | 6407120 | 12 | 12 | 80 | 11,4 | 16 | ● | | |
| | SVHCR 1616H11 | 6407131 | 16 | 16 | 100 | 11,4 | 20 | ● | | |
| | SVHCL 1616H11 | 6407121 | 16 | 16 | 100 | 11,4 | 20 | ● | | |
| | SVHCR 2020K11 | 6407132 | 20 | 20 | 125 | 14,6 | 25 | ● | | |
| | SVHCL 2020K11 | 6407122 | 20 | 20 | 125 | 14,6 | 25 | ● | | |
| | SVHCR 2525M11 | 6407135 | 25 | 25 | 150 | 20,9 | 32 | ● | | |
| | SVHCL 2525M11 | 6407125 | 25 | 25 | 150 | 20,9 | 32 | ● | | |
| | SVHCR 2020K16 | 6407133 | 20 | 20 | 125 | 13,2 | 25 | ● | VC.. 16.. | 57-58 |
| | SVHCL 2020K16 | 6407123 | 20 | 20 | 125 | 13,2 | 25 | ● | | |
| | SVHCR 2525M16 | 6407136 | 25 | 25 | 150 | 19,6 | 32 | ● | | |
| | SVHCL 2525M16 | 6407126 | 25 | 25 | 150 | 19,6 | 32 | ● | | |
| | SVHCR 3225P16 | 6407138 | 32 | 25 | 170 | 19,6 | 32 | ● | | |
| | SVHCL 3225P16 | 6407128 | 32 | 25 | 170 | 19,6 | 32 | ○ | | |
| | SVHCR 2020K22 | 6407134 | 20 | 20 | 125 | 13,2 | 25 | ○ | VC.. 22.. | 57 |
| | SVHCL 2020K22 | 6407124 | 20 | 20 | 125 | 13,2 | 25 | ● | | |
| SVHCR 2525M22 | 6407137 | 25 | 25 | 150 | 19,6 | 32 | ● | | | |
| SVHCL 2525M22 | 6407127 | 25 | 25 | 150 | 19,6 | 32 | ○ | | | |
| SVHCR 3225P22 | 6407139 | 32 | 25 | 170 | 19,6 | 32 | ○ | | | |
| SVHCL 3225P22 | 6407129 | 32 | 25 | 170 | 19,6 | 32 | ○ | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | | Bestellbezeichnung Ordering Code | | | |
|---|------------------------------------|---------------------------|----------------------------------|----------------------------|---|------------------|
| SVH.R/L | | | | | | |
| Schneid- kantenlänge Cutting edge length | Wendeplatte Indexable insert | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 11 | VC... | 1212-2525 | - | - | A02-25059 | V02-T0800 |
| 16 | VC... | 2020-3225 | B09-V1602 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 0,4-0,8 | VB... | 2020-2525 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |
| 16 | VC... | 2020-3225 | B09-V1606 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 1,2 | VB... | 2020-2525 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |
| 22 | VC... | 2020-3225 | B09-V2222 | E09-F6045 | A02-45102 | V05-T1534 |

Bestellbeispiel: 1 Stück SVHBR 2020K16
 Order example: 1 piece SVHBR 2020K16

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



| | | Bestellbezeichnung Ordering Code | Ident No. | h ₁ = h ₂ | b | l ₁ | l ₂ | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|----------|--|-------------------------------------|-----------|---------------------------------------|----|----------------|----------------|----|---|--|---------------|
| SVJB-R/L | | SVJBR 2020K16 | 6407143 | 20 | 20 | 125 | 34 | 25 | ● | VB.. 16.. | 56 |
| | | SVJBL 2020K16 | 6407140 | 20 | 20 | 125 | 34 | 25 | ● | | |
| | | SVJBR 2525M16 | 6407144 | 25 | 25 | 150 | 34 | 32 | ● | | |
| | | SVJBL 2525M16 | 6407141 | 25 | 25 | 150 | 34 | 32 | ● | | |
| | | SVJBR 3225P16 | 6407145 | 32 | 25 | 170 | 34 | 32 | ○ | | |
| | | SVJBL 3225P16 | 6407142 | 32 | 25 | 170 | 34 | 32 | ● | | |
| SVJC-R/L | | SVJCR 1010X11-D | 6424969 | 10 | 10 | 115 | 21,5 | 10 | ● | VC.. 11.. | 56-57 |
| | | SVJCL 1010X11-D | 6424966 | 10 | 10 | 115 | 21,5 | 10 | ○ | | |
| | | SVJCR 1212F11 | 6407153 | 12 | 12 | 100 | - | 16 | | | |
| | | SVJCL 1212F11 | 6407146 | 12 | 12 | 100 | - | 16 | | | |
| | | SVJCR 1212X11-D | 6424970 | 12 | 12 | 130 | 21,5 | 12 | ● | | |
| | | SVJCL 1212X11-D | 6424967 | 12 | 12 | 130 | 21,5 | 12 | ● | | |
| | | SVJCR 1616H11 | 6407154 | 16 | 16 | 100 | 21,5 | 20 | ● | | |
| | | SVJCL 1616H11 | 6407147 | 16 | 16 | 100 | 21,5 | 20 | ● | | |
| | | SVJCR 1616X11-D | 6424971 | 16 | 16 | 130 | 21,5 | 16 | ● | | |
| | | SVJCL 1616X11-D | 6424968 | 16 | 16 | 130 | 21,5 | 16 | ○ | | |
| | | SVJCR 2020K11 | 6407155 | 20 | 20 | 125 | 23 | 25 | ● | | |
| | | SVJCL 2020K11 | 6407148 | 20 | 20 | 125 | 23 | 25 | ● | | |
| | | SVJCR 2525M11 | 6407157 | 25 | 25 | 150 | 25,5 | 32 | ● | | |
| | | SVJCL 2525M11 | 6407150 | 25 | 25 | 150 | 25,5 | 32 | ● | | |
| | | SVJCR 2020K16 | 6407156 | 20 | 20 | 125 | 29,5 | 25 | ● | VC.. 16.. | 57-58 |
| | | SVJCL 2020K16 | 6407149 | 20 | 20 | 125 | 29,5 | 25 | ● | | |
| | | SVJCR 2525M16 | 6407158 | 25 | 25 | 150 | 32,5 | 32 | ● | | |
| | | SVJCL 2525M16 | 6407151 | 25 | 25 | 150 | 32,5 | 32 | ● | | |
| | | SVJCR 3225P16 | 6407159 | 32 | 25 | 170 | 32,5 | 32 | ● | | |
| | | SVJCL 3225P16 | 6407152 | 32 | 25 | 170 | 32,5 | 32 | ● | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | | Bestellbezeichnung Ordering Code | | | |
|---|------------------------------------|---------------------------|----------------------------------|----------------------------|---|------------------|
| SVJ.R/L | | | | | | |
| Schneid- kantenlänge Cutting edge length | Wendeplatte Indexable insert | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 11 | VC... | 1212-2525 | - | - | A02-25059 | V02-T0800 |
| 16 | VC... | 2020-3225 | B09-V1602 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 0,4-0,8 | VB... | 2020-3225 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |
| 16 | VC... | 2020-3225 | B09-V1606 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 1,2 | VB... | 2020-3225 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |

Bestellbeispiel: 1 Stück SVJBR 2020K16
 Order example: 1 piece SVJBR 2020K16

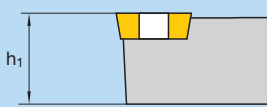
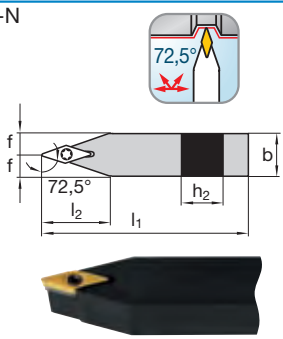
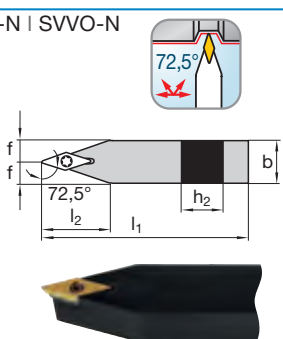
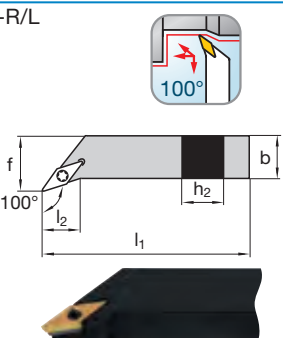
Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung

Tool holders type S, external machining



|  | | Bestellbezeichnung Ordering Code | | Ident No. | $h_1 = h_2$ | b | l_1 | l_2 | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|----------------------|-------------------------------------|----|-----------|-------------|------|-------|-------|-----------|-------------------------------|--|---------------|
| SVVB-N  | SVVBN 2020K16 | 6407166 | 20 | 20 | 125 | 32 | 10 | ● | VB.. 16.. | 56 | | |
| | SVVBN 2525M16 | 6407167 | 25 | 25 | 150 | 40 | 12,5 | ● | | | | |
| | SVVBN 3225P16 | 6407168 | 32 | 25 | 170 | 40 | 12,5 | ● | | | | |
| | | | | | | | | | | | | |
| SVVC-N SWVO-N  | SVVCN 1212F11 | 6407169 | 12 | 12 | 80 | 19 | 6 | ● | VC.. 11.. | 56-57 | | |
| | SVVCN 1616H11 | 6407170 | 16 | 16 | 100 | 25 | 8 | ● | | | | |
| | SVVCN 2020K11 | 6407171 | 20 | 20 | 125 | 32 | 10 | ● | | | | |
| | SVVCN 2525M11 | 6407173 | 25 | 25 | 150 | 40 | 12,5 | ● | | | | |
| | SVVCN 2020K16 | 6407172 | 20 | 20 | 125 | 32 | 10 | ● | VC.. 16.. | 57-58 | | |
| | SVVCN 2525M16 | 6407174 | 25 | 25 | 150 | 40 | 12,5 | ● | | | | |
| | SVVCN 3225P16 | 6407175 | 32 | 25 | 170 | 40 | 12,5 | ● | | | | |
| | | | | | | | | | | | | |
| SVZC-R/L  | SVZCR 2525M16 | 6407180 | 25 | 25 | 150 | 28,5 | 32 | ● | VC.. 16.. | 57-58 | | |
| | SVZCL 2525M16 | 6407179 | 25 | 25 | 150 | 28,5 | 32 | ● | | | | |

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | | Bestellbezeichnung Ordering Code | | | |
|---|------------------------------------|---------------------------|---|---|---|---|
| SV.. | | |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Wendeplatte Indexable insert | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 11 | VC... | 1212-2525 | - | - | A02-25059 | V02-T0800 |
| 16 | VC... | 2020-3225 | B09-V1602 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 0,4-0,8 | VB... | 2020-3225 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |
| 16 | VC... | 2020-3225 | B09-V1606 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 1,2 | VB... | 2020-3225 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |

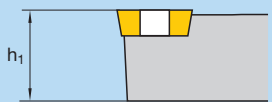
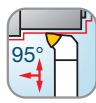
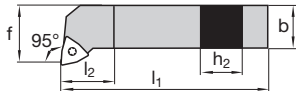

Bestellbeispiel: 1 Stück SVVBN 2020K16
 Order example: 1 piece SVVBN 2020K16

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Außenbearbeitung
Tool holders type S, external machining



|  | | Bestellbezeichnung Ordering Code | Ident No. | h_1 = h_2 | b | l_1 | l_2 | f | Verfüg- barkeit Availa- bility | Passende Wende- platten Suitable inserts | Seite Page |
|--|---------------|-------------------------------------|-----------|---------------------|-----|-------|-------|-----|---|--|---------------|
| <p>SWLCR-R/L</p>    | SWLCR 1212F06 | 6407187 | 12 | 12 | 80 | 14 | 16 | ○ | WC.. 06.. | 59 | |
| | SWLCR 1212F06 | 6407181 | 12 | 12 | 80 | 14 | 16 | ○ | | | |
| | SWLCR 1616H06 | 6407188 | 16 | 16 | 100 | 16 | 20 | ● | | | |
| | SWLCL 1616H06 | 6407182 | 16 | 16 | 100 | 16 | 20 | ○ | | | |
| | SWLCR 2020K06 | 6407190 | 20 | 20 | 125 | 16 | 25 | ● | | | |
| | SWLCL 2020K06 | 6407184 | 20 | 20 | 125 | 16 | 25 | ● | | | |
| | SWLCR 1616H08 | 6407189 | 16 | 16 | 100 | 17 | 20 | ○ | WC.. 08.. | 59 | |
| | SWLCL 1616H08 | 6407183 | 16 | 16 | 100 | 17 | 20 | ○ | | | |
| | SWLCR 2020K08 | 6407191 | 20 | 20 | 125 | 18 | 25 | ● | | | |
| | SWLCL 2020K08 | 6407185 | 20 | 20 | 125 | 18 | 25 | ● | | | |
| | SWLCR 2525M08 | 6407192 | 25 | 25 | 150 | 21 | 32 | ● | | | |
| | SWLCL 2525M08 | 6407186 | 25 | 25 | 150 | 21 | 32 | ● | | | |


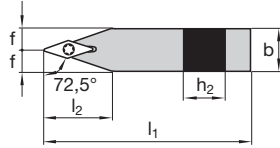

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------|---|---|--|---|
| SWLCR/L | |  |  |  |  |
| Schneid- kantenlänge Cutting edge length | Schaftgröße Shank size | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key |
| 06 | 1212 | – | – | A02-35082 | V02-T1500 |
| 06 | 1616–2020 | B09-W0623 | E09-F5035 | A02-35082 | V05-T1534 |
| 08 | 1616–2525 | B09-W0831 | E09-F6045 | A02-45102 | V05-T1534 |
| | | | | | |
| | | | | | |

Bestellbeispiel: 1 Stück SWLCR 1212F06
 Order example: 1 piece SWLCR 1212F06

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

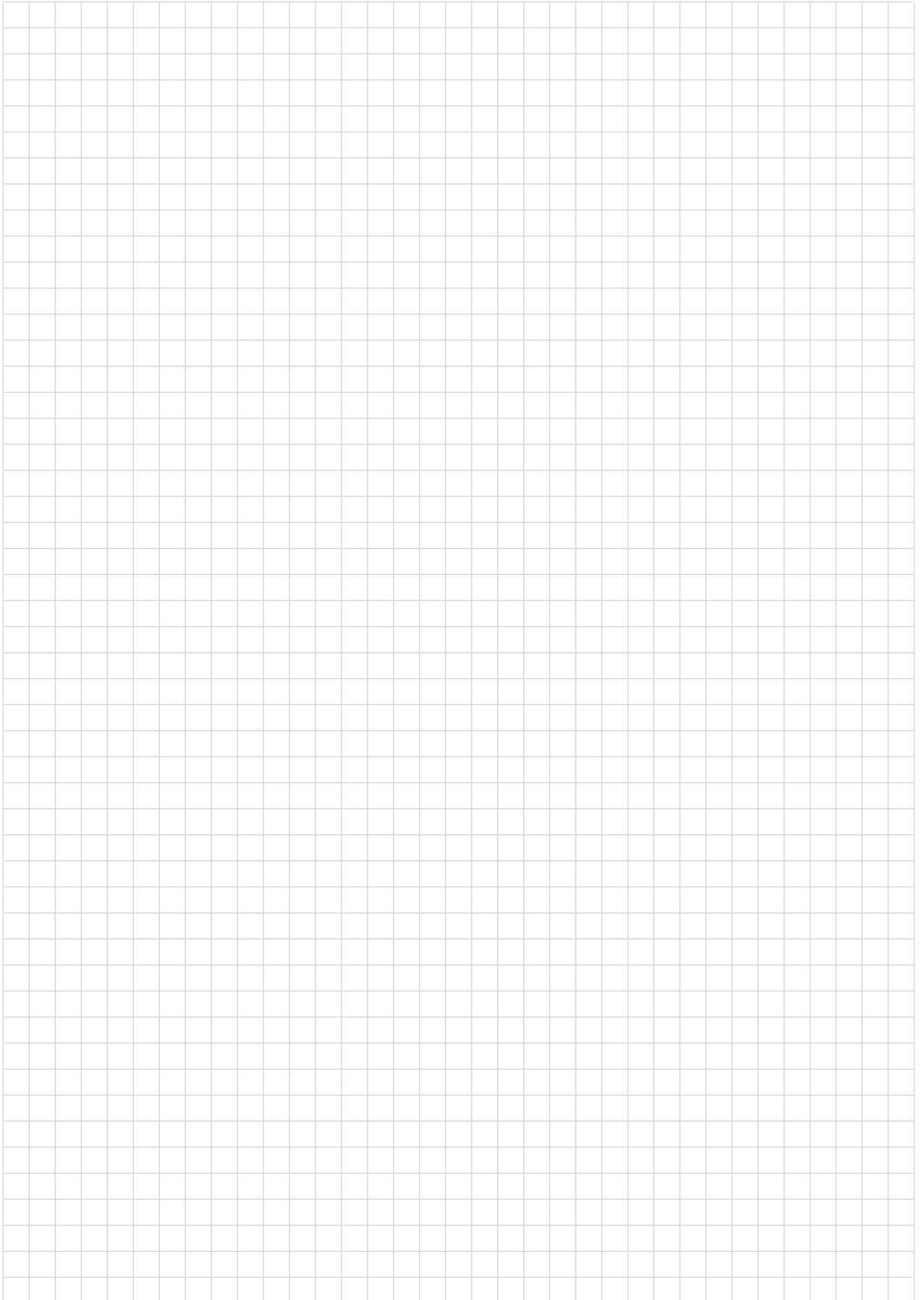
| | Bestellbezeichnung Ordering Code | Ident No. | h ₁ | b | l ₁ | Verfüg- barkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-------------------------------------|-----------|----------------|----|----------------|------------------------------------|--|---------------|
| BM51576    | BM51576 | 5010414 | 20 | 20 | 130 | ● | XCGT26 XCGT28 | 62 |

| Ersatzteile Spare parts BM51576 | Bestellbezeichnung Ordering Code | | | | | |
|---|---|---|---|--|--|--|
|  |  |  |  | | | |
| Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key | | | |
| - | - | A02-35096 | V04-T1500 | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Bestellbeispiel: 1 Stück BM51576
Order example: 1 piece BM51576

Lieferung ohne Schlüssel
Delivery without key

● Verfügbar ab Lager Available from stock
○ Auf Anfrage On request



S- und P-Klemmhalter für die
Außenbearbeitung mit Innenkühlung
S- and P-Tool Holder for external
turning with coolant



S-Klemmhalter für Außenbearbeitung mit Innenkühlung
S-Tool holder for external turning with coolant



| | Bestellbezeichnung Ordering Code | Ident No. | h_1 = h_2 | b | l_1 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|----------------|-------------------------------------|-----------|---------------------|----|-------|----|-------------------------------|---|---------------|
| <p>SCLCR/L</p> | SCLCR 1616 H09- IK G1/8 | 5107113 | 16 | 16 | 100 | 20 | ● | CC.. 09T3.. | 34-35 |
| | SCLCL 1616 H09- IK G1/8 | 5107115 | 16 | 16 | 100 | 20 | ● | | |
| | SCLCR 2020 K09- IK G1/8 | 5107119 | 20 | 20 | 125 | 25 | ● | | |
| | SCLCL 2020 K09- IK G1/8 | 5107120 | 20 | 20 | 125 | 25 | ● | | |
| | SCLCR 2525 M12- IK G1/8 | 5107121 | 25 | 25 | 150 | 32 | ● | CC.. 1204.. | 34-35 |
| | SCLCL 2525 M12- IK G1/8 | 5107122 | 25 | 25 | 150 | 32 | ● | | |

| | | | | | | | | | |
|----------------|--------------------------------|---------|----|----|-----|----|---|-------------|-------|
| <p>SDJCR/L</p> | SDJCR 1616 H11- IK G1/8 | 5107123 | 16 | 16 | 100 | 20 | ● | DC.. 11T3.. | 41-43 |
| | SDJCL 1616 H11- IK G1/8 | 5107124 | 16 | 16 | 100 | 20 | ● | | |
| | SDJCR 2020 K11- IK G1/8 | 5107125 | 20 | 20 | 125 | 25 | ● | | |
| | SDJCL 2020 K11- IK G1/8 | 5107126 | 20 | 20 | 125 | 25 | ● | | |
| | SDJCR 2525 M11- IK G1/8 | 5107127 | 25 | 25 | 150 | 32 | ● | | |
| | SDJCL 2525 M11- IK G1/8 | 5107128 | 25 | 25 | 150 | 32 | ● | | |

Ersatzteilliste für S-Klemmhalter
Spare part list for S-Tool holders

| Ersatzteile für S-Klemmhalter Type Spare part for S-Tool holders | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
|---|------------------------|--------------------------------|-------------------------------------|------------------------|
| | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code |
| SCLCR 1616 H09 - IK G1/8 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| SCLCL 1616 H09 - IK G1/8 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| SCLCR 2020 K09 - IK G1/8 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| SCLCL 2020 K09 - IK G1/8 | B09-C0923 | E09-F5035 | A02-35096 | V05-T1534 |
| SCLCR 2525 M12 - IK G1/8 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 |
| SCLCL 2525 M12 - IK G1/8 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 |
| SDJCR 1616 H11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |
| SDJCL 1616 H11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |
| SDJCR 2020 K11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |
| SDJCL 2020 K11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |
| SDJCR 2525 M11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |
| SDJCL 2525 M11 - IK G1/8 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 |

Bestellbeispiel: 1 Stück SCLCR 1616 H09 - IK G1/8
 Order example: 1 piece SCLCR 1616 H09 - IK G1/8

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter für Außenbearbeitung mit Innenkühlung
S-Tool holder for external turning with coolant



| Bestellbezeichnung Ordering Code | Ident No. | h ₁ = h ₂ | b | l ₁ | f | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page | |
|-------------------------------------|------------------------|---------------------------------------|----|----------------|-----|-------------------------------|--|---------------|-------|
| | | | | | | | | | |
| | SVJCR 1616 H11-IK G1/8 | 5107129 | 16 | 16 | 100 | 20 | ● | VC.. 11T3.. | 56-58 |
| | SVJCL 1616 H11-IK G1/8 | 5107130 | 16 | 16 | 100 | 20 | ● | | |
| | SVJCR 2020 K11-IK G1/8 | 5107132 | 20 | 20 | 125 | 25 | ● | | |
| | SVJCL 2020 K11-IK G1/8 | 5107133 | 20 | 20 | 125 | 25 | ● | | |
| | SVJCR 2020 K16-IK G1/8 | 5107134 | 20 | 20 | 125 | 25 | ● | | |
| | SVJCL 2020 K16-IK G1/8 | 5107135 | 20 | 20 | 125 | 25 | ● | | |
| | SVJCR 2525 M16-IK G1/8 | 5107136 | 25 | 25 | 150 | 32 | ● | VC.. 1604.. | 56-58 |
| | SVJCL 2525 M16-IK G1/8 | 5107137 | 25 | 25 | 150 | 32 | ● | | |

Bestellbeispiel: 1 Stück SVJCR 1616 H11 - IK G1/8
 Order example: 1 piece SVJCR 1616 H11 - IK G1/8

Ersatzteilliste für S-Klemmhalter
Spare part list for S-Tool holders

| Ersatzteile für S-Klemmhalter Type Spare part for S-Tool holders | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
|---|------------------------|--------------------------------|-------------------------------------|------------------------|
| | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code |
| SVJCR 1616 H11 - IK G1/8 | - | - | A02-25059 | V02-T0800 |
| SVJCL 1616 H11 - IK G1/8 | - | - | A02-25059 | V02-T0800 |
| SVJCR 2020 K11 - IK G1/8 | - | - | A02-25059 | V02-T0800 |
| SVJCL 2020 K11 - IK G1/8 | - | - | A02-25059 | V02-T0800 |
| SVJCR 2020 K16 - IK G1/8 | 1) 2) | E09-F5035 | A02-35096 | V05-T1534 |
| SVJCL 2020 K16 - IK G1/8 | 1) 2) | E09-F5035 | A02-35096 | V05-T1534 |
| SVJCR 2525 M16 - IK G1/8 | 1) 2) | E09-F5035 | A02-35096 | V05-T1534 |
| SVJCL 2525 M16 - IK G1/8 | 1) 2) | E09-F5035 | A02-35096 | V05-T1534 |
| | | | | |
| | | | | |
| | | | | |

Für for WSP insert VCMT 1604.. mit with:

- 1) s = 4,76 mm, r = 0,4; 0,8 mm / Unterlage shim B09-V1602
 2) s = 4,76 mm, r = 1,2; 1,6 mm / Unterlage shim B09-V1606

- Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

P-Klemmhalter Außenbearbeitung mit Innenkühlung
P-Tool holder for external turning with coolant



| | Bestellbezeichnung Ordering Code | Ident No. | h ₁ = h ₂ | b | l ₁ | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|--------------------|-------------------------------------|-----------|---------------------------------------|----|----------------|----|-------------------------------|---|---------------|
| PCLNR/L | PCLNR 1616 H12-IK G1/8 | 5107047 | 16 | 16 | 100 | 20 | ● | CN.. 1204.. | 36-40 |
| | PCLNL 1616 H12-IK G1/8 | 5107049 | 16 | 16 | 100 | 20 | ● | | |
| | PCLNR 2020 K12-IK G1/8 | 5107050 | 20 | 20 | 125 | 25 | ● | | |
| | PCLNL 2020 K12-IK G1/8 | 5107051 | 20 | 20 | 125 | 25 | ● | | |
| | PCLNR 2525 M12-IK G1/8 | 5107052 | 25 | 25 | 150 | 32 | ● | | |
| | PCLNL 2525 M12-IK G1/8 | 5107055 | 25 | 25 | 150 | 32 | ● | | |
| PDJNR/L | PDJNR 1616 H11-IK G1/8 | 5107057 | 16 | 16 | 100 | 20 | ● | DN.. 1104.. | 43-46 |
| | PDJNL 1616 H11-IK G1/8 | 5107059 | 16 | 16 | 100 | 20 | ● | | |
| | PDJNR 2020 K15-IK G1/8 | 5107070 | 20 | 20 | 125 | 25 | ● | DN.. 1504.. | |
| | PDJNL 2020 K15-IK G1/8 | 5107071 | 20 | 20 | 125 | 25 | ● | DN.. 1506.. | |
| | PDJNR 2525 M15-IK G1/8 | 5107072 | 25 | 25 | 150 | 32 | ● | . | |
| | PDJNL 2525 M15-IK G1/8 | 5107073 | 25 | 25 | 150 | 32 | ● | . | |

Bestellbeispiel: 1 Stück PCLNR 1616 H12 - IK G1/8
 Order example: 1 piece PCLNR 1616 H12 - IK G1/8

Ersatzteilliste für P-Klemmhalter
Spare part list for P-Tool holders

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

| Ersatzteile für P-Klemmhalter Type Spare part for P-Tool holders | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
|---|------------------------|--------------------------------|-------------------------------------|----------------------------|-----------------------------------|------------------------|
| | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code |
| PCLNR 1616 H12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PCLNL 1616 H12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PCLNR 2020 K12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PCLNL 2020 K12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PCLNR 2525 M12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PCLNL 2525 M12 - IK G1/8 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PDJNR 1616 H11 - IK G1/8 | B01-D1131 | D02-10120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| PDJNL 1616 H11 - IK G1/8 | B01-D1131 | D02-10120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| PDJNR 2020 K15 - IK G1/8 | 1) 2) 3) 4) | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PDJNL 2020 K15 - K G1/8 | 1) 2) 3) 4) | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PDJNR 2525 M15 - IK G1/8 | 1) 2) 3) 4) | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PDJNL 2525 M15 - IK G1/8 | 1) 2) 3) 4) | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |

Für for WSP insert DNMG 1504.. mit with:

- 1) s = 4,76 mm, r = 0,4; 0,8 mm / Unterlage shim B01-D1448
- 2) s = 4,76 mm, r = 1,2; 1,6 mm / Unterlage shim B01-D1447

Für for WSP insert DNMG 1506.. mit with:

- 3) s = 6,35 mm, r = 0,4; 0,8 mm / Unterlage shim B01-D1432
- 4) s = 6,35 mm, r = 1,2; 1,6 mm / Unterlage shim B01-D1431

P-Klemmhalter Außenbearbeitung mit Innenkühlung
P-Tool holder for external turning with coolant



| | Bestellbezeichnung Ordering Code | Ident No. | h_1 | h_2 | b | l_1 | f | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|--|-------------------------------------|-----------|-------|-------|-----|-------|---|-------------------------------|---|---------------|
| | | | = | | | | | | | |
| | PWLNLR 1616 H06-IK G1/8 | 5107074 | 16 | 16 | 100 | 20 | ● | WN.. 0604.. | 59-62 | |
| | PWLNLL 1616 H06-IK G1/8 | 5107075 | 16 | 16 | 100 | 20 | ● | | | |
| | PWLNLR 2020 K08-IK G1/8 | 5107076 | 20 | 20 | 125 | 25 | ● | WN.. 0804.. | | |
| | PWLNLL 2020 K08-IK G1/8 | 5107078 | 20 | 20 | 125 | 25 | ● | | | |
| | PWLNLR 2525 M08-IK G1/8 | 5107079 | 25 | 25 | 150 | 32 | ● | | | |
| | PWLNLL 2525 M08-IK G1/8 | 5107080 | 25 | 25 | 150 | 32 | ● | | | |

Bestellbeispiel: 1 Stück PWLNLR 1616 H06 - IK G1/8
 Order example: 1 piece PWLNLR 1616 H06 - IK G1/8

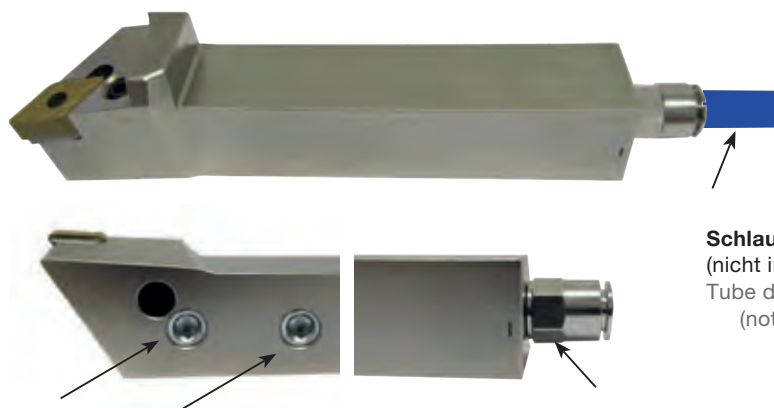
Ersatzteilliste für P-Klemmhalter
Spare part list for P-Tool holders

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

| Ersatzteile für P-Klemmhalter Type Spare part for P-Tool holders | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
|---|------------------------|--------------------------------|-------------------------------------|----------------------------|-----------------------------------|------------------------|
| | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code | Best.Bez. Ord. Code |
| PWLNLR 1616 H06 - IK G1/8 | B01-W0627 | D02-09120 | A03-06170 | E01-05807 | V10-10000 | V01-A0025 |
| PWLNLL 1616 H06 - IK G1/8 | B01-W0627 | D02-09120 | A03-06170 | E01-05807 | V10-10000 | V01-A0025 |
| PWLNLR 2020 K08 - IK G1/8 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PWLNLL 2020 K08 - IK G1/8 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PWLNLR 2525 M08 - IK G1/8 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| PWLNLL 2525 M08 - IK G1/8 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |

Klemmhalter mit Anschlüsse für die Kühlmittelzufuhr
Tool holder with port for coolant

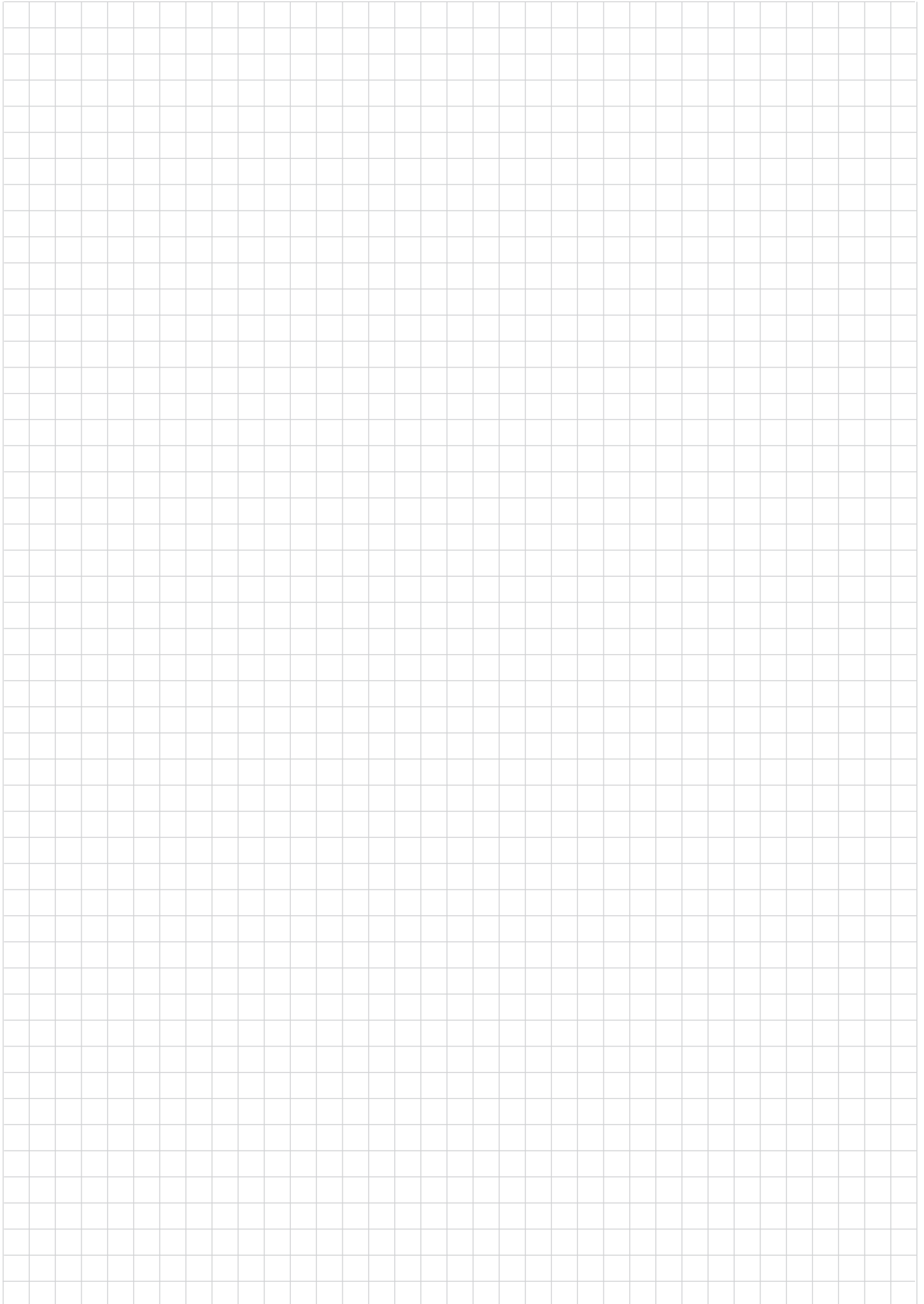
(max. Kühlmitteldruck 80 bar)
(max. coolant pressure 80 bar)



Schlauch Durchmesser 8 mm
 (nicht inkludiert!)
 Tube diameter 8mm
 (not included)

2 x optionale Kühlmittelzufuhr
 2 x optional Coolant
Anschlussgewinde G1/8"
 Connection thread G1/8"

Kühlmittelzufuhr
 Coolant
Anschlussgewinde G1/8"
 Connection thread G1/8"


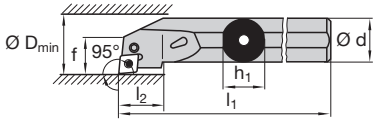



Klemmhalter
Innenbearbeitung
Tool holders
internal machining



P-Klemmhalter Innenbearbeitung
Tool holders type P, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | | |
|---|-------------------------------------|-----------|----|----------------|----------------|----------------|----|------------------|-------------------------------|---|---------------|-----------|-------|
| PCLN-R/L    | A25R-PCLNR 12 | 6401488 | 25 | 24 | 200 | 21 | 17 | 31,5 | ● | CN.. 12.. | 36-40 | | |
| | A25R-PCLNL 12 | 6401487 | 25 | 24 | 200 | 21 | 17 | 31,5 | ● | | | | |
| | A32S-PCLNR 12 | 6401557 | 32 | 31 | 250 | 24,1 | 22 | 40 | ● | | | | |
| | A32S-PCLNL 12 | 6401556 | 32 | 31 | 250 | 24,1 | 22 | 40 | ● | | | | |
| | A40T-PCLNR 12 | 6401598 | 40 | 39 | 300 | 24,1 | 27 | 49 | ● | | | | |
| | A40T-PCLNL 12 | 6401597 | 40 | 39 | 300 | 24,1 | 27 | 49 | ● | | | | |
| | S25T-PCLNR 12 | 6407249 | 25 | 23 | 300 | 22 | 17 | 32 | ● | | | | |
| | S25T-PCLNL 12 | 6407248 | 25 | 23 | 300 | 22 | 17 | 32 | ● | | | | |
| | S32U-PCLNR 12 | 6407282 | 32 | 30 | 350 | 24,1 | 22 | 40 | ● | | | | |
| | S32U-PCLNL 12 | 6407281 | 32 | 30 | 350 | 24,1 | 22 | 40 | ● | | | | |
| | S40V-PCLNR 12 | 6407308 | 40 | 37 | 400 | 24,1 | 27 | 49 | ● | | | | |
| | S40V-PCLNL 12 | 6407307 | 40 | 37 | 400 | 24,1 | 27 | 49 | ● | | | | |
| | S50W-PCLNR 16 | 6407329 | 50 | 47 | 450 | 31 | 35 | 62 | ● | | | CN.. 16.. | 37-40 |
| | S50W-PCLNL 16 | 6407328 | 50 | 47 | 450 | 31 | 35 | 62 | ○ | | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|---|---|--|---|---|---|
| PC.NR/L | |  |  |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Hebel Lever | Spannschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 12 | 25-32 | B01-C1231 | D02-12130 | A03-08170 | E01-07205 | V10-20000 | V01-A0030 |
| 12 | 40-50 | B01-C1231 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 16 | 50 | B01-C1547 | D02-15173 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 |


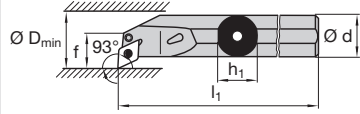


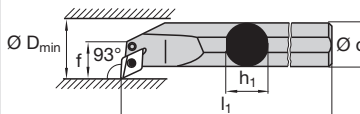

Bestellbeispiel: 1 Stück A25R-PCLNR 12
 Order example: 1 piece A25R-PCLNR 12

Lieferung ohne Schlüssel
 Delivery without key

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request


P-Klemmhalter Innenbearbeitung
Tool holders type P, internal machining



| | | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|---------------|-------------------------------------|-----------|----|----------------|----------------|----------------|----|------------------|-------------------------------|--|---------------|
| PDUN-R/L    | A20Q-PDUNR 11 | 6401452 | 20 | 19 | 180 | - | 16 | 27 | ● | DN.. 11.. | 43-44 | |
| | A20Q-PDUNL 11 | 6401451 | 20 | 19 | 180 | - | 16 | 27 | ● | | | |
| | A25R-PDUNR 11 | 6401490 | 25 | 24 | 200 | - | 18,5 | 32 | ● | | | |
| | A25R-PDUNL 11 | 6401489 | 25 | 24 | 200 | - | 18,5 | 32 | ● | | | |
| | A32S-PDUNR 11 | 6401560 | 32 | 31 | 250 | - | 22 | 40 | ○ | | | |
| | A32S-PDUNL 11 | 6401558 | 32 | 31 | 250 | - | 22 | 40 | ○ | | | |
| | A32S-PDUNR 15 | 6401561 | 32 | 31 | 250 | - | 22 | 40 | ● | DN.. 15.. | 43-46 | |
| | A32S-PDUNL 15 | 6401559 | 32 | 31 | 250 | - | 22 | 40 | ● | | | |
| | A40T-PDUNR 15 | 6401600 | 40 | 39 | 300 | - | 27 | 49 | ● | | | |
| | A40T-PDUNL 15 | 6401599 | 40 | 39 | 300 | - | 27 | 49 | ● | | | |
| | S40V-PDUNR 15 | 6407310 | 40 | 37 | 400 | - | 27 | 49 | ● | | | |
| | S40V-PDUNL 15 | 6407309 | 40 | 37 | 400 | - | 27 | 49 | ● | | | |
| | S50W-PDUNR 15 | 6407331 | 50 | 47 | 450 | - | 35 | 62 | ● | | | |
| | S50W-PDUNL 15 | 6407330 | 50 | 47 | 450 | - | 35 | 62 | ● | | | |
| PDUN-R/L 14    | S32T-PDUNR 14 | 6407270 | 32 | 30 | 300 | - | 22 | 40 | ● | DNMG 14.. | 45 | |
| | S32T-PDUNL 14 | 6407269 | 32 | 30 | 300 | - | 22 | 40 | ● | | | |
| | S40U-PDUNR 14 | 6407304 | 40 | 38 | 350 | - | 27 | 50 | ○ | | | |
| | S40U-PDUNL 14 | 6407303 | 40 | 38 | 350 | - | 27 | 50 | ○ | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|---|---|---|---|---|---|
| PDUNR/L | |  |  |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Hebel Lever | Spannschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 11 | 20 | - | D02-11105 | A03-06135 | - | V10-10000 | V01-A0025 |
| 11 | 25-32 | B01-D1131 | D02-10120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| 14 | 32-40 | B01-D1331 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ¹⁾ | 32-50 | B01-D1448 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ²⁾ | 32-50 | B01-D1447 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ³⁾ | 32-50 | B01-D1432 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| 15 ³⁾ | 32-50 | B01-D1431 | D02-15145 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |

Für WSP DNMG 1504../ for insert DNMG 1504..

¹⁾ s = 4,76 mm, r = 0,4; 0,8 mm

²⁾ s = 4,76 mm, r = 1,2; 1,6 mm

Für WSP DNMG 1506../ for insert DNMG 1506..

³⁾ s = 6,35 mm, r = 0,4; 0,8 mm

⁴⁾ s = 6,35 mm, r = 1,2; 1,6 mm


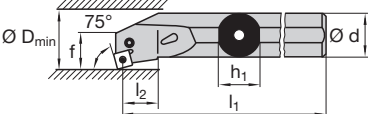


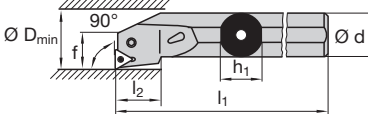

Bestellbeispiel: 1 Stück A20Q-PDUNR 11
 Order example: 1 piece A20Q-PDUNR 11

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request








P-Klemmhalter Innenbearbeitung
Tool holders type P, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | | | |
|--|--|---|----------------------|----------------|----------------|----------------|-----|------------------|-------------------------------|---|---------------|---|-----------|-------|
| PSKN-R/L    | A25R-PSKNR 12 | 6401492 | 25 | 24 | 200 | 15,5 | 17 | 31,5 | ● | SN.. 12.. | 49-52 | | | |
| | A25R-PSKNL 12 | 6401491 | 25 | 24 | 200 | 15,5 | 17 | 31,5 | ● | | | | | |
| | A32S-PSKNR 12 | 6401563 | 32 | 31 | 250 | 16 | 22 | 40 | ○ | | | | | |
| | A32S-PSKNL 12 | 6401562 | 32 | 31 | 250 | 16 | 22 | 40 | ○ | | | | | |
| | A40T-PSKNR 12 | 6401602 | 40 | 39 | 300 | 23 | 27 | 49 | ○ | | | | | |
| | A40T-PSKNL 12 | 6401601 | 40 | 39 | 300 | 23 | 27 | 49 | ○ | | | | | |
| | S50W-PSKNR 15 S50W-PSKNL 15 | 6407333 | 50 | 47 | 450 | 30 | 35 | 62 | ● | SN.. 15.. | 51-52 | | | |
| | | 6407332 | 50 | 47 | 450 | 30 | 35 | 62 | ○ | | | | | |
| | | PTFN-R/L    | A25R-PTFNR 16 | 6401494 | 25 | 24 | 200 | 17,5 | 17 | 31,5 | | ● | TN.. 16.. | 54-55 |
| | | | A25R-PTFNL 16 | 6401493 | 25 | 24 | 200 | 17,5 | 17 | 31,5 | | ● | | |
| A32S-PTFNR 16 | 6401565 | | 32 | 31 | 250 | 18 | 22 | 40 | ○ | | | | | |
| A32S-PTFNL 16 | 6401564 | | 32 | 31 | 250 | 18 | 22 | 40 | ○ | | | | | |
| A40T-PTFNR 22 A40T-PTFNL 22 | 6401604 | | 40 | 39 | 300 | 27 | 27 | 49 | ● | TN.. 22.. | 54-55 | | | |
| | 6401603 | | 40 | 39 | 300 | 27 | 27 | 49 | ○ | | | | | |
| S25T-PTFNR 16 S25T-PTFNL 16 | 6407251 | | 25 | 23 | 300 | 17,5 | 17 | 32 | ● | TN.. 16.. | 54-55 | | | |
| | 6407250 | | 25 | 23 | 300 | 17,5 | 17 | 32 | ○ | | | | | |
| S50W-PTFNR 22 S50W-PTFNL 22 | 6407335 | | 50 | 47 | 450 | 35 | 35 | 62 | ● | TN.. 22.. | 54-55 | | | |
| | 6407334 | | 50 | 47 | 450 | 35 | 35 | 62 | ○ | | | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | | |
|---|---|---|---|--|---|---|---|--|
| P..NR/L | |  |  |  |  |  |  | |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Hebel Lever | Spannschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key | |
| 12 | 25-32 | B01-S1231 | D02-12130 | A03-08170 | E01-07205 | V10-20000 | V01-A0030 | |
| 12 | 40 | B01-S1231 | D02-12130 | A03-08210 | E01-07210 | V10-20000 | V01-A0030 | |
| 15 | 50 | B01-S1547 | D02-15173 | A03-08235 | E01-09008 | V10-40000 | V01-A0030 | |
| | |  | | | | | | |
| 16 | 25-32 | B01-T1527 | D02-09120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 | |
| 22 | 40-50 | B01-T2031 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 | |


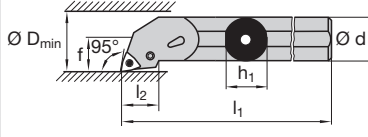

Bestellbeispiel: 1 Stück A25R-PSKNR 12
 Order example: 1 piece A25R-PSKNR 12

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request






P-Klemmhalter Innenbearbeitung
Tool holders type P, internal machining



| | | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|---|----------------------|-------------------------------------|-----------|-------|----------------|----------------|----------------|----|------------------|-------------------------------|---|---------------|
| PWLN-R/L    | A16M-PWLNR 06 | 6401408 | 16 | 15,25 | 150 | 17,5 | 11 | 21 | ● | WN.. 06.. | 59-61 | |
| | A16M-PWLNL 06 | 6401407 | 16 | 15,25 | 150 | 17,5 | 11 | 21 | ● | | | |
| | A20Q-PWLNR 06 | 6401454 | 20 | 19 | 180 | 19,5 | 13 | 25 | ● | | | |
| | A20Q-PWLNL 06 | 6401453 | 20 | 19 | 180 | 19,5 | 13 | 25 | ● | | | |
| | A25R-PWLNR 06 | 6401496 | 25 | 24 | 200 | 19,5 | 17 | 32 | ● | | | |
| | | A25R-PWLNL 06 | 6401495 | 25 | 24 | 200 | 19,5 | 17 | 32 | ● | | |
| | | A32S-PWLNR 08 | 6401567 | 32 | 31 | 250 | 26 | 22 | 40 | ● | WN.. 08.. | 59-62 |
| | | A32S-PWLNL 08 | 6401566 | 32 | 31 | 250 | 26 | 22 | 40 | ● | | |
| | | A40T-PWLNR 08 | 6401606 | 40 | 38,5 | 300 | 26 | 27 | 49 | ● | | |
| | | A40T-PWLNL 08 | 6401605 | 40 | 38,5 | 300 | 26 | 27 | 49 | ● | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|---|---|---|---|---|---|
| PWLNR/L | |  |  |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Hebel Lever | Spannschraube Fixation screw | Spannhülse Shim pin | Montagedorn Assembly punch | Schlüssel Key |
| 06 | 16 – 20 | – | D02-09093 | A03-05120 | – | – | V01-A0020 |
| 06 | 25 | B01-W0627 | D02-09120 | A03-06170 | E01-05405 | V10-10000 | V01-A0025 |
| 08 | 32 – 40 | B01-W0831 | D02-12130 | A03-08210 | E01-07205 | V10-20000 | V01-A0030 |
| | | | | | | | |

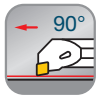
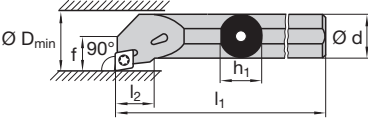

Bestellbeispiel: 1 Stück A16M-PWLNR 06
 Order example: 1 piece A16M-PWLNR 06

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

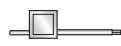
S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|---|-------------------------------------|-----------|----|----------------|----------------|----------------|---|------------------|-------------------------------|--|---------------|
| SCFC-R/L    | A08F-SCFCR 06 | 6401298 | 8 | 7,5 | 80 | – | 5 | 11 | ● | CC.. 06.. | 34-35 |
| | A08F-SCFCL 06 | 6401297 | 8 | 7,5 | 80 | – | 5 | 11 | ● | | |
| | A10H-SCFCR 06 | 6401333 | 10 | 9,5 | 100 | 9 | 7 | 14 | ● | | |
| | A10H-SCFCL 06 | 6401332 | 10 | 9,5 | 100 | 9 | 7 | 14 | ● | | |
| | A12K-SCFCR 06 | 6401358 | 12 | 11,5 | 125 | 14 | 9 | 17 | ● | | |
| | A12K-SCFCL 06 | 6401357 | 12 | 11,5 | 125 | 14 | 9 | 17 | ○ | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts SCFCR/L | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|--|---|---|---|--|--|
| Schneid- kantenlänge Cutting edge length | Schaftdurch- messer Ø d Shank diameter Ø d |  Unterlage Shim |  Gewindehülse Shim screw |  Klemm- schraube Fixation screw |  Schlüssel Key | | |
| 06 | 08 – 12 | – | – | A02-25059 | V02-T0800 | | |
| | | | | | | | |
| | | | | | | | |


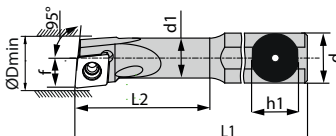

Bestellbeispiel: 1 Stück A08F-SCFCR 06
 Order example: 1 piece A08F-SCFCR 06


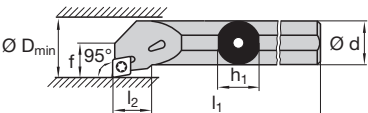

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| SCLC-R/L | Bestellbezeichnung | | Ident No. | d ₁ | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit | Passende | Seite |
|---|------------------------|--------------|-----------|----------------|-----|----------------|----------------|----------------|----|------------------|---------------|----------|-------|
| | Ordering Code | Wendeplatten | | | | | | | | | | | |
|    | A0608H-SCLCR 06 | 5111795 | 6 | 8 | 7 | 100 | 21,5 | 4,2 | 8 | ● | CC.. 06.. | 34-35 | |
| | A0608H-SCLCL 06 | 5111980 | 6 | 8 | 7 | 100 | 21,5 | 4,2 | 8 | ● | | | |
| | A0810J-SCLCR 06 | 5111982 | 8 | 10 | 9 | 110 | 27 | 6 | 11 | ● | | | |
| | A0810J-SCLCL 06 | 5111984 | 8 | 10 | 9 | 110 | 27 | 6 | 11 | ● | | | |
| | A1012K-SCLCR 06 | 5111985 | 10 | 12 | 11 | 125 | 32,5 | 7 | 13 | ● | | | |
| | A1012K-SCLCL 06 | 5111986 | 10 | 12 | 11 | 125 | 32,5 | 7 | 13 | ● | | | |
| | A1216M-SCLCR 06 | 5111988 | 12 | 16 | 15 | 150 | 42 | 9 | 16 | ● | | | |
| A1216M-SCLCL 06 | 5111989 | 12 | 16 | 15 | 150 | 42 | 9 | 16 | ● | | | | |

| SCLC-R/L | Bestellbezeichnung | | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit | Passende | Seite | |
|--|----------------------|--------------|-----------|------|----------------|----------------|----------------|------|------------------|---------------|----------|-----------|------------------|
| | Ordering Code | Wendeplatten | | | | | | | | | | | Suitable inserts |
|    | A08F-SCLCR 06 | 6401300 | 8 | 7,5 | 80 | - | 5 | 11 | ● | CC.. 06.. | 34-35 | | |
| | A08F-SCLCL 06 | 6401299 | 8 | 7,5 | 80 | - | 5 | 11 | ● | | | | |
| | A08H-SCLCR 06 | 5112082 | 8 | 7 | 100 | 17,8 | 6 | 10 | ● | | | | |
| | A08H-SCLCL 06 | 5112083 | 8 | 7 | 100 | 17,8 | 6 | 10 | ● | | | | |
| | A10H-SCLCR 06 | 6401335 | 10 | 9,5 | 100 | 10 | 7 | 13 | ● | | | | |
| | A10H-SCLCL 06 | 6401334 | 10 | 9,5 | 100 | 10 | 7 | 13 | ● | | | | |
| | A10K-SCLCR 06 | 5112084 | 10 | 9 | 125 | 17,7 | 7 | 12 | ● | | | | |
| | A10K-SCLCL 06 | 5112085 | 10 | 9 | 125 | 17,7 | 7 | 12 | ● | | | | |
| | A12K-SCLCR 06 | 6401360 | 12 | 11,5 | 125 | 10 | 9 | 16 | ● | | | | |
| | A12K-SCLCL 06 | 6401359 | 12 | 11,5 | 125 | 10 | 9 | 16 | ● | | | | |
| | A12L-SCLCR 06 | 5112086 | 12 | 11 | 140 | 24,2 | 9 | 16 | ○ | | | | |
| | A12L-SCLCL 06 | 5112087 | 12 | 11 | 140 | 24,2 | 9 | 16 | ○ | | | | |
| | A16M-SCLCR 09 | 6401410 | 16 | 15,5 | 150 | 16 | 11 | 20 | ● | | | CC.. 09.. | 34-35 |
| | A16M-SCLCL 09 | 6401409 | 16 | 15,5 | 150 | 16 | 11 | 20 | ● | | | | |
| | A16Q-SCLCR 09 | 5112088 | 16 | 15 | 180 | 26,7 | 11 | 20 | ○ | | | | |
| | A16Q-SCLCL 09 | 5112089 | 16 | 15 | 180 | 26,7 | 11 | 20 | ○ | | | | |
| | A20Q-SCLCR 09 | 6401456 | 20 | 19 | 180 | 16 | 13 | 25 | ● | | | | |
| | A20Q-SCLCL 09 | 6401455 | 20 | 19 | 180 | 16 | 13 | 25 | ● | | | | |
| | A20R-SCLCR 09 | 5112090 | 25 | 24 | 200 | 16 | 17 | 31,5 | ● | | | | |
| | A20R-SCLCL 09 | 5112091 | 20 | 19 | 200 | 16 | 17 | 31,5 | ● | | | | |
| | A25R-SCLCR 09 | 6401498 | 20 | 19 | 200 | 16 | 17 | 31,5 | ● | | | CC.. 12.. | 34-35 |
| | A25R-SCLCL 09 | 6401497 | 25 | 24 | 200 | 16 | 17 | 31,5 | ● | | | | |
| | A32S-SCLCR 12 | 6401569 | 32 | 31 | 250 | 22 | 22 | 40 | ● | | | | |
| A32S-SCLCL 12 | 6401568 | 32 | 31 | 250 | 22 | 22 | 40 | ● | | | | | |
| A40T-SCLCR 12 | 6401608 | 40 | 38,5 | 300 | 22 | 27 | 49 | ● | | | | | |
| A40T-SCLCL 12 | 6401607 | 40 | 38,5 | 300 | 22 | 27 | 49 | ● | | | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | |
|---|---|--|---|--|---|--|
| SCLCR/L | | | | | | |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d |  Unterlage Shim |  Gewindehülse Shim screw |  Klemmschraube Fixation screw |  Schlüssel Key | |
| 06 | 08-12 | - | - | A02-25059 | V02-T0800 | |
| 09 | 16-20 | - | - | A02-35082 | V02-T1500 | |
| 09 | 25 | - | - | A02-35096 | V02-T1500 | |
| 12 | 32-40 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 | |

Bestellbeispiel: 1 Stück A0608H-SCLCR 06
Order example: 1 piece A0608H-SCLCR 06

Lieferung ohne Schlüssel
Delivery without key

● Verfügbar ab Lager Available from stock
○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| SCLC-R/L | Bestellbezeichnung | | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit | Passende Wendeplatten | Seite | | |
|----------------------|----------------------|-----------|----|----------------|----------------|----------------|------|------------------|---------------|-----------------------|-------|------------------|-------|
| | Ordering Code | Ident No. | | | | | | | | | | Suitable inserts | Page |
| | E08H-SCLCR 06 | 6404753 | 8 | 7,5 | 100 | – | 5 | 11 | ● | CC.. 06.. | 34-35 | | |
| | E08H-SCLCL 06 | 6404752 | 8 | 7,5 | 100 | – | 5 | 11 | ● | | | | |
| | E08K-SCLCR 06 | 5119312 | 8 | 7 | 125 | 10 | 5 | 10 | ○ | | | | |
| | E08K-SCLCL 06 | 5119313 | 8 | 7 | 125 | 10 | 5 | 10 | ○ | | | | |
| | E10K-SCLCR 06 | 6404765 | 10 | 9,5 | 125 | 10 | 7 | 14 | ● | | | | |
| | E10K-SCLCL 06 | 6404764 | 10 | 9,5 | 125 | 10 | 7 | 14 | ● | | | | |
| | E12M-SCLCR 06 | 5119316 | 12 | 11 | 150 | 10 | 8 | 14 | ○ | | | | |
| | E12M-SCLCL 06 | 5119317 | 12 | 11 | 150 | 10 | 8 | 14 | ○ | | | | |
| | E12Q-SCLCR 06 | 6404774 | 12 | 11 | 180 | 10 | 8 | 14 | ● | | | | |
| | E12Q-SCLCL 06 | 6404773 | 12 | 11 | 180 | 10 | 8 | 14 | ● | | | | |
| | E16R-SCLCR 09 | 6404802 | 16 | 15,5 | 200 | 16 | 11 | 21 | ● | | | CC.. 09.. | 34-35 |
| | E16R-SCLCL 09 | 6404801 | 16 | 15,5 | 200 | 16 | 11 | 21 | ● | | | | |
| | E20S-SCLCR 09 | 6404854 | 20 | 19 | 250 | 16 | 13 | 25 | ● | | | | |
| | E20S-SCLCL 09 | 6404853 | 20 | 19 | 250 | 16 | 13 | 25 | ● | | | | |
| | E25T-SCLCR 09 | 6404886 | 25 | 24 | 300 | 16 | 17 | 31,5 | ● | | | | |
| | E25T-SCLCL 09 | 6404885 | 25 | 24 | 300 | 16 | 17 | 31,5 | ● | | | | |
| | S08H-SCLCR 06 | 6407199 | 8 | 7 | 100 | – | 5 | 11 | ● | CC.. 06.. | 34-35 | | |
| | S08H-SCLCL 06 | 6407198 | 8 | 7 | 100 | – | 5 | 11 | ● | | | | |
| | S10K-SCLCR 06 | 6407203 | 10 | 9 | 125 | 10 | 7 | 13 | ● | | | | |
| | S10K-SCLCL 06 | 6407202 | 10 | 9 | 125 | 10 | 7 | 13 | ● | | | | |
| | S12Q-SCLCR 06 | 6407207 | 12 | 11 | 180 | 10 | 9 | 16 | ● | | | | |
| | S12Q-SCLCL 06 | 6407206 | 12 | 11 | 180 | 10 | 9 | 16 | ● | | | | |
| | S16R-SCLCR 09 | 6407213 | 16 | 15 | 200 | 16 | 11 | 20 | ● | CC.. 09.. | 34-35 | | |
| | S16R-SCLCL 09 | 6407212 | 16 | 15 | 200 | 16 | 11 | 20 | ● | | | | |
| | S20S-SCLCR 09 | 6407229 | 20 | 18 | 250 | 16 | 13 | 25 | ● | | | | |
| | S20S-SCLCL 09 | 6407228 | 20 | 18 | 250 | 16 | 13 | 25 | ● | | | | |
| | S25T-SCLCR 09 | 6407255 | 25 | 23 | 300 | 16 | 17 | 31,5 | ● | | | | |
| | S25T-SCLCL 09 | 6407253 | 25 | 23 | 300 | 16 | 17 | 31,5 | ○ | | | | |
| S25T-SCLCR 12 | 6407256 | 25 | 23 | 300 | 16 | 17 | 31,5 | ● | CC.. 12.. | 34-35 | | | |
| S25T-SCLCL 12 | 6407254 | 25 | 23 | 300 | 16 | 17 | 31,5 | ○ | | | | | |

Bestellbeispiel: 1 Stück E08H-SCLCR 06
 Order example: 1 piece E08H-SCLCR 06

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---|----------------------------------|----------------------------|---------------------------------|------------------|
| SCLCR/L | | | | | |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
| 06 | 08–12 | – | – | A02-25059 | V02-T0800 |
| 09 | 16–20 | – | – | A02-35082 | V02-T1500 |
| 09 | 25 | – | – | A02-35096 | V02-T1500 |
| 12 | 32–40 | B09-C1231 | E09-F6045 | A02-45102 | V05-T1534 |

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung | | | | | | | | | | Verfügbarkeit | Passende | Seite |
|---------|--------------------|----------------|---|----------------|----------------|----------------|------|------------------|------|---|---------------|----------|-------|
| | Ordering Code | | | | | | | | | | | | |
| SDQCR/L | Ident No. | d ₁ | d | h ₁ | l ₁ | l ₂ | f | D _{min} | | | | | |
| | A0408F-SDQCR 04 | 5140210 | - | 8 | 7 | 80 | 15 | 2,6 | 5,2 | ○ | DC.. 04.. | 41-43 | |
| | A0408F-SDQCL 04 | 5140212 | - | 8 | 7 | 80 | 15 | 2,6 | 5,2 | ○ | | | |
| | A0810H-SDQCR 07 | 5111999 | - | 10 | 9 | 100 | 22,4 | 6,4 | 12,5 | ● | DC.. 07.. | 41-43 | |
| | A0810H-SDQCL 07 | 5112000 | - | 10 | 9 | 100 | 22,4 | 6,4 | 12,5 | ● | | | |
| | A1012K-SDQCR 07 | 5112002 | - | 12 | 11 | 125 | 27,5 | 9 | 15,5 | ● | | | |
| | A1012K-SDQCL 07 | 5112003 | - | 12 | 11 | 125 | 27,5 | 9 | 15,5 | ● | | | |
| | A1216M-SDQCR 07 | 5112004 | - | 16 | 15 | 150 | 39,5 | 11 | 19,5 | ● | | | |
| | A1216M-SDQCL 07 | 5112007 | - | 16 | 15 | 150 | 39,5 | 11 | 19,5 | ● | | | |
| | E0408F-SDQCR 04 | 5140213 | - | 8 | 7 | 80 | 15 | 2,6 | 5,2 | ○ | DC.. 04.. | 41-43 | |
| | E0408F-SDQCL 04 | 5140214 | - | 8 | 7 | 80 | 15 | 2,6 | 5,2 | ○ | | | |

| | Bestellbezeichnung | | | | | | | | | | Verfügbarkeit | Passende | Seite |
|----------|--------------------|---------|----------------|----------------|----------------|------|------------------|------|---|-----------|---------------|----------|-------|
| | Ordering Code | | | | | | | | | | | | |
| SDQC-R/L | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | | | | | | |
| | A10H-SDQCR 07 | 6410851 | 10 | 9 | 100 | 10 | 7 | 14 | ● | DC.. 07.. | 41-43 | | |
| | A10H-SDQCL 07 | 6410850 | 10 | 9 | 100 | 10 | 7 | 14 | ● | | | | |
| | A12K-SDQCR 07 | 6401362 | 12 | 11,5 | 125 | 12,5 | 9 | 17 | ● | | | | |
| | A12K-SDQCL 07 | 6401361 | 12 | 11,5 | 125 | 12,5 | 9 | 17 | ● | | | | |
| | A16M-SDQCR 07 | 6401412 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | ● | | | | |
| | A16M-SDQCL 07 | 6401411 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | ● | | | | |
| | A20Q-SDQCR 07 | 6401458 | 20 | 19 | 180 | 20,5 | 13 | 25 | ● | | | | |
| | A20Q-SDQCL 07 | 6401457 | 20 | 19 | 180 | 20,5 | 13 | 25 | ● | | | | |
| | A25R-SDQCR 11 | 6401500 | 25 | 24 | 200 | 26,5 | 17 | 31,5 | ● | DC.. 11.. | 41-43 | | |
| | A25R-SDQCL 11 | 6401499 | 25 | 24 | 200 | 26,5 | 17 | 31,5 | ● | | | | |
| | A32S-SDQCR 11 | 6401571 | 32 | 31 | 250 | 33,5 | 22 | 40 | ● | | | | |
| | A32S-SDQCL 11 | 6401570 | 32 | 31 | 250 | 33,5 | 22 | 40 | ● | | | | |
| | A40T-SDQCR 11 | 6401610 | 40 | 38,5 | 300 | 41,5 | 27 | 49 | ● | | | | |
| | A40T-SDQCL 11 | 6401609 | 40 | 38,5 | 300 | 41,5 | 27 | 49 | ● | | | | |
| | E08K-SDQCR 07 | 5119322 | 8 | 7 | 125 | 10 | 7 | 12 | ● | DC.. 07.. | 41-43 | | |
| | E08K-SDQCL 07 | 5119323 | 8 | 7 | 125 | 10 | 7 | 12 | ● | | | | |
| | E10K-SDQCR 07 | 5119324 | 10 | 9 | 125 | 10 | 7 | 13 | ● | | | | |
| | E10K-SDQCL 07 | 5119325 | 10 | 9 | 125 | 10 | 7 | 13 | ● | | | | |
| | E12M-SDQCR 07 | 5119326 | 12 | 11 | 150 | 12,5 | 8,5 | 16 | ● | | | | |
| | E12M-SDQCL 07 | 5119327 | 12 | 11 | 150 | 12,5 | 8,5 | 16 | ● | | | | |

Bestellbeispiel: 1 Stück A0408F-SDQCR 04
 Order example: 1 piece A0408F-SDQCR 04

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | |
|-------------------------|-----------------------|----------------------------------|-------------------------|------------------------------|---------------|--|
| SDQCR/L | | | | | | |
| Schneidkantenlänge | Schaftdurchmesser Ø d | | | | | |
| Cutting edge length | Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key | |
| 04 | 8 | - | - | - | V02-T0500 | |
| 07 | 12-20 | - | - | A02-25059 | V02-T0800 | |
| 11 | 20 | - | - | A02-35072 | V02-T1500 | |
| 11 | 25-40 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 | |

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | f ₁ | D _{min} | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page | |
|-------------------------------------|------------------------|---------|----------------|----------------|----------------|------|----------------|------------------|-------------------------------|--|---------------|-------|
| | | | | | | | | | | | | |
| | A0408F-SDUCR 04 | 5140205 | 8 | 7 | 80 | 15 | 3 | 1,5 | 5,6 | ○ | DC.. 04.. | 41-43 |
| | A0408F-SDUCL 04 | 5140207 | 8 | 7 | 80 | 15 | 3 | 1,5 | 5,6 | ○ | DC.. 07.. | 41-43 |
| | A0810H-SDUCR 07 | 5111990 | 10 | 9 | 100 | 22,5 | 6,5 | 4,4 | 12,5 | ● | | |
| | A0810H-SDUCL 07 | 5111992 | 10 | 9 | 100 | 22,5 | 6,5 | 4,4 | 12,5 | ● | | |
| | A1012K-SDUCR 07 | 5111993 | 12 | 11 | 125 | 27,5 | 9 | 5,9 | 15,5 | ● | | |
| | A1012K-SDUCL 07 | 5111994 | 12 | 11 | 125 | 27,5 | 9 | 5,9 | 15,5 | ● | | |
| | A1216M-SDUCR 07 | 5111995 | 16 | 15 | 150 | 40,5 | 11 | 4,9 | 18 | ● | | |
| | A1216M-SDUCL 07 | 5111996 | 16 | 15 | 150 | 40,5 | 11 | 4,9 | 18 | ● | | |
| | E0408F-SDUCR 04 | 5140208 | 8 | 7 | 80 | 15 | 3 | 1,5 | 5,6 | ○ | DC.. 04.. | 41-43 |
| | E0408F-SDUCL 04 | 5140209 | 8 | 7 | 80 | 15 | 3 | 1,5 | 5,6 | ○ | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts SDUCR/L | | Bestellbezeichnung Ordering Code | | | | |
|---|---|----------------------------------|----------------------------|---|------------------|--|
| Schneid- kantenlänge Cutting edge length | Schaftdurch- messer Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key | |
| 07 | 12-20 | - | - | A02-25059 | V02-T0800 | |
| 11 | 20 | - | - | A02-35072 | V02-T1500 | |
| 11 | 25-40 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 | |

Bestellbeispiel: 1 Stück A0408F-SDUCR 04
 Order example: 1 piece A0408F-SDUCR 04

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|----------------------|-------------------------------------|-----------|----|----------------|----------------|----------------|------|------------------|-------------------------------|---|---------------|
| | A10H-SDUCR 07 | 5112093 | 10 | 9 | 100 | 15 | 7 | 13,5 | ● | DC.. 07.. | 41-43 |
| | A10H-SDUCL 07 | 5112094 | 10 | 9 | 100 | 15 | 7 | 13,5 | ● | | |
| | A12K-SDUCR 07 | 6401364 | 12 | 11,5 | 125 | 12,5 | 9 | 17 | ● | | |
| | A12K-SDUCL 07 | 6401363 | 12 | 11,5 | 125 | 12,5 | 9 | 17 | ● | | |
| | A12L-SDUCR 07 | 5112095 | 12 | 11 | 140 | 20 | 9 | 16 | ○ | | |
| | A12L-SDUCL 07 | 5112096 | 12 | 11 | 140 | 20 | 9 | 16 | ○ | | |
| | A16M-SDUCR 07 | 6401414 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | ● | | |
| | A16M-SDUCL 07 | 6401413 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | ● | | |
| | A16Q-SDUCR 07 | 5112097 | 16 | 15 | 180 | 25 | 11 | 21 | ○ | | |
| | A16Q-SDUCL 07 | 5112099 | 16 | 15 | 180 | 25 | 11 | 21 | ○ | | |
| | A20Q-SDUCR 07 | 6401461 | 20 | 19 | 180 | 20,5 | 13 | 25 | ● | DC.. 11.. | 41-43 |
| | A20Q-SDUCL 07 | 6401459 | 20 | 19 | 180 | 20,5 | 13 | 25 | ● | | |
| | A20Q-SDUCR 11 | 6401462 | 20 | 19 | 180 | 21 | 13 | 25 | ● | | |
| | A20Q-SDUCL 11 | 6401460 | 20 | 19 | 180 | 21 | 13 | 25 | ● | | |
| | A20R-SDUCR 11 | 5112100 | 20 | 19 | 200 | 20,5 | 13 | 25 | | | |
| | A20R-SDUCL 11 | 5112101 | 20 | 19 | 200 | 20,5 | 13 | 25 | | | |
| | A25R-SDUCR 11 | 6401502 | 25 | 24 | 200 | 26 | 17 | 31,5 | ● | | |
| | A25R-SDUCL 11 | 6401501 | 25 | 24 | 200 | 26 | 17 | 31,5 | ● | | |
| | A32S-SDUCR 11 | 6401573 | 32 | 31 | 250 | 50 | 22 | 40 | ● | | |
| | A32S-SDUCL 11 | 6401572 | 32 | 31 | 250 | 50 | 22 | 40 | ● | | |
| | A40T-SDUCR 11 | 6401612 | 40 | 38,5 | 300 | 33 | 27 | 49 | ● | DC.. 07.. | 41-43 |
| | A40T-SDUCL 11 | 6401611 | 40 | 38,5 | 300 | 33 | 27 | 49 | ● | | |
| | E10K-SDUCR 07 | 5119328 | 10 | 9 | 125 | 10 | 7,5 | 13,5 | ● | | |
| | E10K-SDUCL 07 | 5119379 | 10 | 9 | 125 | 10 | 7,5 | 13,5 | ● | | |
| | E12M-SDUCR 07 | 5119380 | 12 | 11 | 150 | 12,5 | 9 | 15 | ● | | |
| | E12M-SDUCL 07 | 5119382 | 12 | 11 | 150 | 12,5 | 9 | 15 | ● | | |
| | E12Q-SDUCR 07 | 6404776 | 12 | 11,5 | 180 | 12,5 | 9 | 17 | ● | | |
| | E12Q-SDUCL 07 | 6404775 | 12 | 11,5 | 180 | 12,5 | 9 | 17 | ● | | |
| | E16R-SDUCR 07 | 6404804 | 16 | 15,5 | 200 | 16,5 | 11 | 21 | ● | | |
| | E16R-SDUCL 07 | 6404803 | 16 | 15,5 | 200 | 16,5 | 11 | 21 | ● | | |
| E20S-SDUCR 11 | 6404856 | 20 | 19 | 250 | 20,5 | 13 | 25 | ● | DC.. 11.. | 41-43 | |
| E20S-SDUCL 11 | 6404855 | 20 | 19 | 250 | 20,5 | 13 | 25 | ● | | | |
| E25T-SDUCR 11 | 6404888 | 25 | 24 | 300 | 26 | 17 | 31,5 | ● | | | |
| E25T-SDUCL 11 | 6404887 | 25 | 24 | 300 | 26 | 17 | 31,5 | ● | | | |
| S12Q-SDUCR 07 | 6407209 | 12 | 11 | 180 | 12,5 | 9 | 17 | ● | DC.. 07.. | 41-43 | |
| S12Q-SDUCL 07 | 6407208 | 12 | 11 | 180 | 12,5 | 9 | 17 | ● | | | |
| S16R-SDUCR 07 | 6407215 | 16 | 15 | 200 | 16,5 | 11 | 21 | ● | | | |
| S16R-SDUCL 07 | 6407214 | 16 | 15 | 200 | 16,5 | 11 | 21 | ● | | | |
| S20S-SDUCR 07 | 6407232 | 20 | 18 | 250 | 20,5 | 13 | 25 | ● | | | |
| S20S-SDUCL 07 | 6407230 | 20 | 18 | 250 | 20,5 | 13 | 25 | ○ | | | |
| S20S-SDUCR 11 | 6407233 | 20 | 18 | 250 | 20,5 | 13 | 25 | ● | DC.. 11.. | 41-43 | |
| S20S-SDUCL 11 | 6407231 | 20 | 18 | 250 | 20,5 | 13 | 25 | ● | | | |
| S25T-SDUCR 11 | 6407260 | 25 | 23 | 300 | 26 | 17 | 31,5 | ● | | | |
| S25T-SDUCL 11 | 6407259 | 25 | 23 | 300 | 26 | 17 | 31,5 | ● | | | |
| S32U-SDUCR 11 | 6407289 | 32 | 30 | 350 | 33 | 22 | 40 | ● | | | |
| S32U-SDUCL 11 | 6407288 | 32 | 30 | 350 | 33 | 22 | 40 | ○ | | | |

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | |
|---|---|----------------------------------|----------------------------|---------------------------------|------------------|--|
| SDUCR/L | | | | | | |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key | |
| 07 | 12-20 | - | - | A02-25059 | V02-T0800 | |
| 11 | 20 | - | - | A02-35072 | V02-T1500 | |
| 11 | 25-40 | B09-D1131 | E09-F5035 | A02-35096 | V05-T1534 | |


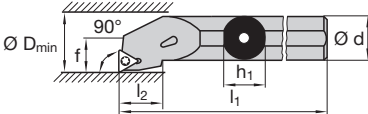


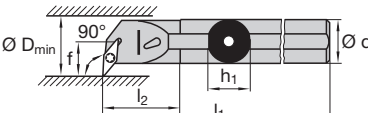


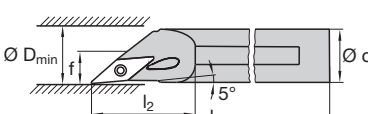

Bestellbeispiel: 1 Stück A10H-SDUCR 07
 Order example: 1 piece A10H-SDUCR 07

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page |
|---|---------------|-------------------------------------|-----------|------|----------------|----------------|----------------|------|------------------|-------------------------------|---|---------------|
| STFC-R/L    | A12K-STFCR 11 | 6401366 | 12 | 11,5 | 125 | 13 | 9 | 17 | ● | TC.. 11.. | 53-54 | |
| | A12K-STFCL 11 | 6401365 | 12 | 11,5 | 125 | 13 | 9 | 17 | ● | | | |
| | A16M-STFCR 11 | 6401416 | 16 | 15,5 | 150 | 13 | 11 | 21 | ● | | | |
| | A16M-STFCL 11 | 6401415 | 16 | 15,5 | 150 | 13 | 11 | 21 | ● | | | |
| | A20Q-STFCR 11 | 6401464 | 20 | 19 | 180 | 13 | 13 | 25 | ● | TC.. 16.. | 53-54 | |
| | A20Q-STFCL 11 | 6401463 | 20 | 19 | 180 | 13 | 13 | 25 | ● | | | |
| | A25R-STFCR 16 | 6401504 | 25 | 24 | 200 | 21 | 17 | 31,5 | ● | | | |
| | A25R-STFCL 16 | 6401503 | 25 | 24 | 200 | 21 | 17 | 31,5 | ○ | | | |
| | A32S-STFCR 16 | 6401575 | 32 | 31 | 250 | 21 | 22 | 40 | ● | TC.. 11.. | 53-54 | |
| | A32S-STFCL 16 | 6401574 | 32 | 31 | 250 | 21 | 22 | 40 | ○ | | | |
| | A40T-STFCR 16 | 6401614 | 40 | 38,5 | 300 | 21 | 27 | 49 | ○ | | | |
| | A40T-STFCL 16 | 6401613 | 40 | 38,5 | 300 | 21 | 27 | 49 | ○ | | | |
| | S12Q-STFCR 11 | 6407211 | 12 | 11 | 180 | 13 | 9 | 17 | ● | TC.. 16.. | 53-54 | |
| | S12Q-STFCL 11 | 6407210 | 12 | 11 | 180 | 13 | 9 | 17 | ○ | | | |
| | S20S-STFCR 11 | 6407235 | 20 | 18 | 250 | 13 | 13 | 25 | ● | | | |
| | S20S-STFCL 11 | 6407234 | 20 | 18 | 250 | 13 | 13 | 25 | ● | | | |
| | S16R-STFCR 11 | 6407217 | 16 | 15,5 | 150 | 13 | 11 | 21 | ● | TC.. 16.. | 53-54 | |
| | S16R-STFCL 11 | 6407216 | 16 | 15,5 | 150 | 13 | 11 | 21 | ● | | | |
| | S25T-STFCR 16 | 6407262 | 25 | 23 | 300 | 21 | 17 | 31,5 | ● | | | |
| | S25T-STFCL 16 | 6407261 | 25 | 23 | 300 | 21 | 17 | 31,5 | ○ | | | |
| S32U-STFCR 16 | 6407291 | 32 | 30 | 350 | 21 | 22 | 40 | ● | TC.. 16.. | 53-54 | | |
| S32U-STFCL 16 | 6407290 | 32 | 30 | 350 | 21 | 22 | 40 | ○ | | | | |
| S40V-STFCR 16 | 6407318 | 40 | 37 | 400 | 21 | 27 | 49 | ● | | | | |
| S40V-STFCL 16 | 6407317 | 40 | 37 | 400 | 21 | 27 | 49 | ○ | | | | |
| SVLC-R/L    | A08F-SVLCR 05 | 5119398 | 7 | 80 | 15 | 5 | - | 9,2 | ● | VC.. 05.. | 57 | |
| | A08F-SVLCL 05 | 5119399 | 7 | 80 | 26 | 5 | - | 9,2 | ● | | | |
| | A10H-SVLCR 07 | 6437515 | 10 | - | 100 | 22 | 7 | 12,5 | ● | VC.. 07.. | 57 | |
| | A10H-SVLCL 07 | 6426806 | 10 | - | 100 | 22 | 7 | 12,5 | ● | | | |
| | A12K-SVLCR 07 | 6437519 | 12 | - | 125 | 28 | 9 | 15,5 | ○ | VC.. 05.. | 57 | |
| | A12K-SVLCL 07 | 6437518 | 12 | - | 125 | 28 | 9 | 15,5 | ● | | | |
| | A16M-SVLCR 07 | 6437523 | 16 | - | 150 | 36 | 11 | 19,5 | ○ | VC.. 05.. | 57 | |
| | A16M-SVLCL 07 | 6437522 | 16 | - | 150 | 36 | 11 | 19,5 | ○ | | | |
| | E08F-SVLCR 05 | 5119400 | 7 | 80 | 26 | 5 | - | 9,2 | ● | VC.. 05.. | 57 | |
| | E08F-SVLCL 05 | 5119401 | 7 | 80 | 26 | 5 | - | 9,2 | ● | | | |
| SVOC-R/L    | A08F-SVOCR 05 | 5119385 | 8 | 7 | 80 | 15 | 3 | 9 | ● | VC.. 05.. | 57 | |
| | A08F-SVOCL 05 | 5119386 | 8 | 7 | 80 | 15 | 3 | 9 | ● | | | |
| | A10H-SVOCR 07 | 6437517 | 10 | 9 | 100 | - | 5,4 | 11 | ● | VC.. 07.. | 57 | |
| | A10H-SVOCL 07 | 6437516 | 10 | 9 | 100 | - | 5,4 | 11 | ● | | | |
| | A10K-SVOCR 07 | 5112102 | 10 | 9 | 125 | 18 | 1,5 | 13 | ● | VC.. 11.. | 57 | |
| | A10K-SVOCL 07 | 5112103 | 10 | 9 | 125 | 18 | 1,5 | 13 | ● | | | |
| | A12K-SVOCR 07 | 6437521 | 12 | 11 | 125 | - | 5,4 | 11 | ● | VC.. 11.. | 57 | |
| | A12K-SVOCL 07 | 6437520 | 12 | 11 | 125 | - | 5,4 | 11 | ● | | | |
| | A12L-SVOCR 07 | 5112104 | 12 | 11 | 140 | 18 | 2 | 13 | ● | VC.. 11.. | 57 | |
| | A12L-SVOCL 07 | 5112105 | 12 | 11 | 140 | 18 | 2 | 13 | ● | | | |
| | A16M-SVOCR 11 | 6437525 | 16 | 15 | 150 | 16 | 11 | 20 | ● | VC.. 11.. | 57 | |
| | A16M-SVOCL 11 | 6437524 | 16 | 15 | 150 | 16 | 11 | 20 | ● | | | |
| | E08F-SVOCR 05 | 5119387 | 8 | 7 | 80 | 15 | 3 | 9 | ● | VC..05.. | 57 | |
| | E08F-SVOCL 05 | 5119388 | 8 | 7 | 80 | 15 | 3 | 9 | ● | | | |

| Ersatzteile Spare parts | | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------------|---|---|---|--|---|
| STFCR/L | | |  |  |  |  |
| Schneidkantenlänge Cutting edge length | Wendeplatte Indexable insert | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
| 11 | VC... | 16-25 | - | - | A02-25059 | V02-T0800 |
| 16 | VC... | 32-40 | B09-V1602 | E09-F5035 | A02-35096 | V05-T1534 |

Bestellbeispiel: 1 Stück A12K-STFCR 11
 Order example: 1 piece A12K-STFCR 11

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | | Bestellbezeichnung Ordering Code | | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | | |
|--|----------|-------------------------------------|----------------------|----------------------|---------|----------------|----------------|----------------|------|------------------|-------------------------------|---|---------------|-----------|-------|
| | SVQC-R/L | A16M-SVQCR 11 | 6401418 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | 21 | ● | VC.. 11.. | 56-57 | | |
| | | A16M-SVQCL 11 | 6401417 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | 21 | ● | | | | |
| | | A20Q-SVQCR 11 | 6401466 | 20 | 19 | 180 | 20,5 | 13 | 25 | 25 | ● | | | | |
| | | A20Q-SVQCL 11 | 6401465 | 20 | 19 | 180 | 20,5 | 13 | 25 | 25 | ● | | | | |
| | | A25R-SVQCR 11 | 6401506 | 25 | 24 | 200 | 25,5 | 17 | 31,5 | 31,5 | ● | | | | |
| | | | A25R-SVQCL 11 | 6401505 | 25 | 24 | 200 | 25,5 | 17 | 31,5 | 31,5 | ● | VC.. 16.. | 56-58 | |
| | | | A32S-SVQCR 16 | 6401577 | 32 | 31 | 250 | 33,5 | 22 | 40 | 40 | ● | | | |
| | | | A32S-SVQCL 16 | 6401576 | 32 | 31 | 250 | 33,5 | 22 | 40 | 40 | ● | | | |
| | | | A40T-SVQCR 16 | 6401616 | 40 | 38,5 | 300 | 40 | 27 | 49 | 49 | ● | | | |
| | | | A40T-SVQCL 16 | 6401615 | 40 | 38,5 | 300 | 40 | 27 | 49 | 49 | ● | | | |
| | SVUB-R/L | S32T-SVUBR 16 | 6407276 | 32 | 30 | 300 | 60 | 22 | 40 | 40 | ● | VB.. 16.. | 56 | | |
| | | S32T-SVUBL 16 | 6407275 | 32 | 30 | 300 | 60 | 22 | 40 | 40 | ● | | | | |
| | | | | | | | | | | | | | | | |
| | SVUC-R/L | A16M-SVUCR 11 | 6401420 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | 21 | ● | VC.. 11.. | 56-57 | | |
| | | | A16M-SVUCL 11 | 6401419 | 16 | 15,5 | 150 | 16,5 | 11 | 21 | 21 | | | ● | |
| | | | A20Q-SVUCR 11 | 6401468 | 20 | 19 | 180 | 20,5 | 13 | 25 | 25 | | | ● | |
| | | | A20Q-SVUCL 11 | 6401467 | 20 | 19 | 180 | 20,5 | 13 | 25 | 25 | | | ● | |
| | | | A25R-SVUCR 11 | 6401508 | 25 | 24 | 200 | 25,5 | 17 | 31,5 | 31,5 | | | ● | |
| | | | | A25R-SVUCL 11 | 6401507 | 25 | 24 | 200 | 25,5 | 17 | 31,5 | 31,5 | ● | VC.. 16.. | 56-58 |
| | | | | A32S-SVUCR 16 | 6401579 | 32 | 31 | 250 | 33,5 | 22 | 40 | 40 | ● | | |
| | | | | A32S-SVUCL 16 | 6401578 | 32 | 31 | 250 | 33,5 | 22 | 40 | 40 | ● | | |
| | | | | A40T-SVUCR 16 | 6401618 | 40 | 38,5 | 300 | 40 | 27 | 49 | 49 | ● | | |
| | | | A40T-SVUCL 16 | 6401617 | 40 | 38,5 | 300 | 40 | 27 | 49 | 49 | ● | | | |
| | | | E16R-SVUCR 11 | 6404806 | 16 | 15,5 | 200 | 16,5 | 11 | 21 | 21 | ● | VC.. 11.. | 56-57 | |
| | | | E16R-SVUCL 11 | 6404805 | 16 | 15,5 | 200 | 16,5 | 11 | 21 | 21 | ○ | | | |
| | | | E20S-SVUCR 11 | 6404858 | 20 | 19 | 250 | 20,5 | 13 | 25 | 25 | ● | | | |
| | | E20S-SVUCL 11 | 6404857 | 20 | 19 | 250 | 20,5 | 13 | 25 | 25 | ○ | | | | |
| | | E25T-SVUCR 11 | 6404890 | 25 | 24 | 300 | 25,5 | 17 | 31,5 | 31,5 | ○ | | | | |
| | | E25T-SVUCL 11 | 6404889 | 25 | 24 | 300 | 25,5 | 17 | 31,5 | 31,5 | ○ | | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | | Bestellbezeichnung Ordering Code | | | |
|---|---------------------------------|---|----------------------------------|----------------------------|---------------------------------|------------------|
| SV.CR/L | | | | | | |
| Schneidkantenlänge Cutting edge length | Wendeplatte Indexable insert | Schaftdurchmesser Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemmschraube Fixation screw | Schlüssel Key |
| 07 | VC... | 10 -16 | | | A13-20048 | V04-T0600 |
| 11 | VC... | 16 -25 | - | - | A02-25059 | V02-T0800 |
| 16 | VC... | 32 -40 | B09-V1602 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 0,4 -0,8 | VB... | 32 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |
| 16 | VC... | 32 -40 | B09-V1606 | E09-F5035 | A02-35096 | V05-T1534 |
| r = 1,2 | VB... | 32 | B02-V1431 | E02-F5035 | A02-35096 | V05-T1534 |


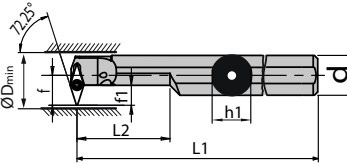


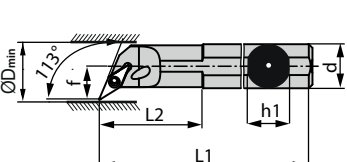

Bestellbeispiel: 1 Stück A16M-SVQCR 11
 Order example: 1 piece A16M-SVQCR 11

Lieferung ohne Schlüssel
 Delivery without key

● Verfügbar ab Lager Available from stock
 ○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | f ₁ | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | |
|--|--|---------------|---------|----------------|----------------|----------------|------|----------------|------------------|-------------------------------|---|---------------|----|
| <p>SVVCR/L</p>    | A08F-SVVCR 05 | 5119402 | 8 | 7 | 80 | 15 | 5 | - | 9,7 | ● | VC..05.. | 57 | |
| | A08F-SVVCL 05 | 5119403 | 8 | 7 | 80 | 15 | 5 | - | 9,7 | ● | | | |
| | E08F-SVVCR 05 | 5119404 | 8 | 7 | 80 | 26 | 5 | - | 9,7 | ● | | | |
| | E08F-SVVCL 05 | 5119405 | 8 | 7 | 80 | 26 | 5 | - | 9,7 | ● | | | |
| | A10H-SVVCR 07 | 5112111 | 10 | 9 | 100 | 28 | 8 | 6 | 13,5 | ● | VC..07.. | 57 | |
| | A10H-SVVCL 07 | 5112114 | 10 | 9 | 100 | 28 | 8 | 6 | 13,5 | ● | | | |
| | A12K-SVVCR 07 | 5112117 | 12 | 11 | 125 | 28 | 9 | 6 | 15,5 | ● | | | |
| | A12K-SVVCL 07 | 5112118 | 12 | 11 | 125 | 28 | 9 | 6 | 15,5 | ● | | | |
| | A16M-SVVCR 07 | 5112119 | 16 | 15 | 150 | 36 | 11 | 6 | 19,5 | ● | | | |
| | A16M-SVVCL 07 | 5112137 | 16 | 15 | 150 | 36 | 11 | 6 | 19,5 | ● | | | |
| | A16M-SVVCR 11 | 5112138 | 16 | 15 | 150 | 40 | 13,9 | 9,5 | 23 | ● | VC.. 11.. | 56-57 | |
| | A16M-SVVCL 11 | 5112140 | 16 | 15 | 150 | 40 | 13,9 | 9,5 | 23 | ● | | | |
| | E10H-SVVCR 07 | 5120810 | 10 | 9 | 100 | 32 | 6 | - | 13,5 | ● | VC..07.. | 57 | |
| | E10H-SVVCL 07 | 5120809 | 10 | 9 | 100 | 32 | 6 | - | 13,5 | ● | | | |
| | E12K-SVVCR 07 | 5120816 | 12 | 11 | 125 | 40 | 6 | - | 15,5 | ● | | | |
| | E12K-SVVCL 07 | 5120815 | 12 | 11 | 125 | 40 | 6 | - | 15,5 | ● | | | |
| | E16M-SVVCR 11 | 5120824 | 16 | 15 | 150 | 55 | 6 | - | 19,5 | ● | VC.. 11.. | 56-57 | |
| | E16M-SVVCL 11 | 5120823 | 16 | 15 | 150 | 55 | 6 | - | 19,5 | ● | | | |
| | <p>SVXCR/L</p>    | A08F-SVXCR 05 | 5119393 | 8 | 7 | 80 | 15 | 5 | - | 9,2 | ● | VC..05.. | 57 |
| | | A08F-SVXCL 05 | 5119395 | 8 | 7 | 80 | 15 | 5 | - | 9,2 | ● | | |
| A10H-SVXCR 07 | | 5112141 | 10 | 9 | 100 | 22 | 7 | - | 12,5 | ● | VC..07.. | 57 | |
| A10H-SVXCL 07 | | 5112142 | 10 | 9 | 100 | 22 | 7 | - | 12,5 | ● | | | |
| A12K-SVXCR 07 | | 5112143 | 12 | 11 | 125 | 28 | 9 | - | 15,5 | ● | | | |
| A12K-SVXCL 07 | | 5112144 | 12 | 11 | 125 | 28 | 9 | - | 15,5 | ● | | | |
| A16M-SVXCR 07 | | 5112145 | 16 | 15 | 150 | 36 | 11 | - | 19,5 | ● | | | |
| A16M-SVXCL 07 | | 5112146 | 16 | 15 | 150 | 36 | 11 | - | 19,5 | ● | | | |
| E08F-SVXCR 05 | | 5119396 | 8 | 7 | 80 | 26 | 5 | - | 9,2 | ● | VC..05.. | 57 | |
| E08F-SVXCL 05 | | 5119397 | 8 | 7 | 80 | 26 | 5 | - | 9,2 | ● | | | |
| E10H-SVXCR 07 | | 5120812 | 10 | 9 | 100 | 22 | 7 | - | 12,5 | ● | VC..07.. | 57 | |
| E10H-SVXCL 07 | | 5120811 | 10 | 9 | 100 | 22 | 7 | - | 12,5 | ● | | | |
| E12K-SVXCR 07 | | 5120818 | 12 | 11 | 125 | 40 | 9 | - | 15,5 | ● | | | |
| E12K-SVXCL 07 | | 5120817 | 12 | 11 | 125 | 40 | 9 | - | 15,5 | ● | | | |
| E16M-SVXCR 07 | | 5120826 | 16 | 15 | 150 | 55 | 11 | - | 19,5 | ● | | | |
| E16M-SVXCL 07 | | 5120825 | 16 | 15 | 150 | 55 | 11 | - | 19,5 | ● | | | |

Bestellbeispiel: 1 Stück A08F-SVVCR 05
Order example: 1 piece A08F-SVVCR 05

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | |
|---|---|--|---|---|---|
| SV.CR/L | | | | | |
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d |  Unterlage Shim |  Gewindehülse Shim screw |  Klemmschraube Fixation screw |  Schlüssel Key |
| 05 | 08 | | | A02-15045 | V02 T0500 |
| 07 | 10 - 16 | | | A13-20048 | V04 T0600 |
| 11 | 16 | | | A02-25059 | V02 T0800 |

● Verfügbar ab Lager Available from stock
○ Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung | | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page |
|--|-----------------------|-----------|----|----------------|----------------|----------------|----|------------------|-------------------------------|--|---------------|
| | Ordering Code | Ident No. | | | | | | | | | |
| | A08F-SV95CR 05 | 5119406 | 8 | 7 | 85 | 15 | - | 9,2 | ● | VC.. 05.. | 57 |
| | A08F-SV95CL 05 | 5119407 | 8 | 7 | 85 | 15 | - | 9,2 | ● | | |
| | E08F-SV95CR 05 | 5119408 | 8 | 7 | 85 | 26 | - | 9,2 | ● | | |
| | E08F-SV95CL 05 | 5119409 | 8 | 7 | 85 | 26 | - | 9,2 | ● | | |
| | A10H-SV95CR 07 | 5112147 | 10 | 9 | 100 | 22 | 7 | 12,5 | ● | VC.. 07.. | 57 |
| | A10H-SV95CL 07 | 5112148 | 10 | 9 | 100 | 22 | 7 | 12,5 | ● | | |
| | A12K-SV95CR 07 | 5112149 | 12 | 11 | 125 | 28 | 9 | 15,5 | ● | | |
| | A12K-SV95CL 07 | 5112150 | 12 | 11 | 125 | 28 | 9 | 15,5 | ● | | |
| | A16M-SV95CR 07 | 5112151 | 16 | 15 | 150 | 36 | 11 | 19,5 | ● | | |
| | A16M-SV95CL 07 | 5112152 | 16 | 15 | 150 | 36 | 11 | 19,5 | ● | | |
| | E10H-SV95CR 07 | 5120808 | 10 | 9 | 100 | 32 | 5 | 12,5 | ● | | |
| | E10H-SV95CL 07 | 5120807 | 10 | 9 | 100 | 32 | 5 | 12,5 | ● | | |
| | E12K-SV95CR 07 | 5120814 | 12 | 11 | 125 | 40 | 6 | 15,5 | ● | | |
| | E12K-SV95CL 07 | 5120813 | 12 | 11 | 125 | 40 | 6 | 15,5 | ● | | |
| | E16M-SV95CR 07 | 5120821 | 16 | 15 | 150 | 55 | 8 | 19,5 | ● | | |
| | E16M-SV95CL 07 | 5120819 | 16 | 15 | 150 | 55 | 8 | 19,5 | ● | | |

Bestellbeispiel: 1 Stück A08F-SV95CR 05
 Order example: 1 piece A08F-SV95CR 05

| Ersatzteile Spare parts SV.CR/L | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|----------------------------------|----------------------------|---|------------------|-----------|--|
| Schneid- kantenlänge Cutting edge length | Schaftdurch- messer Ø d Shank diameter Ø d | | | | | | |
| | | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key | | |
| | | 05 | 08 | | A02-15045 | V02 T0500 | |
| | | 07 | 10 - 16 | | A13-20048 | V04 T0600 | |
| 11 | 16 | | A02-25059 | V02 T0800 | | | |

- Verfügbar ab Lager Available from stock
- Auf Anfrage On request

S-Klemmhalter Innenbearbeitung
Tool holders type S, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wende- platten Suitable inserts | Seite Page | |
|--|-------------------------------------|----------------------|---------|----------------|----------------|----------------|----|------------------|-------------------------------|--|---------------|----|
| | A16M-SWLCR 06 | 6401422 | 16 | 15,5 | 150 | - | 11 | 21 | ● | WC.. 06.. | 59 | |
| | A16M-SWLCL 06 | 6401421 | 16 | 15,5 | 150 | - | 11 | 21 | ○ | | | |
| | E16R-SWLCR 06 | 6404808 | 16 | 15 | 200 | - | 11 | 21 | ○ | | | |
| | E16R-SWLCL 06 | 6404807 | 16 | 15 | 200 | - | 11 | 21 | ○ | | | |
| | S16R-SWLCR 06 | 6407223 | 16 | 15 | 200 | - | 11 | 21 | ● | | | |
| | S16R-SWLCL 06 | 6407222 | 16 | 15 | 200 | - | 11 | 21 | ● | | | |
| | A20Q-SWLCR 06 | 6401470 | 20 | 19 | 180 | - | 13 | 25 | ○ | | | |
| | A20Q-SWLCL 06 | 6401469 | 20 | 19 | 180 | - | 13 | 25 | ● | | | |
| | E20S-SWLCR 06 | 6404860 | 20 | 19 | 250 | - | 13 | 25 | ○ | | | |
| | E20S-SWLCL 06 | 6404859 | 20 | 19 | 250 | - | 13 | 25 | ○ | | | |
| | S20S-SWLCR 06 | 6407241 | 20 | 18 | 250 | - | 13 | 25 | ○ | | | |
| | S20S-SWLCL 06 | 6407240 | 20 | 18 | 250 | - | 13 | 25 | ○ | | | |
| | A25R-SWLCR 06 | 6401510 | 25 | 24 | 200 | - | 17 | 31,5 | ○ | | | |
| | A25R-SWLCL 06 | 6401509 | 25 | 24 | 200 | - | 17 | 31,5 | ○ | | | |
| | E25T-SWLCR 06 | 6404892 | 25 | 24 | 300 | - | 17 | 31,5 | ○ | | | |
| | E25T-SWLCL 06 | 6404891 | 25 | 24 | 300 | - | 17 | 31,5 | ○ | | | |
| | S25T-SWLCR 06 | 6407268 | 25 | 23 | 300 | - | 17 | 31,5 | ○ | | | |
| | S25T-SWLCL 06 | 6407267 | 25 | 23 | 300 | - | 17 | 31,5 | ○ | | | |
| | | | | | | | | | | | | |
| | | A32S-SWLCR 08 | 6401581 | 32 | 31 | 250 | - | 22 | 40 | ○ | WC.. 08.. | 59 |
| | | A32S-SWLCL 08 | 6401580 | 32 | 31 | 250 | - | 22 | 40 | ○ | | |
| | | S32U-SWLCR 08 | 6407297 | 32 | 30 | 350 | - | 22 | 40 | ○ | | |
| | | S32U-SWLCL 08 | 6407296 | 32 | 30 | 350 | - | 22 | 40 | ○ | | |
| | | A40T-SWLCR 08 | 6401620 | 40 | 38,5 | 300 | - | 27 | 49 | ○ | | |
| | | A40T-SWLCL 08 | 6401619 | 40 | 38,5 | 300 | - | 27 | 49 | ○ | | |
| | S40V-SWLCR 08 | 6407324 | 40 | 37 | 400 | - | 27 | 49 | ○ | | | |
| | S40V-SWLCL 08 | 6407323 | 40 | 37 | 400 | - | 27 | 49 | ○ | | | |
| | | | | | | | | | | | | |

A = Stahlschaft mit Kühlbohrung Steel shank with coolant hole
 S = Stahlschaft Steel shank
 E = Hartmetall-Schaft mit Stahlkopf und Kühlbohrung
 Carbide shank with steel head and coolant hole

Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | |
|---|---|----------------------------------|----------------------------|---|------------------|--|
| Schneid- kantenlänge Cutting edge length | Schaftdurch- messer Ø d Shank diameter Ø d | Unterlage Shim | Gewindehülse Shim screw | Klemm- schraube Fixation screw | Schlüssel Key | |
| 06 | 16-25 | - | - | A02-35082 | V02-T1500 | |
| 08 | 32-40 | B09-W0831 | E09-F6045 | A02-45102 | V05-T1534 | |

Bestellbeispiel: 1 Stück A16M-SWLCR 06
 Order example: 1 piece A16M-SWLCR 06

Lieferung ohne Schlüssel
 Delivery without key

C-Klemmhalter Innenbearbeitung
Tool holders type C, internal machining



| | Bestellbezeichnung Ordering Code | Ident No. | d | h ₁ | l ₁ | l ₂ | f | D _{min} | Verfügbarkeit Availability | Passende Wendeplatten Suitable inserts | Seite Page | |
|--|-------------------------------------|----------------------|---------|----------------|----------------|----------------|------|------------------|-------------------------------|--|---------------|----|
| | | | | | | | | | | | | |
| | S74 P16R-TP11 | 6407343 | 16 | 14 | 180 | 14 | 10,7 | 20 | ● | TPMR 11.. | 55 | |
| | S74 P16L-TP11 | 6407342 | 16 | 14 | 180 | 14 | 10,7 | 20 | ● | | | |
| | S74 P20R-TP11 | 6407345 | 20 | 18 | 250 | 14 | 13,8 | 27 | ● | | | |
| | | S74 P20L-TP11 | 6407344 | 20 | 18 | 250 | 14 | 13,8 | 27 | ● | | |
| | | S74 P25R-TP16 | 6407347 | 25 | 23 | 300 | 20 | 17,7 | 34 | ● | TPMR 16.. | 55 |
| | | S74 P25L-TP16 | 6407346 | 25 | 23 | 300 | 20 | 17,7 | 34 | ● | | |
| | | S74 P32R-TP16 | 6407349 | 32 | 30 | 350 | 20 | 22,2 | 43 | ● | | |
| | | S74 P32L-TP16 | 6407348 | 32 | 30 | 350 | 20 | 22,2 | 43 | ● | | |
| | | S74 P40R-TP16 | 6407350 | 40 | 37 | 350 | 20 | 27,7 | 58 | ● | | |

S = Stahlschaft Steel shank

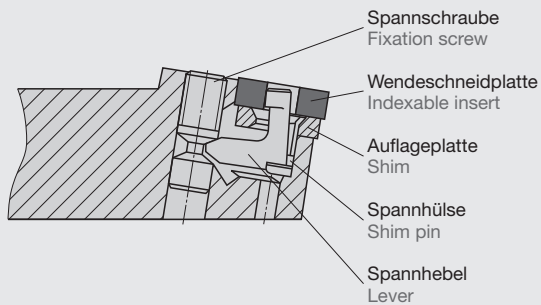
Rechtsausführung wie gezeichnet, Linksausführung spiegelbildlich
 Righthand version as shown, lefthand version mirrorlike

| Ersatzteile Spare parts | | Bestellbezeichnung Ordering Code | | | | | |
|---|---|----------------------------------|-----------------------|----------------------|------------------|--|--|
| Schneidkantenlänge Cutting edge length | Schaftdurchmesser Ø d Shank diameter Ø d | | | | | | |
| | | Unterlage Shim | Rohrstift Shim pin | Klemmfinger Clamp | Schlüssel Key | | |
| 11 | 16-20 | - | - | 33.01.05 | V02-T1000 | | |
| 16 | 25-40 | 33.03.04 | 33.04.04 | 33.01.06 | V02-T2000 | | |

Bestellbeispiel: 1 Stück S74P-16R TP 11
 Order example: 1 piece S74P-16R TP11

Lieferung ohne Schlüssel
 Delivery without key

P-Hebelspannsystem

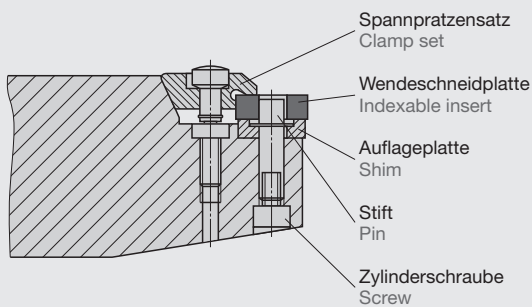


- Geeignet für alle Wendeschneidplatten nach DIN 4988
- Wenig Ersatzteile, keine losen Teile
- Ungehinderter Spanablauf, da kein störender Aufbau
- Einwandfreies Lösen der Schneidplatte durch Zwangsentspannen
- Schnelles, sicheres Spannen der Wendeschneidplatte

P-lever clamping system

- Suitable for all indexable inserts in compliance with DIN 4988
- Few spare parts, no loose parts
- Unimpeded chip removal as there is no troublesome build-up
- Perfect insert removal thanks to forced release mechanism
- Fast and secure clamping of indexable insert

M bzw. D-Keilspannsystem

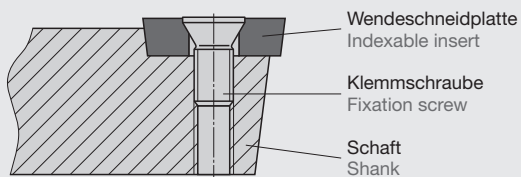


- Schnelles, sicheres Spannen durch Keil- und Spannpratze
- Schneidplatte ist an Haupt- und Nebenschneide frei
- Vorteilhaft vor allem bei Kopierarbeiten
- Besonders ausgebildeter Spannkeil bringt optimalen Spanfluss

M- or D-wedge clamp system

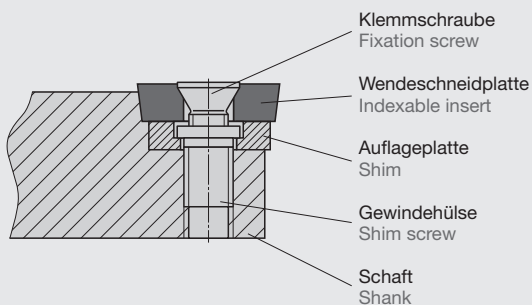
- Fast and secure clamping using wedges and clamps
- Insert is free around the primary and secondary cutting edges
- Especially well-suited to copy machining
- Specially shaped clamping wedge provides ideal chip flow

S-Schraubspannsystem








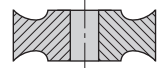
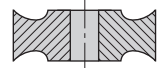
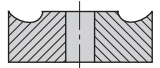





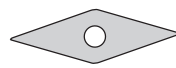


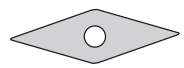

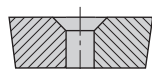
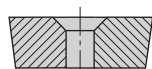
- Einfache und sichere Befestigung der Schneidplatte durch kegelige Positionierungsschraube
- Keine Beeinträchtigung des Spanablaufes
- Maximal 3 Ersatzteile






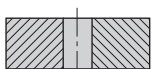

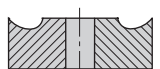
S-screw clamp system






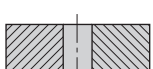
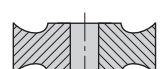
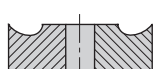


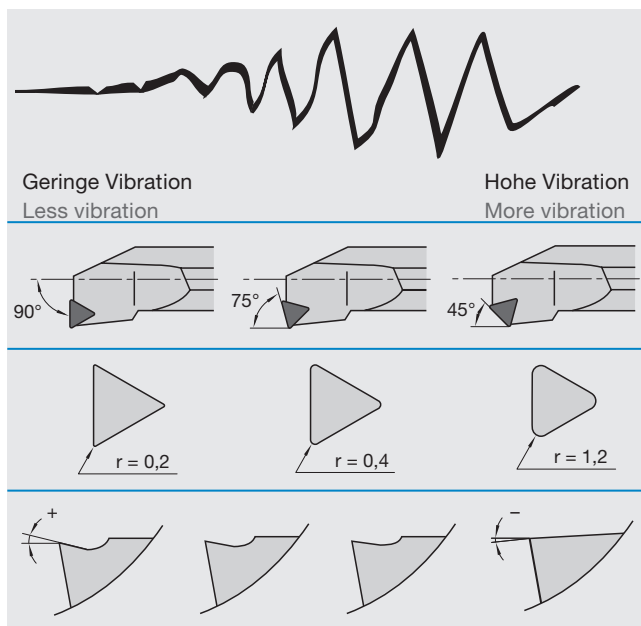
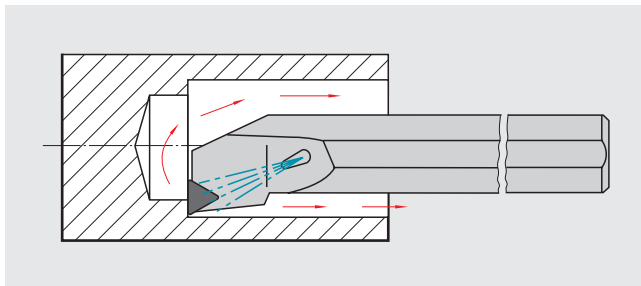
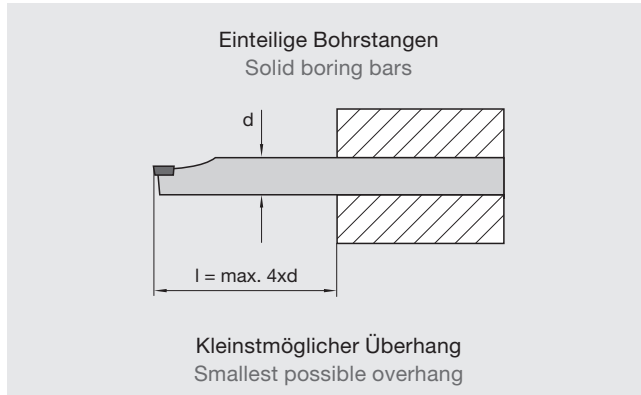
- Simple and secure fixing of the indexable insert using a tapered positioning screw
- Flow of chips is not obstructed
- Maximum of 3 replacement parts

| P-Klemmhalter P-type tool holders  | Bearbeitungsart Process type | Außen External | Innen Internal |
|---|--|---------------------------|---------------------------|
| | Schruppen Roughing | sehr gut very good | sehr gut very good |
| | Schlichten Finishing | gut good | gut good |
| Plattenform Shape of the indexable insert |       | | |
| Plattentyp Type of the indexable insert |    | | |

| S-Klemmhalter S-type tool holders  | Bearbeitungsart Process type | Außen External | Innen Internal |
|---|--|---------------------------|---------------------------|
| | Schruppen Roughing | geeignet suitable | geeignet suitable |
| | Schlichten Finishing | sehr gut very good | sehr gut very good |
| Plattenform Shape of the indexable insert |        | | |
| Plattentyp Type of the indexable insert |   | | |

| M-Klemmhalter M-type tool holders  | Bearbeitungsart Process type | Außen External | Innen Internal |
|---|---|---|---------------------------|
| | Schruppen Roughing | geeignet suitable | geeignet suitable |
| | Schlichten Finishing | gut good | sehr gut very good |
| Plattenform Shape of the indexable insert |    |  | |
| Plattentyp Type of the indexable insert |    | | |

| D-Klemmhalter D-type tool holders  | Bearbeitungsart Process type | Außen External | Innen Internal |
|---|---|---|---------------------------|
| | Schruppen Roughing | geeignet suitable | geeignet suitable |
| | Schlichten Finishing | gut good | sehr gut very good |
| Plattenform Shape of the indexable insert |    |  | |
| Plattentyp Type of the indexable insert |    | | |



Allgemeine Empfehlungen

- Den größtmöglichen Schaftdurchmesser wählen.
- Kleinstmöglichen Überhang wählen.
- Korrekte und stabile Einspannung für die Bohrstange wählen.
- Kühlschmierstoff (oder Druckluft) können den Spantransport und die Oberflächengüte, besonders bei tiefen Bohrungen, verbessern.

General recommendations

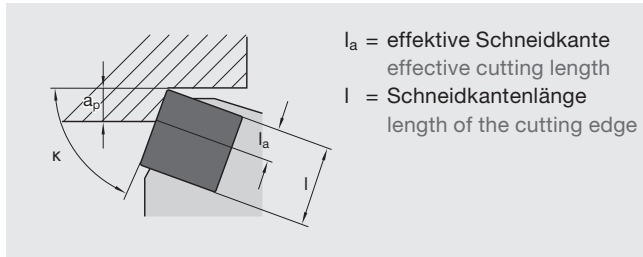
- Use the largest possible shank diameter.
- Use the smallest possible overhang.
- Use the correct, stable clamping method for the boring bar.
- Cooling lubricant (or compressed air) can improve chip transport and the surface quality, particularly with deep bores.

Faktoren, die bei der Wahl der Bohrstangen für vibrationsanfällige Bearbeitungen eine Rolle spielen

- Der Einstellwinkel sollte so nahe wie möglich an 90° und nicht unter 75° liegen.
- Kleinen Eckenradius wählen.
- Positive Halter (S-Klemmhalter) und Wendeschneidplatten wählen.
- Unbeschichtete Sorten haben in der Regel schärfere Schneidkanten und erzeugen daher geringere Schnittkräfte.

Factors to consider when selecting boring bars for work susceptible to vibration:

- The approach angle should be as close as possible to 90° and not be below 75°.
- Select a small corner radius.
- Use positive holders (S-clamp holder) and indexable inserts.
- Uncoated grades generally have sharper cutting edges and therefore generate less cutting force.



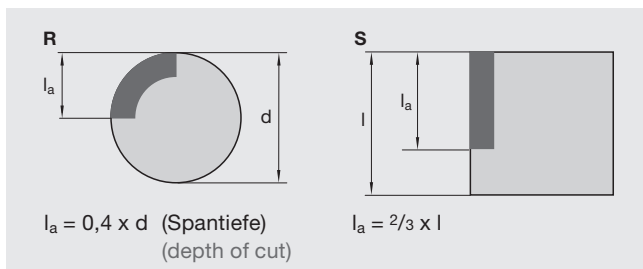
Spantiefe

- Bestimmen der größten Spantiefe a_p .
- Erforderliche effektive Schneidkantenlänge l_a bestimmen. Dabei sind der Anstellwinkel κ und die Spantiefe a_p zu berücksichtigen.
- Die kleinste erforderliche Schneidkantenlänge l_a kann aus der Tabelle links abgelesen werden.

| Anstellwinkel Angle of approach κ | Spantiefe (a_p) mm Depth of cut (a_p) mm | | | | | | | | | | | | | | |
|--|---|-----|-----|-----|-----|-----|-----|-----|-----|----|----|--|--|--|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | | | | |
| | Erforderliche effektive Schneidkantenlänge (l_a) mm Required effective length of the cutting edge (l_a) mm | | | | | | | | | | | | | | |
| 90 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | | | | |
| 105 75 | 1,1 | 2,1 | 3,1 | 4,1 | 5,2 | 6,2 | 7,3 | 8,3 | 9,3 | 11 | 16 | | | | |
| 120 60 | 1,2 | 2,3 | 3,5 | 4,7 | 5,8 | 7 | 8,2 | 9,3 | 11 | 12 | 18 | | | | |
| 135 45 | 1,4 | 2,9 | 4,3 | 5,7 | 7,1 | 8,5 | 10 | 12 | 13 | 15 | 22 | | | | |
| 150 30 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 30 | | | | |
| 165 15 | 4 | 8 | 12 | 16 | 20 | 24 | 27 | 31 | 35 | 39 | 58 | | | | |

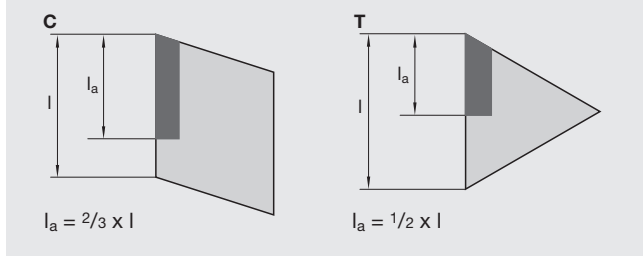
Depth of cut

- Determine the largest depth of cut a_p .
- Determine the effective length of cutting edge (l_a) required. The setting angle (κ) and the depth of cut (a_p) should be taken into consideration.
- The smallest length of cutting edge (l_a) required can be found in the table to the left.



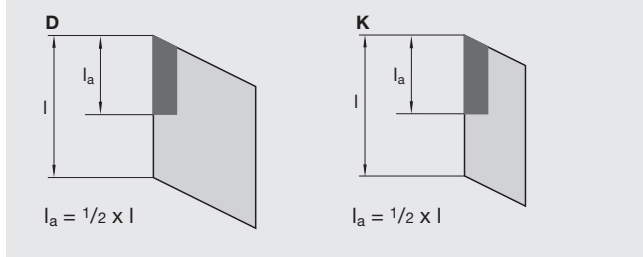
Effektive Schneidkantenlänge

Der Spitzenwinkel einer Wendschneidplatte hat einen großen Einfluss auf die Schneidkantenstabilität. Jede Wendschneidplatte hat eine maximale effektive Schneidkantenlänge. Die in der Tabelle angeführten maximalen Werte sind für eine Bearbeitungssicherheit beim Schruppen ohne unterbrochenen Schnitt ausgelegt.



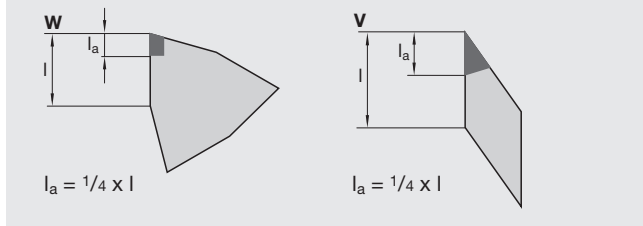
Falls die effektive Schneidkantenlänge niedriger als die Spantiefe ist, sollte eine größere Wendeplatte gewählt oder die Spantiefe reduziert werden.

Für zusätzliche Sicherheit bei anspruchsvollen Zerspanaufgaben sollte eine größere und dickere Wendschneidplatte eingesetzt werden. Beim Drehen gegen eine Schulter kann sich die Spantiefe erheblich erhöhen. Damit es hier nicht zu Problemen kommt, sollte eine größere Wendschneidplatte verwendet oder eine zusätzliche Plandrehooperation durchgeführt werden.



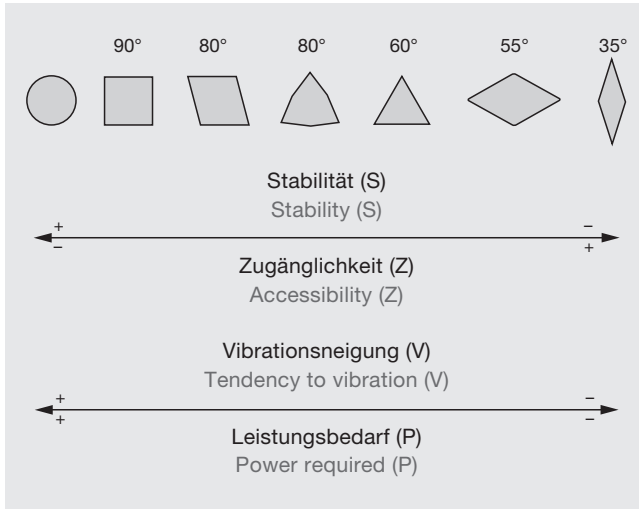
The effective length of the cutting edge

The point angle of an indexable insert has a great influence on the stability of the cutting edges. Every indexable insert has a maximum effective cutting edge length. The maximum values given in the table are designed for working safety when rough cutting with a continuous cut.



If the effective length of the cutting edges is lower than the depth of cut, a larger indexable insert should be used or the depth of cut should be reduced.

For additional safety during difficult cutting jobs, a larger or thicker indexable insert should be used. When turning against a shoulder, the depth of cut can be increased considerably. So that no problems arise here, a larger indexable insert should be used or an additional face turning operation should be performed.



Wendeplattenform

Die Abbildung zeigt die gebräuchlichsten ISO-Plattenformen von der runden bis hin zur 35° Wendschneidplatte.

Die Pfeilskala zeigt, dass die Schneidkantenstabilität (S) mit größer werdendem Eckenwinkel zunimmt. Je kleiner der Eckenwinkel, umso besser ist die Zugänglichkeit (Z).

Die Pfeilskala zeigt, dass die Vibrationsneigung (V) links ansteigt, während der Leistungsbedarf (P) rechts niedriger ist.

Beim Drehen von Formen darf beim Einwärtskopieren der maximale Kopierwinkel nicht überschritten werden. Der Winkel zwischen der Nebenschneide und der erzeugten Werkstückform sollte mindestens 2° betragen.

Indexable insert shape

The diagram shows the most common indexable insert shapes from round tips right down to 35° indexable inserts.

The arrow on the scale shows that the stability of the cutting edge (S) grows with increasing point angle, Whereas the accessibility (Z) becomes improved by smaller point angles.

Tendency to vibration (V) and power requirement (P) rise with larger point angles.

When turning shapes the maximum copy angle must not be exceeded for inward copying. The angle between the secondary cutting edge and the workpiece shape produced should be at least 2°.

| Eckenradius (r) mm Corner radius (r) mm | 0,4 | 0,8 | 1,2 | 1,6 | 2,4 |
|---|-----------|---------|---------|---------|---------|
| Max. empf. Vorschub (f_n) mm/U Recommended max. feed rate (f_n) mm/rev | 0,25–0,35 | 0,4–0,7 | 0,5–1,0 | 0,7–1,3 | 1,0–1,8 |

Eckenradius und Vorschub

Der Eckenradius der Wendeschneidplatte ist ein Schlüsselfaktor in Bezug auf:

- Stabilität beim Schrappen.
- Oberflächengüte beim Schlichten.

Schruppbearbeitung

- Größtmöglichen Eckenradius wählen, um eine möglichst stabile Schneidkante zu gewährleisten.

- Ein großer Eckenradius erlaubt größere Vorschübe.
- Bei Vibrationsgefahr kleineren Eckenradius wählen.

Bei der Wahl des Vorschubs für die Schruppdrehbearbeitung dürfen die maximalen Vorschubwerte wie oben genannt auf keinen Fall überschritten werden. Als Grundregel gilt:

$$f_n \text{ Schrappen} = 0,5 \times \text{Eckenradius}$$

Maximaler Vorschub für verschiedene Eckenradien

Die bei der Schruppbearbeitung am häufigsten verwendeten Radien betragen 1,2 - 1,6 mm.

Die Tabelle basiert auf der max. empfohlenen Vorschubgeschwindigkeit von $\frac{2}{3}$ des Eckenradius.

Höhere Vorschübe sind möglich bei:

- Wendeschneidplatten mit stabiler Schneidkante und Spitzenwinkel von min. 60°.
- Einseitigen Wendeschneidplatten.
- Wendeschneidplatten, die mit einem Anstellwinkel unter 90° eingesetzt werden.
- Bearbeitungen von gut zerspanbaren Werkstückstoffen mit mittleren Schnittgeschwindigkeiten.

Corner radius and feed

The corner radius of the indexable insert is a key factor with regard to:

- Stability during rough cutting.
- Surface quality during finishing.

Roughing

- Use the largest possible corner radius to ensure the greatest degree of stability for the cutting edge.

- A large corner radius permits a greater feed rate.

- Use a smaller corner radius if there is a risk of vibration.

When selecting the feed rate for rough turning work, the maximum feed rates given above must not be exceeded in any circumstances. The basic rule is:

$$f_n \text{ Roughing} = 0,5 \times \text{Corner radius}$$

Maximum feed rate for various corner radii

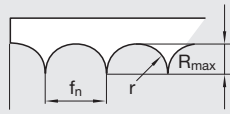
The most frequently used radii for rough machining are between 1.2 - 1.6 mm.

The table is based on the max. recommended feed rate of $\frac{2}{3}$ of the corner radius.

Greater feed rates are possible in the following cases:

- Indexable inserts have a stable cutting edge and a point angle of at least 60°.
- Single-sided indexable inserts.
- Indexable inserts which are used with a setting angle less than 90°.
- Working easily machineable workpiece materials at moderate cutting speeds.

Theoretische maximale Rautiefe (R_{max})
Theoretical maximum roughness height (R_{max})



$$R_{max} = \frac{f_n^2}{8r} \cdot 1000 \text{ (}\mu\text{m)}$$

R_{max} = Rautiefe
Roughness height
 r = Eckenradius (mm)
Corner radius (mm)
 f_n = Vorschub (mm/U)
Feed (mm/revolution)

Vorschub Feed:

$$f_n = \sqrt{\frac{R_{max} \times 8r}{1000}}$$

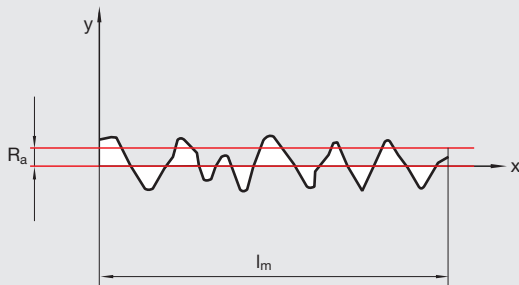
Die Oberflächengüte und Toleranzgenauigkeit wird wesentlich durch das Zusammenspiel von Vorschub und Eckenradius beeinflusst. Weitere Einflussgrößen sind die Stabilität der Aufspannung und der Maschine.

Allgemeine Empfehlung

- Die Oberflächengüte kann durch höhere Schnittgeschwindigkeiten und positive Spanwinkel noch verbessert werden.
- Bei Vibrationsgefahr kleineren Eckenradius wählen.
- Besonders gute Oberflächengüten werden mit unbeschichteten Hartmetallsorten (schärfere Schneidkanten als beschichtete Sorten) erzielt.

The surface quality and accuracy of the tolerance is greatly influenced by the interaction of the feed rate and corner radius. The stability of the clamping system and the machine are other decisive factors.

Mittenrauwert (R_a)
Mean roughness figure (R_a)



General recommendation

- The surface quality can be improved by using higher cutting speeds and positive rake angles.
- Use a smaller corner radius if there is a risk of vibration.
- Especially high quality surfaces can be achieved using uncoated hard metals (sharper cutting edges than coated grades).

| R _{max} | R _a = CLA = AA | | RMS | | Rauigkeitswert Value for roughness |
|------------------|---------------------------|-------|-------|-------|---------------------------------------|
| | µm | µinch | µm | µinch | |
| 1,6 | 0,30 | 11,8 | 0,33 | 13,1 | |
| 1,8 | 0,35 | 13,8 | 0,39 | 15,3 | |
| 2,0 | 0,40 | 15,7 | 0,44 | 17,4 | N5 |
| 2,2 | 0,44 | 17,5 | 0,49 | 19,4 | |
| 2,4 | 0,49 | 19,2 | 0,54 | 21,3 | |
| 2,6 | 0,53 | 20,8 | 0,59 | 23,1 | |
| 2,8 | 0,58 | 22,7 | 0,64 | 25,2 | |
| 3,0 | 0,63 | 24,6 | 0,70 | 27,3 | |
| 3,5 | 0,71 | 27,8 | 0,79 | 30,9 | |
| 4,0 | 0,80 | 31,4 | 0,89 | 34,8 | N6 |
| 4,5 | 0,90 | 35,2 | 1,00 | 39,1 | |
| 5,0 | 0,99 | 38,8 | 1,10 | 43,1 | |
| 6,0 | 1,20 | 47,2 | 1,30 | 52,4 | |
| 7,0 | 1,40 | 55,1 | 1,50 | 61,2 | |
| 8,0 | 1,60 | 63,0 | 1,80 | 70,0 | N7 |
| 9,0 | 1,80 | 71,0 | 2,00 | 78,8 | |
| 10,0 | 2,00 | 97,0 | 2,20 | 87,7 | |
| 15,0 | 3,20 | 126,0 | 3,10 | 140,0 | N8 |
| 20,0 | 4,40 | 173,0 | 4,90 | 192,0 | |
| 25,0 | 5,80 | 238,0 | 6,40 | 264,0 | |
| 27,0 | 6,30 | 247,0 | 7,00 | 274,0 | N9 |
| 30,0 | 7,40 | 292,0 | 8,20 | 324,0 | |
| 35,0 | 8,80 | 346,0 | 9,80 | 384,0 | |
| 40,0 | 10,70 | 422,0 | 11,90 | 468,0 | |
| 45,0 | 12,50 | 485,0 | 13,90 | 538,0 | N10 |

Vorgangsweise:

Umwandlungstabelle für die verschiedenen Messsysteme. Es lässt sich keine rechnerische Beziehung zwischen der Rautiefe R_{max} und dem Wert R_a herstellen.

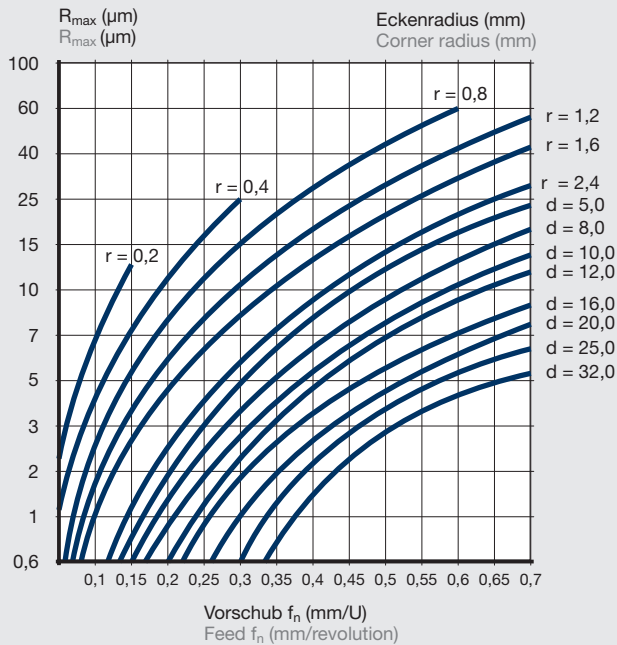
Aus der Umwandlungstabelle den in Frage kommenden R_{max}-Wert entnehmen. Danach aus dem Diagramm die richtige Kombination von Eckenradius und Vorschub ablesen.

Procedure:

Conversion table for various measurement systems. This cannot be used to calculate a mathematical relationship between the R_{max} roughness height and the figure for R_a.

Look up the appropriate R_{max} value in the conversion table. Then read off the correct combination of corner radius and feed rate.







Das Diagramm zeigt theoretische R_{max}-Werte für bestimmte Vorschub-/Eckenradius-Kombinationen.
The diagram shows theoretical R_{max} values for specific feed/corner radius combinations.



| Berechnungseinheiten Units | | |
|-------------------------------|--|-----------------------------|
| Kurzbezeichnung Code | Bezeichnung Description | Einheiten Unit |
| D _m | Bearbeitungsdurchmesser Machining diameter | mm |
| v _c | Schnittgeschwindigkeit Cutting speed | m/min |
| n | Anzahl Spindelumdrehungen No. of spindle revolutions | min ⁻¹ r.p.m. |
| T _c | Eingriffszeit Working time | min |
| Q | Zerspanungsvolumen Metal removal volume | cm ³ /min |
| l _m | Bearbeitungslänge Working length | mm |
| P _c | Netto-Antriebsleistung Net power consumption | kW |
| k _{c 0,4} | Spezifische Schnittkraft für Spandicke 0,4 mm Specific cutting force for chip thickness of 0.4 mm | N/mm ² |
| f _n | Vorschub pro Umdrehung Feed per revolution | mm/U mm/rev |
| κ _r | Anstellwinkel Approach angle | Grad degrees |
| R _{max} | Profiltiefe Profile depth | µm |
| r _ε | Schneidplattenradius Indexable insert corner radius | mm |
| a _p | Schnitttiefe Cutting depth | mm |

| Formeln Formulas | | |
|---------------------|--|---|
| | Schnittgeschwindigkeit (m/min) Cutting speed (m/min) | $v_c = \frac{D_m \cdot \pi \cdot n}{1000}$ |
| | Anzahl Spindelumdrehungen (min ⁻¹) No. of spindle revolutions r.p.m. | $n = \frac{v_c \cdot 1000}{D_m \cdot \pi}$ |
| | Zerspanungsvolumen (cm ³ /min) Metal removal volume (cm ³ /min) | $Q = v_c \cdot a_p \cdot f_n$ |
| | Antriebsleistung (kW) Power consumption (kW) | $P_c = \frac{Q \cdot k_{c 0,4}}{60 \cdot 1000} \left[\frac{0,4}{f_n \cdot \sin \kappa_r} \right]^{0,29}$ |
| | Eingriffszeit (min) Working time (min) | $T_c = \frac{l_m}{f_n \cdot n}$ |
| | Profiltiefe (µm) Profile depth (µm) | $R_{max} = \frac{f_n^2}{r_\epsilon} \cdot 125$ |

| Abhilfe Option | Problem Problem | | | | | | | | | | | |
|--|--|--|---|---|-------------------------------------|---|---------------------------|--|---|---|---|---|
| | Extremer Freiflächenverschleiß Wear of free areas | Extremer Kolkverschleiß Extreme crater wear | Aufbauschneidendenbildung Formation of built-up edge | Schneidkantenausbrüche Chips in cutting edge | Kerbverschleiß Notch sensibility | Plattenbruch Broken indexable insert | Wärmerisse Heat cracks | Plastische Verformung Plastic deformation | Unterbrochener Schnitt Interrupted cut | Schlechte Werkstückoberfläche Poor workpiece surface | Band-Wirrsinn (nicht angelaufen) Band/snarl chips (not coloured) | Zu enge Spanform (blau angelaufen) Chip shape too narrow (blueing) |
| HM-Verschleißfestigkeit T/C wear resistance | ↑ | | | | ↑ | | | ↑ | | | | |
| HM-Zähigkeit T/C roughness | | | | ↑ | | ↑ | ↑ | | ↑ | | | |
| Schnittgeschwindigkeit Cutting speed | ↓ | ↓ | ↑ | | ↓ | | | ↓ | ↑ | ↑ | | |
| Vorschub Feed | ↔ | ↓ | ↓ | | | | | ↓ | ↓ | ↓ | ↑ | ↓ |
| Schnitttiefe Depth of cut | | | | | ↔ | | | | ↑ | | ↔ | ↔ |
| Spanwinkel Chip angle | | ↑ | ↑ | ↓ | | ↓ | | | ↔ | | | |
| Spanformgeometrie Chip breaker geometry | | | | ↔ | | ↔ | | | | | ↔ | ↔ |
| Zustand der Schneidkante Condition of cutting edge | | | | ↔ | | | | | ↔ | | | |
| Platten-Eckenradius Corner radius | | | | | | ↑ | | | ↑ | ↑ | | |
| Anstellwinkel Approach angle | | | | ↓ | | | | | | | | |
| Stabilität Stability | | | | ↑ | | | | | | | | |
| Kühlung Cooling | | ↑ | ↑ | | | | ↑ | ↑ | | ↑ | | |
| <p> ↑ erhöhen, vergrößern ↓ vermindern, verkleinern ↔ optimieren, kontrollieren increase reduce optimize </p> | | | | | | | | | | | | |

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | | | |
|---|---|--|---|---|---|-----------|
| | | | LCP15T | | | |
| | | | $f = \text{mm/U rev}$ | | | |
| | | | 0,4 – 0,8 | 0,25 – 0,4 | 0,05 – 0,25 | |
| | | |   |   |   | |
| P | Unlegierter Stahl ¹⁾ Unalloyed steel ¹⁾ | ca. 0,15 %C gegläht ≈ 0,15 %C annealed | 125 | 140 – 200 | 230 – 300 | 290 – 360 |
| | | ca. 0,45 %C gegläht ≈ 0,45 %C annealed | 190 | 110 – 180 | 180 – 260 | 250 – 320 |
| | | ca. 0,45 %C vergütet ≈ 0,45 %C hardened and temp. | 250 | 90 – 180 | 110 – 180 | 140 – 210 |
| | | ca. 0,75 %C gegläht ≈ 0,75 %C annealed | 270 | 120 – 180 | 170 – 240 | 230 – 300 |
| | | ca. 0,75 %C vergütet ≈ 0,75 %C hardened and temp. | 300 | 130 – 150 | 80 – 150 | 140 – 210 |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 100 – 170 | 150 – 220 | 220 – 300 |
| | | vergütet hardened and temp. | 275 | 100 – 150 | 110 – 180 | 140 – 210 |
| | | vergütet hardened and temp. | 300 | 100 – 140 | 100 – 170 | 130 – 200 |
| | | vergütet hardened and temp. | 350 | 100 – 140 | 80 – 150 | 110 – 180 |
| | Hochlegierter Stahl und hochlegierter Werkzeugstahl ¹⁾ High-alloy steel and high alloy tool steel ¹⁾ | geglüht annealed | 200 | 100 – 180 | 80 – 220 | 180 – 260 |
| gehärtet und angelassen hardened and temp. | | 325 | 100 – 160 | 80 – 140 | 100 – 170 | |
| Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | ferritisch/martensitisch gegläht ferritic/martensitic annealed | 200 | 100 – 170 | 130 – 200 | 180 – 260 | |
| | martensitisch vergütet martensitic hardened and temp. | 240 | 100 – 140 | 80 – 150 | 150 – 210 | |
| K | Grauguss Grey cast iron | perlitisches/ferritisch perlitic/ferritic | 180 | 100 – 180 | 170 – 240 | 250 – 320 |
| | | perlitisches (martensitisch) perlitic (martensitic) | 260 | 90 – 120 | 80 – 150 | 110 – 180 |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 160 | 100 – 150 | 110 – 180 | 140 – 210 |
| | | perlitisches perlitic | 250 | 90 – 140 | 90 – 160 | 110 – 180 |
| | Temperguss Malleable cast iron | ferritisch ferritic | 130 | 90 – 140 | 120 – 190 | 150 – 210 |
| | | perlitisches perlitic | 230 | 90 – 120 | 100 – 150 | 110 – 180 |

¹⁾ und Stahlguss
and cast steel



Trockenbearbeitung
Dry machining

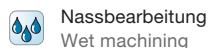
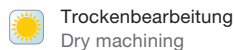








Nassbearbeitung
Wet machining

| Werkstoffgruppe Material group | Werkstoff Material | | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | | |
|--|---|--|---|---|-----------|-----------|
| | | | | LCP25T | | |
| | | | | $f = \text{mm/U rev}$ | | |
| | | | | 0,4–0,8 | 0,25–0,4 | 0,05–0,25 |
| P | Unlegierter Stahl ¹⁾ Unalloyed steel ¹⁾ | ca. 0,15 %C gegläht ≈ 0,15 %C annealed | 125 | 120 – 190 | 170 – 250 | 170 – 250 |
| | | ca. 0,45 %C gegläht ≈ 0,45 %C annealed | 190 | 100 – 180 | 150 – 200 | 150 – 220 |
| | | ca. 0,45 %C vergütet ≈ 0,45 %C hardened and temp. | 250 | 80 – 150 | 100 – 170 | 120 – 200 |
| | | ca. 0,75 %C gegläht ≈ 0,75 %C annealed | 270 | 100 – 170 | 80 – 140 | 140 – 200 |
| | | ca. 0,75 %C vergütet ≈ 0,75 %C hardened and temp. | 300 | 70 – 140 | 100 – 160 | 100 – 170 |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 90 – 160 | 140 – 200 | 140 – 200 |
| | | vergütet hardened and temp. | 275 | 90 – 140 | 100 – 160 | 100 – 180 |
| | | vergütet hardened and temp. | 300 | 85 – 130 | 100 – 150 | 100 – 170 |
| | | vergütet hardened and temp. | 350 | 80 – 120 | 80 – 140 | 90 – 170 |
| | Hochlegierter Stahl und hochlegierter Werkzeugstahl ¹⁾ High-alloy steel and high alloy tool steel ¹⁾ | geglüht annealed | 200 | 90 – 150 | 80 – 170 | 130 – 170 |
| | | gehärtet und angelassen hardened and temp. | 325 | 50 – 110 | 70 – 130 | 80 – 130 |
| | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | ferritisch/martensitisch gegläht ferritic/martensitic annealed | 200 | 90 – 140 | 120 – 180 | 140 – 180 |
| martensitisch vergütet martensitic hardened and temp. | | 240 | 85 – 120 | 80 – 140 | 100 – 140 | |
| M | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | 180 | 90 – 110 | 100 – 130 | 100 – 130 |

¹⁾ und Stahlguss
and cast steel


²⁾ und austenitische/ferritische
and austenitic/ferritic




| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | | | |
|--|---|--|---|---|---|-----------|
| | | | LC240F | | | |
| | | | $f = \text{mm/U rev}$ | | | |
| | | | 0,4 – 0,8 | 0,25 – 0,4 | 0,05 – 0,25 | |
| | | |   |   |   | |
| P | Unlegierter Stahl ¹⁾ Unalloyed steel ¹⁾ | ca. 0,15 %C gegläht ≈ 0,15 %C annealed | 125 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | ca. 0,45 %C gegläht ≈ 0,45 %C annealed | 190 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | ca. 0,45 %C vergütet ≈ 0,45 %C hardened and temp. | 250 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | ca. 0,75 %C gegläht ≈ 0,75 %C annealed | 270 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | ca. 0,75 %C vergütet ≈ 0,75 %C hardened and temp. | 300 | 60 – 100 | 70 – 110 | 90 – 170 |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | vergütet hardened and temp. | 275 | 70 – 110 | 70 – 110 | 90 – 170 |
| | | | 300 | 60 – 100 | 70 – 110 | 90 – 170 |
| | | | 350 | 55 – 80 | 70 – 110 | 90 – 170 |
| | Hochlegierter Stahl und hochlegierter Werkzeugstahl ¹⁾ High-alloy steel and high alloy tool steel ¹⁾ | geglüht annealed | 200 | 80 – 110 | 70 – 110 | 90 – 170 |
| | | gehärtet und angelassen hardened and temp. | 325 | 60 – 90 | 70 – 110 | 90 – 170 |
| | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | ferritisch/martensitisch gegläht ferritic/martensitic annealed | 200 | 90 – 130 | 70 – 110 | 90 – 170 |
| martensitisch vergütet martensitic hardened and temp. | | 240 | 70 – 110 | 70 – 110 | 90 – 170 | |
| M | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | 180 | 70 – 100 | 90 – 140 | 110 – 170 |

¹⁾ und Stahlguss
and cast steel

²⁾ und austenitische/ferritische
and austenitic/ferritic

 Trockenbearbeitung
Dry machining

 Nassbearbeitung
Wet machining

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte HB Brinell hardness HB | LCM20T | | | | | | | | | | |
|---|---|---|--|------------------------------|---|---|---|--|------------------------------|---|---|---|--|
| | | | Negative Wendepplatten Negative indexable inserts ISO-P-System | | | | | Positive Wendepplatten Positive indexable inserts ISO-S-System | | | | | |
| | | | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | |
| | | | | | | | | | | | | | |
| M | Ferritisch Ferritic 1.4000, 1.4002, 1.4003, 1.4006, 1.4016, 1.4104, 1.4113, 1.4313, 1.4742, 1.4762 | 180 | MM | 08 | 2 | 0,20 | 180 – 230 | MM | 04 | 1 | 0,15 | 180 – 230 | |
| | | | | 12 | 3 | 0,30 | 180 – 230 | | 08 | 2 | 0,25 | 180 – 230 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Martensitisch Martensitic 1.4006, 1.4014, 1.4021, 1.4024, 1.4027, 1.4028, 1.4031, 1.4034, 1.4057, 1.4122, 1.4724 | 320 | MM | 08 | 2 | 0,20 | 180 – 230 | MM | 04 | 1 | 0,15 | 180 – 230 | |
| | | | | 12 | 3 | 0,30 | 180 – 230 | | 08 | 2 | 0,25 | 180 – 230 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Austenitisch Austenitic 1.4300, 1.4301, 1.4303, 1.4305, 1.4306, 1.4308, 1.4310, 1.4311 | 180 | MM | 08 | 2 | 0,2 | 150 – 200 | MM | 04 | 1 | 0,15 | 150 – 200 | | |
| | | | 12 | 3 | 0,3 | 150 – 200 | | 08 | 2 | 0,20 | 150 – 200 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 1.4321, 1.4401, 1.4404, 1.4406, 1.4428, 1.4435, 1.4436, 1.4438, 1.4449 1.4571 | 180 | MM | 08 | 2 | 0,2 | 150 – 200 | MM | 04 | 1 | 0,15 | 150 – 200 | |
| | | | | 12 | 3 | 0,3 | 150 – 200 | | 08 | 2 | 0,2 | 150 – 200 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Die angegebenen Schnittdatenrichtwerte sind Empfehlungen für Anwendungen mit Kühlschmierstoff.
Bei Trockenbearbeitung reduzieren Sie die Schnittgeschwindigkeit v_c um ca. 20 %.
The above recommendations are given for wet machining. For dry machining the recommended values for the cutting speed have to be reduced by approx. 20 %.

| Werkstoffgruppe Material group | BCM25T | | | | | | | | | | | | |
|-----------------------------------|---|---|------------------------------|---|---|---|-----------------------|--|---|---|---|-----------|-----------|
| | Negative Wendepplatten Negative indexable inserts ISO-P-System | | | | | | | Positive Wendepplatten Positive indexable inserts ISO-S-System | | | | | |
| | Brinell Härte HB Brinell hardness HB | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | | |
| | | | | | | | | | | | | | |
| M | Ferritisch Ferritic 1.4000, 1.4002, 1.4003, 1.4006, 1.4016, 1.4104, 1.4113, 1.4313, 1.4742, 1.4762 | 180 | MM | 08 | 2 | 0,2 | 130 - 200 | MM | 04 | 1 | 0,15 | 130 - 200 | |
| | | | | 12 | 3 | 0,3 | 130 - 200 | | 08 | 2 | 0,25 | 130 - 200 | |
| | | | | 16 | 3,5 | 0,3 | 130 - 200 | | | | | | |
| | | | BFMS | 04 | 1 | 0,15 | 130 - 200 | | | | | | |
| | | | | 08 | 2,5 | 0,25 | 130 - 200 | | | | | | |
| | | | | 12 | 3 | 0,3 | 130 - 200 | | | | | | |
| | | BMS | 08 | 2 | 0,2 | 130 - 200 | | | | | | | |
| | | | 12 | 3 | 0,3 | 130 - 200 | | | | | | | |
| | | | | | | | | | | | | | |
| | | Martensitisch Martensitic 1.4006, 1.4014, 1.4021, 1.4024, 1.4027, 1.4028, 1.4031, 1.4034, 1.4057, 1.4122, 1.4724 | 320 | MM | 08 | 2 | 0,2 | 130 - 200 | MM | 04 | 1 | 0,15 | 130 - 200 |
| | | | | | 12 | 3 | 0,3 | 130 - 200 | | 08 | 2 | 0,25 | 130 - 200 |
| | | | | | 16 | 3,5 | 0,3 | 130 - 200 | | | | | |
| | BFMS | | | 04 | 1 | 0,15 | 130 - 200 | | | | | | |
| | | | | 08 | 2,5 | 0,25 | 130 - 200 | | | | | | |
| | | | | 12 | 3 | 0,3 | 130 - 200 | | | | | | |
| | BMS | | 08 | 2 | 0,2 | 130 - 200 | | | | | | | |
| | | | 12 | 3 | 0,3 | 130 - 200 | | | | | | | |
| | | | | | | | | | | | | | |
| | Austenitisch Austenitic 1.4300, 1.4301, 1.4303, 1.4305, 1.4306, 1.4308, 1.4310, 1.4311 1.4321, 1.4401, 1.4404, 1.4406, 1.4428, 1.4435, 1.4436, 1.4438, 1.4449 1.4571 | | 180 | MM | 08 | 2 | 0,2 | 100 - 180 | MM | 04 | 1 | 0,15 | 100 - 180 |
| | | | | | 12 | 3 | 0,3 | 100 - 180 | | 08 | 2 | 0,20 | 100 - 180 |
| | | | | | 16 | 3,5 | 0,3 | 100 - 180 | | | | | |
| | | BFMS | | | 04 | 1 | 0,15 | 100 - 180 | | | | | |
| | | | | | 08 | 2,5 | 0,25 | 100 - 180 | | | | | |
| | | | | | 12 | 3 | 0,3 | 100 - 180 | | | | | |
| BMS | | 08 | | 2 | 0,2 | 100 - 180 | | | | | | | |
| | | 12 | | 3 | 0,3 | 100 - 180 | | | | | | | |
| | | | | | | | | | | | | | |
| 180 | | MM | | 08 | 2 | 0,2 | 100 - 180 | MM | 04 | 1 | 0,15 | 100 - 180 | |
| | | | | 12 | 3 | 0,3 | 100 - 180 | | 08 | 2 | 0,2 | 100 - 180 | |
| | | | | 16 | 3,5 | 0,3 | 100 - 180 | | | | | | |
| | | BFMS | 04 | 1 | 0,15 | 100 - 180 | | | | | | | |
| | | | 08 | 2,5 | 0,25 | 100 - 180 | | | | | | | |
| | | | 12 | 3 | 0,3 | 100 - 180 | | | | | | | |
| BMS | | 08 | 2 | 0,2 | 100 - 180 | | | | | | | | |
| | | 12 | 3 | 0,3 | 100 - 180 | | | | | | | | |
| | | | | | | | | | | | | | |

Die angegebenen Schnittdatenrichtwerte sind Empfehlungen für Anwendungen mit Kühlschmierstoff.

Bei Trockenbearbeitung reduzieren Sie die Schnittgeschwindigkeit v_c um ca. 20 %.

The above recommendations are given for wet machining. For dry machining the recommended values for the cutting speed have to be reduced by approx. 20 %.

| Werkstoffgruppe Material group | BCM40T | | | | | | | | | | | | |
|--|---|------------------------------|---|---|---|-----------------------|------------------------------|--|---|---|--|--|--|
| | Negative Wendepplatten Negative indexable inserts ISO-P-System | | | | | | | Positive Wendepplatten Positive indexable inserts ISO-S-System | | | | | |
| | Brinell Härte HB Brinell hardness HB | | | | | | | | | | | | |
| | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | | | |
| M | Ferritisch Ferritic 1.4000, 1.4002, 1.4003, 1.4006, 1.4016, 1.4104, 1.4113, 1.4313, 1.4742, 1.4762 | 180 | MM | 08 | 2 | 0,2 | 100 - 180 | | | | | | |
| | | | | 12 | 3 | 0,3 | 100 - 180 | | | | | | |
| | | | | 16 | 3,5 | 0,3 | 100 - 180 | | | | | | |
| | | | BMRS | 12 | 4 | 0,45 | 100 - 180 | | | | | | |
| | | | | 16 | 5 | 0,5 | 100 - 180 | | | | | | |
| | | | | | | | | | | | | | |
| | Martensitisch Martensitic 1.4006, 1.4014, 1.4021, 1.4024, 1.4027, 1.4028, 1.4031, 1.4034, 1.4057, 1.4122, 1.4724 | 320 | MM | 08 | 2 | 0,2 | 100 - 180 | | | | | | |
| | | | | 12 | 3 | 0,3 | 100 - 180 | | | | | | |
| | | | | 16 | 3,5 | 0,3 | 100 - 180 | | | | | | |
| | | | BMRS | 12 | 4 | 0,45 | 100 - 180 | | | | | | |
| | | | | 16 | 5 | 0,5 | 100 - 180 | | | | | | |
| | | | | | | | | | | | | | |
| | Austenitisch Austenitic 1.4300, 1.4301, 1.4303, 1.4305, 1.4306, 1.4308, 1.4310, 1.4311 | 180 | MM | 08 | 2 | 0,2 | 90 - 160 | | | | | | |
| | | | | 12 | 3 | 0,3 | 90 - 160 | | | | | | |
| | | | | 16 | 3,5 | 0,3 | 90 - 160 | | | | | | |
| | | | BMRS | 12 | 4 | 0,45 | 80 - 160 | | | | | | |
| | | | | 16 | 5 | 0,5 | 80 - 160 | | | | | | |
| | | | | | | | | | | | | | |
| 1.4321, 1.4401, 1.4404, 1.4406, 1.4428, 1.4435, 1.4436, 1.4438, 1.4449 1.4571 | 180 | MM | 08 | 2 | 0,2 | 90 - 160 | | | | | | | |
| | | | 12 | 3 | 0,3 | 90 - 160 | | | | | | | |
| | | | 16 | 3,5 | 0,3 | 90 - 160 | | | | | | | |
| | | BMRS | 12 | 4 | 0,45 | 80 - 160 | | | | | | | |
| | | | 16 | 5 | 0,5 | 80 - 160 | | | | | | | |
| | | | | | | | | | | | | | |

Die angegebenen Schnittdatenrichtwerte sind Empfehlungen für Anwendungen mit Kühlschmierstoff.

Bei Trockenbearbeitung reduzieren Sie die Schnittgeschwindigkeit v_c um ca. 20 %.

The above recommendations are given for wet machining. For dry machining the recommended values for the cutting speed have to be reduced by approx. 20 %.


| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte HB Brinell hardness HB | LC435D | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|------------------------------|---|---|---|--|------------------------------|---|---|---|------|-----------|--|--|
| | | | Negative Wendepplatten Negative indexable inserts ISO-P-System | | | | | Positive Wendepplatten Positive indexable inserts ISO-S-System | | | | | | | | |
| | | | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | Geometrie Geometry | Eckenradius Corner radius | Empfohlene a_p (mm) Recommended a_p (mm) | Empfohlene f_n (mm/U) Recommended f_n (mm/rev) | Schnittgeschwindigkeit v_c (m/min) Cutting speed v_c (m/min) | | | | |
| | | | | | | | | | | | | | | | | |
| M | Ferritisch Ferritic 1.4000, 1.4002, 1.4003, 1.4006, 1.4016, 1.4104, 1.4113, 1.4313, 1.4742, 1.4762 | 180 | BFMS | 04 | 0,5 | 0,15 | 150 – 180 | | | | | | | | | |
| | | | | | 08 | 1 | 0,20 | 150 – 180 | | | | | | | | |
| | | | | | 12 | 2 | 0,25 | 120 – 180 | | | | | | | | |
| | | | | BMS | 08 | 08 | 2 | 0,25 | 150 – 180 | BSMS | 04 | 0,4 | 0,15 | 120 – 180 | | |
| | | | | | | 12 | 3 | 0,30 | 150 – 180 | | 08 | 1 | 0,20 | 140 – 180 | | |
| | | | | | | 16 | 4 | 0,35 | 120 – 180 | | | | | | | |
| | | | | BMRS | 08 | 08 | 3 | 0,35 | 140 – 180 | | | | | | | |
| | | | | | | 12 | 4 | 0,45 | 140 – 180 | | | | | | | |
| | | | | | | 16 | 5 | 0,50 | 120 – 160 | | | | | | | |
| | | | Martensitisch Martensitic 1.4006, 1.4014, 1.4021, 1.4024, 1.4027, 1.4028, 1.4031, 1.4034, 1.4057, 1.4122, 1.4724 | 320 | BFMS | 04 | 0,5 | 0,15 | 140 – 180 | | | | | | | |
| | | | | | | | 08 | 1 | 0,20 | 120 – 180 | | | | | | |
| | | | | | | | 12 | 2 | 0,25 | 110 – 160 | | | | | | |
| | | BMS | | | 08 | 08 | 2 | 0,25 | 120 – 180 | BSMS | 04 | 0,4 | 0,15 | 140 – 180 | | |
| | | | | | | 12 | 3 | 0,30 | 110 – 160 | | 08 | 1 | 0,20 | 120 – 180 | | |
| | | | | | | 16 | 4 | 0,35 | 100 – 140 | | | | | | | |
| | | BMRS | | | 08 | 08 | 3 | 0,35 | 110 – 160 | | | | | | | |
| | | | | | | 12 | 4 | 0,45 | 100 – 140 | | | | | | | |
| | | | | | | 16 | 5 | 0,50 | 90 – 130 | | | | | | | |
| | Austenitisch Austenitic 1.4300, 1.4301, 1.4303, 1.4305, 1.4306, 1.4308, 1.4310, 1.4311 1.4321, 1.4401, 1.4404, 1.4406, 1.4428, 1.4435, 1.4436, 1.4438, 1.4449 1.4571 | 180 | | | BFMS | 04 | 0,5 | 0,15 | 90 – 160 | | | | | | | |
| | | | | | | | 08 | 1 | 0,20 | 90 – 160 | | | | | | |
| | | | | | | | 12 | 2 | 0,25 | 90 – 160 | | | | | | |
| | | | | BMS | 08 | 08 | 2 | 0,25 | 80 – 150 | BSMS | 04 | 0,4 | 0,15 | 120 – 150 | | |
| | | | | | | 12 | 3 | 0,30 | 80 – 150 | | 08 | 1 | 0,20 | 150 – 180 | | |
| | | | | | | 16 | 4 | 0,35 | 80 – 150 | | | | | | | |
| | | | BMRS | 08 | 08 | 3 | 0,35 | 70 – 150 | | | | | | | | |
| | | | | | 12 | 4 | 0,45 | 70 – 150 | | | | | | | | |
| | | | | | 16 | 5 | 0,50 | 70 – 150 | | | | | | | | |
| | | | BFMS | 08 | 04 | 0,5 | 0,15 | 90 – 160 | | | | | | | | |
| | | | | | 08 | 1 | 0,20 | 90 – 160 | | | | | | | | |
| | | | | | 12 | 2 | 0,25 | 90 – 160 | | | | | | | | |
| | BMS | 08 | 08 | 2 | 0,25 | 80 – 150 | BSMS | 04 | 0,4 | 0,15 | 150 – 180 | | | | | |
| | | | 12 | 3 | 0,30 | 80 – 150 | | 08 | 1 | 0,20 | 120 – 180 | | | | | |
| | | | 16 | 4 | 0,35 | 80 – 150 | | | | | | | | | | |
| | BMRS | 08 | 08 | 3 | 0,35 | 70 – 150 | | | | | | | | | | |
| | | | 12 | 4 | 0,45 | 70 – 150 | | | | | | | | | | |
| | | | 16 | 5 | 0,50 | 70 – 150 | | | | | | | | | | |

Die angegebenen Schnittdatenrichtwerte sind Empfehlungen für Anwendungen mit Kühlschmierstoff.

Bei Trockenbearbeitung reduzieren Sie die Schnittgeschwindigkeit v_c um ca. 20 %.

The above recommendations are given for wet machining. For dry machining the recommended values for the cutting speed have to be reduced by approx. 20 %.

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | | | |
|-----------------------------------|--|--|---|------------|-------------|-----------|
| | | | BCK10T und and BCK20T | | | |
| | | | $f = \text{mm/U rev}$ | | | |
| | | | 0,4 – 0,8 | 0,25 – 0,4 | 0,05 – 0,25 | |
| K | Grauguss Grey cast iron | perlitisch/ferritisch perlitic/ferritic | 180 | 210 – 300 | 300 – 450 | 350 – 500 |
| | | perlitisch (martensitisch) perlitic (martensitic) | 260 | 140 – 200 | 170 – 240 | 190 – 270 |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 160 | 150 – 210 | 180 – 260 | 210 – 300 |
| | | perlitisch perlitic | 250 | 110 – 160 | 130 – 190 | 150 – 200 |
| | Temperguss Malleable cast iron | ferritisch ferritic | 130 | 200 – 280 | 220 – 300 | 240 – 330 |
| | | perlitisch perlitic | 230 | 100 – 150 | 140 – 220 | 170 – 240 |

 Nassbearbeitung
Wet machining

Schnittwertempfehlungen für Drehen LCM45T
Turning data recommendations for LCM45T

Dreh-Bohr-Werkzeug Pentatec®
Turning-drilling-tool Pentatec®

| Werkstoffgruppe Material group | Gliederung der Werkstoff-Hauptgruppen und Kennbuchstaben Main workpiece material groups and their characteristic letters | | Brinell Härte Brinell hardness HB | Drehen und Bohren Turning and drilling v_c m/min | |
|---|---|--|---|---|---|
| | Werkstückstoff | | | LCM45T | |
| P | Unlegierter Stahl ¹⁾ Unalloyed steel ¹⁾ | ca 0,15%C geglüht ≈0,15%C annealed | 125 | 120 - 250 | Vorschubwerte Pentatec siehe Seite 144 - 145 Feed value Pentatec see page 144 -145 |
| | | ca 0,45%C geglüht ≈0,45%C annealed | 190 | 100 - 200 | |
| | | ca 0,45%C vergütet ≈0,45%C hardened and temp. | 250 | 70 - 180 | |
| | | ca 0,75%C geglüht ≈0,75%C annealed | 270 | 70 - 180 | |
| | | ca 0,75%C vergütet ≈0,75%C hardened and temp. | 300 | 50 - 150 | |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 80 - 200 | |
| | | vergütet hardened and temp. | 275 | 70 - 180 | |
| | | vergütet hardened and temp. | 300 | 100 - 185 | |
| | | vergütet hardened and temp. | 350 | 70 - 150 | |
| | Hochlegierter Stahl und hochleg. Werkzeugstahl High-alloy steel and high-alloy tool steel ¹⁾ | geglüht annealed | 200 | 70 - 180 | |
| gehärtet und angelassen hardened and temp. | | 325 | 50 - 120 | | |
| ferritisch / martensitisch geglüht ferritic / martensitic annealed | | 200 | 70 - 150 | | |
| martensitisch vergütet martensitic hardened and temp. | | 240 | 70 - 120 | | |
| M | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | 180 | 50 - 150 | |

¹⁾ und Stahlguss

¹⁾ and cast steel

²⁾ und austenitische / ferritische

²⁾ and austenitic / ferritic



| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | | | |
|-----------------------------------|--|---|---|------------|------------|------------|
| | | | LC610T | | | |
| | | | f = mm/U rev | | | |
| | | | 0,4–0,8 | 0,25–0,4 | 0,05–0,25 | |
| M | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | | | 120 – 300 | |
| K | Grauguss Grey cast iron | perlitisch/ferritisch perlitic/ferritic | 180 | | 80 – 250 | |
| | | perlitisch (martensitisch) perlitic (martensitic) | 180 | | | |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 260 | | 70 – 200 | |
| | | perlitisch perlitic | 160 | | | |
| | Temperguss Malleable cast iron | ferritisch ferritic | 250 | | 80 – 220 | |
| | | perlitisch perlitic | 130 | | | |
| N | Aluminium-Knetlegierungen Aluminium wrought alloys | nicht aushärtbar unhardenable | 230 | 500 – 2000 | 600 – 2500 | 700 – 3000 |
| | | aushärtbar, ausgehärtet hardenable, hardened | 60 | 200 – 1000 | 300 – 1500 | 400 – 2000 |
| | Aluminium-Gusslegierungen Aluminium cast alloys | ca. 12 % Si. nicht aushärtbar ca. 12 % Si. unhardenable | 100 | 400 – 800 | 500 – 1200 | 600 – 1500 |
| | | ca. 12 % Si. aushärtbar, ausgehärtet ca. 12 % Si. hardenable, hardened | 75 | 300 – 600 | 400 – 900 | 500 – 1200 |
| | | > 12 % Si. nicht aushärtbar > 12 % Si. unhardenable | 90 | 200 – 600 | 300 – 800 | 400 – 1000 |
| | Kupfer und Kupferlegierungen (Bronze/Messing) Copper and copper alloys (Bronze/Brass) | Automatenlegierung Pb > 1 % Free cutting alloys Pb > 1 % | 130 | 250 – 400 | 250 – 500 | 450 – 650 |
| | | Messing, Rotguss Brass, Red bronze | 110 | 250 – 600 | 250 – 800 | 450 – 1000 |
| | | Bronze, bleifreies Kupfer und Elektrolytkupfer Bronze, non leaded copper and electrolytic copper | 90 100 | 150 – 250 | 180 – 300 | 200 – 400 |
| | Nichtmetallische Werkstoffe Nonmetallic materials | Duroplaste Duroplastics | | 60 – 70 | 80 – 100 | 90 – 120 |
| | | Faserverstärkte Kunststoffe Fibre reinforced plastics | | | | |
| | | Hartgummi Hard rubber | | | | |


¹⁾ und Stahlguss
and cast steel


²⁾ und austenitische/ferritische
and austenitic/ferritic



Nassbearbeitung
Wet machining

| Werkstoffgruppe Material group | Werkstoff Material | | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed |
|-----------------------------------|--|---|---|---|
| | | | | v_c (m/min) |
| | | | | LW610 und and LW611 |
| | | | | $f = \text{mm/U rev}$ |
| | | | | 0,1–0,4 |
| | | | |   |
| K | Grauguss Grey cast iron | perlitisch/ferritisch perlitic/ferritic | 180 | 150 – 250 |
| | | perlitisch (martensitisch) perlitic (martensitic) | 260 | 100 – 150 |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 160 | 130 – 180 |
| | | perlitisch perlitic | 250 | 100 – 150 |
| | Temperguss Malleable cast iron | ferritisch ferritic | 130 | 120 – 180 |
| | | perlitisch perlitic | 230 | 100 – 160 |
| N | Aluminium-Knetlegierungen Aluminium wrought alloys | nicht aushärtbar unhardenable | 60 | 400 – 2400 |
| | | aushärtbar, ausgehärtet hardenable, hardened | 100 | 160 – 1600 |
| | Aluminium-Gusslegierungen Aluminium cast alloys | ca. 12 % Si. nicht aushärtbar ca. 12 % Si. unhardenable | 75 | 320 – 1200 |
| | | ca. 12 % Si. aushärtbar, ausgehärtet ca. 12 % Si. hardenable, hardened | 90 | 240 – 950 |
| | | > 12 % Si. nicht aushärtbar > 12 % Si. unhardenable | 130 | 160 – 800 |
| | | Kupfer und Kupferlegierungen (Bronze/Messing) Copper and copper alloys (Bronze/Brass) | Automatenlegierung Pb > 1 % Free cutting alloys Pb > 1 % | 110 |
| | | Messing, Rotguss Brass, Red bronze | 90 | 200 – 800 |
| | | Bronze, bleifreies Kupfer und Elektrolytkupfer Bronze, non leaded copper and electrolytic copper | 100 | 120 – 320 |
| | Nichtmetallische Werkstoffe Nonmetallic materials | Duroplaste Duroplastics | | |
| | | Faserverstärkte Kunststoffe Fibre reinforced plastics | | |
| | | Hartgummi Hard rubber | | |

 Trockenbearbeitung
Dry machining

 Nassbearbeitung
Wet machining

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | Vorschub Feed f mm/U rev |
|-----------------------------------|--|---|--|--------------------------------|
| | | | LC415X | |
| | | | | |
| P | Automatenstahl Machining steel | 125 - 300 | 100 – 220 | 0,01 – 0,15 |
| | Stahl Steel < 600 N/mm ² | 180 - 380 | 100 – 180 | 0,01 – 0,20 |
| | Stahl Steel < 800 N/mm ² | 200 - 350 | 60 – 130 | 0,01 – 0,15 |
| M | Nichtrostender Stahl Stainless steel | 180 - 300 | 60 – 140 | 0,01 – 0,20 |
| N | Aluminium Aluminium | 30 - 130 | 200 – 800 | 0,01 – 0,30 |
| | Bronze, Messing, Kupfer Bronze, Brass, Copper | 100 - 500 | 100 – 500 | 0,01 – 0,30 |
| S | Titan Titanium | 180 - 400 180 - 400 | 40 – 90 30 – 70 | 0,01 – 0,15 0,2 – 0,45 |

Schnittwertempfehlungen für Drehen LC415Z und BCS20T
Cutting data recommendations for LC415Z and BCS20T

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) | |
|-----------------------------------|---|--|--|-----------------|
| | | | LC415Z / BCS20T | |
| | | | f = mm/U rev 0,15 - 0,5 | |
| | | | | |
| M | Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | 180 80 – 180 | |
| S | Wärmefeste Legierungen Heat resistant alloys | Fe-Basis Fe-based | geglüht annealed | 200 40 – 100 |
| | | | ausgehärtet hardened | 280 30 – 70 |
| | | Ni- oder Co-Basis Ni- or Co-based | geglüht annealed | 250 50 – 85 |
| | | | ausgehärtet hardened | 350 20 – 50 |
| | | | gegossen cast | 320 30 – 50 |

Schnittwertempfehlungen für Drehen BCS10T
Cutting data recommendations for BCS10T

| Werkstoffgruppe Material group | Werkstoff Material | Brinell Härte Brinell hardness HB | Schnittgeschwindigkeit Cutting speed v_c (m/min) |
|-----------------------------------|---|---|--|
| | | | BCS10T |
| | | | f = mm/U rev 0,2 - 0,45 |
| | | | |
| S | Wärmefeste Legierungen Heat resistant alloys | Titan und Titan-Legierungen Titanium and titanium alloys | 150 – 450 30 – 70 |

¹⁾ und Stahlguss
and cast steel

²⁾ und austenitische/ferritische
and austenitic/ferritic

Nassbearbeitung
Wet machining

Pentatec®

Pentatec®

Das universellste Dreh-Bohr-Werkzeug
Kostenreduktion auf allen Hauptwerkstoffen
The most universal turning-drilling-tool
Cost reduction on all main materials



| Dreh-Bohr-Werkzeug Pentatec® | Turning-drilling-tool Pentatec® | |
|---|---|-----|
| Fünf Bearbeitungsoperationen, ein Werkzeug | Five machining operations, one tool | 137 |
| Technische Hinweise | Technical Hints | |
| Konstruktionsmerkmale und weitere Anwendungsmöglichkeiten | Additional features and application possibilities | 138 |
| Bezeichnungssystem Pentatec® | Designation system Pentatec® | 140 |
| | | |
| Pentatec® Halter | Pentatec® holders | 141 |
| | | |
| Wendeschneidplatten | Indexable inserts | 142 |
| Technische Hinweise | Technical Hints | |
| Schneidstoffsorten, Übersicht | Grade designation, overview | 143 |
| Schnittparameter | Cutting parameters | 144 |
| Schnittwertempfehlungen, Dreh-Bohr-Werkzeug Pentatec | Cutting data recommendations, turning-drilling-tool Pentatec® | 146 |
| Bearbeitungsbeispiele | Machining examples | 147 |



Fünf Bearbeitungsoperationen, ein Werkzeug

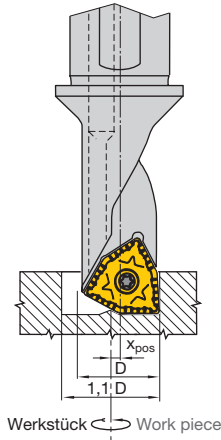
Das universelle Dreh-Bohr-Werkzeug ersetzt bis zu fünf ISO-Werkzeuge und reduziert die Bearbeitungszeiten um bis zu 30 % durch die Einsparung von Werkzeugwechselzeiten und Werkzeug-leerfahrten.

Five machining operations, one tool

The universal turning-drilling-tool substitutes up to 5 ISO-tools and reduces machining times up to 30 % through saving of tool changing times and unnecessary tool movements.

Nebenschneide einsetzbar
Secondary cutting edge can be used

Bohren ins Volle außer der Mitte, positiver Versatz
Drilling off center, positive offset



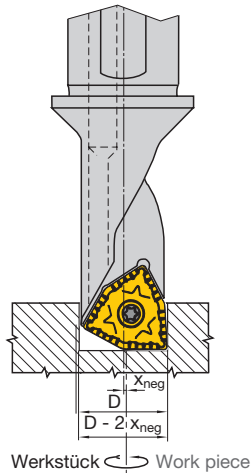
X_{pos} : Versatz aus der Mitte positiv
Offset off center, positive
D: Nenndurchmesser Werkzeug
Nominal tool diameter

Stahl $X_{pos} = \frac{(1,1 \times D) - D}{2}$
Steel

Aluminium $X_{pos} = \frac{(1,5 \times D) - D}{2}$
Aluminium

| Werkzeug Tool | D | Stahl Steel | | Aluminium Aluminium | |
|---------------------|-------|----------------|-----------|------------------------|-----------|
| | | D_{max} | x_{pos} | D_{max} | x_{pos} |
| 2,25D/1,50D | | | | | |
| PTR/L 08 -x,xxD- 04 | 08H13 | 8,8 | 0,40 | 12,0 | 2,00 |
| PTR/L 10 -x,xxD- 05 | 10H13 | 11,0 | 0,50 | 15,0 | 2,50 |
| PTR/L 11 -x,xxD- 06 | 11H13 | 12,1 | 0,55 | 16,5 | 2,75 |
| PTR/L 15 -x,xxD- 07 | 15H13 | 16,5 | 0,75 | 22,5 | 3,75 |
| PTR/L 18 -x,xxD- 09 | 18H13 | 19,8 | 0,90 | 27,0 | 4,50 |
| PTR/L 20 -x,xxD- 10 | 20H13 | 22,0 | 1,00 | 30,0 | 5,00 |
| PTR/L 26 -x,xxD- 13 | 26H13 | 28,6 | 1,30 | 39,0 | 6,50 |

Bohren ins Volle außer der Mitte, negativer Versatz
Drilling off center, negative offset

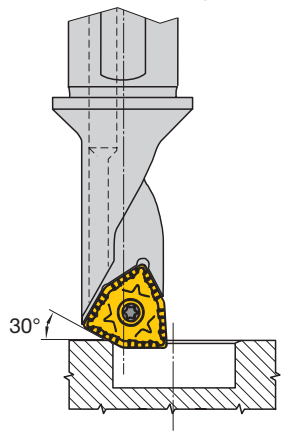


X_{neg} : Versatz aus der Mitte negativ
Offset off center, negative
D: Nenndurchmesser Werkzeug
Nominal tool diameter

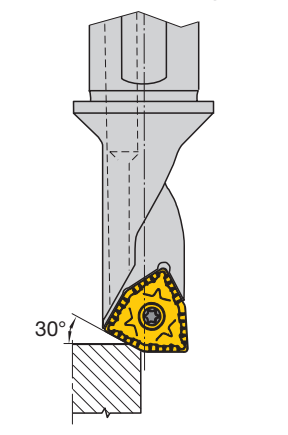
$$X_{neg} = \frac{D_{min} - D}{2}$$

| Werkzeug Tool | D | D_{min} | x_{neg} |
|---------------------|-------|-----------|-----------|
| 2,25D/1,50D | | | |
| PTR/L 08 -x,xxD- 04 | 08H13 | 7,8 | 0,10 |
| PTR/L 10 -x,xxD- 05 | 10H13 | 9,8 | 0,10 |
| PTR/L 11 -x,xxD- 06 | 11H13 | 10,8 | 0,10 |
| PTR/L 15 -x,xxD- 07 | 15H13 | 14,7 | 0,15 |
| PTR/L 18 -x,xxD- 09 | 18H13 | 17,7 | 0,15 |
| PTR/L 20 -x,xxD- 10 | 20H13 | 19,7 | 0,15 |
| PTR/L 26 -x,xxD- 13 | 26H13 | 25,7 | 0,15 |

Anfasen innen
Internal chamfering



Anfasen außen
External chamfering



Senkbohrung mit Pentatec®-Werkzeugen
Core drilling with Pentatec®-tools

Die Durchmesserreihe der Pentatec®-Werkzeuge ist so ausgelegt, dass damit Senkbohrungen nach DIN 74 Form H3, J3 und K3 in einem Arbeitsgang produziert werden können.

The diameters of the Pentatec®-tools are designed to produce counter-bores according to DIN 74 forms H3, J3 and K3 in one operation.

- | | | |
|--------------|--|--|
| Form H3 für: | Zylinderschrauben nach DIN 84 und DIN 7984 Gewindefurchende Schrauben nach DIN 7500 Teil 1 Form A | } mit Federring nach DIN 7980 |
| Form J3 für: | Zylinderschrauben nach DIN 6912 (niedriger Kopf, Schlüsselführung) | |
| Form K3 für: | Zylinderschrauben nach DIN 912 | |
| Form H3 for: | socket head cap screws according to DIN 84 and DIN 7984 cheese-head screws according to DIN 7513 form B cheese-head screws according to DIN 7500 part 1 form A | } with lock washer according to DIN 7980 |
| Form J3 for: | socket head cap screws according to DIN 6912 (low screw head, key guide) | |
| Form K3 for: | socket head cap screws according to DIN 912 | |

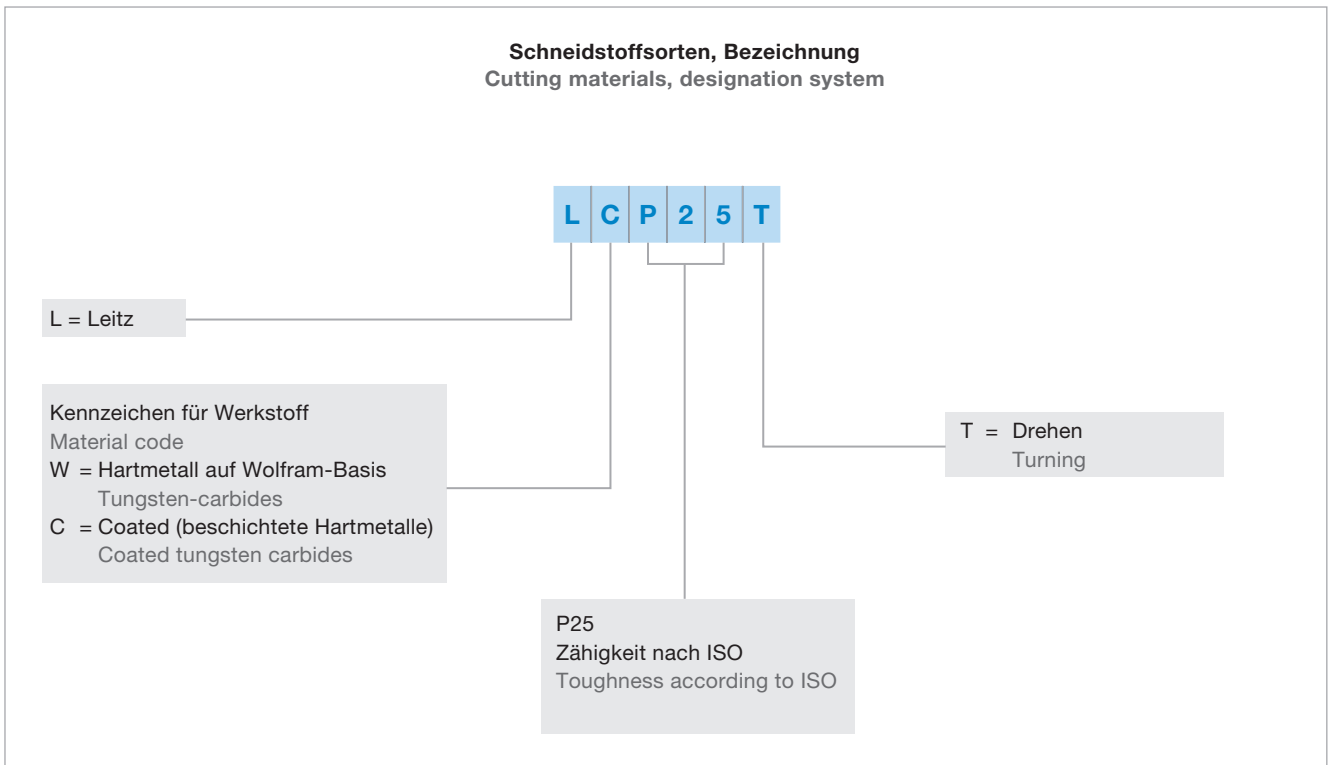
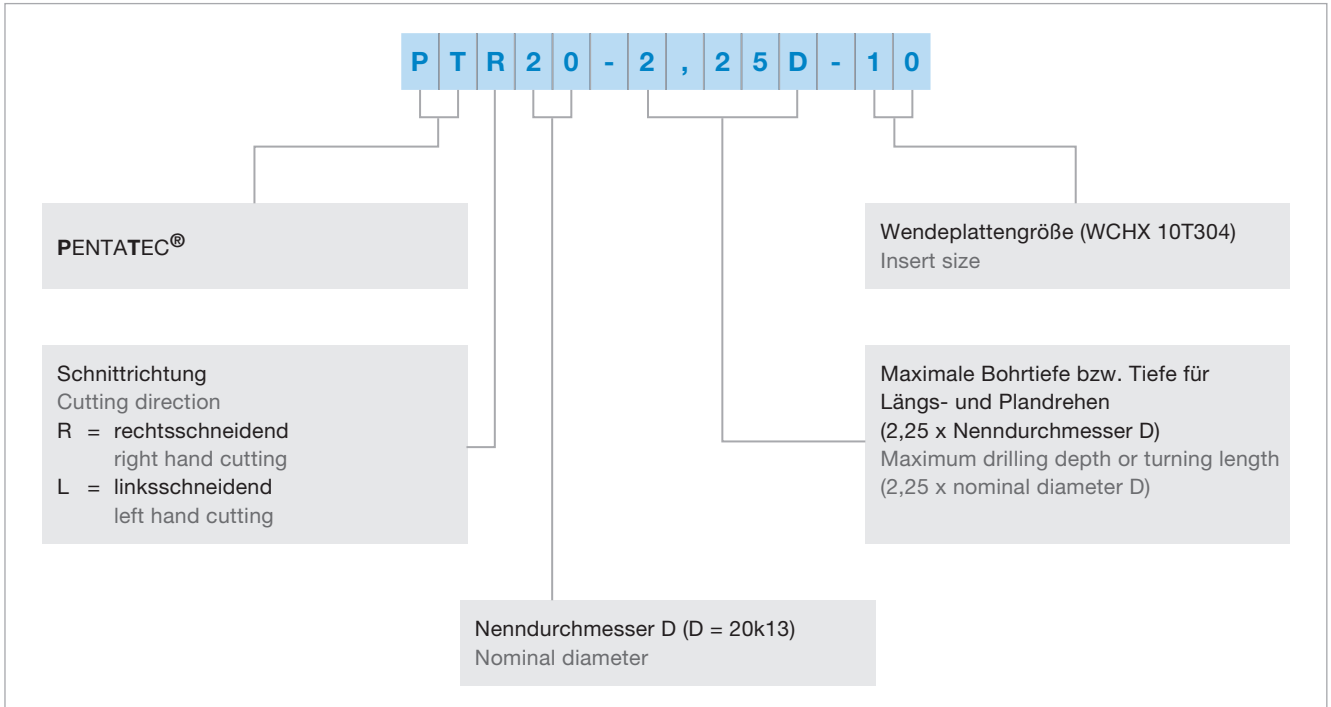
| Werkzeug Tool | Gewinde- Nenndurchmesser Thread nominal diameter | D | H13 |
|----------------------------|---|----|----------|
| 2,25D/1,50D | | | |
| PTR/L 08 -x,xxD- 04 | M 4 | 8 | 0/+0,220 |
| PTR/L 10 -x,xxD- 05 | M 5 | 10 | 0/+0,220 |
| PTR/L 11 -x,xxD- 06 | M 6 | 11 | 0/+0,270 |
| PTR/L 15 -x,xxD- 07 | M 8 | 15 | 0/+0,270 |
| PTR/L 18 -x,xxD- 09 | M 10 | 18 | 0/+0,330 |
| PTR/L 20 -x,xxD- 10 | M 12 | 20 | 0/+0,330 |
| PTR/L 26 -x,xxD- 13 | M 16 | 26 | 0/+0,330 |

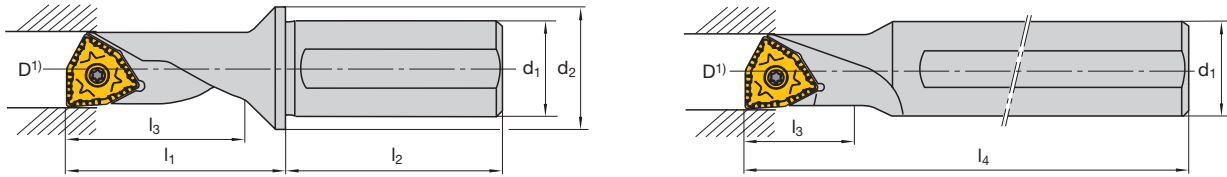
Große Aufnahmedurchmesser und Plananlage
Large mounting diameter and location face

| | Pentatec® | | ISO-Bohrstange ISO-boring bar |
|----------------------------|---------------------|-------------|----------------------------------|
| | PTR20-2,25D | PTR20-1,50D | |
| | | | |
| D _{min} | 20 | 20 | 21 |
| d | 25/32 ¹⁾ | 25 | 16 |
| Schaft Shank | | | |
| Plananlage Seating face | Ja Yes | Nein No | Nein No |

¹⁾ Durchmesser am Bund
Diameter on the flange

Pentatec®-Nutzen: Höhere Stabilität und geringere Vibrationsneigung durch größere Aufnahmedurchmesser und zusätzliche Plananlage bei PT-2,25D
Pentatec®-benefits: More stability and less tendency to vibrate through larger locating diameters and the additional seating face for PT-2,25D





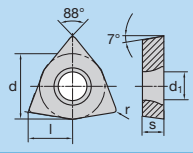





| Bestellbezeichnung Ordering code | D ¹⁾ | d ₁ | d ₂ | l ₁ | l ₂ | l ₃ | l ₄ | Passende Wendeplatte Indexable insert |
|-------------------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| PTR/L 08 - 2,25D-04 | 8 | 10 | 12 | 22,5 | 38 | 18,0 | - | WCHX 04... |
| PTR/L 08 - 1,50D-04 | 8 | 12 | - | - | - | 12,0 | 80 | |
| PTR/L 10 - 2,25D-05 | 10 | 12 | 16 | 28 | 42 | 22,5 | - | WCHX 05... |
| PTR/L 10 - 1,50D-05 | 10 | 12 | - | - | - | 15,0 | 90 | |
| PTR/L 11 - 2,25D-06 | 11 | 16 | 20 | 32 | 45 | 24,75 | - | WCHX 06... |
| PTR/L 11 - 1,50D-06 | 11 | 16 | - | - | - | 16,5 | 100 | |
| PTR/L 15 - 2,25D-07 | 15 | 20 | 25 | 43 | 50 | 33,75 | - | WCHX 07... |
| PTR/L 15 - 1,50D-07 | 15 | 20 | - | - | - | 22,5 | 125 | |
| PTR/L 18 - 2,25D-09 | 18 | 25 | 32 | 53 | 56 | 40,5 | - | WCHX 09... |
| PTR/L 18 - 1,50D-09 | 18 | 25 | - | - | - | 27,0 | 135 | |
| PTR/L 20 - 2,25D-10 | 20 | 25 | 32 | 56 | 56 | 45,0 | - | WCHX 10... |
| PTR/L 20 - 1,50D-10 | 20 | 25 | - | - | - | 30,0 | 150 | |
| PTR/L 26 - 2,25D-13 | 26 | 32 | 40 | 73 | 60 | 58,5 | - | WCHX 13... |
| PTR/L 26 - 1,50D-13 | 26 | 32 | - | - | - | 39,0 | 180 | |

¹⁾ Durchmesser für Senkbohrung laut DIN 74
Diameter for plunge drilling according to DIN 74

Auf Anfrage bieten wir Pentatec® Werkzeuge mit schwingungsdämpfenden Densimet (Schwermetall) an.
On request we offer Pentatec® tools with vibration damping Densimet (heavy duty metal).

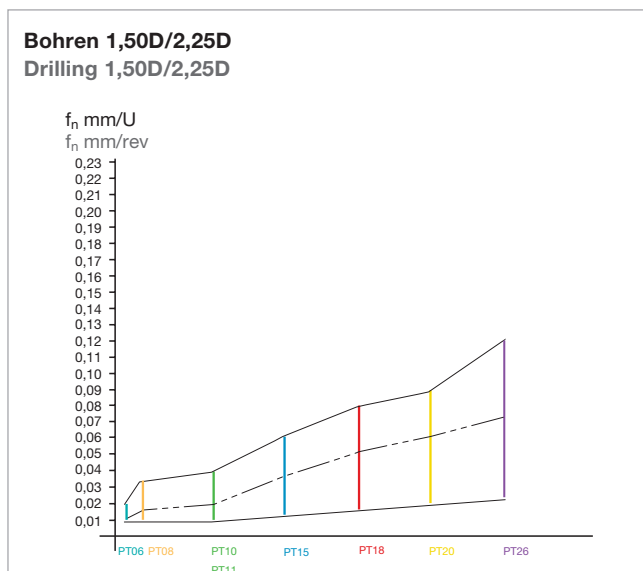
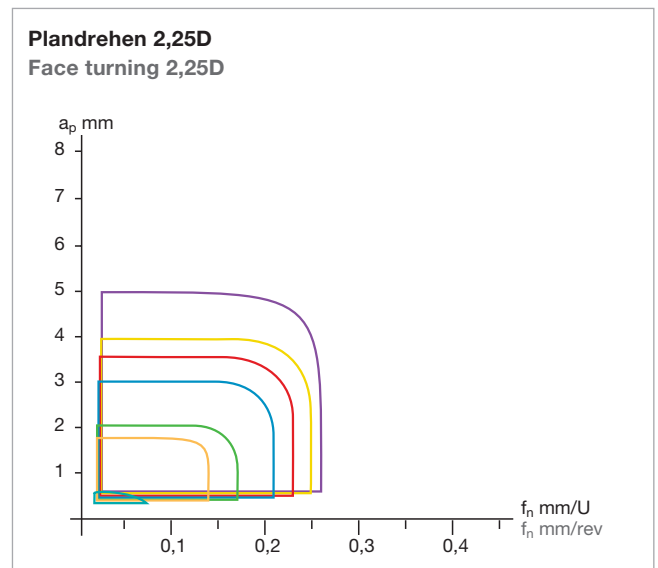
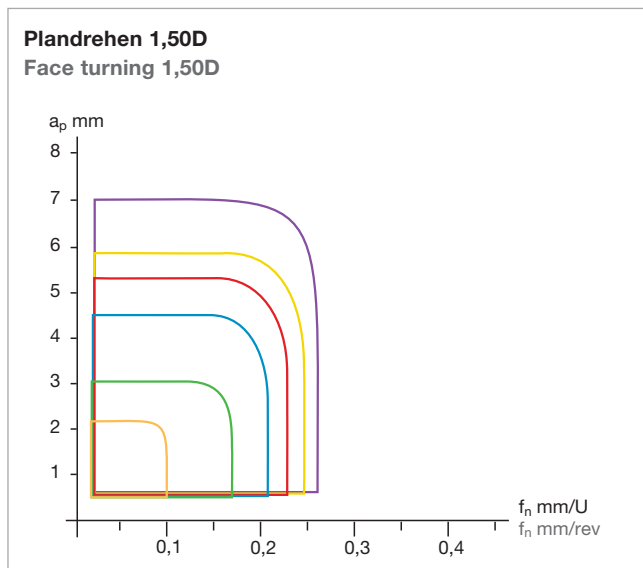
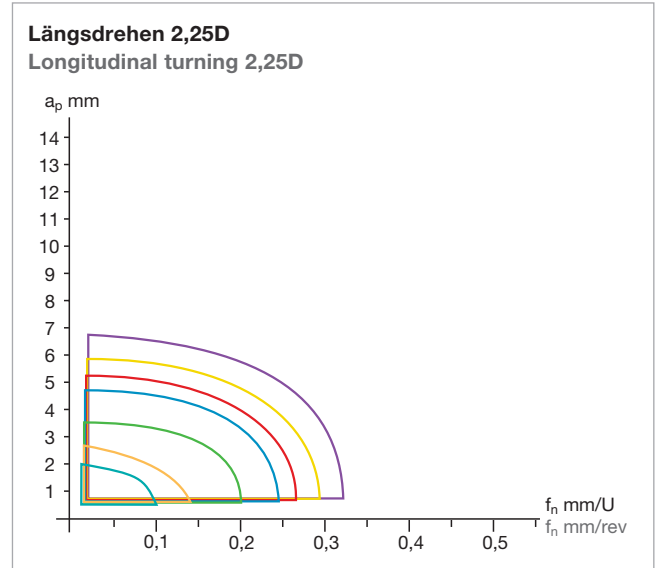
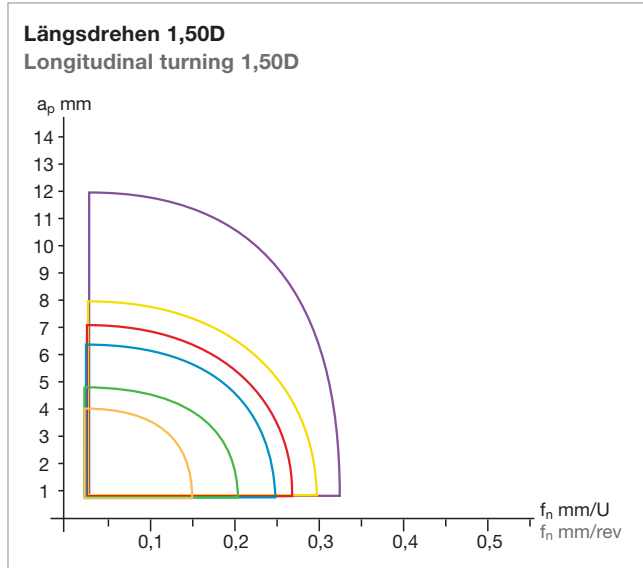
| Ersatzteile Spare parts | | | | |
|----------------------------|--|---|------|---------------------------------|
| |  Schraube Screw |  Schlüssel Key | Torx | Anzugsmoment Torque [Ncm] |
| PTR/L 08 | A02-20033 | V04-T0600 | 06 | 62 |
| PTR/L 10 | A13-25042 | V04-T0800 | 08 | 128 |
| PTR/L 11 | A13-25050 | V04-T0800 | 08 | 128 |
| PTR/L 15 | A13-30073 | V04-T0800 | 08 | 180 |
| PTR/L 18 | A02-35082 | V04-T1500 | 15 | 345 |
| PTR/L 20 | A06-50088 | V04-T2000 | 20 | 1020 |
| PTR/L 26 | A02-60120 | V04-T2500 | 25 | 1750 |

|  | Bestellbezeichnung Ordering code | | | | | | Sorte Grade | | |
|---|-------------------------------------|------|-------|------|----------------|-----|-------------|---------|---------|
| | | l | d | s | d ₁ | r | LCP25T | LCM45T | LW610 |
| WCHX...FN-BAL  | WCHX 040102 FN-BAL | 4,0 | 6,35 | 1,59 | 2,25 | 0,2 | | | 6409963 |
| | WCHX 040104 FN-BAL | 4,0 | 6,35 | 1,59 | 2,25 | 0,4 | | | 6407959 |
| | WCHX 05T102 FN-BAL | 5,0 | 7,93 | 1,98 | 2,80 | 0,2 | | | 6409964 |
| | WCHX 05T104 FN-BAL | 5,0 | 7,93 | 1,98 | 2,80 | 0,4 | | | 6407962 |
| | WCHX 060202 FN-BAL | 5,5 | 8,93 | 2,38 | 2,80 | 0,2 | | | 6409965 |
| | WCHX 060204 FN-BAL | 5,5 | 8,93 | 2,38 | 2,80 | 0,4 | | | 6407965 |
| | WCHX 070304 FN-BAL | 7,5 | 12,00 | 3,18 | 3,40 | 0,4 | | | 6409966 |
| | WCHX 070308 FN-BAL | 7,5 | 12,00 | 3,18 | 3,40 | 0,8 | | | 6407968 |
| | WCHX 090304 FN-BAL | 9,0 | 14,29 | 3,18 | 4,40 | 0,4 | | | 6409967 |
| | WCHX 090308 FN-BAL | 9,0 | 14,29 | 3,18 | 4,40 | 0,8 | | | 6407971 |
| | WCHX 10T304 FN-BAL | 10,0 | 15,87 | 3,97 | 5,90 | 0,4 | | | 6409968 |
| | WCHX 10T308 FN-BAL | 10,0 | 15,87 | 3,97 | 5,90 | 0,8 | | | 6400540 |
| | WCHX 130508 FN-BAL | 13,0 | 21,00 | 5,56 | 7,00 | 0,8 | | | 6407975 |
| WCHX...EN-BFM  | WCHX 040102 EN-BFM | 4,0 | 6,35 | 1,59 | 2,25 | 0,2 | 5056049 | | |
| | WCHX 040104 EN-BFM | 4,0 | 6,35 | 1,59 | 2,25 | 0,4 | 5056050 | | |
| | WCHX 05T102 EN-BFM | 5,0 | 7,93 | 1,98 | 2,80 | 0,2 | 5056051 | | |
| | WCHX 05T104 EN-BFM | 5,0 | 7,93 | 1,98 | 2,80 | 0,4 | 5056052 | | |
| | WCHX 060202 EN-BFM | 5,5 | 8,37 | 2,38 | 2,80 | 0,2 | 5056053 | | |
| | WCHX 060204 EN-BFM | 5,5 | 8,37 | 2,38 | 2,80 | 0,4 | 5056054 | | |
| | WCHX 070304 EN-BFM | 7,5 | 12,00 | 3,18 | 3,40 | 0,4 | 5056055 | | |
| | WCHX 070308 EN-BFM | 7,5 | 12,00 | 3,18 | 3,40 | 0,8 | 5056056 | | |
| | WCHX 090304 EN-BFM | 9,0 | 14,29 | 3,18 | 4,40 | 0,4 | 5056057 | | |
| | WCHX 090308 EN-BFM | 9,0 | 14,29 | 3,18 | 4,40 | 0,8 | 5056058 | | |
| | WCHX 10T304 EN-BFM | 10,0 | 15,87 | 3,97 | 5,90 | 0,4 | 5056059 | | |
| | WCHX 10T308 EN-BFM | 10,0 | 15,87 | 3,97 | 5,90 | 0,8 | 5056060 | | |
| | WCHX 130508 EN-BFM | 13,0 | 21,00 | 5,56 | 7,00 | 0,8 | 5056061 | | |
| WCHX...EN-BFM  | WCHX 040102 EN-BFM | 4,0 | 6,35 | 1,59 | 2,25 | 0,2 | | 5062986 | |
| | WCHX 040104 EN-BFM | 4,0 | 6,35 | 1,59 | 2,25 | 0,4 | | 5063176 | |
| | WCHX 05T102 EN-BFM | 5,0 | 7,93 | 1,98 | 2,80 | 0,2 | | 5063178 | |
| | WCHX 05T104 EN-BFM | 5,0 | 7,93 | 1,98 | 2,80 | 0,4 | | 5063180 | |
| | WCHX 060202 EN-BFM | 5,5 | 8,37 | 2,38 | 2,80 | 0,2 | | 5063184 | |
| | WCHX 060204 EN-BFM | 5,5 | 8,37 | 2,38 | 2,80 | 0,4 | | 5063186 | |
| | WCHX 070304 EN-BFM | 7,5 | 12,00 | 3,18 | 3,40 | 0,4 | | 5063315 | |
| | WCHX 070308 EN-BFM | 7,5 | 12,00 | 3,18 | 3,40 | 0,8 | | 5063316 | |
| | WCHX 090304 EN-BFM | 9,0 | 14,29 | 3,18 | 4,40 | 0,4 | | 5063317 | |
| | WCHX 090308 EN-BFM | 9,0 | 14,29 | 3,18 | 4,40 | 0,8 | | 5063318 | |
| | WCHX 10T304 EN-BFM | 10,0 | 15,87 | 3,97 | 5,90 | 0,4 | | 5063322 | |
| | WCHX 10T308 EN-BFM | 10,0 | 15,87 | 3,97 | 5,90 | 0,8 | | 5063321 | |
| | WCHX 130508 EN-BFM | 13,0 | 21,00 | 5,56 | 7,00 | 0,8 | | 5063319 | |

Bestellbeispiel Order example: 10 Stück 10 pieces WCHX 040102FN--BAL LW610

- Verfügbar ab Lager Available from stock

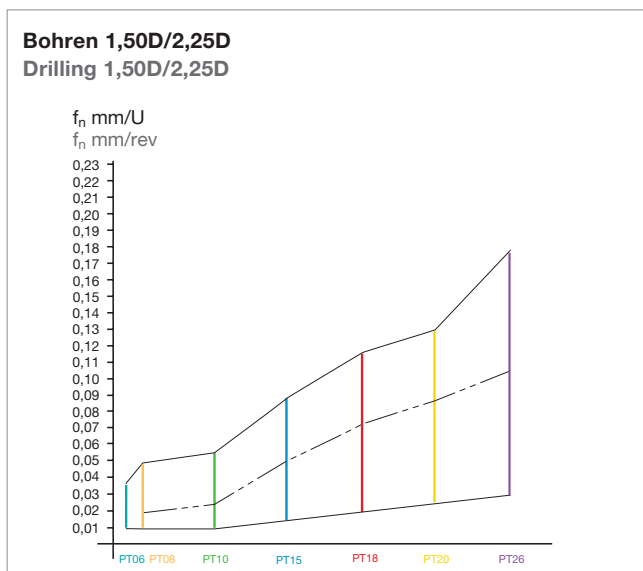
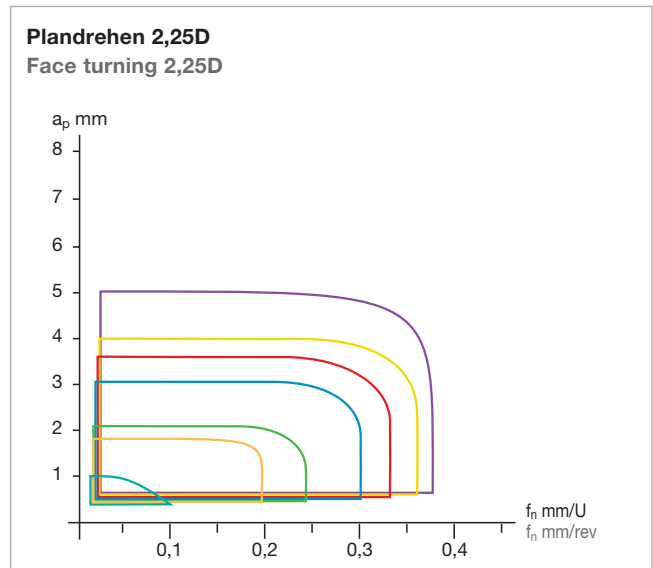
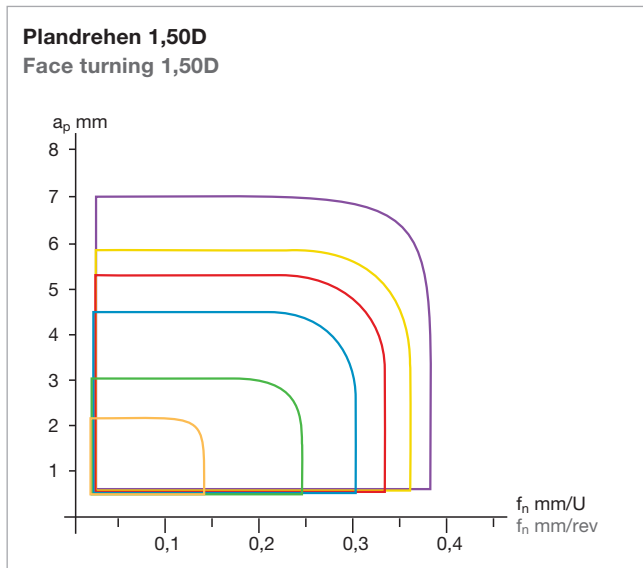
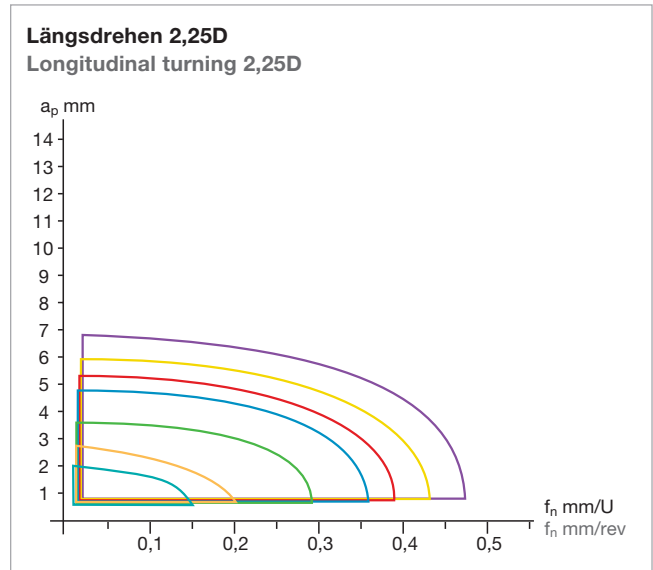
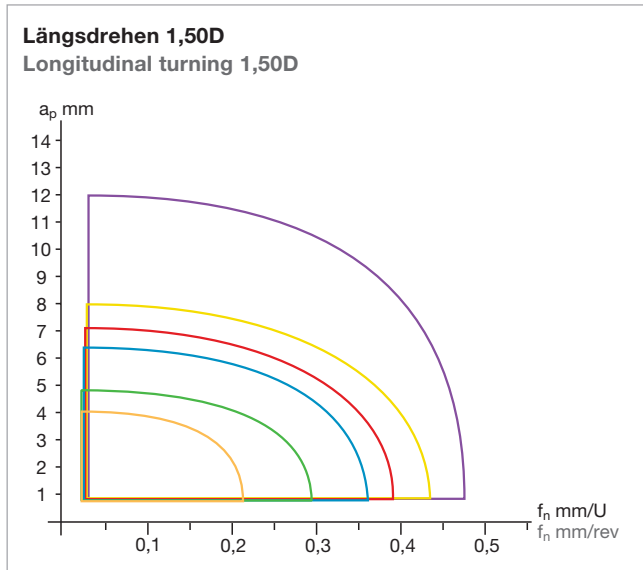
| Sorte Grade | ISO | Anwendungsbereich Application range | Werkstoffgruppe Material group | | | | | | Bearbeitungsverfahren Application | | | | | |
|--|--------|--|---|-----------------------|----------------------------|---|--|---------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------------------|------------------------|----------------------|
| | | | P | M | K | N | S | H | T | M | D | S | G | P |
| | | 01 05 10 15 20 25 30 35 40 45 50 | Stahl Steel | Rostfrei Stainless | Grauguss Grey cast iron | NE-Metalle (Al, etc.) Nonferrous metals | Hochwarmfest High temperature materials | Harte Werkstoffe Hard materials | Drehen Turning | Fräsen Milling | Bohren Drilling | Gewinde- bearbeitung Threading | Einstechen Grooving | Abstechen Parting |
| LCP25T | HC-P25 | | ■ | | | | | | ● | | ● | | | |
| | HC-M25 | | | □ | | | | | ● | | ● | | | |
| LCM45T | HC-M40 | | | ■ | | | | | ● | | ● | | | |
| | HC-P40 | | ■ | | | | | | ● | | ● | | | |
| LW610 | HW-K10 | | | | | ■ | | | ● | | ● | | | |
| Anwendungsschwerpunkt Application peak Gesamtbereich nach ISO 513 Full range to ISO 513 | | | ■ Hauptanwendung Main application □ Weitere Anwendung Further applications | | | | | | ● Standardsorte Standard grade | | | | | |



- = PT26
- = PT20
- = PT18
- = PT15
- = PT11
- = PT10
- = PT08
- = PT06¹⁾

¹⁾ Für Stahl, Rostfrei und Grauguss
For steel, stainless steel and grey cast iron

Verwenden Sie die Pentatec®-Werkzeuge immer mit Kühlung
Use Pentatec® tools always with coolant



- = PT26
- = PT20
- = PT18
- = PT15
- = PT11
- = PT06
- = PT08

Verwenden Sie die Pentatec®-Werkzeuge **immer mit Kühlung**
Use Pentatec® tools **always with coolant**

| Werkstoff Material | Brinell Härte Brinell hardness HB | Drehen und Bohren Turning and drilling v _c (m/min) | | | |
|--|---|---|---|------------|------------|
| | | LCP25T | LCM45T | LW610 | |
| | | | | | |
| P Unlegierter Baustahl ¹⁾ Unalloyed steel ¹⁾ | ca. 0,15 %C gegläht annealed | 125 | 170 – 300 | 120 – 250 | |
| | ca. 0,45 %C gegläht annealed | 190 | 150 – 255 | 100 – 200 | |
| | ca. 0,45 %C vergütet hardened and temp. | 250 | 100 – 200 | 70 – 180 | |
| | ca. 0,75 %C gegläht annealed | 270 | 110 – 185 | 70 – 180 | |
| | ca. 0,75 %C vergütet hardened and temp. | 300 | 90 – 160 | 50 – 150 | |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 120 – 240 | 80 – 200 |
| | | vergütet hardened and temp. | 275 | 100 – 210 | 70 – 180 |
| | | | 300 | 100 – 185 | 100 – 185 |
| | | | 350 | 90 – 145 | 70 – 150 |
| | Hochlegierter Stahl und hochlegierter Werkzeugstahl ¹⁾ High-alloy steel and high alloy tool steel ¹⁾ | geglüht annealed | 200 | 130 – 215 | 70 – 180 |
| gehärtet und angelassen hardened and temp. | | 325 | 80 – 140 | 50 – 120 | |
| Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | ferritisch/martensitisch gegläht ferritic/martensitic annealed | 200 | 110 – 200 | 70 – 150 | |
| | martensitisch vergütet martensitic hardened and temp. | 240 | 100 – 160 | 70 – 120 | |
| M Nichtrostender Stahl ¹⁾ Stainless steel ¹⁾ | austenitisch ²⁾ , abgeschreckt austenitic ²⁾ , quenched | 180 | 90 – 160 | 50 – 150 | |
| K Grauguss Grey cast iron | perlitisch/ferritisch perlitic/ferritic | 180 | | 150 – 250 | |
| | perlitisch (martensitisch) perlitic (martensitic) | 260 | | 100 – 150 | |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 160 | | 130 – 80 |
| | Temperguss Malleable cast iron | perlitisch perlitic | 250 | | 100 – 150 |
| N Aluminium-Knetlegierungen Aluminium wrought alloys | nicht aushärtbar unhardenable | 60 | | 400 – 2400 | |
| | aushärtbar, ausgehärtet hardenable, hardened | 100 | | 160 – 1600 | |
| | Aluminium-Gusslegierungen Aluminium cast alloys | ca. 12 % Si. nicht aushärtbar ca. 12 % Si. unhardenable | 75 | | 320 – 1200 |
| | | ca. 12 % Si. aushärtbar, ausgehärtet ca. 12 % Si. hardenable, hardened | 90 | | 240 – 950 |
| | | > 12 % Si. nicht aushärtbar > 12 % Si. unhardenable | 130 | | 160 – 800 |
| | | Kupfer und Kupferlegierungen (Bronze/Messing) Copper and copper alloys (Bronze/Brass) | Automatenlegierung Pb > 1 % Free cutting alloys Pb > 1 % | 110 | |
| | | Messing, Rotguss Brass, Red bronze | 90 | | 200 – 800 |
| | | Bronze, bleifreies Kupfer und Elektrolytkupfer Bronze, non leaded copper and electrolytic copper | 100 | | 120 – 320 |
| | Nichtmetallische Werkstoffe Nonmetallic materials | Duroplaste Duroplastics | | | |
| | | Faserverstärkte Kunststoffe Fibre reinforced plastics | | | |
| Hartgummi Hard rubber | | | | | |
| S Warmfeste Legierungen Heat resistant alloys | Fe-Basis Fe-based | gegäht annealed ausgehärtet hardened | 200 280 | | |
| | Ni- oder Co-Basis Ni- or Co-based | gegäht annealed ausgehärtet hardened | 250 350 | | |
| | | gegossen cast | 320 | | |
| | Titanlegierungen Titanium alloys | Reintitan Pure titanium | 400 ³⁾ | | |
| | | Alpha + Beta-Legierungen, ausgehärtet Alpha- and Beta-alloys hardened | 1050 ³⁾ | | |

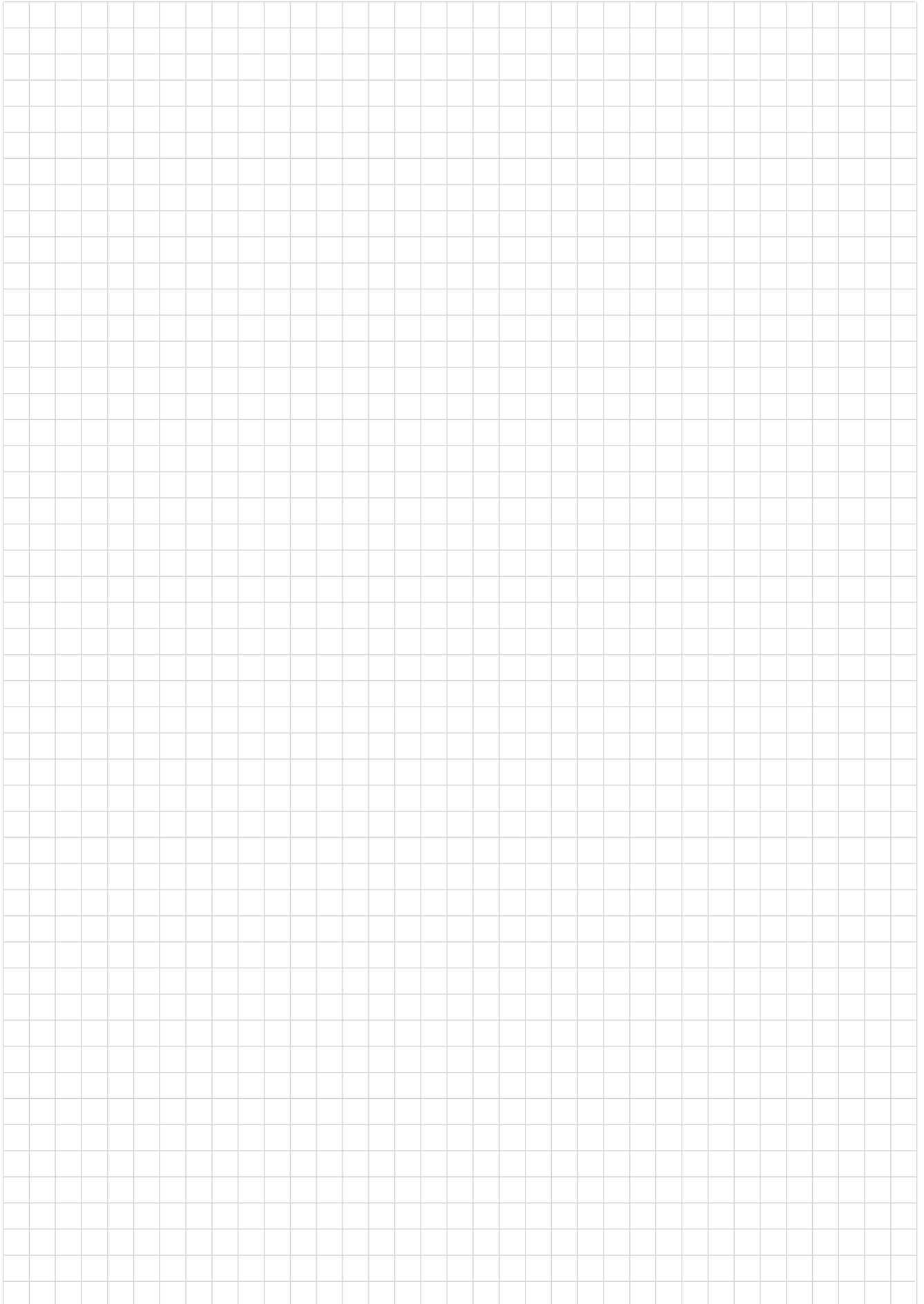
¹⁾ und Stahlguss
and cast steel

²⁾ und austenitische/ferritische
and austenitic/ferritic

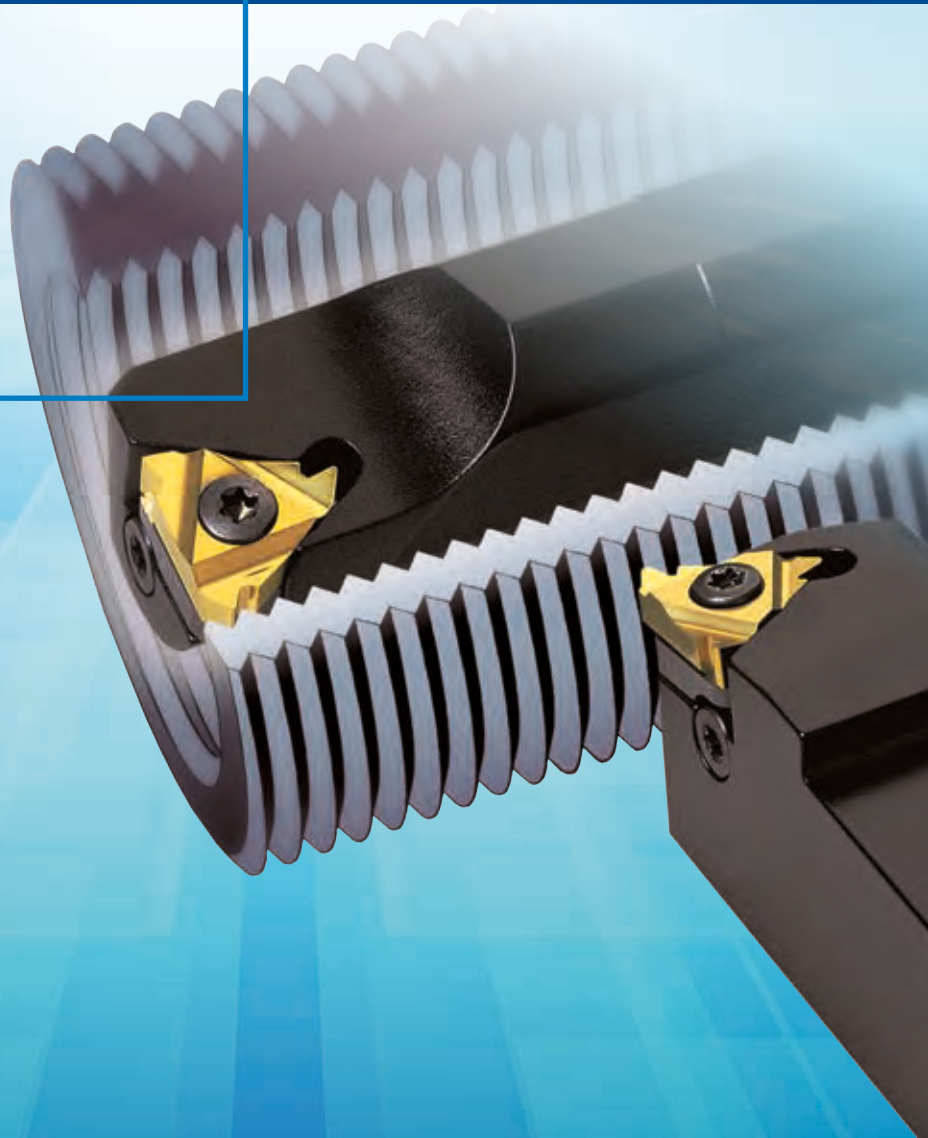
³⁾ R_m = Zugfestigkeit in N/mm²
R_m = Tensile strength in N/mm²

Nassbearbeitung
Wet machining

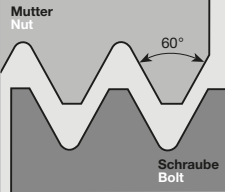
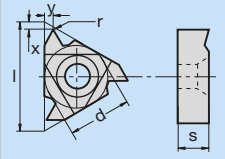


| | | | | | | | | | | | | | |
|--|---|--|--|-------------------------------------|-------|-----------|-----------|-------|------|--------|-----|--------------------|---------------|
| <p>Mutter/ St52 Nut</p>  | <p>Werkzeug: Tool:</p> <p>Wendeplatte/Sorte: Insert/Grade:</p> <p>Anwendungen: Applications:</p> <p>Kühlung: Coolant:</p> <p>Schnittparameter: Cutting data:</p> <p>Ergebnis: Result:</p> | <p>Pentatec® PTL15-1,50D-07</p> <p>WCHX 070304EN-BFM/LCP25T</p> <table border="1"> <tr> <td>Bohren Drilling</td> <td>Längsdrehen Longitudinal turning</td> </tr> </table> <p>Emulsion Emulsion</p> <table border="1"> <tr> <td>v_c</td> <td>150 m/min</td> <td>180 m/min</td> </tr> <tr> <td>a_p</td> <td></td> <td>1 mm</td> </tr> <tr> <td>f</td> <td>0,07 mm/U rev</td> <td>0,2 mm/U rev</td> </tr> </table> <p>Reduzierung der Stückzeit um 30 % Ersatz von drei Werkzeugen Reduction of machining time by 30 % Three tools replaced</p> | Bohren Drilling | Längsdrehen Longitudinal turning | v_c | 150 m/min | 180 m/min | a_p | | 1 mm | f | 0,07 mm/U rev | 0,2 mm/U rev |
| Bohren Drilling | Längsdrehen Longitudinal turning | | | | | | | | | | | | |
| v_c | 150 m/min | 180 m/min | | | | | | | | | | | |
| a_p | | 1 mm | | | | | | | | | | | |
| f | 0,07 mm/U rev | 0,2 mm/U rev | | | | | | | | | | | |
| <p>Flansch / Aluminium Flange / Aluminium</p>  | <p>Werkzeug: Tool:</p> <p>Wendeplatte/Sorte: Insert/Grade:</p> <p>Anwendungen: Applications:</p> <p>Kühlung: Coolant:</p> <p>Schnittparameter: Cutting data:</p> <p>Ergebnis: Result:</p> | <p>Pentatec® PTR20-1,50D-10</p> <p>WCHX 10T308FN-BAL/LW610</p> <table border="1"> <tr> <td>Plandrehen Face turning</td> <td>Bohren Drilling</td> </tr> </table> <p>nass wet</p> <table border="1"> <tr> <td>v_c</td> <td>300 m/min</td> <td>300 m/min</td> </tr> <tr> <td>a_p</td> <td>2 mm</td> <td></td> </tr> <tr> <td>f</td> <td>0,15 mm/U rev</td> <td>0,30 mm/U rev</td> </tr> </table> <p>Reduzierung der Bearbeitungszeit um 50 % Reduction of machining time by 50 %</p> | Plandrehen Face turning | Bohren Drilling | v_c | 300 m/min | 300 m/min | a_p | 2 mm | | f | 0,15 mm/U rev | 0,30 mm/U rev |
| Plandrehen Face turning | Bohren Drilling | | | | | | | | | | | | |
| v_c | 300 m/min | 300 m/min | | | | | | | | | | | |
| a_p | 2 mm | | | | | | | | | | | | |
| f | 0,15 mm/U rev | 0,30 mm/U rev | | | | | | | | | | | |
| <p>Buchse / St52 (SAE 1055) Bush</p>  | <p>Werkzeug: Tool:</p> <p>Wendeplatte/Sorte: Insert/Grade:</p> <p>Anwendungen: Applications:</p> <p>Kühlung: Coolant:</p> <p>Schnittparameter: Cutting data:</p> <p>Ergebnis: Result:</p> | <p>Pentatec® PTL20-1,50D-10</p> <p>WCHX 10T304EN-BFM/LCP25T</p> <table border="1"> <tr> <td>Bohren Drilling</td> <td>Ausdrehen Boring</td> </tr> </table> <p>Emulsion Emulsion</p> <table border="1"> <tr> <td>v_c</td> <td>200 m/min</td> <td>200 m/min</td> </tr> <tr> <td>a_p</td> <td></td> <td>1,5 mm</td> </tr> <tr> <td>f</td> <td>0,03-0,05 mm/U rev</td> <td>0,15 mm/U rev</td> </tr> </table> <p>25 % kürzere Bearbeitungszeit. Ersatz eines Werkzeuges. Einsparung eines Werkzeugwechselflatzes. Reduction of machining time by 25 %. One tool replaced. One tool place saved.</p> | Bohren Drilling | Ausdrehen Boring | v_c | 200 m/min | 200 m/min | a_p | | 1,5 mm | f | 0,03-0,05 mm/U rev | 0,15 mm/U rev |
| Bohren Drilling | Ausdrehen Boring | | | | | | | | | | | | |
| v_c | 200 m/min | 200 m/min | | | | | | | | | | | |
| a_p | | 1,5 mm | | | | | | | | | | | |
| f | 0,03-0,05 mm/U rev | 0,15 mm/U rev | | | | | | | | | | | |
| <p>Schmiedeteil / St37 (SAE 1035) Forged piece</p>  | <p>Werkzeug: Tool:</p> <p>Wendeplatte/Sorte: Insert/Grade:</p> <p>Anwendungen: Applications:</p> <p>Kühlung: Cooling:</p> <p>Schnittparameter: Cutting data:</p> <p>Ergebnis: Result:</p> | <p>Pentatec® PTR20-1,50D-10</p> <p>WCHX 10T304EN-BFM/LCP25T</p> <table border="1"> <tr> <td>Plandrehen, Bohren Face turning, drilling</td> <td>Ausdrehen Boring</td> </tr> </table> <p>Emulsion Emulsion</p> <table border="1"> <tr> <td>v_c</td> <td>180 m/min</td> <td>180 m/min</td> </tr> <tr> <td>a_p</td> <td>1 mm</td> <td>2 mm</td> </tr> <tr> <td>f</td> <td>0,06 mm/U rev</td> <td>0,15 mm/U rev</td> </tr> </table> <p>25 % kürzere Bearbeitungszeit. Einsparung eines Bohrwerkzeuges. Reduction of machining time by 25 %. One drilling tool saved.</p> | Plandrehen, Bohren Face turning, drilling | Ausdrehen Boring | v_c | 180 m/min | 180 m/min | a_p | 1 mm | 2 mm | f | 0,06 mm/U rev | 0,15 mm/U rev |
| Plandrehen, Bohren Face turning, drilling | Ausdrehen Boring | | | | | | | | | | | | |
| v_c | 180 m/min | 180 m/min | | | | | | | | | | | |
| a_p | 1 mm | 2 mm | | | | | | | | | | | |
| f | 0,06 mm/U rev | 0,15 mm/U rev | | | | | | | | | | | |

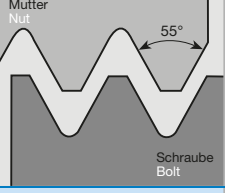
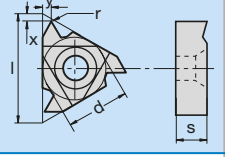




Gewindedrehen Thread turning



| | | |
|--|--|------------|
| Wendeschneidplatten | Indexable inserts | 151 |
| Teilprofil | Partial profile | |
| A, AG, G, N: 55°, 60° | A, AG, G, N: 55°, 60° | 151 |
| Vollprofil | Full profile | |
| ISO-Metrisch | ISO Metric | 153 |
| BSP | BSP | 155 |
| Amerikanisch UN | American UN | 157 |
| BSPT | BSPT | 161 |
| NPT, NPTF | NPT, NPTF | 162 |
| Trapez DIN 103 | Trapezoidal DIN 103 | 164 |
| | | |
| Klemmhalter, Ersatzteile | Tool holders, spare parts | 166 |
| Technische Hinweise | Technical hints | |
| Schneidstoffsorten, Übersicht | Turning grades, overview | 169 |
| Arbeitsmethoden beim Gewindedrehen | Thread turning methods | 170 |
| Flankenfreiwinkel | Flank clearance angle | 170 |
| Zustellungsmethoden | Infeed methods | 171 |
| Wahl der richtigen Unterlagsplatten | Choosing the correct anvil | 171 |
| Steigungswinkel | Helix angle | 172 |
| Unterlagsplatten | Anvils | 172 |
| Bearbeitungsbeispiele | Machining examples | 173 |
| Maßnahmen bei Bearbeitungsproblemen, Gewindedrehen | Options against machining problems, thread turning | 174 |
| Anzahl der Durchgänge | Number of passes | 174 |
| Schnittdatenrichtwerte, Gewindedrehen | Cutting data standard values, thread turning | 175 |

|  Mutter Nut Schraube Bolt Teilprofil 60° Partial Profile 60° | | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|---|----------|-------------------|-----------------------|----|-------|-----|------|-----|-----|----------------|--------|--------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | |
|  Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
| Rechts Right hand  | 11ERA60 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NL...-11 | 166 |
| | 16ERA60 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YE16 | AL...-16 | 166 |
| | 16ERAG60 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,06 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | |
| | 16ERG60 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,25 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | |
| | 22ERN60 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,51 | 1,7 | 2,5 | ● | ● | ○ | YE22 | AL...-22 | 166 |
| Links Left hand  | 11ELA60 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NL...-11 | 166 |
| | 16ELA60 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YI16 | AL...-16 | 166 |
| | 16ELAG60 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,06 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | |
| | 16ELG60 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,25 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | |
| | 22ELN60 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,51 | 1,7 | 2,5 | ● | ● | ○ | YI22 | AL...-22 | 166 |

|  Mutter Nut Schraube Bolt Teilprofil 55° Partial Profile 55° | | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|---|----------|-------------------|-----------------------|----|-------|-----|------|-----|-----|----------------|--------|--------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | |
|  Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
| Rechts Right hand  | 11ERA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NL...-11 | 166 |
| | 16ERA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YE16 | AL...-16 | 166 |
| | 16ERG55 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,20 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | |
| | 16ERAG55 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,07 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | |
| | 22ERN55 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,43 | 1,7 | 2,5 | ● | ● | ○ | YE22 | AL...-22 | 166 |
| Links Left hand  | 11ELA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NL...-11 | 166 |
| | 16ELA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YI16 | AL...-16 | 166 |
| | 16ELG55 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,20 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | |
| | 16ELAG55 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,07 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | |
| | 22ELN55 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,43 | 1,7 | 2,5 | ● | ● | ○ | YI22 | AL...-22 | 166 |

Bestellbeispiel Order example: 10 Stück pieces 11ERA60 LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

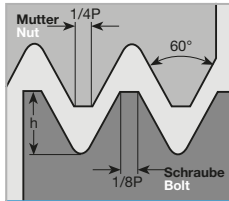
| | | Teilprofil 60° Partial Profile 60° | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-------------------------------------|----------|---------------------------------------|-----------------------|----|-------|-----|------|-----|-----|--------|--------|----------------|------|----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| Rechts Right hand | 11IRA60 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NVR..-11 | 166 | | |
| | 16IRA60 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YI16 | AVR..-16 | 166 | | |
| | 16IRG60 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,15 | 1,2 | 1,7 | ● | ● | ○ | YI16 | NVR..-16 | 166 | | |
| | 16IRAG60 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,05 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | | | |
| | 22IRN60 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,28 | 1,7 | 2,5 | ● | ● | ○ | YI22 | AVR..-22 | 166 | | |
| | | | | | | | | | | | | | | NVR..-22 | 166 | | |
| Links Left hand | 11ILA60 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NVR..-11 | 166 | | |
| | 16ILA60 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YE16 | AVR..-16 | 166 | | |
| | 16ILG60 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,15 | 1,2 | 1,7 | ● | ● | ○ | YE16 | NVR..-16 | 166 | | |
| | 16ILAG60 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,05 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | | | |
| | 22ILN60 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,28 | 1,7 | 2,5 | ● | ● | ○ | YE22 | AVR..-22 | 166 | | |
| | | | | | | | | | | | | | | NVR..-22 | 166 | | |

| | | Teilprofil 55° Partial Profile 55° | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-------------------------------------|----------|---------------------------------------|-----------------------|----|-------|-----|------|-----|-----|--------|--------|----------------|------|----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| Rechts Right hand | 11IRA55 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NVR..-11 | 166 | | |
| | 16IRA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YI16 | AVR..-16 | 166 | | |
| | 16IRG55 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,20 | 1,2 | 1,7 | ● | ● | ○ | YI16 | NVR..-16 | 166 | | |
| | 16IRAG55 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,07 | 1,2 | 1,7 | ● | ● | ○ | YI16 | | | | |
| | 22IRN55 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,43 | 1,7 | 2,5 | ● | ● | ○ | YI22 | AVR..-22 | 166 | | |
| | | | | | | | | | | | | | | NVR..-22 | | | |
| Links Left hand | 11ILA55 | 0,5-1,5 | 48-16 | 11 | 6,35 | 3,0 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | - | NVR..-11 | 166 | | |
| | 16ILA55 | 0,5-1,5 | 48-16 | 16 | 9,52 | 3,4 | 0,05 | 0,8 | 0,9 | ● | ● | ○ | YE16 | AVR..-16 | 166 | | |
| | 16ILG55 | 1,75-3,0 | 14-8 | 16 | 9,52 | 3,4 | 0,20 | 1,2 | 1,7 | ● | ● | ○ | YE16 | NVR..-16 | 166 | | |
| | 16ILAG55 | 0,5-3,0 | 48-8 | 16 | 9,52 | 3,4 | 0,07 | 1,2 | 1,7 | ● | ● | ○ | YE16 | | | | |
| | 22ILN55 | 3,5-5,0 | 7-5 | 22 | 12,70 | 4,6 | 0,43 | 1,7 | 2,5 | ● | ● | ○ | YE22 | AVR..-22 | 166 | | |
| | | | | | | | | | | | | | | NVR..-22 | | | |

Bestellbeispiel Order example: 10 Stück pieces 11IRA60 LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request



ISO-Metrisch Vollprofil
ISO-Metric Full Profile

| | Bestellbezeichnung Ordering Code | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page | |
|-------------------------------------|-------------------------------------|-------------------|-----------------------|----|-------|------|-----|-----|-----|----------------|--------|--------|--------------------|--|---------------|----------|
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand | 11ER0,35ISO | 0,35 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,4 | ● | ● | ○ | | NL...-11 | 166 | |
| | 11ER0,4ISO | 0,40 | - | 11 | 6,35 | 3,0 | - | 0,7 | 0,4 | ● | ● | ○ | | | | |
| | 11ER0,45ISO | 0,45 | - | 11 | 6,35 | 3,0 | - | 0,7 | 0,4 | ● | ● | ○ | | | | |
| | 11ER0,5ISO | 0,5 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,4 | ● | ● | ○ | | | | |
| | 11ER0,6ISO | 0,6 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| | 11ER0,7ISO | 0,7 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| | 11ER0,75ISO | 0,75 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| | 11ER0,8ISO | 0,8 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| | 11ER1,0ISO | 1,0 | - | 11 | 6,35 | 3,0 | - | 0,7 | 0,7 | ● | ● | ○ | | | | |
| | 11ER1,25ISO | 1,25 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ● | ○ | | | | |
| | 11ER1,5ISO | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ● | ● | ○ | | | | |
| | 16ER0,5ISO | 0,5 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,4 | ● | ● | ○ | YE16 | AL...-16 | | 166 |
| | 16ER0,75ISO | 0,75 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ● | ● | ○ | YE16 | | | |
| | 16ER1,0ISO | 1,0 | - | 16 | 9,52 | 3,4 | - | 0,7 | 0,7 | ● | ● | ○ | YE16 | | | |
| | 16ER1,25ISO | 1,25 | - | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ● | ● | ○ | YE16 | | | |
| | 16ER1,5ISO | 1,5 | - | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YE16 | | | |
| | 16ER1,75ISO | 1,75 | - | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ● | ● | ○ | YE16 | | | |
| | 16ER2,0ISO | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ● | ● | ○ | YE16 | | | |
| | 16ER2,5ISO | 2,5 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YE16 | | | |
| | 16ER3,0ISO | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,2 | 1,6 | ● | ● | ○ | YE16 | | | |
| | 16ER3,5ISO | 3,5 | - | 16 | 9,52 | 3,4 | - | 1,2 | 1,6 | ● | ● | ○ | YE16 | | | |
| | 22ER3,5ISO | 3,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YE22 | AL...-22 | | 166 |
| | 22ER4,0ISO | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YE22 | | | |
| | 22ER4,5ISO | 4,5 | - | 22 | 12,70 | 4,6 | - | 1,7 | 2,4 | ● | ● | ○ | YE22 | | | |
| | 22ER5,0ISO | 5,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 2,5 | ● | ● | ○ | YE22 | | | |
| | 27ER6,0ISO | 6,0 | - | 27 | 15,88 | 6,2 | - | 1,8 | 2,5 | ● | ● | ○ | YE27 | AL...-27 | | |
| | Links Left hand | 11EL0,35ISO | 0,35 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,4 | ● | ● | ○ | | | NL...-11 |
| 11EL0,45ISO | | 0,45 | - | 11 | 6,35 | 3,0 | - | 0,7 | 0,4 | ● | ● | ○ | | | | |
| 11EL0,5ISO | | 0,5 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,4 | ● | ● | ○ | | | | |
| 11EL0,7ISO | | 0,7 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| 11EL0,75ISO | | 0,75 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| 11EL0,8ISO | | 0,8 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | |
| 11EL1,0ISO | | 1,0 | - | 11 | 6,35 | 3,0 | - | 0,7 | 0,7 | ● | ● | ○ | | | | |
| 11EL1,25ISO | | 1,25 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ● | ○ | | | | |
| 11EL1,5ISO | | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ● | ● | ○ | | | | |
| 16EL0,5ISO | | 0,5 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,4 | ● | ● | ○ | YI16 | AL...-16 | 166 | |
| 16EL0,75ISO | | 0,75 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ● | ● | ○ | YI16 | | | |
| 16EL1,0ISO | | 1,0 | - | 16 | 9,52 | 3,4 | - | 0,7 | 0,7 | ● | ● | ○ | YI16 | | | |
| 16EL1,25ISO | | 1,25 | - | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ● | ● | ○ | YI16 | | | |
| 16EL1,5ISO | | 1,5 | - | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YI16 | | | |
| 16EL1,75ISO | | 1,75 | - | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ● | ● | ○ | YI16 | | | |
| 16EL2,0ISO | | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ● | ● | ○ | YI16 | | | |
| 16EL2,5ISO | | 2,5 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YI16 | | | |
| 16EL3,0ISO | | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,2 | 1,6 | ● | ● | ○ | YI16 | | | |
| 22EL3,5ISO | | 3,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YI22 | AL...-22 | | 166 |
| 22EL4,0ISO | | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YI22 | | | |
| 22EL4,5ISO | | 4,5 | - | 22 | 12,70 | 4,6 | - | 1,7 | 2,4 | ● | ● | ○ | YI22 | | | |
| 22EL5,0ISO | | 5,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 2,5 | ● | ● | ○ | YI22 | | | |
| 27EL6,0ISO | | 6,0 | - | 27 | 15,88 | 6,2 | - | 1,7 | 2,5 | ● | ● | ○ | YI27 | AL...-27 | | |

Bestellbeispiel Order example: 10 Stück pieces 11ER0,35ISO LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

| | | ISO-Metrisch Vollprofil ISO-Metric Full Profile | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-------------------------------------|-------------|--|-----------------------|-------|-------|-----|-----|-----|-----|--------|--------|----------------|-----------|-----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| Rechts Right hand | 11IR0,35ISO | 0,35 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,3 | ● | ● | ○ | - | NVR...-11 | 166 | | |
| | 11IR0,45ISO | 0,45 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,4 | ● | ● | ○ | | | | | |
| | 11IR0,6ISO | 0,6 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IR0,7ISO | 0,7 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IR0,75ISO | 0,75 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IR0,8ISO | 0,8 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IR1,0ISO | 1,0 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ● | ● | ○ | - | | | | |
| | 11IR1,25ISO | 1,25 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ● | ○ | | | | | |
| | 11IR1,5ISO | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ● | ● | ○ | - | | | | |
| | 16IR1,0ISO | 1,0 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ● | ● | ○ | YI16 | AVR...-16 | 166 | | |
| | 16IR1,25ISO | 1,25 | - | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ● | ● | ○ | YI16 | NVR...-16 | 166 | | |
| | 16IR1,50ISO | 1,50 | - | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YI16 | | | | |
| | 16IR1,75ISO | 1,75 | - | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ● | ● | ○ | YI16 | | | | |
| | 16IR2,0ISO | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ● | ● | ○ | YI16 | | | | |
| | 16IR2,5ISO | 2,5 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YI16 | | | | |
| | 16IR3,0ISO | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YI16 | | | | |
| | 16IR3,5ISO | 3,5 | - | 16 | 9,52 | 3,4 | - | 1,2 | 1,5 | ● | ● | ○ | YI16 | | | | |
| | 22IR3,5ISO | 3,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YI22 | AVR...-22 | 166 | | |
| | 22IR4,0ISO | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YI22 | NVR...-22 | 166 | | |
| | 22IR4,5ISO | 4,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,4 | ● | ● | ○ | YI22 | | | | |
| 22IR5,0ISO | 5,0 | - | 27 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YI22 | | | | | |
| 27IR6,0ISO | 6,0 | - | 27 | 15,88 | 6,2 | - | 1,8 | 2,5 | ● | ● | ○ | YI27 | AVR...-27 | 166 | | | |
| | | | | | | | | | | | | | NVR...-27 | 166 | | | |
| Links Left hand | 11IL0,35ISO | 0,35 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,3 | ● | ● | ○ | - | NVR...-11 | 166 | | |
| | 11IL0,7ISO | 0,7 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IL0,8ISO | 0,8 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ● | ● | ○ | | | | | |
| | 11IL1,0ISO | 1,0 | - | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ● | ● | ○ | - | | | | |
| | 16IL1,0ISO | 1,0 | - | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ● | ● | ○ | YE16 | AVR...-16 | 166 | | |
| | 16IL1,25ISO | 1,25 | - | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ● | ● | ○ | YE16 | NVR...-16 | 166 | | |
| | 16IL1,50ISO | 1,50 | - | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YE16 | | | | |
| | 16IL1,75ISO | 1,75 | - | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ● | ● | ○ | YE16 | | | | |
| | 16IL2,0ISO | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,0 | 0,6 | ● | ● | ○ | YE16 | | | | |
| | 16IL0,8ISO | 0,8 | - | 16 | 9,52 | 3,4 | - | 0,6 | 1,3 | ● | ● | ○ | YE16 | | | | |
| | 16IL2,5ISO | 2,5 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YE16 | | | | |
| | 16IL3,0ISO | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,2 | 1,5 | ● | ● | ○ | YE16 | | | | |
| | 16IL3,5ISO | 3,5 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YE16 | | | | |
| | 22IL3,5ISO | 3,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YE22 | AVR...-22 | 166 | | |
| | 22IL4,0ISO | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YE22 | NVR...-22 | 166 | | |
| | 22IL4,5ISO | 4,5 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,4 | ● | ● | ○ | YE22 | | | | |
| | 22IL5,0ISO | 5,0 | - | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ● | ● | ○ | YE22 | | | | |
| 27IL6,0ISO | 6,0 | - | 27 | 15,88 | 6,2 | - | 1,8 | 2,5 | ● | ● | ○ | YE27 | AVR...-27 | 166 | | | |
| | | | | | | | | | | | | | NVR...-27 | 166 | | | |

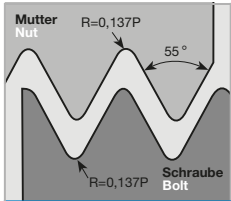

Bestellbeispiel Order example: 10 Stück pieces 11IR0,35ISO LCP20T

● Verfügbar ab Lager
Available from stock

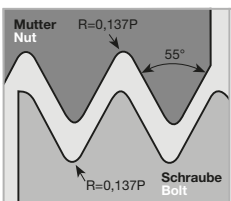

○ Auf Anfrage
Upon request

Wendeschneidplatten - Außengewinde
Indexable inserts - external threads



|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|---|---|-------------------|-----------------------|------|------|-----|-----|-----|-----|--------|----------------|--------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand  | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 11ER28W | - | 28 | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ● | ● | ○ | | NL...-11 | 166 | |
| | 11ER19W | - | 19 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ● | ● | ○ | | | | |
| | 11ER14W | - | 14 | 11 | 6,35 | 3,0 | - | 1,0 | 1,2 | ● | ● | ○ | | | | |
| | 16ER28W | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ● | ● | ○ | YE16 | AL...-16 | 166 | |
| | 16ER19W | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YE16 | | | |
| | 16ER14W | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | ● | ● | ○ | YE16 | | | |
| 16ER11W | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YE16 | | | | |

Wendeschneidplatten - Innengewinde
Indexable inserts - internal threads

|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|---|---|-------------------|-----------------------|------|------|-----|-----|-----|-----|--------|----------------|--------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand  | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 11IR28W | - | 28 | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ● | ● | ○ | - | NVR...-11 | 166 | |
| | 11IR19W | - | 19 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ● | ● | ○ | - | | | |
| | 11IR14W | - | 14 | 11 | 6,35 | 3,0 | - | 0,9 | 1,1 | ● | ● | ○ | - | | | |
| | 16IR28W | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ● | ● | ○ | YI16 | AVR...-16 | 166 | |
| | 16IR19W | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ● | ● | ○ | YI16 | NVR...-16 | 166 | |
| | 16IR14W | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | ● | ● | ○ | YI16 | | | |
| 16IR11W | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ● | ● | ○ | YI16 | | | | |

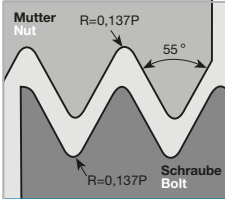

Bestellbeispiel Order example: 10 Stück pieces 11ER28W LCP20T

● Verfügbar ab Lager
 Available from stock

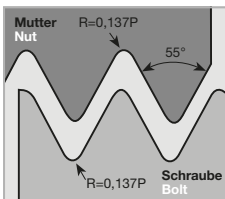

○ Auf Anfrage
 Upon request

Wendeschneidplatten - Außengewinde
Indexable inserts - external threads



|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|--|-------------------|-----------------------|----|------|-----|---|-----|-----|--------|----------------|--------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Links Left hand  | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 16EL28W | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ○ | ○ | ○ | YI16 | AL...-16 | 166 | |
| | 16EL19W | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | | | |
| | 16EL14W | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | ○ | ○ | ○ | YI16 | | | |
| | 16EL11W | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | |
| | | | | | | | | | | | | | | | | |

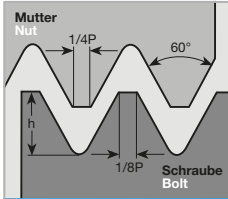
Wendeschneidplatten - Innengewinde
Indexable inserts - internal threads

|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|--|-------------------|-----------------------|------|------|-----|-----|-----|-----|--------|----------------|--------|------|------------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Links Left hand  | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 11IL19W | - | 19 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | NVR...-11 | 166 | |
| | 11IL14W | - | 14 | 11 | 6,35 | 3,0 | - | 0,9 | 1,1 | ○ | ○ | ○ | - | | | |
| | 16L28W | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | | ○ | ○ | YE16 | AVR...-16 NVR...-16 | 166 | |
| | 16L19W | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YE16 | | | |
| | 16L14W | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | ○ | ○ | ○ | YE16 | | | |
| 16L11W | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | | |
| | | | | | | | | | | | | | | | | |


Bestellbeispiel Order example: 10 Stück pieces 16EL28W LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request



Amerikanisch UN Vollprofil
American UN Full Profile

| | Bestellbezeichnung Ordering Code | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page | | |
|--|-------------------------------------|-------------------|-----------------------|----|-------|-----|---|-----|-----|-----------------------|-----------------------|-----------------------|--------------------|--|---------------|---------|-----|
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWM20T | | | | | |
| Rechts Right hand  | 16ER72UN | - | 72 | 16 | 9,52 | 3,4 | - | 0,8 | 0,4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | AL..-16 | 166 | | |
| | 16ER64UN | - | 64 | 16 | 9,52 | 3,4 | - | 0,8 | 0,4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER56UN | - | 56 | 16 | 9,52 | 3,4 | - | 0,7 | 0,4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER48UN | - | 48 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER44UN | - | 44 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER40UN | - | 40 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER36UN | - | 36 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER32UN | - | 32 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER28UN | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER27UN | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER24UN | - | 24 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER20UN | - | 20 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER18UN | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER16UN | - | 16 | 16 | 9,52 | 3,4 | - | 0,9 | 1,1 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER14UN | - | 14 | 16 | 9,52 | 3,4 | - | 1 | 1,2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER13UN | - | 13 | 16 | 9,52 | 3,4 | - | 1 | 1,3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER12UN | - | 12 | 16 | 9,52 | 3,4 | - | 1,1 | 1,4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER11UN | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER10UN | - | 10 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER9UN | - | 9 | 16 | 9,52 | 3,4 | - | 1,2 | 1,7 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 16ER8UN | - | 8 | 16 | 9,52 | 3,4 | - | 1,2 | 1,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | | |
| | 22ER7UN | - | 7 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE22 | | | AL..-22 | 166 |
| | 22ER6UN | - | 6 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE22 | | | | |
| | 22ER5UN | - | 5 | 22 | 12,70 | 4,6 | - | 1,7 | 2,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE22 | | | | |

Bestellbeispiel Order example: 10 Stück piece 16ER72UN LCP20T

● Verfügbar ab Lager
Available from stock

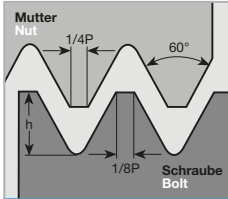
○ Auf Anfrage
Upon request

| | | Amerikanisch UN Vollprofil American UN Full Profile | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-------------------------------------|----------|--|-----------------------|-------|------|-----|-----|-----|-----|--------|--------|----------------|----------|----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LVN20T | | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| Rechts Right hand | 111R72UN | - | 72 | 11 | 6,35 | 3,0 | - | 0,8 | 0,3 | | | ○ | - | NVR..-11 | 166 | | |
| | 111R64UN | - | 64 | 11 | 6,35 | 3,0 | - | 0,8 | 0,4 | ○ | ○ | ○ | - | | | | |
| | 111R56UN | - | 56 | 11 | 6,35 | 3,0 | - | 0,7 | 0,4 | ○ | ○ | ○ | - | | | | |
| | 111R48UN | - | 48 | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ○ | ○ | ○ | - | | | | |
| | 111R40UN | - | 40 | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ○ | ○ | ○ | - | | | | |
| | 111R36UN | - | 36 | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ○ | ○ | ○ | - | | | | |
| | 111R32UN | - | 32 | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ○ | ○ | ○ | - | | | | |
| | 111R28UN | - | 28 | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ○ | ○ | ○ | - | | | | |
| | 111R27UN | - | 27 | 11 | 6,35 | 3,0 | - | 0,7 | 0,8 | ○ | ○ | ○ | - | | | | |
| | 111R24UN | - | 24 | 11 | 6,35 | 3,0 | - | 0,7 | 0,8 | ○ | ○ | ○ | - | | | | |
| | 111R20UN | - | 20 | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ○ | ○ | ○ | - | | | | |
| | 111R18UN | - | 18 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | | | |
| | 111R16UN | - | 16 | 11 | 6,35 | 3,0 | - | 0,9 | 1,1 | ○ | ○ | ○ | - | | | | |
| | 111R14UN | - | 14 | 11 | 6,35 | 3,0 | - | 0,9 | 1,1 | ○ | ○ | ○ | - | | | | |
| | 161R56UN | - | 56 | 16 | 9,52 | 3,4 | - | 0,7 | 0,4 | | | ○ | YI16 | AVR..-16 | 166 | | |
| | 161R48UN | - | 48 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | NVR..-16 | 166 | | |
| | 161R44UN | - | 44 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | | | |
| | 161R40UN | - | 40 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | | | |
| | 161R36UN | - | 36 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | | | |
| | 161R32UN | - | 32 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | | | |
| 161R28UN | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ○ | ○ | ○ | YI16 | | | | | |
| 161R27UN | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | | | | | |
| 161R24UN | - | 24 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | | | | | |
| 161R20UN | - | 20 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ○ | ○ | ○ | YI16 | | | | | |
| 161R18UN | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | | | | | |
| 161R16UN | - | 16 | 16 | 9,52 | 3,4 | - | 0,9 | 1,1 | ○ | ○ | ○ | YI16 | | | | | |
| 161R14UN | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YI16 | | | | | |
| 161R13UN | - | 13 | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ○ | ○ | ○ | YI16 | | | | | |
| 161R12UN | - | 12 | 16 | 9,52 | 3,4 | - | 1,1 | 1,4 | ○ | ○ | ○ | YI16 | | | | | |
| 161R11,5UN | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | | | |
| 161R11UN | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | | | |
| 161R10UN | - | 10 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | | | |
| 161R9UN | - | 9 | 16 | 9,52 | 3,4 | - | 1,2 | 1,7 | ○ | ○ | ○ | YI16 | | | | | |
| 161R8UN | - | 8 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | | | |
| 221R7UN | - | 7 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YI22 | AVR..-22 | 166 | | | |
| 221R6UN | - | 6 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YI22 | NVR..-22 | 166 | | | |
| 221R5UN | - | 5 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YI22 | | | | | |

Bestellbeispiel Order example: 10 Stück pieces 111R72UN LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request



Amerikanisch UN Vollprofil
American UN Full Profile

| | Bestellbezeichnung Ordering Code | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-----------------------------------|-------------------------------------|-------------------|-----------------------|-------|-------|-----|-----|-----|-----|----------------|--------|--------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | |
| Links Left hand | 16EL56UN | - | 56 | 16 | 9,52 | 3,4 | - | 0,7 | 0,4 | ○ | ○ | ○ | YI16 | AL...-16 | 166 |
| | 16EL48UN | - | 48 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | |
| | 16EL44UN | - | 44 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | |
| | 16EL40UN | - | 40 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | |
| | 16EL36UN | - | 36 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | |
| | 16EL32UN | - | 32 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YI16 | | |
| | 16EL28UN | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ○ | ○ | ○ | YI16 | | |
| | 16EL27UN | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | | |
| | 16EL24UN | - | 24 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | | |
| | 16EL20UN | - | 20 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ○ | ○ | ○ | YI16 | | |
| | 16EL18UN | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | | |
| | 16EL16UN | - | 16 | 16 | 9,52 | 3,4 | - | 0,9 | 1,1 | ○ | ○ | ○ | YI16 | | |
| | 16EL14UN | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | ○ | ○ | ○ | YI16 | | |
| | 16EL13UN | - | 13 | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ○ | ○ | ○ | YI16 | | |
| | 16EL12UN | - | 12 | 16 | 9,52 | 3,4 | - | 1,1 | 1,4 | ○ | ○ | ○ | YI16 | | |
| | 16EL11UN | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | |
| | 16EL10UN | - | 10 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | |
| | 16EL9UN | - | 9 | 16 | 9,52 | 3,4 | - | 1,2 | 1,7 | ○ | ○ | ○ | YI16 | | |
| | 16EL8UN | - | 8 | 16 | 9,52 | 3,4 | - | 1,2 | 1,6 | ○ | ○ | ○ | YI16 | | |
| | 22EL7UN | - | 7 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YI22 | | |
| 22EL6UN | - | 6 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YI22 | | | |
| 22EL5UN | - | 5 | 22 | 12,70 | 4,6 | - | 1,7 | 2,5 | ○ | ○ | ○ | YI22 | | | |

Bestellbeispiel Order example: 10 Stück pieces 16EL56UN LWN20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

| | | Amerikanisch UN Vollprofil American UN Full Profile | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-------------------------------------|----------|--|-----------------------|----|-------|-----|---|-----|-----|--------|--------|----------------|------|-----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| | | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | | | |
| Links Left hand | 11IL32UN | - | 32 | 11 | 6,35 | 3,0 | - | 0,6 | 0,6 | ○ | ○ | ○ | - | NVR...-11 | 166 | | |
| | 11IL28UN | - | 28 | 11 | 6,35 | 3,0 | - | 0,6 | 0,7 | ○ | ○ | ○ | - | | | | |
| | 11IL24UN | - | 24 | 11 | 6,35 | 3,0 | - | 0,7 | 0,8 | ○ | ○ | ○ | - | | | | |
| | 11IL20UN | - | 20 | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ○ | ○ | ○ | - | | | | |
| | 11IL18UN | - | 18 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | | | |
| | 11IL16UN | - | 16 | 11 | 6,35 | 3,0 | - | 0,9 | 1,1 | ○ | ○ | ○ | - | | | | |
| | 16IL48UN | - | 48 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YE16 | AVR...-16 | 166 | | |
| | 16IL44UN | - | 44 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YE16 | NVR...-16 | | | |
| | 16IL40UN | - | 40 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL36UN | - | 36 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL32UN | - | 32 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL28UN | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,7 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL27UN | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL24UN | - | 24 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL20UN | - | 20 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL18UN | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL16UN | - | 16 | 16 | 9,52 | 3,4 | - | 0,9 | 1,1 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL14UN | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL13UN | - | 13 | 16 | 9,52 | 3,4 | - | 1,0 | 1,3 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL12UN | - | 12 | 16 | 9,52 | 3,4 | - | 1,1 | 1,4 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL11UN | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL10UN | - | 10 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL9UN | - | 9 | 16 | 9,52 | 3,4 | - | 1,2 | 1,7 | ○ | ○ | ○ | YE16 | | | | |
| | 16IL8UN | - | 8 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | | |
| | 22IL7UN | - | 7 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YE22 | AVR...-22 | 166 | | |
| | 22IL6UN | - | 6 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YE22 | NVR...-22 | | | |
| | 22IL5UN | - | 5 | 22 | 12,70 | 4,6 | - | 1,6 | 2,3 | ○ | ○ | ○ | YE22 | | | | |

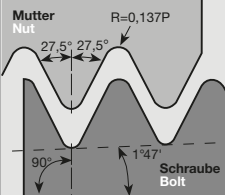


Bestellbeispiel Order example: 10 Stück pieces 11IL32UN LCP20T

● Verfügbar ab Lager
Available from stock

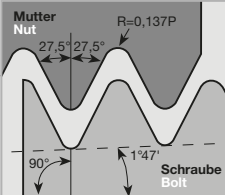


○ Auf Anfrage
Upon request

Wendeschneidplatten - Außengewinde Indexable inserts - external threads



|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|-------------------|-------------------|-----------------------|----|------|-----|---|-----|-----|-----------------------|-----------------------|-----------------------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand  | 16ER28BSPT | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | AL...-16 | 166 | |
| | 16ER19BSPT | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | 166 | |
| | 16ER14BSPT | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | |
| | 16ER11BSPT | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | | | |
| Links Left hand  | 16EL14BSPT | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | AL...-16 | 166 | |
| | 16EL11BSPT | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | | | |

Wendeschneidplatten - Innengewinde Indexable inserts - internal threads

|  | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|-------------------|-------------------|-----------------------|----|------|-----|---|-----|-----|-----------------------|-----------------------|-----------------------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand  | 11IR19BSPT | - | 19 | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | - | NVR...-11 | 166 | |
| | 11IR14BSPT | - | 14 | 11 | 6,35 | 3,0 | - | 0,9 | 1,0 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | - | | | |
| | 16IR28BSPT | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | AVR...-16 | 166 | |
| | 16IR19BSPT | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | NVR...-16 | 166 | |
| | 16IR14BSPT | - | 14 | 16 | 9,52 | 3,4 | - | 1,0 | 1,2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | | | |
| | 16IR11BSPT | - | 11 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YI16 | | | |
| Links Left hand  | 11IL14BSPT | - | 14 | 11 | 6,35 | 3,0 | - | 0,9 | 1,0 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | - | NVR...-11 | 166 | |
| | 16IL14BSPT | - | 19 | 16 | 9,52 | 3,4 | - | 0,8 | 0,9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | AVR...-16 | 166 | |
| | 16IL11BSPT | - | 28 | 16 | 9,52 | 3,4 | - | 0,6 | 0,6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | YE16 | NVR...-16 | 166 | |

Bestellbeispiel Order example: 10 Stück pieces 16ER28BSPT LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

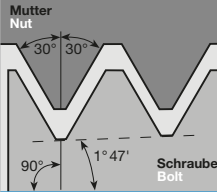
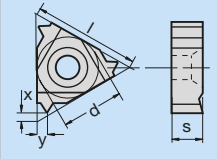

| | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|---------------------------------|---|-------------------|-----------------------|----|------|-----|---|-----|-----|--------|----------------|--------|------|--------------------|--|---------------|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | |
| Rechts Right hand | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 16ER27NPT | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YE16 | AL..-16 | 166 | |
| | 16ER18NPT | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YE16 | | | |
| | 16ER14NPT | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YE16 | | | |
| | 16ER11,5NPT | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | |
| | 16ER8NPT | - | 8 | 16 | 9,52 | 3,4 | - | 1,3 | 1,8 | ○ | ○ | ○ | YE16 | | | |
| | | | | | | | | | | | | | | | | |
| Links Left hand | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | |
| | 16EL27NPT | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | AL..-16 | 166 | |
| | 16EL18NPT | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | | | |
| | 16EL14NPT | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YI16 | | | |
| | 16EL11,5NPT | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | | |
| | 16EL8NPT | - | 8 | 16 | 9,52 | 3,4 | - | 1,3 | 1,8 | ○ | ○ | ○ | YI16 | | | |
| | | | | | | | | | | | | | | | | |

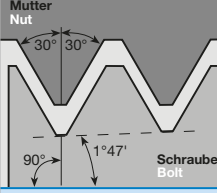
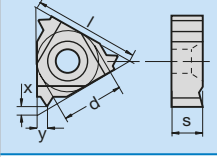
| | | Steigung Pitch | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page | |
|---------------------------------|---|-------------------|-----------------------|------|------|------|-----|-----|-----|--------|----------------|--------|------|--------------------|--|---------------|--|
| | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| Rechts Right hand | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | | |
| | 16ER27NPTF | - | 8 | 16 | 9,52 | 3,4 | - | 1,3 | 1,8 | ○ | ○ | ○ | YE16 | AL..-16 | 166 | | |
| | 16ER18NPTF | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | | | | |
| | 16ER14NPTF | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YE16 | | | | |
| | 16ER11,5NPTF | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YE16 | | | | |
| | 16ER8NPTF | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YE16 | | | | |
| | | | | | | | | | | | | | | | | | |
| Links Left hand | Bestellbezeichnung Ordering Code | | | | | | | | | | | | | | | | |
| | 16EL18NPTF | | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | AL..-16 | 166 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Bestellbeispiel Order example: 10 Stück pieces 16ER27NPT LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

|  | | NPT - Vollprofil NPT - Full Profile | | | | | | | | | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|-------------|--|-----------------|------|------|-----|-----|-----|-----|-------------|--------|--------|-----------------|---|------------|
| | | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | | | |
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
| Rechts Right hand  | 11IR27NPT | - | 14 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | NVR...-11 | 166 |
| | 11IR18NPT | - | 18 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | |
| | 11IR14NPT | - | 27 | 11 | 6,35 | 3,0 | - | 0,7 | 0,8 | ○ | ○ | ○ | - | | |
| | 16IR27NPT | - | 8 | 16 | 9,52 | 3,4 | - | 1,3 | 1,8 | ○ | ○ | ○ | YI16 | AVR...-16 | 166 |
| | 16IR18NPT | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | NVR...-16 | 166 |
| | 16IR14NPT | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YI16 | | |
| | 16IR11,5NPT | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | | |
| 16IR8NPT | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | | | |
| Links Left hand  | 11IL27NPT | - | 27 | 11 | 6,35 | 3,0 | - | 0,7 | 0,8 | ○ | ○ | ○ | - | NVR...-11 | 166 |
| | 11IL18NPT | - | 18 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | |
| | 11IL14NPT | - | 14 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | |
| | 16IL14NPT | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YE16 | AVR...-16 | 166 |
| | 16IL11,5NPT | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YE16 | NVR...-16 | 166 |
| | 16IL8NPT | - | 8 | 16 | 9,52 | 3,4 | - | 1,3 | 1,8 | ○ | ○ | ○ | YE16 | | |

|  | | NPTF - Vollprofil NPTF - Full Profile | | | | | | | | | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|--|--------------|--|-----------------|----|------|-----|---|-----|-----|-------------|--------|--------|-----------------|---|------------|
| | | Steigung Pitch | | l | d | s | r | x | y | Sorte Grade | | | | | |
| | | mm | Gang / Zoll tpi | | | | | | | LCP20T | LCM25T | LWN20T | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
| Rechts Right hand  | 11IR18NPTF | - | 18 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | NVR...-11 | 156 |
| | 11IR14NPTF | - | 14 | 11 | 6,35 | 3,0 | - | 0,8 | 1,0 | ○ | ○ | ○ | - | | |
| | 16IR18NPTF | - | 27 | 16 | 9,52 | 3,4 | - | 0,7 | 0,8 | ○ | ○ | ○ | YI16 | AVR...-16 | 166 |
| | 16IR14NPTF | - | 18 | 16 | 9,52 | 3,4 | - | 0,8 | 1,0 | ○ | ○ | ○ | YI16 | NVR...-16 | 166 |
| | 16IR11,5NPTF | - | 14 | 16 | 9,52 | 3,4 | - | 0,9 | 1,2 | ○ | ○ | ○ | YI16 | | |
| | 16IR8NPTF | - | 11,5 | 16 | 9,52 | 3,4 | - | 1,1 | 1,5 | ○ | ○ | ○ | YI16 | | |

Bestellbeispiel Order example: 10 Stück pieces 11IR27NPT LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

Wendeschneidplatten - Außengewinde
Indexable inserts - external threads



| | | Trapez DIN 103 - Vollprofil Trapezoidal DIN 103 - Full Profile | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-----------------------------------|-------------------------------------|---|-----------------------|----|-------|------|-----|-----|-----|--------|--------|----------------|------|----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| | Bestellbezeichnung Ordering Code | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| | Rechts Right hand | 11ER1,5TR | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ● | ○ | | NL...-11 | 166 | |
| 16ER1,5TR | | 1,5 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,1 | ● | ● | ○ | YE16 | AL...-16 | 166 | | |
| 16ER2,0TR | | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,3 | ● | ● | ○ | YE16 | | | | |
| 16ER3,0TR | | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,3 | 1,5 | ● | ● | ○ | YE16 | | | | |
| 22ER4,0TR | | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 1,9 | ● | ● | ○ | YE22 | AL...-22 | 166 | | |
| 22ER5,0TR | | 5,0 | - | 22 | 12,70 | 4,6 | - | 2,1 | 2,5 | ● | ● | ○ | YE22 | | | | |
| 27ER6,0TR | | 6,0 | - | 27 | 15,88 | 6,2 | - | 2,3 | 2,7 | ● | ● | ○ | YE27 | AL...-27 | | | |
| Links Left hand | 16EL1,5TR | 1,5 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,1 | ● | ○ | ○ | YI16 | AL...-16 | 166 | | |
| | 16EL2,0TR | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,3 | ● | ○ | ○ | YI16 | | | | |
| | 16EL3,0TR | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,3 | 1,5 | ● | ● | ○ | YI16 | | | | |
| | 22EL4,0TR | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 1,9 | ● | ● | ○ | YI22 | AL...-22 | 166 | | |
| | 22EL5,0TR | 5,0 | - | 22 | 12,70 | 4,6 | - | 2,1 | 2,5 | ● | ● | ○ | YI22 | | | | |
| | 22EL6,0TR | 6,0 | - | 22 | 12,70 | 4,6 | - | 2,3 | 2,7 | ● | ○ | ○ | YI22 | | | | |
| | 27EL6,0TR | 6,0 | - | 27 | 15,88 | 6,2 | - | 2,3 | 2,7 | ● | ● | ○ | YI27 | AL...-27 | 166 | | |

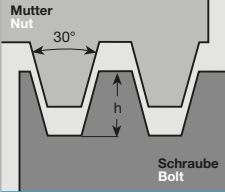


Wendeschneidplatten - Innengewinde
Indexable inserts - internal threads

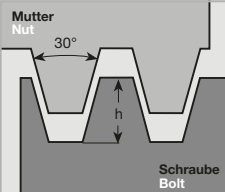

| | | Trapez DIN 103 - Vollprofil Trapezoidal DIN 103 - Full Profile | | | | | | | | | | Sorte Grade | | | Unterlage Anvil | Passendes Werkzeug Suitable tool holder | Seite Page |
|-----------------------------------|-------------------------------------|---|-----------------------|----|-------|------|-----|-----|-----|--------|--------|----------------|------|-----------|--------------------|--|---------------|
| | | Steigung Pitch | | l | d | s | r | x | y | LCP20T | LCM25T | LWN20T | | | | | |
| | Bestellbezeichnung Ordering Code | mm | Gang / Zoll tpi | | | | | | | | | | | | | | |
| | Rechts Right hand | 11IR1,5TR | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ○ | ○ | - | NVR...-11 | 166 | |
| 16IR1,5TR | | 1,5 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,1 | ● | ○ | ○ | YI16 | AVR...-16 | 166 | | |
| 16IR2,0TR | | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,3 | ● | ○ | ○ | YI16 | NVR...-16 | 166 | | |
| 16IR3,0TR | | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,3 | 1,5 | ● | ○ | ○ | YI16 | | | | |
| 22IR4,0TR | | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 1,9 | ● | ○ | ○ | YI22 | AVR...-22 | 166 | | |
| 22IR5,0TR | | 5,0 | - | 22 | 12,70 | 4,6 | - | 2,1 | 2,5 | ● | ○ | ○ | YI22 | NVR...-22 | 166 | | |
| Links Left hand | 11IL1,5TR | 1,5 | - | 11 | 6,35 | 3,0 | - | 0,8 | 0,9 | ● | ○ | ○ | - | NVR...-11 | 166 | | |
| | 16IL1,5TR | 1,5 | - | 16 | 9,52 | 3,4 | - | 1,0 | 1,1 | ● | ○ | ○ | YE16 | AVR...-16 | 166 | | |
| | 16IL2,0TR | 2,0 | - | 16 | 9,52 | 3,4 | - | 1,1 | 1,3 | ● | ○ | ○ | YE16 | NVR...-16 | 166 | | |
| | 16IL3,0TR | 3,0 | - | 16 | 9,52 | 3,4 | - | 1,3 | 1,5 | ● | ○ | ○ | YE16 | | | | |
| | 22IL4,0TR | 4,0 | - | 22 | 12,70 | 4,6 | - | 1,7 | 1,9 | ● | ○ | ○ | YE22 | AVR...-22 | 166 | | |
| | 22IL5,0TR | 5,0 | - | 22 | 12,70 | 4,6 | - | 2,1 | 2,5 | ● | ○ | ○ | YE22 | NVR...-22 | 166 | | |

Bestellbeispiel Order example: 10 Stück pieces 11ER1,5TR LCP20T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

|  | | Trapez DIN 103 - Vollprofil Trapezoidal DIN 103 - Full Profile Form V, Form V | | | | | | | | | | Sorte Grade LCP20T LCM25T LWN20T Unterlage Anvil Passendes Werkzeug Suitable tool holder | | | Seite Page |
|--|-------------|---|-----------------------|----|-------|------|---|-----|-----|----|-----------------------|--|---|---------------|------------|
| | | Steigung Pitch | | l | d | s | r | x | y | mm | Gang / Zoll tpi | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | l | d | s | r |
| Rechts Right hand  | 27VER6,0TR | 6,0 | - | 27 | 15,88 | 6,0 | - | 1,0 | 3,3 | ● | ● | ● | | NL...-27....V | 167 |
| | 27VER7,0TR | 7,0 | - | 27 | 15,88 | 6,0 | - | 1,0 | 3,3 | ● | ● | ● | | | |
| | 27VER8,0TR | 8,0 | - | 27 | 15,88 | 6,0 | - | 1,0 | 3,3 | ● | ● | ● | | | |
| | 27VER12,0TR | 12,0 | - | 27 | 15,88 | 10,0 | - | 1,0 | 5,2 | ● | ● | ● | | | |
| Links Left hand  | 27VEL6,0TR | 6,0 | - | 27 | 15,88 | 6,0 | - | 1,0 | 3,3 | ● | ● | ● | | NL...-27....V | 167 |
| | 27VEL7,0TR | 7,0 | - | 27 | 15,88 | 6,0 | - | 1,0 | 3,3 | ● | ● | ● | | | |
| | 27VEL8,0TR | 8,0 | - | 27 | 15,88 | 6,0 | - | 1,1 | 3,3 | ● | ● | ● | | | |
| | 27VEL10,0TR | 10,0 | - | 27 | 15,88 | 8,0 | - | 1,7 | 4,3 | ● | ● | ● | | | |

|  | | Trapez DIN 103 - Vollprofil Trapezoidal DIN 103 - Full Profile Form U, Form U | | | | | | | | | | Sorte Grade LCP20T LCM25T LWN20T Unterlage Anvil Passendes Werkzeug Suitable tool holder | | | Seite Page |
|--|----------------|---|-----------------------|-------|-------|-----|-----|------|------|----|-----------------------|--|-------|---------------|------------|
| | | Steigung Pitch | | l | d | s | r | x | y | mm | Gang / Zoll tpi | | | | |
| Bestellbezeichnung Ordering Code | | mm | Gang / Zoll tpi | | | | | | | | | l | d | s | r |
| U-TYP U-Typ  | Rechts / right | | | | | | | | | | | | | | |
| | 22UE6,0TR | 6,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YE22U | AL...-22....U | 167 |
| | 22UE7,0TR | 7,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YE22U | | |
| | 22UE8,0TR | 8,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YE22U | | |
| | 27UE8,0TR | 8,0 | - | 27 | 15,88 | 8,0 | - | 1,0 | 13,7 | ● | ● | ● | YE27U | AL...-27....U | 167 |
| 27UE9,0TR | 9,0 | - | 27 | 15,88 | 8,0 | - | 1,0 | 13,7 | ● | ● | ● | YE27U | | | |
| rechts und links verwendbar usable for right and left side | Links / left | | | | | | | | | | | | | | |
| | 22UE6,0TR | 6,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YI22U | AL...-22....U | 167 |
| | 22UE7,0TR | 7,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YI22U | | |
| | 22UE8,0TR | 8,0 | - | 22 | 12,70 | 6,0 | - | 1,0 | 11,0 | ● | ● | ● | YI22U | | |
| | 27UE8,0TR | 8,0 | - | 27 | 15,88 | 8,0 | - | 1,0 | 13,7 | ● | ● | ● | YI27U | AL...-27....U | 167 |
| 27UE9,0TR | 9,0 | - | 27 | 15,88 | 8,0 | - | 1,0 | 13,7 | ● | ● | ● | YI27U | | | |

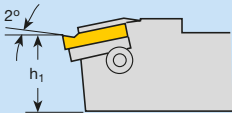
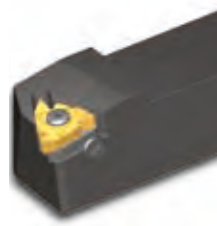
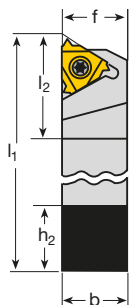
Bestellbeispiel Order example: 10 Stück pieces 27VER6,0TR LCM25T

● Verfügbar ab Lager
Available from stock

○ Auf Anfrage
Upon request

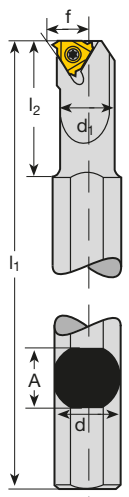

Klemhalter, Außenbearbeitung Tool holder, external machining



|  | | | | | Plattengröße Insert size | |
|---|-------------------------------------|-----------------|----|-------|-----------------------------|-------|
| | Bestellbezeichnung Ordering Code | $b = h_2 = h_1$ | f | l_1 | | l_2 |
|   | NL12-11 | 12 | 12 | 80 | 17,5 | 11 |
| | AL16-16 | 16 | 16 | 100 | 22 | 16 |
| | AL20-16 | 20 | 20 | 128,6 | 30 | 16 |
| | AL25-16 | 25 | 25 | 153,6 | 30 | 16 |
| | AL32-16 | 32 | 32 | 173,6 | 30 | 16 |
| | AL25-22 | 25 | 25 | 155,7 | 36 | 22 |
| | AL32-22 | 32 | 32 | 175,7 | 36 | 22 |
| | AL32-27 | 32 | 32 | 175,9 | 40 | 27 |
| | AL40-27 | 40 | 40 | 205,9 | 40 | 27 |
| | | | | | | |

Bestellbeispiel Order example: 1 Stück piece NL12-11

Klemhalter, Innenbearbeitung Tool holder, internal machining

|  | | | | | | | | | Plattengröße Insert size |
|--|-------------------------------------|------|-------|-------|------|-------|------|-----------|-----------------------------|
| | Bestellbezeichnung Ordering Code | A | l_1 | l_2 | d | d_1 | f | D_{min} | |
|  <p>Halter mit Kühlmittelbohrung Tool holder with coolant</p> | NVRC10-11 | 18,0 | 180 | 25 | 20 | 10,0 | 7,3 | 13 | 11 |
| | NVRC13-11 | 18,0 | 180 | 32 | 20 | 13,0 | 8,9 | 16 | 11 |
| | NVRC13-16 | 18,0 | 180 | 32 | 20 | 12,7 | 10,3 | 17 | 16 |
| | NVRC16-16 | 18,0 | 180 | 40 | 20 | 16,0 | 11,5 | 20 | 16 |
| | NVRC16D-16 | 15,2 | 150 | 32 | 16 | 16,0 | 11,3 | 20 | 16 |
| | AVRC20-16 | 18,0 | 180 | 40 | 20 | 20,0 | 13,4 | 24 | 16 |
| | AVRC25-16 | 29,0 | 250 | 60 | 32 | 25,0 | 16,3 | 29 | 16 |
| | AVRC25D-16 | 22,6 | 200 | 45 | 25 | 24,6 | 16,1 | 29 | 16 |
| | AVRC32-16 | 29,0 | 250 | 60 | 32 | 32,0 | 19,6 | 36 | 16 |
| | AVRC40-16 | 36,0 | 300 | 60 | 40 | 40,0 | 23,8 | 44 | 16 |
| | NVRC20-22 | 18,0 | 180 | 50 | 20 | 20,0 | 15,6 | 27 | 22 |
| | AVRC25-22 | 29,0 | 250 | 60 | 32 | 25,0 | 17,4 | 32 | 22 |
| | AVRC32-22 | 29,0 | 250 | 60 | 32 | 32,0 | 21,5 | 39 | 22 |
| | AVRC40-22 | 36,0 | 300 | 60 | 40 | 40,0 | 25,8 | 47 | 22 |
| | AVRC50-27 | 45 | 350 | 75 | 50 | 50,0 | 31,4 | 58 | 27 |
| AVRC60-27 | 54 | 400 | 75 | 60 | 60,0 | 36,4 | 69 | 27 | |
| | | | | | | | | | |

Bestellbeispiel Order example: 1 Stück piece NVRC10-11

Die Halter der Tabellen sind Rechtsausführung.

Für Linksausführung bitte -LH an die Bezeichnung anfügen.

Alle Halter haben einen 1,5° Steigungswinkel. Andere Steigungswinkel für AL.. und AVRC..-Halter durch

Wechsel der Unterlegplatte (siehe Seite 168). NVRC-Halter haben keine Unterlagsplatte.

Anmerkung: Außen- und Innenhalter auch mit Spannfinger "Typ C" auf Anfrage erhältlich (z.B.: NVRC16-16C)

The above holders are right hand execution.

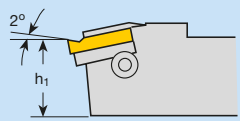

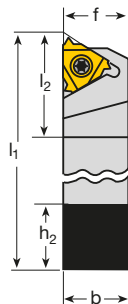
To obtain left hand execution, please add LH to the ordering code.

All holders have a 1,5° helix angle. Using AL.. and AVRC..-holders helix angle can be varied by changing the anvil (please refer to page 168). NVRC holders are without anvil.

Notice: external and internal holder also with clamping finger "type C", available on demand (e.g.: NVRC16-16C)

Klemmhalter, Außenbearbeitung
Tool holder, external machining

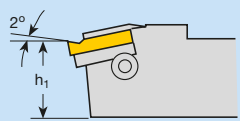

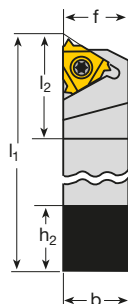


|  | | Bestellbezeichnung Ordering Code | $b = h_2 = h_1$ | f | l_1 | l_2 | Plattengröße Insert size |
|---|-------------|-------------------------------------|-----------------|-----|-------|-------|-----------------------------|
|   | NL32-27V-6 | 32 | 32 | 170 | 40 | 27 | |
| | NL32-27V-8 | 32 | 34,1 | 170 | 40 | 27 | |
| | NL32-27V-10 | 32 | 35,8 | 170 | 40 | 27 | |
| | NL40-27V-6 | 40 | 40,0 | 200 | 40 | 27 | |
| | NL40-27V-8 | 40 | 42,1 | 200 | 40 | 27 | |
| | NL40-27V-10 | 40 | 43,8 | 200 | 40 | 27 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Bestellbeispiel Order example: 1 Stück piece NL32-27V-6

Wendeschneidplatte siehe Seite 165 Form V
 Insert see page 165 Form V

Klemmhalter, Außenbearbeitung
Tool holder, external machining

|  | | Bestellbezeichnung Ordering Code | $b = h_2 = h_1$ | f | l_1 | l_2 | Plattengröße Insert size |
|---|----------|-------------------------------------|-----------------|-------|-------|-------|-----------------------------|
|   | AL25-22U | 25 | 25 | 178,4 | 38 | 22 | |
| | AL32-22U | 32 | 32 | 178,4 | 38 | 22 | |
| | AL40-22U | 40 | 40 | 208,4 | 38 | 22 | |
| | AL25-27U | 25 | 25 | 179,1 | 40 | 27 | |
| | AL32-27U | 32 | 32 | 179,1 | 40 | 27 | |
| | AL40-27U | 40 | 40 | 209,1 | 40 | 27 | |
| | AL50-27U | 50 | 50 | 259,1 | 40 | 27 | |
| | | | | | | | |
| | | | | | | | |

Bestellbeispiel Order example: 1 Stück piece AL25-22U

Wendeschneidplatte siehe Seite 165 Form U
 Insert see page 165 Form U

| Klemmhalter Tool holder | Plattengröße Insert size | Klemmschraube Clamp screw | Schraube + Scheibe Screw + Washer | Schlüssel Key | Unterlagsplatte Anvil | |
|-------------------------------------|-----------------------------|------------------------------|--------------------------------------|------------------|--------------------------|-----------|
| | | | | | | |
| Bestellbezeichnung Ordering Code | | | | | RH/in LH | LH/ in RH |
| NVRC | 11 | SN11T | - | V02-T-0800 | - | - |
| NVRC | 16 | SN16T | - | V02-T-1000 | - | - |
| NVRC | 22 | SN22T | - | V02-T-2000 | - | - |
| "Standard" | 16 | SA16T | SY16T | V02-T-1000 | YE16 | YI16 |
| "Standard" | 22 | SA22T | SY22T | V02-T-2000 | YE22 | YI22 |
| (AL..., AV...) | 27 | SA27T | SY27T | V02-T-2500 | YE27 | YI27 |
| Standard mit Klemmfinger | 16 | SA16T/C3 | SY16T | V02-T-1000 | YE16 | YI16 |
| Standard with clamping finger | 22 | SA22T/C4 | SY22T | V02-T-2000 | YE22 | YI22 |
| | 27 | SA27T/C5 | SY27T | V02-T-2500 | YE27 | YI27 |
| U - Type | 22 | SA22T | SY22T | V02-T-2000 | YE22U | YI22U |
| | 27 | SA27T | SY27T | V02-T-2500 | YE27U | YI27U |
| V - Type | 27V | SN27T | - | V02-T-3000 | - | - |
| | | | | | | |
| | | | | | | |

Unterlagsplatten-Sortiment
Anvil sets

Wir empfehlen Ihnen diese Sortimente, damit Sie jederzeit für alle Bearbeitungsfälle gerüstet sind.
 We recommend you to buy these kits in order to have on hand the right anvil for any job at any time.

| Unterlagsplatte Anvil | Bestellnummer Ordering code | Das Sortiment beinhaltet je 1 Stück The set includes 1 of each |
|--------------------------|--------------------------------|---|
| 16 | ABY16 | YE16-2P, 1P, 1N, 2N, 3N, YI16-2P, 1P, 1N, 2N, 3N |
| 22 | ABY22 | YE22-2P, 1P, 1N, 2N, 3N, YI22-2P, 1P, 1N, 2N, 3N |
| 27 | ABY27 | YE27-2P, 1P, 1N, 2N, 3N, YI27-2P, 1P, 1N, 2N, 3N |
| 22U | ABY22U | YE22U-2P, 1P, 1N, 2N, 3N, YI22-2P, 1P, 1N, 2N, 3N |
| 27U | ABY27U | YE27U-2P, 1P, 1N, 2N, 3N, YI22-2P, 1P, 1N, 2N, 3N |

Bestellbeispiele Ordering example: 1 Stück AL25-16 (... rechte Ausführung) 1 piece AL25-16 (...right hand execution)
 1 Stück AL25-16LH (... linke Ausführung) 1 piece AL25-16LH (... left hand execution)

| Sorte Grade | ISO | Anwendungsbereich Range of applications | Werkstoffgruppe Group of materials | | | | | | Bearbeitungsverfahren Processing method | | | | | |
|---|--------|--|---|----------------------------|------------------------------------|--|--|---|--|------------------------|-------------------------|---|-----------------------------|---------------------------|
| | | | P Stahl Steel | M Rostfrei Stainless | K Grauguss Grey cast iron | N NE-Metalle (Al etc.) Nonferrous metals | S Hochwarmfest High temper- ature materials | H Harte Werkstoffe Hard mate- rials | T Drehen Turning | M Fräsen Milling | D Bohren Drilling | S Gewinde- bearbeitung Threading | G Einstechen Grooving | P Abstechen Parting |
| LCP20T | HC-P20 | | ■ | □ | | | | | | | | ● | | |
| LCM25T | HC-M20 | | □ | ■ | | | | | | | | ● | | |
| | HC-K20 | | | | ■ | | | | | | | ● | | |
| LWN20T | HC-N20 | | | | | ■ | □ | | | | | ● | | |
| Anwendungsschwerpunkt Application peak | | | ■ Hauptanwendung Main application □ Weitere Anwendung Further applications | | | | | | ● Standardsorte Standard grade | | | | | |
| Gesamtbereich nach ISO 513 Full range to ISO 513 | | | | | | | | | | | | | | |

Hauptsorten beschichtet

● **LCP20T (HC-P20)**

Hauptsorte für die Stahlbearbeitung. Hohe Bruchfestigkeit auch bei ungünstigen Bedingungen.
Feinstkornsubstrat mit dünner TiAlN-Beschichtung.

● **LCM25T (HC-M20, HC-K20)**

Hauptsorte für die Rostfreibearbeitung.
Äußerst gut geeignet für die Bearbeitung von säurebeständigen Materialien.

● **LWN20T (HC-N20)**

Unbeschichtete K20 Feinkornsorte für die Bearbeitung von NE-Metallen, Aluminium, Titan und hitzebeständige Legierungen.

Main grade coated

● **LCP20T (HC-P20)**

Main grade for steel machining. High breaking strength also on bad conditions.
Micro grain substrate with thin TiAlN coating.

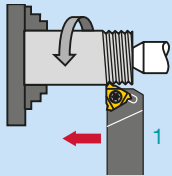
● **LCM25T (HC-M20, HC-K20)**

Main grade for stainless machining.
Extremely good applicable for the machining of acid proofed materials.

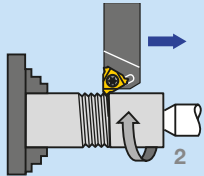
● **LWN20T (HC-N20)**

Uncoated K20 fine grain grade for the machining of non ferrous metals, aluminium, titanium and heat resistant alloys.

Außen Rechtsgewinde
External thread right hand

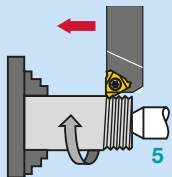


Platte und Halter rechts,
b: Standard
Insert and holder right hand,
b: regular

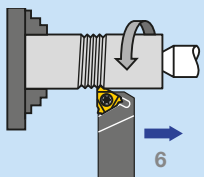


Platte und Halter links,
b: Umgekehrt
Insert and holder left hand,
b: reverse

Außen Linksgewinde
External thread left hand

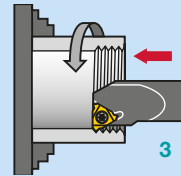


Platte und Halter links,
b: Standard
Insert and holder left hand,
b: regular

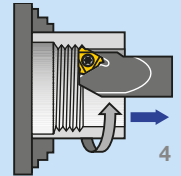


Platte und Halter rechts,
b: Umgekehrt
Insert and holder right hand,
b: reverse

Innen Rechtsgewinde
Internal thread right hand

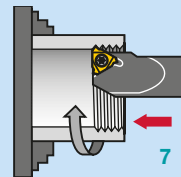


Platte und Halter rechts,
b: Standard
Insert and holder right hand,
b: regular

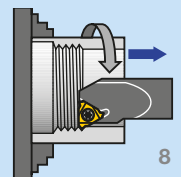


Platte und Halter links,
b: Umgekehrt
Insert and holder left hand,
b: reverse

Innen Linksgewinde
Internal thread left hand



Platte und Halter links,
b: Standard
Insert and holder left hand,
b: regular



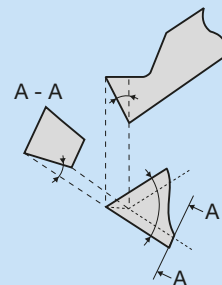
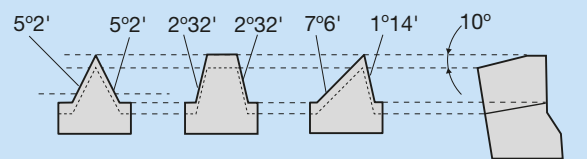
Platte und Halter rechts,
b: Umgekehrt
Insert and holder right hand,
b: reverse

Flankenfreiwinkel α Flank clearance angle α :

Im Klemmhalter festgeschraubte Platten sind zur Erzeugung des Freiwinkels nach vorne geneigt, (10° Neigung bei Außen-Klemmhaltern, 15° Neigung bei Innen-Klemmhaltern). Da der Freiwinkel α je Flankenwinkel Φ variiert, geben wir Ihnen nebenstehend eine Formel zur Berechnung von α und auf Seite 170 einige technische Beispiele, woraus hervor geht, dass die Einstellung des korrekten Steigungswinkels (mittels Unterlegplatten) sehr wichtig ist, vor allem bei Gewinden mit kleinen Flankenwinkeln, damit die Platte auf keine der beiden Seiten drückt.

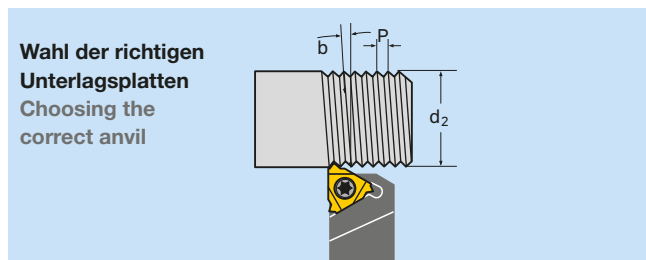
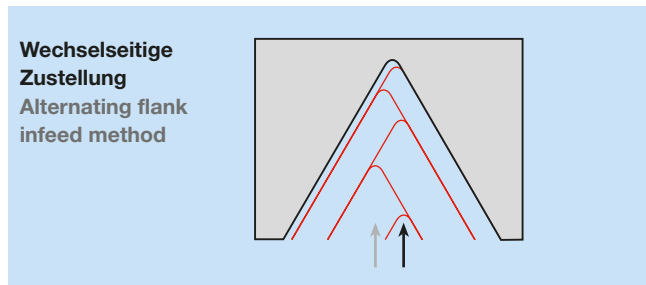
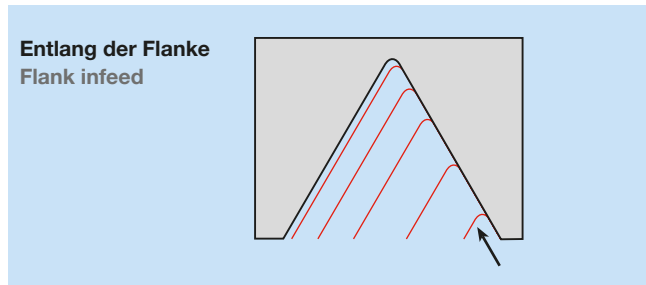
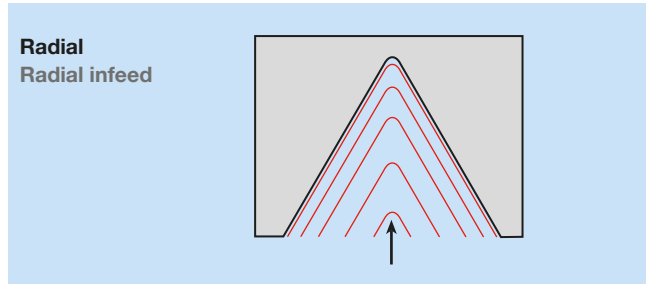
The tool holders are designed to tilt the insert when seated in the holder, (10° for external, 15° for internal tooling).

As the flank clearance angle α varies depending on the enclosed flank angle Φ , we give here a formula to calculate α and on page 170 some examples which show the importance of a correct adjustment of the helix angle by the help of anvils, especially in profiles with small enclosed flank angles to avoid rubbing of the insert cutting edge on the workpiece.



$$\alpha = \arctan(\sin \delta / 2 \times \tan \delta)$$

wobei: α = Flankenfreiwinkel
where: Flank clearance angle
 δ = Neigungswinkel
Tilt angle
 Φ = Flankenwinkel
Enclosed flank angle



Der Steigungswinkel¹⁾

Formel zur Berechnung:

$$\beta = \arctan \frac{P}{\pi \times d_2} \quad (\text{vereinfacht: } \beta = \frac{P}{d_2} \times 20)$$

wobei: β = Steigungswinkel [°]
P = Gewindesteigung [mm]
 d_2 = Flankendurchmesser [mm]

The Helix Angle¹⁾

Formula for it's calculation:

$$\beta = \arctan \frac{P}{\pi \times d_2} \quad (\text{simplified: } \beta = \frac{P}{d_2} \times 20)$$

where: β = Helix angle [°]
P = pitch [mm] (use lead for multi-start threads)
 d_2 = pitch diameter [mm]

Radial

Die radiale Zustellung ist die einfachste und gängigste Methode. Zustellung senkrecht zur Drehachse.

Spanabhebende Bearbeitung auf beiden Flanken des Profils.

Die radiale Zustellung wird empfohlen:

- bei Steigung kleiner als 1,0 mm
- bei kurzspanenden Werkstoffen
- bei Werkstoffen, die zur Kaltverfestigung neigen

Radial infeed

Radial infeed is the simplest and most popular method.

The feed is perpendicular to the turning axis, and both flanks on the insert perform the cutting operation.

Radial infeed is recommended:

- when the pitch is smaller than 1.0 mm
- for materials with short chips
- for materials having cold hardening tendency

Entlang der Flanke

ist zu empfehlen:

- bei Steigung größer als 1,0 mm. Bei radialer Zustellung wäre die Schneidkante zu lang, was zum Rattern führen würde.
- Bei TRAPEZ und ACME-Gewinde, weil das Spannen an drei Schneidkanten für den Spanfluß von Nachteil ist.

Flank infeed

is recommended:

- when the thread pitch is more than 1.0 mm. Using the radial method, the effective cutting edge length is too large, resulting in chatter
- for TRAPEZOIDAL and ACME thread. The radial method result in three cutting edges, making chip flow very difficult

Wechselseitige Zustellung

Besonders empfohlen bei sehr großen Steigungen, bzw. bei langspanenden Werkstoffen. Von Vorteil ist Aufteilung der Bearbeitungen entlang beider Flanken und der gleichmäßige Verschleiß auf beiden Schneidkanten. Wegen der aufwendigen Programmierung ist diese Zustellmethode nicht auf allen Maschinen möglich.

Alternating flank infeed method

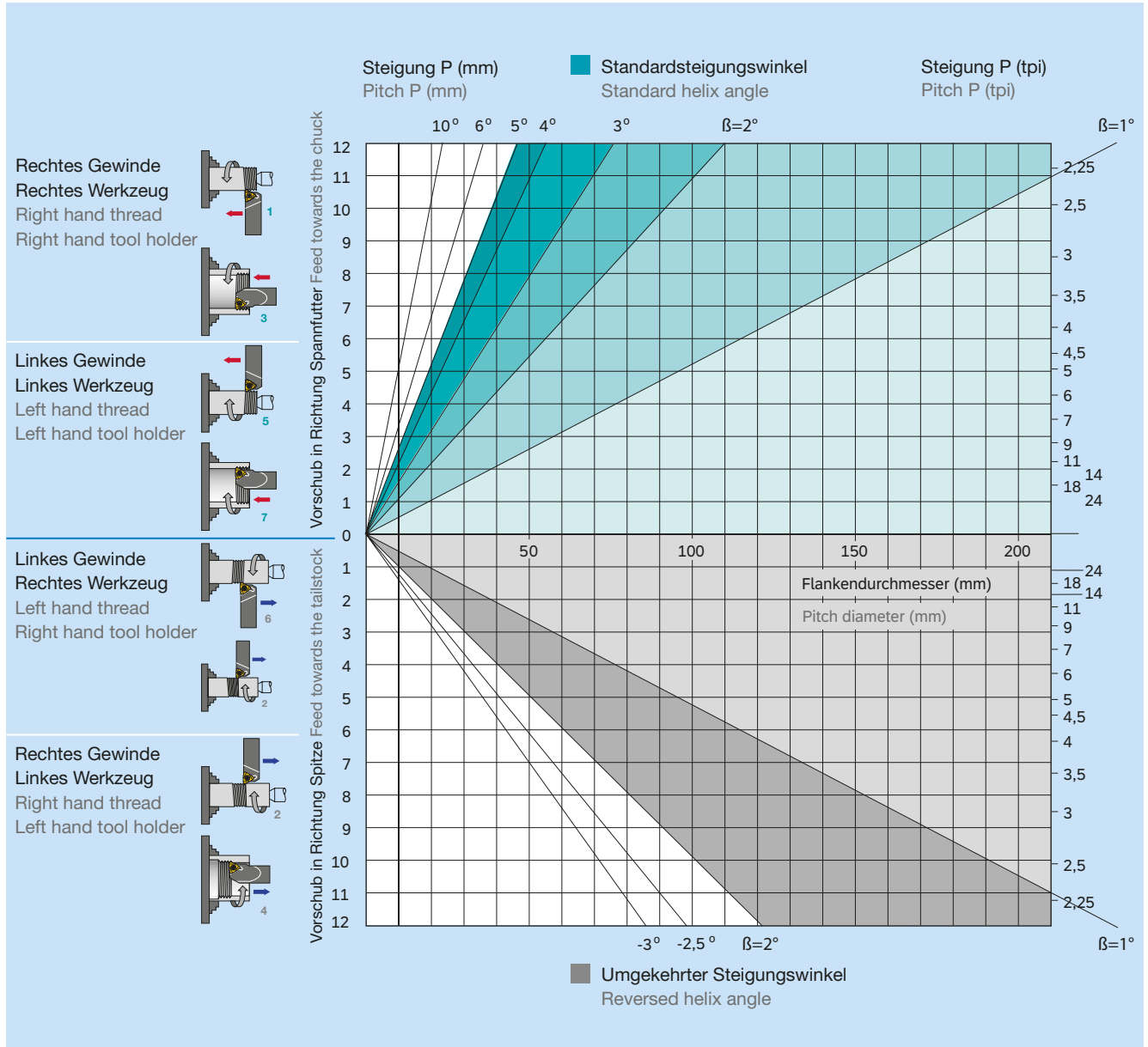
Use of the alternate flank infeed method is recommended especially in large pitches, and for materials with long chips. This method divides the work equally on both flanks, resulting in equal wear along the cutting edges. Alternate flank infeed requires more complicated programming and is not available on all lathes.

¹⁾ Der Steigungswinkel kann auch mit Hilfe des Diagramms auf Seite 172 ermittelt werden.

¹⁾ The helix angle can also be found from the graph on page 172.

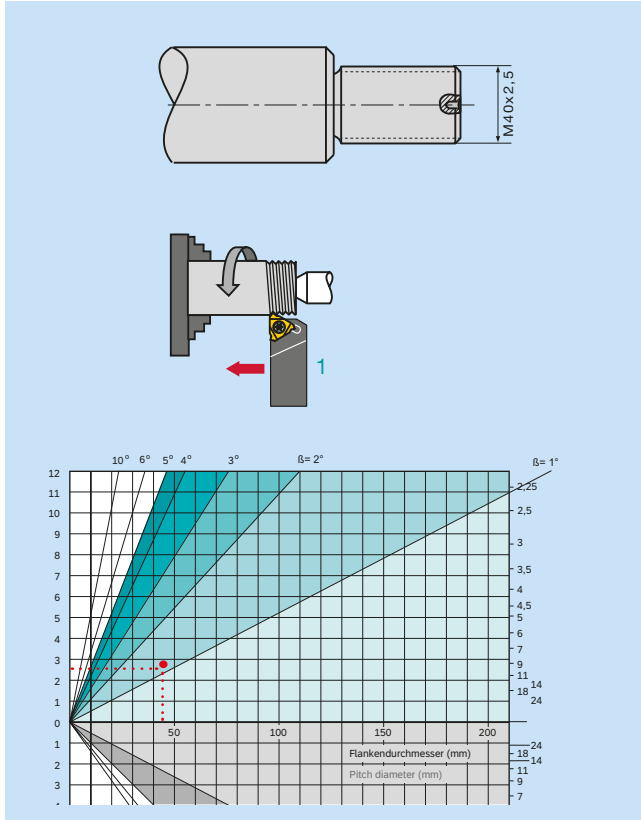
Die Auswahl der richtigen Unterlagsplatte erfolgt entsprechend Tabelle auf Seite 172.

To determine the correct anvil use the table on page 172.



Unterlagsplatten
Anvils

| Steigungswinkel Helix angle | | 4,5 | 3,5 | 2,5 | 1,5 | 0,5 | 0 | -0,5 | -1,5 |
|--------------------------------|------------------|---|---------|---------|------|---------|-----------|---------|---------|
| Platte I = Insert I = | Halter Holder | Bestellbezeichnung Ordering Code | | | | | | | |
| 16 | ER/IL | YE16-3P | YE16-2P | YE16-1P | YE16 | YE16-1N | YE16-1,5N | YE16-2N | YE16-3N |
| 16 | EL/IR | YI16-3P | YI16-2P | YI16-1P | YI16 | YI16-1N | YI16-1,5N | YI16-2N | YI16-3N |
| 22 | ER/IL | YE22-3P | YE22-2P | YE22-1P | YE22 | YE22-1N | YE22-1,5N | YE22-2N | YE22-3N |
| 22 | EL/IR | YI22-3P | YI22-2P | YI22-1P | YI22 | YI22-1N | YI22-1,5N | YI22-2N | YI22-3N |

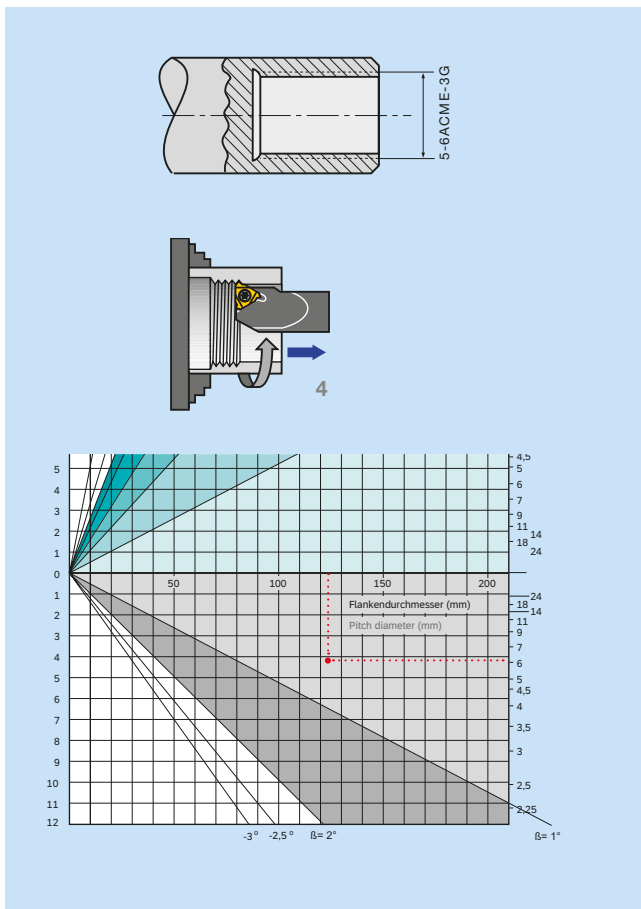


Gewinde: ISO-metrisches Gewinde, M40 x 2,5 außen rechts
Werkstoff: 42CrMo4
Gewählte Arbeitsmethode: Nr. 1, Vorschub zum Spannfutter
Klemmhalter: AL25-16
Wendplatte: 16ER2,5ISO
Boehlerit Sorte: LCP20T

Ermittlung des Steigungswinkels und Wahl der Unterlagsplatte:
Aus der Graphik Seite 172 wird ein Steigungswinkel β zwischen 1° und 2° abgelesen. Aus der Tabelle auf Seite 172 wird diesem Steigungswinkel die Unterlagsplatte YE16 zugeordnet.
Schnittgeschwindigkeit und Anzahl der Durchgänge werden aus den Angaben der Tabellen auf den Seiten 174 -175 entnommen:
 v_c : 120 m/min, Durchgänge: 10

Thread: ISO-metric M40 x 2,5 external right hand
Material: 42CrMo4
Chosen working method: No1, feed towards the chuck
Tool holder: AL25-16
Insert: 16ER2,5ISO
Boehlerit grade: LCP20T

Determination of the helix angle and choice of the correct anvil:
From the diagram on page 172 a helix angle β between 1° and 2° is found. To this helix angle corresponds anvil YE16 in the table on page 172. Cutting speed and number of passes are taken from the tables on pages 174 - 175:
 v_c : 120 m/min, Number of passes: 10



Gewinde: ACME innen rechts
Steigung: 6 tpi (Gänge pro Zoll)
Bohrungsdurchm.: 5"
Werkstoff: NIRO austenitisch
Gewählte Arbeitsmethode: Nr.4, Vorschub weg vom Spannfutter (zur besseren Spanabfuhr)
Klemmhalter: AVR40-22LH
Wendplatte: 22IL6ACME
Boehlerit Sorte: LCM25T

Ermittlung des Steigungswinkels und Wahl der Unterlagsplatte:
Aus der Graphik Seite 172 wird ein Steigungswinkel β zwischen 0° und 1° abgelesen. Aus der Tabelle auf Seite 172 wird diesem Steigungswinkel die Unterlagsplatte YE22-2N zugeordnet.
Schnittgeschwindigkeit und Anzahl der Durchgänge werden aus den Angaben der Tabellen auf den Seiten 174 - 175 entnommen:
 v_c : 150 m/min, Durchgänge: 18

Thread: ACME internal right hand
Pitch: 6 tpi
Diameter of hole: 5"
Material: Stainless austenitic
Chosen working method: No.4, feed off the chuck (for better evacuation of the chips)
Tool holder: AVR40-22LH
Insert: 22IL6ACME
Boehlerit grade: LCM25T

Determination of the helix angle and choice of the correct anvil:
From the diagram on page 172 a helix angle β between 0° and 1° is found. To this helix angle corresponds anvil YE22-2N in the table on page 172. Cutting speed and number of passes are taken from the tables on pages 174 - 175:
 v_c : 150 m/min, Number of passes: 18

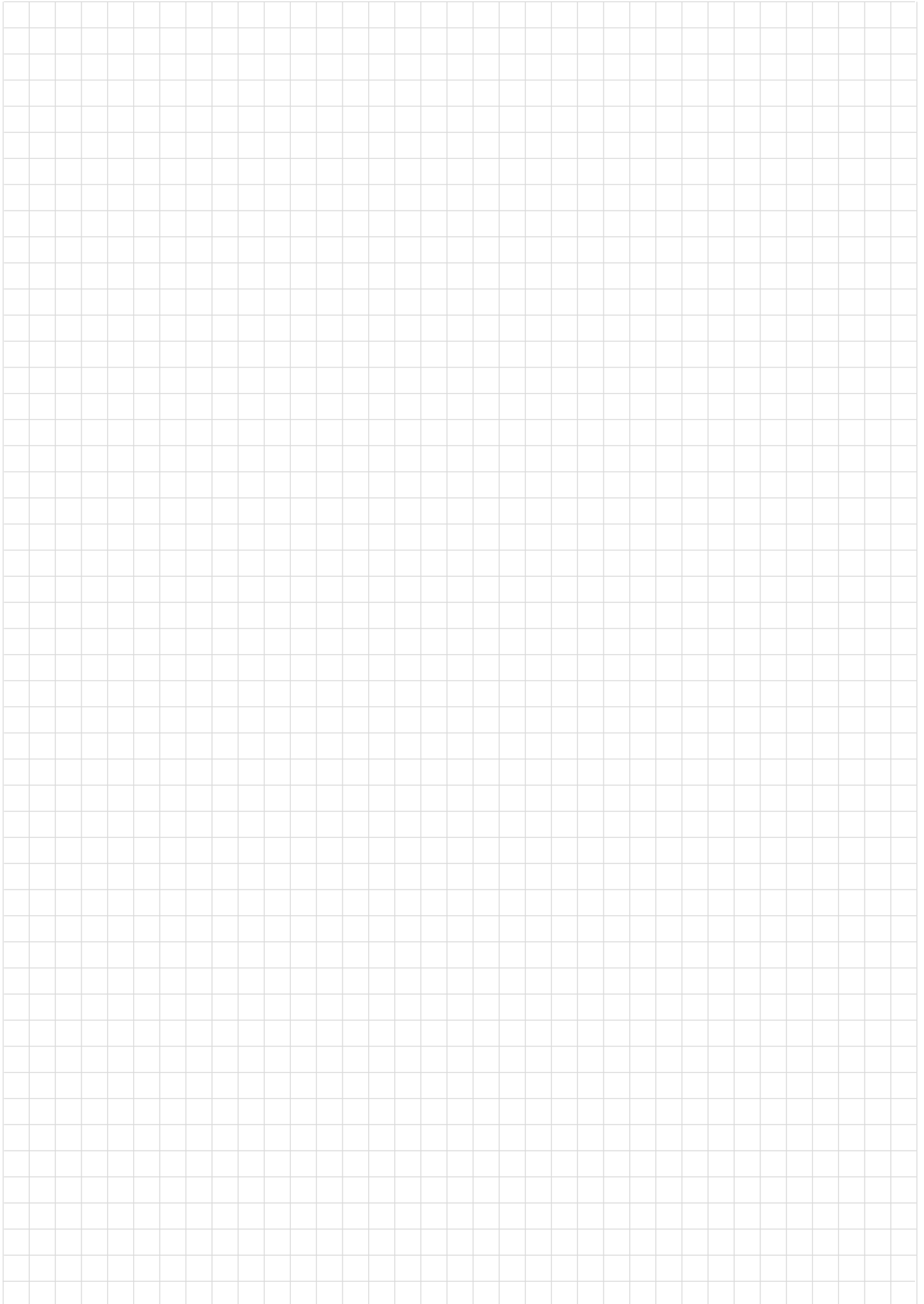
| | Problem | | | | | | | |
|---|---|---|--|---------------------------------------|---|---|---|--|
| | Extremer Freiflächenverschleiß Increased insert flank wear | Ungleichmäßiger Schneidkantenverschleiß Uneven cutting edge wear | Extreme plastische Verformung Extreme plastic deformation | Plattenbruch Cutting edge breakage | Aufbauschneidenbildung Built-up edge | Zu flaches Gewindeprofil Thread profile is too shallow | Schlechte Oberflächengüte Poor surface quality | |
| Abhilfe | | | | | | | | |
| Option | | | | | | | | |
| HM-Verschleißfestigkeit Carbide wear resistance | ↑ | | ↑ | | ↑ | | | |
| HM-Zähigkeit Carbide toughness | | | | ↑ | | | | |
| Schnittgeschwindigkeit Cutting speed | ↓ | | ↓ | | ↑ | | ↓ | |
| Vorschub Feed | | | ↓ | ↓ | | | | |
| Zahl der Durchgänge Number of passes | | | ↑ | ↑ | | | | |
| Flankenzustellung Flank infeed method | | ↔ | | | | | ↔ | |
| Unterlagsplatte Anvil | | ↔ | | | | | ↔ | |
| Schneidkantenhöhe Height of cutting edge | | | | | | ↔ | | |
| Spannung Fixation | | | | | ↔ | | | |
| Rohlingsmaß Size of the blank | | | | | | ↔ | | |
| Kühlung Cooling | ↑ | | ↑ | ↔ | | | | |
| Schneidplattenwechsel Change of the cutting edge | | | | | | ↔ | | |
| ↑ erhöhen, vergrößern increase ↓ vermindern, verkleinern reduce ↔ optimieren, kontrollieren optimize | | | | | | | | |

Anzahl der Durchgänge
Number of passes

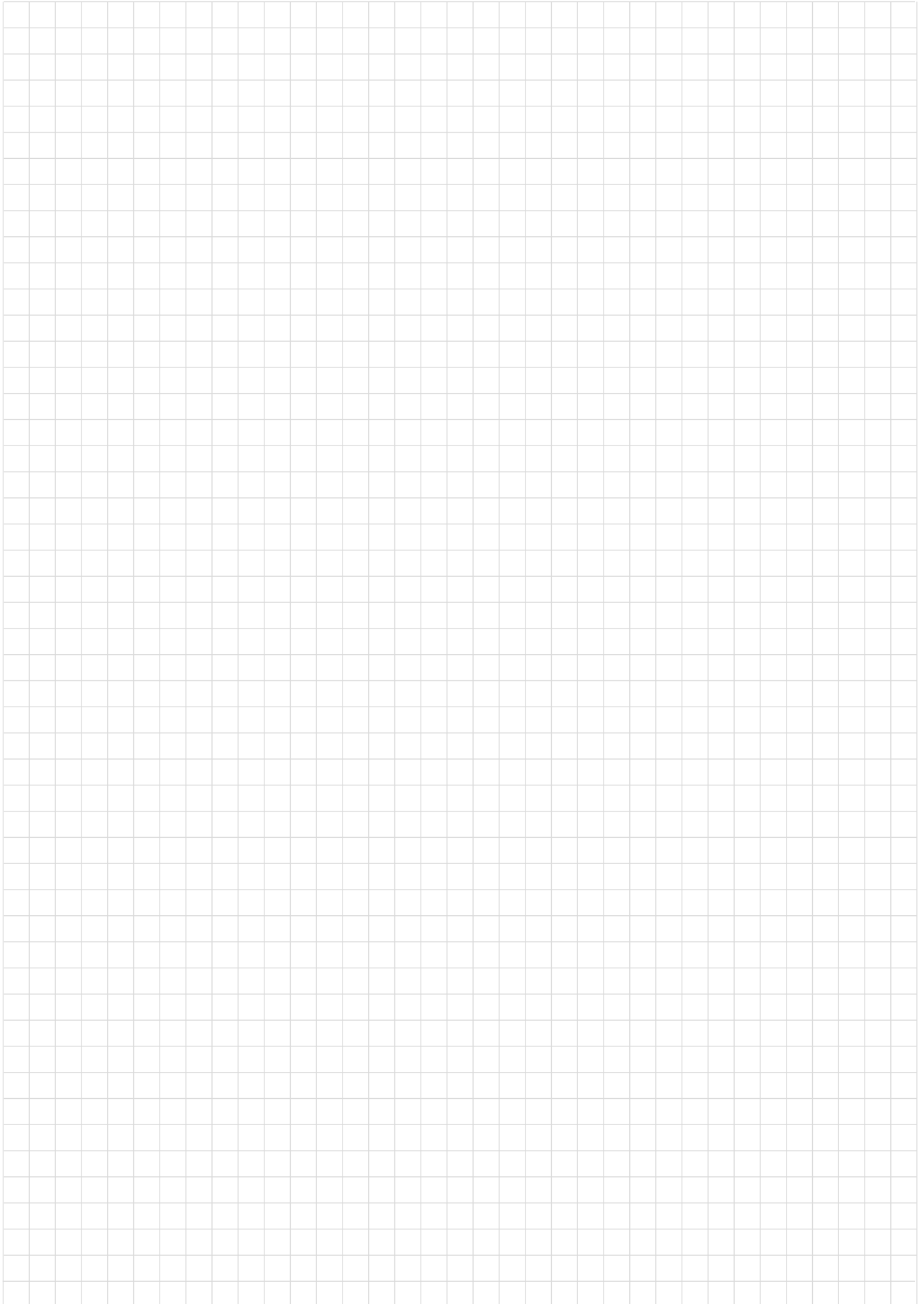
| Steigung Pitch | mm | 0,50 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,50 | 3,00 | 3,50 | 4,00 | 4,50 | 5,00 | 5,50 | 6,00 | 8,00 |
|---------------------------------------|-------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| | Gänge/Zoll tpi | 48 | 32 | 24 | 20 | 16 | 14 | 12 | 10 | 8 | 7 | 6 | 5,5 | 5 | 4,5 | 4 | 3 |
| Anzahl Durchgänge Number of passes | | 4-6 | 4-7 | 4-8 | 5-9 | 6-10 | 7-12 | 7-12 | 8-14 | 9-16 | 10-18 | 11-18 | 11-19 | 12-20 | 12-20 | 12-20 | 15-24 |

| Werkstoffgruppe Material group | Gliederung der Werkstoff-Hauptgruppen und Kennbuchstaben Mainworkpiece material groups and their characteristics letters | | Brinell Härte Brinell hardness HB | | | | |
|--|---|--|--|--|------------------------|------------------------|-----------|
| | | | | LCP20T | LCM25T | LWN20T | |
| | | | | v _C (m/min) | v _C (m/min) | v _C (m/min) | |
| Werkstoff Material | | | | | | | |
| P | Unlegierter Stahl ¹⁾ Unalloyed steel ¹⁾ | ca. 0,15%C gegläht annealed | 125 | 115 – 190 | | | |
| | | ca. 0,45 %C gegläht annealed | 150 | 100 – 175 | | | |
| | | ca. 0,75 %C vergütet heat treated | 170 | 90 – 165 | | | |
| | Niedrig legierter Stahl ¹⁾ Low-alloy steel ¹⁾ | geglüht annealed | 180 | 100 – 180 | | | |
| | | vergütet heat treated | 275 | 75 – 140 | | | |
| | | vergütet heat treated | 350 | 70 – 135 | | | |
| | Hochlegierter Stahl und hochlegierter Werkzeugstahl ¹⁾ High-alloy steel and high alloy tool steel ¹⁾ | geglüht annealed | 200 | 80 – 120 | | | |
| | | gehärtet und angelassen | 325 | 50 – 100 | | | |
| | | annealed | 200 | 80 – 120 | | | |
| | Stahlguss ¹⁾ Steel cast ¹⁾ | gehärtet und angelassen | 325 | 50 – 100 | | | |
| annealed | | 200 | 80 – 120 | | | | |
| hardened and temp. | | 325 | 50 – 100 | | | | |
| M | Nichtrostender Stahl ¹⁾ ferritisch Stainless steel ¹⁾ ferritic | ungehärtet | 200 | 70 – 130 | 70 - 150 | | |
| | | gehärtet | 330 | 60 – 115 | 60 - 125 | | |
| | Nichtrostender Stahl ¹⁾ austenitisch Stainless steel ¹⁾ austenitic | unhardenable | 200 | 70 – 130 | 70 - 150 | | |
| | | hardened | 300 | 60 – 115 | 60 - 125 | | |
| | Edelstahlguss ¹⁾ ferritisch Special steel cast ¹⁾ ferritic | austenitisch | 180 | 90 – 140 | 90 - 160 | | |
| | | Duplex | 200 | 40 – 110 | 40 - 120 | | |
| | Edelstahlguss ¹⁾ austenitisch Special steel cast ¹⁾ austenitic | austenitic | 180 | 90 – 140 | 90 - 160 | | |
| | | Duplex | 200 | 40 – 110 | 40 - 120 | | |
| | Edelstahlguss ¹⁾ austenitisch Special steel cast ¹⁾ austenitic | ungehärtet | 200 | 90 – 120 | 90 - 150 | | |
| | | gehärtet | 330 | 65 – 110 | 65 - 120 | | |
| K | Grauguss Grey cast iron | perlitisch/ferritisch perlitic/ferritic | 180 | 70 – 130 | | | |
| | | perlitisch (martensitisch) perlitic (martensitic) | 260 | 60 – 115 | | | |
| | Gusseisen mit Kugelgraphit Nodular graphite cast iron | ferritisch ferritic | 160 | 125 – 160 | | | |
| | | perlitisch perlitic | 260 | 90 – 120 | | | |
| | Temperguss Malleable cast iron | ferritisch ferritic | 130 | 60 – 70 | | | |
| | | perlitisch perlitic | 230 | 60 – 145 | | | |
| | N | Aluminium-Legierungen schmiedeeisern Aluminium alloys forge ironed | gewalzt nicht aushärtbar rolled, not hardenable | 60 | 100 - 365 | | 100 – 250 |
| | | | | | | | |
| | | Aluminium-Legierungen Aluminium alloys | gegossen, nicht aushärtbar casted, not hardenable | 75 | 200 - 400 | | 80 – 120 |
| | | | | | | | |
| Aluminium-Legierungen Aluminium alloys | | Guss Si 13-22% cast Si 13-22% | 130 | 60 - 180 | | 50 - 120 | |
| | | | | | | | |
| Kupfer und Kupferlegierungen (Bronze/Messing) Copper and copper alloys (Bronze/Brass) | | Messing Brass | 90 | 80 - 225 | | 70 - 170 | |
| | Bronze und bleifreies Kupfer Bronze, non leaded copper | 100 | 80 - 255 | | 70 - 170 | | |
| S | Warmfeste Legierungen Heat resistant alloys | Fe-Basis vergütet heat treated Fe-based gealtert aged | 200 | 45 - 60 | | 30 - 50 | |
| | | | 280 | 30 - 50 | | 25 - 40 | |
| | | Ni- oder Co-Basis vergütet heat treated Ni- or Co-based gealtert aged | 250 | 20 - 30 | | 20 - 30 | |
| | | | 350 | 15 - 25 | | 15 - 25 | |
| | Titanlegierungen Titanium alloys | Reintitan Pure titanium | 400Rm | 140 - 170 | | 60 - 100 | |
| | | Alpha + Beta-Legierungen, ausgehärtet Alpha- and Beta-alloys hardened | 1050Rm 1050Rm | 50 - 70 50 - 70 | | 40 - 60 40 - 60 | |
| H | Gehärteter Stahl Hardened steel | gehärtet und angelassen hardened and tempered | 45-50HRC 51-55HRC 45-50HRC 51-55HRC | 45 - 60 40 - 50 45 - 60 40 - 50 | | | |

¹⁾und Stahlguss
and cast steel



Anhang
Attachment



Anhang**Attachment**

| | | |
|--|-------------------------------------|-----|
| Werkstückstoff-Vergleichstabelle | Comparison table of materials | 180 |
| Vergleich ISO – zu ANSI-Kennzeichnung | Comparison ISO and ANSI designation | 188 |
| Härte-Vergleichstabelle | Hardness-comparison table | 191 |

| Werkstoff-Gruppe Material group | Deutschland Germany | | Großbritannien Great Britain | | Frankreich France | Italien Italy |
|------------------------------------|---|------------|---------------------------------|---------|----------------------|------------------|
| | W-Nr. | DIN | BS | EN | AFNOR | UNI |
| P | Baustahl und Konstruktionsstahl Constructional steels | | | | | |
| | 1.0401 | C15 | 080M15 | - | CC12 | C15C16 |
| | 1.0402 | C22 | 050A20 | 2C | CC20 | C20C21 |
| | 1.0501 | C35 | 060A35 | - | CC35 | C35 |
| | 1.0503 | C45 | 080M46 | - | CC45 | C45 |
| | 1.0535 | C55 | 070M55 | - | - | C55 |
| | 1.0601 | C60 | 080A62 | 43D | CC55 | C60 |
| | 1.0715 | 9SMn28 | 230M07 | - | S250 | CF9SMn28 |
| | 1.0718 | 9SMnPb28 | - | - | S250Pb | CF9SMnPb28 |
| | 1.0722 | 10SPb20 | - | - | 10PbF2 | CF10SPb20 |
| | 1.0726 | 35S20 | 212M36 | 8M | 35MF4 | - |
| | 1.0736 | 9SMn36 | 240M07 | 1B | S300 | CF9SMn36 |
| | 1.0737 | 9SMnPb36 | - | - | S300Pb | CF9SMnPb36 |
| | 1.0904 | 55Si7 | 250A53 | 45 | 55S7 | 55Si8 |
| | 1.0961 | 60SiCr7 | - | - | 60SC7 | 60SiCr8 |
| | 1.1141 | Ck15 | 080M15 | 32C | XC12 | C16 |
| | 1.1157 | 40Mn4 | 150M36 | 15 | 35M5 | - |
| | 1.1158 | Ck25 | - | - | - | - |
| | 1.1167 | 36Mn5 | - | - | 40M5 | - |
| | 1.1170 | 28Mn6 | 150M28 | 14A | 20M5 | C28Mn |
| | 1.1183 | Cf35 | 060A35 | - | XC38TS | C36 |
| | 1.1191 | Ck45 | 080M46 | - | XC42 | C45 |
| | 1.1203 | Ck55 | 070M55 | - | XC55 | C50 |
| | 1.1213 | Cf53 | 060A52 | - | XC48TS | C53 |
| | 1.1221 | Ck60 | 080A62 | 43D | XC60 | C60 |
| | 1.1274 | Ck101 | 060A96 | - | - | - |
| | 1.3401 | X120Mn12 | Z120M12 | - | Z120M12 | XG120Mn12 |
| | 1.3505 | 100Cr6 | 534A99 | 31 | 100C6 | 100Cr6 |
| | 1.5415 | 15Mo3 | 1501-240 | - | 15D3 | 16Mo3KW |
| | 1.5423 | 16Mo5 | 1503-245-420 | - | - | 16Mo5 |
| | 1.5622 | 14Ni6 | - | - | 16N6 | 14Ni6 |
| | 1.5662 | X8Ni9 | 1501-509;510 | - | - | X10Ni9 |
| | 1.5680 | 12Ni19 | - | - | Z18N5 | - |
| | 1.5710 | 36NiCr6 | 640A35 | 111A | 35NC6 | - |
| | 1.5732 | 14NiCr10 | - | - | 14NC11 | 16NiCr11 |
| | 1.5752 | 14NiCr14 | 655M13; 655A12 | 36A | 12NC15 | - |
| | 1.6511 | 36CrNiMo4 | 816M40 | 110 | 40NCD3 | 38NiCrMo4(KB) |
| | 1.6523 | 21NiCrMo2 | 805M20 | 362 | 20NCD2 | 20NiCrMo2 |
| | 1.6546 | 40NiCrMo22 | 311-Type 7 | - | - | 40NiCrMo2(KB) |
| | 1.6582 | 34CrNiMo6 | 817M40 | 24 | 35NCD6 | 35NiCrMo6(KB) |
| 1.6587 | 17CrNiMo6 | 820A16 | - | 18NCD6 | - | |
| 1.6657 | 14NiCrMo134 | 832M13 | 36C | - | 15NiCrMo13 | |
| 1.7015 | 15Cr3 | 523M15 | - | 12C3 | - | |
| 1.7033 | 34Cr4 | 530A32 | 18B | 32C4 | 34Cr4(KB) | |
| 1.7035 | 41Cr4 | 530M40 | 18 | 42C4 | 41Cr4 | |
| 1.7045 | 42Cr4 | - | - | - | - | |
| 1.7131 | 16MnCr5 | (527M20) | - | 16MC5 | 16MnCr5 | |
| 1.7176 | 55Cr3 | 527A60 | 48 | 55C3 | - | |
| 1.7218 | 25CrMo4 | 1717CDS110 | - | 25CD4 | 25CrMo4(KB) | |
| 1.7220 | 34CrMo4 | 708A37 | 19B | 35CD4 | 35CrMo4 | |
| 1.7223 | 41CrMo4 | 708M40 | 19A | 42CD4TS | 41CrMo4 | |
| 1.7225 | 42CrMo4 | 708M40 | 19A | 42CD4 | 42CrMo4 | |

| | Belgien Belgium | Schweden Sweden | Spanien Spain | USA U.S.A. |
|--|--------------------|--------------------|------------------|---------------|
| | NBN | SS | UNE | AISI/SAE |
| | - | 1350 | F.111 | 1015 |
| | C25-1 | 1450 | F.112 | 1020 |
| | C35-1 | 1550 | F.113 | 1035 |
| | C45-1 | 1650 | F.114 | 1045 |
| | C55-1 | 1655 | - | 1055 |
| | C60-1 | - | - | 1060 |
| | - | 1912 | 11SMn28 | 1213 |
| | - | 1914 | 11SMnPb28 | 12L13 |
| | - | - | 10SPb20 | - |
| | - | 1957 | F210G | 1140 |
| | - | - | 12SMn35 | 1215 |
| | - | 1926 | 12SMn35 | 12L14 |
| | 55Si7 | 2085 | 56Si7 | 9255 |
| | 60SiCr8 | - | 60SiCr8 | 9262 |
| | C16-2 | 1370 | C15K | 1015 |
| | - | - | - | 1039 |
| | C25-2 | - | - | 1025 |
| | - | 2120 | 36Mn5 | 1335 |
| | 28Mn6 | - | - | 1330 |
| | C36 | 1572 | - | 1035 |
| | C45-2 | 1672 | C45K | 1045 |
| | C55-2 | - | C55K | 1055 |
| | C53 | 1674 | - | 1050 |
| | C60-2 | 1678 | - | 1060 |
| | - | 1870 | - | 1095 |
| | - | - | XG120Mn12 | - |
| | - | 2258 | F.131 | 52100 |
| | 16Mo3 | 2912 | 16Mo3 | ASTM A204Gr.A |
| | 16Mo5 | - | 16Mo5 | 4520 |
| | 18Ni6 | - | 15Ni6 | ASTM A350LF5 |
| | 10Ni36 | - | XBNi09 | ASTM A353 |
| | 12Ni20 | - | - | 2515 |
| | - | - | - | 3135 |
| | - | - | 15NiCr11 | 3415 |
| | 13NiCr12 | - | - | 3415;3310 |
| | - | - | 35NiCrMo4 | 9840 |
| | - | 2506 | 20NiCrMo2 | 8620 |
| | 40NiCrMo2 | - | 40NiCrMo2 | 8740 |
| | 35CrNiMo6 | 2541 | - | 4340 |
| | 17CrNiMo7 | - | 14NiCrMo13 | - |
| | 14NiCrMo132 | - | 14NiCrMo131 | - |
| | 15Cr2 | - | - | 5015 |
| | 34Cr4 | - | 35Cr4 | 5132 |
| | 42Cr4 | - | 42Cr4 | 5140 |
| | - | 2245 | 42Cr4 | 5140 |
| | 16MnCr5 | 2511 | 16MnCr5 | 5115 |
| | 55Cr3 | - | - | 5155 |
| | 25CrMo4 | 2225 | 55Cr3 | 4130 |
| | | | AM26CrMo4 | |
| | 34CrMo4 | 2234 | 34CrMo4 | 4137;4135 |
| | 41CrMo4 | 2244 | 42CrMo4 | 4140;4142 |
| | 42CrMo4 | 2244 | 42CrMo4 | 4140 |

| Werkstoff-Gruppe Material group | Deutschland Germany | | Großbritannien Great Britain | | Frankreich France | Italien Italy | |
|--|---|-------------|---------------------------------|-------------------------|----------------------|-------------------------------|--|
| | W-Nr. | DIN | BS | EN | AFNOR | UNI | |
| P | Baustahl und Konstruktionsstahl Constructional steels | | | | | | |
| | 1.7262 | 15CrMo5 | - | - | 12CD4 | - | |
| | 1.7335 | 13CrMo4 4 | 1501-620Gr27 | - | 15CD3.5 | 14CrMo4 5 | |
| | | | | | 15CD4.5 | | |
| | 1.7361 | 32CrMo12 | 722M24 | 40B | 30CD12 | 32CrMo12 | |
| | 1.7380 | 10CrMo9 10 | 1501-622 | - | 12CD9,10 | 12CrMo9,10 | |
| | | | Gr.31;45 | - | - | | |
| | 1.7715 | 14MoV6 3 | 1503-660-440 | - | - | - | |
| | 1.8159 | 50CrV4 | 735A50 | 47 | 50CV4 | 50CrV4 | |
| | 1.8509 | 41CrAlMo7 | 905M39 | 41B | 40CAD6,12 | 41CrAlMo7 | |
| | 1.8523 | 39CrMoV13 9 | 897M39 | 40C | - | 36CrMoV12 | |
| | Werkzeugstähle Tool steels | | | | | | |
| | 1.1545 | C105W1 | - | - | Y1 105 | C98KU C100KU | |
| | 1.1663 | C125W | - | - | Y2 120 | C120KU | |
| | 1.2067 | 100Cr6 | BL3 | - | Y100C6 | - | |
| | 1.2080 | X210Cr12 | BD3 | - | Z200C12 | X210Cr13KU X250Cr12KU | |
| | 1.2344 | X40CrMoV51 | BH13 | - | Z40CDV5 | X35CrMoV05KU X40CrMoV511KU | |
| | 1.2363 | X100CrMoV51 | BA2 | - | Z100CDV5 | X100CrMoV51KU | |
| | 1.2419 | 105WCr6 | - | - | 105WC13 107WCr5KU | 10WCr6 | |
| | 1.2436 | X210CrW12 | - | - | - | X215CrW121KU | |
| | 1.2542 | 45WCrV7 | BS1 | - | - | 45WCrV8KU | |
| | 1.2581 | X30WCrV9 3 | BH21 | - | Z30WCV9 | X28W09KU X30WCrV9 3KU | |
| | 1.2601 | X165CrMoV12 | - | - | - | X165CrMoW12KU | |
| | 1.2713 | 55NiCrMoV6 | - | - | 55NCDV7 | - | |
| | 1.2833 | 100V1 | BW2 | - | Y1 105V | - | |
| Schnellarbeitsstähle High speed steels | | | | | | | |
| 1.3243 | S 6-5-2-5 | - | - | Z85WDKCV 06-05-04-02 | HS 6-5-2-5 | | |
| 1.3255 | S 18-1-2-5 | BT4 | - | Z80WKCV 18-05-04-01 | X78WCo1805KU | | |
| 1.3343 | S 6-5-2 | BM2 | - | Z85WDCV 06-05-04-02 | X82WMo0605KU | | |
| 1.3348 | S 2-9-2 | - | - | Z100WCWV 09-04-02-02 | HS 2-9-2 | | |
| 1.3355 | S 18-0-1 | BT1 | - | Z80WCV 18-04-01 | X75W18KU | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | Belgien Belgium | Schweden Sweden | Spanien Spain | USA U.S.A. |
|--|--------------------|--------------------|--------------------------|----------------------|
| | NBN | SS | UNE | AISI/SAE |
| | - | 2216 | 12CrMo4 | - |
| | 14CrMo45 | - | 14CrMo45 | ASTM A182 F11;F12 |
| | 32CrMo12 | 2240 | F.124.A | - |
| | - | 2218 | TU.H | ASTM A182 F.22 |
| | 13MoCrV6 | - | 13MoCrV6 | - |
| | 50CrV4 | 2230 | 51CrV4 | 6150 |
| | 41CrAlMo7 | 2940 | 41CrAlMo7 | - |
| | 39CrMoV13 | - | - | - |
| | - | 1880 | F.515 F.516 (C120) | W.110 W.112 |
| | - | - | 100Cr6 | L3 |
| | - | - | X210Cr12 | D3 |
| | - | 2242 | X40CrMoV5 | H13 |
| | - | 2260 | X100CrMoV5 | A2 |
| | - | 2140 | 105WCr5 | - |
| | - | 2312 | X210CrW12 | - |
| | - | 2710 | 45WCrSi8 | S1 |
| | - | - | X30WCrV9 | H21 |
| | - | 2310 | X160CrMoV12 | - |
| | - | - | F.520.S | L6 |
| | C98KU | - | - | W210 |
| | 102V2KU | | | |
| | - | 2723 | HS 6-5-2-5 | - |
| | - | - | HS 18-1-1-5 | T4 |
| | - | 2722 | HS 6-5-2 | M2 |
| | - | 2782 | HS 2-9-2 | M7 |
| | - | - | HS 18-0-1 | T1 |

| Werkstoff-Gruppe Material group | Deutschland Germany | | Großbritannien Great Britain | | Frankreich France | Italien Italy |
|------------------------------------|---|-----------------|---------------------------------|--------|----------------------|------------------|
| | W-Nr. | DIN | BS | EN | AFNOR | UNI |
| M | Rostfreie und wärmefeste Stähle Stainless and heat resisting steels | | | | | |
| | 1.4000 | X6Cr13 | 403S17 | - | Z6C13 | X6Cr13 |
| | 1.4001 | X7Cr14 | | | | |
| | 1.4006 | X10Cr13 | 410S21 | 56A | Z10C14 | X12Cr13 |
| | 1.4016 | X6Cr17 | 430S15 | 60 | Z8C17 | X8Cr17 |
| | 1.4027 | G-X200Cr14 | 420C29 | 56B | Z20C13M | - |
| | 1.4034 | X46Cr13 | 420S45 | 56D | Z40CM | X40Cr14 |
| | | | | | Z38C13M | |
| | 1.4057 | X20CrNi172 | 431S29 | 57 | Z15CNI6.02 | X16CrNi16 |
| | 1.4104 | X12CrMoS17 | - | - | Z10CF17 | X10CrS17 |
| | 1.4113 | X6CrMo171 | 434S17 | - | Z8CD17.01 | X8CrMo17 |
| | 1.4313 | X5CrNi134 | 425C11 | - | Z4CND13.4M | - |
| | 1.4408 | G-X6CrNiMo1810 | 316C16 | - | - | - |
| | 1.4718 | X45CrSi93 | 401S45 | 52 | Z45Cs9 | X45CrSi8 |
| | 1.4724 | X10CrAl13 | 403S17 | - | Z10C13 | X10CrAl12 |
| | 1.4742 | X10CrAl18 | 430S15 | 60 | Z10CAS18 | X8Cr17 |
| | 1.4747 | X80CrNiSi20 | 443505 | 59 | Z80CSN20.02 | X8CrSiNi20 |
| | 1.4762 | X10CrAl24 | - | - | Z10CAS24 | X16Cr26 |
| | 1.4301 | X5CrNi1810 | 304S15 | 58E | Z6CN18.09 | X5CrNi1810 |
| | | | | | | |
| | | | | | | |
| | 1.4305 | X10CrNiS189 | 303S21 | 58M | Z10CNF 18.09 | X10CrNiS18.09 |
| | 1.4306 | X2CrNi1911 | 304S12 | - | Z2CN 18.10 | X2CrNi18.11 |
| | | | 304C12 | | Z3CN 19.10 | |
| | 1.4308 | G-X6CrNi18 9 | 304C15 | - | Z6CN18.10M | - |
| | 1.4310 | X12CrNi177 | - | - | Z12CN17.07 | X12CrNi1707 |
| | 1.4311 | X2CrNi1810 | 304S26 | - | Z2CN18.10 | - |
| | 1.4401 | X5CrNiMo17122 | 316S16 | 58J | Z6CND17.11 | X5CrNiMo1712 |
| | 1.4429 | X2CrNiMo17133 | - | - | Z2CND17.13 | - |
| | 1.4435 | X2CrNiMo18143 | 316S12 | - | Z2CND17.13 | X2CrNiMo1713 |
| | 1.4438 | X2CrNiMo17133 | 317S12 | - | Z2CND1915 | X2CrNiMo1816 |
| | 1.4460 | X8CrNiMo275 | - | - | - | - |
| | 1.4541 | X6CrNiTi1810 | 2337 | 312S12 | Z6CNT18.10 | X6CrNiTi1811 |
| | 1.4550 | X6CrNiNb1810 | 347S17 | 58F | Z6CNNb18.10 | X6CrNiNb1811 |
| | 1.4571 | X6CrNiMoTi17122 | 320S17 | 58J | Z6NDT17.12 | X6CrNiMoTi1712 |
| | 1.4581 | G-X5CrNi | 318C17 | - | Z4CNDNb | XG8CrNiMo1811 |
| | | MoNb1810 | | | 18 12M | |
| | 1.4583 | X10CrNi | - | - | Z6CNDNb | X6CrNiMoNb1713 |
| | | MoNb1812 | | | 17 13B | |
| | 1.4828 | X15CrNiSi2012 | 309S24 | - | Z15CNS20.12 | - |
| | 1.4845 | X12CrNi25 21 | 310S24 | - | Z12CN2520 | X6CrNi2520 |
| | 1.4864 | X12NiCrSi3616 | - | - | Z12NCS35.16 | - |
| | 1.4865 | G-X40NiCrSi3818 | 330C11 | - | - | XG50NiCr3919 |
| | 1.4871 | X53CrMnNiN219 | 349S54 | - | Z52CMN21.09 | X53CrMnNiN219 |
| | | | 321S12 | 58B | | |
| | 1.4878 | X12CrNiTi189 | 321S20 | 58C | Z6CNT18.12B | X6CrNiTi1811 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | Belgien Belgium | Schweden Sweden | Spanien Spain | USA U.S.A. |
|--|--------------------|--------------------|------------------|---------------|
| | NBN | SS | UNE | AISI/SAE |
| | - | 2301 | F.3110 | 403 |
| | | | F.8401 | |
| | - | 2302 | F.3401 | 410 |
| | - | 2320 | F.3113 | 430 |
| | - | - | - | - |
| | - | 2304 | F.3405 | - |
| | - | 2321 | F.3427 | 431 |
| | - | 2383 | F.3117 | 430F |
| | - | 2325 | - | 434 |
| | - | - | - | - |
| | | F.8414 | | |
| | - | - | F.322 | HW3 |
| | - | - | F.311 | 405 |
| | - | - | F.3113 | 430 |
| | - | - | F.320B | HNV6 |
| | - | 2322 | - | 446 |
| | - | 2332 | F.3551 | 304 |
| | | | F.3541 | |
| | | | F.3504 | |
| | - | 2346 | F.3508 | 303 |
| | - | 2352 | F.3503 | 304L |
| | | 2333 | | |
| | - | - | - | - |
| | - | 2331 | F.3517 | 301 |
| | - | 2371 | - | 304LN |
| | - | 2347 | F.3543 | 316 |
| | - | 2375 | - | 316LN |
| | - | 2353 | - | 316L |
| | - | 2367 | - | 317L |
| | - | 2324 | - | 329 |
| | - | 58B | F.3553, F.3523 | 321 |
| | - | 2338 | F.3552, F.3524 | 347 |
| | - | 2350 | F.3535 | 316Ti |
| | - | - | - | - |
| | - | - | - | 318 |
| | - | - | - | 309 |
| | - | 2361 | F.331 | 310S |
| | - | - | - | 330 |
| | - | - | - | - |
| | - | - | - | EV8 |
| | - | - | F.3523 | 321 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Werkstoff-Gruppe Material group | Deutschland Germany | | Großbritannien Great Britain | | Frankreich France | Italien Italy |
|------------------------------------|---|---------------|---------------------------------|---------|----------------------|------------------|
| | W-Nr. | DIN | BS | EN | AFNOR | UNI |
| K | Grauguss (unlegiert) Unalloyed grey cast iron | | | | | |
| | | GG 10 | | | Ft 10 D | |
| | | GG 15 | Grade 150 | | Ft 15 D | |
| | | GG 20 | Grade 220 | | Ft 20 D | |
| | | GG 25 | Grade 260 | | Ft 25 D | |
| | | GG 30 | Grade 300 | | R 30 D | |
| | | GG 35 | Grade 350 | | Ft 35 D | |
| | | GG 40 | Grade 400 | | Ft 40 D | |
| | Grauguss (legiert) Alloyed grey cast iron | | | | | |
| | | DIN4694 | 3468; 1974 | | | |
| | | GGL- | | | A32-301 | |
| | | NiCr 20 2 | L-NiCr 20 2 | | L-NC 20 2 | |
| | Kugelgraphitguss Unalloyed nodular cast | | | | | |
| | | | 2789; 1973 | | NF A32-201 | |
| | | GGG 40 | SNG 420/12 | | FCS 400-12 | |
| | | GGG 40.3 | SNG 370/17 | | FGS 370-17 | |
| | | GGG 35.3 | - | | - | |
| | | GGG 50 | SNG 500/7 | | FGS 500-7 | |
| | | GGG 60 | SNG 600/3 | | FGS 600-3 | |
| | | GGG 70 | SNG 700/2 | | FGS 700-2 | |
| | Legierter Guss Alloyed cast steels | | | | | |
| | | DIN 1694 | | | | |
| | | GGG NiMn 13 7 | L-NiMn 13 7 | | L-NM 13 7 | |
| | | GGG NiCr 20 2 | L-NiMn 20 2 | | L-NC 20 2 | |
| | Temperguss Malleable cast iron | | | | | |
| | | | | | | |
| | | - | 8 290/6 | | MN 32-8 | |
| | | GTS-35 | B 340/12 | | MN 35-10 | |
| | | GTS-45 | P 440/7 | | | |
| | GTS-55 | P 510/4 | | MP 50-5 | | |
| | GTS-65 | P 570/3 | | MP 60-3 | | |
| | GTS-70 | P 690/2 | | IP 70-2 | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | Belgien Belgium | Schweden Sweden | Spanien Spain | USA U.S.A. |
|--|--------------------|--------------------|------------------|---------------|
| | NBN | SS | UNE | AISI/SAE |
| | | 01 00 | | ASTM A48-76 |
| | | 01 10 | | No 20 B |
| | | 01 15 | | No 25 B |
| | | 01 20 | | No 30 B |
| | | 01 25 | | No 35 B |
| | | | | No 40 B |
| | | 01 30 | | No 45 B |
| | | 01 35 | | No 50 B |
| | | 01 40 | | No 55 B |
| | | MB | | ASTM |
| | | ISO-215 | | A436-72 |
| | | 05 23 | | Type 2 |
| | | 07 17-02 | | A536-72 |
| | | 07 17-12 | | 60-40-18 |
| | | 07 17-15 | | - |
| | | 07 27-02 | | - |
| | | 07 32-03 | | 80-55-06 |
| | | 07 37-01 | | - |
| | | | | 100-70-03 |
| | | 07 72 | | - |
| | | 07 76 | | Type 2 |
| | | 08 14 | | ASTM A47-74 |
| | | 08 15 | | A 220-762) |
| | | 08 52 | | 32510 |
| | | 08 54 | | 40010 |
| | | 08 58 | | 50005 |
| | | 08 62 | | 70003 |
| | | | | (002) |

| ISO | ANSI | ISO | ANSI |
|-------------|-------------------|-----------------|-------------------|
| CCGT 060202 | CCGT 2 (1.5) (.5) | DCGW 070202 | DCGW 2 (1.5) (.5) |
| CCGT 060204 | CCGT 2 (1.5) 1 | DCGW 070204 | DCGW 2 (1.5) 1 |
| CCGT 09T302 | CCGT 3 (2.5) (.5) | DCGW 11T304 | DCGW 3 (2.5) 1 |
| CCGT 09T304 | CCGT 3 (2.5) 1 | DCGW 11T308 | DCGW 3 (2.5) 2 |
| CCGT 120404 | CCGT 431 | DCMT 070202 | DCMT 2 (1.5) (.5) |
| CCGT 120408 | CCGT 432 | DCMT 070204 | DCMT 2 (1.5) 1 |
| CCGW 060202 | CCGW 2 (1.5) (.5) | DCMT 070208 | DCMT 2 (1.5) 2 |
| CCGW 060204 | CCGW 2 (1.5) 1 | DCMT 11T302 | DCMT 3 (2.5) (.5) |
| CCGW 09T302 | CCGW 3 (2.5) (.5) | DCMT 11T304 | DCMT 3 (2.5) 1 |
| CCGW 09T304 | CCGW 3 (2.5) 1 | DCMT 11T308 | DCMT 3 (2.5) 2 |
| CCGW 120404 | CCGW 431 | DCMT 150408 | DCMT 432 |
| CCGW 120408 | CCGW 432 | DCMT 150412 | DCMT 433 |
| CCMT 060202 | CCMT 2 (1.5) (.5) | DCMW 11T304 | DCMW 3 (2.5) 1 |
| CCMT 060204 | CCMT 2 (1.5) 1 | DCMW 11T308 | DCMW 3 (2.5) 2 |
| CCMT 060208 | CCMT 2 (1.5) 2 | DNGA 150404 | DNGA 431 |
| CCMT 09T302 | CCMT 3 (2.5) (.5) | DNGA 150408 | DNGA 432 |
| CCMT 09T304 | CCMT 3 (2.5) 1 | DNGA 150604 | DNGA 441 |
| CCMT 09T308 | CCMT 3 (2.5) 2 | DNGA 150608 | DNGA 442 |
| CCMT 120404 | CCMT 431 | DNMA 150608 | DNM 442 |
| CCMT 120408 | CCMT 432 | DNMG 110402 | DNMG 330 |
| CCMT 250924 | CCMT 866 | DNMG 110404 | DNMG 331 |
| CCMW 09T304 | CCMW 3 (1.5) 1 | DNMG 110408 | DNMG 332 |
| CCMW 120404 | CCMW 431 | DNMG 110412 | DNMG 333 |
| CCMW 120408 | CCMW 432 | DNMG 140405TL20 | - |
| CNGA 120404 | CNGA 431 | DNMG 140405TL25 | - |
| CNGA 120408 | CNGA 432 | DNMG 140405TR20 | - |
| CNGA 120412 | CNGA 433 | DNMG 140405TR25 | - |
| CNMA 120404 | CNMA 431 | DNMG 140410TL25 | - |
| CNMA 120408 | CNMA 432 | DNMG 140410TL32 | - |
| CNMA 120412 | CNMA 433 | DNMG 140410TR25 | - |
| CNMG 090304 | CNMG 321 | DNMG 140410TR32 | - |
| CNMG 090308 | CNMG 322 | DNMG 150404 | DNMG 431 |
| CNMG 120402 | CNMG 430 | DNMG 150408 | DNMG 432 |
| CNMG 120404 | CNMG 431 | DNMG 150412 | DNMG 433 |
| CNMG 120408 | CNMG 432 | DNMG 150416 | DNMG 434 |
| CNMG 120412 | CNMG 433 | DNMG 150604 | DNMG 441 |
| CNMG 120416 | CNMG 434 | DNMG 150608 | DNMG 442 |
| CNMG 160608 | CNMG 542 | DNMG 150612 | DNMG 443 |
| CNMG 160612 | CNMG 543 | DNMG 150616 | DNMG 444 |
| CNMG 160616 | CNMG 544 | DNMM 150408 | DNMM 432 |
| CNMG 190608 | CNMG 642 | DNMM 150412 | DNMM 433 |
| CNMG 190612 | CNMG 643 | DNMM 150608 | DNMM 442 |
| CNMG 190616 | CNMG 644 | DNMM 150612 | DNMM 443 |
| CNMM 120408 | CNMM 432 | RCGT 0602M0 | - |
| CNMM 120412 | CNMM 433 | RCGT 0803M0 | - |
| CNMM 120416 | CNMM 434 | RCGT 1003M0 | - |
| CNMM 160612 | CNMM 543 | RCMT 0602M0 | - |
| CNMM 160616 | CNMM 544 | RCMX 1003M0 | - |
| CNMM 190612 | CNMM 643 | RCMX 1204M0 | - |
| CNMM 190616 | CNMM 644 | RCMX 1606M0 | - |
| CNMM 190624 | CNMM 645 | RCMX 2006M0 | - |
| CNMX 120408 | CNMX 432 | RCMX 2507M0 | - |
| CNMX 190612 | CNMX 643 | RCMX 3209M0 | - |
| CNMX 190616 | CNMX 644 | SCGT 120408 | SCGT 432 |
| DCGT 070202 | DCGT 2 (1.5) (.5) | SCGW 09T304 | SCGW 3 (2.5) 1 |
| DCGT 070204 | DCGT 2 (1.5) 1 | SCGW 09T308 | SCGW 3 (2.5) 2 |
| DCGT 11T302 | DCGT 3 (2.5) (.5) | SCGW 120404 | SCGW 431 |
| DCGT 11T304 | DCGT 3 (2.5) 1 | SCGW 120408 | SCGW 432 |
| DCGT 11T308 | DCGT 3 (2.5) 2 | | |

| ISO | ANSI | ISO | ANSI |
|-------------|-------------------|-------------|-------------------|
| SCMT 09T304 | SCMT 3 (2.5) 1 | TNMA 160404 | TNMA 331 |
| SCMT 09T308 | SCMT 3 (2.5) 2 | TNMA 160408 | TNMA 332 |
| SCMT 120404 | SCMT 431 | TNMA 160412 | TNMA 333 |
| SCMT 120408 | SCMT 432 | TNMA 220412 | TNMA 433 |
| SCMT 120412 | SCMT 433 | TNMG 160404 | TNMG 331 |
| SCMW 09T304 | SCMW 3 (2.5) 1 | TNMG 160408 | TNMG 332 |
| SCMW 120404 | SCMW 431 | TNMG 160412 | TNMG 333 |
| SNGA 120404 | SNGA 431 | TNMG 220408 | TNMG 432 |
| SNGA 120408 | SNGA 432 | TNMG 220412 | TNMG 433 |
| SNMA 120408 | SNMA 432 | TNMG 220416 | TNMG 434 |
| SNMA 120412 | SNMA 433 | TNMM 160408 | TNMM 332 |
| SNMA 190612 | SNMA 643 | TNMM 160412 | TNMM 333 |
| SNMA 190616 | SNMA 644 | TNMM 220408 | TNMM 432 |
| SNMG 090304 | SNMG 321 | TNMM 220412 | TNMM 433 |
| SNMG 120404 | SNMG 431 | TNMX 220412 | TNMX 433 |
| SNMG 120408 | SNMG 432 | TNUN 160408 | TNUN 332 |
| SNMG 120412 | SNMG 433 | TNUN 160412 | TNUN 333 |
| SNMG 120416 | SNMG 434 | TPGR 110304 | TPGR 221 |
| SNMG 150608 | SNMG 542 | TPGR 160308 | TPGR 322 |
| SNMG 150612 | SNMG 543 | TPMR 090204 | TPMR 1.8 (1.5) 1 |
| SNMG 150616 | SNMG 544 | TPMR 110304 | TPMR 221 |
| SNMG 190612 | SNMG 643 | TPMR 110308 | TPMR 222 |
| SNMG 190616 | SNMG 644 | TPMR 160304 | TPMR 321 |
| SNMM 120408 | SNMM 432 | TPMR 160308 | TPMR 322 |
| SNMM 120412 | SNMM 433 | TPMX 220412 | - |
| SNMM 150612 | SNMM 543 | TPUN 110304 | TPUN 221 |
| SNMM 190612 | SNMM 643 | TPUN 110308 | TPUN 222 |
| SNMM 190616 | SNMM 644 | TPUN 160304 | TPUN 321 |
| SNMM 190624 | SNMM 646 | TPUN 160308 | TPUN 322 |
| SNMM 250716 | SNMM 854 | TPUN 160312 | TPUN 323 |
| SNMM 250724 | SNMM 856 | TPUN 220408 | TPUN 432 |
| SNMX 120408 | SNMX 432 | TPUN 220412 | TPUN 433 |
| SNMX 120412 | SNMX 433 | VBMT 160404 | VBMT 331 |
| SNUN 120412 | SNUN 433 | VBMT 160408 | VBMT 332 |
| SPMR 090304 | SPMR 321 | VBMT 160412 | VBMT 333 |
| SPMR 090308 | SPMR 322 | VCGT 110302 | VCGT 220 |
| SPMR 120304 | SPMR 421 | VCGT 110304 | VCGT 221 |
| SPMR 120308 | SPMR 422 | VCGT 160402 | VCGT 330 |
| SPMR 120312 | SPMR 423 | VCGT 160404 | VCGT 331 |
| SPUN 090308 | SPUN 322 | VCGT 160408 | VCGT 332 |
| SPUN 120304 | SPUN 421 | VCGT 160412 | VCGT 333 |
| SPUN 120308 | SPUN 422 | VCGT 220530 | - |
| SPUN 120312 | SPUN 423 | VCMT 110302 | VCMT 220 |
| SPUN 150412 | SPUN 533 | VCMT 110304 | VCMT 221 |
| SPUN 190400 | - | VCMT 160404 | VCMT 331 |
| SPUN 250620 | SPUN 845 | VCMT 160408 | VCMT 332 |
| TCGT 110204 | TCGT 2 (1.5) 1 | VCMT 160412 | VCMT 333 |
| TCGT 16T304 | TCGT 3 (1.5) 1 | VNMG 160404 | VNMG 331 |
| TCGW 110204 | TCGW 2 (1.5) 1 | VNMG 160408 | VNMG 332 |
| TCMT 110202 | TCMT 2 (1.5) (.5) | VNMG 160408 | VNMG 332 |
| TCMT 110204 | TCMT 2 (1.5) 1 | VNMG 160412 | VNMG 333 |
| TCMT 110208 | TCMT 2 (1.5) 2 | VPGT 110304 | VPGT 221 |
| TCMT 16T304 | TCMT 3 (2.5) 1 | VPGT 160412 | VPGT 333 |
| TCMT 16T308 | TCMT 3 (2.5) 2 | VPGT 220516 | - |
| TCMW 110202 | TCMW 2 (1.5) (.5) | WCGT 06T302 | WCGT 3 (2.5) (.5) |
| TCMW 110204 | TCMW 2 (1.5) 1 | WCGT 06T304 | WCGT 3 (2.5) 1 |
| TCMW 16T304 | TCMW 3 (2.5) 1 | WCGT 06T308 | WCGT 3 (2.5) 2 |
| TCMW 16T308 | TCMW 3 (2.5) 2 | WCGT 080404 | WCGT 431 |
| | | WCGT 080408 | WCGT 432 |

| Zugfestigkeit Rm Tensile strength Rm N/mm ² | Vickers- härte Vickers hardness HV | Brinell- härte Brinell hardness HB | Rockwell- härte Rockwell hardness HRC |
|--|--|--|---|
| 255 | 80 | 76 | |
| 270 | 85 | 80,7 | |
| 285 | 90 | 85,5 | |
| 305 | 95 | 90,2 | |
| 320 | 100 | 95 | |
| 335 | 105 | 99,8 | |
| 350 | 110 | 105 | |
| 370 | 115 | 109 | |
| 385 | 120 | 114 | |
| 400 | 125 | 119 | |
| 415 | 130 | 124 | |
| 430 | 135 | 128 | |
| 450 | 140 | 133 | |
| 465 | 145 | 138 | |
| 480 | 150 | 143 | |
| 495 | 155 | 147 | |
| 510 | 160 | 152 | |
| 530 | 165 | 156 | |
| 545 | 170 | 162 | |
| 560 | 175 | 166 | |
| 575 | 180 | 171 | |
| 595 | 185 | 176 | |
| 610 | 190 | 181 | |
| 625 | 195 | 185 | |
| 640 | 200 | 190 | |
| 660 | 205 | 195 | |
| 675 | 210 | 199 | |
| 690 | 215 | 204 | |
| 705 | 220 | 209 | |
| 720 | 225 | 214 | |
| 740 | 230 | 219 | |
| 755 | 235 | 223 | |
| 770 | 240 | 228 | 20,3 |
| 785 | 245 | 233 | 21,3 |
| 800 | 250 | 238 | 22,2 |
| 820 | 255 | 242 | 23,1 |
| 835 | 260 | 247 | 24 |
| 850 | 265 | 252 | 24,8 |
| 865 | 270 | 257 | 25,6 |
| 880 | 275 | 261 | 26,4 |
| 900 | 280 | 266 | 27,1 |
| 915 | 285 | 271 | 27,8 |
| 930 | 290 | 276 | 28,5 |
| 950 | 295 | 280 | 29,2 |
| 965 | 300 | 285 | 29,8 |
| 995 | 310 | 295 | 31 |
| 1030 | 320 | 304 | 32,2 |
| 1060 | 330 | 314 | 33,3 |
| 1095 | 340 | 323 | 34,4 |

| Zugfestigkeit Rm Tensile strength Rm N/mm ² | Vickers- härte Vickers hardness HV | Brinell- härte Brinell hardness HB | Rockwell- härte Rockwell hardness HRC |
|--|--|--|---|
| 1125 | 350 | 333 | 35,5 |
| 1155 | 360 | 342 | 36,6 |
| 1190 | 370 | 352 | 37,7 |
| 1220 | 380 | 361 | 38,8 |
| 1155 | 390 | 371 | 39,8 |
| 1290 | 400 | 380 | 40,8 |
| 1320 | 410 | 390 | 41,8 |
| 1350 | 420 | 399 | 42,7 |
| 1385 | 430 | 409 | 43,6 |
| 1420 | 440 | 418 | 44,5 |
| 1455 | 450 | 428 | 45,3 |
| 1485 | 460 | 437 | 46,1 |
| 1520 | 470 | 447 | 46,9 |
| 1555 | 480 | (456) | 47,7 |
| 1595 | 490 | (466) | 48,4 |
| 1630 | 500 | (475) | 49,1 |
| 1665 | 510 | (485) | 49,8 |
| 1700 | 520 | (494) | 50,5 |
| 1740 | 530 | (504) | 51,1 |
| 1775 | 540 | (513) | 51,7 |
| 1810 | 550 | (523) | 52,3 |
| 1845 | 560 | (532) | 53,0 |
| 1880 | 570 | (542) | 53,6 |
| 1920 | 580 | (551) | 54,1 |
| 1955 | 590 | (561) | 54,7 |
| 1995 | 600 | (570) | 55,2 |
| 2030 | 610 | (580) | 55,7 |
| 2070 | 620 | (589) | 56,3 |
| 2105 | 630 | (599) | 56,8 |
| 2145 | 640 | (608) | 57,3 |
| 2180 | 650 | (618) | 57,8 |
| | 660 | | 58,3 |
| | 670 | | 58,8 |
| | 680 | | 59,2 |
| | 690 | | 59,7 |
| | 700 | | 60,1 |
| | 720 | | 61 |
| | 740 | | 61,8 |
| | 760 | | 62,5 |
| | 780 | | 63,3 |
| | 800 | | 64 |
| | 820 | | 64,7 |
| | 840 | | 65,3 |
| | 860 | | 65,9 |
| | 880 | | 66,4 |
| | 900 | | 67 |
| | 920 | | 67,5 |
| | 940 | | 68 |

| | | |
|---|--|-----|
| Zugfestigkeit Tensile strength | N/mm ² | Rm |
| Vickershärte Vickers hardness | Diamantpyramide 136 , Prüfkraft F ≥ 98 N Diamond pyramid 136 , Test force F ≥ 98 N | HV |
| Brinellhärte Brinell hardness | 0,102 x F/D ² = 30 N/mm ² | HB |
| Kalkuliert mit: Calculated from: HB = 0,95 x HV | F = Prüfkraft in N, D = Kegeldurchmesser in mm F = Test force in N, D = Cone diameter in mm | |
| Härte Rockwell C Hardness Rockwell C | Diamantkegel 120°, Gesamtprüfkraft 1471 ± 9 N Diamond cone 120°, Total test force 1471 ± 9 N | HRC |

