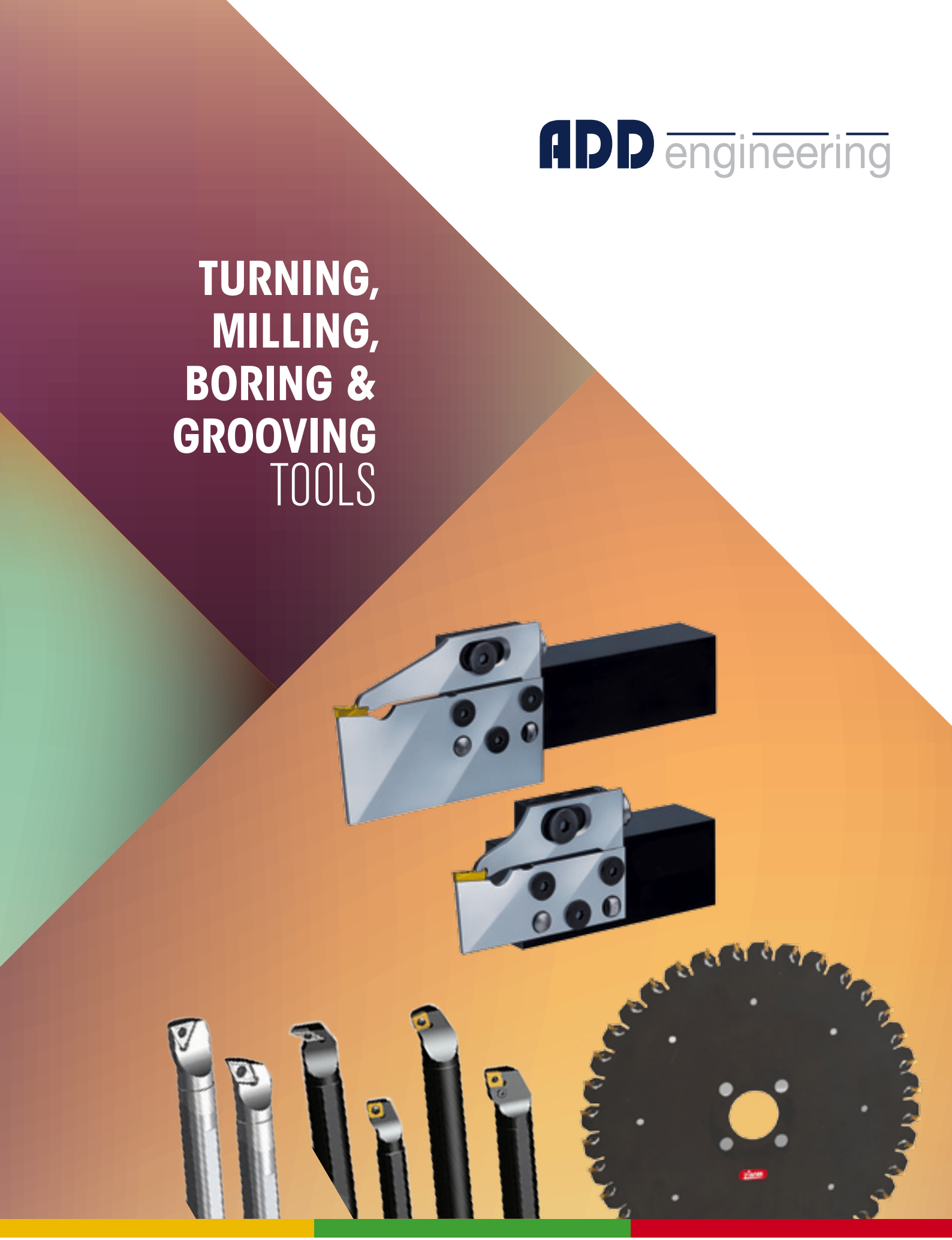
ADD engineering

TURNING, MILLING, BORING & GROOVING TOOLS



Germany | India | Russia

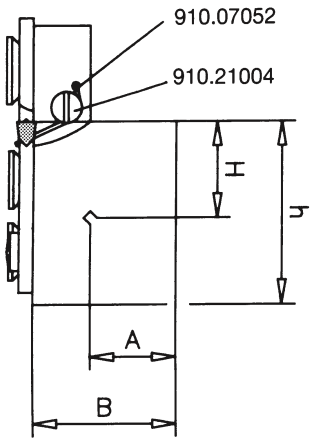
Type G-SL

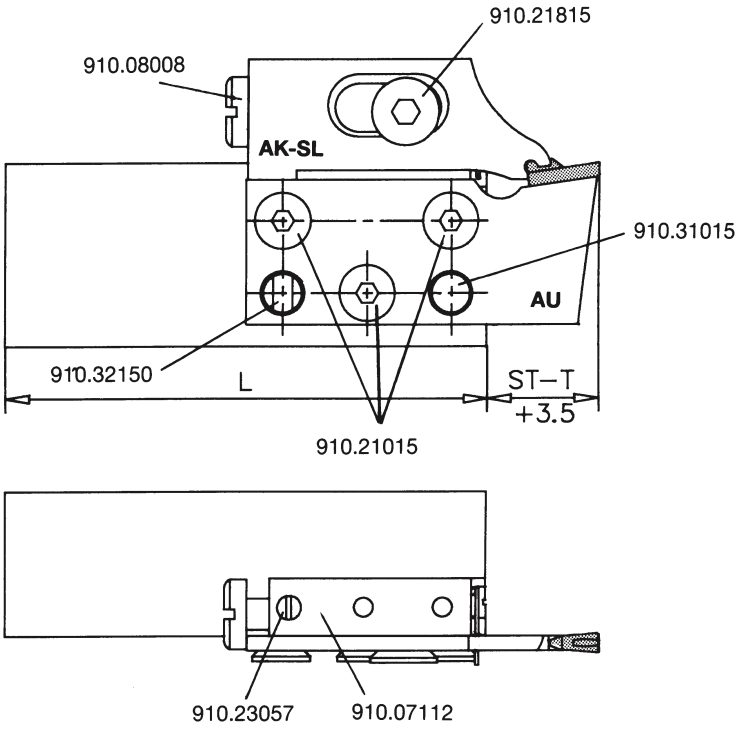
passend für / suitable for:
AU + AK-SL
U + AK-SL

■ **Linksausführung**
□ **left hand typ**

Grundhalter / base holder

Bestell-Nr. order-no.	Type typ					
links / left		H	h	A	B	L
101.10102	G-10-100 SL	10	38	10	22	100
101.12102	G-12-100 SL	12	38	12	24	100
101.16102	G-16-100 SL	16	38	14	26	100
101.20102	G-20-100 SL	20	38	18	30	100
101.25152	G-25-150 SL	25	38	18	30	150
101.32152	G-32-150 SL	32	40	27	40	150
101.40202	G-40-200 SL	40	—	—	40	200





■ **Unterstützblätter und Klemmungen**
AU + AK-SL (ST-T = 20 + 30 [mm]) ▶ Seite 1/6
U + AK-SL (ST-T = 30 – 50 [mm]) ▶ Seite 1/7

□ **Support blades and clampings**
AU + AK-SL (ST-T = 20 + 30 [mm]) ▶ page 1/6
U + AK-SL (ST-T = 30 – 50 [mm]) ▶ page 1/7

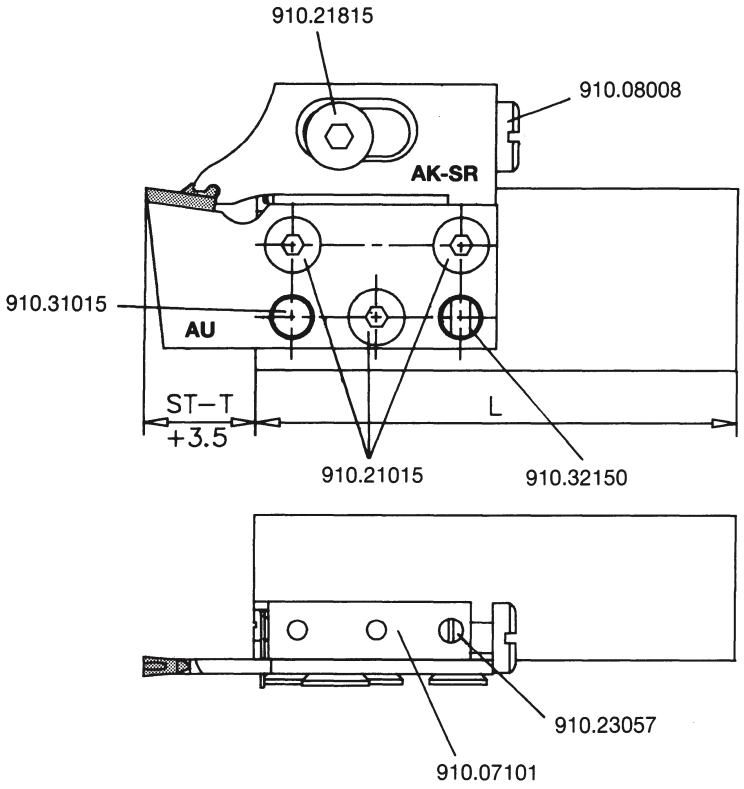
Type G-SR

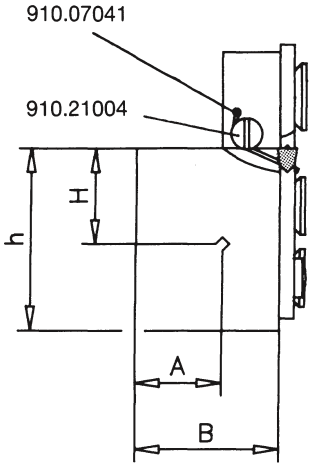
passend für / suitable for:
AU + AK-SR
U + AK-SR

■ **Rechtsausführung**
□ **right hand typ**

Grundhalter / base holder

Bestell-Nr. order-no.	Type typ					
rechts / right		H	h	A	B	L
101.10101	G-10-100 SR	10	38	10	22	100
101.12101	G-12-100 SR	12	38	12	24	100
101.16101	G-16-100 SR	16	38	14	26	100
101.20101	G-20-100 SR	20	38	18	30	100
101.25151	G-25-150 SR	25	38	18	30	150
101.32151	G-32-150 SR	32	40	27	40	150
101.40201	G-40-200 SR	40	—	—	40	200

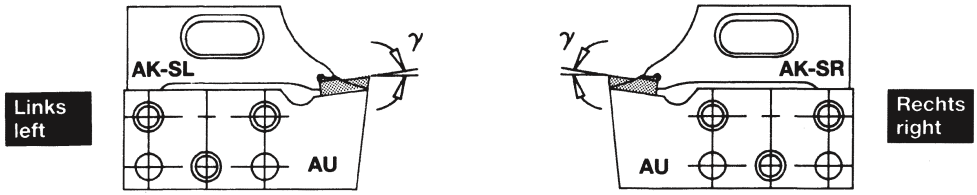




■ **Unterstützblätter und Klemmungen**
AU + AK-SR (ST-T = 20 + 30 [mm]) ▶ Seite 1/6
U + AK-SR (ST-T = 30 – 50 [mm]) ▶ Seite 1/7

□ **Support blades and clampings**
AU + AK-SR (ST-T = 20 + 30 [mm]) ▶ page 1/6
U + AK-SR (ST-T = 30 – 50 [mm]) ▶ page 1/7

AU + AK

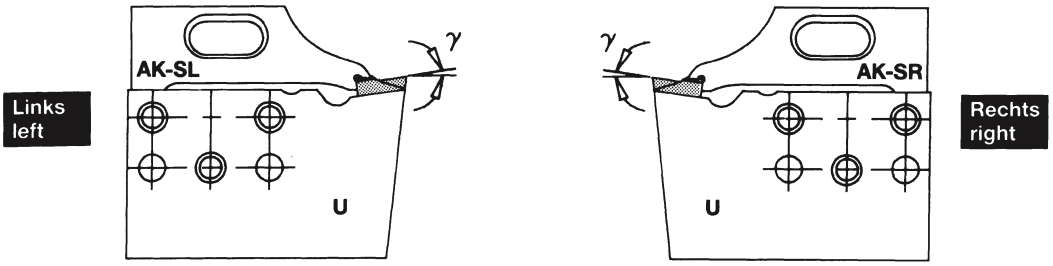


Unterstützblatt 8°/15° / support blade 8°/15°				Klemmung 8°/15° / clamping 8°/15°			
Bestell-Nr. order-no.	Type typ	Stech-breite width of cut	Stech-tiefe depth of cut	Bestell-Nr. order-no.	Type typ **Links left**	Bestell-Nr. order-no.	Type typ **Rechts right**
111.16280	AU-1.6-20-8	2.0	20	162.16282	AK-1.6-20-8 SL	162.16281	AK-1.6-20-8 SR
111.20280	AU-2.0-20-8	2.3	20	162.20282	AK-2.0-20-8 SL	162.20281	AK-2.0-20-8 SR
111.25280	AU-2.5-20-8	3.0/3.5	20	162.25282	AK-2.5-20-8 SL	162.25281	AK-2.5-20-8 SR
111.25380	AU-2.5-30-8	3.0/3.5	30	162.25382	AK-2.5-30-8 SL	162.25381	AK-2.5-30-8 SR
γ=8°				γ=8°		γ=8°	
111.30280	AU-3.0-20-8	4.0	20	162.30282	AK-3.0-20-8 SL	162.30281	AK-3.0-20-8 SR
111.30380	AU-3.0-30-8	4.0	30	162.30382	AK-3.0-30-8 SL	162.30381	AK-3.0-30-8 SR
111.40280	AU-4.0-20-8	5.0	20	162.40282	AK-4.0-20-8 SL	162.40281	AK-4.0-20-8 SR
111.50280	AU-5.0-20-8	6.0	20	162.50282	AK-5.0-20-8 SL	162.50281	AK-5.0-20-8 SR
111.16250	AU-1.6-20-15	2.0	20	162.16252	AK-1.6-20-15 SL	162.16251	AK-1.6-20-15 SR
111.20250	AU-2.0-20-15	2.3	20	162.20252	AK-2.0-20-15 SL	162.20251	AK-2.0-20-15 SR
111.25250	AU-2.5-20-15	3.0/3.5	20	162.25252	AK-2.5-20-15 SL	162.25251	AK-2.5-20-15 SR
111.25350	AU-2.5-30-15	3.0/3.5	30	162.25352	AK-2.5-30-15 SL	162.25351	AK-2.5-30-15 SR
γ=15°				γ=15°		γ=15°	
111.30250	AU-3.0-20-15	4.0	20	162.30252	AK-3.0-20-15 SL	162.30251	AK-3.0-20-15 SR
111.30350	AU-3.0-30-15	4.0	30	162.30352	AK-3.0-30-15 SL	162.30351	AK-3.0-30-15 SR
111.40250	AU-4.0-20-15	5.0	20	162.40252	AK-4.0-20-15 SL	162.40251	AK-4.0-20-15 SR
111.50250	AU-5.0-20-15	6.0	20	162.50252	AK-5.0-20-15 SL	162.50251	AK-5.0-20-15 SR

- Unterstützblätter sind rechts und links verwendbar.
- Klemmungen müssen entsprechend dem Grundhalter ausgewählt werden.
  (z.B. Grundhalter = rechts ▶ Klemmung = rechts und umgekehrt.)
- **ACHTUNG!** Stechbreite bzw. Dicke, Stechtiefe und Spanwinkel [γ] von Unterstützblatt und Klemmung müssen identisch sein.
- Wechselplatten siehe Seite 1/29 – 1/33.

- Support-blades are useable for right- and left hand.
- Clampings have to be selected in reference to the base holder.
  (for example: base holder = right hand ▶ Clamping = right hand and vice versa.)
- **ATTENTION!** Width of cut respectively thickness, depth of cut and rake angle [γ] of support-blades and clampings have to be identical.
- Inserts look at page 1/29 – 1/33.

U + AK



Unterstützblatt 8°/15° / support blade 8°/15°				Klemmung 8°/15° / clamping 8°/15°			
Bestell-Nr. order-no.	Type typ	Stech-breite width of cut	Stech-tiefe depth of cut	Bestell-Nr. order-no.	Type typ **Links left**	Bestell-Nr. order-no.	Type typ **Rechts right**
114.25380	U-2.5-30-8	3.0 / 3.5	30	162.25382	AK-2.5-30-8 SL	162.25381	AK-2.5-30-8 SR
114.30380	U-3.0-30-8	4.0	30	162.30382	AK-3.0-30-8 SL	162.30381	AK-3.0-30-8 SR
114.30480	U-3.0-40-8	4.0	40	162.30482	AK-3.0-40-8 SL	162.30481	AK-3.0-40-8 SR
114.30580	U-3.0-50-8	4.0	50	162.30582	AK-3.0-50-8 SL	162.30581	AK-3.0-50-8 SR
114.40380 γ=8°	U-4.0-30-8	5.0	30	162.40382 γ=8°	AK-4.0-30-8 SL	162.40381 γ=8°	AK-4.0-30-8 SR
114.40480	U-4.0-40-8	5.0	40	162.40482	AK-4.0-40-8 SL	162.40481	AK-4.0-40-8 SR
114.40580	U-4.0-50-8	5.0	50	162.40582	AK-4.0-50-8 SL	162.40581	AK-4.0-50-8 SR
114.50380	U-5.0-30-8	6.0	30	162.50382	AK-5.0-30-8 SL	162.50381	AK-5.0-30-8 SR
114.50480	U-5.0-40-8	6.0	40	162.50482	AK-5.0-40-8 SL	162.50481	AK-5.0-40-8 SR
114.50580	U-5.0-50-8	6.0	50	162.50582	AK-5.0-50-8 SL	162.50581	AK-5.0-50-8 SR
114.25350	U-2.5-30-15	3.0 / 3.5	30	162.25352	AK-2.5-30-15 SL	162.25351	AK-2.5-30-15 SR
114.30350	U-3.0-30-15	4.0	30	162.30352	AK-3.0-30-15 SL	162.30351	AK-3.0-30-15 SR
114.30450	U-3.0-40-15	4.0	40	162.30452	AK-3.0-40-15 SL	162.30451	AK-3.0-40-15 SR
114.30550	U-3.0-50-15	4.0	50	162.30552	AK-3.0-50-15 SL	162.30551	AK-3.0-50-15 SR
114.40350 γ=15°	U-4.0-30-15	5.0	30	162.40352 γ=15°	AK-4.0-30-15 SL	162.40351 γ=15°	AK-4.0-30-15 SR
114.40450	U-4.0-40-15	5.0	40	162.40452	AK-4.0-40-15 SL	162.40451	AK-4.0-40-15 SR
114.40550	U-4.0-50-15	5.0	50	162.40552	AK-4.0-50-15 SL	162.40551	AK-4.0-50-15 SR
114.50350	U-5.0-30-15	6.0	30	162.50352	AK-5.0-30-15 SL	162.50351	AK-5.0-30-15 SR
114.50450	U-5.0-40-15	6.0	40	162.50452	AK-5.0-40-15 SL	162.50451	AK-5.0-40-15 SR
114.50550	U-5.0-50-15	6.0	50	162.50552	AK-5.0-50-15 SL	162.50551	AK-5.0-50-15 SR

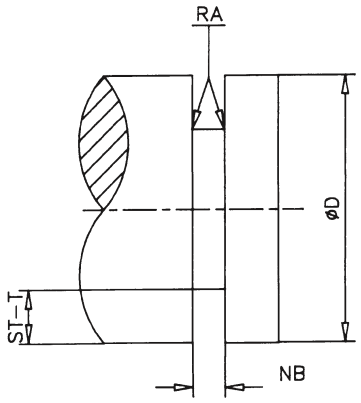
- ■ Unterstützblätter sind rechts und links verwendbar.
- ■ Klemmungen müssen entsprechend dem Grundhalter ausgewählt werden. (z.B. Grundhalter = rechts ▶ Klemmung = rechts und umgekehrt.)
- ■ **ACHTUNG!** Stechbreite bzw. Dicke, Stechtiefe und Spanwinkel [γ] von Unterstützblatt und Klemmung müssen identisch sein.
- ■ Wechselplatten siehe Seite 1/29 – 1/33.

- ☐ Support-blades are useable for right- and left hand.
- ☐ Clampings have to be selected in reference to the base holder. (for example: base holder = right hand ▶ Clamping = right hand and vice versa.)
- ☐ **ATTENTION!** Width of cut respectively thickness, depth of cut and rake angle [γ] of support-blades and clampings have to be identical.
- ☐ Inserts look at page 1/29 – 1/33.

Folgende Angaben werden für eine Angebotsausarbeitung benötigt:

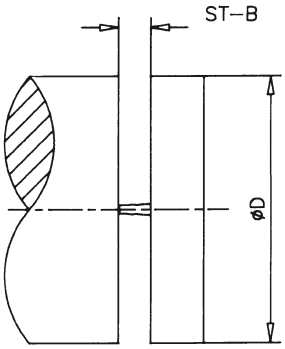
A) Allgemeine Angaben

1. Maschinentype
2. Haltertype (Schaftquerschnitt)
3. Werkzeugposition (Vor Drehmitte, hinter Drehmitte, Rechtslauf, Linkslauf, Überkopfeinsatz, Normaleinsatz).
4. Werkstoff und / oder Werkstoff-Nr. (Stahlschlüssel)
5. Werkstückdurchmesser „∅D“
6. Vorschubantrieb z.B. (mechanisch, hydraulisch)
7. welche Kühlung



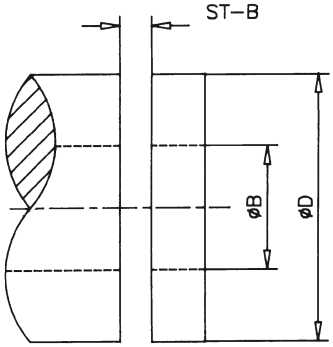
B) **Einstechen**

1. Nutbreite „NB“
2. Stechbreite „ST-B“
3. Stechtiefe „ST-T“
4. Sauberer Nutgrund erforderlich?
5. Eckenradien „RA“



C) **Abstechen-Vollmaterial**

1. Stechbreite „ST-B“



D) **Abstechen-Rohre oder auf Bohrung**

1. Stechbreite „ST-B“
2. Bohrungs-∅

Werkstückzeichnung (auch als Anlage) mit Toleranzangaben beilegen.
Datenblatt bitte fotokopieren und ausgefüllt zurückschicken.
Formular nur für jeweils 1 Werkzeug verwenden.

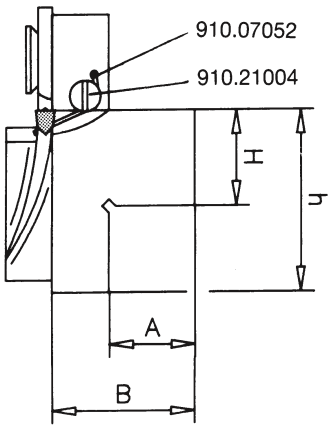
Type G-SL

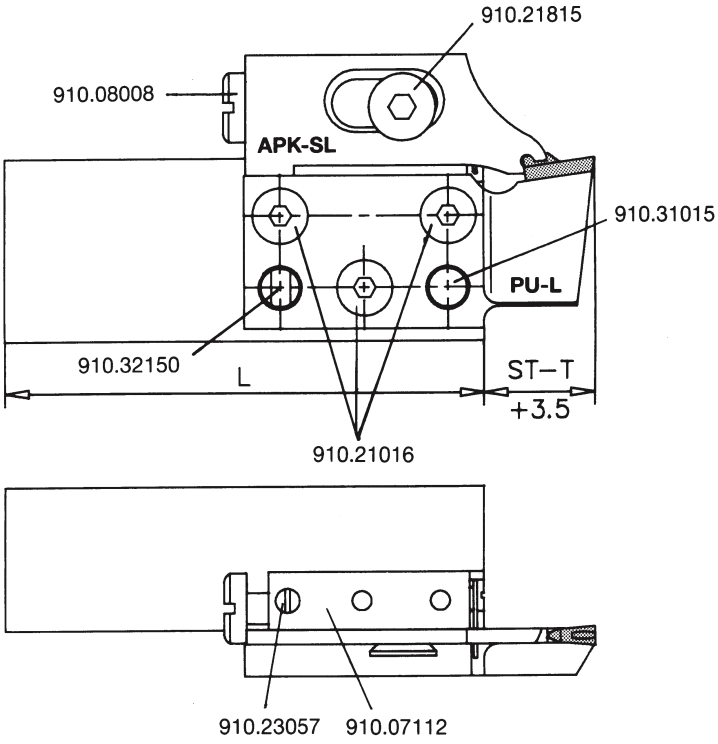
passend für / suitable for PU + APK-SL

- ■ **links / für Rechtslauf**
- □ **left / for right hand turning**

Grundhalter / base holder

Bestell-Nr. order-no.	Type typ	H	h	A	B	L
101.10102	G-10-100 SL	10	38	10	22	100
101.12102	G-12-100 SL	12	38	12	24	100
101.16102	G-16-100 SL	16	38	14	26	100
101.20102	G-20-100 SL	20	38	18	30	100
101.25152	G-25-150 SL	25	38	18	30	150
101.32152	G-32-150 SL	32	40	27	40	150
101.40202	G-40-200 SL	40	—	—	40	200





- ■ **Unterstützblätter und Klemmungen**
  PU + APK-SL (ST-T = 15 – 40 [mm]) ▶ Seite 1/14
- □ **Support blades and clampings**
  PU + APK-SL (ST-T = 15 – 40 [mm]) ▶ page 1/14

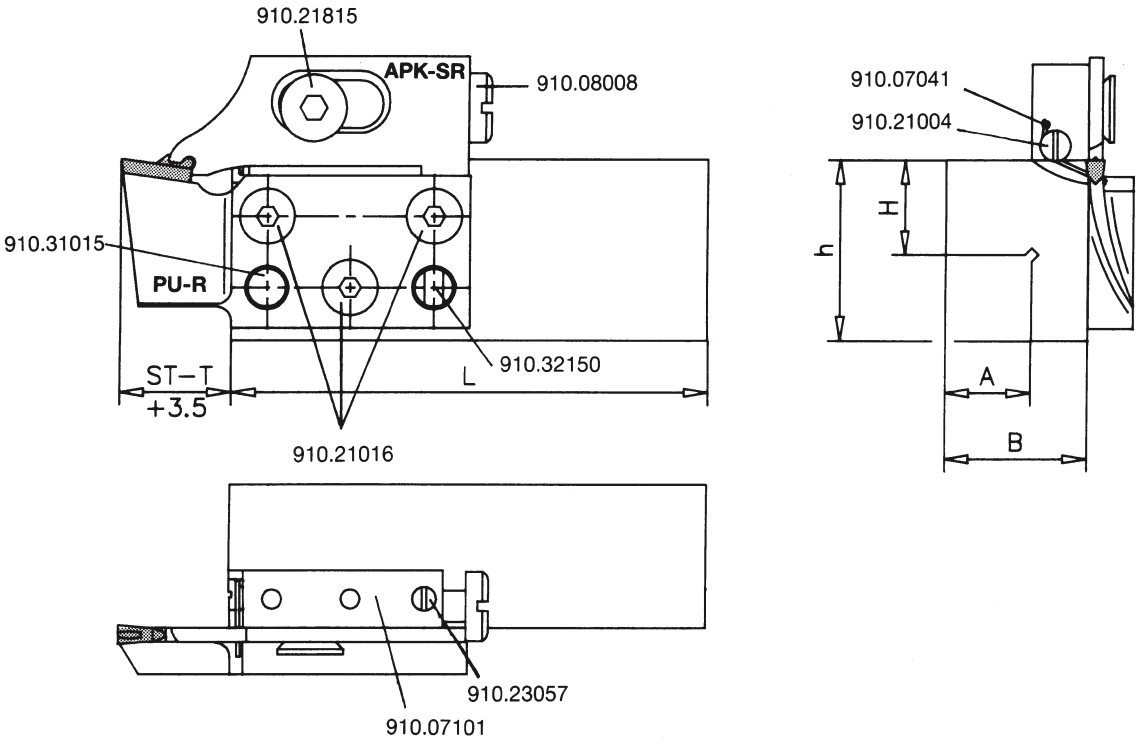
Type G-SR

passend für / suitable for PU + APK-SR

- ■ **rechts / für Linkslauf**
- □ **right / for left hand turning**

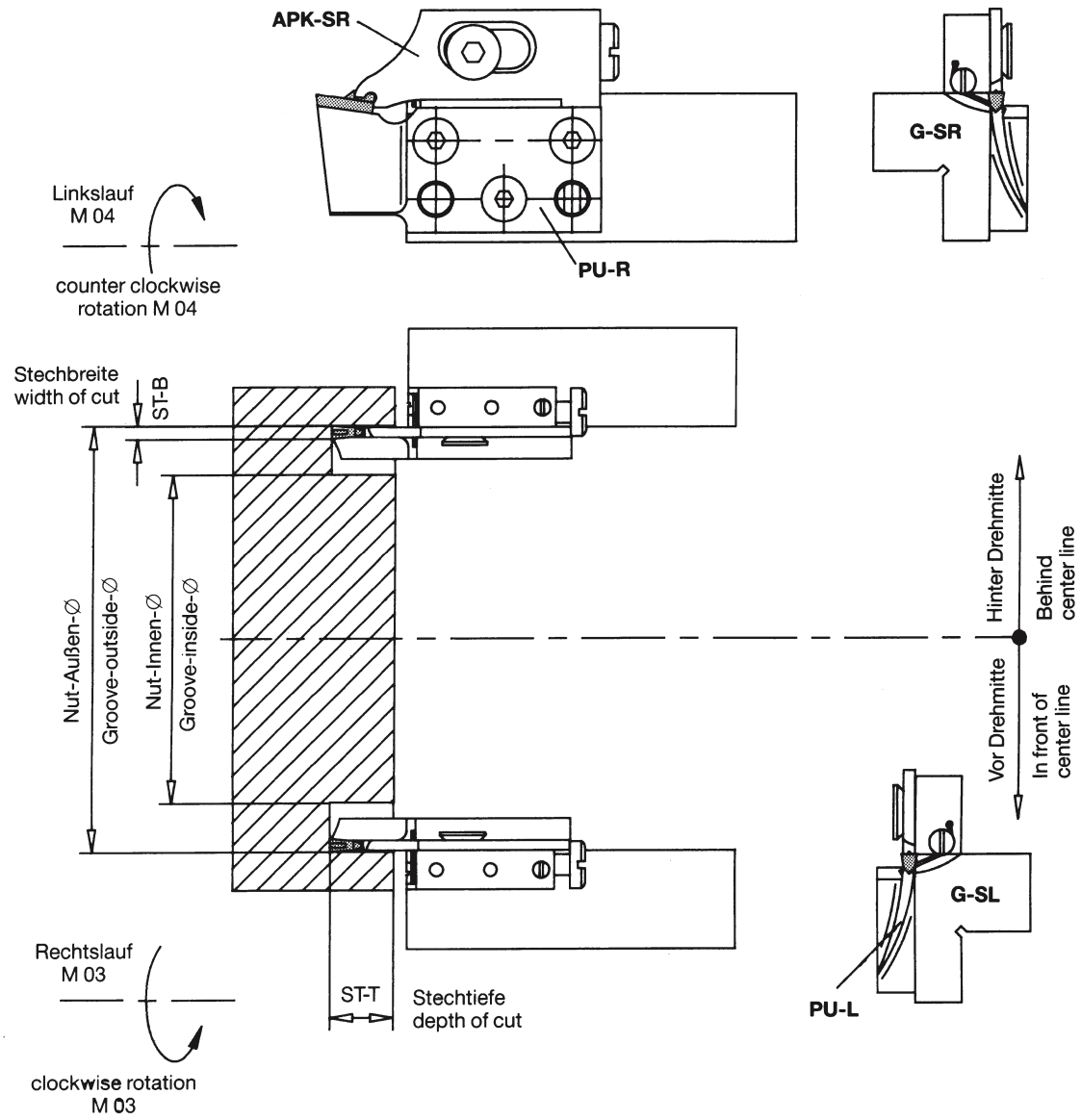
Grundhalter / base holder

Bestell-Nr. order-no.	Type typ	H	h	A	B	L
101.10101	G-10-100 SR	10	38	10	22	100
101.12101	G-12-100 SR	12	38	12	24	100
101.16101	G-16-100 SR	16	38	14	26	100
101.20101	G-20-100 SR	20	38	18	30	100
101.25151	G-25-150 SR	25	38	18	30	150
101.32151	G-32-150 SR	32	40	27	40	150
101.40201	G-40-200 SR	40	—	—	40	200

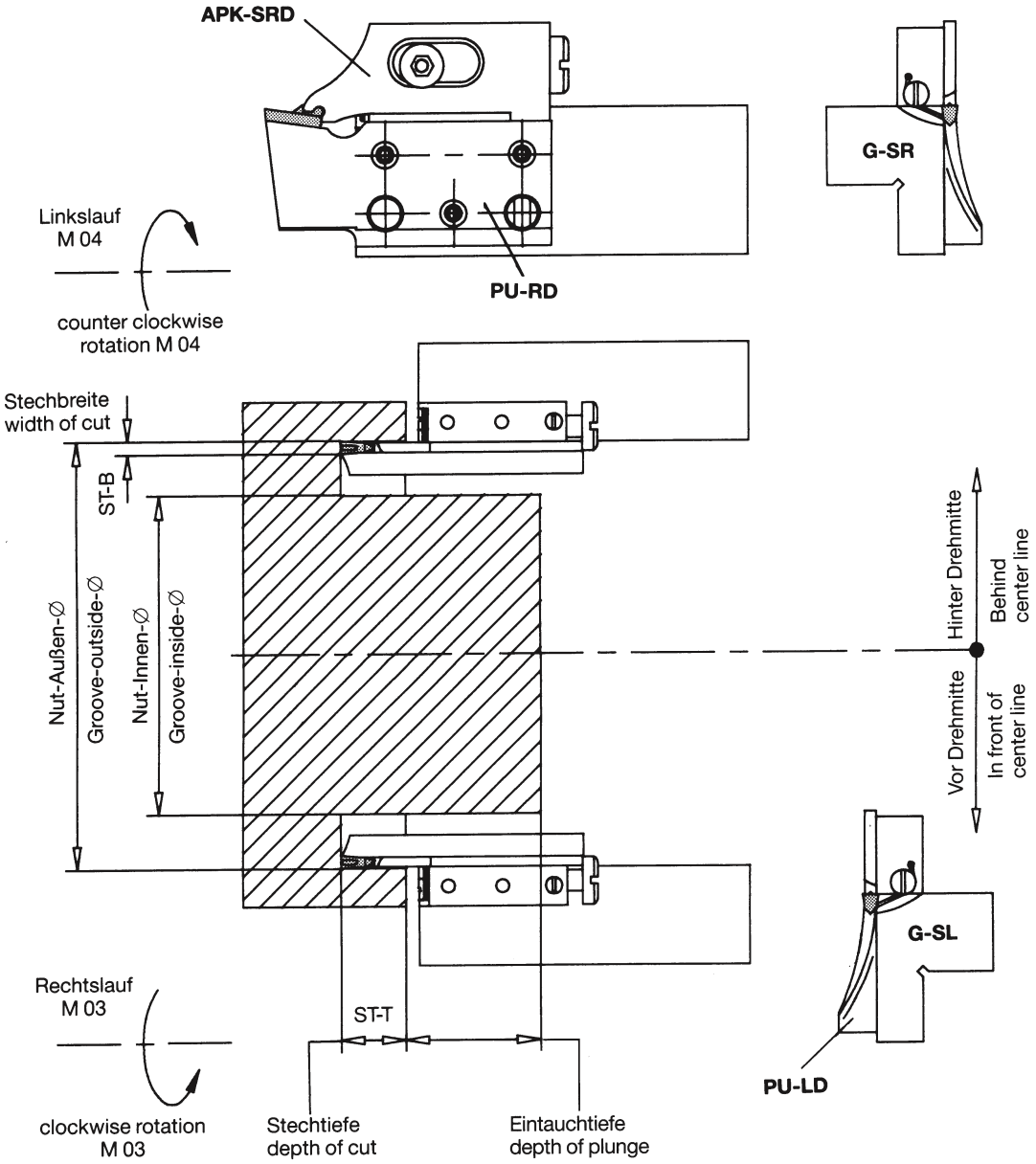


- ■ **Unterstützblätter und Klemmungen**
  PU + APK-SR (ST-T = 15 – 40 [mm]) ▶ Seite 1/15
- □ **Support blades and clampings**
  PU + APK-SR (ST-T = 15 – 40 [mm]) ▶ page 1/15

PU + APK


APK-SR
G-SR
PU-R
Linkslauf
M 04
counter clockwise
rotation M 04
Stechbreite
width of cut
ST-B
Nut-Außen-Ø
Groove-outside-Ø
Nut-Innen-Ø
Groove-inside-Ø
Hinter Drehmitte
Behind
center line
Vor Drehmitte
In front of
center line
G-SL
PU-L
Rechtslauf
M 03
clockwise rotation
M 03
ST-T
Stechtiefe
depth of cut

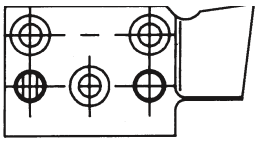
PU-D + APK-D



- Bei dieser Bearbeitung werden Unterstützblätter und Klemmungen in der Ausführung **„D“** benötigt.
  - Bitte unbedingt angeben – Beispiel:
    (131.32110**D**) PU-3.0-20-8 L**D** DB 110-150
    (172.30282**D**) APK-3.0-20-8 SL**D**
  - Ebenso wird der Montagesatz – Bestell-Nr. 950.00010 benötigt (Zubehör).

PU + APK-SL

■ links / für Rechtslauf
□ left / for right hand turning

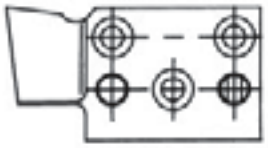


■ Wechselplatten siehe Seite 1/29 – 1/33
□ Inserts look at page 1/29 – 1/33

Bestell-Nr. order-no.	Type typ	Durchmesser-bereich diameter	Stech-breite width of cut	Stech-tiefe depth of cut	Bestell-Nr. order-no.	Type typ	Type Wechselplatten typ inserts
130.41530	PU-4.5-15/20-0/6	30-35	6.0	15	172.45202	APK-4.5-20-0/6 SL	M-6.0-..-0
130.41535	PU-4.5-15/20-0/6	35-45	6.0	15			
131.22545	PU-2.5-15/20-8	45-55	3.0	15	172.25282	APK-2.5-20-8 SL	M-3.0-..-8
131.22555	PU-2.5-15/20-8	55-70	3.0	15			
131.22570	PU-2.5-15/20-8	70-85	3.0	15			
131.22585	PU-2.5-15/20-8	85-110	3.0	15			
131.22110	PU-2.5-20-8	110-150	3.0	20			
131.22150	PU-2.5-20-8	150-220	3.0	20			
131.22220	PU-2.5-20-8	220-350	3.0	20			
131.22350	PU-2.5-20-8	350	3.0	20			
131.32045	PU-3.0-20-8	45-55	4.0	20	172.30282	APK-3.0-20-8 SL	M-4.0-..-8
131.32055	PU-3.0-20-8	55-70	4.0	20			
131.32070	PU-3.0-20-8	70-85	4.0	20			
131.32085	PU-3.0-20-8	85-110	4.0	20			
131.32110	PU-3.0-20-8	110-150	4.0	20			
131.32150	PU-3.0-20-8	150-220	4.0	20			
131.32220	PU-3.0-20-8	220-350	4.0	20			
131.32350	PU-3.0-20-8	350	4.0	20			
131.42045	PU-4.0-20-8	45-55	5.0	20	172.40282	APK-4.0-20-8 SL	M-5.0-..-8
131.42055	PU-4.0-20-8	55-70	5.0	20			
131.42070	PU-4.0-20-8	70-110	5.0	20			
131.42110	PU-4.0-20-8	110-150	5.0	20			
131.42150	PU-4.0-20-8	150-220	5.0	20			
131.42220	PU-4.0-20-8	220-350	5.0	20			
131.42350	PU-4.0-20-8	350	5.0	20			
131.43045	PU-4.0-30-8	45-55	5.0	30	172.40382	APK-4.0-30-8 SL	M-5.0-..-8
131.43055	PU-4.0-30-8	55-70	5.0	30			
131.43070	PU-4.0-30-8	70-110	5.0	30			
131.43110	PU-4.0-30-8	110-150	5.0	30			
131.43150	PU-4.0-30-8	150-220	5.0	30			
131.43220	PU-4.0-30-8	220-350	5.0	30			
131.43350	PU-4.0-30-8	350	5.0	30			
131.52045	PU-4.5-20-8	45-55	6.0	20	172.45282	APK-4.5-20-8 SL	M-6.0-..-8
131.52055	PU-4.5-20-8	55-70	6.0	20			
131.52070	PU-4.5-20-8	70-110	6.0	20			
131.52110	PU-4.5-20-8	110-150	6.0	20			
131.52150	PU-4.5-20-8	150-220	6.0	20			
131.52220	PU-4.5-20-8	220-350	6.0	20			
131.52350	PU-4.5-20-8	350	6.0	20			
131.53045	PU-4.5-30-8	45-55	6.0	30	172.45382	APK-4.5-30-8 SL	M-6.0-..-8
131.53055	PU-4.5-30-8	55-70	6.0	30			
131.53070	PU-4.5-30-8	70-110	6.0	30			
131.53110	PU-4.5-30-8	110-150	6.0	30			
131.53150	PU-4.5-30-8	150-220	6.0	30			
131.53220	PU-4.5-30-8	220-350	6.0	30			
131.53350	PU-4.5-30-8	350	6.0	30			
131.54045	PU-4.5-40-8	45-55	6.0	40	172.45482	APK-4.5-40-8 SL	M-6.0-..-8
131.54055	PU-4.5-40-8	55-70	6.0	40			
131.54070	PU-4.5-40-8	70-110	6.0	40			
131.54110	PU-4.5-40-8	110-150	6.0	40			
131.54150	PU-4.5-40-8	150-220	6.0	40			
131.54220	PU-4.5-40-8	220-350	6.0	40			
131.54350	PU-4.5-40-8	350	6.0	40			
132.52070	PU-4.5-20-15	70-110	6.0	20	172.45252	APK-4.5-20-15 SL	M-6.0-..-15
132.52110	PU-4.5-20-15	110-150	6.0	20			
132.52150	PU-4.5-20-15	150-220	6.0	20			
132.52220	PU-4.5-20-15	220-350	6.0	20			
132.52350	PU-4.5-20-15	350	6.0	20			

PU + APK-SR

■ rechts / für Linkslauf
□ right / for left hand turning



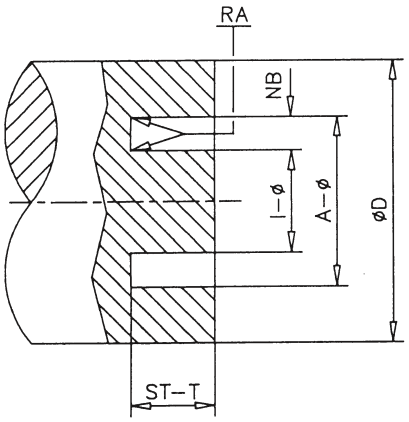
■ Wechselplatten siehe Seite 1/29 – 1/33
□ Inserts look at page 1/29 – 1/33

Bestell-Nr. order-no.	Type typ	Durchmesser-bereich diameter	Stech-breite width of cut	Stech-tiefe depth of cut	Bestell-Nr. order-no.	Type typ	Type Wechselplatten typ inserts
120.41530	PU-4.5-15/20-0/6	30-35	6.0	15	172.45201	APK-4.5-20-0/6 SR	M-6.0-..-0
120.41535	PU-4.5-15/20-0/6	35-45	6.0	15			
121.22545	PU-2.5-15/20-8	45-55	3.0	15	172.25281	APK-2.5-20-8 SR	M-3.0-..-8
121.22555	PU-2.5-15/20-8	55-70	3.0	15			
121.22570	PU-2.5-15/20-8	70-85	3.0	15			
121.22585	PU-2.5-15/20-8	85-110	3.0	15			
121.22110	PU-2.5-20-8	110-150	3.0	20			
121.22150	PU-2.5-20-8	150-220	3.0	20			
121.22220	PU-2.5-20-8	220-350	3.0	20			
121.22350	PU-2.5-20-8	350	3.0	20			
121.32045	PU-3.0-20-8	45-55	4.0	20	172.30281	APK-3.0-20-8 SR	M-4.0-..-8
121.32055	PU-3.0-20-8	55-70	4.0	20			
121.32070	PU-3.0-20-8	70-85	4.0	20			
121.32085	PU-3.0-20-8	85-110	4.0	20			
121.32110	PU-3.0-20-8	110-150	4.0	20			
121.32150	PU-3.0-20-8	150-220	4.0	20			
121.32220	PU-3.0-20-8	220-350	4.0	20			
121.32350	PU-3.0-20-8	350	4.0	20			
121.42045	PU-4.0-20-8	45-55	5.0	20	172.40281	APK-4.0-20-8 SR	M-5.0-..-8
121.42055	PU-4.0-20-8	55-70	5.0	20			
121.42070	PU-4.0-20-8	70-110	5.0	20			
121.42110	PU-4.0-20-8	110-150	5.0	20			
121.42150	PU-4.0-20-8	150-220	5.0	20			
121.42220	PU-4.0-20-8	220-350	5.0	20			
121.42350	PU-4.0-20-8	350	5.0	20			
121.43045	PU-4.0-30-8	45-55	5.0	30	172.40381	APK-4.0-30-8 SR	M-5.0-..-8
121.43055	PU-4.0-30-8	55-70	5.0	30			
121.43070	PU-4.0-30-8	70-110	5.0	30			
121.43110	PU-4.0-30-8	110-150	5.0	30			
121.43150	PU-4.0-30-8	150-220	5.0	30			
121.43220	PU-4.0-30-8	220-350	5.0	30			
121.43350	PU-4.0-30-8	350	5.0	30			
121.52045	PU-4.5-20-8	45-55	6.0	20	172.45281	APK-4.5-20-8 SR	M-6.0-..-8
121.52055	PU-4.5-20-8	55-70	6.0	20			
121.52070	PU-4.5-20-8	70-110	6.0	20			
121.52110	PU-4.5-20-8	110-150	6.0	20			
121.52150	PU-4.5-20-8	150-220	6.0	20			
121.52220	PU-4.5-20-8	220-350	6.0	20			
121.52350	PU-4.5-20-8	350	6.0	20			
121.53045	PU-4.5-30-8	45-55	6.0	30	172.45381	APK-4.5-30-8 SR	M-6.0-..-8
121.53055	PU-4.5-30-8	55-70	6.0	30			
121.53070	PU-4.5-30-8	70-110	6.0	30			
121.53110	PU-4.5-30-8	110-150	6.0	30			
121.53150	PU-4.5-30-8	150-220	6.0	30			
121.53220	PU-4.5-30-8	220-350	6.0	30			
121.53350	PU-4.5-30-8	350	6.0	30			
121.54045	PU-4.5-40-8	45-55	6.0	40	172.45481	APK-4.5-40-8 SR	M-6.0-..-8
121.54055	PU-4.5-40-8	55-70	6.0	40			
121.54070	PU-4.5-40-8	70-110	6.0	40			
121.54110	PU-4.5-40-8	110-150	6.0	40			
121.54150	PU-4.5-40-8	150-220	6.0	40			
121.54220	PU-4.5-40-8	220-350	6.0	40			
121.54350	PU-4.5-40-8	350	6.0	40			
122.52070	PU-4.5-20-15	70-110	6.0	20	172.45251	APK-4.5-20-15 SR	M-6.0-..-15
122.52110	PU-4.5-20-15	110-150	6.0	20			
122.52150	PU-4.5-20-15	150-220	6.0	20			
122.52220	PU-4.5-20-15	220-350	6.0	20			
122.52350	PU-4.5-20-15	350	6.0	20			

Folgende Angaben werden für eine Angebotsausarbeitung benötigt:

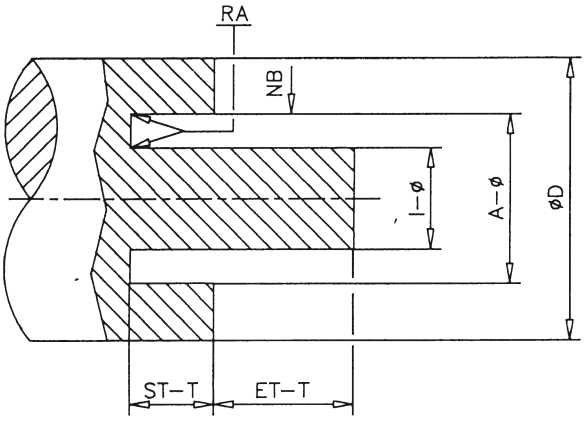
A) Allgemeine Angaben

1. Maschinentype
2. Haltertype (Schaftquerschnitt)
3. Werkzeugposition (Vor Drehmitte, hinter Drehmitte, Rechtslauf, Linkslauf, Überkopfeinsatz, Normaleinsatz).
4. Werkstoff und / oder Werkstoff-Nr. (Stahlschlüssel)
5. Werkstückdurchmesser „∅D“
6. Vorschubantrieb z.B. (mechanisch, hydraulisch)
7. welche Kühlung



B) **Einstechen**

1. Nutbreite „NB“
2. Nutaußen-∅ „A-∅“ + Toleranz
3. Nutinnen-∅ „I-∅“ + Toleranz
4. Eckenradien im Nutgrund „RA“
5. Stechtiefe „ST-T“
6. Sauberer Nutgrund erforderlich?



C) **Einstechen am Bund**

1. Nutbreite „NB“
2. Nutaußen-∅ „A-∅“ + Toleranz
3. Nutinnen-∅ „I-∅“ + Toleranz
4. Eckenradien im Nutgrund „RA“
5. Stechtiefe „ST-T“
6. Sauberer Nutgrund erforderlich?
7. Steht ein Bund „ET-T“ vor:

Werkstückzeichnung (auch als Anlage) mit Toleranzangaben beilegen.
Datenblatt bitte fotokopieren und ausgefüllt zurückschicken.
Formular nur für jeweils 1 Werkzeug verwenden.

DEFINITION - CLOCKWISE ROTATION / COUNTER-CLOCKWISE ROTATION

ADD engineering

■ Linkslauf (M04)
□ Counter clockwise rotation (M04)

■ Werkzeug hinter Drehmitte – Normal-Position –

□ Tool behind center line – Normal position –

■ Rechtslauf (M03)
□ Clockwise rotation (M03)

■ Werkzeug vor Drehmitte – Normal-Position

□ Tool in front of center line – Normal position –

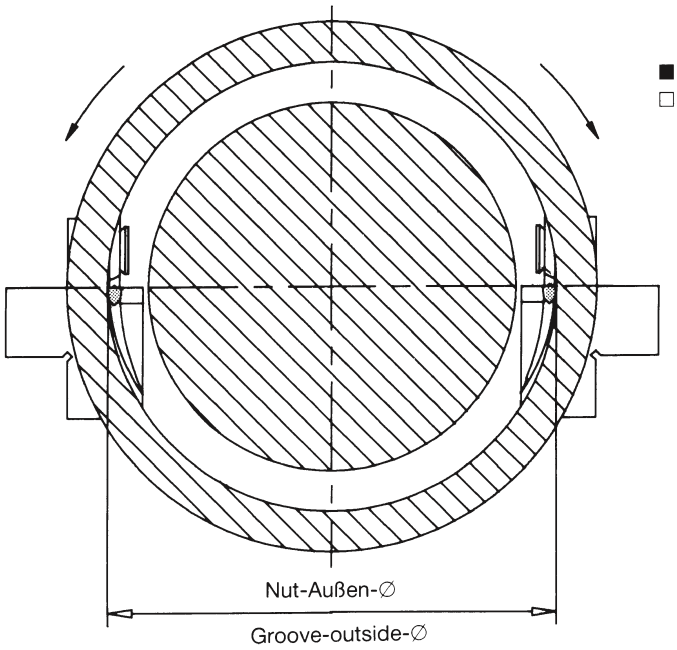


Bild 1:

■ Werkzeug hinter Drehmitte – Überkopfposition –

□ Tool behind center line – Overhead position –

■ Rechtslauf (M03)
□ Clockwise rotation (M03)

■ Werkzeug vor Drehmitte – Überkopfposition –

□ Tool in front of center line – Overhead position –

■ Linkslauf (M04)
□ Counter clockwise rotation (M04)

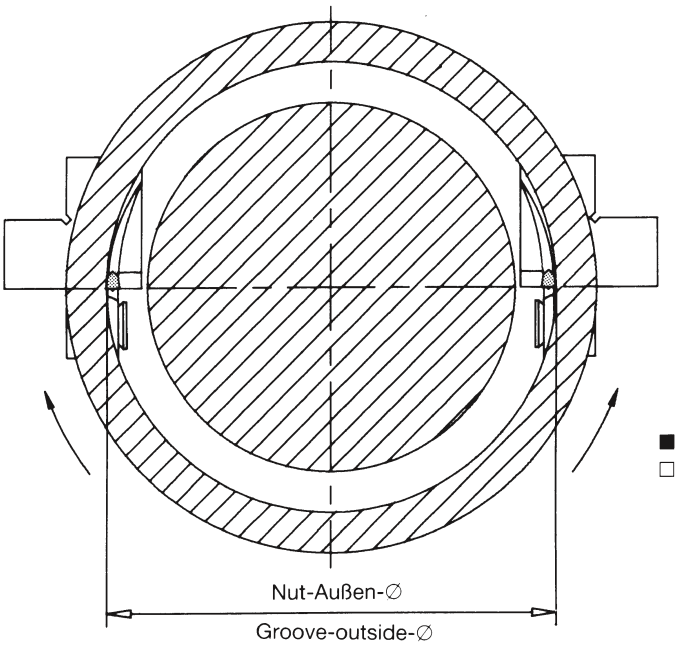


Bild 2:

Ansicht nach DIN ▶ Vom Spindelstock in Richtung Reitstock
View by DIN ▶ From headstock in direction of tailstock

■ **Auswahl des Durchmesserbereiches „DB“ bei Axialunterstützblättern.**
- Bei der Auswahl des Durchmesserbereiches ist grundsätzlich der Außen-∅ der Nute maßgebend!
- d.h. der 1. Einstich muß innerhalb des angegebenen Durchmesserbereiches „DB“, bezogen auf den Nut-Außen-∅ liegen.
- Beispiel: DB 110 – 150
  Der 1. Einstich muß im Bereich von Nut-Außen-∅ 110 und 150 erfolgen!
- Grundsätzlich kann nach dem 1. Einstich, jeweils um ca. ⅔ der Stechbreite (ST-B), sowohl bis zur Drehmitte als auch bis theoretisch unendlich, versetzt eingestochen werden.

■ **Werkzeugposition**
Beim axialen Einstechen ist eine Werkzeugposition – Überkopf – wie in Bild 2 (Seite 1/23) dargestellt vorzuziehen, da ein wesentlich günstigerer Spanablauf möglich ist (die Späne fallen durch die Schwerkraft nach unten in die Spänewanne bzw. Späneförderer).

■ **Auskammern** (Schnittaufteilung / siehe Bild 3)
- Bei dieser Bearbeitung erfolgt der 1. Einstich am größtmöglichen Außen-∅ der Nute (abhängig vom Durchmesserbereich des vorhandenen bzw. gewählten Axial-Unterstützblattes); danach erfolgt der 2. Einstich – versetzt um ca. ⅔ der Stechbreite – in Richtung Drehmitte, usw..
- Diese Arbeitsweise sollte bevorzugt auch bei größeren Stechtiefen angewandt werden!

■ **Ausstechen von Scheiben und Kernen** (siehe Bild 4)
Beim Ausstechen von Scheiben oder Kernen ist unbedingt darauf zu achten, daß ein Verbindungssteg erhalten bleibt – niemals durchstechen! Die Scheibe oder der Kern muß nach dem axialen Einstechen separat ausgepreßt werden.

□ **Selection of the diameter range for axial support blades**
- By the selection of the diameter range (sample „DB 110 – 150“), basically the groove outside diameter is decisive!
- That means, the first recess has to be within the specified diameter range „DB“, in reference to the groove outside diameter.
- Sample: DB 110 – 150
  The first recess has to be ensue in the range of the groove outside diameter 110 and 150!
- Basically, after the first recess is done, the following recesses can be made by moving the tool about ⅔ of the width of cut, both to the center line as well as theoretical endless.

□ **Tooling setup**
By the axial recessing, a tool position – overhead – should have priority as shown in picture 2 (page 1/23) because the escape of chips is essential better (due to gravity, the chips drop down into the chip tray or chip conveyor).

□ **Trepaning** (cut sharing / see to picture 3)
- In this machining, the first recess ensues at the maximum diameter of the groove (depending on the diameter range of the available, respectively choosed axial-support blade); afterwards, the second recess can be done by moving the tool about ⅔ of the cutting width in direction of the center line.
- This method of operation should also be favoured by larger cutting depth's!

□ **Recessing of discs and cores** (see to picture 4)
In this operation it is absolutely necessary that a connection gab remains- never cut through! The disc or core must be pressed out separately after the axial cutting.

Bild / picture 3:

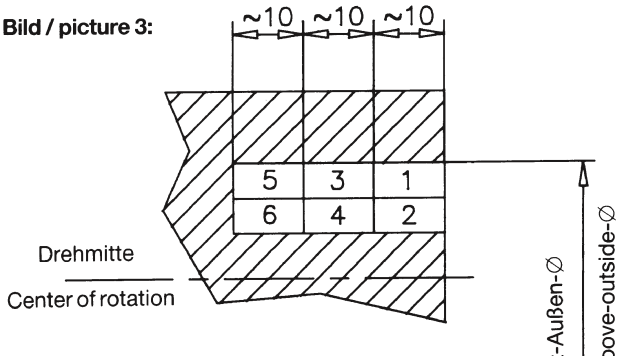
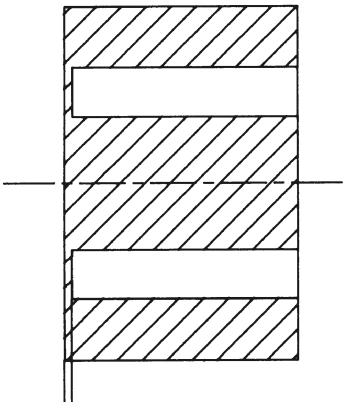


Bild / picture 4:



Lieferbare Qualitäten in Hartmetall-, HSSE- und Stellite (Z-SuperX). Carbide, HSSE- and stellite (Z-SuperX)-qualities to be delivered.	■ Zg 30 = Hartmetall-beschichtet carbide-coated ■ Zg 50 = HSSE-beschichtet HSSE-coated

■ **Z-SuperX ist nur für rostfreie Stähle zu empfehlen, die Schnittgeschwindigkeit zwischen Hartmetall und HSSE einstellen.**
□ **Z-SuperX is only recommended for stainless steel, cutting speed has to be adjusted between the marks for carbide and HSSE.**

Stechbreitentoleranzen-Standardwechselplatten / tolerances of cutting-width, standard inserts

Wechselplatten-Type „M" / inserts-typ "M"

Qualität	K 10	P 25 – P 40 – ZG 30	HSSE	Z-Super X
Toleranzen	+ 0.15	+ 0.1	± 0.05	+ 0.15

Zwischenabmessungen auf Anfrage.
Fractional sizes upon request.

Wechselplatten mit Spanformnute „N", „NR", „KX", „KXF"und „KXR"
Inserts with chip breaker "N", "NR", "KX", "KXF" and "KXR"

Form- und Radiusplatten auf Anfrage.
Formed plates and radius plates upon request.

Wechselplatten generell ohne Eckenradien!
Inserts generally without corner radius!

Typenschlüssel / Typ-Key

Beispiel / sample:

M – 3.0 – N – 8 Zg 30

- Zg 30 → Qualität / quality
- 8 → Spanwinkel / rake angle
- N → Spanformnute / chip breaker
- 3.0 → Stechbreite / width of cut
- M → Type / typ

Bestell-Nr.-Schlüssel / order-no.-key

Beispiel / sample:

671.30800-07

- 07 → Schneidstoff-Index / cutting material - index
- 800 → interne Nr. / internal no.
- 30 → Stechbreite / width of cut
- 671 → Type / typ

Wichtig / Important

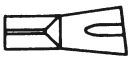
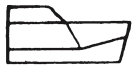
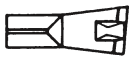
Mindestbestellmenge für Wechselschneidplatten (gleiche Stechbreite bzw. Größe, Spanleitnutentype und Hartmetall-, HSSE- oder Stellitsorte) = **10 Stück.**
Minimum order quantity for changeable inserts (having the same width of cut-respectively size, chip-breaker and carbide-, HSSE- or Stellitsort) = **10 pieces.**

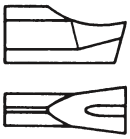
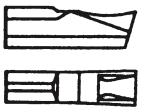
Liefermöglichkeiten / Deliver possibilities
- ● **ab Lager bzw. kurzfristig / on stock respectively at short-term**
- ○ **mittelfristig / middle term**
- × **auf Anfrage / upon request**

System S

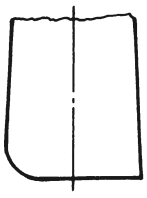
Schneidplatten – Stechsystem / inserts – cutoff-system

Bestell-Nr. order-no.	Type typ	Qualität quality ▶	P 25	P 40	K 10	Zg 30	HSSE	Zg 50	Z-SuperX
		Index index ▶	- 01	- 02	- 04	- 07	- 08	- 09	- 10
Type „ohne Nut" / without chip breaker									
670.20800	M-2.0-8		○	○	○	×	○	×	○
670.23800	M-2.3-8		●	●	●	×	●	×	●
670.30800	M-3.0-8		●	●	●	●	●	×	●
670.35800	M-3.5-8		○	○	○	×	○	×	×
670.40800	M-4.0-8		●	●	●	×	●	×	×
670.50800	M-5.0-8		○	○	○	×	○	×	
670.60800	M-6.0-8		●	●	●	×	●	×	
670.70800	M-7.0-8		○	○	○	×	×	×	
670.80800	M-8.0-8		○	○	○	×	×	×	
670.20150	M-2.0-15		○	○	○	×	○	×	○
670.23150	M-2.3-15		●	●	●	×	●	×	●
670.30150	M-3.0-15		●	●	●	×	●	×	●
670.35150	M-3.5-15		○	○	○	×	○	×	×
670.40150	M-4.0-15		●	●	●	×	●	×	×
670.50150	M-5.0-15		○	○	○	×	○	×	
670.60150	M-6.0-15		●	●	○	×	●	×	
670.70150	M-7.0-15		○	○	○	×	×	×	
670.80150	M-8.0-15		○	○	○	×	×	×	
Type „N"									
671.20800	M-2.0-N-8		○	○	○	×	○	×	○
671.23800	M-2.3-N-8		●	●	●	●	●	●	●
671.30800	M-3.0-N-8		●	●	●	●	●	●	●
671.35800	M-3.5-N-8		○	○	○	○	○	○	×
671.40800	M-4.0-N-8		●	●	●	●	●	●	×
671.50800	M-5.0-N-8		●	●	●	●	○	×	
671.60800	M-6.0-N-8		●	●	●	●	●	●	
671.70800	M-7.0-N-8		○	○	○	×	×	×	
671.80800	M-8.0-N-8		●	○	●	●	×	×	
671.20150	M-2.0-N-15		○	○	○	×	○	×	○
671.23150	M-2.3-N-15		●	●	●	●	●	●	●
671.30150	M-3.0-N-15		●	●	●	●	●	●	●
671.35150	M-3.5-N-15		○	○	○	○	○	○	×
671.40150	M-4.0-N-15		●	●	●	●	●	●	×
671.50150	M-5.0-N-15		●	●	●	●	○	×	
671.60150	M-6.0-N-15		●	●	●	●	●	●	
671.70150	M-7.0-N-15		○	○	○	×	×	×	
671.80150	M-8.0-N-15		●	●	●	●	×	×	
Type „N 3° re"									
671.20801	M-2.0-N-8 3 re.		○	○	○	×	○	×	○
671.23801	M-2.3-N-8 3 re.		●	●	●	○	●	●	●
671.30801	M-3.0-N-8 3 re.		●	●	●	○	●	●	●
671.35801	M-3.5-N-8 3 re.		○	○	○	×	○	×	×
671.40801	M-4.0-N-8 3 re.		●	●	●	○	●	○	×
671.20151	M-2.0-N-15 3 re.		○	○	○	×	×	×	○
671.23151	M-2.3-N-15 3 re.		●	●	●	○	●	●	●
671.30151	M-3.0-N-15 3 re.		●	●	●	●	●	●	●
671.35151	M-3.5-N-15 3 re.		○	○	○	×	○	×	×
671.40151	M-4.0-N-15 3 re.		●	●	●	○	●	●	×

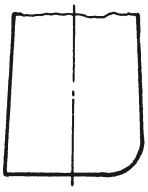
System S	Bestell-Nr. order-no.	Type typ	Qualität quality ▶	P 25	P 40	K 10	Zg 30	HSSE	Zg 50	Z-Super
			Index index ▶	- 01	- 02	- 04	- 07	- 08	- 09	- 10
	Type „N 3° lks“									
	671.20802	M-2.0-N-8 3 lks.		○	○	○	×	○	×	○
	671.23802	M-2.3-N-8 3 lks.		●	●	●	×	●	×	●
	671.30802	M-3.0-N-8 3 lks.		●	●	●	○	●	×	●
	671.35802	M-3.5-N-8 3 lks.		○	○	○	×	○	×	×
	671.40802	M-4.0-N-8 3 lks.		●	●	●	○	●	×	×
	671.20152	M-2.0-N-15 3 lks.		○	○	○	×	○	×	○
	671.23152	M-2.3-N-15 3 lks.		●	●	●	○	●	●	●
	671.30152	M-3.0-N-15 3 lks.		●	●	●	●	●	●	●
	671.35152	M-3.5-N-15 3 lks.		○	○	○	×	○	×	×
	671.40152	M-4.0-N-15 3 lks.		●	●	●	○	●	●	×
	Type „KX“									
	671.23008	M-2.3-KX-8		●	●	●	○	×	×	×
	671.30008	M-3.0-KX-8		●	●	●	○	×	×	×
	671.40008	M-4.0-KX-8		●	●	●	○	×	×	×
	671.50008	M-5.0-KX-8	NEU	○	○	○	×	×	×	
	671.60008	M-6.0-KX-8		○	●	○	×	×	×	
	671.23015	M-2.3-KX-15		●	●	●	○	×	×	×
	671.30015	M-3.0-KX-15		●	●	●	○	×	×	×
	671.40015	M-4.0-KX-15		●	●	●	○	×	×	×
	Type „KXF“									
	671.23804	M-2.3-KXF-8		●	●	●	○			
	671.30804	M-3.0-KXF-8		●	●	●	○			
	671.40804	M-4.0-KXF-8		●	●	●	○			
	671.50804	M-5.0-KXF-8	NEU	○	○	○	×	×	×	
	671.60804	M-6.0-KXF-8		○	●	○	×	×	×	
	671.23805	M-2.3-KXF-8 3 re.		●	●	●	○			
	671.30805	M-3.0-KXF-8 3 re.		●	●	●	○			
	671.40805	M-4.0-KXF-8 3 re.		●	●	●	○			
	671.23806	M-2.3-KXF-8 3 lks.		●	●	●	○			
	671.30806	M-3.0-KXF-8 3 lks.		●	●	●	○			
	671.40806	M-4.0-KXF-8 3 lks.		●	●	●	○			

System S	Bestell-Nr. order-no.	Type typ		Qualität quality ▶	P 25	P 40	K 10	Zg 30	HSSE	Zg 50	Z-SuperX
				Index index ▶	-01	-02	-04	-07	-08	-09	-10
	Type „NR“										
	673.20000	M-2.0-NR-0			○	○	○	×	○	×	○
	673.23000	M-2.3-NR-0			○	○	○	×	○	×	○
	673.30000	M-3.0-NR-0			○	○	○	×	○	×	○
	673.35000	M-3.5-NR-0			○	○	○	×	○	×	×
	673.40000	M-4.0-NR-0			○	○	○	×	○	×	×
	673.20800	M-2.0-NR-8			○	○	○	×	○	×	○
	673.23800	M-2.3-NR-8			○	○	○	×	○	×	○
	673.30800	M-3.0-NR-8			○	○	○	×	○	×	○
	673.35800	M-3.5-NR-8			○	○	○	×	○	×	×
	673.40800	M-4.0-NR-8			○	○	○	×	○	×	×
	673.20150	M-2.0-NR-15			○	○	○	×	○	×	○
	673.23150	M-2.3-NR-15			○	○	○	×	○	×	○
	673.30150	M-3.0-NR-15			○	○	○	×	○	×	○
	673.35150	M-3.5-NR-15			○	○	○	×	○	×	×
	673.40150	M-4.0-NR-15			○	○	○	×	○	×	×
	Type „KXR“										
	675.30000	M-3.0-KXR-0			○	○	○	×	○	×	○
	675.40000	M-4.0-KXR-0			○	○	○	×	○	×	×
	675.50000	M-5.0-KXR-0			○	○	○	×	○	×	
	675.60000	M-6.0-KXR-0			○	○	○	×	×	×	
	675.30800	M-3.0-KXR-8	NEU		○	○	○	×	○	×	×
	675.40800	M-4.0-KXR-8			○	○	○	×	○	×	×
	675.50800	M-5.0-KXR-8			○	○	○	×	○	×	
	675.60800	M-6.0-KXR-8			○	○	○	×	○	×	

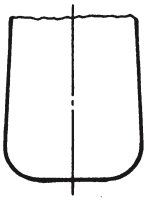
Sonderformen von Wechselplatten auf Anfrage
special-shapes of insert upon request



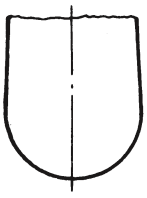
RA-links
-left



RA-rechts
-right



RA-beidseitig
-on both sides



RA-Vollradius
-Complete radius

Weitere Sonderformen auf Anfrage
Further special-shapes upon request

- Kühlschmiermittel verwenden.
- Das Werkzeug muß exakt rechtwinklig zur Drehachse stehen.
- Beim Abstechen – Schneidenhöhe (Hauptschneide) ~ 0,1 mm über Drehmitte einstellen.
- Der Vorschub ist auf 0,05 mm/U zu reduzieren, wenn beim Abstechen der Rest – ∅ = der Stechbreite ist.
- Beim Einsatz der Wechselplattentypen „M-3°re / M-3°lks / KXF-3°re / KXF-3°lks“ sind die angegebenen Vorschubwerte um 25 % zu reduzieren.
- Beim Abstechen von **Vollmaterial**, verbleibt bei Verwendung von Wechselplatten der Type „M-N“ / „M-KX“ / „M-KXF“ ein stärkerer Butzen. Dieser kann durch Einsatz der Wechselplatten Typen „M-3°re / M-3°lks / KXF-3°re / KXF-3°lks“ verkleinert werden.
- **Um die Butzen wirtschaftlich zu entfernen, empfehlen wir unseren Fix-Butzenentferner siehe Katalog** 8₁
- Beim Abstechen von **Rohren**, empfehlen wir Wechselplatten der Type „M-3°re / M-3°lks (kleinerer Grat).

- use coolant.
- the tool have to be located exactly rectangular to the axis of rotation.
- during the cut-off – adjust the primary cutting edge ~ 0.1 mm above the center line.
- the feed have to be reduced to 0.05 mm/revolution, if the remaining – ∅ is = to the width of cut.
- using the inserts typ „M-3°re / M-3°lks / KXF-3°re / KXF-3°lks“ the feed values have to be reduced 25 %.
- **For economical Pin-removement, we recommend our Fix-Pin-Remover – look at catalogue** 8₁
- During the cut-off operation of **solid material** using the inserts typ „M“, a stronger pin will occur. This can be reduced, when applying the inserts typ „M-3°re / M-3°lks / KXF-3°re / KXF-3°lks“.
- During the cut-off operation of **tubes**, we recommend insert typ „M-3°re / M-3°lks“ (smaller burr).

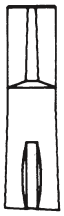
Definition von rechts und links vorschneidenden Wechselplatten nach DIN

- Die Platte wird so betrachtet, daß die Hauptschneide auf den Betrachter gerichtet ist, und die Spanfläche oben liegt.
- Liegt die **voreilende Schneidecke rechts,** so ist es eine **rechte Platte;** liegt die **voreilende Schneidecke links,** so ist es eine **linke Platte.**

Definition of right and left-hand inserts according to DIN.

- When looking at the insert, the primary cutting edge must point to the person looking at it and the cutting face must be at the top.
- If the **pointed edge** of the insert is on the **right,** then it is a **right insert;** if the pointed edge is on the **left,** then it is a **left insert.**

- Links-ausführung
- left-hand type



- Rechts-ausführung
- right-hand type

Betrachtungsposition
view position

WORKING REFERENCE VALUES FOR RECESSING AND CUT OFF

ADD engineering

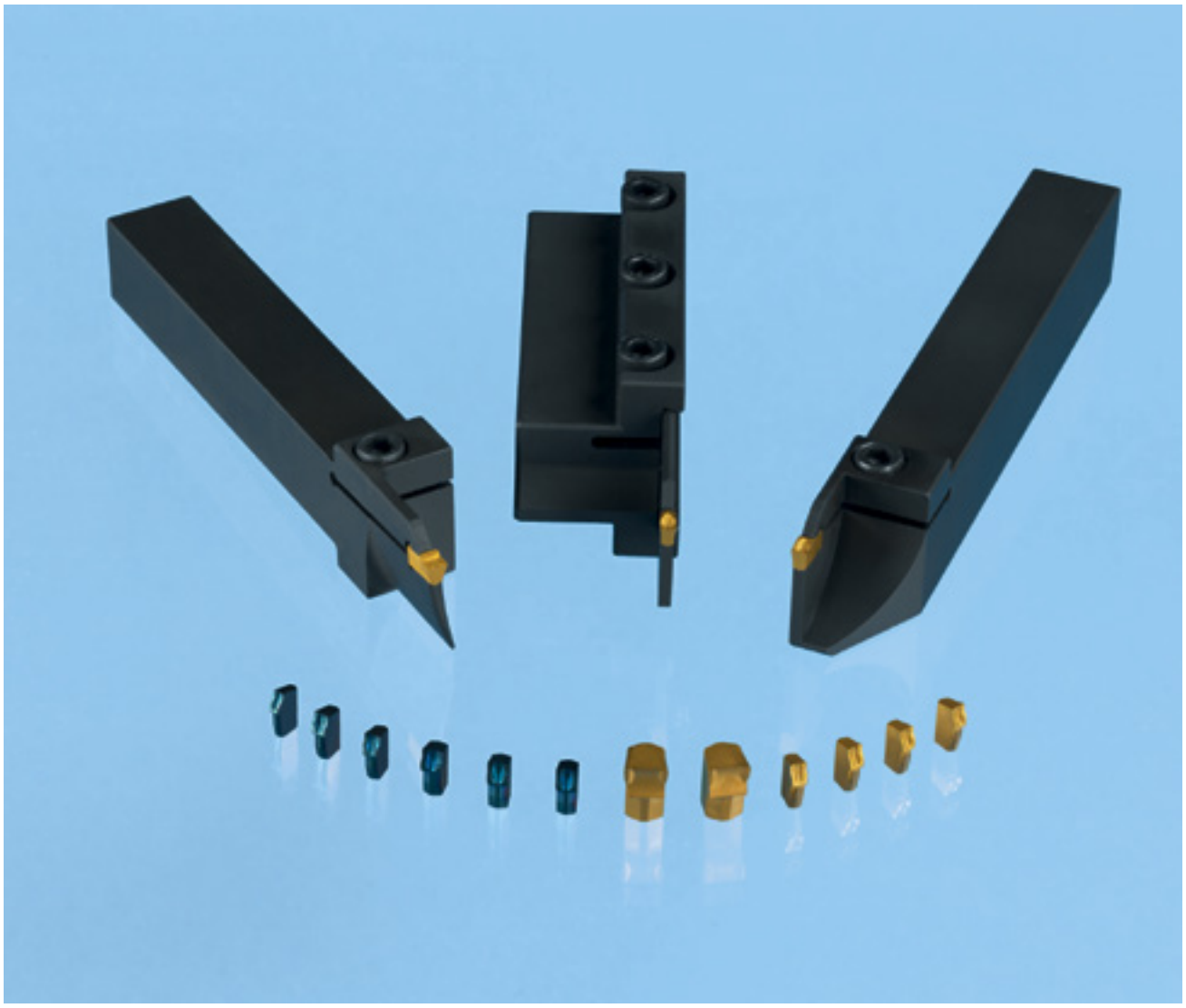
Werkstoff	Schnittgeschwindigkeit m/min. HSSE/Zg 50	Schnittgeschwindigkeit m/min. P 25/P 40/Zg 30	Vorschub mm/U Typ N/NR/KX/KXR Hartmetall	Vorschub mm/U Typ KXF Hartmetall	Vorschub mm/U Typ N/KX HSSE/Zg 50
St 37 / C 15	20 – 80	90 – 180	0,05 – 0,08	0,05 – 0,2	0,05 – 0,12
St 50 / C 50	20 – 70	80 – 150	0,04 – 0,08	0,05 – 0,2	0,05 – 0,12
St 60 – 70 / C 60	20 – 65	70 – 140	0,04 – 0,08	0,05 – 0,18	0,05 – 0,12
16 Mn Cr 5	20 – 60	50 – 120	0,04 – 0,09	0,05 – 0,2	0,05 – 0,11
42 Cr Mo 4 / 50 Cr V 4	20 – 50	40 – 120	0,04 – 0,09	0,05 – 0,25	0,04 – 0,12
Werkzeug- und HSS-Stähle	20 – 40	40 – 90	0,04 – 0,08	0,05 – 0,18	0,05 – 0,1
Rostbeständige X-CrNi-Stähle	20 – 40	30 – 80	0,04 – 0,08	0,05 – 0,15	0,03 – 0,1
Rostbeständige X-CrNi-Stähle	**Z-Super X** 30 – 70				**Z-Super X** 0,04 – 0,11

Werkstoff	Schnittgeschwindigkeit m/min. HSSE/Zg 50	Schnittgeschwindigkeit m/min. K 10	Vorschub mm/U Typ N/NR/KX/KXR Hartmetall	Vorschub mm/U Typ KXF Hartmetall	Vorschub mm/U Typ N/KX HSSE/Zg 50
Ferritisch, austenitische Stähle	10 – 40	10 – 40	0,03 – 0,09	0,07 – 0,15	0,04 – 0,1
GG – 10	20 – 60	60 – 180	0,04 – 0,1	0,08 – 0,25	0,05 – 0,12
GG – 30	20 – 50	60 – 150	0,04 – 0,1	0,08 – 0,25	0,05 – 0,12
Temperguß GT	20 – 45	40 – 100	0,04 – 0,11	0,07 – 0,2	0,05 – 0,12
Bei Nichteisen-Werkstoffen (mit Kühlung)					
Alu rein / Alu Guß	40 – 200	500 – 2000	0,04 – 0,12	–	0,05 – 0,15
Knetlegierung Al-Si	30 – 120	200 – 600	0,06 – 0,1	–	0,08 – 0,12
Legierung bis 18,5%	30 – 100	50 – 250	0,04 – 0,12	–	0,06 – 0,15
Messing Ms	30 – 100	100 – 400	0,05 – 0,08	–	0,06 – 0,12
Kupfer Cu-E	20 – 70	120 – 250	0,04 – 0,08	–	0,06 – 0,1
Rotguß R 6	20 – 80	120 – 400	0,05 – 0,09	–	0,05 – 0,12
Bronce-Guß	20 – 70	100 – 350	0,05 – 0,1	–	0,05 – 0,11
Kunst- und Preßstoffe (ohne Kühlung)					
Hartgummi	–	300 – 700	0,03 – 0,15	–	0,04 – 0,10
Novotex, Pertinax, Bakelit	–	50 – 300	0,03 – 0,1	–	0,04 – 0,12
Hartpapier	–	200 – 600	0,04 – 0,1	–	0,05 – 0,12

Faustregeln aus der Praxis:
Rough rules from practical experience:

- **Vorschub bei Hartmetall – Stechbreite × 0,02 bis 0,03 – Feed with carbides – width of cut 0.02 up to 0.03 –**
- **Vorschub bei HSSE und Zg 50 – Stechbr. × 0,02 bis 0,04 – Feed with HSSE and Zg 50 – width of cut 0.02 up to 0.04 –**

ACHTUNG:
Beim Planeinstechen bitte nur 70% der angegebenen Vorschubwerte einstellen!

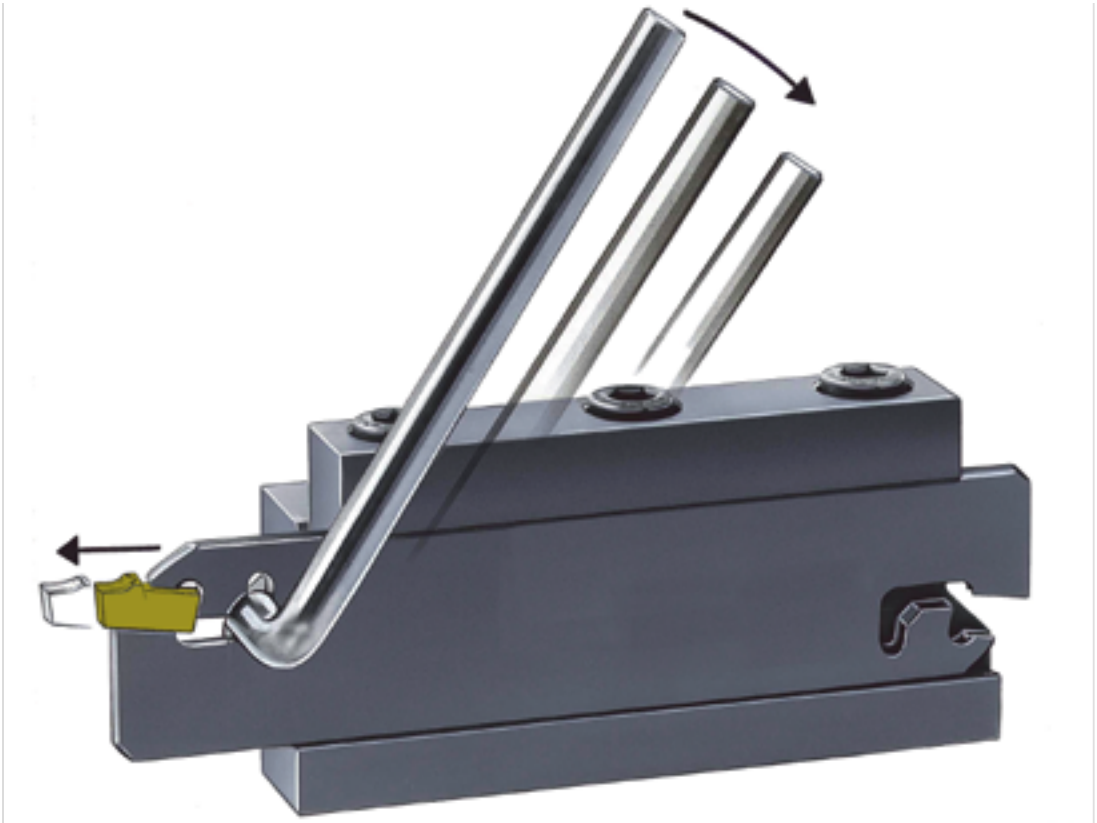


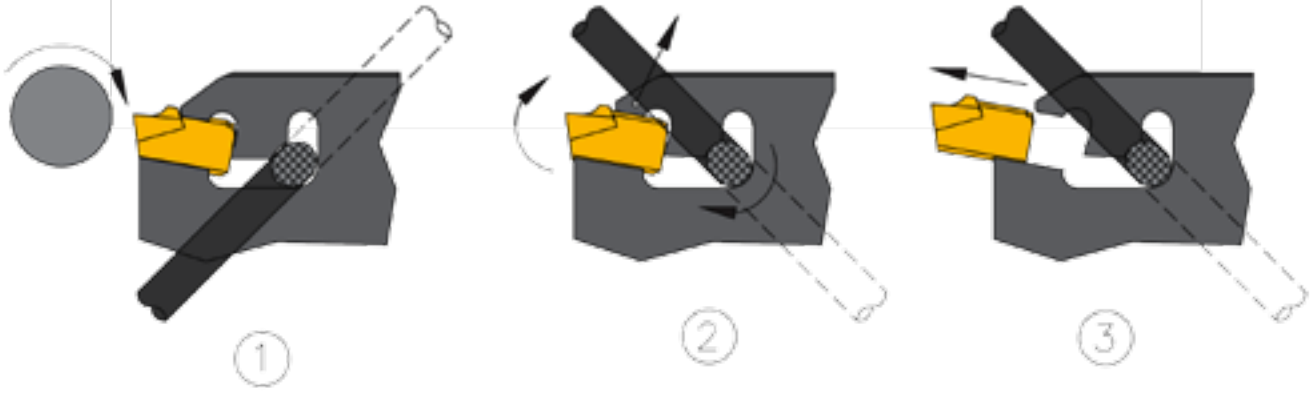
RC-System
Stechsystem der neuen Generation

- Schneidplatte mit geschliffenem Auflageprisma
- Optimale Schnittleistung durch neu entwickelte Spanleitstufen für Einsatzfälle mit niedrigen und hohen Vorschüben
- Eine Weiterentwicklung unseres bewährten Selbstklemmsystem 2000
- Stechbreiten: 1.6 - 12.0 mm
- Stechschwerter in den Größen 19/26/32/60/100 mm
- Automatenhalter ab Quadratschaft 10 mm, in schraubgeklemmter Ausführung, speziell auch für unterbrochene Schnitte
- Automatenhalter zum Axialstechen
- Universalaufnahmehalter passend für alle japanischen CNC - Drehmaschinen
- Problemloser Plattenwechsel durch den neu entwickelten Montageschlüssel

RC-System
Cutting tool of the new generation

- Insert with grindet base - V - prism
- Optimal cutting power by the new developed chip - breakers for operations with low and high feeds
- A further development of our well proven self - clamping - system 2000
- Cutting width: 1.6 - 12.0 mm
- Support blades in the sizes 19/26/32/60/100 mm
- Compact holder with square shank 10 mm upwards, screw clamped edition also special for interrupted cuts
- Compact holder for axial grooving
- Universal base holder suitable for all japanese CNC - lathes
- With the new developed assembly - key, the „changing of the insert“ can be handled very easy





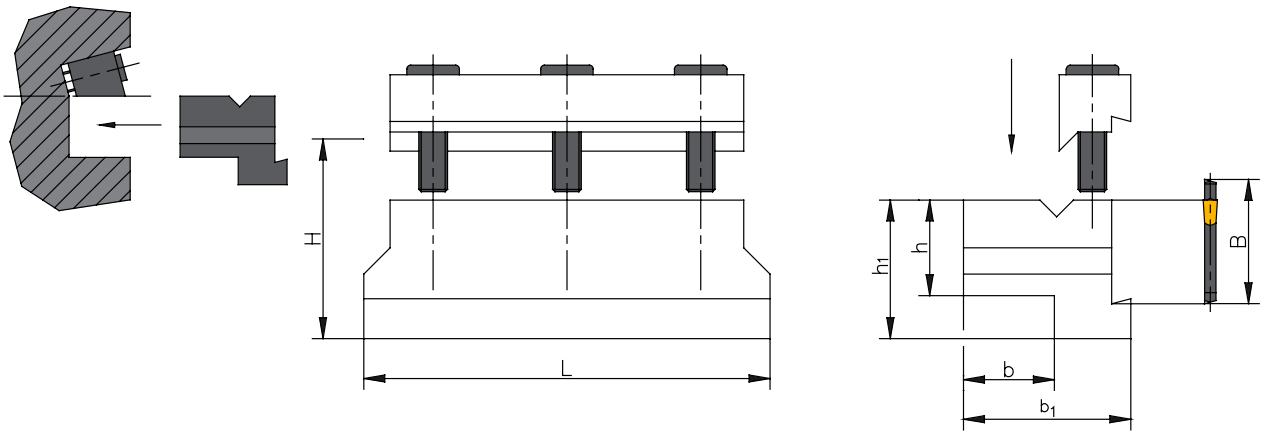
- Einsetzen des Montage-Schlüssels in die Eckbohrung.
- Durch verdrehen des Schlüssels (~90°) wird die Vorspannung der Klemmung aufgehoben.
- Die Schneidplatte kann gewechselt werden.
- Die Wechselplatte muss absolut am Festanschlag anliegen.

- Insert the assembly-key in the corner hole.
- By turning the key (~90°), the prestress of the clamping will be cancelled.
- The insert can be changed.
- The insert has to sit close the fixed-stop.

CCN - KL

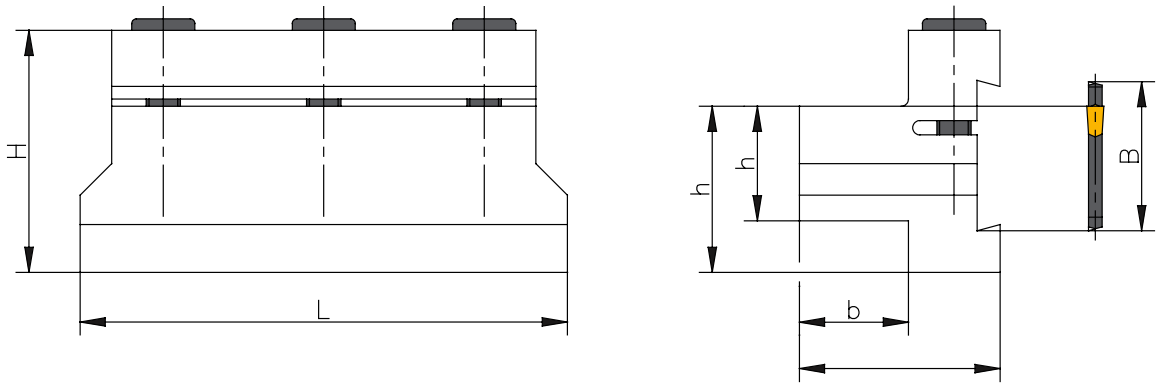
- speziell für Werkzeugrevolver mit verdeckt liegenden Spannelementen
- special for turret-heads with covered clamping fixtures

Grundhalter / base holder								
Artikel-Nr. order no.	Typ type	h	b	L	h1	b1	H	B
205.10190	CCN-10/19-KL	10	9	75	20	19	28	**19**
205.12190	CCN-12/19-KL	12	11	75	20	21	28	**19**
205.16190	CCN-16/19-KL	16	14	75	20	24	28	**19**
205.20260	CCN-20/26-KL	20	19	85	29	35	42	**26**
205.25320	CCN-25/32-KL	25	23	100	33	39	46	**32**



CCN

Grundhalter / base holder								
Artikel-Nr. order no.	Typ type	h	b	L	h1	b1	H	B
205.01619	CCN-16/19	16	16	75	20	26	29	**19**
205.01626	CCN-16/26	16	16	90	28	29	39	**26**
205.02026	CCN-20/26	20	20	90	228	33	39	**26**
205.02532	CCN-25/32	25	20	110	33	36	48	**32**
205.03232	CCN-32/32	32	25	110	37	41	52	**32**



- Grundhalter rechts und links einsetzbar
- base-holder for right-hand and left-hand application

- Unterstützblätter siehe Seite 6 - 10
- Support blades look at page 6 - 10

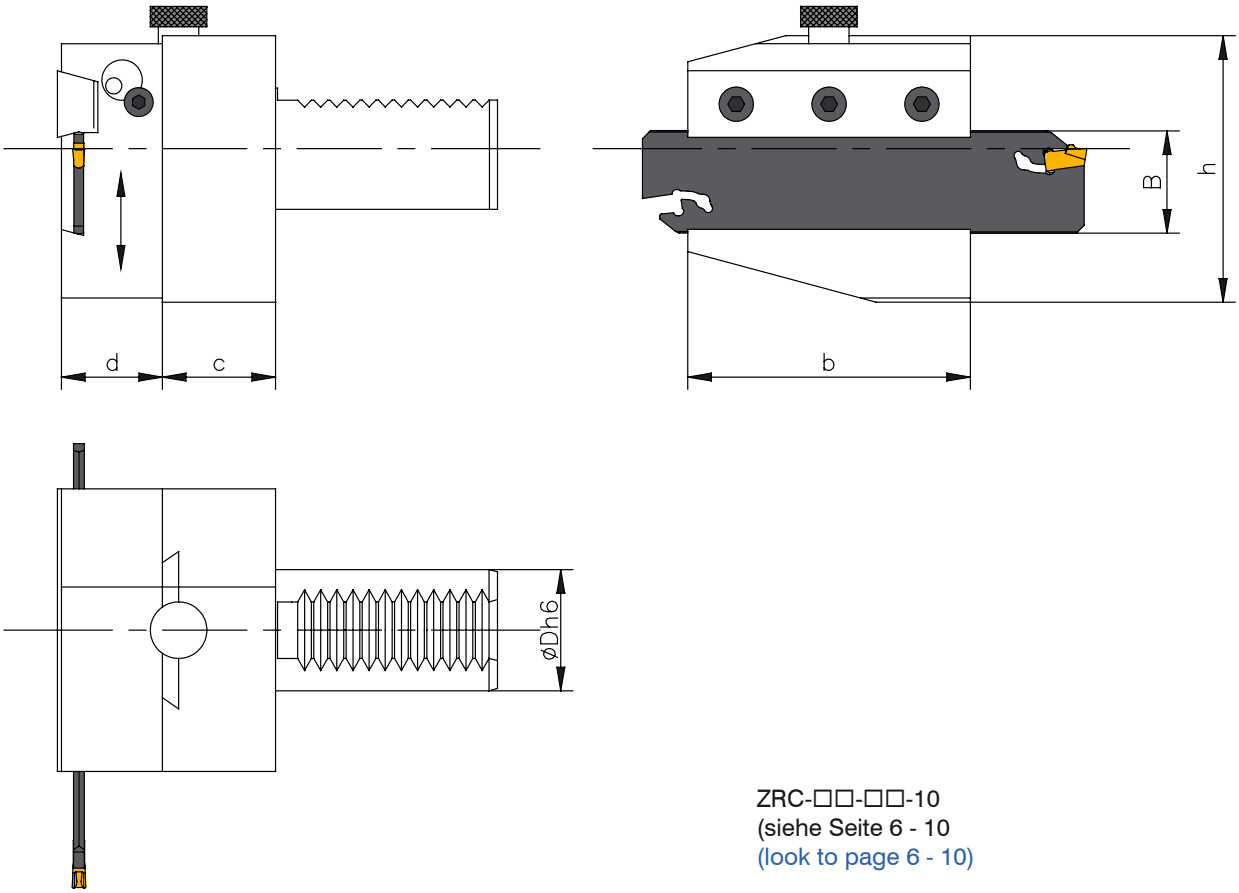
- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

VDI (DIN 3425 BI. 2)

- Rechtsausführung für Linkslauf (M 04)
- Right-hand execution for left-hand rotation (M 04)

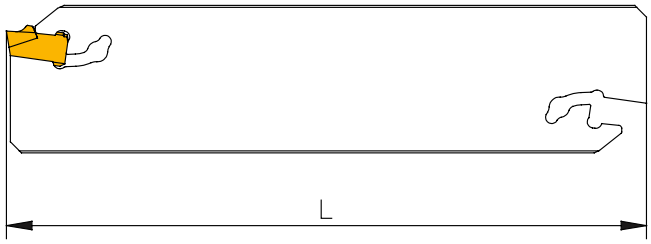
VDI-Grundhalter mit Wechselhalter (komplett)
VDI-base holder with change holder (complete)

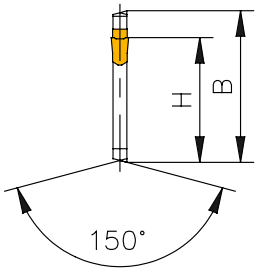
Artikel-Nr. order no.	Typ type	Ø D	b	h	c	d	B
205.12026	VDI-20/26 WR	20	55	55	24	25	**26**
205.13032	VDI-30/32 WR	30	70	66	28	25	**32**
205.14032	VDI-40/32 WR	40	85	80	29	25	**32**

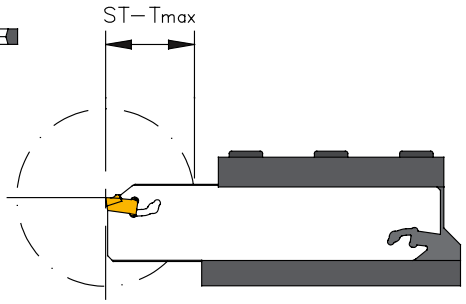


ZRC-□□-□□-10
(siehe Seite 6 - 10
(look to page 6 - 10)

ZRC







Unterstützblatt / support-blades								Wechselplatten / inserts	
Artikel-Nr. order no.	Typ type	St-B	ST-Tmax	B	L	H		Artikel-Nr. order no.	Artikel-Nr. order no.
255.22191	ZRC-2.2-19-10	2.2	20	19	86	15.4	★	**694.22** □□□	
255.30191	ZRC-3.0-19-10	3.0	20	19	86	15.4	★	**694.3**□□□□	**693.03015**
255.16261	ZRC-1.6-26-10	1.6	15	26	110	21.4	★	**694.1**□□□□	
255.22261	ZRC-2.2-26-10	2.2	25	26	110	21.4	★	**694.2**□□□□	
255.30261	ZRC-3.0-26-10	3.0	40	26	110	21.4	★	**694.3**□□□□	**693.03015**
255.40261	ZRC-4.0-26-10	4.0	40	26	110	21.4	★	**694.4**□□□□	**693.04020**
255.56261	ZRC-5.0/6.0-26-10	5.0/6.0	40	26	110	21.4	★	**694.5**□□□□	**693.05025**
								694.60 □□□	**693.06030**
255.22321	ZRC-2.2-32-10	2.2	30	32	150	25.0	★	**694.22** □□□	
255.30321	ZRC-3.0-32-10	3.0	50	32	150	25.0	★	**694.3**□□□□	**693.03015**
255.40321	ZRC-4.0-32-10	4.0	50	32	150	25.0	★	**694.4**□□□□	**693.04020**
255.56321	ZRC-5.0/6.0-32-10	5.0/6.0	60	32	150	25.0	★	**694.5**□□□□	**693.05025**
								694.60 □□□	**693.06030**

Achtung!

Montageschlüssel bitte seperat bestellen:
Artikel-Nr.: 920.14002

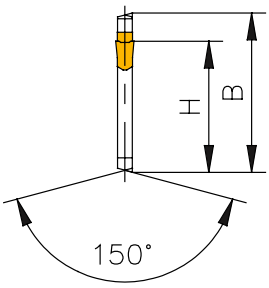
Attention!

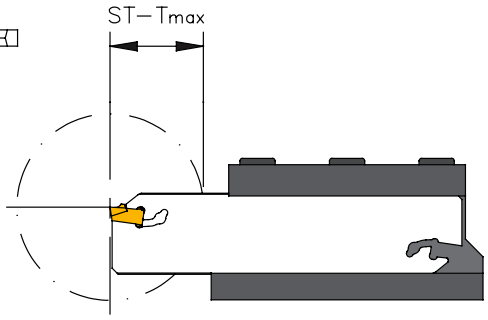
Please order the assembly-key seperately:
Order-no.: 920.14002

- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

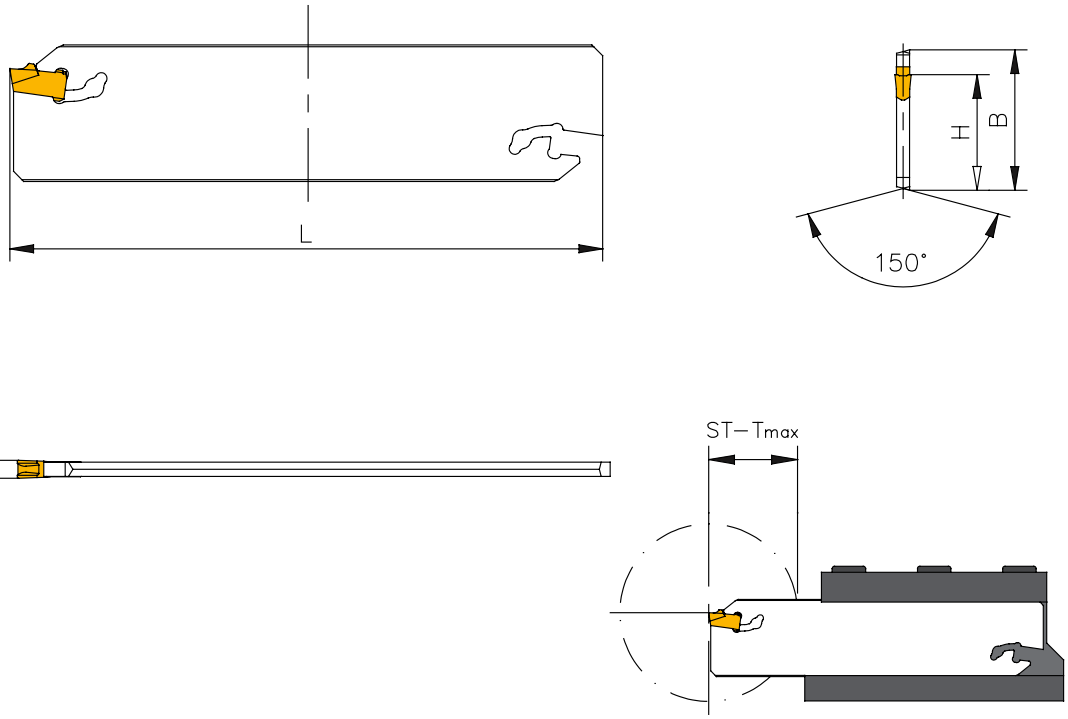
ZRC-90
ZRC 100





Unterstützblatt / support-blades								Wechselplatten / inserts		
Artikel-Nr. order no.	Typ type	St-B	ST-T max	B	L	H		Artikel-Nr. order no.		Artikel-Nr. order no.
ZRC-90										
255.22260	ZRC-2.2-26/90-10	2.2	20	26	90	21.4	★	**694.22** □□□		
255.30260	ZRC-3.0-26/90-10	3.0	30	26	90	24.1	★	**694.3**□□□□		**693.03015**
255.40260	ZRC-4.0-26/90-10	4.0	30	26	90	21.4	★	**694.4**□□□□		**693.04020**
ZRC-100										
255.30320	ZRC-3.0-32/100-10	3.0	40	32	100	25.0	★	**694.3**□□□□		**693.03015**
255.40320	ZRC-4.0-32/100-10	4.0	40	32	100	25.0	★	**694.4**□□□□		**693.04020**
255.56320	ZRC-5.0/6.0-32/100-10	5.0/6.0	40	32	100	25.0	★	**694.5**□□□□		**693.05025**
								694.60 □□□		**693.06030**

ZRC - 150



Unterstützblatt / support-blades								Wechselplatten / inserts	
Artikel-Nr. order no.	Typ type	St-B	ST-T max	B	L	H		Artikel-Nr. order no.	Artikel-Nr. order no.
ZRC-150									
255.22262	ZRC-2.2-26/150-10	2.2	20	26	150	21.4	★	**694.22** □□□	
255.30262	ZRC-3.0-26/150-10	3.0	30	26	150	21.4	★	**694.3**□□□□	**693.03015**

Achtung!

Montageschlüssel bitte seperat bestellen:
Artikel-Nr.: 920.14002

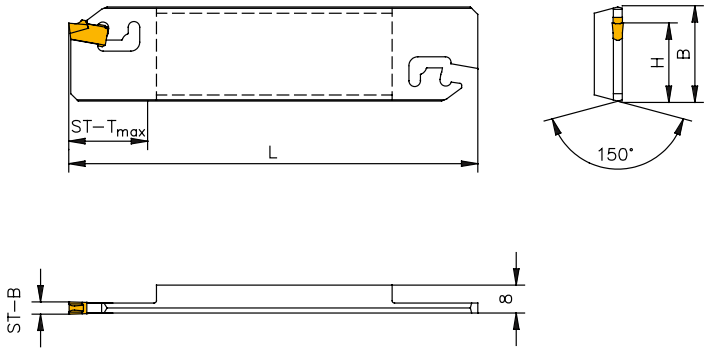
Attention!

Please order the assembly-key seperately:
Order-no.: 920.14002

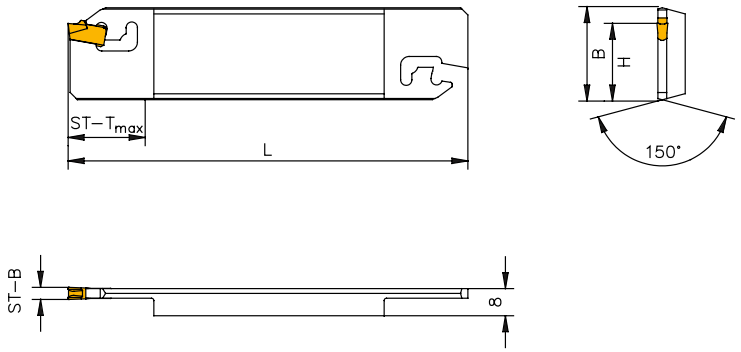
- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

ZRCR

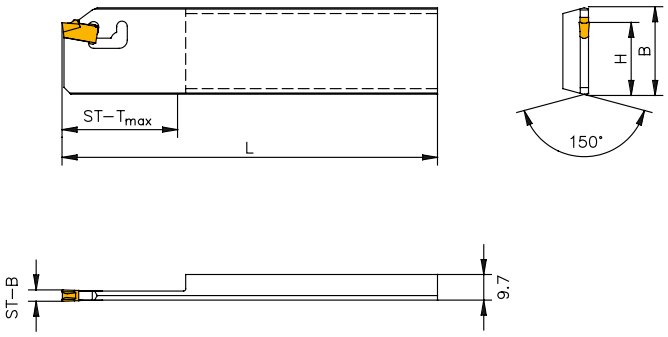


ZRCL

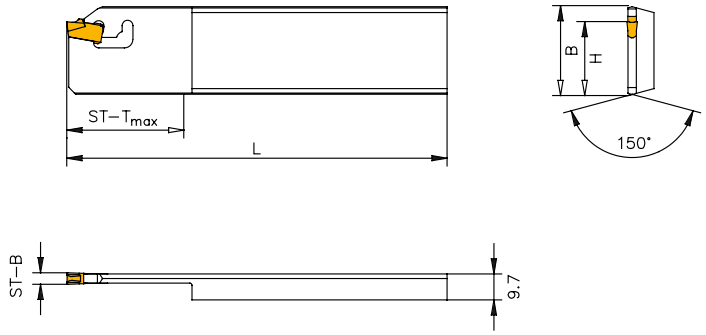


Unterstützblatt / support-blades								Wechselplatten / inserts	
Artikel-Nr. order no.	Typ type	St-B	ST-T max	B	L	H		Artikel-Nr. order no.	Artikel-Nr. order no.
ZRCR									
255.24261	ZRCR-2.2-42-26/110-10	2.2	21	26	110	21.4	★	**694.22** □□□	
255.34261	ZRCR-3.0-42-26/110-10	3.0	21	26	110	21.4	★	**694.3**□□□□	**693.03015**
255.44261	ZRCR-4.0-42-26/110-10	4.0	21	26	110	21.4	★	**694.4**□□□□	**693.04020**
255.24321	ZRCR-2.2-42-32/110-10	2.2	21	32	110	25.0	★	**694.22** □□□	
255.34321	ZRCR-3.0-42-32/110-10	3.0	21	32	110	25.0	★	**694.3**□□□□	**693.03015**
255.44321	ZRCR-4.0-42-32/110-10	4.0	21	32	110	25.0	★	**694.4**□□□□	**693.04020**
ZRCL									
255.24262	ZRCL-2.2-42-26/110-10	2.2	21	26	110	21.4	★	**694.22** □□□	
255.34262	ZRCL-3.0-42-26/110-10	3.0	21	26	110	21.4	★	**694.3**□□□□	**693.03015**
255.44262	ZRCL-4.0-42-26/110-10	4.0	21	26	110	21.4	★	**694.4**□□□□	**693.04020**
255.24322	ZRCL-2.2-42-32/110-10	2.2	21	32	110	25.0	★	**694.22** □□□	
255.34322	ZRCL-3.0-42-32/110-10	3.0	21	32	110	25.0	★	**694.3**□□□□	**693.03015**
255.44322	ZRCL-4.0-42-32/110-10	4.0	21	32	110	25.0	★	**694.4**□□□□	**693.04020**

ZRCR



ZRCL



Unterstützblatt / support-blades								Wechselplatten / inserts	
Artikel-Nr. order no.	Typ type	St-B	ST-T max	B	L	H		Artikel-Nr. order no.	Artikel-Nr. order no.
ZRCR									
255.36321	ZRCR-3.0-60-32/110-10	3.0	30	32	110	25.0	★	**694.3□□□□**	**693.03015**
255.46321	ZRCR-4.0-60-32/110-10	4.0	30	32	110	25.0	★	**694.4□□□□**	**693.04020**
255.36322	ZRCL-3.0-60-32/110-10	3.0	30	32	110	25.0	★	**694.3□□□□**	**693.03015**
255.46322	ZRCL-4.0-60-32/110-10	4.0	30	32	110	25.0	★	**694.4□□□□**	**693.04020**
ZRCL									
255.48321	ZRCR-4.0-80-32/110-10	4.0	40	32	110	25.0	★	**694.4□□□□**	**693.04020**
255.58321	ZRCR-5.0/6.0-80-32/110-10	5.0/6.0	40	32	110	25.0	★	**694.5□□□□**	**693.05025**
								694.60 □□□	**693.06030**
255.48322	ZRCL-4.0-80-32/110-10	4.0	40	32	110	25.0	★	**694.4□□□□**	**693.04020**
255.58322	ZRCL-5.0/6.0-80-32/110-10	5.0/6.0	40	32	110	25.0	★	**694.5□□□□**	**693.05025**
								694.60 □□□	**693.06030**

Achtung!

Montageschlüssel bitte seperat bestellen:
Artikel-Nr.: 920.14002

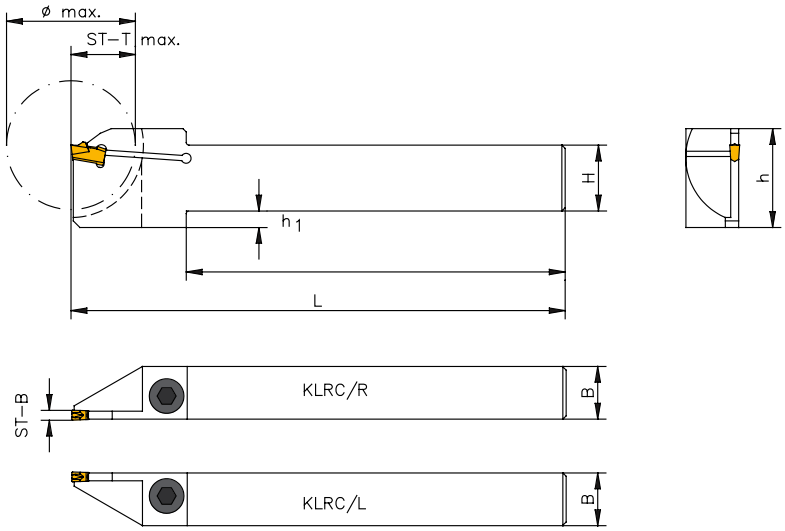
Attention!

Please order the assembly-key seperately:
Order-no.: 920.14002

- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

KLRC

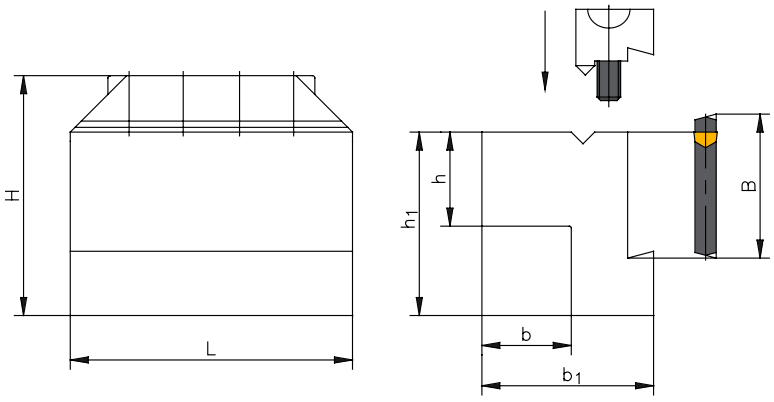


Grundhalter / base holder										Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	Ø max	H x B	L	l	h	h1	Artikel-Nr. order no.	Artikel-Nr. order no.	Artikel-Nr.: Schraube order no.: screw
Rechts / right												
260.10161	KLRC-10/R-1.6	1.6	11	22	10 x 10	91	66	21	6	**694.1**□□□□		**910.35512**
260.10221	KLRC-10/R-2.2	2.2	11	22	10 x 10	91	66	21	6	**694.22** □□□		**910.35512**
260.12161	KLRC-12/R-1.6	1.6	11	22	12 x 12	91	66	21	4	**694.1**□□□□		**910.35612**
260.12221	KLRC-12/R-2.2	2.2	11	22	12 x 12	91	66	21	4	**694.22** □□□		**910.35612**
260.16221	KLRC-16/R-2.2	2.2	16	32	16 x 12	95	66	21	---	**694.22** □□□		**910.35612**
260.16301	KLRC-16/R-3.0	3.0	16	32	16 x 12	95	66	21	---	**694.3**□□□□	**693.030**□□	**910.35612**
260.20221	KLRC-20/R-2.2	2.2	21	42	20 x 16	150	115	30	5	**694.22** □□□		**910.35620**
260.20301	KLRC-20/R-3.0	3.0	21	42	20 x 16	150	115	30	5	**694.3**□□□□	**693.030**□□	**910.35620**
260.20401	KLRC-20/R-4.0	4.0	21	42	20 x 16	150	115	30	5	**694.4**□□□□	**693.040**□□	**910.35620**
260.20561	KLRC-20/R-5.0/6.0	5.0/6.0	21	42	20 x 16	150	115	30	5	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**
260.25221	KLRC-25/R-2.2	2.2	21	42	25 x 20	150	115	30	---	**694.22** □□□		**910.35620**
260.25301	KLRC-25/R-3.0	3.0	31	80	25 x 20	165	115	40	10	**694.3**□□□□	**693.030**□□	**910.35620**
260.25311	KLRC-25/R-3.0	3.0	21	42	25 x 20	150	115	30	---	**694.3**□□□□	**693.030**□□	**910.35620**
260.25401	KLRC-25/R-4.0	4.0	31	80	25 x 20	165	115	40	10	**694.4**□□□□	**693.040**□□	**910.35620**
260.25411	KLRC-25/R-4.0	4.0	21	42	25 x 20	150	115	30	---	**694.4**□□□□	**693.040**□□	**910.35620**
260.25561	KLRC-25/R-5.0/6.0	5.0/6.0	31	80	25 x 20	165	115	40	10	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**
260.25511	KLRC-25/R-5.0/6.0	5.0/6.0	21	42	25 x 20	150	115	30	---	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**
Links / left												
260.10162	KLRC-10/L-1.6	1.6	11	22	10 x 10	91	66	21	6	**694.1**□□□□		**910.35512**
260.10222	KLRC-10/L-2.2	2.2	11	22	10 x 10	91	66	21	6	**694.22** □□□		**910.35512**
260.12162	KLRC-12/L-1.6	1.6	11	22	12 x 12	91	66	21	4	**694.1**□□□□		**910.35612**
260.12222	KLRC-12/L-2.2	2.2	11	22	12 x 12	91	66	21	4	**694.22** □□□		**910.35612**
260.16222	KLRC-16/L-2.2	2.2	16	32	16 x 12	95	66	21	---	**694.22** □□□		**910.35612**
260.16302	KLRC-16/L-3.0	3.0	16	32	16 x 12	95	66	21	---	**694.3**□□□□	**693.030**□□	**910.35612**
260.20222	KLRC-20/L-2.2	2.2	21	42	20 x 16	150	115	30	5	**694.22** □□□		**910.35620**
260.20302	KLRC-20/L-3.0	3.0	21	42	20 x 16	150	115	30	5	**694.3**□□□□	**693.030**□□	**910.35620**
260.20402	KLRC-20/L-4.0	4.0	21	42	20 x 16	150	115	30	5	**694.4**□□□□	**693.040**□□	**910.35620**
260.20562	KLRC-20/L-5.0/6.0	5.0/6.0	21	42	20 x 16	150	115	30	5	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**
260.25222	KLRC-25/L-2.2	2.2	21	42	25 x 20	150	115	30	---	**694.22** □□□		**910.35620**
260.25302	KLRC-25/L-3.0	3.0	31	80	25 x 20	165	115	40	10	**694.3**□□□□	**693.030**□□	**910.35620**
260.25312	KLRC-25/L-3.0	3.0	21	42	25 x 20	150	115	30	---	**694.3**□□□□	**693.030**□□	**910.35620**
260.25402	KLRC-25/L-4.0	4.0	31	80	25 x 20	165	115	40	10	**694.4**□□□□	**693.040**□□	**910.35620**
260.25412	KLRC-25/L-4.0	4.0	21	42	25 x 20	150	115	30	---	**694.4**□□□□	**693.040**□□	**910.35620**
260.25562	KLRC-25/L-5.0/6.0	5.0/6.0	31	80	25 x 20	165	115	40	10	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**
260.25512	KLRC-25/L-5.0/6.0	5.0/6.0	21	42	25 x 20	150	115	30	---	**694.5**□□□□	**693.050**□□	**910.35620**
										694.60 □□□	**693.060**□□	**910.35620**

CCN - KL

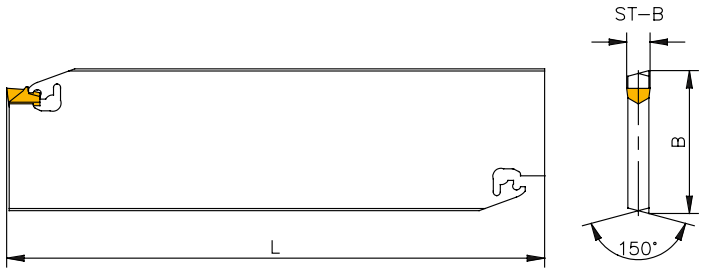
- speziell für Werkzeugrevolver mit verdeckt liegenden Spannelementen
- special for turret-heads with covered clamping fixtures

Grundhalter/ base holder								Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	h	b	L	h1	b1	H	Artikel-Nr.: Schraube order no.: screw
205.25600	CCN-25/60-KL	25	23	120	78	58	102	**910.21041**
205.32600	CCN-32/60-KL	32	30	120	78	65	102	**910.21041**
205.40600	CCN-40/60-KL	40	38	120	78	73	102	**910.21041**
205.50600	CCN-50/60-KL	50	43	120	78	78	102	**910.21041**



ZUK

Unterstützblatt (Spanwinkel 8°/0°) / support blade (rake angle 8°/0°)						Wechselplatte / inserts	Ersatzteile / spare parts	
							Montageschlüssel / assembly-key	
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	Stechtiefe depth of cut	B	L	Artikel-Nr. order no.	Artikel-Nr. order no.	Typ type
215.30608	ZUK-3.0-60-10	3	80	60	230	**694.3□□□□**	920.14002	MS-RC/6N
215.40608	ZUK-4.0-60-10	4	80	60	230	**694.4□□□□**	920.14002	MS-RC/6N
215.50608	ZUK-5.0-60-10	5	110	60	230	**694.5□□□□**	920.14002	MS-RC/6N
215.60608	ZUK-6.0-60-10	6	110	60	230	**694.60□□□**	920.14002	MS-RC/6N
215.80600	ZUK-8.0-60-0	8	110	60	230	**685.8000□**	920.14001	MS-RC-8
215.10600	ZUK-10-60-0	10	110	60	230	**685.1000□**	920.14001	MS-RC-8
215.12600	ZUK-12-60-0	12	110	60	230	**685.1200□**	920.14001	MS-RC-8



Achtung!

Montageschlüssel bitte seperat bestellen:
Artikel-Nr.: 920.14002

Attention!

Please order the assembly-key seperately:
Order-no.: 920.14002

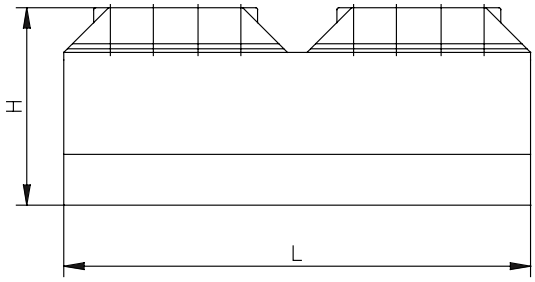
- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

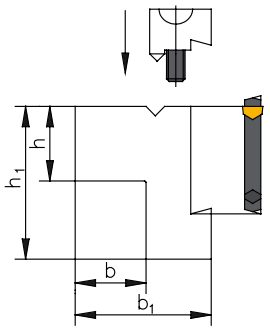
- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

CCN - KL

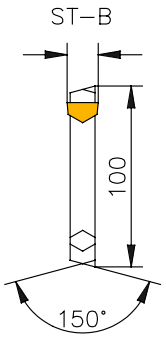
- speziell für Werkzeugrevolver mit verdeckt liegenden Spannelementen
- special for turret-heads with covered clamping fixtures

Grundhalter / base holder								Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	h	b	L	h1	b1	H	Artikel-Nr.: Schraube order no.: screw
205.40100	CCN-40/100-KL	40	38	250	140	78	165	**910.21041**
205.50100	CCN-50/100-KL	50	48	250	140	88	165	**910.21041**





VUK

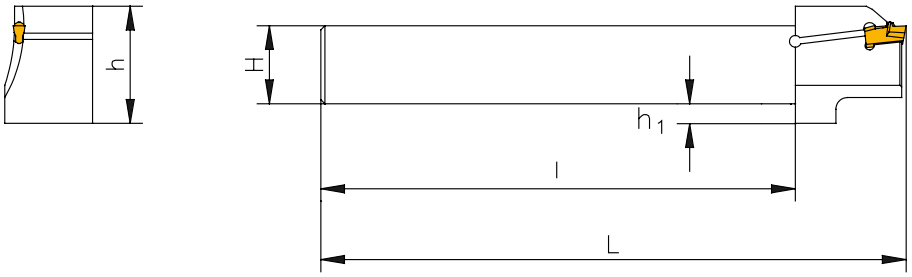


Unterstützblatt / support blade					Wechselplatte / inserts	Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	Stechtiefe max depth of cut max.	Ø max	Artikel-Nr. order no.	Artikel-Nr.: Montageschlüssel order no.: assemly-key
215.80100	VUK-8.0-100-0	8	250	500	**685.8000□**	**920.14001**
215.10100	VUK-10-100-0	10	250	500	**685.1000□**	**920.14001**
215.12100	VUK-12-100-0	12	250	500	**685.1200□**	**920.14001**

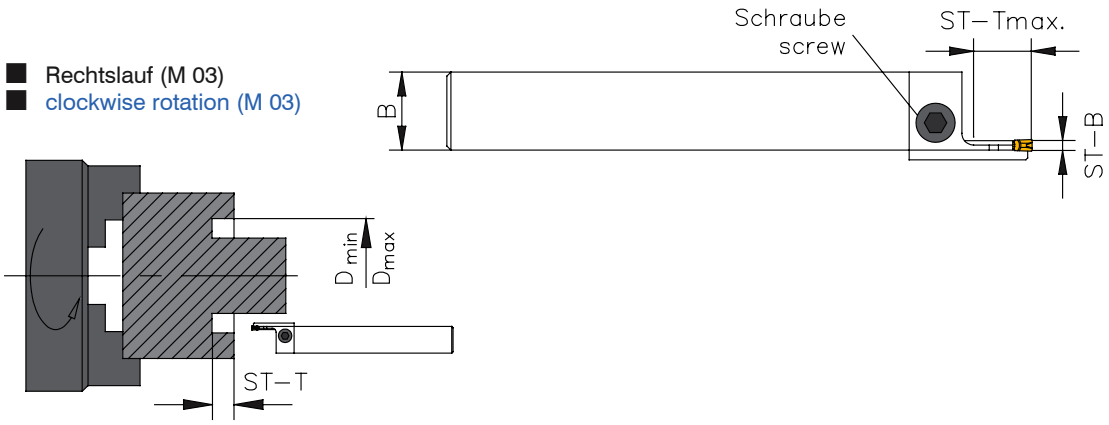
- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

KLRC-LD-DB

- Stechbreite 3 mm
- Cutting width 3 mm



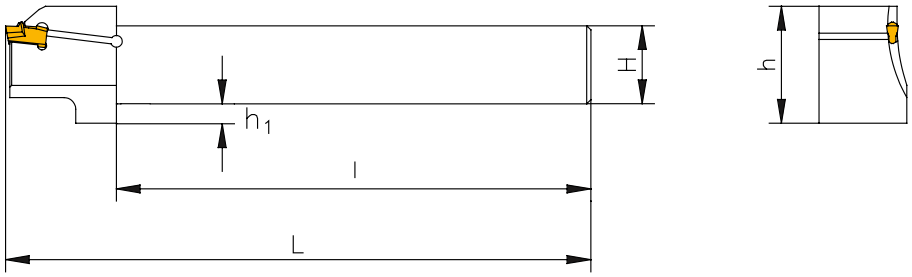
- Rechtslauf (M 03)
- clockwise rotation (M 03)

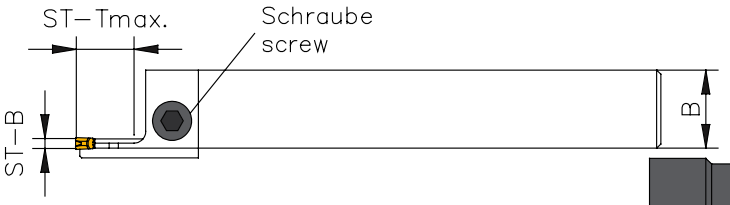


Grundhalter / base holder										Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	DB D min. - D max.	H x B	L	l	h	h1	Artikel-Nr. order no.	Artikel-Nr. order no.	Schraube screw
272.23025	KLRC-20/LD-3.0-10-DB25-30	3.0	10	25-30	20 x 20	150	120.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23030	KLRC-20/LD-3.0-10-DB30-35	3.0	10	30-35	20 x 20	150	120.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23035	KLRC-20/LD-3.0-10-DB35-40	3.0	10	35-40	20 x 20	150	120.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23040	KLRC-20/LD-3.0-12-DB40-50	3.0	12	40-50	20 x 20	150	118.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23050	KLRC-20/LD-3.0-12-DB50-60	3.0	12	50-60	20 x 20	150	118.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23060	KLRC-20/LD-3.0-12-DB60-75	3.0	12	60-75	20 x 20	150	118.5	30	5	**693.03400**	**693.03115**	**910.35620**
272.23075	KLRC-20/LD-3.0-15-DB75-100	3.0	15	75-100	20 x 20	150	118.5	30	5	**693.03300**	**693.03015**	**910.35620**
272.23100	KLRC-20/LD-3.0-15-DB100-180	3.0	15	100-180	20 x 20	150	118.5	30	5	**693.03300**	**693.03015**	**910.35620**
272.23180	KLRC-20/LD-3.0-20-DB180-250	3.0	20	180-250	20 x 20	150	113.5	30	5	**693.03300**	**693.03015**	**910.35620**
272.23250	KLRC-20/LD-3.0-20-DB250-350	3.0	20	250-350	20 x 20	150	113.5	30	5	**693.03300**	**693.03015**	**910.35620**
272.23350	KLRC-20/LD-3.0-20-DB350-	3.0	20	350- ∞	20 x 20	150	113.5	30	5	**693.03300**	**693.03015**	**910.35620**
272.53025	KLRC-25/LD-3.0-10-DB25-30	3.0	10	25-30	25 x 25	150	120.5	30		**693.03400**	**693.03115**	**910.35620**
272.53030	KLRC-25/LD-3.0-10-DB30-35	3.0	10	30-35	25 x 25	150	120.5	30		**693.03400**	**693.03115**	**910.35620**
272.53035	KLRC-25/LD-3.0-10-DB35-40	3.0	10	35-40	25 x 25	150	120.5	30		**693.03400**	**693.03115**	**910.35620**
272.53040	KLRC-25/LD-3.0-12-DB40-50	3.0	12	40-50	25 x 25	150	118.5	30		**693.03400**	**693.03115**	**910.35620**
272.53050	KLRC-25/LD-3.0-12-DB50-60	3.0	12	50-60	25 x 25	150	118.5	30		**693.03400**	**693.03115**	**910.35620**
272.53060	KLRC-25/LD-3.0-12-DB60-75	3.0	12	60-75	25 x 25	150	118.5	30		**693.03400**	**693.03115**	**910.35620**
272.53075	KLRC-25/LD-3.0-15-DB75-100	3.0	15	75-100	25 x 25	150	118.5	30		**693.03300**	**693.03015**	**910.35620**
272.53100	KLRC-25/LD-3.0-15-DB100-180	3.0	15	100-180	25 x 25	150	118.5	30		**693.03300**	**693.03015**	**910.35620**
272.53180	KLRC-25/LD-3.0-20-DB180-250	3.0	20	180-250	25 x 25	150	113.5	30		**693.03300**	**693.03015**	**910.35620**
272.53250	KLRC-25/LD-3.0-20-DB250-350	3.0	20	250-350	25 x 25	150	113.5	30		**693.03300**	**693.03015**	**910.35620**
272.53350	KLRC-25/LD-3.0-20-DB350-	3.0	20	350- ∞	25 x 25	150	113.5	30		**693.03300**	**693.03015**	**910.35620**

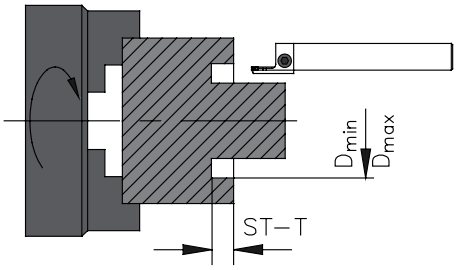
KLRC-RD-DB

- Stechbreite 3 mm
- Cutting width 3 mm





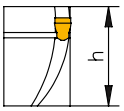
- Linkslauf (M 04)
- Counter clockwise rotation (M 04)

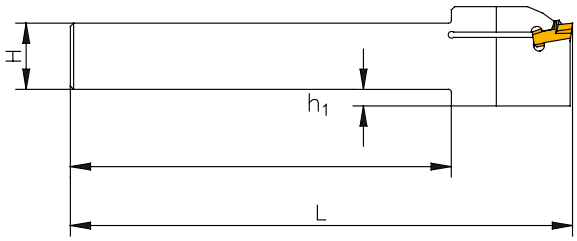


Grundhalter / base holder											Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	DB D min. - D max.	H x B	L	l	h	h1		Artikel-Nr. order no.	Artikel-Nr. order no.	Schraube screw
271.23025	KLRC-20/RD-3.0-10-DB25-30	3.0	10	25-30	20 x 20	150	120.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23030	KLRC-20/RD-3.0-10-DB30-35	3.0	10	30-35	20 x 20	150	120.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23035	KLRC-20/RD-3.0-10-DB35-40	3.0	10	35-40	20 x 20	150	120.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23040	KLRC-20/RD-3.0-12-DB40-50	3.0	12	40-50	20 x 20	150	118.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23050	KLRC-20/RD-3.0-12-DB50-60	3.0	12	50-60	20 x 20	150	118.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23060	KLRC-20/RD-3.0-12-DB60-75	3.0	12	60-75	20 x 20	150	118.5	30	5		**693.03400**	**693.03115**	**910.35620**
271.23075	KLRC-20/RD-3.0-15-DB75-100	3.0	15	75-100	20 x 20	150	118.5	30	5		**693.03300**	**693.03015**	**910.35620**
271.23100	KLRC-20/RD-3.0-15-DB100-180	3.0	15	100-180	20 x 20	150	118.5	30	5		**693.03300**	**693.03015**	**910.35620**
271.23180	KLRC-20/RD-3.0-20-DB180-250	3.0	20	180-250	20 x 20	150	113.5	30	5		**693.03300**	**693.03015**	**910.35620**
271.23250	KLRC-20/RD-3.0-20-DB250-350	3.0	20	250-350	20 x 20	150	113.5	30	5		**693.03300**	**693.03015**	**910.35620**
271.23350	KLRC-20/RD-3.0-20-DB350-	3.0	20	350-∞	20 x 20	150	113.5	30	5		**693.03300**	**693.03015**	**910.35620**
271.53025	KLRC-25/RD-3.0-10-DB25-30	3.0	10	25-30	25 x 25	150	120.5	30			**693.03400**	**693.03115**	**910.35620**
271.53030	KLRC-25/RD-3.0-10-DB30-35	3.0	10	30-35	25 x 25	150	120.5	30			**693.03400**	**693.03115**	**910.35620**
271.53035	KLRC-25/RD-3.0-10-DB35-40	3.0	10	35-40	25 x 25	150	120.5	30			**693.03400**	**693.03115**	**910.35620**
271.53040	KLRC-25/RD-3.0-12-DB40-50	3.0	12	40-50	25 x 25	150	118.5	30			**693.03400**	**693.03115**	**910.35620**
271.53050	KLRC-25/RD-3.0-12-DB50-60	3.0	12	50-60	25 x 25	150	118.5	30			**693.03400**	**693.03115**	**910.35620**
271.53060	KLRC-25/RD-3.0-12-DB60-75	3.0	12	60-75	25 x 25	150	118.5	30			**693.03400**	**693.03115**	**910.35620**
271.53075	KLRC-25/RD-3.0-15-DB75-100	3.0	15	75-100	25 x 25	150	118.5	30			**693.03300**	**693.03015**	**910.35620**
271.53100	KLRC-25/RD-3.0-15-DB100-180	3.0	15	100-180	25 x 25	150	118.5	30			**693.03300**	**693.03015**	**910.35620**
271.53180	KLRC-25/RD-3.0-20-DB180-250	3.0	20	180-250	25 x 25	150	113.5	30			**693.03300**	**693.03015**	**910.35620**
271.53250	KLRC-25/RD-3.0-20-DB250-350	3.0	20	250-350	25 x 25	150	113.5	30			**693.03300**	**693.03015**	**910.35620**
271.53350	KLRC-25/RD-3.0-20-DB350-	3.0	20	350-∞	25 x 25	150	113.5	30			**693.03300**	**693.03015**	**910.35620**

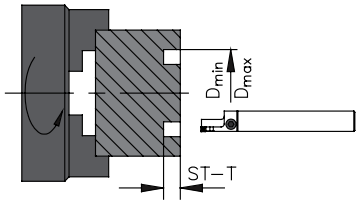
KLRC-L-DB

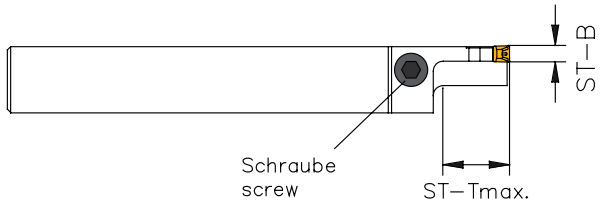
- Stechbreite 4 + 5 + 6 mm
- Cutting width 4 + 5 +6 mm





- Rechtslauf (M 03)
- clockwise rotation (M 03)

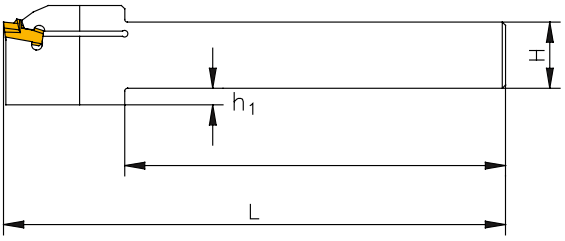


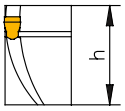


Grundhalter / base holder										Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	DB D min. - D max.	H x B	L	l	h	h1	Artikel-Nr. order no.	Artikel-Nr. order no.	Schraube screw
262.24025	KLRC-20/L-4.0-10-DB25-30	4.0	10	25-30	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
262.24030	KLRC-20/L-4.0-10-DB30-35	4.0	10	30-35	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
262.24035	KLRC-20/L-4.0-20-DB35-40	4.0	20	35-40	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
262.24040	KLRC-20/L-4.0-25-DB40-50	4.0	25	40-50	20 x 20	150	108.5	30	5	**693.04400**	**693.04120**	**910.35620**
262.24050	KLRC-20/L-4.0-25-DB50-60	4.0	25	50-60	20 x 20	150	108.5	30	5	**693.04400**	**693.04120**	**910.35620**
262.24060	KLRC-20/L-4.0-25-DB60-75	4.0	25	60-75	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.24075	KLRC-20/L-4.0-25-DB75-100	4.0	25	75-100	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.24100	KLRC-20/L-4.0-25-DB100-180	4.0	25	100-180	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.24180	KLRC-20/L-4.0-25-DB180-250	4.0	25	180-250	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.24250	KLRC-20/L-4.0-25-DB250-350	4.0	25	250-350	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.24350	KLRC-20/L-4.0-25-DB350	4.0	25	350- ∞	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
262.25045	KLRC-20/L-5/6-25-DB45-60	5.0 + 6.0	25	45-60	20 x 20	150	108.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25060	KLRC-20/L-5/6-25-DB60-75	5.0 + 6.0	25	60-75	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25075	KLRC-20/L-5/6-30-DB75-100	5.0 + 6.0	30	75-100	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25100	KLRC-20/L-5/6-30-DB100-180	5.0 + 6.0	30	100-180	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25180	KLRC-20/L-5/6-30-DB180-250	5.0 + 6.0	30	180-250	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25250	KLRC-20/L-5/6-30-DB250-350	5.0 + 6.0	30	250-350	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.25350	KLRC-20/L-5/6-30-DB350	5.0 + 6.0	30	350- ∞	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
262.54025	KLRC-25/L-4.0-10-DB25-30	4.0	10	25-30	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**910.35620**
262.54030	KLRC-25/L-4.0-10-DB30-35	4.0	10	30-35	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**910.35620**
262.54035	KLRC-25/L-4.0-20-DB35-40	4.0	20	35-40	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**920.35620**
262.54040	KLRC-25/L-4.0-25-DB40-50	4.0	25	40-50	25 x 20	150	108.5	30		**693.04400**	**693.04120**	**920.35620**
262.54050	KLRC-25/L-4.0-25-DB50-60	4.0	25	50-60	25 x 20	150	108.5	30		**693.04400**	**693.04120**	**920.35620**
262.54060	KLRC-25/L-4.0-25-DB60-75	4.0	25	60-75	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.54075	KLRC-25/L-4.0-25-DB75-100	4.0	25	75-100	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.54100	KLRC-25/L-4.0-25-DB100-180	4.0	25	100-180	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.54180	KLRC-25/L-4.0-25-DB180-250	4.0	25	180-250	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.54250	KLRC-25/L-4.0-25-DB250-350	4.0	25	250-350	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.54350	KLRC-25/L-4.0-25-DB350	4.0	25	350- ∞	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
262.55045	KLRC-25/L-5/6-25-DB45-60	5.0 + 6.0	25	45-60	25 x 20	150	108.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55060	KLRC-25/L-5/6-25-DB60-75	5.0 + 6.0	25	60-75	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55075	KLRC-25/L-5/6-30-DB75-100	5.0 + 6.0	30	75-100	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55100	KLRC-25/L-5/6-30-DB100-180	5.0 + 6.0	30	100-180	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55180	KLRC-25/L-5/6-30-DB180-250	5.0 + 6.0	30	180-250	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55250	KLRC-25/L-5/6-30-DB250-350	5.0 + 6.0	30	250-350	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
262.55350	KLRC-25/L-5/6-30-DB350	5.0 + 6.0	30	350- ∞	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**

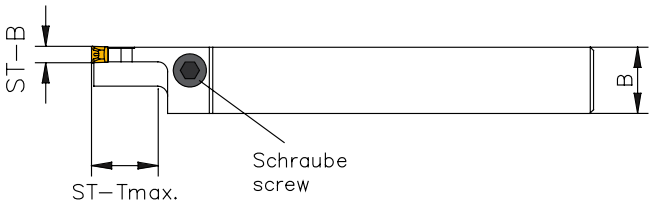
KLRC-R-DB

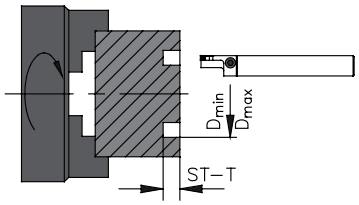
- Stechbreite 4 + 5 + 6 mm
- Cutting width 4 + 5 +6 mm





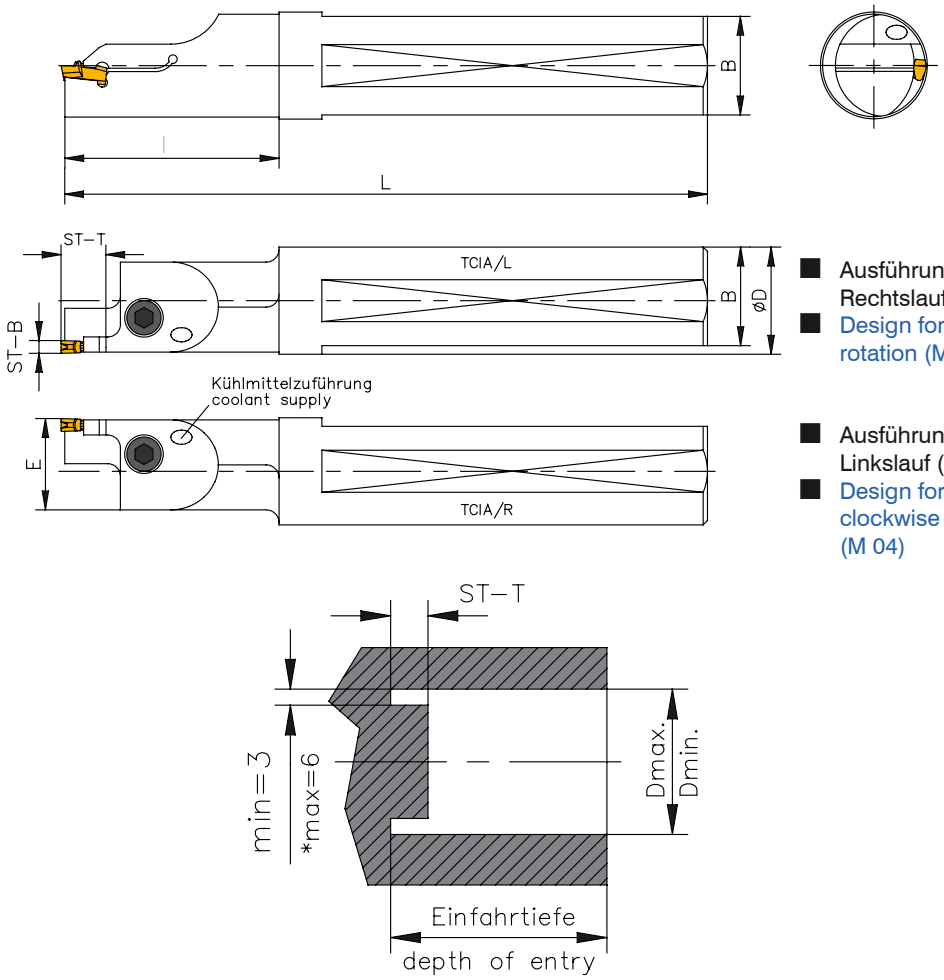
- Linkslauf (M 04)
- Counter clockwise rotation (M 04)





Grundhalter / base holder										Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	DB D min. - D max.	H x B	L	l	h	h1	Artikel-Nr. order no.	Artikel-Nr. order no.	Schraube screw
261.24025	KLRC-20/R-4.0-10-DB25-30	4.0	10	25-30	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
261.24030	KLRC-20/R-4.0-10-DB30-35	4.0	10	30-35	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
261.24035	KLRC-20/R-4.0-20-DB35-40	4.0	20	35-40	20 x 20	150	113.5	30	5	**693.04400**	**693.04120**	**910.35620**
261.24040	KLRC-20/R-4.0-25-DB40-50	4.0	25	40-50	20 x 20	150	108.5	30	5	**693.04400**	**693.04120**	**910.35620**
261.24050	KLRC-20/R-4.0-25-DB50-60	4.0	25	50-60	20 x 20	150	108.5	30	5	**693.04400**	**693.04120**	**910.35620**
261.24060	KLRC-20/R-4.0-25-DB60-75	4.0	25	60-75	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.24075	KLRC-20/R-4.0-25-DB75-100	4.0	25	75-100	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.24100	KLRC-20/R-4.0-25-DB100-180	4.0	25	100-180	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.24180	KLRC-20/R-4.0-25-DB180-250	4.0	25	180-250	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.24250	KLRC-20/R-4.0-25-DB250-350	4.0	25	250-350	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.24350	KLRC-20/R-4.0-25-DB350	4.0	25	350-∞	20 x 20	150	108.5	30	5	**693.04300**	**693.04020**	**910.35620**
261.25045	KLRC-20/R-5/6-25-DB45-60	5.0 + 6.0	25	45-60	20 x 20	150	108.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25060	KLRC-20/R-5/6-25-DB60-75	5.0 + 6.0	25	60-75	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25075	KLRC-20/R-5/6-30-DB75-100	5.0 + 6.0	30	75-100	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25100	KLRC-20/R-5/6-30-DB100-180	5.0 + 6.0	30	100-180	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25180	KLRC-20/R-5/6-30-DB180-250	5.0 + 6.0	30	180-250	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25250	KLRC-20/R-5/6-30-DB250-350	5.0 + 6.0	30	250-350	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.25350	KLRC-20/R-5/6-30-DB350	5.0 + 6.0	30	350-∞	20 x 20	150	103.5	30	5	**693.053□□**	**693.063□□**	**920.35620**
261.54025	KLRC-25/R-4.0-10-DB25-30	4.0	10	25-30	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**910.35620**
261.54030	KLRC-25/R-4.0-10-DB30-35	4.0	10	30-35	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**910.35620**
261.54035	KLRC-25/R-4.0-20-DB35-40	4.0	20	35-40	25 x 20	150	113.5	30		**693.04400**	**693.04120**	**920.35620**
261.54040	KLRC-25/R-4.0-25-DB40-50	4.0	25	40-50	25 x 20	150	108.5	30		**693.04400**	**693.04120**	**920.35620**
261.54050	KLRC-25/R-4.0-25-DB50-60	4.0	25	50-60	25 x 20	150	108.5	30		**693.04400**	**693.04120**	**920.35620**
261.54060	KLRC-25/R-4.0-25-DB60-75	4.0	25	60-75	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.54075	KLRC-25/R-4.0-25-DB75-100	4.0	25	75-100	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.54100	KLRC-25/R-4.0-25-DB100-180	4.0	25	100-180	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.54180	KLRC-25/R-4.0-25-DB180-250	4.0	25	180-250	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.54250	KLRC-25/R-4.0-25-DB250-350	4.0	25	250-350	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.54350	KLRC-25/R-4.0-25-DB350	4.0	25	350-∞	25 x 20	150	108.5	30		**693.04300**	**693.04020**	**920.35620**
261.55045	KLRC-25/R-5/6-25-DB45-60	5.0 + 6.0	25	45-60	25 x 20	150	108.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55060	KLRC-25/R-5/6-25-DB60-75	5.0 + 6.0	25	60-75	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55075	KLRC-25/R-5/6-30-DB75-100	5.0 + 6.0	30	75-100	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55100	KLRC-25/R-5/6-30-DB100-180	5.0 + 6.0	30	100-180	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55180	KLRC-25/R-5/6-30-DB180-250	5.0 + 6.0	30	180-250	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55250	KLRC-25/R-5/6-30-DB250-350	5.0 + 6.0	30	250-350	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**
261.55350	KLRC-25/R-5/6-30-DB350	5.0 + 6.0	30	350-∞	25 x 20	150	103.5	30		**693.053□□**	**693.063□□**	**920.35620**

TCIA



- Ausführung für Rechtslauf (M 03)
- Design for clockwise rotation (M 03)

- Ausführung für Linkslauf (M 04)
- Design for counter clockwise rotation (M 04)

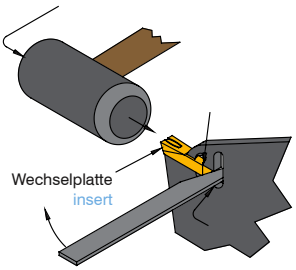
Grundhalter / base holder										Wechselplatten / inserts		Ersatzteile / spare parts
Artikel-Nr. order no.	Typ type	St-B	ST-T max	DB min. - D max.	Ø D	L	l	B	E	Artikel-Nr. order no.	Artikel-Nr. order no.	Artikel-Nr.: Schraube order no.: screw
263.25001	TCIA-25/R-3.0-10-DB25-32	3.0	10	25-32	25	150	50	23	21.3	**693.03400**	**693.03115**	**910.35512**
263.25002	TCIA-25/L-3.0-10-DB25-32	3.0	10	25-32	25	150	50	23	21.3	**693.03400**	**693.03115**	**910.35512**

- Wechselplatten siehe Seite 28
- insert look at page 28

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

RIAK / RUK

Die Wechselplatte mit einem Kunststoffhammer auf Anschlag bringen.
The inserts are to be driven to the stop by means of a plastic hammer.

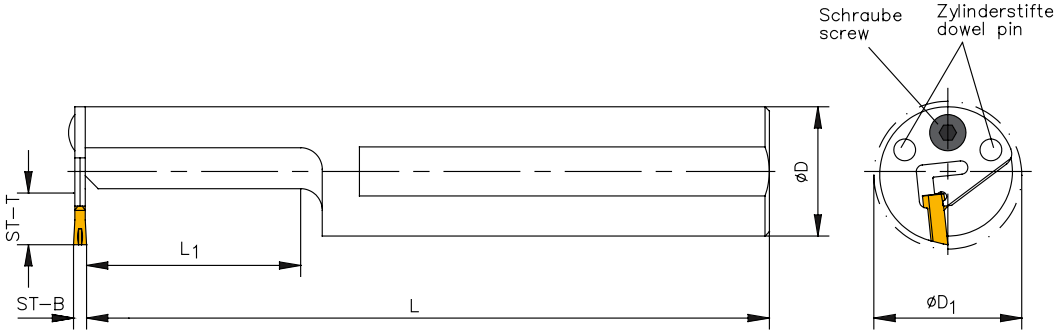


Die Wechselplatte muss absolut am Festanschlag anliegen.
The insert has to sit close to the stop.

Lösen der Wechselplatte mittels Hebelbewegung.
After use remove inserts by lever movement.

Auswerfer in Öffnung einführen.
Put ejector into inlet.

Grundhalter / base holder					
Artikel-Nr. order no.	Typ type	D	L	L_1	RUK
207.20000	RIAK-20	20	200	30	../**22**
207.25000	RIAK-25	25	250	40	../**27**
207.30000	RIAK-30	30	250	50	../**32**
207.32000	RIAK-32	32	250	50	../**32**
207.40000	RIAK-40	40	250	60	../**42**



Unterstützblatt 6° / support blade 6°					Wechselplatten / inserts		Ersatzteile / spare parts		
Artikel-Nr. order no.	Typ type	kleinster Bohr-Ø D_1 min. hole-Ø D_1	ST-B Stechbreite width of cut	ST-T Stechtiefe max. depth of cut max.	Artikel-Nr. order no.	Type type	Artikel-Nr. / order-no.		
							Zylinderstift cylinder pin	Schraube screw	Auswerfer ejector
210.22180	RUK-1.8/22	23	2.0	7	**686.20840**	JM-2.0-N-6-GR4	**920.31408**	**920.14410**	**920.14100**
			2.3		**686.23840**	JM-2.3-N-6-GR4	**920.31408**	**920.14410**	**920.14100**
210.22250	RUK-2.4/22	23	3.0	10	**686.30840**	JM-3.0-N-6-GR4	**920.31408**	**920.14410**	**920.14100**
			3.8		**686.38840**	JM-3.8-N-6-GR4	**920.31408**	**920.14410**	**920.14100**
210.27180	RUK-1.8/27	28	2.0	12	**686.20830**	JM-2.0-N-6-GR3	**920.31510**	**920.14510**	**920.14100**
			2.3		**686.23830**	JM-2.3-N-6-GR3	**920.31510**	**920.14510**	**920.14100**
210.27250	RUK-2.4/27	28	3.0	12	**686.30830**	JM-3.0-N-6-GR3	**920.31510**	**920.14510**	**920.14100**
210.27300	RUK-2.8/27	28	4.0	12	**686.40830**	JM-4.0-N-6-GR3	**920.31510**	**920.14510**	**920.14100**
210.32180	RUK-1.8/32	33	2.0	12	**686.20820**	JM-2.0-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
			2.3		**686.23820**	JM-2.3-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
210.32250	RUK-2.4/32	33	3.0	12	**686.30820**	JM-3.0-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
210.32300	RUK-2.8/32	33	4.0	12	**686.40820**	JM-4.0-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
210.32400	RUK-3.7/32	33	5.0	12	**686.50820**	JM-5.0-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
210.32500	RUK-4.7/32	33	6.0	12	**686.62820**	JM-6.0-N-6-GR2	**920.31510**	**920.14612**	**920.14100**
210.42180	RUK-1.8/42	43	2.0	20	**686.20810**	JM-2.0-N-6-GR1	**920.31610**	**920.14612**	**920.14090**
			2.3		**686.23810**	JM-2.3-N-6-GR1	**920.31610**	**920.14612**	**920.14090**
210.42250	RUK-2.4/42	43	3.0	20	**686.30810**	JM-3.0-N-6-GR1	**920.31610**	**920.14612**	**920.14090**
210.42300	RUK-2.8/42	43	4.0	20	**686.40810**	JM-4.0-N-6-GR1	**920.31610**	**920.14612**	**920.14090**
210.42400	RUK-3.7/42	43	5.0	20	**686.50810**	JM-5.0-N-6-GR1	**920.31610**	**920.14612**	**920.14090**
210.42500	RUK-4.7/42	43	6.0	20	**686.60810**	JM-6.0-N-6-GR1	**920.31610**	**920.14612**	**920.14090**

Sample order:

1	Halter	**207.20000**	RIAK
1	Unterstützblatt	**210.22180**	RUK
10	Wechselplatten	**686.23840-01**	JM

Sample order:

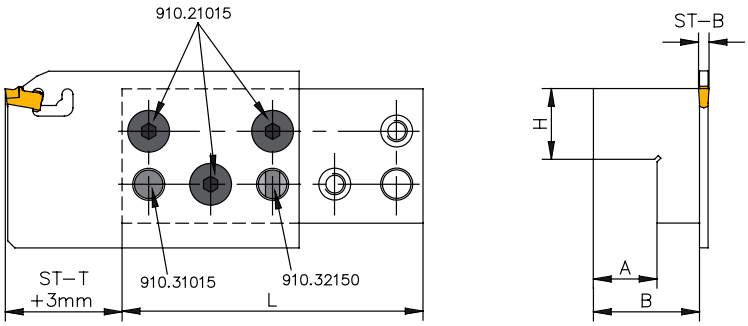
1	Toolholder	**207.20000**	RIAK
1	support blade	**210.22180**	RUK
10	inserts	**686.23840-01**	JM

■ Wechselplatten siehe Seite 29
■ insert look at page 29

■ Bei Bestellung bitte nur die **Artikel-Nr.** angeben
■ Please specify only **order-no.** in purchase-order

G-2000 UKRC

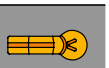
- G - S (101.□□□□□)
- Unterstützblatt rechts und links verwendbar
- G - S (101.□□□□□)
- Support blade for right and left-hand application



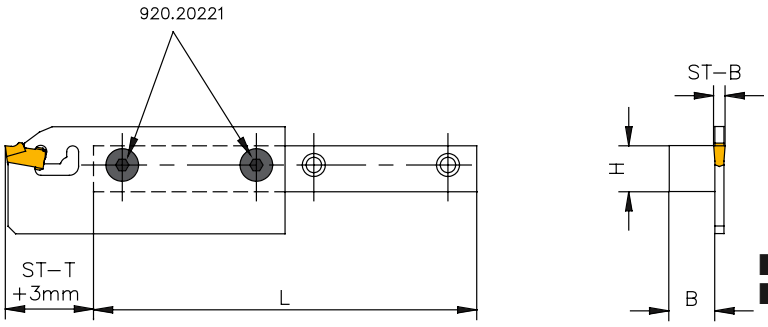
Grundhalter / base holder

Artikel-Nr. order no.	Typ type	H	A	B	L
201.10200	G-10-2000	10	10	22	85
201.12200	G-12-2000	12	12	24	85
201.16200	G-16-2000	16	14	26	85
201.20200	G-20-2000	20	18	30	85
201.25200	G-25-2000	25	18	30	85
201.32200	G-32-2000	32	28	40	85
201.40200	G-40-2000	40	---	40	85

- Grundhalter rechts und links einsetzbar
- base-holder for right-hand and left-hand

Unterstützblatt / support-blades					Wechselplatten / inserts			
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	ST-T Stechtiefe depth of cut		Artikel-Nr. order no.		Artikel-Nr. order no.	
257.30200	UKRC-3.0-20-10	3.0	20	★	**694.3□□□□**		**693.03015**	
257.30300	UKRC-3.0-30-10	3.0	30	★	**694.3□□□□**		**693.03015**	
257.30400	UKRC-3.0-40-10	3.0	40	★	**694.3□□□□**		**693.03015**	

GMS / ZUSRC



Grundhalter / base holder

Artikel-Nr. order no.	Typ type	H	B	L
209.01010	GMS-01010	10	10	100
209.01212	GMS-01212	12	12	100
209.01616	GMS-01616	16	16	100
209.02020	GMS-02020	20	20	100
209.02525	GMS-02525	25	25	100

- Grundhalter rechts und links einsetzbar
- base-holder for right-hand and left-hand

Unterstützblatt / support-blades					Wechselplatten / inserts			
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	ST-T Stechtiefe depth of cut		Artikel-Nr. order no.		Artikel-Nr. order no.	
258.22200	ZUSRC-2.2-20-10	2.2	20	★	**694.22□□□**			
258.30200	ZUSRC-3.0-20-10	3.0	20	★	**694.3□□□□**		**693.03015**	
258.40200	ZUSRC-4.0-20-10	4.0	20	★	**694.3□□□□**		**693.04020**	

Achtung!

Montageschlüssel bitte seperat bestellen:
Artikel-Nr.: 920.14002

Attention!

Please order the assembly-key seperately:
Order-no.: 920.14002

- Wechselplatten siehe Seite 26 - 28
- insert look at page 26 - 28

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben
- Please specify only **order-no.** in purchase-order

■ **Auswahl des Durchmesserbereiches „DB“ bei Axialunterstützblättern.**
- Bei der Auswahl des Durchmesserbereiches ist grundsätzlich der Außen-Ø der Nute maßgebend!
- D. h. der 1. Einstich muss innerhalb des angegebenen Durchmesserbereiches „DB“, bezogen auf den Nut-Außen-Ø liegen.
- Beispiel: DB 75-100
  Der 1. Einstich muss im Bereich von Nut-Außen-Ø 75 und 100 erfolgen!
- Grundsätzlich kann nach dem 1. Einstich, jeweils um ca. ²/₃ der Stechbreite (ST-B), sowohl bis zur Drehmitte als auch bis theoretisch unendlich, versetzt eingestochen werden.

■ **Werkzeugposition**
- Beim axialen Einstechen ist eine Werkzeugposition - Überkopf- vorzuziehen, da ein wesentlich günstigerer Spanablauf möglich ist (die Späne fallen durch die Schwerkraft nach unten in die Spänewanne bzw. Späneförderer).

■ **Auskammern (Schnittaufteilung / siehe Bild 1)**
- Bei dieser Bearbeitung erfolgt der 1. Einstich am größtmöglichen Außen-Ø der Nute (abhängig vom Durchmesserbereich des vorhandenen bzw. gewählten Axial-Unterstützblattes); danach erfolgt der 2. Einstich - versetzt um ca. ²/₃ der Stechbreite - in Richtung Drehmitte, usw.
- Diese Arbeitsweise sollte bevorzugt auch bei größeren Stechtiefen angewandt werden!

■ **Ausstechen von Scheiben und Kernen (siehe Bild 2)**
- Beim Ausstechen von Scheiben oder Kernen ist unbedingt darauf zu achten, dass ein Verbindungssteg erhalten bleibt - niemals durchstechen! Die Scheibe oder der Kern muss nach dem axialen Einstechen separat ausgepresst werden.

¢ **Selection of the diameter range for axial support blades**
- By the selection of the diameter range, the groove outside diameter is decisive!
- That means, the first recess has to be within the specified diameter range „DB“, in reference to the groove outside diameter.
- Sample: DB 75-100
  The first recess has to be ensuing in the range of the groove outside diameter 75 and 100!
- Basically, after the first recess is done, the following recesses can be made by moving the tool about ²/₃ of the width of cut, both to the center line as well as theoretical endless.

¢ **Tooling setup**
- By the axial recessing, a tool position - overhead - should have priority because the escape of chips is essential better (due to gravity, the chips drop down into the chip tray or chip conveyor).

¢ **Trepanning (cut Sharing / see to picture 1)**
- In this machining, the first recess ensues at the maximum diameter of the groove (depending on the diameter range of the available, respectively choosed axial-support blade); afterwards, the second recess can be done by moving the tool about ²/₃ of the cutting width in direction of the centerline.
- Larger cutting depths should also favor this method of operation!

¢ **Recessing of discs and cores (see to picture 2)**
- In this operation it is absolutely necessary that a connection gab remains- never cut through! The disc or core must be press out separately after the axial cutting.

Bild 2
picture 2

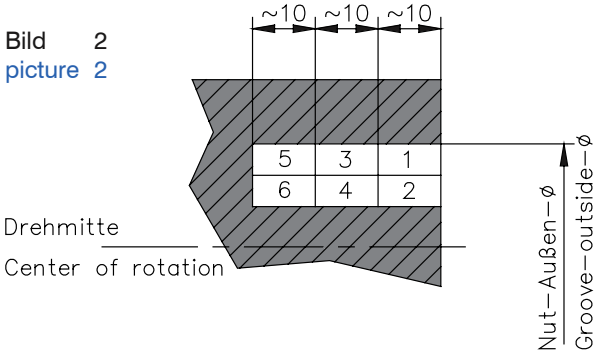
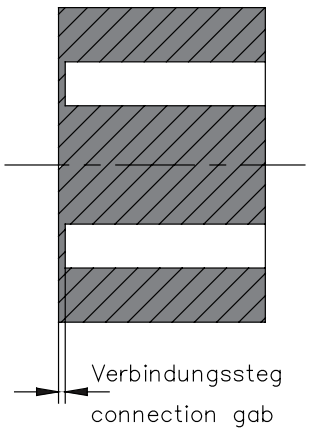
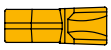


Bild 2
picture 2

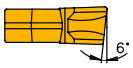


Ein- und Abstechen - Typ 694.□□□□□
Recessing- cut off - type 694.□□□□□



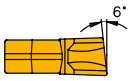
MRCN
-KXR-10

Neutrale Hauptschneide, positiver Spanwinkel
Baustähle, Einsatzstähle, Vergütungsstähle, NE-Metalle
Primary cutting edge - neutral, positive rake angle.
Machinery-, case hardening- and heat treatable- steel, non-ferrous metal



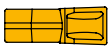
MRCR
-KXR-10

Rechts vorschneidende Platte, positiver Spanwinkel
Baustähle, Einsatzstähle, Vergütungsstähle, NE-Metalle
Verminderung des Abstechbuntzens bei Vollmaterial, bzw. des -Grats beim Abstechen von Rohren.
Lead angle - right, positive rake angle.
Machinery-, case hardening- and heat treatable- steel, non-ferrous metal
Reduction of the pin - by solid material and the burr - by tubes.



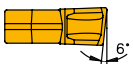
MRCL
-KXR-10

Links vorschneidende Platte, positiver Spanwinkel
Baustähle, Einsatzstähle, Vergütungsstähle, NE-Metalle
Verminderung des Abstechbutzens bei Vollmaterial, bzw. des Grats beim Abstechen von Rohren.
Lead angle - left, positive rake angle.
Machinery-, case hardening- and treatable-steel, non-ferrous metal
Reduction of the pin - by solid material and the burr - by tubes.



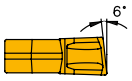
MRCN
-KXF-10

Neutrale Hauptschneide, positiver Spanwinkel mit Schutzfase
Stähle höherer Festigkeit, unterbrochene Schnitte
Primary cutting edge - neutral, positive rake angle with protection chamfer
Steel with higher strength, interrupted cuts.



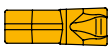
MRCR
-KXF-10

Rechts vorschneidende Platte, positiver Spanwinkel mit Schutzfase
Stähle höherer Festigkeit, unterbrochene Schnitte
Verminderung es Abstechbutzens bei Vollmaterial, bzw. des Grats beim Abstechen von Rohren.
Lead angle - right positive rake angle with protective chamfer
Steel with higher strength, interrupted cuts.
Reduction of the pin - by solid material and the burr - by tubes.



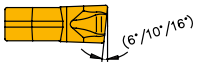
MRCL
-KXF-10

Links vorschneidende Platte, positiver Spanwinkel mit Schutzfase
Stähle höherer Festigkeit, unterbrochene Schnitte
Verminderung des Abstechbutzens bei Vollmaterial, bzw. des Grats beim Abstechen von Rohren.
Lead angle - left, positive rake angle with protective chamfer
Steel with higher strength, interrupted cuts.
Reduction of the pin - by solid material and the burr - by tubes.



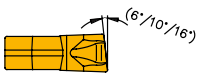
MRCN
-KXV-10

Neutrale Hauptschneide, hochpositiver Spanwinkel, geschliffener Freiwinkel, speziell für hochwarmfeste und rostfreie Werkstoffe.
Primary cutting edge - neutral, high-positive rake angle, grinded clearance angle, especially for high-temperature-resisting- and stainless steel.



MRCR
-KXV-10

Rechts vorschneidende Platte, hochpositiver Spanwinkel, geschliffener Freiwinkel, speziell für hochwarmfeste und rostfreie Werkstoffe
Verminderung des Abstechbutzens bei Vollmaterial bzw. des Grats beim Abstechen von Rohren.
Lead angle - right, high positive rake angle, grinded clearance angle, especially for high-temperature resisting- and stainless steel.
Reduction of the pin - by solid material and the burr - by tubes.



MRCL
-KXV-10

Links vorschneidende Platte, hochpositiver Spanwinkel, geschliffener Freiwinkel, speziell für hochwarmfeste und rostfreie Werkstoffe.
Verminderung des Abstechbutzens bei Vollmaterial bzw. des Grats beim Abstechen von Rohren.
Lead angle - left, high-positive rake angle, grinded clearance angle, especially for high-temperature-resisting- and stainless steel.
Reduction of the pin – by solid material and the burr - by tubes.

Definition von rechts und links vorschneidenden Wechselplatten nach DIN.
- **Die Platte wird so betrachtet, dass die Hauptschneide auf den Betrachter gerichtet ist, und die Spanfläche oben liegt.**
- **Liegt die voreilende Schneidecke rechts, so ist es eine rechte Platte, liegt die voreilende Schneidecke links, so ist es eine linke Platte.**

Definition of right and left-hand inserts according to DIN.
- **When looking at the insert, the primary cutting edge must point to the person looking at it and the cutting face must be at the top.**
- **If the pointed edge of the insert is on the right, then it is a right insert; if the pointed edge is on the left, then it is a left insert.**

MRCL
- Linksausführung
- left-hand type

Betrachtungsposition
view position

MRCR
- Rechtsausführung
- right-hand type

SUMMARY OF CARBIDE TYPES / APPLICATION PURPOSE

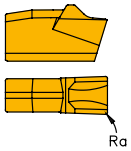
ADD engineering

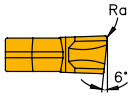
K10	**Hartmetall unbeschichtet (K10 - M20)**	
-04	☺	Gusseisen- (GTW, GTS, GG, GGG)
	☺	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
	😐	warmfeste Legierungen (Ni-, Co- Fe-Basis)
	😐	Titan und Titanlegierungen
P20	**Hartmetall unbeschichtet (P20)**	
-12	☺	niedrig legierte Stähle (s < 800 N/mm2)
	😐	Gusseisen / GTW, GTS
P25	**Hartmetall unbeschichtet (P25)**	
-01	☺	niedrig legierte Stähle (s < 800 N/mm2)
	😐	Gusseisen / GTW, GTS
ZVA	**Hartmetall unbeschichtet (P40 - M30)**	
-23	😐	niedrig- und hochlegierte Stähle (s < 1000 N/mm2)
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
Zg30	**Hartmetall beschichtet [CVD] TIN-TiCN-TiN (P35 - M25)**	
-07	☺	niedrig- und hochlegierte Stähle (s < 1000 N/mm2)
Zg30 PVD	**Hartmetall beschichtet [PVD] TiN (P35 - M20 - K25)**	
-88	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	😐	Titan und Titanlegierungen
Zs40 PVD	**Hartmetall beschichtet [PVD] TiAlN (P40 - M30 - K35)**	
-99	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	😐	Titan und Titanlegierungen
	😐	Gusseisen / GTW, GTS, GG, GGG
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
X-Blue	**Hartmetall Mehrbereichs – Supernitrit beschichtet (P30 - P45)**	
-144	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	☺	Titan und Titanlegierungen
	☺	Gusseisen / GTW, GTS, GG, GGG
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
Alu-Speed	**Hartmetall beschichtet (Super Speed) (K05 - K15)**	
-145	☺	Aluminium, Kupfer
	☺	Titan und Titanlegierung
Zsn40 PVD	**Hartmetall beschichtet [PVD] Nanonitrit (P30 - M20 - M30 - K30)**	
-146	☺	Stahl- und Stahlgussbearbeitung
	☺	niedrig- und hochlegierte Stähle
	☺	warmfeste Legierungen (Ni-, Co- Fe-Basis)
HSSE	**Hochleistungs-Schnellschnittstahl Co10**	
-08	☺	Stahl- und Stahlgussbearbeitung
	😐	rostfreie Stähle
	😐	Aluminium, Al-Legierungen
Zg50	**Hochleistungs-Schnellschnittstahl Co10 beschichtet [PVD] TiN**	
-09	☺	Stahl- und Stahlgussbearbeitung
	😐	rostfreie Stähle
	😐	Aluminium, Al-Legierungen

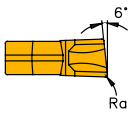
K10	**Carbide uncoated (K10 - M20)**	
-04	☺	cast iron (GTW, GTS, GG, GGG)
	☺	non-ferrous metal, aluminium, aluminium-alloys, plastics
	😐	high temperature alloys (Ni-, Co- Fe-)
	😐	Titanium and Titanium-alloys
P20	**Carbide uncoated (P20)**	
-12	☺	alloyed steels (s < 800 N/mm2)
	😐	cast iron / GTW, GTS
P25	**Carbide uncoated (P25)**	
-01	☺	alloyed steels (s < 800 N/mm2)
	😐	cast iron / GTW, GTS
ZVA	**Carbide uncoated (P40 - M30)**	
-23	😐	alloyed- and high-alloyed steels (s < 1000 N/mm2)
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
Zg30	**Carbide coated [CVD] TIN-TiCN-TiN (P35 - M25)**	
-07	☺	alloyed- and high-alloyed steels (s < 1000 N/mm2)
Zg30 PVD	**Carbide coated [PVD] TiN (P35 - M20 - K25)**	
-88	☺	high-temperature-resisting- and stainless steels
	😐	Titanium and Titanium-alloys (s < 1000 N/mm2)
Zs40 PVD	**Carbide coated [PVD] TiAlN (P40 - M30 - K35)**	
-99	☺	high-temperature-resisting- and stainless steels (s < 1000 N/mm2)
	😐	Titanium and titanium-alloys
	😐	cast iron / GTW, GTS, GG, GGG
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
X-Blue	**Carbide – Supernitrit coated (P30 - P45)**	
-144	☺	high-temperature-resisting- and stainless steels
	☺	Titanium and titanium base alloys (s < 1000 N/mm2)
	☺	cast iron / GTW, GTS, GG, GGG
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
Alu-Speed	**Carbide coated (Super Speed) (K05 - K15)**	
-145	☺	Aluminum, copper
	☺	Titan and titanium base alloy
Zsn40 PVD	**Carbide coated [PVD] Nanonitrit (P30 - M20 - M30 - K30)**	
-146	☺	steel- und cast steel machining
	☺	high-temperature-resisting- and stainless steels
	☺	high temperature alloys (Ni-, Co- Fe-)
HSSE	**high speed steel (Co10) coated [PVD] TiN**	
-08	☺	steel- and cast steel machining
	😐	stainless steels
	😐	aluminium, aluminium-alloys
Zg50	**high speed steel (Co10) coated [PVD] TiN**	
-09	☺	steel- and cast steel machining
	😐	stainless steels
	😐	aluminium, aluminium-alloys

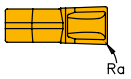
☺ gut geeignet / especially suitable for

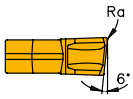
😐 geeignet / suitable for

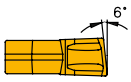












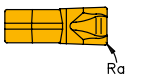
Wechselplatten / inserts

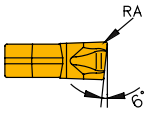
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	R_a	Qualität / quality Index / index	ZVA -23	Zg30 -07	Zs40 PVD -99	HSSE -08	Zg50 -09
Type: "MRCN-KXR" - Hauptschneide - Neutral / Typ:"MRCN-KXR" - primary cutting edge - neutral									
694.22100	MRCN-2.2-KXR-10	2.2	0.2		⦿	⦿	⦿		
694.30100	MRCN-3.0-KXR-10	3.0	0.2		▣	⦿	⦿	◈	◈
694.40100	MRCN-4.0-KXR-10	4.0	0.2			⦿	⦿		
694.50100	MRCN-5.0-KXR-10	5.0	0.3		⦿	⦿	⦿		
694.60100	MRCN-6.0-KXR-10	6.0	0.3		▣	⦿	⦿		
Type: "MRCR-KXR" - Leitwinkel - Rechts 6° / Typ:"MRCR-KXR" - lead angle - Right 6°									
694.22101	MRCR-2.2-KXR-10	2.2	0.2		⦿		▣		
694.30101	MRCR-3.0-KXR-10	3.0	0.2		⦿	▣	⦿	◈	◈
694.40101	MRCR-4.0-KXR-10	4.0	0.2		▣	▣	▣		
694.50101	MRCR-5.0-KXR-10	5.0	0.3		⦿		⦿		
694.60101	MRCR-6.0-KXR-10	6.0	0.3		▣	⦿	▣		
Type: "MRCL-KXR" - Leitwinkel - Links 6° / Typ:"MRCL-KXR" - lead angle - Left 6°									
694.22102	MRCL-2.2-KXR-10	2.2	0.2			▣	▣		
694.30102	MRCL-3.0-KXR-10	3.0	0.2		▣	▣	▣	◈	◈
694.40102	MRCL-4.0-KXR-10	4.0	0.2			▣	▣		
694.50102	MRCL-5.0-KXR-10	5.0	0.3		▣	⦿	▣		
694.60102	MRCL-6.0-KXR-10	6.0	0.3		◈	⦿	▣		
Type: "MRCN-KXF" - Hauptschneide - Neutral / typ:"MRCN-KXF" - Primary cutting edge - neutral									
694.30010	MRCN-3.0-KXF-10	3.0	0.2						
694.40010	MRCN-4.0-KXF-10	4.0	0.2		▣	▣	⦿		
694.50010	MRCN-5.0-KXF-10	5.0	0.3		▣		⦿		
694.60010	MRCN-6.0-KXF-10	6.0	0.3				⦿		
Type: "MRCR-KXF" - Leitwinkel - Rechts 6° / typ:"MRCR-KXF" - Lead angle - Right 6°									
694.16011	MRCR-1.6-KXF-10	1.6	0.05				▣		
694.30011	MRCR-3.0-KXF-10	3.0	0.1		▣	▣			
Type: "MRCL-KXF" - Leitwinkel - Links 6° / typ:"MRCL-KXF" - Lead angle - Left 6°									
694.16012	MRCL-1.6-KXF-10	1.6	0.05		▣				
694.30012	MRCL-3.0-KXF-10	3.0	0.1		▣	▣			

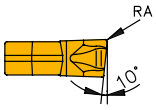
Bestellbeispiel / sample

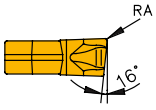
694.22100-**99**
694.42102-**07**

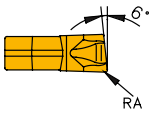
- Bei Bestellung bitte nur die **Artikel-Nr.** angeben und den Qualitäts-Index
- Please specify only **order-no.** in purchase-order and the quality-Index

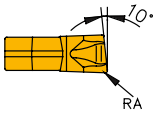


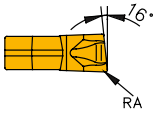












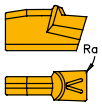
Wechselplatten / inserts

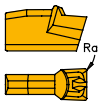
Artikel-Nr. order no.	Typ type	Stechbreite width of cut	R_a	Qualität / quality	K10	X-Blue	Alu-Speed	Zsn40 PVD	Zg30 PVD	Zs40 PVD
				Index / index	-04	-144	-145	-146	-88	-99
Type: "MRCN-KXV" - Hauptschneide - Neutral / Typ:"MRCN-KXV" - primary cutting edge - neutral										
694.15010	MRCN-1.6-KXV-10	1.6	0.15		▣					◉
694.22010	MRCN-2.2-KXV-10	2.2	0.2		▣	▣	▣		◉	◉
694.32010	MRCN-3.0-KXV-10	3.0	0.2		▣	▣	▣	▣	◉	◉
694.42010	MRCN-4.0-KXV-10	4.0	0.2		▣	▣	▣		▣	◉
694.52010	MRCN-5.0-KXV-10	5.0	0.3		▣					◉
Type: "MRCR-KXV" - Leitwinkel - Rechts 6° / Typ:"MRCR-KXV" - lead angle - Right 6°										
694.15011	MRCR-1.6-KXV-10	1.6	0.03		▣					▣
694.22011	MRCR-2.2-KXV-10	2.2	0.2		▣		◈			▣
694.32011	MRCR-3.0-KXV-10	3.0	0.2		▣		◈		◉	◉
694.42011	MRCR-4.0-KXV-10	4.0	0.2		◉		◈		▣	▣
694.52011	MRCR-5.0-KXV-10	5.0	0.3							▣
Type: "MRCR-KXV" - Leitwinkel - Rechts 10° / Typ:"MRCR-KXV" - lead angle - Right 10°										
694.15111	MRCR-1.6-KXV-10-10	1.6	0.03							▣
694.22111	MRCR-2.2-KXV-10-10	2.2	0.03							▣
694.32111	MRCR-3.0-KXV-10-10	3.0	0.03							▣
Type: "MRCR-KXV" - Leitwinkel - Rechts 16° / Typ:"MRCR-KXV" - lead angle - Right 16°										
694.15611	MRCR-1.6-KXV-10-16	1.6	0.03							▣
694.22611	MRCR-2.2-KXV-10-16	2.2	0.03							▣
694.32611	MRCR-3.0-KXV-10-16	3.0	0.03							▣
Type: "MRCL-KXV" - Leitwinkel - Links 6° / typ:"MRCL-KXV" - Lead angle - Left 6°										
694.15012	MRCL-1.6-KXV-10	1.6	0.03		▣					▣
694.22012	MRCL-2.2-KXV-10	2.2	0.2		▣		◈		◈	▣
694.32012	MRCL-3.0-KXV-10	3.0	0.2		▣		◈		▣	◉
694.42012	MRCL-4.0-KXV-10	4.0	0.2		◉		◈		◈	▣
694.52012	MRCL-5.0-KXV-10	5.0	0.3							▣
Type: "MRCL-KXV" - Leitwinkel - Links 10° / typ:"MRCL-KXV" - Lead angle - Left 10°										
694.15112	MRCL-1.6-KXV-10-10	1.6	0.03							▣
694.22112	MRCL-2.2-KXV-10-10	2.2	0.03							▣
694.32112	MRCL-3.0-KXV-10-10	3.0	0.03							▣
Type: "MRCL-KXV" - Leitwinkel - Links 16° / typ:"MRCL-KXV" - Lead angle - Left 16°										
694.15612	MRCL-1.6-KXV-10-16	1.6	0.03							▣
694.22612	MRCL-2.2-KXV-10-16	2.2	0.03							▣
694.32612	MRCL-3.0-KXV-10-16	3.0	0.03							▣

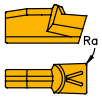
Bestellbeispiel / sample

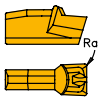
694.15010-**99**
694.32012-**145**

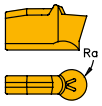
- Bei Bestellung bitte nur die **Artikel-Nr.** angeben und den Qualitäts-Index
- Please specify only **order-no.** in purchase-order and the quality-Index

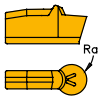












Wechselplatten / inserts

Artikel-Nr. order no.	Typ type	Stechbreite width of cut	R_a	Qualität / quality Index / index	K10 -04	Zg25 -32	Zg40 -70	Alu-Speed -145	Zg30 PVD -88	Zs40 PVD -99
Type: "MTE" / Typ:"MTE"										
693.03000	MTE-3.0-KXD-10	3.0	0.2		▣					◉
693.04000	MTE-4.0-KXD-10	4.0	0.2		▣	▣	▣			▣
693.05000	MTE-5.0-KXD-10	5.0	0.2		▣	▣				◉
693.06000	MTE-6.0-KXD-10	6.0	0.4		▣	▣				▣
Type: "MTE-KXG" - präzisionsgeschliffen ± 0.025 / Typ:"MTE" - precision grinded ± 0.025										
693.03300	MTE-3.0-KXG-10	3.0	0.2		▣					▣
693.04300	MTE-4.0-KXG-10	4.0	0.2		▣					▣
693.05300	MTE-5.0-KXG-10	5.0	0.2		▣					▣
693.06300	MTE-6.0-KXG-10	6.0	0.4		▣					▣
Type: "MTEA-KXD / Typ:"MTEA-KXD"										
693.03100	MTEA-3.0-KXD-10	3.0	0.2		▣	▣	▣			
693.04100	MTEA-4.0-KXD-10	4.0	0.2		▣	▣	▣			
Type: "MTEA-KXG" - präzisionsgeschliffen ± 0.025 / Typ:"MTEA" - precision grinded ± 0.025										
693.03400	MTEA-3.0-KXG-10	3.0	0.2							▣
693.04400	MTEA-4.0-KXG-10	4.0	0.2							▣
Type: "MTE…RA" / Typ:"MTE…RA"										
693.03015	MTE-3.0-KXD-10-RA1.5	3.0	1.5		▣					▣
693.04020	MTE-4.0-KXD-10-RA2.0	4.0	2.0		▣		▣			▣
693.05025	MTE-5.0-KXD-10-RA2.5	5.0	2.5		▣	▣	▣			▣
693.06030	MTE-6.0-KXD-10-RA3.0	6.0	3.0		▣	▣				▣
Type: "MTEA…RA" / Typ:"MTEA…RA"										
693.03115	MTEA-3.0-KXD-10-RA1.5	3.0	1.5		▣	▣	▣			▣
693.04120	MTEA-4.0-KXD-10-RA2.0	4.0	2.0		▣	▣	▣			

MTE-□□-KX□-10	Neutrale Hauptschneide, positiver Spanwinkel an Haupt- und Nebenschneiden zum Dreh-Stechen, Kopier-, Längs- und Plandrehen.	Primary cutting edge - neutral, positive rake angle at main- and secondary cutting edges, for turn-cut, copying, straight- and axial turning
MTE-□□-KXD-10-RA-□□	Vollradius-Schneideplatte, positiver Spanwinkel im Hauptschneidenbereich zum Dreh-Stechen, Kopieren sowie für Radialnuten mit Vollradius im Nutgrund.	Full radius insert, positive rake angle at the range of the primary cutting edge, for turn-cut, copying, as well as for radial-grooves with full radius at the bottom.
MTEA-□□-KXD-10	Wie MTE, jedoch zum Axialstechen von kleineren Durchmesserbereichen (**Achtung!** Nicht mit MTE-Platten austauschbar-kleineres Schaftmaß!)	Like MTE, however for axial-cutting of small diameter-ranges (**Attention!** Not exchangeable with MTE-inserts-smaller shank-size!)
MTEA-□□-KXD-10-RA-□□	Wie MTE, jedoch zum Axialstechen von kleineren Durchmesserbereichen (**Achtung!** Nicht mit MTE-Platten austauschbar-kleineres Schaftmaß!)	Like MTE, however for axial-cutting of small diameter-ranges (**Attention!** Not exchangeabie with MTE-inserts-smaller shank-size!)

- Zwischenmaße (Radien) aller hier aufgeführten Größen auf Anfrage.
- Fractional size (radius) for all the above size available on request.

- Stechbreitentoleranzen: Nennmaß + 0.3 mm
- Cutting width tolerances: Norminal size + 0.3 mm

Achtung!

Bei Verwendung von Wechselplatten-Typ „MTE-□□□-RA □□□ muss der Halter / Unterstützblatt stirnseitig dem Radius der Schneidplatte angepasst werden.

Attention!

When using the inserts-type „MTE-□□□-RA □□□ the holder / support blade mist be adapted to the insert radius on the front face.

Bestellbeispiel / sample

694.05000-**70**
694.04020-**04**

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben und den Qualitäts-Index
- Please specify only **order-no.** in purchase-order and the quality-Index

Wechselplatten / inserts

Artikel-Nr. order no.	Typ type	Qualität / quality Index / index	P20 -12	P25 -01	K10 -04	Zg30 -07	X-Blue -144	Alu-Speed -145
Schneidplatten - Schwerzerspanung / Inserts - heavy machining								
Type: "SHM" / Typ:"SHM"								
685.80001	SHM-8.0		▣			⦿	◈	
685.10001	SHM-10.0		⦿		▣	⦿	◈	
685.12001	SHM-12.0		⦿			⦿	◈	
Type: "SHM-F" / Typ:"SHM-F"								
685.80000	SHM-8.0-F		⦿			⦿	◈	
685.10000	SHM-10.0-F		⦿		▣	⦿	◈	
685.12000	SHM-12.0-F		⦿			⦿	◈	
Type: "SHM-R" / Typ:"SHM-R"								
685.80002	SHM-8.0-R					▣		◈
685.10002	SHM-10.0-R				⦿	◈		◈
685.12002	SHM-12.0-R					◈		◈
Schneidplatten - Innenstechen / Inserts - internal recessing								
Type: "JM" / Typ:"JM"								
686.20810	JM-2.0-N-6-GR1			▣	▣	◈		
686.23810	JM-2.3-N-6-GR1			▣	▣	◈		
686.30810	JM-3.0-N-6-GR1			▣	▣	▣		
686.40810	JM-4.0-N-6-GR1			▣	▣	▣		
686.50810	JM-5.0-N-6-GR1			▣	▣	◈		
686.60810	JM-6.0-N-6-GR1			▣	▣	▣		
Type: "JM" / Typ:"JM"								
686.20820	JM-2.0-N-6-GR2			▣	▣	◈		
686.23820	JM-2.3-N-6-GR2			▣	▣	◈		
686.30820	JM-3.0-N-6-GR2			◈	▣	▣		
686.40820	JM-4.0-N-6-GR2			▣	▣	▣		
686.50820	JM-5.0-N-6-GR2			▣	▣	◈		
686.60820	JM-6.0-N-6-GR2			▣	▣	◈		
Type: "JM" / Typ:"JM"								
686.20830	JM-2.0-N-6-GR3			▣	▣	◈		
686.23830	JM-2.3-N-6-GR3			▣	▣	◈		
686.30830	JM-3.0-N-6-GR3			▣	▣	◈		
686.40830	JM-4.0-N-6-GR3			▣	▣	▣		
Type: "JM" / Typ:"JM"								
686.20840	JM-2.0-N-6-GR4			▣	▣	◈		
686.23840	JM-2.3-N-6-GR4			▣	▣	▣		
686.30840	JM-3.0-N-6-GR4			▣	▣	◈		
686.38840	JM-3.8-N-6-GR4			▣	▣	◈		

Bestellbeispiel / sample

685.10000-**145**
685.40820-**04**

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben und den Qualitäts-Index
- Please specify only **order-no.** in purchase-order and the quality-Index

Werkstoff material	Schnittgeschwindigkeit m/min cutting-speed m/min								
	K10	ZVA	Zg30	Zg30 PVD	Zg40 PVD	Zsn40 PVD	Zs40PVD X-Blue	Alu-Speed	HSSE Zg50
ST37 / C15 / 9SMnPb28		90 - 200	90 - 200	90 - 220	100 - 250	80 - 250	75 - 280		20 - 80
ST50 / C50		90 - 180	90 - 180	90 - 150	100 - 180	80 - 180	75 - 220		20 - 70
ST60-70 / C60				90 - 150	100 - 180	80 - 180	75 - 220		20 - 65
16MnCr5		70 - 160	70 - 160	60 - 140	100 - 160	80 - 160	75 - 200		20 - 60
42CrMo 4 / 50CrV4		70 - 140	70 - 140	60 - 140	100 - 160	80 - 160	75 - 200		20 - 50
100Cr6 / 90MnCrV8		50 - 130	50 - 130	60 - 130	100 - 140	80 - 140	75 - 160		20 - 40
Rostbeständige Stähle stainless steel X - CrNi	30 - 70	40 - 60	60 - 80	60 - 130	100 - 150	80 - 155	70 - 170		20 - 40
Nickel-Legierungen Nickel-Alloys Inconel, Rene, Hastelloy	20 - 50					20 - 50			
Titan-Legierung Titanium-Alloys (Ti6Al-4V)	30 - 70					30 - 70			
Kobalt-Legierungen Cobalt-Alloys (Stellite)	15 - 20					15 - 20			
GG20 / GGG40	60 - 180	50 - 140	50 - 140		100 - 140	60 - 120	70 - 140		20 - 60
GG30 / GGG50	60 - 150	50 - 130	50 - 130		90 - 140	60 - 110	70 - 130		20 - 50
GG40 / GGG60	60 - 120	40 - 120	40 - 120		90 - 130	60 - 100	70 - 120		20 - 40
Alu rein / Alu Guß	500 - 2000	500 - 1000						250 - 2500	40 - 200
Knetlegierungen-Al-Si	200 - 600	300 - 700						300 - 1000	30 - 120

Werkstoff material	Vorschub mm/U feed mm/Revolution Stechbreite / width of cut								
	1.6	2.2	3.0	4.0	5.0	6.0	8.0	10.0	12.0
ST37 / C15 / 9SMnPb28	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
ST50 / C50	0.03 - 0.06	0.05 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22	0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
ST60-70 / C60	0.03 - 0.07	0.05 - 0.10	0.05 - 0.13	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22	0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
16MnCr5	0.03 - 0.08	0.05 - 0.11	0.05 - 0.14	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22	0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
42CrMo 4 / 50CrV4	0.03 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22	0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
100Cr6 / 90MnCrV8	0.03 - 0.04	0.05 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22	0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
Rostbeständige Stähle stainless steel X - CrNi	0.03 - 0.04	0.05 - 0.06	0.05 - 0.07	0.05 - 0.07	0.05 - 0.08	0.05 - 0.08	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Nickel-Legierungen Nickel-Alloys Inconel, Rene, Hastelloy	0.03 - 0.04	0.05 - 0.06	0.05 - 0.07	0.05 - 0.07	0.05 - 0.08	0.05 - 0.08	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Titan-Legierung Titanium-Alloys (Ti6Al-4V)	0.03 - 0.05	0.05 - 0.06	0.05 - 0.07	0.05 - 0.07	0.05 - 0.08	0.05 - 0.08	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Kobalt-Legierungen Cobalt-Alloys (Stellite)	0.03 - 0.04	0.05 - 0.06	0.05 - 0.07	0.05 - 0.07	0.05 - 0.08	0.05 - 0.08	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
GG20 / GGG40	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
GG30 / GGG50	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
GG40 / GGG60	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Alu rein / Alu Guß	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Knetlegierungen-Al-Si	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45

Achtung! / Attention!

Beim Planeinstechen bitte nur 70% der angegebenen Vorschubwerte einstellen
During the axial-grooving operation, please only use 70% from the declared feed value.

Faustregel aus der Praxis
Vorschub bei Hartmetall - Stechbreite x 0.02 bis 0.03
Vorschub bei HSSE und Zg 50 - Stechbreite x 0.02 bis 0.04
Rough rules from practical experience
Feed with carbides - width of cut 0.02 up to 0.03
Feed with HSSE and Zg 50 - width of cut 0.02 up to 0.04

(Ein- und Abstechen, Dreh-Stechen)

- Beim Abstechen - Schneidenhöhe (Hauptschneide) ~ 0.1 mm über Drehmitte einstellen.
- Das Werkzeug muss exakt rechtwinklig zur Drehachse stehen.
- Das Werkzeug grundsätzlich so stabil wie möglich einspannen (Vermeidung von Vibrationen).
- Der Vorschub ist auf 0.05 mm/U zu reduzieren, wenn beim Abstechen der Rest-Ø gleich der Stechbreite ist.
- Beim Einsatz der Wechselplatten-Typen „MRCR/MRCL“, sind die angegebenen Vorschubwerte um ca. 25% zu reduzieren.
- Plattenverschleiß ständig kontrollieren; bei einer Verschleißmarkenbreite VB [mm] von ca. 0.2 ist der Schneideinsatz zu wechseln, da durch den erhöhten Druck die Gefahr des Platten- und Schneidenträgerbruchs besteht.
- Beim Schneideinsatzwechsel darauf achten, dass der Plattensitz stets gesäubert wird und die neue Schneidplatte korrekt bis zum Anschlag- im Schneidenträger positioniert wird.
- Zum Wechseln der Schneideinsätze ausschließlich die dafür vorgesehenen Montagewerkzeuge verwenden - im Besonderen für die Schneidenträger zum Ein- und Abstechen darf grundsätzlich nur der Montageschlüssel verwendet werden (bei Verwendung anderer Hilfsmittel besteht die Gefahr der Überdehnung des Selbstklemmsystems).
- Beim Anziehen der Klemmschrauben mit Innensechskantschlüsseln keine Verlängerungen verwenden.
- Auf ausreichende und kontinuierliche Kühlmittelzufuhr achten, dies hat maßgeblichen Einfluss auf die Standzeit der Schneiden.
- Beim Längsdrehen (Schneideinsätze „MT...“) sollte der Vorschub 5% der Schneidenbreite nicht überschreiten. Dabei soll die Spantiefe < der Schneidenbreite sein, maximal 2.5 - 3mm nicht übersteigen.
- Beim Kopierdrehen ist darauf zu achten, dass nicht gleichzeitig in zwei Schnittrichtungen beim Einstechen in das Vollprofil gearbeitet wird (Auskammern von V-Nuten usw.). Hier ist grundsätzlich stufenweises Auskammern (Einstechvorgang-Längsdrehvorgang) vorzusehen.

(Recessing, Cut-off, Turn-Cut)

- During the cut-off operation - adjust the primary cutting edge ~ 0.1 mm above the centerline.
- The tool has to be located exactly rectangular to the axis of rotation.
- Mount the tool as stable as possible (avoidance of vibrations).
- The feed have to be reduced to 0.05 mm/rev., if the remaining-Ø is = to the width of cut.
- Using the inserts type „MRCR/MRCL“, the feed values have to be reduced ~ 25%.
- Permanent check the insert-wear; if the wearing-width VB [mm] is about 0.2 mm, the insert has
- To be replaced, otherwise the insert and, or the support blade can break, thoroughly the increased pressure.
- During the replacement of the insert, take care, that the insert-seat is cleaned and the new insert sit close to fixed stop.
- For changing the inserts, only use the original assembly-tools-especially in case of the support blades for recessing and cut-off-it‘s only permitted to use the assembly-key (using other assembly-tools, the risk can occur, that the self-clamping-systems will be overstretched).
- If pulling the clamping-screw by a hexagon head socket wrench, do not use additionally a wrench-extension.
- Take care that the coolant-supply is sufficient and constant, because this will have a decisive influence to the tool-life.
- During straight turning (inserts „MT...“), the feed should not exceed 5% of the width of cut. Even so the depth of cut, shall< to the width of cut, at maximum 2.5 - 3 mm.
- During copy-operation (for example „V-grooves“) - please take care, that the tool cannot operate simultaneously in two cutting directions. Basically, gradual grooving (recessing-straight turning) is provided.

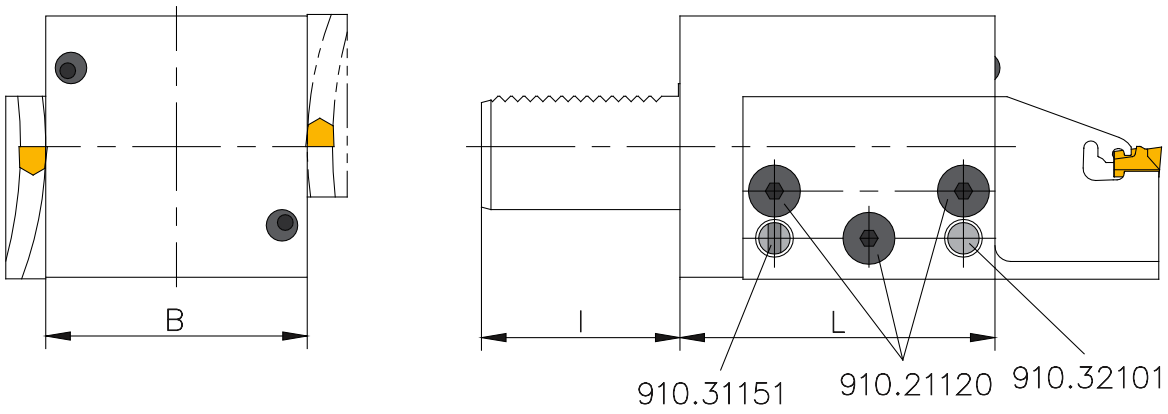
- Depth of cut (Axial): 50, 60, 70, 80 and 100 mm.
- Depth of cut (Radial): up to 250 mm
- Cutting width: 8.0 - 12.0 mm
- With the assembly - key, the „changing of the insert“ can be handled very easy.

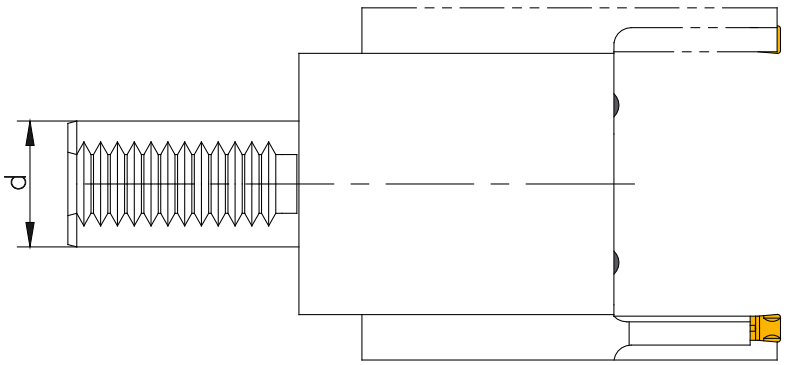
4 030854 310525

2 2

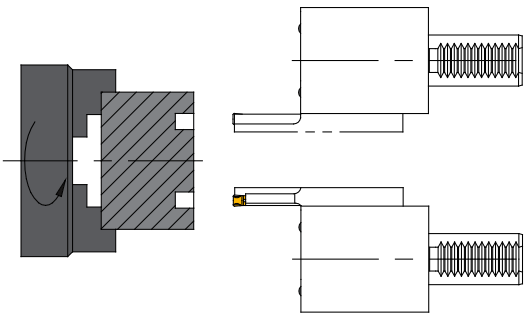
VDI

Toolholder left					
Order-no.	**Type**	**d**	**B**	**L**	**l**
102.40209	VDI-LRVHM-20-40/A	40	83	100	63
102.50209	VDI-LRVHM-25-50/A	50	98	100	78





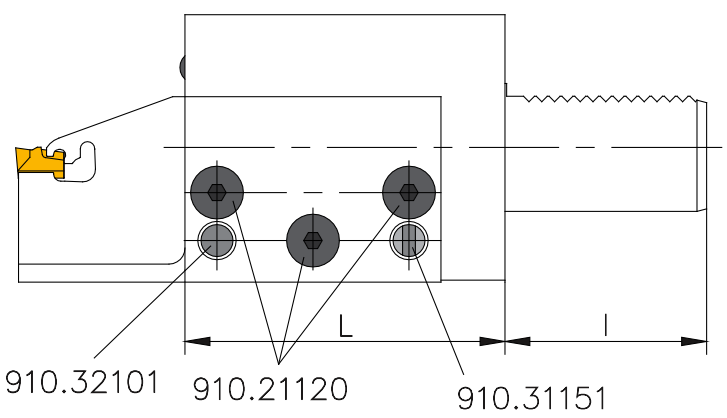
Left execution for clockwise (M 03)
in front of and behind the center line

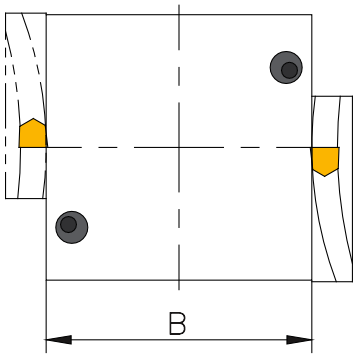


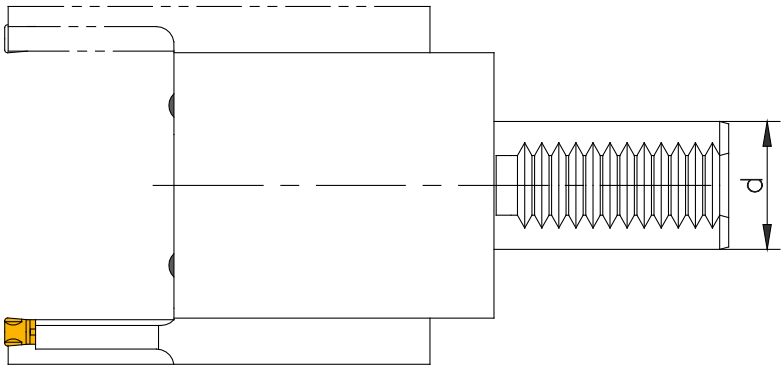
Face grooving
support blades:
MPUK L
look page 06, 08, 10

VDI

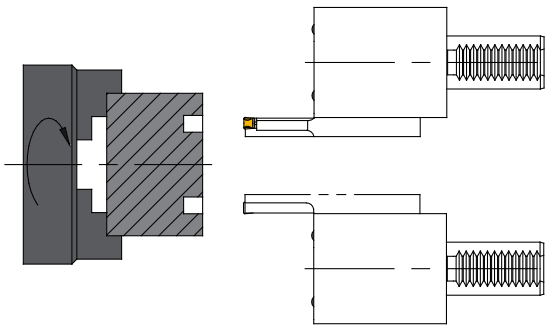
Toolholder right					
Order-no.	Type	d	B	L	l
102.40208	VDI-RLVHM-20-40/A	40	83	100	63
102.50208	VDI-RLVHM-25-50/A	50	98	100	78







Right execution for counter-clockwise (M 04)
in front of and behind the center line



Face grooving
support blades:
MPUK .... R
look page 07, 09, 11

MG / MPUK

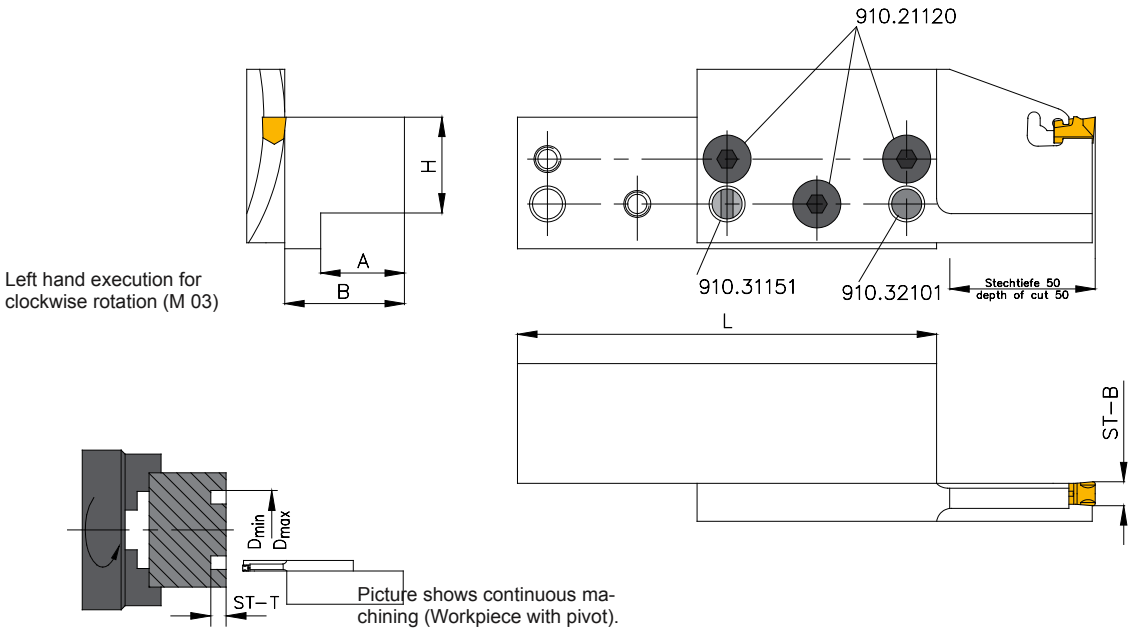
Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140

The support blades are also in continuous machining available.

(see ordering example)

Ordering example:
Normally machining
252.08060

Continuous machining
252.08060D



Left hand execution for clockwise rotation (M 03)

Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
252.08060	MPUK-8-50-0L-DB60-80	8	50	60-80	**685.8000**☐
252.08080	MPUK-8-50-0L-DB80-100	8	50	80-100	**685.8000**☐
252.08100	MPUK-8-50-0L-DB100-130	8	50	100-130	**685.8000**☐
252.08130	MPUK-8-50-0L-DB130-160	8	50	130-160	**685.8000**☐
252.08160	MPUK-8-50-0L-DB160-200	8	50	160-200	**685.8000**☐
252.08200	MPUK-8-50-0L-DB200-250	8	50	200-250	**685.8000**☐
252.08250	MPUK-8-50-0L-DB250-350	8	50	250-350	**685.8000**☐
252.08350	MPUK-8-50-0L-DB350-	8	50	350-∞	**685.8000**☐
252.10060	MPUK-10-50-0L-DB60-80	10	50	60-80	**685.1000**☐
252.10080	MPUK-10-50-0L-DB80-100	10	50	80-100	**685.1000**☐
252.10100	MPUK-10-50-0L-DB100-130	10	50	100-130	**685.1000**☐
252.10130	MPUK-10-50-0L-DB130-160	10	50	130-160	**685.1000**☐
252.10160	MPUK-10-50-0L-DB160-200	10	50	160-200	**685.1000**☐
252.10200	MPUK-10-50-0L-DB200-250	10	50	200-250	**685.1000**☐
252.10250	MPUK-10-50-0L-DB250-350	10	50	250-350	**685.1000**☐
252.10350	MPUK-10-50-0L-DB350-	10	50	350-∞	**685.1000**☐
252.12060	MPUK-12-50-0L-DB60-80	12	50	60-80	**685.1200**☐
252.12080	MPUK-12-50-0L-DB80-100	12	50	80-100	**685.1200**☐
252.12100	MPUK-12-50-0L-DB100-130	12	50	100-130	**685.1200**☐
252.12130	MPUK-12-50-0L-DB130-160	12	50	130-160	**685.1200**☐
252.12160	MPUK-12-50-0L-DB160-200	12	50	160-200	**685.1200**☐
252.12200	MPUK-12-50-0L-DB200-250	12	50	200-250	**685.1200**☐
252.12250	MPUK-12-50-0L-DB250-350	12	50	250-350	**685.1200**☐
252.12350	MPUK-12-50-0L-DB350-	12	50	350-∞	**685.1200**☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

The support blades are also in continuous machining available.

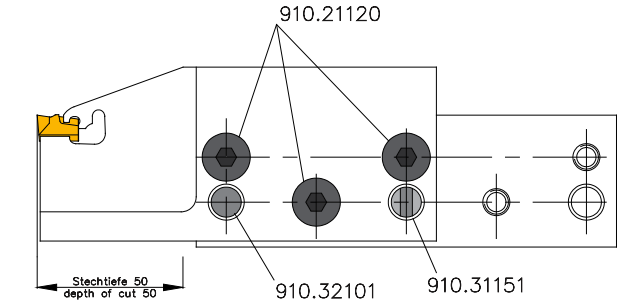
(see ordering example)

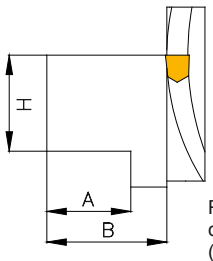
Ordering example:
Normally machining
251.08060

Continuous machining
251.08060D

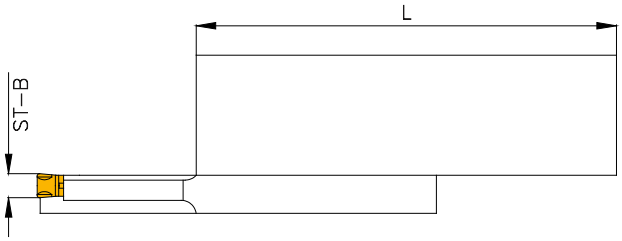
MG / MPUK

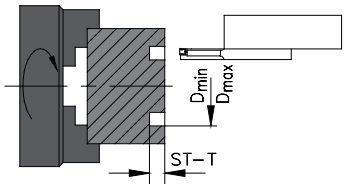
Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140





Right hand execution for counter-clockwise rotation (M 04)





Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
251.08060	MPUK-8-50-0R-DB60-80	8	50	60-80	**685.8000☐**
251.08080	MPUK-8-50-0R-DB80-100	8	50	80-100	**685.8000☐**
251.08100	MPUK-8-50-0R-DB100-130	8	50	100-130	**685.8000☐**
251.08130	MPUK-8-50-0R-DB130-160	8	50	130-160	**685.8000☐**
251.08160	MPUK-8-50-0R-DB160-200	8	50	160-200	**685.8000☐**
251.08200	MPUK-8-50-0R-DB200-250	8	50	200-250	**685.8000☐**
251.08250	MPUK-8-50-0R-DB250-350	8	50	250-350	**685.8000☐**
251.08350	MPUK-8-50-0R-DB350-	8	50	350-∞	**685.8000☐**
251.10060	MPUK-10-50-0R-DB60-80	10	50	60-80	**685.1000☐**
251.10080	MPUK-10-50-0R-DB80-100	10	50	80-100	**685.1000☐**
251.10100	MPUK-10-50-0R-DB100-130	10	50	100-130	**685.1000☐**
251.10130	MPUK-10-50-0R-DB130-160	10	50	130-160	**685.1000☐**
251.10160	MPUK-10-50-0R-DB160-200	10	50	160-200	**685.1000☐**
251.10200	MPUK-10-50-0R-DB200-250	10	50	200-250	**685.1000☐**
251.10250	MPUK-10-50-0R-DB250-350	10	50	250-350	**685.1000☐**
251.10350	MPUK-10-50-0R-DB350-	10	50	350-∞	**685.1000☐**
251.12060	MPUK-12-50-0R-DB60-80	12	50	60-80	**685.1200☐**
251.12080	MPUK-12-50-0R-DB80-100	12	50	80-100	**685.1200☐**
251.12100	MPUK-12-50-0R-DB100-130	12	50	100-130	**685.1200☐**
251.12130	MPUK-12-50-0R-DB130-160	12	50	130-160	**685.1200☐**
251.12160	MPUK-12-50-0R-DB160-200	12	50	160-200	**685.1200☐**
251.12200	MPUK-12-50-0R-DB200-250	12	50	200-250	**685.1200☐**
251.12250	MPUK-12-50-0R-DB250-350	12	50	250-350	**685.1200☐**
251.12350	MPUK-12-50-0R-DB350-	12	50	350-∞	**685.1200☐**

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

MG / MPUK

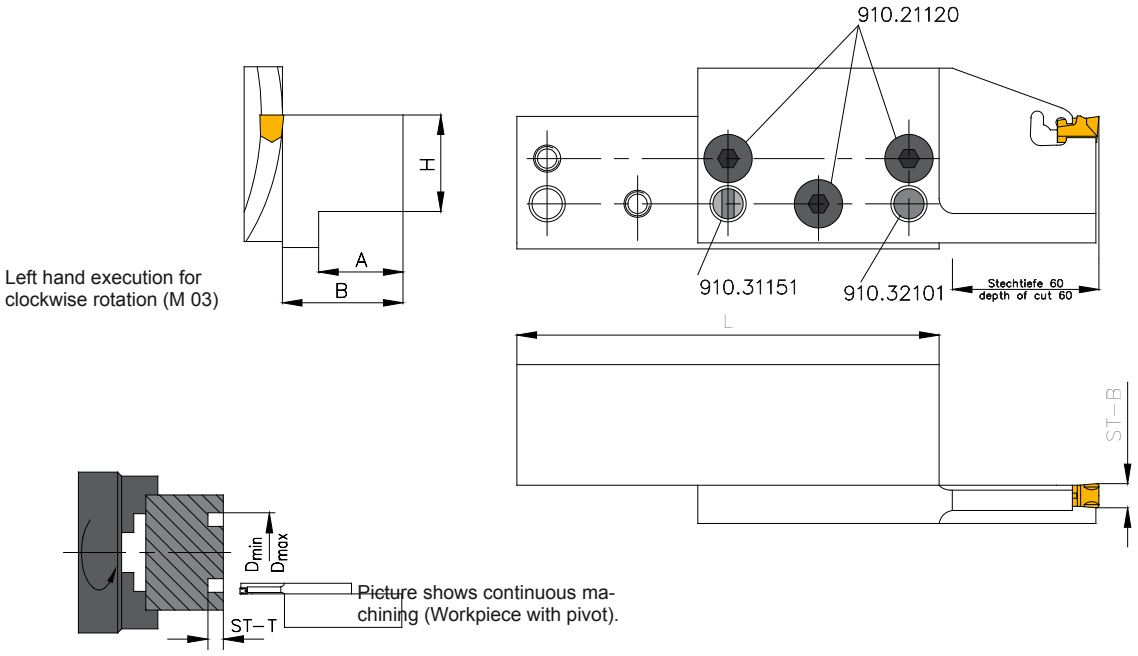
Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140

The support blades are also in continuous machining available.

(see ordering example)

Ordering example:
Normally machining
265.08060

Continuous machining
265.08060D



Left hand execution for clockwise rotation (M 03)

Picture shows continuous machining (Workpiece with pivot).

Insert look at page 21

Support blades Order-no.	TypType	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
265.08060	MPUK-8-60-0L-DB60-80	8	60	60-80	685.8000☐
265.08080	MPUK-8-60-0L-DB80-100	8	60	80-100	685.8000☐
265.08100	MPUK-8-60-0L-DB100-130	8	60	100-130	685.8000☐
265.08130	MPUK-8-60-0L-DB130-160	8	60	130-160	685.8000☐
265.08160	MPUK-8-60-0L-DB160-200	8	60	160-200	685.8000☐
265.08200	MPUK-8-60-0L-DB200-250	8	60	200-250	685.8000☐
265.08250	MPUK-8-60-0L-DB250-350	8	60	250-350	685.8000☐
265.08350	MPUK-8-60-0L-DB350-	8	60	350-∞	685.8000☐
265.10060	MPUK-10-60-0L-DB60-80	10	60	60-80	685.1000☐
265.10080	MPUK-10-60-0L-DB80-100	10	60	80-100	685.1000☐
265.10100	MPUK-10-60-0L-DB100-130	10	60	100-130	685.1000☐
265.10130	MPUK-10-60-0L-DB130-160	10	60	130-160	685.1000☐
265.10160	MPUK-10-60-0L-DB160-200	10	60	160-200	685.1000☐
265.10200	MPUK-10-60-0L-DB200-250	10	60	200-250	685.1000☐
265.10250	MPUK-10-60-0L-DB250-350	10	60	250-350	685.1000☐
265.10350	MPUK-10-60-0L-DB350-	10	60	350-∞	685.1000☐
265.12060	MPUK-12-60-0L-DB60-80	12	60	60-80	685.1200☐
265.12080	MPUK-12-60-0L-DB80-100	12	60	80-100	685.1200☐
265.12100	MPUK-12-60-0L-DB100-130	12	60	100-130	685.1200☐
265.12130	MPUK-12-60-0L-DB130-160	12	60	130-160	685.1200☐
265.12160	MPUK-12-60-0L-DB160-200	12	60	160-200	685.1200☐
265.12200	MPUK-12-60-0L-DB200-250	12	60	200-250	685.1200☐
265.12250	MPUK-12-60-0L-DB250-350	12	60	250-350	685.1200☐
265.12350	MPUK-12-60-0L-DB350-	12	60	350-∞	685.1200☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

The support blades are also in continuous machining available.

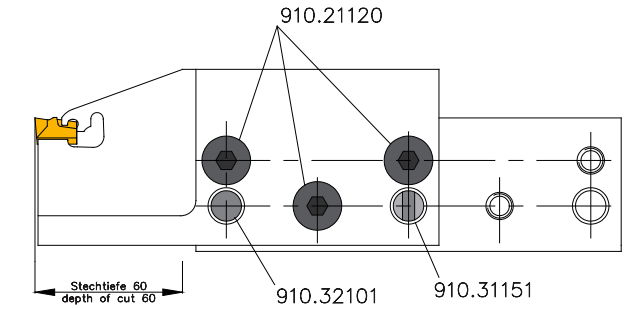
(see ordering example)

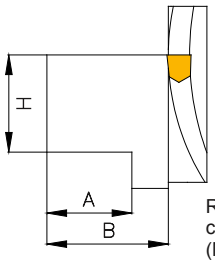
Ordering example:
Normally machining
264.08060

Continuous machining
264.08060D

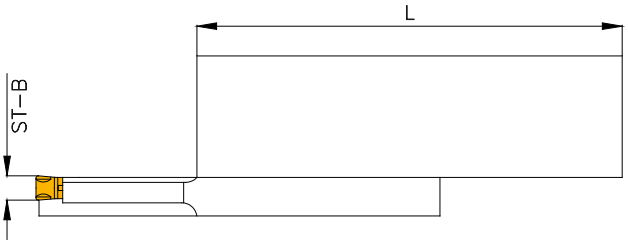
MG / MPUK

Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140

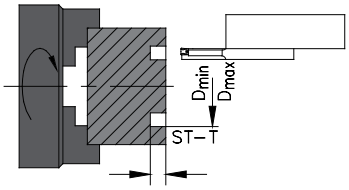




Right hand execution for counter-clockwise rotation (M 04)



Picture shows continuous machining (Workpiece with pivot).



Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
264.08060	MPUK-8-60-0R-DB60-80	8	60	60-80	**685.8000☐**
264.08080	MPUK-8-60-0R-DB80-100	8	60	80-100	**685.8000☐**
264.08100	MPUK-8-60-0R-DB100-130	8	60	100-130	**685.8000☐**
264.08130	MPUK-8-60-0R-DB130-160	8	60	130-160	**685.8000☐**
264.08160	MPUK-8-60-0R-DB160-200	8	60	160-200	**685.8000☐**
264.08200	MPUK-8-60-0R-DB200-250	8	60	200-250	**685.8000☐**
264.08250	MPUK-8-60-0R-DB250-350	8	60	250-350	**685.8000☐**
264.08350	MPUK-8-60-0R-DB350-	8	60	350- ∞	**685.8000☐**
264.10060	MPUK-10-60-0R-DB60-80	10	60	60-80	**685.1000☐**
264.10080	MPUK-10-60-0R-DB80-100	10	60	80-100	**685.1000☐**
264.10100	MPUK-10-60-0R-DB100-130	10	60	100-130	**685.1000☐**
264.10130	MPUK-10-60-0R-DB130-160	10	60	130-160	**685.1000☐**
264.10160	MPUK-10-60-0R-DB160-200	10	60	160-200	**685.1000☐**
264.10200	MPUK-10-60-0R-DB200-250	10	60	200-250	**685.1000☐**
264.10250	MPUK-10-60-0R-DB250-350	10	60	250-350	**685.1000☐**
264.10350	MPUK-10-60-0R-DB350-	10	60	350- ∞	**685.1000☐**
264.12060	MPUK-12-60-0R-DB60-80	12	60	60-80	**685.1200☐**
264.12080	MPUK-12-60-0R-DB80-100	12	60	80-100	**685.1200☐**
264.12100	MPUK-12-60-0R-DB100-130	12	60	100-130	**685.1200☐**
264.12130	MPUK-12-60-0R-DB130-160	12	60	130-160	**685.1200☐**
264.12160	MPUK-12-60-0R-DB160-200	12	60	160-200	**685.1200☐**
264.12200	MPUK-12-60-0R-DB200-250	12	60	200-250	**685.1200☐**
264.12250	MPUK-12-60-0R-DB250-350	12	60	250-350	**685.1200☐**
264.12350	MPUK-12-60-0R-DB350-	12	60	350- ∞	**685.1200☐**

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

MG / MPUK

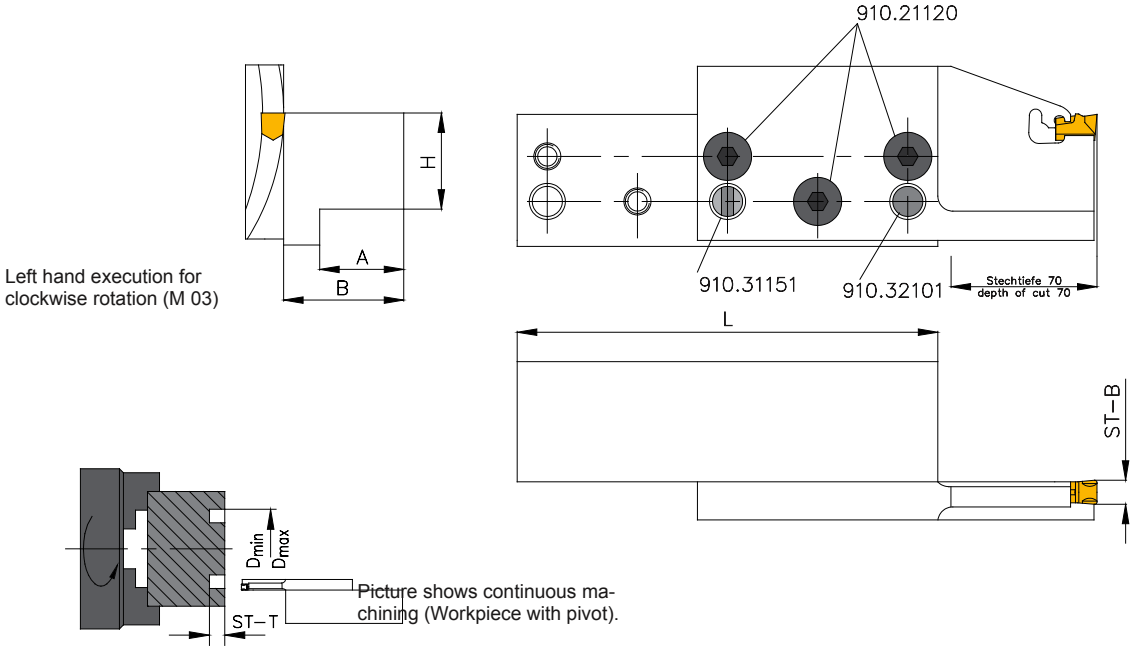
Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140

The support blades are also in continuous machining available.

(see ordering example)

Ordering example:
Normally machining
267.08100

Continuous machining
267.08100D



Left hand execution for clockwise rotation (M 03)

Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
267.08100	MPUK-8-70-0L-DB100-130	8	70	100-130	**685.8000**☐
267.08130	MPUK-8-70-0L-DB130-160	8	70	130-160	**685.8000**☐
267.08160	MPUK-8-70-0L-DB160-200	8	70	160-200	**685.8000**☐
267.08200	MPUK-8-70-0L-DB200-250	8	70	200-250	**685.8000**☐
267.08250	MPUK-8-70-0L-DB250-350	8	70	250-350	**685.8000**☐
267.08350	MPUK-8-70-0L-DB350-	8	70	350- ∞	**685.8000**☐
267.10100	MPUK-10-70-0L-DB100-130	10	70	100-130	**685.1000**☐
267.10130	MPUK-10-70-0L-DB130-160	10	70	130-160	**685.1000**☐
267.10160	MPUK-10-70-0L-DB160-200	10	70	160-200	**685.1000**☐
267.10200	MPUK-10-70-0L-DB200-250	10	70	200-250	**685.1000**☐
267.10250	MPUK-10-70-0L-DB250-350	10	70	250-350	**685.1000**☐
267.10350	MPUK-10-70-0L-DB350-	10	70	350- ∞	**685.1000**☐
267.12100	MPUK-12-70-0L-DB100-130	12	70	100-130	**685.1200**☐
267.12130	MPUK-12-70-0L-DB130-160	12	70	130-160	**685.1200**☐
267.12160	MPUK-12-70-0L-DB160-200	12	70	160-200	**685.1200**☐
267.12200	MPUK-12-70-0L-DB200-250	12	70	200-250	**685.1200**☐
267.12250	MPUK-12-70-0L-DB250-350	12	70	250-350	**685.1200**☐
267.12350	MPUK-12-70-0L-DB350-	12	70	350- ∞	**685.1200**☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

The support blades are also in continuous machining available.

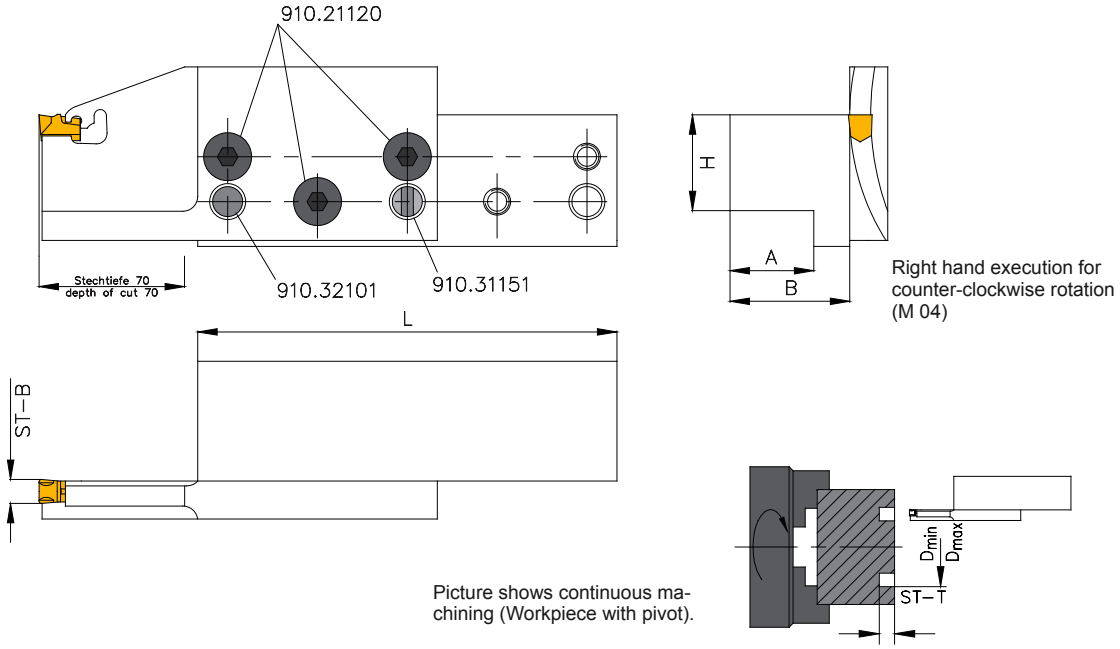
(see ordering example)

Ordering example:
Normally machining
266.08100

Continuous machining
266.08100D

MG / MPUK

Toolholder Order-no.	Type	H	A	B	L
203.25200	MG-25-2000	25	18	30	140
203.32200	MG-32-2000	32	28	40	140
203.40200	MG-40-2000	40	---	40	140



Right hand execution for counter-clockwise rotation (M 04)

Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
266.08100	MPUK-8-70-0R-DB100-130	8	70	100-130	**685.8000**☐
266.08130	MPUK-8-70-0R-DB130-160	8	70	130-160	**685.8000**☐
266.08160	MPUK-8-70-0R-DB160-200	8	70	160-200	**685.8000**☐
266.08200	MPUK-8-70-0R-DB200-250	8	70	200-250	**685.8000**☐
266.08250	MPUK-8-70-0R-DB250-350	8	70	250-350	**685.8000**☐
266.08350	MPUK-8-70-0R-DB350-	8	70	350-∞	**685.8000**☐
266.10100	MPUK-10-70-0R-DB100-130	10	70	100-130	**685.1000**☐
266.10130	MPUK-10-70-0R-DB130-160	10	70	130-160	**685.1000**☐
266.10160	MPUK-10-70-0R-DB160-200	10	70	160-200	**685.1000**☐
266.10200	MPUK-10-70-0R-DB200-250	10	70	200-250	**685.1000**☐
266.10250	MPUK-10-70-0R-DB250-350	10	70	250-350	**685.1000**☐
266.10350	MPUK-10-70-0R-DB350-	10	70	350-∞	**685.1000**☐
266.12100	MPUK-12-70-0R-DB100-130	12	70	100-130	**685.1200**☐
266.12130	MPUK-12-70-0R-DB130-160	12	70	130-160	**685.1200**☐
266.12160	MPUK-12-70-0R-DB160-200	12	70	160-200	**685.1200**☐
266.12200	MPUK-12-70-0R-DB200-250	12	70	200-250	**685.1200**☐
266.12250	MPUK-12-70-0R-DB250-350	12	70	250-350	**685.1200**☐
266.12350	MPUK-12-70-0R-DB350-	12	70	350-∞	**685.1200**☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

SG / SPUK

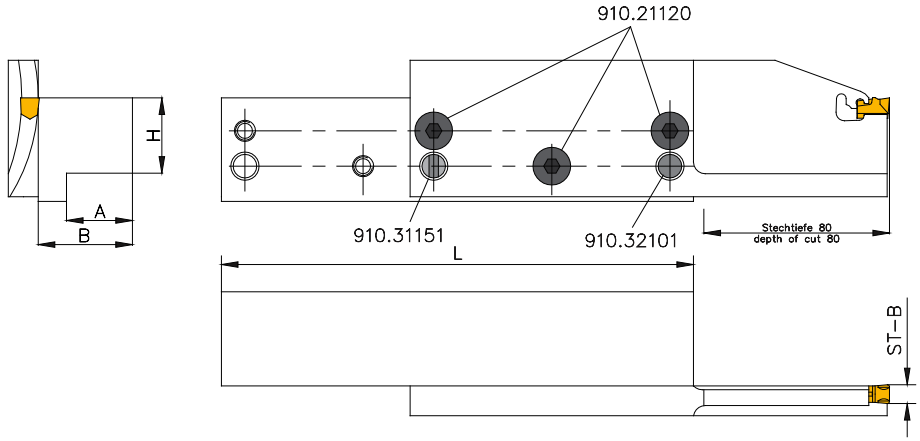
Toolholder Order-no.	Type	H	A	B	L
204.25220	SG-25-220	25	25	37	220
204.32220	SG-32-220	32	32	44	220
204.40220	SG-40-220	40	38	50	220

The support blades are also in continuous machining available.

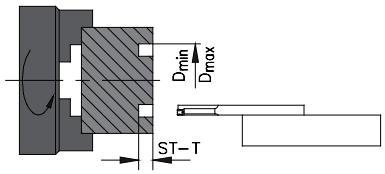
(see ordering example)

Ordering example:
Normally machining
274.08100

Continuous machining
274.08100D



Left hand execution for clockwise rotation (M 03)



Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
274.08100	SPUK-8-80-0L-DB100-130	8	80	100-130	**685.8000**☐
274.08130	SPUK-8-80-0L-DB130-160	8	80	130-160	**685.8000**☐
274.08160	SPUK-8-80-0L-DB160-200	8	80	160-200	**685.8000**☐
274.08200	SPUK-8-80-0L-DB200-250	8	80	200-250	**685.8000**☐
274.08250	SPUK-8-80-0L-DB250-350	8	80	250-350	**685.8000**☐
274.08350	SPUK-8-80-0L-DB350-	8	80	350-∞	**685.8000**☐
274.10100	SPUK-10-80-0L-DB100-130	10	80	100-130	**685.1000**☐
274.10130	SPUK-10-80-0L-DB130-160	10	80	130-160	**685.1000**☐
274.10160	SPUK-10-80-0L-DB160-200	10	80	160-200	**685.1000**☐
274.10200	SPUK-10-80-0L-DB200-250	10	80	200-250	**685.1000**☐
274.10250	SPUK-10-80-0L-DB250-350	10	80	250-350	**685.1000**☐
274.10350	SPUK-10-80-0L-DB350-	10	80	350-∞	**685.1000**☐
274.12100	SPUK-12-80-0L-DB100-130	12	80	100-130	**685.1200**☐
274.12130	SPUK-12-80-0L-DB130-160	12	80	130-160	**685.1200**☐
274.12160	SPUK-12-80-0L-DB160-200	12	80	160-200	**685.1200**☐
274.12200	SPUK-12-80-0L-DB200-250	12	80	200-250	**685.1200**☐
274.12250	SPUK-12-80-0L-DB250-350	12	80	250-350	**685.1200**☐
274.12350	SPUK-12-80-0L-DB350-	12	80	350-∞	**685.1200**☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

The support blades are also in continuous machining available.

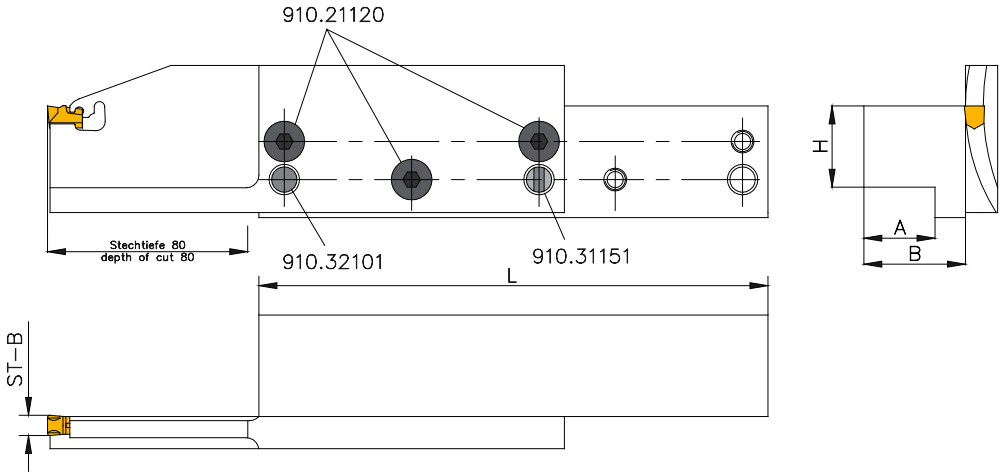
(see ordering example)

Ordering example:
Normally machining
273.08100

Continuous machining
273.08100D

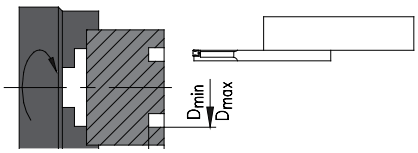
SG / SPUK

Toolholder Order-no.	Type	H	A	B	L
204.25220	SG-25-220	25	25	37	220
204.32220	SG-32-220	32	32	44	220
204.40220	SG-40-220	40	38	50	220



Right hand execution for counter-clockwise rotation (M 04)

Picture shows continuous machining (Workpiece with pivot).



Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
273.08100	SPUK-8-80-0R-DB100-130	8	80	100-130	**685.8000☐**
273.08130	SPUK-8-80-0R-DB130-160	8	80	130-160	**685.8000☐**
273.08160	SPUK-8-80-0R-DB160-200	8	80	160-200	**685.8000☐**
273.08200	SPUK-8-80-0R-DB200-250	8	80	200-250	**685.8000☐**
273.08250	SPUK-8-80-0R-DB250-350	8	80	250-350	**685.8000☐**
273.08350	SPUK-8-80-0R-DB350-	8	80	350-∞	**685.8000☐**
273.10100	SPUK-10-80-0R-DB100-130	10	80	100-130	**685.1000☐**
273.10130	SPUK-10-80-0R-DB130-160	10	80	130-160	**685.1000☐**
273.10160	SPUK-10-80-0R-DB160-200	10	80	160-200	**685.1000☐**
273.10200	SPUK-10-80-0R-DB200-250	10	80	200-250	**685.1000☐**
273.10250	SPUK-10-80-0R-DB250-350	10	80	250-350	**685.1000☐**
273.10350	SPUK-10-80-0R-DB350-	10	80	350-∞	**685.1000☐**
273.12100	SPUK-12-80-0R-DB100-130	12	80	100-130	**685.1200☐**
273.12130	SPUK-12-80-0R-DB130-160	12	80	130-160	**685.1200☐**
273.12160	SPUK-12-80-0R-DB160-200	12	80	160-200	**685.1200☐**
273.12200	SPUK-12-80-0R-DB200-250	12	80	200-250	**685.1200☐**
273.12250	SPUK-12-80-0R-DB250-350	12	80	250-350	**685.1200☐**
273.12350	SPUK-12-80-0R-DB350-	12	80	350-∞	**685.1200☐**

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

SG / SPUK

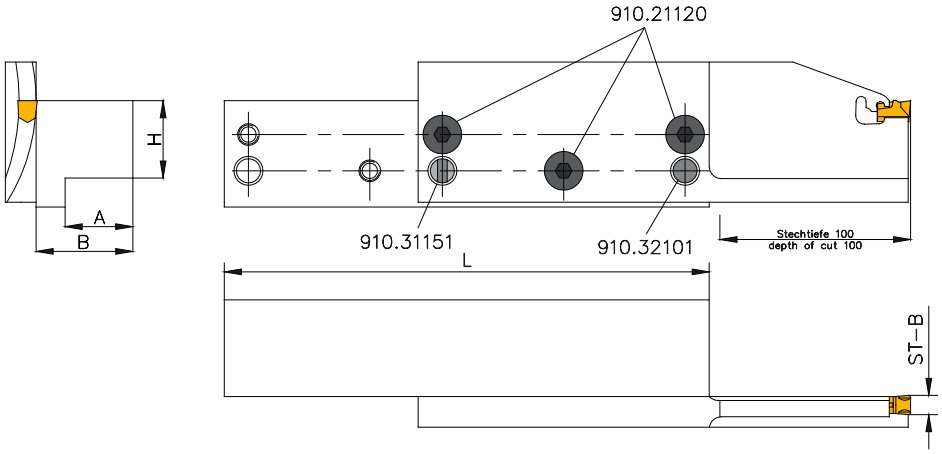
Toolholder Order-no.	Type	H	A	B	L
204.25220	SG-25-220	25	25	37	220
204.32220	SG-32-220	32	32	44	220
204.40220	SG-40-220	40	38	50	220

The support blades are also in continuous machining available.

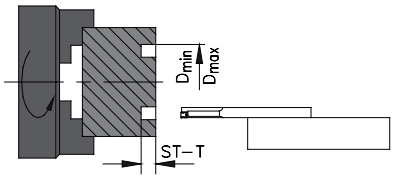
(see ordering example)

Ordering example:
Normally machining
276.08130

Continuous machining
276.08130D



Left hand execution for clockwise rotation (M 03)



Picture shows continuous machining (Workpiece with pivot).

Insert look at page **21**

Support blades Order-no.	Type	ST-B	ST-T	Dmin / Dmax	Inserts Order-no.
276.08130	SPUK-8-100-0L-DB130-160	8	100	130-160	**685.8000**☐
276.08160	SPUK-8-100-0L-DB160-200	8	100	160-200	**685.8000**☐
276.08200	SPUK-8-100-0L-DB200-250	8	100	200-250	**685.8000**☐
276.08250	SPUK-8-100-0L-DB250-350	8	100	250-350	**685.8000**☐
276.08350	SPUK-8-100-0L-DB350-	8	100	350-∞	**685.8000**☐
276.10130	SPUK-10-100-0L-DB130-160	10	100	130-160	**685.1000**☐
276.10160	SPUK-10-100-0L-DB160-200	10	100	160-200	**685.1000**☐
276.10200	SPUK-10-100-0L-DB200-250	10	100	200-250	**685.1000**☐
276.10250	SPUK-10-100-0L-DB250-350	10	100	250-350	**685.1000**☐
276.10350	SPUK-10-100-0L-DB350-	10	100	350-∞	**685.1000**☐
276.12130	SPUK-12-100-0L-DB130-160	12	100	130-160	**685.1200**☐
276.12160	SPUK-12-100-0L-DB160-200	12	100	160-200	**685.1200**☐
276.12200	SPUK-12-100-0L-DB200-250	12	100	200-250	**685.1200**☐
276.12250	SPUK-12-100-0L-DB250-350	12	100	250-350	**685.1200**☐
276.12350	SPUK-12-100-0L-DB350-	12	100	350-∞	**685.1200**☐

Assembly set for Continuous machining. ...D
Order-no.: 950.00023
(accessories)

Spare part

Assembly key:
Order-no.: 920.14001

Order-no.	TypType	Ra¹	Quality Index	P20 -12	Zg30 -07	X-Blue -144	Alu-Speed -145
Type: „SHM“							
685.80001	SHM-8.0	0.8		▣	◉	◈	
685.10001	SHM-10.0	0.8		◉	◉	◈	
685.12001	SHM-12.0	0.8		◉	◉	◈	
Type: „SHM-F“							
685.80000	SHM-8.0-F	0.8		◉	◉	◈	
685.10000	SHM-10.0-F	0.8		◉	◉	◈	
685.12000	SHM-12.0-F	0.8		◉	◉	◈	
Type: „SHM-R“							
685.80002	SHM-8.0-R	0.8		◈	▣		◈
685.10002	SHM-10.0-R	0.8		◈	◈		◈
685.12002	SHM-12.0-R	0.8			◈		◈
Type: „SHMJ“							
685.80003	SHMJ-8.0	0.8		▣	◉	◈	

Order-no.	Type	Ra¹	Quality Index	Zs40 PVD -99
Type: „MTE-KXD“				
693.08000	MTE-8.0-KXD-10	0.4		▣
Type: „MTE-KXG“				
693.08300	MTE-8.0-KXG-10	0.4		▣
Type: „MTE...RA“				
693.08040	MTE-8.0-KXD-10-RA4.0	4.0		◈

Ra¹ = Corner radius

Order sample:

685.80001-07 for Zg30
685.80001-12 for P20
685.80001-144 for X-Blue

◉ 2 - 3 Days
▣ Within 1 week
◈ Upon request

Summary of carbide types and application purpose

Technical information

P20
-12 ☺ **Carbide uncoated (P20)**
☺ alloyed steels (s < 800 N/mm2)
😐 cast iron / GTW, GTS

Zg30
-07 ☺ **Carbide coated [CVD] TIN-TiCN-TiN (P35 - M25)**
alloyed- and high-alloyed steels (s < 1000 N/mm2)

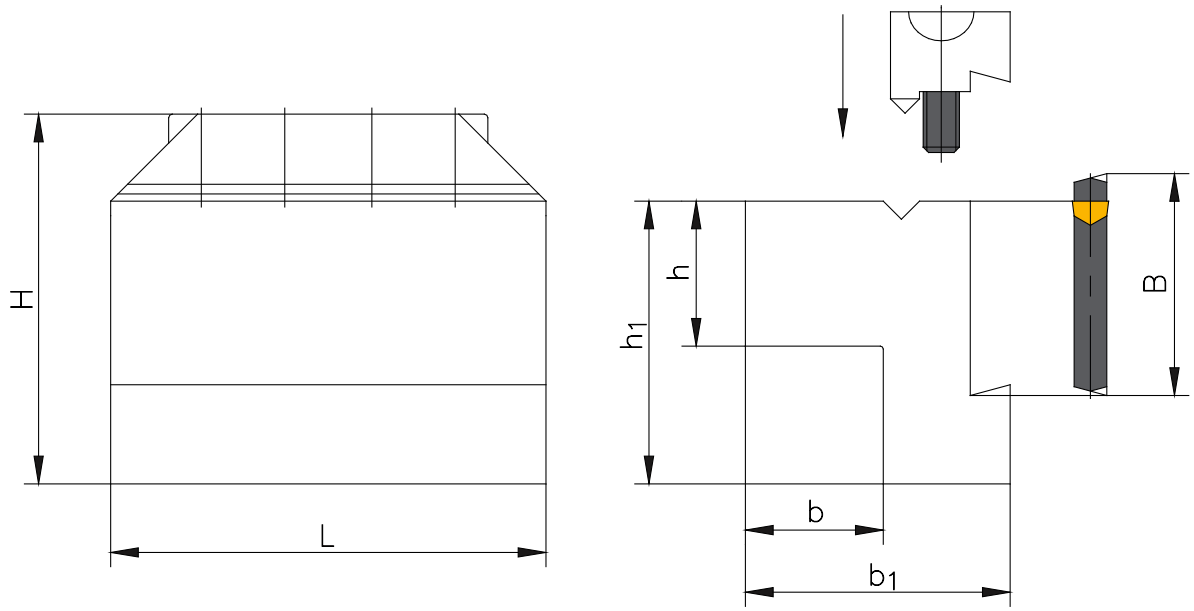
Zs40 PVD
-99 ☺ **Carbide coated [PVD] TiAIN (P40 - M30 - K35)**
high-temperature-resisting- and stainless steels (s < 1000 N/mm2)
😐 Titanium and titanium-alloys
😐 cast iron / GTW, GTS, GG, GGG
😐 non-ferrous metal, aluminum, aluminum-alloys, plastics

X-Blue
-144 ☺ **Carbide – Supernitrit coated (P30 - P45)**
☺ high-temperature-resisting- and stainless steels
☺ Titanium and titanium base alloys (s < 1000 N/mm2)
☺ cast iron / GTW, GTS, GG, GGG
😐 non-ferrous metal, aluminum, aluminum-alloys, plastics

Alu-Speed
-145 ☺ **Carbide coated (Super Speed) (K05 - K15)**
☺ Aluminum, copper
☺ Titan and titanium base alloy

CCN-KL

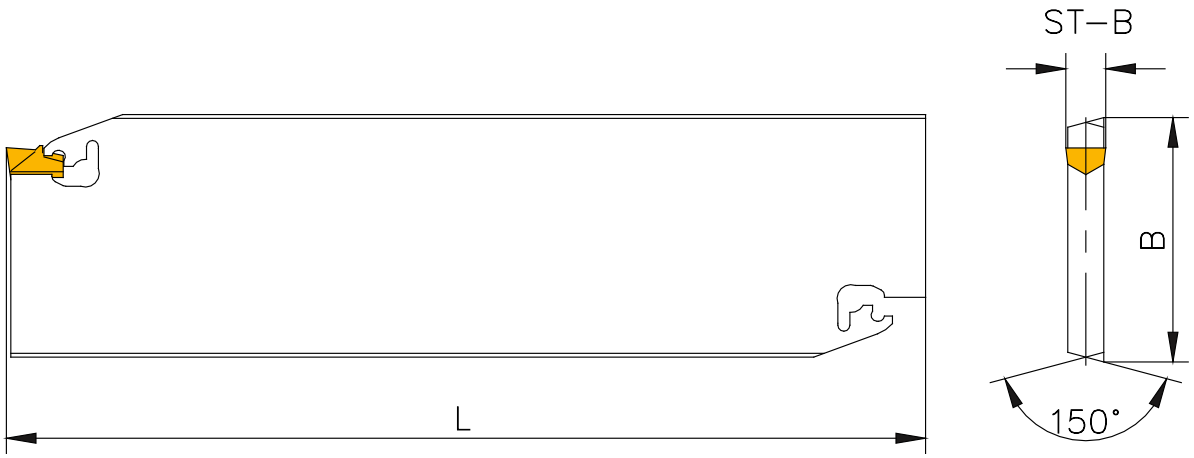
Toolholder Order-no.	Type	h	b	L	h1	b1	H	Spare parts Order-no.	Screws
205.25600	CCN-25/60-KL	25	23	120	78	58	102		**910.35140**
205.32600	CCN-32/60-KL	32	30	120	78	65	102		**910.35140**
205.40600	CCN-40/60-KL	40	38	120	78	73	102		**910.35140**
205.50600	CCN-50/60-KL	50	43	120	78	78	102		**910.35140**



ZUK

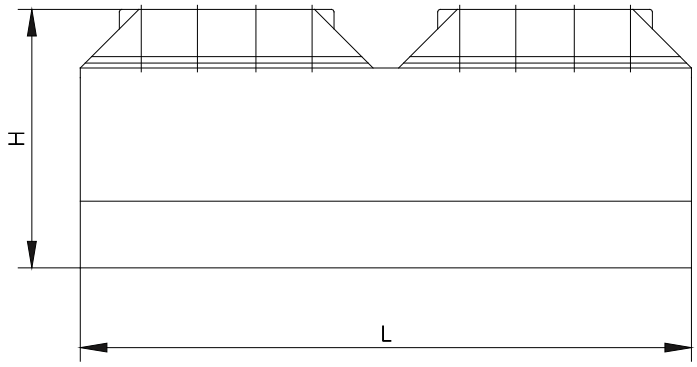
Support blades Order-no.	Type	ST-B	ST-T¹	B	L	Inserts Order-no.	Spare parts Order-no.	Assembly keys
215.80600	ZUK-8.0-60-0	8	110	60	230	**685.8000□**		**920.14001**
215.10600	ZUK-10-60-0	10	110	60	230	**685.1000□**		**920.14001**
215.12600	ZUK-12-60-0	12	110	60	230	**685.1200□**		**920.14001**

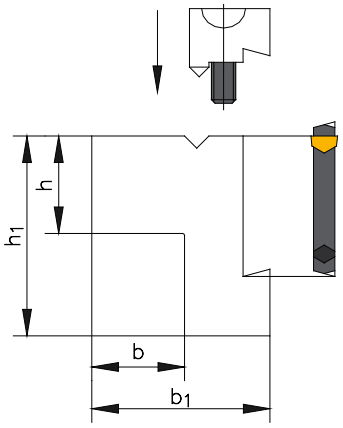
ST-T¹ = Depth of cut-max.



CCN-KL

Toolholder Order-no.	Type	h	b	L	h1	b1	H	Spare parts Order-no.	Screws
205.40100	CCN-40/100-KL	40	38	250	140	78	165		**910.35140**
205.50100	CCN-50/100-KL	50	48	250	140	88	165		**910.35140**

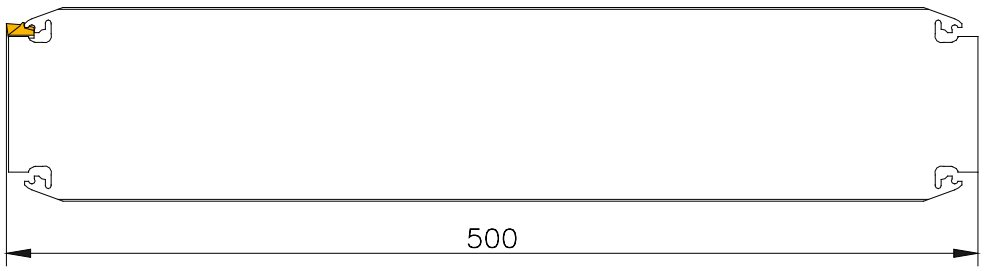


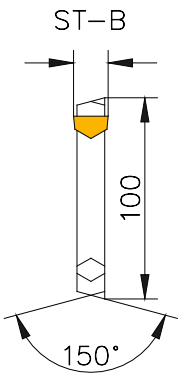


VUK

Support blades Order-no.	Type	ST-B	ST-T¹	Ø¹	Inserts Order-no.	Spare parts Order-no.	Assembly keys
215.80100	VUK-8.0-100-0	8	250	500	**685.8000□**		**920.14001**
215.10100	VUK-10-100-0	10	250	500	**685.1000□**		**920.14001**
215.12100	VUK-12-100-0	12	250	500	**685.1200□**		**920.14001**

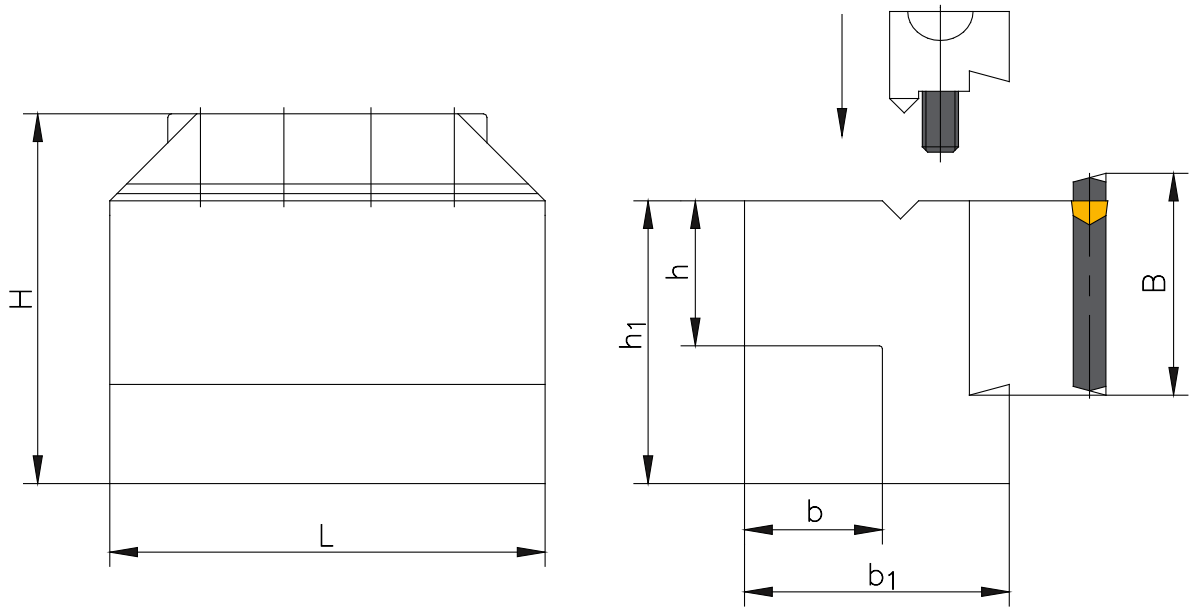
ST-T¹ = Depth of cut-max.
Ø¹ = Ø max





CCN-KL

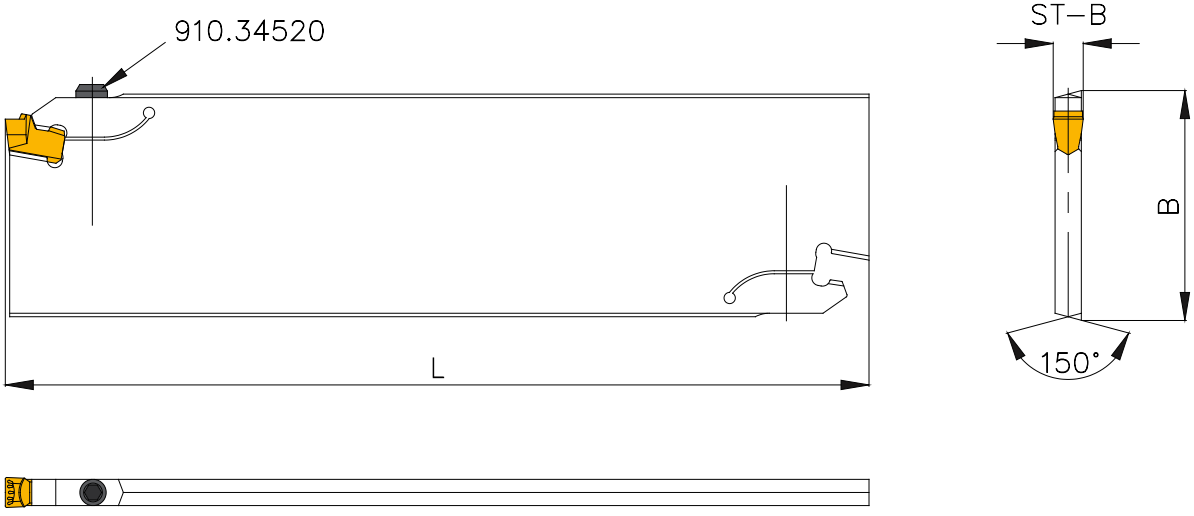
Toolholder Order-no.	Type	h	b	L	h1	b1	H	Spare parts Order-no.	Screws
205.25600	CCN-25/60-KL	25	23	120	78	58	102		**910.21041**
205.32600	CCN-32/60-KL	32	30	120	78	65	102		**910.21041**
205.40600	CCN-40/60-KL	40	38	120	78	73	102		**910.21041**
205.50600	CCN-50/60-KL	50	43	120	78	78	102		**910.21041**



ZTC

Support blade Order-no.	Type	ST-B	ST-T¹	B	L	Insert Order-no.	Spare part Order-no	Key
311.80601	ZTC-8.0-60-10	8	70	60	230	**693.08□□□**		**940.44161**

ST-T¹ = Depth of cut-max.

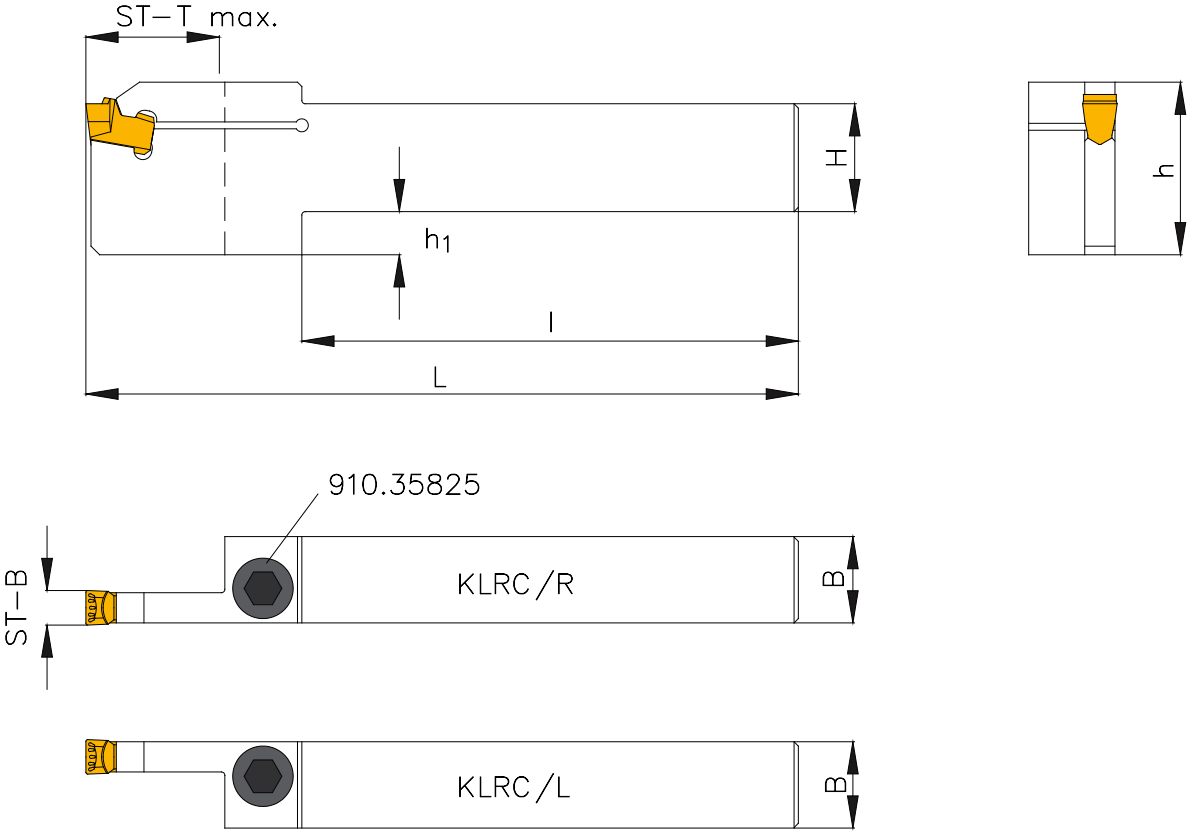


KLRC

Toolholder right										Inserts
Order-no.	Type	ST-B	ST-T¹	H	B	L	l	h	h1	Order-no.
260.25801	KLRC-25/R-8.0	8.0	31	25	20	165	115	40	10	**693.08**□□□
260.32801	KLRC-32/R-8.0	8.0	41	32	32	175	115	40	3	**693.08**□□□

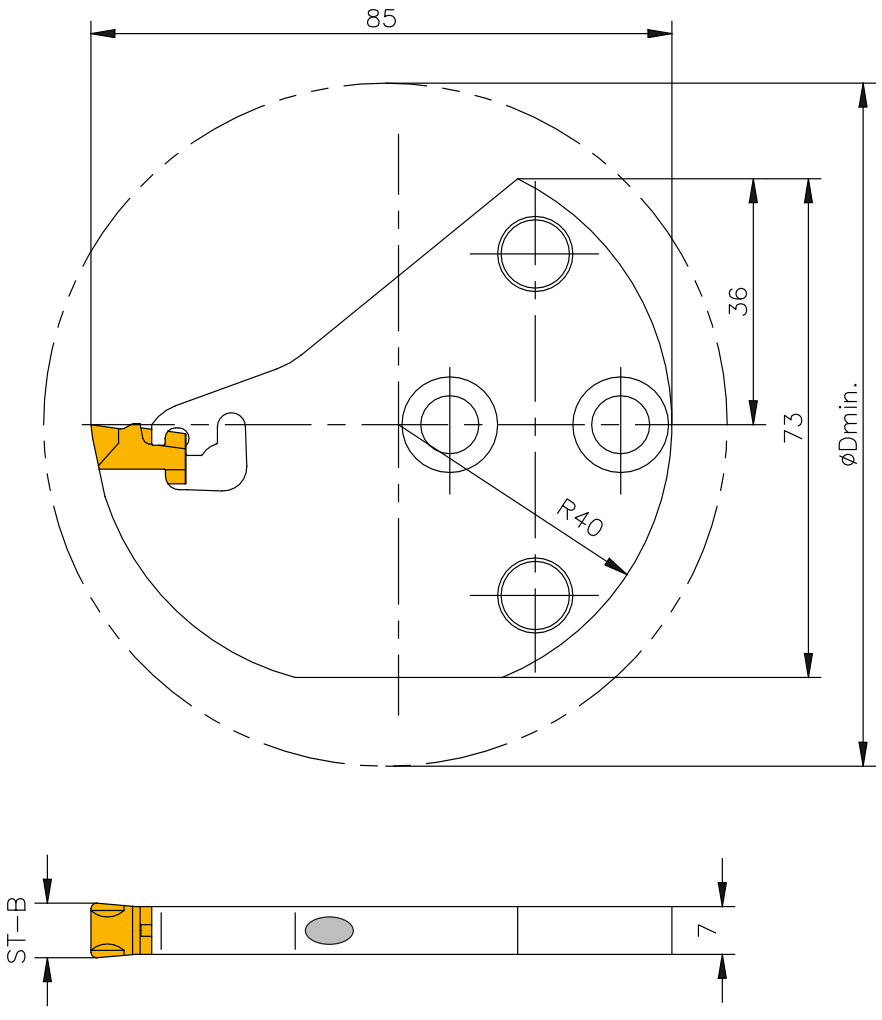
Toolholder left										Inserts
Order-no.	Type	ST-B	ST-T¹	H	B	L	l	h	h1	Order-no.
260.25802	KLRC-25/L-8.0	8.0	31	25	20	165	115	40	10	**693.08**□□□
260.32802	KLRC-32/L-8.0	8.0	41	32	32	175	115	40	3	**693.08**□□□

ST-T¹ = Depth of cut-max.



RUKRC

Support blade right/left				Inserts	Spare parts	
Order-no.	Type	ST-B	Dmin	Order-no.	Order-no.	Assemblage-set
210.08100	RUKRC-8/100	8	100	**685.80003**		**950.00022**



Inclusive internal coolant supply

For manufacturing the tool-shank, please requst the drawing for the connecting measures.

Spare part

Assembly key:
Order-no.: 920.14001

Order-no.	TypType	Ra¹	Quality Index	P20 -12	Zg30 -07	X-Blue -144	Alu-Speed -145
Type: „SHM“							
685.80001	SHM-8.0	0.8		▣	◉	◈	
685.10001	SHM-10.0	0.8		◉	◉	◈	
685.12001	SHM-12.0	0.8		◉	◉	◈	
Type: „SHM-F“							
685.80000	SHM-8.0-F	0.8		◉	◉	◈	
685.10000	SHM-10.0-F	0.8		◉	◉	◈	
685.12000	SHM-12.0-F	0.8		◉	◉	◈	
Type: „SHM-R“							
685.80002	SHM-8.0-R	0.8		◈	▣		◈
685.10002	SHM-10.0-R	0.8		◈	◈		◈
685.12002	SHM-12.0-R	0.8			◈		◈
Type: „SHMJ“							
685.80003	SHMJ-8.0	0.8		▣	◉	◈	

Order-no.	Type	Ra¹	Quality Index	Zs40 PVD -99
Type: „MTE-KXD“				
693.08000	MTE-8.0-KXD-10	0.4		▣
Type: „MTE-KXG“				
693.08300	MTE-8.0-KXG-10	0.4		▣
Type: „MTE...RA“				
693.08040	MTE-8.0-KXD-10-RA4.0	4.0		◈

Ra¹ = Corner radius

Order sample:

685.80001-07 for **Zg30**
685.80001-12 for **P20**
685.80001-144 for **X-Blue**

◉ 2 - 3 Days
▣ Within 1 week
◈ Upon request

Summary of carbide types and application purpose

Technical information

P20
-12 ☺ **Carbide uncoated (P20)**
☺ alloyed steels (s < 800 N/mm2)
😐 cast iron / GTW, GTS

Zg30
-07 ☺ **Carbide coated [CVD] TIN-TiCN-TiN (P35 - M25)**
alloyed- and high-alloyed steels (s < 1000 N/mm2)

Zs40 PVD
-99 ☺ **Carbide coated [PVD] TiAlN (P40 - M30 - K35)**
high-temperature-resisting- and stainless steels (s < 1000 N/mm2)
😐 Titanium and titanium-alloys
😐 cast iron / GTW, GTS, GG, GGG
😐 non-ferrous metal, aluminum, aluminum-alloys, plastics

X-Blue
-144 ☺ **Carbide – Supernitrit coated (P30 - P45)**
☺ high-temperature-resisting- and stainless steels
☺ Titanium and titanium base alloys (s < 1000 N/mm2)
☺ cast iron / GTW, GTS, GG, GGG
😐 non-ferrous metal, aluminum, aluminum-alloys, plastics

Alu-Speed
-145 ☺ **Carbide coated (Super Speed) (K05 - K15)**
☺ Aluminum, copper
☺ Titan and titanium base alloy

Selection of the diameter range for axial support blades
By the selection of the diameter range, the groove outside diameter is decisive!
That means, the first recess has to be within the specified diameter range „DB“, in reference to the groove outside diameter.
Sample: DB 75-100
The first recess has to be ensuing in the range of the groove outside diameter 75 and 100!
Basically, after the first recess is done, the following recesses can be made by moving the tool about 2/3 of the width of cut, both to the center line as well as theoretical endless.

Tooling setup
By the axial recessing, a tool position - overhead - should have priority because the escape of chips is essential better (due to gravity, the chips drop down into the chip tray or chip conveyor).

Trepanning (cut Sharing / see to picture 1)
In this machining, the first recess ensues at the maximum diameter of the groove (depending on the diameter range of the available, respectively choosed axial-support blade); afterwards, the second recess can be done by moving the tool about 2/3 of the cutting width in direction of the centerline.
Larger cutting depths should also favor this method of operation!

Recessing of discs and cores (see to picture 2)
In this operation it is absolutely necessary that a connection gab remains- never cut through! The disc or core must be press out separately after the axial cutting.

Picture 1

Picture 2

Installation and demounting for the inserts

Technische Informationen

Steel grade	Cutting speed m/min					Feed mm/U Width of cut		
	P20	Zg30	Zg40 PVD	X-Blue	Alu-Speed	8.0	10.0	12.0
ST37 / C15 / 9SMnPb28	90 - 200	90 - 200	100 - 250	75 - 280		0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
ST50 / C50	90 - 180	90 - 180	100 - 180	75 - 220		0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
ST60-70 / C60	80 - 170	80 - 170	100 - 180	75 - 220		0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
16MNCr5	70 - 160	70 - 160	100 - 160	75 - 200		0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
42CrMo 4 / 50CrV4	70 - 140	70 - 140	100 - 160	75 - 200		0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
100Cr6 / 90MNCrV8	50 - 130	50 - 130	100 - 140	75 - 160		0.10 - 0.25	0.10 - 0.30	0.10 - 0.35
Stainless steels X - CrNi	40 - 60	60 - 80	100 - 150	70 - 170		0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Nickel-alloys Inconel, Rene, Hastelloy					20 - 50	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Titanium-Alloys (Ti6Al-4V)					15 - 55	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
Cobalt alloys					20 - 60	0.10 - 0.15	0.10 - 0.15	0.10 - 0.20
GG20 / GGG40	50 - 140	50 - 140	100 - 140	70 - 140		0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
GG30 / GGG50	50 - 130	50 - 130	90 - 140	70 - 130		0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
GG40 / GGG60	40 - 120	40 - 120	90 - 130	70 - 120		0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Aluminum < 4% Si					250 - 2500	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Aluminum 4% - 8% Si					200 - 2000	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Aluminum > 8% Si					150 - 1800	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45
Copper					300 - 1000	0.10 - 0.35	0.10 - 0.40	0.10 - 0.45

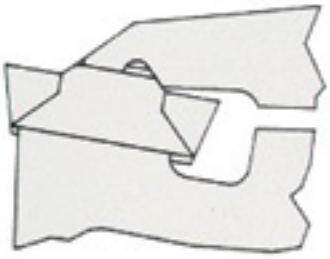
Attention!

During the axial-grooving operation, please only use 70% from the declared feed value.

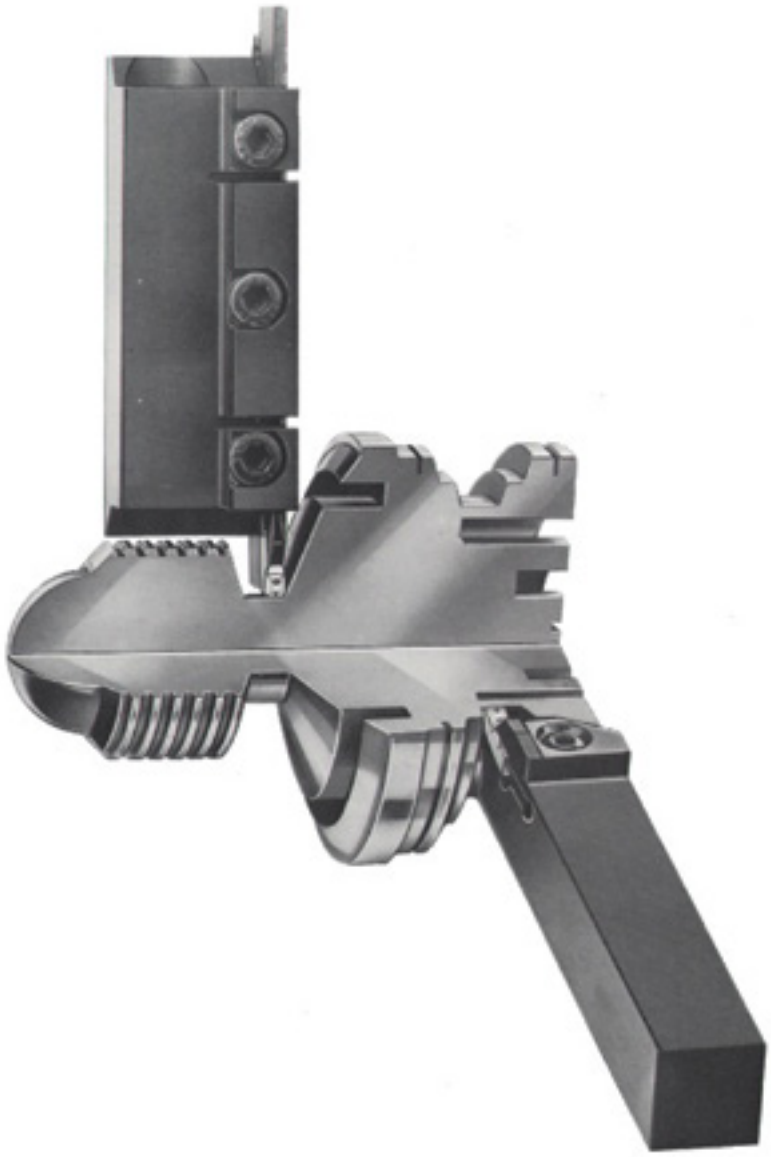
General processing instruction

Technical information

- The tool has to be located exactly rectangular to the axis of rotation.
- Mount the tool as stable as possible (avoidance of vibrations).
- Permanent check the insert-wear; if the wearing-width VB [mm] is about 0.2 mm, the insert has
- To be replaced, otherwise the insert and, or the support blade can break, thoroughly the increased pressure.
- During the replacement of the insert, take care, that the insert-seat is cleaned and the new insert sit close to fixed stop.
- For changing the inserts, only use the original assembly-tools-especially in case of the support blades for recessing and cut-off-it's only permitted to use the assembly-key (using other assembly-tools, the risk can occur, that the self-clamping-systems will be overstretched).
- If pulling the clamping-screw by a hexagon head socket wrench, do not use additionally a wrench-extension.
- Take care that the coolant-supply is sufficient and constant, because this will have a decisive influence to the tool-life.



Das absolute 2-Schneiden-System
The absolute 2-cutting edge-system



- Keine Anlage an der 2-ten Schneide, sondern positionsgenaue Fixierung an der patentierten Klemmung.
- Dieser gewährleistet auch bei Plattenbruch, die volle Einsatzfähigkeit der 2-ten Schneide.
- Eine doppelte Prismenführung mit 45° Anschlag an der Klemmung garantiert eine optimale Lage- und Wendegenauigkeit.

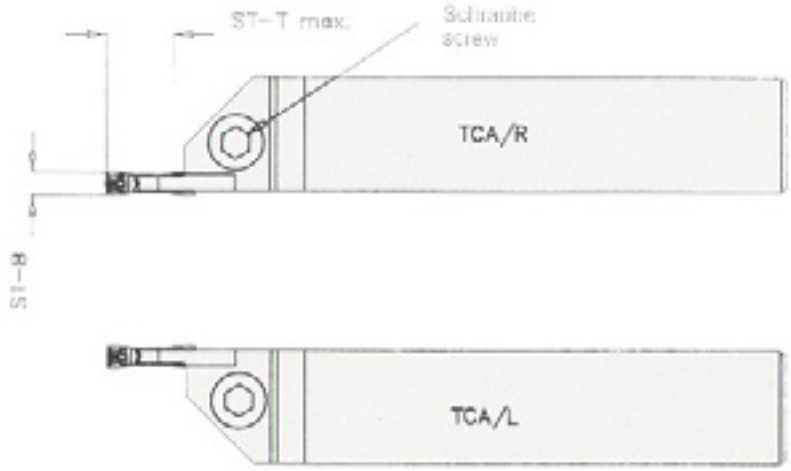
- No stop at the second cutting edge, but an exact positioning at the patented clamping.
- This guarantees the entire useage of the second cutting edge, if one cutting edge breaks.
- The double V-guide with the 45° stop at the clamping guarantees an optimum location- and turnover accuracy.

TCA

Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	ST-B	St-T max.	B	H	L	E	Schraube screw	Wendeplatten inserts
304.16161	TCA-16/R	3.0-4.0	12	16	16	100	1.3	910.35612	MTR MTC siehe Seite 3.2/8 look at page 3.2/8
304.20201	TCA-20/R	3.0-4.0	12	20	20	120	1.3	910.35620	
304.25251	TCA-25/R	3.0-4.0	12	25	25	120	1.3	910.35620	
304.16162	TCA-16/L	3.0-4.0	12	16	16	100	1.3	910.35612	
304.20202	TCA-20/L	3.0-4.0	12	20	20	120	1.3	910.35620	
304.25252	TCA-25/L	3.0-4.0	12	25	25	120	1.3	910.35620	

- Schlüssel im Lieferumfang enthalten (Best.-Nr.: 940.44155)
- Key included by delivery (order-no.: 940.44155)



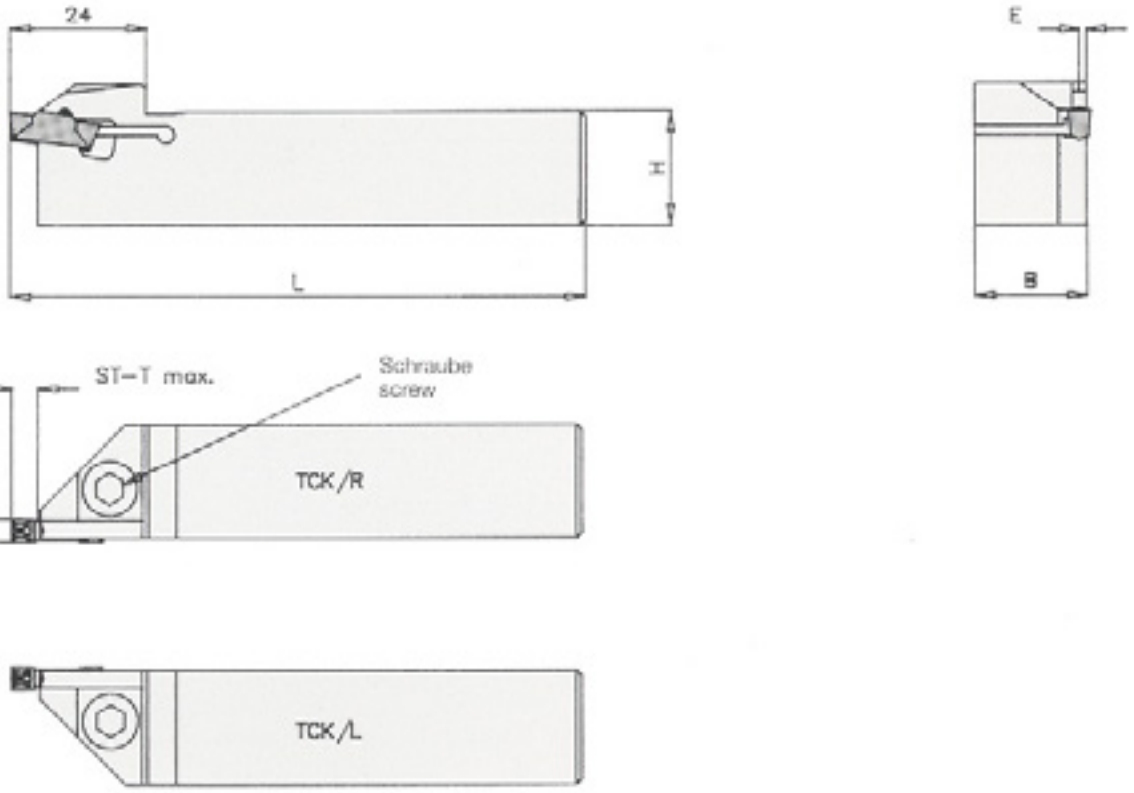
Einsatzbeispiele
action examples

TCK

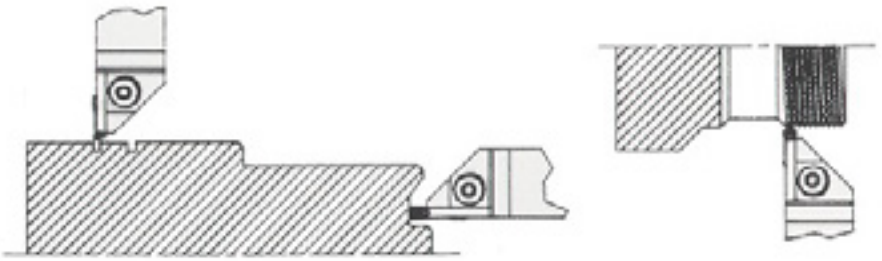
- Schlüssel im Lieferumfang enthalten (Best.-Nr.: 940.44155)
- Key included by delivery (order-no.: 940.44155)

Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	ST-B	St-T max.	B	H	L	E	Schraube screw	Wendeplatten inserts
309.16161	TCK-16/R	0.5-4.0	4.5	16	16	80	1.3	910.35612	MTC MTR MTG MTA MTK MTS siehe Seite 3.2/3, look at page 3.2/3
309.20201	TCK-20/R	0.5-4.0	4.5	20	20	100	1.3	910.35620	
309.25251	TCK-25/R	0.5-4.0	4.5	25	25	100	1.3	910.35620	
309.16162	TCK-16/L	0.5-4.0	4.5	16	16	80	1.3	910.35612	
309.20202	TCK-20/L	0.5-4.0	4.5	20	20	100	1.3	910.35620	
309.25252	TCK-25/L	0.5-4.0	4.5	25	25	100	1.3	910.35620	



Einsatzbeispiele
action examples



Konstruktionsänderungen vorbehalten

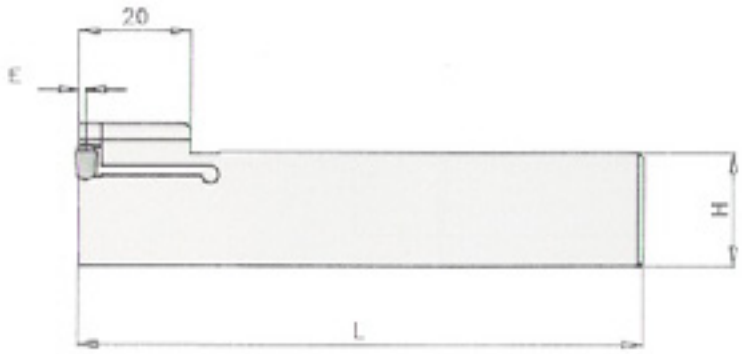
change of construction reserved

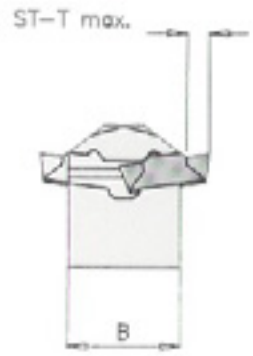
TCQ

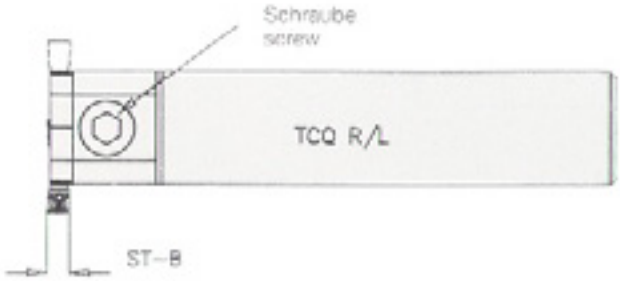
- Schlüssel im Lieferumfang enthalten (Best.-Nr.: 940.44155)
- Key included by delivery (order-no.: 940.44155)

Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	ST-B	St-T max.	B	H	L	E	Schraube screw	Wendeplatten inserts
308.16160	TCQ-16	0.5-4.0	4.5	16	16	80	1.3	910.35612	MTR MTC MTG MTA MTK MTS siehe Seite 3.2/6 look at page 3.2/6
308.20200	TCQ-20	0.5-4.0	4.5	20	20	100	1.3	910.35620	
308.25250	TCQ-25	0.5-4.0	4.5	25	25	100	1.3	910.35620	

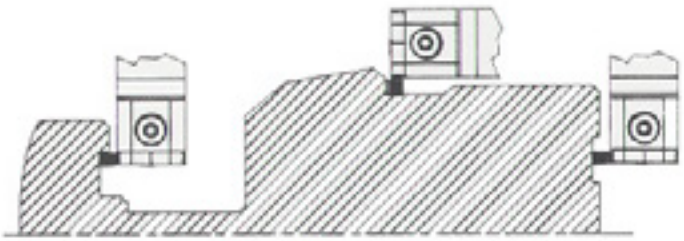






- Rechts und links verwendbar
- for right- and left-hand application

Einsatzbeispiele
action examples



Konstruktionsänderungen vorbehalten

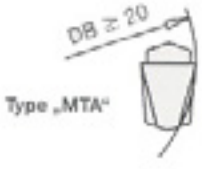
change of construction reserved

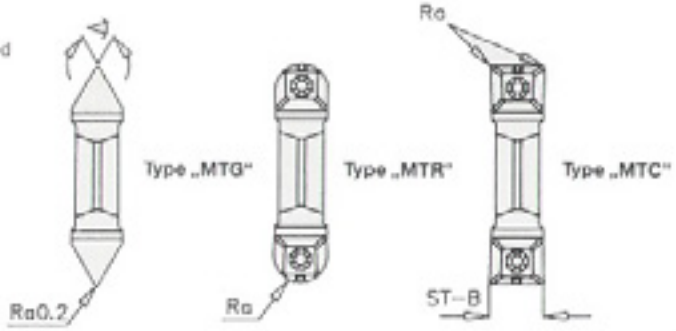
	Bestell-Nr. order-no.	Type typ	Qualität quality ▶	P25	P40	K10	Z40T	Zg30	RA	∢	Stechtiefe max. depth of cut max.
			Index index ▶	-01	-02	-04	-15	-07			
	**Type „MTC"**										
	693.30000	MTC-3.0-KXD-8		●	●	●		○	0.15		
	693.40000	MTC-4.0-KXD-8		●	●	●	●	●	0.20		
	**Type „MTR"**										
	693.30150	MTR-3.0/1.5-KXD-8		○	○	○		●	1.50		
	693.38190	MTR-3.8/1.9-KXD-8		○	○	○	○	●	1.90		
	**Type „MTG"**										
	693.40055	MTG-4/55°-KXD-8		○	○	○	○	×	0.2	55°	
	693.40060	MTG-4/60°-KXD-8		○	○	○	○	×	0.2	60°	
	**Type "MTK-R"**										
	693.05001	MTK-0.5-R		×	●	×	×	×			1.5
	693.10001	MTK-1.0-R		×	●	×	×	×			3.0
	693.15001	MTK-1.5-R		×	●	●	×	×			3.0
	693.20001	MTK-2.0-R		×	●	×	×	×			4.0
	693.25001	MTK-2.5-R		×	×	×	×	×			4.0
	693.30001	MTK-3.0-R		×	×	×	×	×			4.0
	693.35001	MTK-3.5-R		×	×	×	×	×			4.5
	Type „MTK-L"										
	693.05002	MTK-0.5-L		×	○	×	×	×			1.5
	693.10002	MTK-1.0-L		×	○	×	×	×			3.0
	693.15002	MTK-1.5-L		×	○	×	×	×			3.0
	693.20002	MTK-2.0-L		×	○	×	×	×			4.0
	693.25002	MTK-2.5-L		×	○	×	×	×			4.0
	693.30002	MTK-3.0-L		×	×	×	×	×			4.0
	693.35002	MTK-3.5-L		×	×	×	×	×			4.5
	Type „MTA"										
	693.30020	MTA-3.0-KXD-8 DB 20		○	○	○		×			3.5
	693.40020	MTA-4.0-KXD-8 DB 20		○	○	○	○	×			3.5
	Type „MTS"								ST-B -0.05	Stech-tiefe	Ringdicke
	Sicherungsringe DIN 471 Regelausführung										
	693.04900	MTS-0.49		×	×	×	×	×	0.49	0.10	0.4
	693.06900	MTS-0.69		×	×	×	×	×	0.69	0.10	0.6
	693.07900	MTS-0.79		×	×	×	×	×	0.79	0.15	0.7
	693.08900	MTS-0.89		×	×	×	×	×	0.89	0.20	0.8
	693.10900	MTS-1.09		×	×	×	×	×	1.09	0.40	1.0
	693.12900	MTS-1.29		×	×	×	×	×	1.29	0.55	1.2
	693.15900	MTS-1.59		×	×	×	×	×	1.59	1.00	1.5
	693.17400	MTS-1.74		×	×	×	×	×	1.74	1.25	1.6
	693.18400	MTS-1.84		×	×	×	×	×	1.84	1.25	1.75
	693.20900	MTS-2.09		×	×	×	×	×	2.09	1.50	2.0
	693.22400	MTS-2.24		×	×	×	×	×	2.24	1.75	2.15
	693.25900	MTS-2.59		×	×	×	×	×	2.59	1.75	2.5
	693.30900	MTS-3.09		×	×	×	×	×	3.09	1.75	3.0

– **ab 70 mm Nut-Außendurchmesser (4.0) ab 200 mm Nut-Außendurchmesser (3.0)** können Standardwendeplatten „MTC" zum Axialstechen verwendet werden.
– **from 70 mm groove-outside diameter (4.0) from 200 mm groove-outside diameter (3.0)** standard inserts "MTC" can be used for face grooving.

– **Zwischenmaße** (Stechbreite, Winkel, Radien und Durchmesserbereiche) sowie **Sonderformen** aller hier aufgeführten Größen auf Anfrage.
– **fractional size** (width of cut, angle radius and diameter) as well as **extra form** for all the above sizes upon request.

– **Hartmetallqualitäten/hardmetal-quality**
K10, P25, P40, Z40T – unbeschichtet/uncoated
Zg30 – mehrlagig beschichtet/multi-layer coated





Konstruktionsänderungen vorbehalten

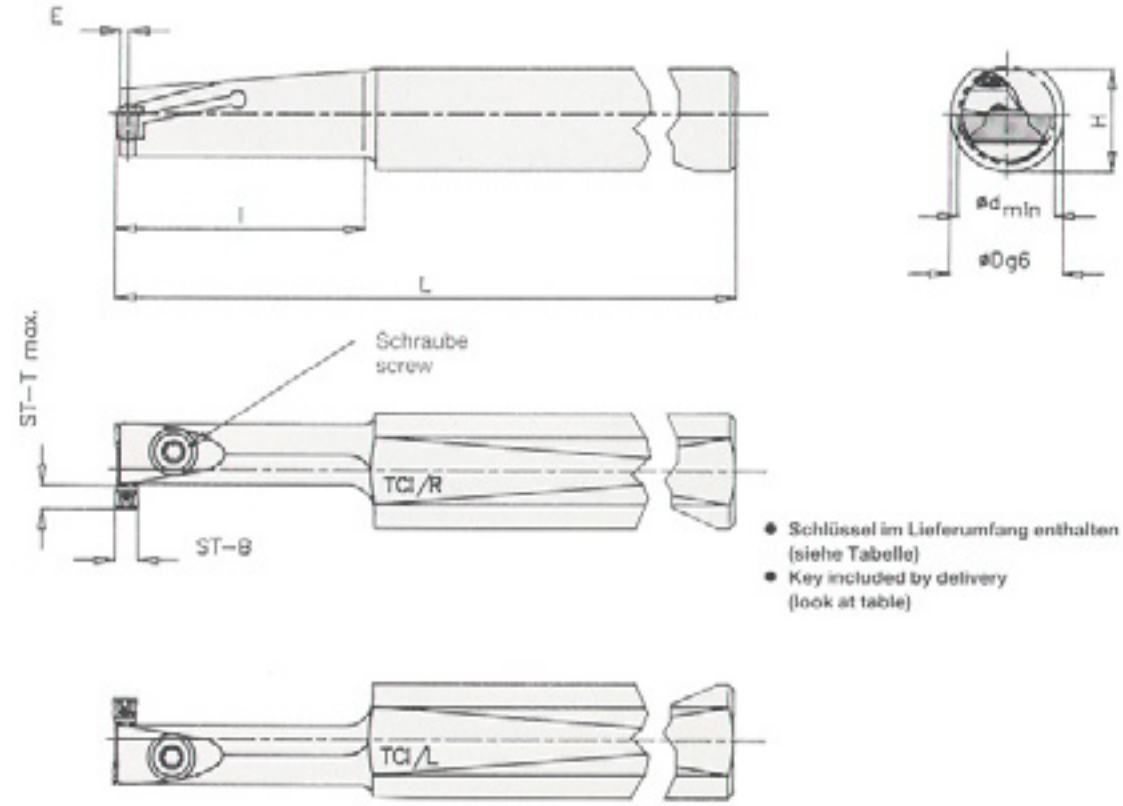
change of construction reserved

TCI

Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	St-B	St-T max.	D g6	$d_{min.}$	E	H	L	I	Schraube screw	Schlüssel key	Wendeplatten inserts
306.10001	TCI-10/R	3	2.5	10	10	1.3	9.5	85	15	910.23302	940.41515	MT□EJ-GR3
306.12001	TCI-12/R	3	2.5	12	12.5	1.3	11.5	125	20	910.25410	943.50715	MT□EJ-GR2
306.20001	TCI-20/R	3-4	5	20	16.5	1.3	18	200	30	910.25512	943.50720	MTCJ MTKJ MTRJ MTSJ MTGJ
306.25001	TCI-25/R	3-4	5	25	25	1.3	23	200	50	910.33614	940.44159	
306.32001	TCI-32/R	3-4	5	32	30	1.3	30	250	60	910.33616	940.44159	
306.10002	TCI-10/L	3	2.5	10	10	1.3	9.5	85	15	910.23302	940.41515	MT□EJ-GR3
306.12002	TCI-12/L	3	2.5	12	12.5	1.3	11.5	125	20	910.25410	943.50715	MT□EJ-GR2
306.20002	TCI-20/L	3-4	5	20	16.5	1.3	18	200	30	910.25512	943.50720	MTCJ MTKJ MTRJ MTSJ MTGJ
306.25002	TCI-25/L	3-4	5	25	25	1.3	23	200	50	910.33614	940.44159	
306.32002	TCI-32/L	3-4	5	32	30	1.3	30	250	60	910.33616	940.44159	

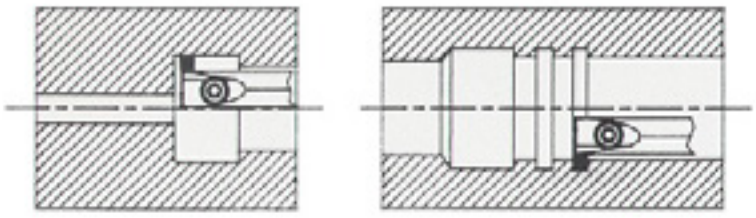
Wendeplatten siehe Seite 3.2/13
inserts look at page 3.2/13



- Schlüssel im Lieferumfang enthalten (siehe Tabelle)
- Key included by delivery (look at table)

■ Achtung! Bei Verwendung von Wechselplatten-Type „MTGJ", „MTKJ", „MTSJ" muß der Halter am Unterstützblatt gekürzt werden!
□ Attention! When using the inserts type „MTGJ", „MTKJ", „MTSJ" the holder must be shortened at the support blade!

Einsatzbeispiele
action examples



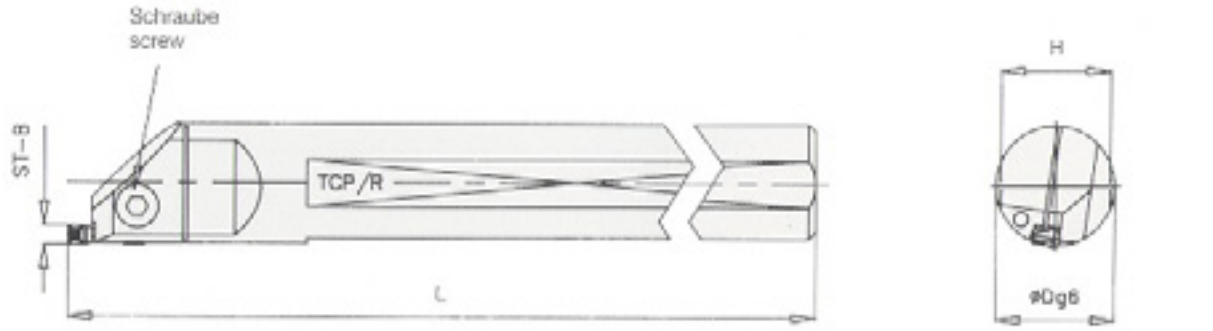
Konstruktionsänderungen vorbehalten

change of construction reserved

TCP

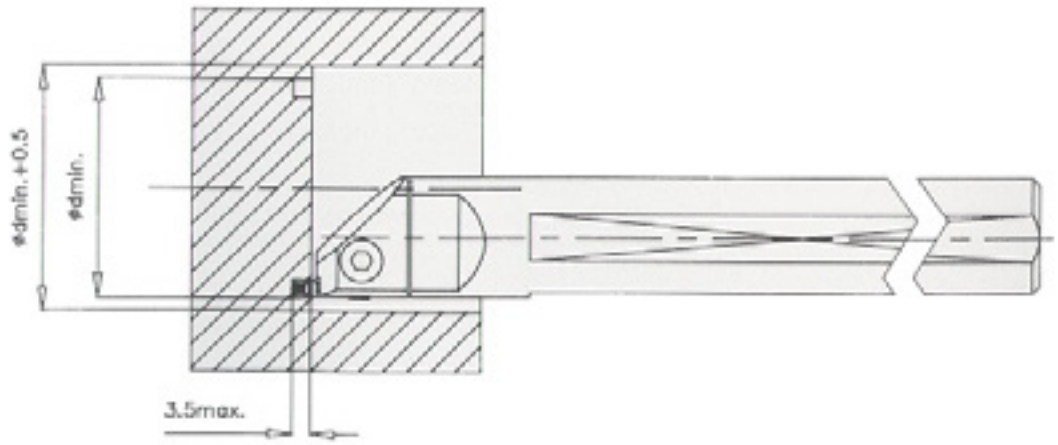
Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	St-B	St-T max.	D g6	∅ $d_{min.}$	H	L	Schraube screw	Schlüssel key	Wendeplatten inserts
313.25001	TCP-25/R	3+4	3.5	25	26	23	200	910.35512	940.44154	MTA siehe Seite 3.2/9 look at page 3.2/9
313.32001	TCP-32/R	3+4	3.5	32	33	30	250	910.35512	940.44154	
313.25002	TCP-25/L	3+4	3.5	25	26	23	200	910.35512	940.44154	
313.32002	TCP-32/L	3+4	3.5	32	33	30	250	910.35512	940.44154	



- Schlüssel im Lieferumfang enthalten (siehe Tabelle)
- Key included by delivery (look at table)

Einsatzbeispiele
action examples



Konstruktionsänderungen vorbehalten

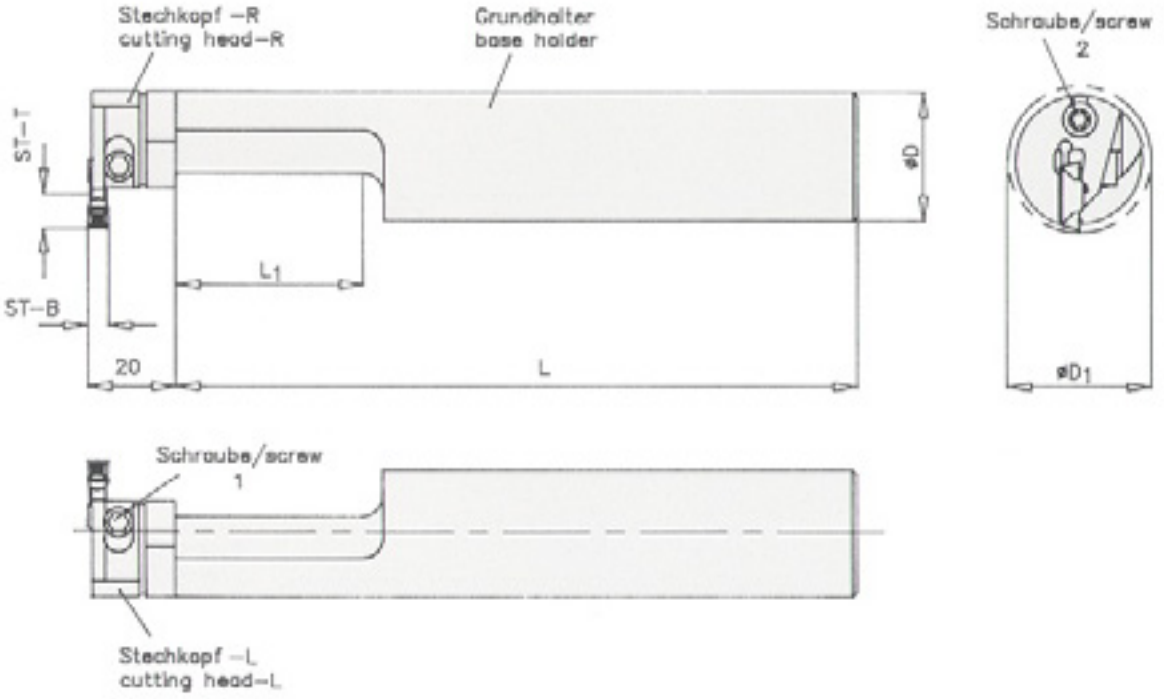
change of construction reserved

RIAK
TCSK

Grundhalter/base holder

Bestell-Nr. order-no.	Type typ	D	L	L_1
207.30000	RIAK 30	30	250	50
207.40000	RIAK 40	40	250	60

Grundhalter rechts und links einsetzbar.
base-holder for right- and left-hand application.



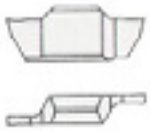
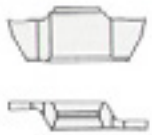
Stechkopf / cutting-head

Bestell-Nr. order-no.	Type typ	Bohr.-ØD1 min. hole-ØD1 min.	ST-B	ST-T max.	Schraube screw 1	Schraube screw 2	Grundhalter base holder	Schneidplatten inserts
312.34321	TCSK-3/4-32/R	33	3+4	8	910.23600	910.23603	RIAK-30	MTCJ-... MTRJ-... MTCEJ-... MTREJ-... siehe Seite 3.2/13 look at page 3.2/13
312.34421	TCSK-3/4-42/R	43	3+4	14	910.23601	910.23603	RIAK-40	
312.34521	TCSK-3/4-52/R	53	3+4	24	910.23602	910.23603	RIAK-40	
312.34322	TCSK-3/4-32/L	33	3+4	8	910.23600	910.23603	RIAK-30	
312.34422	TCSK-3/4-42/L	43	3+4	14	910.23601	910.23603	RIAK-40	
312.34522	TCSK-3/4-52/L	53	3+4	24	910.23602	910.23603	RIAK-40	

■ **ACHTUNG!** Bei Stechtiefen > 15 mm und oder Sackbohrungen, bitte Schneidplatten der Typen „MTCEJ" bzw. „MTREJ" verwenden!
□ **ATTENTION!** When the depth of cut is more than 15 mm and or for bottom holes, please use insert type „MTCEJ" or „MTREJ"!

Konstruktionsänderungen vorbehalten

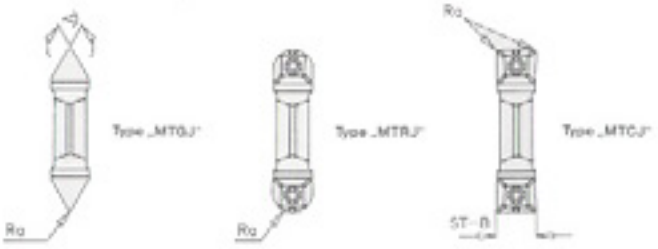
change of construction reserved

	Bestell-Nr. order-no.	Type typ	Qualität quality ▶	P 25	P 40	K 10	Z 40 T	Zg 30	RA	✳	Stechtiefe max. depth of cut max.
			Index index ▶	- 01	- 02	- 04	- 16	- 07			
	**Type „MTCJ"**										
	693.30800	MTCJ-3.0-KXD-8		●	●	●		○	0.15		
	693.40800	MTCJ-4.0-KXD-8		●	●	●	●	○	0.20		
	**Type „MTRJ"**										
	693.30815	MTRJ-3.0/1.5-KXD-8		○	○	○		○	1.50		
	693.38819	MTRJ-3.8/1.9-KXD-8		○	○	○	○	○	1.90		
	**Type „MTGJ"**										
	693.40855	MTGJ-4/55°-KXD-8		○	○	○	○	×	0.2	55°	
	693.40860	MTGJ-4/60°-KXD-8		○	○	○	○	×	0.2	60°	
	**Type „MTKJ-R"**										
	693.05801	MTKJ-0.5-R		×	×	×	×	×			1.5
	693.10801	MTKJ-1.0-R		×	×	×	×	×			3.0
	693.15801	MTKJ-1.5-R		×	×	×	×	×			3.0
	693.20801	MTKJ-2.0-R		×	×	×	×	×			4.0
	693.25801	MTKJ-2.5-R		×	×	×	×	×			4.0
	693.30801	MTKJ-3.0-R		×	×	×	×	×			4.0
	693.35801	MTKJ-3.5-R		×	×	×	×	×			4.5
	**Type „MTKJ-L"**										
	693.05802	MTKJ-0.5-L		×	×	×	×	×			1.5
	693.10802	MTKJ-1.0-L		×	×	×	×	×			3.0
	693.15802	MTKJ-1.5-L		×	×	×	×	×			3.0
	693.20802	MTKJ-2.0-L		×	×	×	×	×			4.0
	693.25802	MTKJ-2.5-L		×	×	×	×	×			4.0
	693.30802	MTKJ-3.0-L		×	×	×	×	×			4.0
	693.35802	MTKJ-3.5-L		×	×	×	×	×			4.5
	**Type „MTCEJ"**										
	693.30700	MTCEJ-3.0-KXD-8		○	○	○		○	0.15		
	693.40700	MTCEJ-4.0-KXD-8		○	○	○	○	○	0.20		
	**Type „MTREJ"**										
	693.30715	MTREJ-3.0/1.5-KXD-8		○	○	○		○	0.15		
	693.38719	MTREJ-3.8/1.9-KXD-8		○	○	○	○	○	0.20		
	**Type „MT □ EJ-GR2"**										
	693.30702	MTCEJ-3.0-KXD-8-GR2		○	×	○		×	0.15		
	693.30720	MTREJ-3.0/1.5-KXD-8-GR2		○	×	○		×	1.50		
	**Type „MT □ EJ-GR3"**										
	693.30707	MTCEJ-3.0-KXD-8-GR3		○	×	○		×	0.15		
	693.30730	MTREJ-3.0/1.5-KXD-8-GR3		○	×	○		×	1.50		
									ST-B -0.05	Stech-tiefe	Ringdicke
	**Type „MTSJ"**										
	Sicherungsringe DIN 472 Regelausführung										
	693.10980	MTSJ-1.09		×	×	×	×	×	1.09	0.50	1.0
	693.12980	MTSJ-1.29		×	×	×	×	×	1.29	0.85	1.2
	693.15980	MTSJ-1.59		×	×	×	×	×	1.59	1.00	1.5
	693.17480	MTSJ-1.74		×	×	×	×	×	1.74	1.25	1.6
	693.18480	MTSJ-1.84		×	×	×	×	×	1.84	1.25	1.75
	693.20980	MTSJ-2.09		×	×	×	×	×	2.09	1.50	2.0
	693.22480	MTSJ-2.24		×	×	×	×	×	2.24	1.75	2.15
	693.25980	MTSJ-2.59		×	×	×	×	×	2.59	1.75	2.5
	693.30980	MTSJ-3.09		×	×	×	×	×	3.09	1.75	3.0

- **Zwischenmaße** (Stechbreite, Winkel und Radien) sowie **Sonderformen** aller hier aufgeführten Größen auf Anfrage.
- **fractional size** (width of cut, angle and radius) as well as **extra form** for all the above sizes upon request.

- **Hartmetallqualitäten/hardmetal-quality**
  K 10, P 25, P 40, Z 40 T
  – unbeschichtet/uncoated

  Zg 30
  – mehrlagig beschichtet/multi-layer coated



Konstruktionsänderungen vorbehalten

change of construction reserved

Werkstoff	Schnittgeschwindigkeit m/min. Z 40 T	ZVA/P 25/P 40	Zg 25/Zg 30/ Zg 40/ZC 5	Vorschub mm/U.
St 37 / Cr 15	90 - 120	90 - 180	140 - 210	0.05 - 0.20
St 50 / C 50	80 - 110	80 - 150	110 - 170	0.05 - 0.20
St 60-70 / C 60	60 - 100	70 - 140	100 - 160	0.05 - 0.25
16 Mn Cr 5	55 - 95	50 - 120	90 - 160	0.05 - 0.20
42 CrMo 4 / 50 CrV 4	50 - 95	50 - 120	80 - 160	0.05 - 0.25
Werkzeug und HSS-Stähle	40 - 70	40 - 90	70 - 100	0.05 - 0.20
Rostbeständige X-CrNi-Stähle	40 - 60	40 - 80	50 - 90	0.05 - 0.15

Werkstoff	Schnittgeschwindigkeit m/min. K 10	Vorschub mm/U.
Ferritisch austenitische Stähle	10 - 40	0.05 - 0.15
GG - 10	60 - 180	0.08 - 0.25
GG - 30	60 - 150	0.08 - 0.25
Temperguß GT	40 - 100	0.05 - 0.20
Bei Nichteisen-Werkstoffen (mit Kühlung)		
Alu rein / Alu Guß	500 - 2000	0.05 - 0.30
Knetlegierung	200 - 600	0.05 - 0.30
Legierung	50 - 250	0.05 - 0.25
Messing	100 - 400	0.05 - 0.25
Kupfer	120 - 250	0.05 - 0.30
Rotguß	120 - 400	0.05 - 0.30
Bronce	100 - 350	0.05 -0.25
Kunst- und Preßstoffe (ohne Kühlung)		
Hartgummi	300 - 700	0.05 - 0.40
Novotex, Pertinax, Bakelit	50 - 300	0.05 - 0.40
Hartpapier	200 - 600	0.05 - 0.40

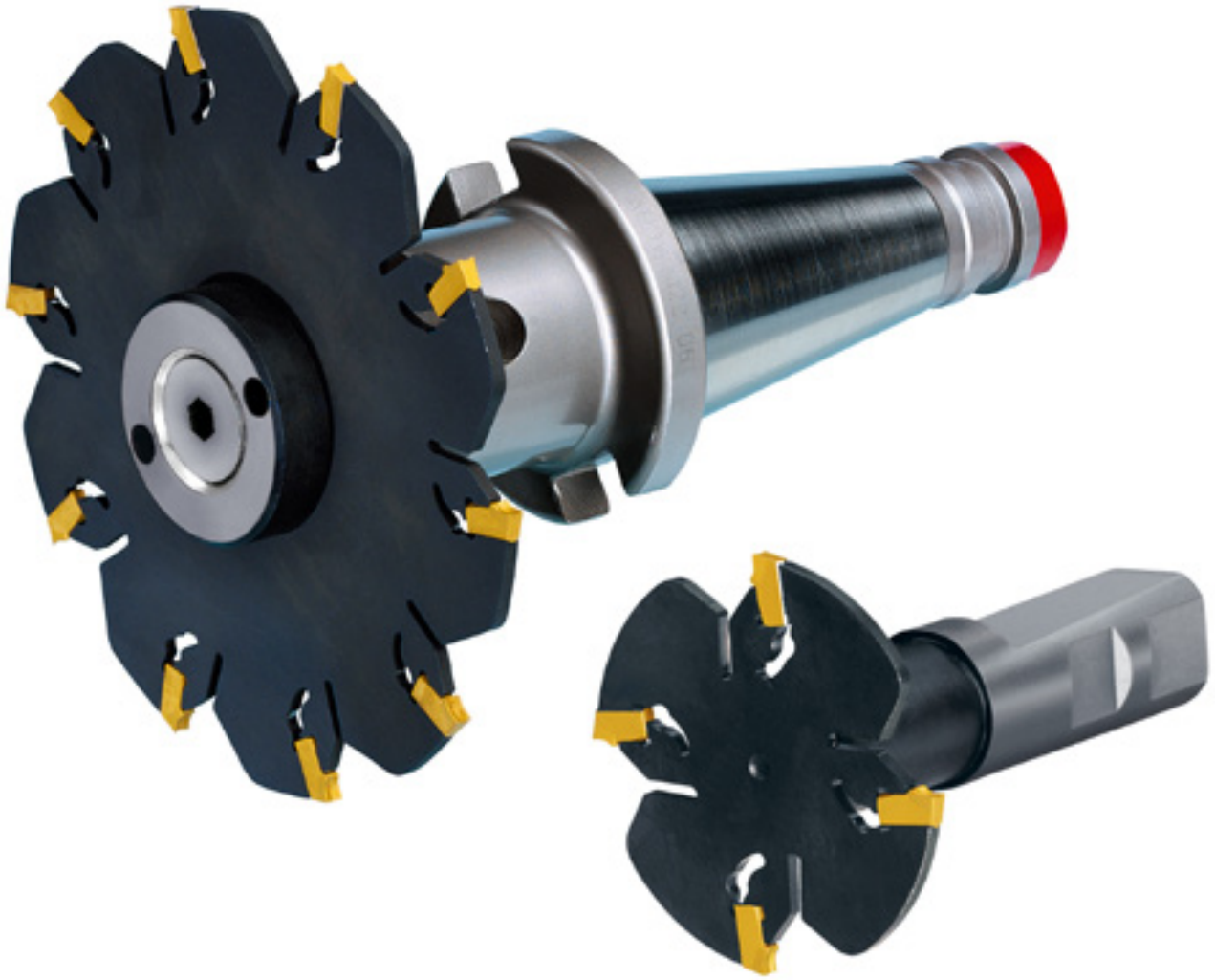
- **Spantiefe max. 2,5 - 3,0 mm beim Längsdrehen und Kopieren.**
- **In case of straight turning or copy operations, the maximum depth of cut is 2.5 - 3.0 mm.**
- **Bei Qualität „ZC 5" (Cermet) kein Kühlmittel erforderlich.**
- **Using quality "ZC 5" (Cermet) no coolant necessary.**

Bearbeitungshinweise

- Zur Reduzierung des Freiflächenverschleißes ist beim Inneneinstechen die Schneidkante 0,10 mm über die Werkstückachse zu setzen.
- Wird beim Inneneinstechen mit dem max. Vorschub von 0,10 mm gefahren, so ist dieser um 30% zu reduzieren, wenn in kleine Innendurchmesser eingestochen wird.
- Beim Außeneinstechen empfehlen wir zur Reduzierung des Freiflächenverschleißes die Schneidkante 0,10 mm unter die Werkstückachse zu setzen.
- Sind beim Hinterstechen und Längsdrehen die Schneidbreiten kleiner als 3 mm, so empfehlen wir, nicht mit einem größeren Vorschub als f = 0,05 zu beginnen.
- Beim Längsdrehen sollte der Vorschub 5% der Schneidenbreite nicht überschreiten.
- Dabei soll die Spantiefe ≤ der Schneidenbreite sein.
- Setzen Sie beim Abstechen die Schneidkante 0,10 mm über die Werkstückachse.
- Wird bei Abstechoperationen mit höheren Vorschüben gefahren, so empfehlen wir, bei Annäherung an die Werkstückmitte, den Vorschub auf 0,05 mm zu verringern.
- Verwenden Sie bitte Kühlmittel!

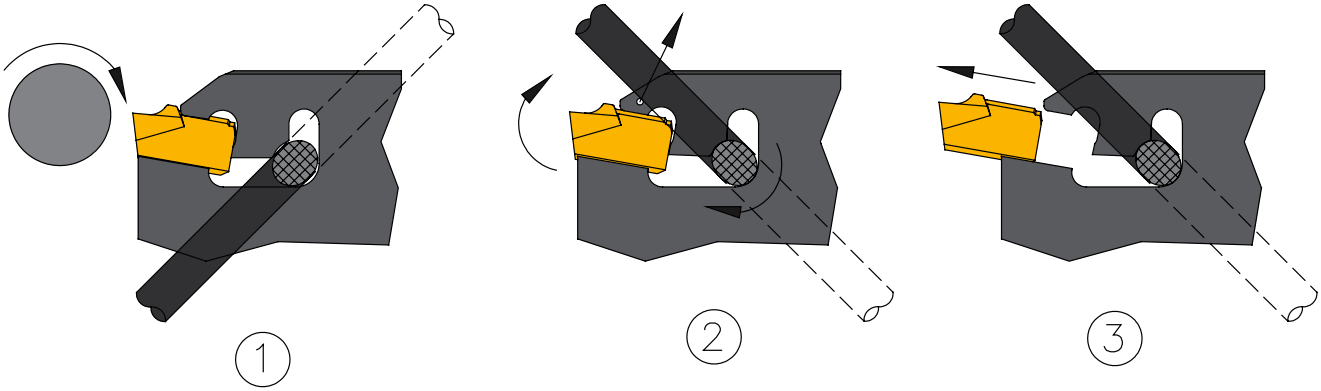
Konstruktionsänderungen vorbehalten

change of construction reserved



- **Das vom Ein- und Abstechen bekannte ZINNER-System RC wurde erweitert, die erworbenen Erkenntnisse wurden umgesetzt in den ZINNER-Scheibenfräsern.**
- Selbstklemmendes Werkzeug mit Doppelprisma (Schneidplatte mit geschliffenem Auflage-Prisma 120°) und absolutem Festpunkt.
- Die besondere Form der Spanleitstufe in der Wechselplatte verformt den Span, er wird schmäler als die gefräste Nut, kontinuierlicher Spanfluß.
- Jeder Schneideinsatz schneidet die volle Schnittbreite, deshalb kann im Vergleich zur Kreuzverzahnung oder wechselweiser Verzahnung (Vor-Fertigschneider) der Vorschub pro Werkzeugumdrehung verdoppelt werden.
- Das Austauschen der Wechselplatten dauert pro Schneide kaum 10 Sekunden und kann in der Maschine, ohne Demontage des Scheibenfräsers vorgenommen werden. Die Wechselplatte wird mit Hilfe des mitgelieferten Montage-

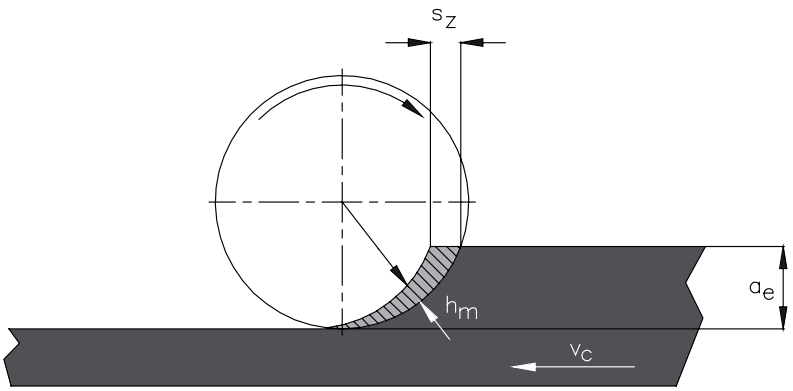
- **The well-known ZINNER-System RC for recessing and cut-off is being extended and the experience gained is exemplified in the ZINNER side milling cutters.**
- Self-clamping tool with double prism and fixed reference point.
- The special shape of the chip breaker in the insert deforms the chip so, that it is smaller than the milled slot allowing a continuous chip flow.
- Each insert cuts over the full cutting width, so that compared to staggered or alternate tooth cutters (prefinishing cutters) the feed per tool revolution can be doubled.
- Inserts can be changed in less than 10 seconds per inserts without removing the cutter from the machine. The inserts are released from the prism with the help of the included assemly-key.



- Einsetzen des Montage-Schlüssels in die Eckbohrung.
- Durch verdrehen des Schlüssels (~90°) wird die Vorspannung der Klemmung aufgehoben.
- Die Schneidplatte kann gewechselt werden.
- Die Wechselplatte muss absolut am Festanschlag anliegen.

- Insert the assembly-key in the corner hole.
- By turning the key (~90°), the prestress of the clamping will be cancelled.
- The insert can be changed.
- The insert has to sit close the fixed-stop.

Konstruktionsänderung vorbehalten
Change of construction reserved



- Beim Eingriff des Scheibenfräsers in das Werkstück entsteht ein kommaförmiger Span. Bei der Einstellung des Vorschubs ist die Eingriffsgröße „a_e“ von entscheidender Bedeutung. Ein Maß für die effektive Spandicke ist die Mittenspandicke „h_m“, welche speziell beim Nutenfräsen immer kleiner ist als der Vorschub/Zahn „s_z“ (siehe Bild).

- Es ist darauf zu achten, dass kein zu dünner Span entsteht, denn dieser verschleißt die Schneide vorzeitig.

- Richtwerte für die Vorschubeinstellung „s_z“:
  1. Die Vorschubwerte „s_z“ auf der Tabelle Seite 5/8 gelten für 50 – 100% der maximalen Eingriffsgröße „a_e“.
  2. Bei „a_e“ < 50% >30% sollte der Vorschub um ca. 30 – 40% erhöht werden.
  3. Bei „a_e“ < 30% sollte der Vorschub um ca. 50% erhöht werden.

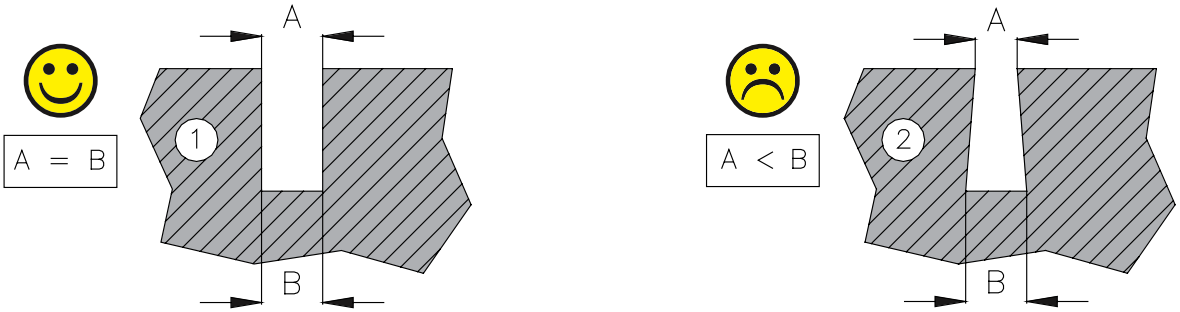
- Die Scheibenfräser sind vorzugsweise im Gleichlauf einzusetzen (siehe Bild). Beim Gleichlauffräsen dringt die Schneide in den größten Spanquerschnitt zuerst ein, daher weniger Reibverschleiß als beim Gegenlauffräsen (Schneide gleitet vor dem Eingriff in das Werkstück). Ein weiterer Vorteil beim Gleichlauffräsen ist, dass das Werkstück auf die Unterlage gepresst wird – kein Abheben des Werkstücks möglich.

- During the engagement of the side-milling-cutter in the workpiece, a comma-formed chip will be arised. By the adjustment of the feed, the size of engagement „a_e“ has a decisive meaning. A measure for the effective chip-thickness is the medium-chip-thickness „h_m“, which is by a slotting-operation always less than the feed/tooth „s_z“ (see sketch above).

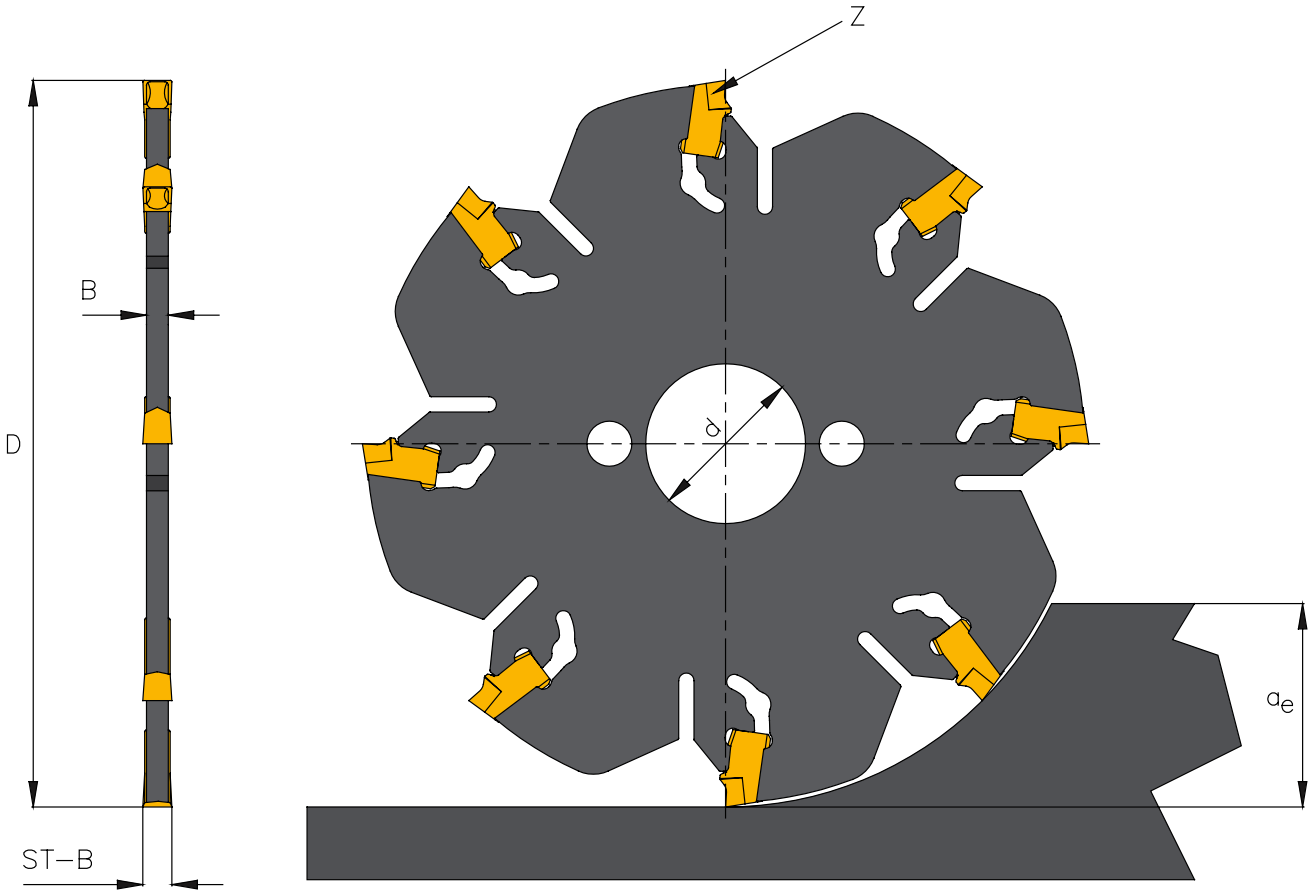
- Watch out, that the chip is not to thin, because the cutting edge will have premature abrasion.

- Guiding values for the feed-adjustment „s_z“:
  1. The feed-values „s_z“ on table page 5/8 are valid for 50 – 100% of the maximum size of engagement „a_e“.
  2. By „a_e“ < 50% >30% the feed should be increased about 30 – 40%.
  3. By „a_e“ < 30% the feed should be increased about 50%.

- The side-milling-cutter are preferably used for down-cut mill (see sketch above). By the down-cut mill operation, the cutting edge will have the maximum chip-thickness at first, therefore less friction-wear than by up-cut milling (cutting edge slides before cutting). It´s a additional advantage by the down-cut-milling, that the workpiece will be pressed at the fixture – no lifting of the workpiece possible.



- Speziell beim Schlitzfräsen ist unbedingt darauf zu achten, dass die gefräste Nute während der Bearbeitung keinesfalls zusammenschnappt (siehe Bild 2), da sonst die Schneidplatten aus dem Plattensitz gezogen werden und dabei das Werkzeug zerstört wird.
- Be careful especially in case of slotting operations, that the slot never shrink during cutting process (look at picture 2), otherwise the inserts will be extracted from their seats and the tool will be destructed.



a_e	= Eingriffsgröße-max.	a_e	= engagement-max.
B	= Grundkörper-Dicke	B	= thickness of blade body
d	= Bohrung	d	= hole
D	= Nenndurchmesser	D	= nominal diameter
ST-B	= Schnittbreite	ST-B	= width of cut
Z	= Zähnezahl	Z	= number of teeth

Artikel-Nr. order no.	Typ type	St-B	B	Z	D	d	a_e	Drehzahl max. min -1 Revolution max. min -1	Wechselplatten inserts
Scheibenfräser Ø 80 / Side-milling-cutter Ø 80									
503.12408	SFRC-1.2-Z4-80	1.6	1.2	4	80	16	22	1000	FMRC-1.6-..
503.18408	SFRC-1.8-Z4-80	2.2	1.8	4	80	16	22	1000	FMRC-2.2-..
503.24408	SFRC-2.4-Z4-80	3.0	2.4	4	80	16	22	1000	FMRC-3.0-..
503.30408	SFRC-3.0-Z4-80	4.0	3.0	4	80	16	22	1000	FMRC-4.0-..
503.44408	SFRC-4.4-Z4-80	5.0+6.0	4.4	4	80	16	22	1000	FMRC-5.0-..
									FMRC-6.0-..
Scheibenfräser Ø 100 / Side-milling-cutter Ø 100									
503.12810	SFRC-1.2-Z8-100	1.6	1.2	8	100	22	28	800	FMRC-1.6-..
503.18810	SFRC-1.8-Z8-100	2.2	1.8	8	100	22	28	800	FMRC-2.2-..
503.24810	SFRC-2.4-Z8-100	3.0	2.4	8	100	22	28	800	FMRC-3.0-..
503.30810	SFRC-3.0-Z8-100	4.0	3.0	8	100	22	28	800	FMRC-4.0-..
503.44810	SFRC-4.4-Z8-100	5.0+6.0	4.4	8	100	22	28	800	FMRC-5.0-..
									FMRC-6.0-..
Scheibenfräser Ø 125 / Side-milling-cutter Ø 125									
503.12101	SFRC-1.2-Z10-125	1.6	1.2	10	125	22	40	650	FMRC-1.6-..
503.18101	SFRC-1.8-Z10-125	2.2	1.8	10	125	22	40	650	FMRC-2.2-..
503.24101	SFRC-2.4-Z10-125	3.0	2.4	10	125	22	40	650	FMRC-3.0-..
503.30101	SFRC-3.0-Z10-125	4.0	3.0	10	125	22	40	650	FMRC-4.0-..
503.44101	SFRC-4.4-Z10-125	5.0+6.0	4.4	10	125	22	40	650	FMRC-5.0-..
									FMRC-6.0-..
Scheibenfräser Ø 160 / Side-milling-cutter Ø 160									
503.24151	SFRC-2.4-Z15-160	3.0	2.4	15	160	32	49	500	FMRC-3.0-..
503.30151	SFRC-3.0-Z15-160	4.0	3.0	15	160	32	49	500	FMRC-4.0-..
503.44151	SFRC-4.4-Z15-160	5.0+6.0	4.4	15	160	32	49	500	FMRC-5.0-..
									FMRC-6.0-..
Scheibenfräser Ø 200 / Side-milling-cutter Ø 200									
503.24202	SFRC-2.4-Z20-200	3.0	2.4	20	200	40	63	400	FMRC-3.0-..
503.30202	SFRC-3.0-Z20-200	4.0	3.0	20	200	40	63	400	FMRC-4.0-..
503.44202	SFRC-4.4-Z20-200	5.0+6.0	4.4	20	200	40	63	400	FMRC-5.0-..
									FMRC-6.0-..
Scheibenfräser Ø 250 / Side-milling-cutter Ø 250									
503.24242	SFRC-2.4-Z24-250	3.0	2.4	24	250	40	88	300	FMRC-3.0-..
503.30242	SFRC-3.0-Z24-250	4.0	3.0	24	250	40	88	300	FMRC-4.0-..
503.44242	SFRC-4.4-Z24-250	5.0+6.0	4.4	24	250	40	88	300	FMRC-5.0-..
									FMRC-6.0-..

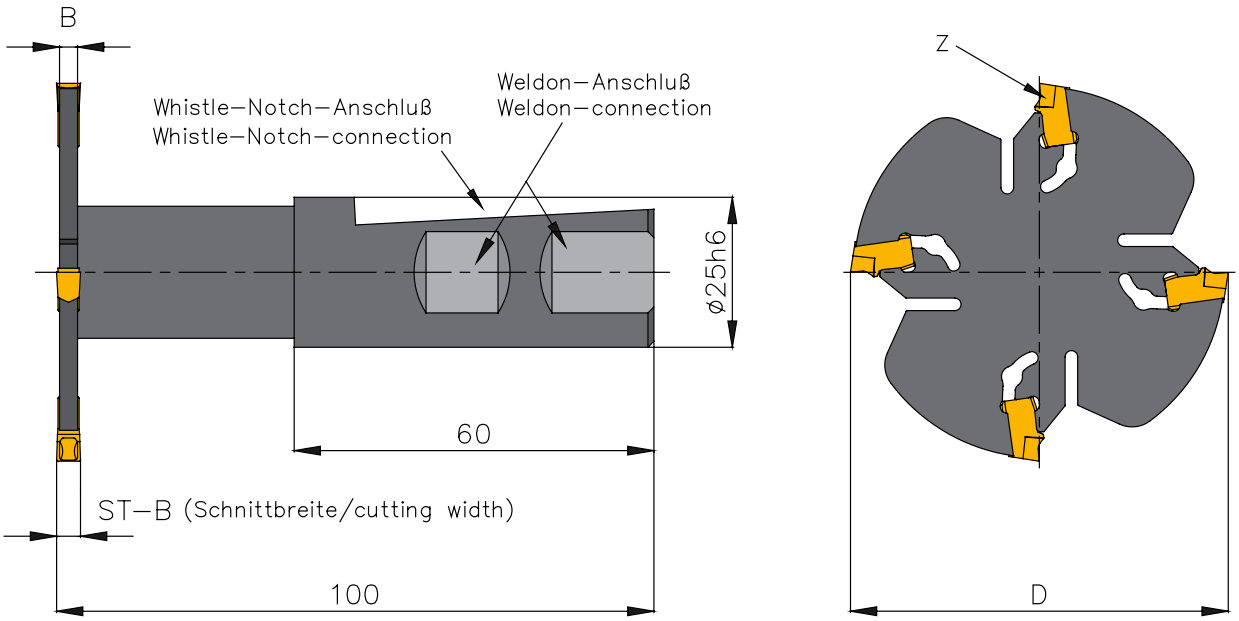
- Scheibenfräser Ø 315, Ø 350 und Ø 400 (ab Schnittbreite 4 mm) auf Anfrage.
- Side-milling-cutters Ø 315, Ø 350 and Ø 400 (min. width of cut 4 mm) upon request.

- Mitnehmer siehe Seite 5.4 / 7
- Drive rings looks at page 5.4 / 7

Ist im Lieferumfang enthalten / included in delivery

- Montageschlüssel (Ersatzteil): Bestell-Nr.: 920.14002
- assembly-key (spare part): order-no.: 920.14002

- **Aus Sicherheitsgründen darf eine maximale Schnittgeschwindigkeit von 250 m/min. nicht überschritten werden!**
- **For safety reason it is not allowed to exceed a maximum cutting speed of 250 m/min.!**



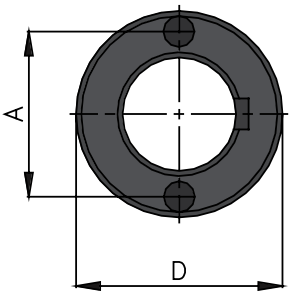
Artikel-Nr. order no.	Typ type	St-B	B	Z	D	a_e	Drehzahl max. min -1 Revolution max. min -1	Wechselplatten inserts
Zirkularfräser Ø 63 / Circular-miller Ø 63								
504.12406	SFRC-1.2-Z4-63-WN25	1.6	1.2	4	63	20	1250	FMRC-1.6-..
504.18406	SFRC-1.8-Z4-63-WN25	2.2	1.8	4	63	20	1250	FMRC-2.2-..
504.24406	SFRC-2.4-Z4-63-WN25	3.0	2.4	4	63	20	1250	FMRC-3.0-..
504.30406	SFRC-3.0-Z4-63-WN25	4.0	3.0	4	63	20	1250	FMRC-4.0-..
504.44406	SFRC-4.4-Z4-63-WN25	5.0+6.0	4.4	4	63	20	1250	FMRC-5.0-..
								FMRC-6.0-..
Zirkularfräser Ø 80 / Circular-miller Ø 80								
504.12508	SFRC-1.2-Z5-80-WN25	1.6	1.2	5	80	26	1000	FMRC-1.6-..
504.18508	SFRC-1.8-Z5-80-WN25	2.2	1.8	5	80	26	1000	FMRC-2.2-..
504.24508	SFRC-2.4-Z5-80-WN25	3.0	2.4	5	80	26	1000	FMRC-3.0-..
504.30508	SFRC-3.0-Z5-80-WN25	4.0	3.0	5	80	26	1000	FMRC-4.0-..
504.44508	SFRC-4.4-Z5-80-WN25	5.0+6.0	4.4	5	80	26	1000	FMRC-5.0-..
								FMRC-6.0-..
Zirkularfräser Ø 100 / Circular-miller Ø 100								
504.12810	SFRC-1.2-Z8-100-WN25	1.6	1.2	8	100	36	800	FMRC-1.6-..
504.18810	SFRC-1.8-Z8-100-WN25	2.2	1.8	8	100	36	800	FMRC-2.2-..
504.24810	SFRC-2.4-Z8-100-WN25	3.0	2.4	8	100	36	800	FMRC-3.0-..
504.30810	SFRC-3.0-Z8-100-WN25	4.0	3.0	8	100	36	800	FMRC-4.0-..
504.44810	SFRC-4.4-Z8-100-WN25	5.0+6.0	4.4	8	100	36	800	FMRC-5.0-..
								FMRC-6.0-..

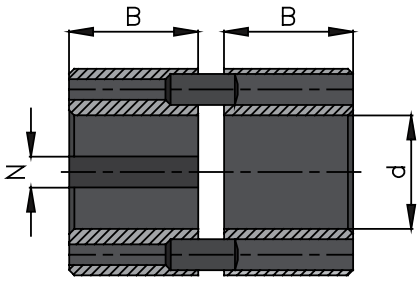
Ist im Lieferumfang enthalten / included in delivery

- Montageschlüssel (Ersatzteil): Bestell-Nr.: 920.14002
- assembly-key (spare part): order-no.: 920.14002

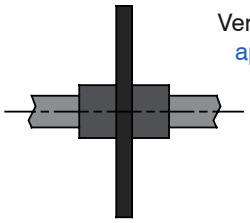
- **Aus Sicherheitsgründen darf eine maximale Schnittgeschwindigkeit von 250 m/min. nicht überschritten werden!**
- **For safety reason it is not allowed to exceed a maximum cutting speed of 250 m/min.!**

Mitnehmer (Satz) mit Längsnut
Drive-rings (set) with longitudinal groove





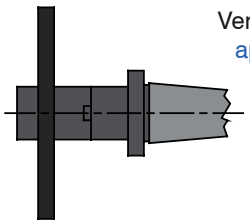
Verwendung
application

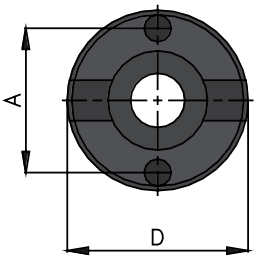


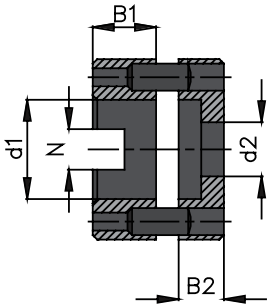
Artikel-Nr. order no.	Typ type	D	d_{C11}	A	B	N_{C11}	Scheibenfräser - Ø D side-milling-cutter - Ø D
511.16200	MN 16/2	32	16	25	25	4	80
511.22200	MN 16/2	40	22	32	25	6	100 / 125
511.32200	MN 16/2	58	32	46	25	8	160
511.40200	MN 16/2	70	40	56	25	10	200 / 250

Mitnehmer (Satz) mit Quernut
Drive-rings (set) with cross groove

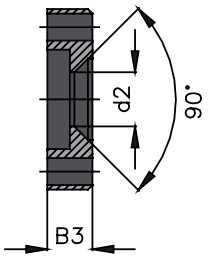
Verwendung
application







Type .../2N



Type .../2S

Artikel-Nr. order no.	Typ type	D	d_{1C11}	d2	A	B1	B2	B3	N_{H11}	Scheibenfräser - Ø D side-milling-cutter - Ø D
Mitnehmer 2N / Drive-rings 2N										
512.16200	M 16/2 N	32	16	10	25	13,5	10		8,4	80
512.22200	M 22/2 N	40	22	12	32	14,5	10		10,4	100 / 125
512.32200	M 32/2 N	58	32	18	46	17,5	15		14,4	160
512.40200	M 40/2 N	70	40	22	56	19,5	17		16,4	200 / 250
Mitnehmer 2S / Drive-rings 2S										
513.16200	M 16/2 S	32	16	10	25	13,5		10	8,4	80
513.22200	M 22/2 S	40	22	12	32	14,5		10	10,4	100 / 125
513.32200	M 32/2 S	58	32	18	46	17,5		15	14,4	160
513.40200	M 40/2 S	70	40	22	56	19,5		17	16,4	200 / 250

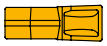
SUMMARY OF GEOMETRIES AND CARBIDE TYPES

ADD engineering

Geometrieübersicht
Summary of geometries

FMRC
-KXR-10

Positiver Spanwinkel.
Baustähle, Einsatzstähle, Vergütungsstähle, NE-Metalle.
Positive rake angle.
Machinery-, case hardening- and heat treatable- steel, non-ferrous metal.

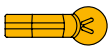


FMRC
-KXF-10

Positiver Spanwinkel mit Schutzfase.
Stähle höherer Festigkeit.
Positive rake angle with protection chamfer.
Steel with higher strength.

FMRC
-KXV-10

Hochpositiver Spanwinkel, geschliffener Freiwinkel,
speziell für hochwarmfeste und rostfreie Werkstoffe.
High-positive rake angle, grinded clearance angle,
especially for high-temperature-resisting- and stainless steel.



FMRC
-KXD-10-RA

Vollradius-Schneidplatte, positiver Spanwinkel zum
Fräsen von Nuten mit Vollradius im Nutgrund.
Full radius insert, positive rake angle for milling of
grooves with full radius at the bottom.

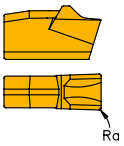
Sortenübersicht / Verwendungszweck
summary of carbide types / application purpose

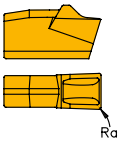
K10	**Hartmetall unbeschichtet (K10 - M20)**	
-04	☺	Gusseisen- (GTW, GTS, GG, GGG)
	☺	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
	😐	warmfeste Legierungen (Ni-, Co- Fe-Basis)
	😐	Titan und Titanlegierungen
ZVA	**Hartmetall unbeschichtet (P40 - M30)**	
-23	😐	niedrig- und hochlegierte Stähle (s < 1000 N/mm2)
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
Zg35	**Hartmetall beschichtet [CVD] TIN-TiCN-TiN (P35 - M25)**	
-13	☺	niedrig- und hochlegierte Stähle (s < 1000 N/mm2)
Zg30 PVD	**Hartmetall beschichtet [PVD] TiN (P35 - M20 - K25)**	
-88	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	😐	Titan und Titanlegierungen
Zs40 PVD	**Hartmetall beschichtet [PVD] TiAlN (P40 - M30 - K35)**	
-99	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	😐	Titan und Titanlegierungen
	😐	Gusseisen / GTW, GTS, GG, GGG
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
X-Blue	**Hartmetall Mehrbereichs – Supernitrit beschichtet (P30 - P45)**	
-144	☺	hochwarmfeste und rostfreie Stähle (s < 1000 N/mm2)
	☺	Titan und Titanlegierungen
	☺	Gusseisen / GTW, GTS, GG, GGG
	😐	NE-Metalle, Aluminium, Al-Legierungen, Kunststoffe
Alu-Speed	**Hartmetall beschichtet (Super Speed) (K05 - K15)**	
-145	☺	Aluminium, Kupfer
	☺	Titan und Titanlegierung

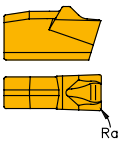
K10	**Carbide uncoated (K10 - M20)**	
-04	☺	cast iron (GTW, GTS, GG, GGG)
	☺	non-ferrous metal, aluminium, aluminium-alloys, plastics
	😐	high temperature alloys (Ni-, Co- Fe-)
	😐	Titanium and Titanium-alloys
ZVA	**Carbide uncoated (P40 - M30)**	
-23	😐	alloyed- and high-alloyed steels (s < 1000 N/mm2)
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
Zg35	**Carbide coated [CVD] TIN-TiCN-TiN (P35 - M25)**	
-13	☺	alloyed- and high-alloyed steels (s < 1000 N/mm2)
Zg30 PVD	**Carbide coated [PVD] TiN (P35 - M20 - K25)**	
-88	☺	high-temperature-resisting- and stainless steels
	😐	Titanium and Titanium-alloys (s < 1000 N/mm2)
Zs40 PVD	**Carbide coated [PVD] TiAlN (P40 - M30 - K35)**	
-99	☺	high-temperature-resisting- and stainless steels (s < 1000 N/mm2)
	😐	Titanium and titanium-alloys
	😐	cast iron / GTW, GTS, GG, GGG
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
X-Blue	**Carbide – Supernitrit coated (P30 - P45)**	
-144	☺	high-temperature-resisting- and stainless steels
	☺	Titanium and titanium base alloys (s < 1000 N/mm2)
	☺	cast iron / GTW, GTS, GG, GGG
	😐	non-ferrous metal, aluminium, aluminium-alloys, plastics
Alu-Speed	**Carbide coated (Super Speed) (K05 - K15)**	
-145	☺	Aluminum, copper
	☺	Titan and titanium base alloy

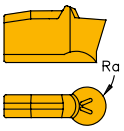
☺ gut geeignet / especially suitable for

😐 geeignet / suitable for









Artikel-Nr. order no.	Typ type	Schnittbreite width of cut	R_a	Qualität quality	K10	Zg35	ZVA	Zg30 PVD	Zs40 PVD	X-Blue	Alu-Speed
				Index / index	-04	-13	-23	-88	-99	-144	-145
Wechselplatten - System RC / inserts - system RC											
Typ: "FMRC-KXR"											
694.22200	FMRC-2.2-KXR-10	2.2	0.20			◉	◉				
694.30200	FMRC-3.0-KXR-10	3.0	0.20			◉	◉				
694.40200	FMRC-4.0-KXR-10	4.0	0.20			◉	◉				
694.50200	FMRC-5.0-KXR-10	5.0	0.30			◉	◉		◉		
694.60200	FMRC-6.0-KXR-10	6.0	0.30			◉	▣		◉		
Typ: "FMRC-KXF"											
694.16210	FMRC-1.6-KXF-10	1.6	0.15		◉		◉				
694.30210	FMRC-3.0-KXF-10	3.0	0.20			◉	◉				
694.40210	FMRC-4.0-KXF-10	4.0	0.20				◉		◉	◉	
694.50210	FMRC-5.0-KXF-10	5.0	0.30				◉		◉		
694.60210	FMRC-6.0-KXF-10	6.0	0.30						◉		
Typ: "FMRC-KXV"											
694.15210	FMRC-1.6-KXV-10	1.6	0.15		◉				◉		
694.22210	FMRC-2.2-KXV-10	2.2	0.20					◉	◉	◉	◉
694.32210	FMRC-3.0-KXV-10	3.0	0.20		◈			◉	◉	◉	
694.42210	FMRC-4.0-KXV-10	4.0	0.20		▣			◉	◉	◉	◉
694.52210	FMRC-5.0-KXV-10	5.0	0.30		▣				◉		
Typ: "FMRC…RA"											
693.03215	FMRC-3.0-KXD-10-RA1.5	3.0	1.50		▣				▣		
693.04220	FMRC-4.0-KXD-10-RA2.0	4.0	2.00		▣				▣		
693.05225	FMRC-5.0-KXD-10-RA2.5	5.0	2.50						▣		
693.06230	FMRC-6.0-KXD-10-RA3.0	6.0	3.00		▣				▣		

- Zwischenmaße aller hier aufgeführten Größen auf Anfrage.
- Fractional size for all the above size available on request.

- Stechbreitentoleranzen: Nennmaß + 0.3 mm
- Cutting width tolerances: Norminal size + 0.3 mm

Achtung! Wichtig!

Mindestbestellmenge für Wechselplatten (gleicher Typ und Hartmetallsorte) = 10 Stück.

Attention! Important!

Minimum order quantity for inserts (having the same type and carbide quality) = 10 piece.

Bestellbeispiel / sample

694.22210-**145**
694.06230-**99**

- Bei Bestellung bitte nur die **Artikel-Nr.** angeben und den Qualitäts-Index
- Please specify only **order-no.** in purchase-order and the quality-Index

◉ 2 - 3 Tage
▣ innerhalb 1 Woche
◈ auf Anfrage

◉ 2 - 3 days
▣ within 1 week
◈ on request

Konstruktionsänderung vorbehalten
Change of construction reserved

Schnittgeschwindigkeitstabelle
Cutting speed table

Werkstoff material	Schnittgeschwindigkeit m/min cutting-speed m/min							
	K10	ZVA	Zg35	Zg30 PVD	Zs40 PVD	X-Blue	Alu-Speed	Zg 25
ST37 / C15 / 9SMnPb28		90 - 200	90 - 200	90 - 220	80 - 250	75 - 280		
ST50 / C50		90 - 180	90 - 180	90 - 150	80 - 180	75 - 220		
ST60-70 / C60				90 - 150	80 - 180	75 - 220		
16MnCr5		70 - 160	70 - 160	60 - 140	80 - 160	75 - 200		
42CrMo 4 / 50CrV4		70 - 140	70 - 140	60 - 140	80 - 160	75 - 200		
100Cr6 / 90MnCrV8		50 - 130	50 - 130	60 - 130	80 - 140	75 - 160		
Rostbeständige Stähle stainless steel X - CrNi	30 - 70	40 - 60	60 - 80	60 - 130	80 - 155	70 - 170		
GG20 / GGG40	60 - 180	50 - 140	50 - 140	80 - 150	60 - 120	70 - 140		120 - 180
GG30 / GGG50	60 - 150	50 - 130	50 - 130	70 - 100	60 - 110	70 - 130		140 - 200
GG40 / GGG60	60 - 120	40 - 120	40 - 120	60 -80	60 - 100	70 - 120		110 - 170
Alu rein / Alu Guß	max. 250	max. 250					max. 250	
Knetlegierungen-Al-Si	max. 250	max. 250					max. 250	

Vorschub Tabelle
Feed table

Werkstoff material	Vorschub mm/Zahn feed mm/tooth Schnittbreite / width of cut					
	1.6	2.2	3.0	4.0	5.0	6.0
ST37 / C15 / 9SMnPb28	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30
ST50 / C50	0.03 - 0.06	0.05 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22
ST60-70 / C60	0.03 - 0.07	0.05 - 0.10	0.05 - 0.13	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22
16MnCr5	0.03 - 0.08	0.05 - 0.11	0.05 - 0.14	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22
42CrMo 4 / 50CrV4	0.03 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22
100Cr6 / 90MnCrV8	0.03 - 0.04	0.05 - 0.09	0.05 - 0.12	0.05 - 0.15	0.05 - 0.18	0.05 - 0.22
Rostbeständige Stähle stainless steel X - CrNi	0.03 - 0.04	0.05 - 0.06	0.05 - 0.07	0.05 - 0.07	0.05 - 0.08	0.05 - 0.08
GG20 / GGG40	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30
GG30 / GGG50	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30
GG40 / GGG60	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30
Alu rein / Alu Guß	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30
Knetlegierungen-Al-Si	0.03 - 0.06	0.05 - 0.12	0.05 - 0.15	0.05 - 0.20	0.05 - 0.25	0.05 - 0.30

■ Berechnung der Vorschubgeschwindigkeit [mm/min.]:
■ Calculation of feed rate [mm/min.]:

$$V_f[mm/min.] = n[min^{-1}] \times s_z[mm/Z] \times Z[1]$$

■ Berechnung der Schnittgeschwindigkeit [m/min.]:
■ Calculation of speed [m/min.]:

$$V_c = \frac{d[mm] \times \pi \times n[min^{-1}]}{1000}$$

■ Berechnung der erforderlichen Werkzeugdrehzahl [min-1]:
■ Calculation of necessary tool revolutions [min-1]:

$$n_{erf.} = \frac{1000 \times V_c[m/min.]}{d[mm] \times \pi}$$

Vc = empfohlene Schnittgeschwindigkeit
Vc = recomented speed

■ Berechnung der Mittenspandicke [mm]:
■ Calculation of medium-chip-thickness [mm]:

$$h_m = \frac{360°}{\pi \times \Delta\varphi°} \times \frac{a_e[mm]}{D[mm]} \times s_z[mm/Z]$$

$$cos\Delta\varphi = 1 - \frac{2a_e[mm/Z]}{D[mm]}$$

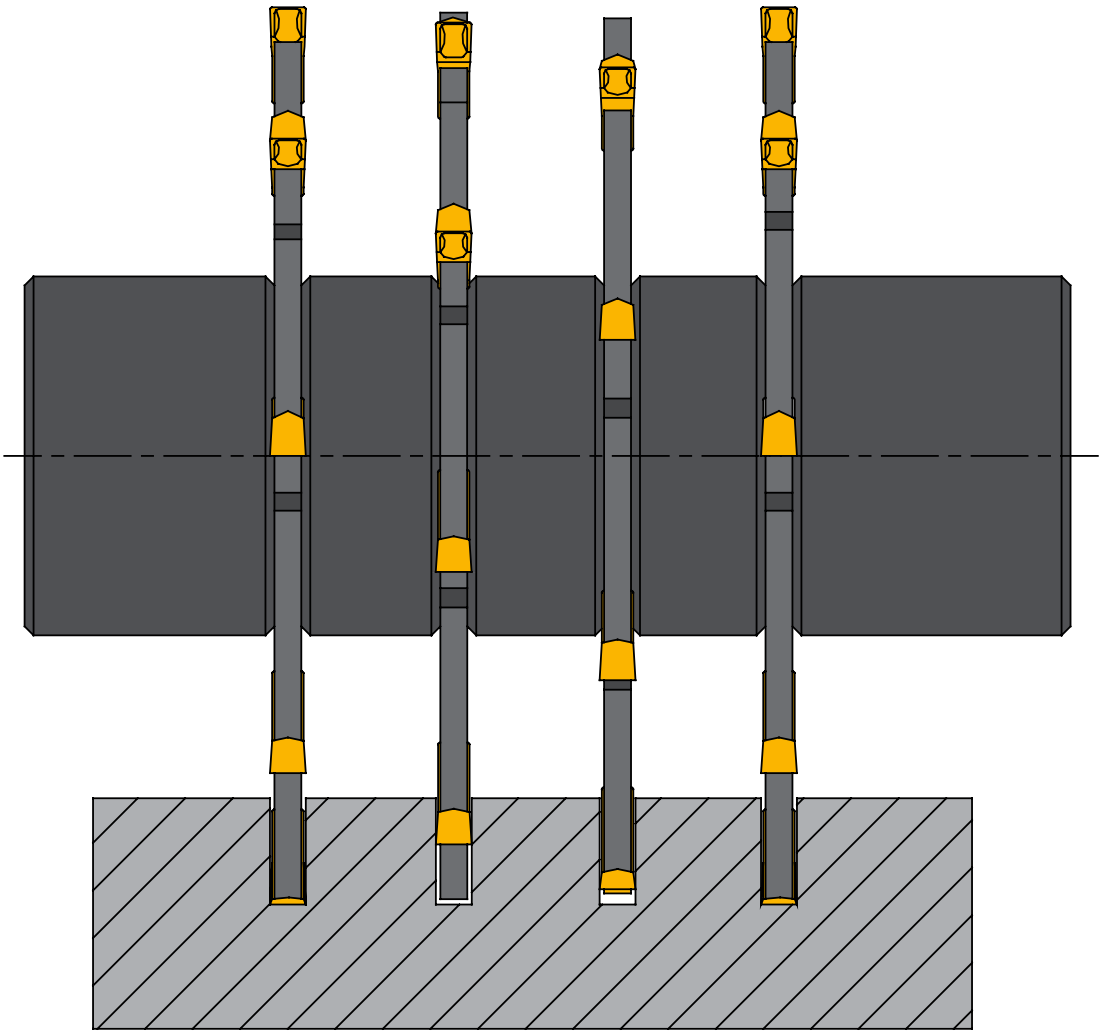
■ Berechnung des Vorschubs pro Zahn [mm/Z]:
■ Calculation of feed per tooth [mm/Z]:

$$s_z = \frac{s[mm/U]}{Z[1]}$$

oder / or

$$s_z = \frac{v_f[mm/min.]}{n[min^{-1}1] \times Z[1]}$$

Satzfräser
Set milling cutter



A-SERIES - CUTMIN
(INTERNAL APPLICATIONS AS OF DIAMETER 0,3 MM)

Innenbearbeitung ab Durchmesser 0,3 mm
CBN Werkzeuge
Gewindewerkzeuge
Nutstoßen

- Internal applications as of diameter 0,3 mm
- CBN Tools
- Threading tools
- Broaching

TABLE OF CONTENTS

ADD engineering

GF 25

Unbeschichtete fein - mittelkörnige Hartmetallsorte mit hoher Biegebruch-festigkeit (3000 N/mm2) zur Bearbeitung von legiertem und unlegiertem Stahl, Aluminium, Aluminiumlegierungen, Messing, Bronze, Nickellegierungen und unterbrochenen Schnitten unteren Schnittgeschwindig-keitsbereich.

GF 25

Uncoated carbide (micro grain), high rupture and fatigue strength (3000 N/mm2). For workpiece material: alloysteel, ordinary steel, aluminium, aluminium alloy, brass, gunmetal and nickel alloy. For interrupted cuts and lower cutting speed.

ZGX 40

PCD-beschichtet fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung

ZGX 40

PCD - coated micro grain carbide. Extremly universal use, highest cutting edge life, suitable for dry cutting.

GX 75

TIALN-beschichtete fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung. Besonders geeignet für Nirosta Stähle

GX 75

TIALN-coated micro grain carbide. Extremely universal use, highest cutting edge life, suitable for dry cutting.

X-Blue

Supernitrit beschichtet-Hartmetallmehrbereichssorte

Für hochwarmfeste und rostfreie Stähle und Superlegierungen

X-BLUE

Carbide-supernitrit coated

High temperature-resisting and stainless steel

GX 75

Zähe CBN Sorte besonders geeignet für gehärtete Stähle und Grauguss.

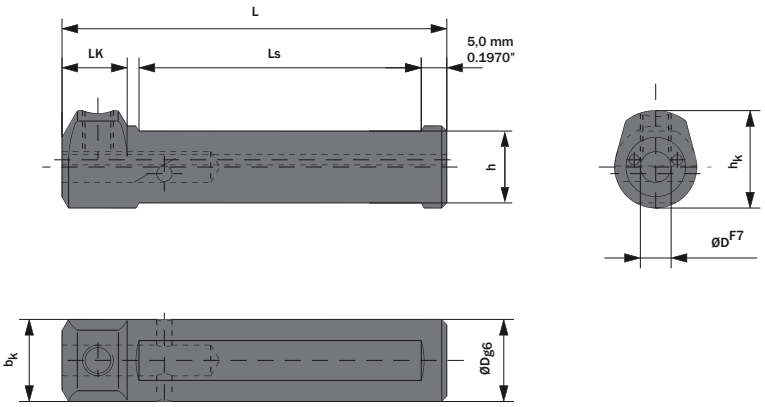
GX 75

Tough CBN-grade suitable for hardened steel and cast iron.

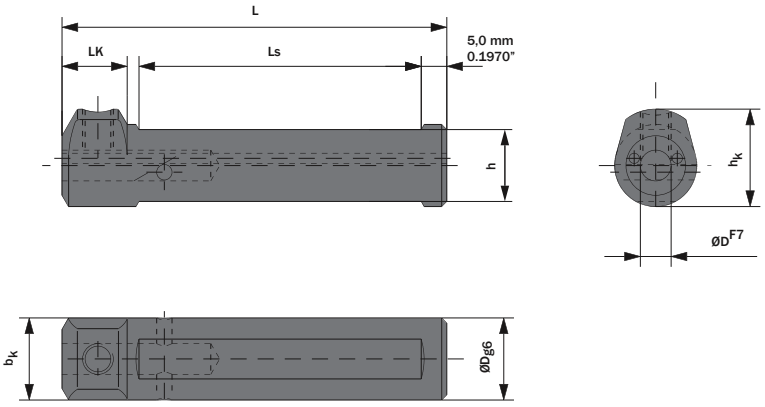
Technische Informationen - Schnittgeschwindigkeitstabelle
Technical Information - Cutting-speed table

Material Materials	Festigkeit / Härte Tensile strength / Hardness	Beispiel Sample	Schneidstoffe Grades			
			GF 25	ZGX 40	GX 75	AS
Kohlenstoff-Stahl carbon steel C-Gehalt (carnon content)	0,15 %	ST 37, C15	-	120 - 200	100 - 180	-
	0,45 %	ST50, C50	30 - 110	100 - 200	90 - 180	-
	0,60 %	ST60, C60	-	90 - 180	80 - 170	-
Legierter Stahl alloy steel	niedrig / low	16 MnCr5	-	100 - 210	100 - 200	-
	mittel / medium	90 MnCrV8	30 - 80	80 - 160	70 - 150	-
	hoch / high	X210Cr1234	-	70 - 90	65 - 80	-
Rostbeständiger Stahl Inox steel		1.4301 1.4571	-	40 - 120	40 - 70	-
Stahlguss cast steel	unlegiert / non alloyed	< 500 N/mm²	-	90 - 160	80 - 150	-
	legiert / alloyed	> 500 N/mm²	-	70 - 110	60 - 120	-
Grauguss grey cast iron		GG20 / GG30	60 - 90	70 - 180	70 - 180	-
		GGG50 / GGG70	50 - 80	60 - 150	60 - 150	-
Aluminium aluminium	~ 180 HB		200 - 250	400 - 1100	300 - 950	600 - 1550
	~ 50 HB		700 - 850	200 - 1300	180 - 1150	300 - 1900
	~ 100 HB		280 - 350	250 - 800	230 - 800	375 - 1150
Legierungen Nickel-Basis nickel based alloys		X 16CrNi16 X 50Cr-Mn-	20 - 50	30 - 85	30 - 85	-
Bronze, Messing, Rotguss bronze, brass, red brass			90 - 180	80 - 200	80 - 200	-

ROUND SHANK WITH 2 CLAMPING SURFACES (INTERNAL COOLANT)

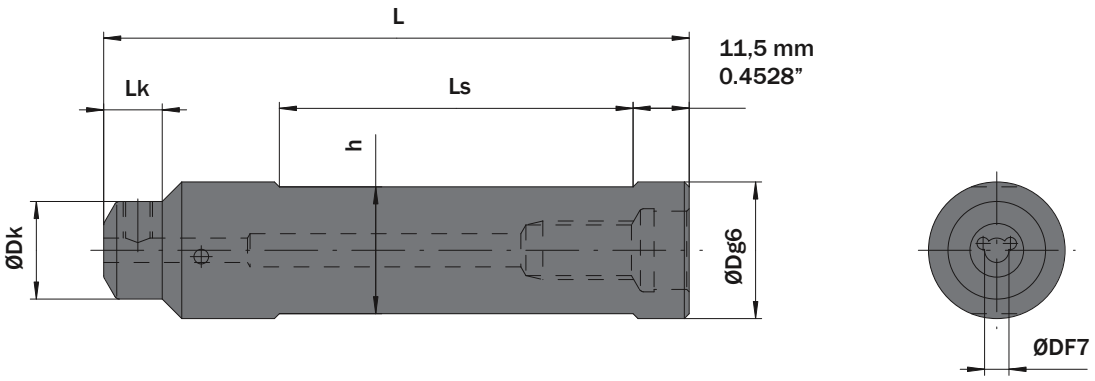


Artikel-Nr. order no.	Liefer-status stock	Ø Dg6 (mm)	Ø DF7 (mm)	Ls (mm)	L (mm)	LK (mm)	hk (mm)	bk (mm)	h (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.0010	⊙	10,00	4,0	45,0	65,0	14,0	14,5	10,0	8,0	AM6x7,5T15F	T15F	A04. ...
A05.0010	⊙	10,00	5,0	45,0	65,0	14,0	15,0	10,0	8,0	AM6x7,5T15F	T15F	A05. ...
A04.0012	⊙	12,00	4,0	50,0	70,0	14,0	15,5	12,0	10,0	AM6x7,5T15F	T15F	A04. ...
A05.0012	⊙	12,00	5,0	50,0	70,0	14,0	16,0	12,0	10,0	AM6x7,5T15F	T15F	A05. ...
A06.0012	⊙	12,00	6,0	50,0	70,0	14,0	16,5	12,0	10,0	AM6x7,5T15F	T15F	A06. ...
A04.0016	⊙	16,00	4,0	55,0	75,0	14,0	17,5	16,0	14,0	AM6x7,5T15F	T15F	A04. ...
A05.0016	⊙	16,00	5,0	55,0	75,0	14,0	18,0	16,0	14,0	AM6x7,5T15F	T15F	A05. ...
A06.0016	⊙	16,00	6,0	55,0	75,0	14,0	18,5	16,0	14,0	AM6x7,5T15F	T15F	A06. ...
A07.0016	⊙	16,00	7,0	55,0	75,0	14,0	19,0	16,0	14,0	AM6x7,5T15F	T15F	A07. ...
A08.0016	⊙	16,00	8,0	55,0	75,0	14,0	19,5	16,0	14 ,0	AM6x7,5T15F	T15F	A08. ...



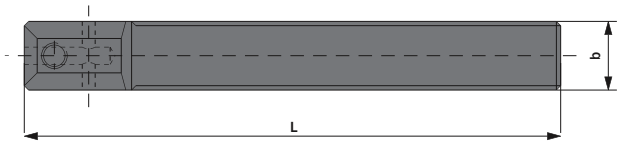
Artikel-Nr. order no.	Liefer-status stock	Ø Dg6 (mm)	Ø DF7 (mm)	Ls (mm)	L (mm)	LK (mm)	hk (mm)	bk (mm)	h (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.0020	⊙	20,00	4,0	70,0	90,0	14,0	20,0	20,0	18,0	AM6x7,5T15F	T15F	A04. ...
A05.0020	⊙	20,00	5,0	70,0	90,0	14,0	20,0	20,0	18,0	AM6x7,5T15F	T15F	A05. ...
A06.0020	⊙	20,00	6,0	70,0	90,0	14,0	22,0	22,0	18,0	AM6x7,5T15F	T15F	A06. ...
A07.0020	⊙	20,00	7,0	70,0	90,0	14,0	22,0	22,0	18,0	AM6x7,5T15F	T15F	A07. ...
A08.0020	⊙	20,00	8,0	70,0	90,0	14,0	25,0	25,0	18,0	AM6x7,5T15F	T15F	A08. ...
A10.0020	⊙	20,00	10,0	70,0	90,0	14,0	25,0	25,0	18,0	AM6x7,5T15F	T15F	A10. ...
A04.0023	◈	23,00	4,0	90,0	110,0	15,0	23,0	23,0	21,0	AM6x7,5T15F	T15F	A04. ...
A05.0023	◈	23,00	5,0	90,0	110,0	15,0	23,0	23,0	21,0	AM6x7,5T15F	T15F	A05. ...
A06.0023	◈	23,00	6,0	90,0	110,0	15,0	23,0	23,0	21,0	AM6x7,5T15F	T15F	A06. ...
A07.0023	◈	23,00	7,0	90,0	110,0	15,0	23,0	23,0	21,0	AM6x7,5T15F	T15F	A07. ...
A04.0025	⊙	25,00	4,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A04. ...
A05.0025	◈	25,00	5,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A05. ...
A06.0025	◈	25,00	6,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A06. ...
A07.0025	⊙	25,00	7,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A07. ...
A08.0025	⊙	25,00	8,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A08. ...
A10.0025	⊙	25,00	10,0	90,0	110,0	15,0	25,0	25,0	23,0	AM6x7,5T15F	T15F	A10. ...

ROUND SHANK WITH 2 CLAMING SURFACE (INTERNAL COOLANT) / SQUARE SHANK FOR ALL APPLICATIONS



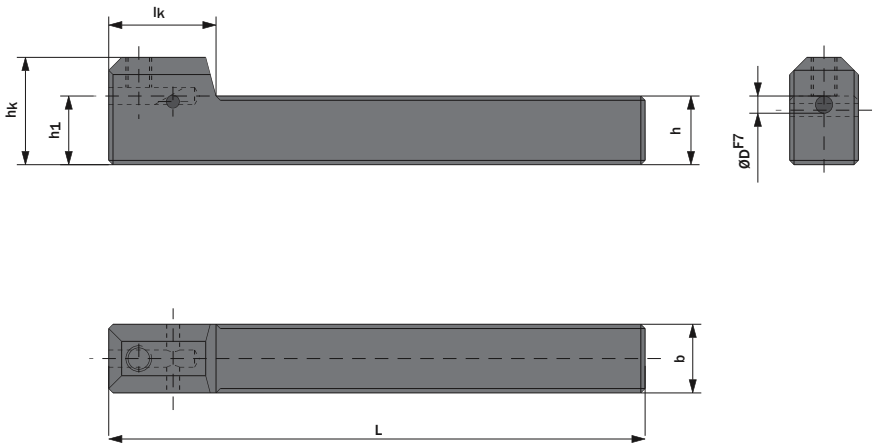
Gewinde für Kühlmittelanschluß: M12 x 1,5
Connecting thread for internal coolant supply: M12 x 1,5

Artikel-Nr. order no.	Liefer-status stock	Ø Dg6 (mm)	Ø DF7 (mm)	L (mm)	Ls (mm)	LK (mm)	h (mm)	Ø Dk (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.0028	⊙	28,00	4,0	120,0	72,0	17,0	26,0	20,0	AM6x7,5T15F	T15F	A04. ...
A05.0028	◈	28,00	5,0	120,0	72,0	12,0	26,0	20,0	AM6x7,5T15F	T15F	A05. ...
A06.0028	⊙	28,00	6,0	120,0	72,0	12,0	26,0	22,0	AM6x7,5T15F	T15F	A06. ...
A07.0028	⊙	28,00	7,0	120,0	72,0	12,0	26,0	22,0	AM6x7,5T15F	T15F	A07. ...

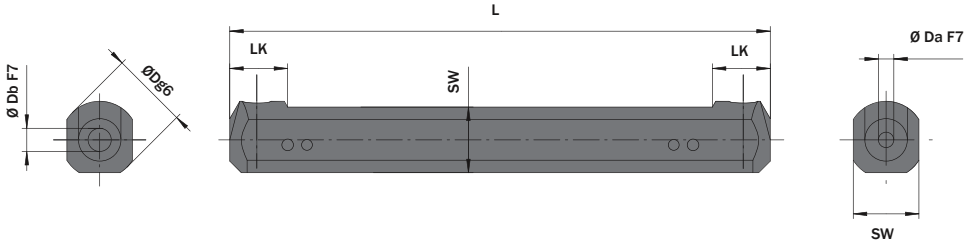


Artikel-Nr. order no.	Liefer-status stock	b (mm)	h (mm)	Ø DF7 (mm)	L (mm)	h1 (mm)	LK (mm)	hk (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.1010	⊙	10,0	10,0	4,0	100,0	10,0	25,0	19,0	AM6x7,5T15F	T15F	A04. ...
A05.1010	⊙	10,0	10,0	5,0	100,0	10,0	25,0	19,5	AM6x7,5T15F	T15F	A05. ...
A04.1212	⊙	12,0	12,0	4,0	100,0	12,0	25,0	21,0	AM6x7,5T15F	T15F	A04. ...
A05.1212	⊙	12,0	12,0	5,0	100,0	12,0	27,0	21,5	AM6x7,5T15F	T15F	A05. ...
A06.1212	⊙	12,0	12,0	6,0	100,0	12,0	27,0	22,0	AM6x7,5T15F	T15F	A06. ...
A04.1616	⊙	16,0	16,0	4,0	125,0	16,0	25,0	25,0	AM6x7,5T15F	T15F	A04. ...
A05.1616	⊙	16,0	16,0	5,0	125,0	16,0	35,0	25,5	AM6x7,5T15F	T15F	A05. ...
A06.1616	⊙	16,0	16,0	6,0	125,0	16,0	35,0	26,0	AM6x7,5T15F	T15F	A06. ...
A07.1616	◈	16,0	16,0	7,0	125,0	16,0	35,0	26,5	AM6x7,5T15F	T15F	A07. ...
A08.1616	◈	16,0	16,0	8,0	125,0	16,0	40,0	27,0	AM6x7,5T15F	T15F	A08. ...

SQUARE SHANK FOR ALL APPLICATIONS / DOUBLE TOOLHOLDER FOR SMALL PART MACHINING

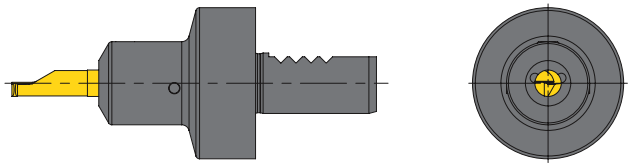


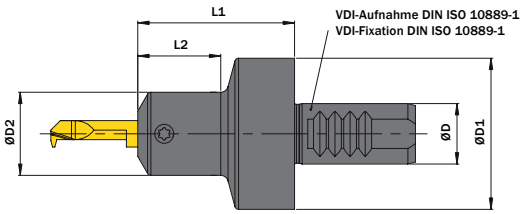
Artikel-Nr. order no.	Liefer-status stock	b (mm)	h (mm)	Ø DF7 (mm)	L (mm)	h1 (mm)	LK (mm)	hk (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.2020	⊙	20,0	20,0	4,0	125,0	20,0	25,0	29,0	AM6x7,5T15F	T15F	A04. ...
A05.2020	⊙	20,0	20,0	5,0	125,0	20,0	35,0	29,5	AM6x7,5T15F	T15F	A05. ...
A06.2020	⊙	20,0	20,0	6,0	125,0	20,0	35,0	30,0	AM6x7,5T15F	T15F	A06. ...
A07.2020	⊙	20,0	20,0	7,0	125,0	20,0	35,0	30,5	AM6x7,5T15F	T15F	A07. ...
A08.2020	◈	20,0	20,0	8,0	125,0	20,0	40,0	31,0	AM6x7,5T15F	T15F	A08. ...
A10.2020	⊙	20,0	20,0	10,0	125,0	20,0	40,0	32,0	AM6x7,5T15F	T15F	A10. ...



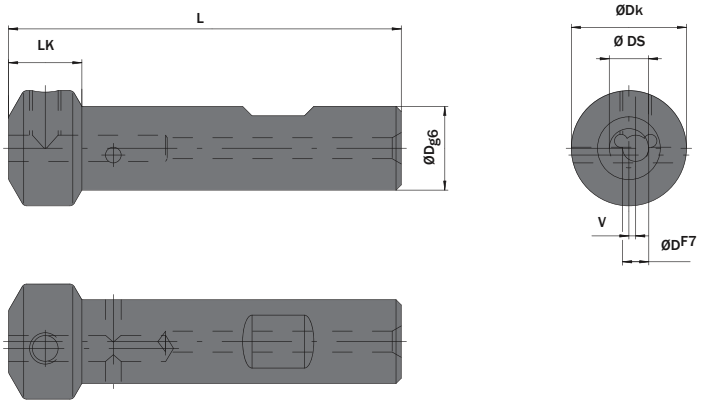
Artikel-Nr. order no.	Liefer-status stock	Ø DaF7 (mm)	Ø Dg6 (mm)	L (mm)	Ø DbF7 (mm)	LK (mm)	SW (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.0020.0140.A04	◈	4,0	20,0	140,0	4,0	15,0	17,0	AM6x7,5T15F	T15F	A04. ... / A04. ...
A04.0020.0140.A05	⊙	4,0	20,0	140,0	5,0	15,0	17,0	AM6x7,5T15F	T15F	A04. ... / A05. ...
A04.0020.0140.A06	⊙	4,0	20,0	140,0	6,0	15,0	17,0	AM6x7,5T15F	T15F	A04. ... / A06. ...
A05.0020.0140.A05	◈	5,0	20,0	140,0	5,0	15,0	17,0	AM6x7,5T15F	T15F	A05. ... / A05. ...
A05.0020.0140.A06	◈	5,0	20,0	140,0	6,0	15,0	17,0	AM6x7,5T15F	T15F	A05. ... / A06. ...
A06.0020.0140.A06	◈	6,0	20,0	140,0	6,0	15,0	17,0	AM6x7,5T15F	T15F	A06. ... / A06. ...
A04.0022.0140.A04	⊙	4,0	22,0	140,0	4,0	15,0	19,0	AM6x7,5T15F	T15F	A04. ... / A04. ...
A04.0022.0140.A06	⊙	4,0	22,0	140,0	6,0	15,0	19,0	AM6x7,5T15F	T15F	A04. ... / A06. ...
A06.0022.0140.A06	◈	6,0	22,0	140,0	6,0	15,0	19,0	AM6x7,5T15F	T15F	A06. ... / A06. ...
A04.0025.0140.A06	⊙	4,0	25,0	140,0	6,0	15,0	23,0	AM6x7,5T15F	T15F	A04. ... / A06. ...
A04.0028.0140.A06	⊙	4,0	28,0	140,0	6,0	15,0	26,0	AM6x7,5T15F	T15F	A04. ... / A06. ...

TOOLHOLDER WITH VDI - ARBOR / GROOVE MILLING WITH A-SERIES INSERTS

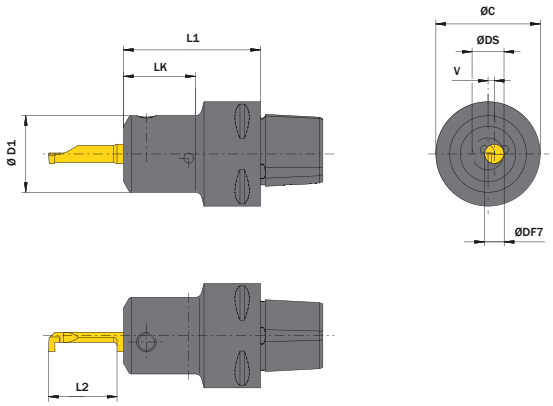




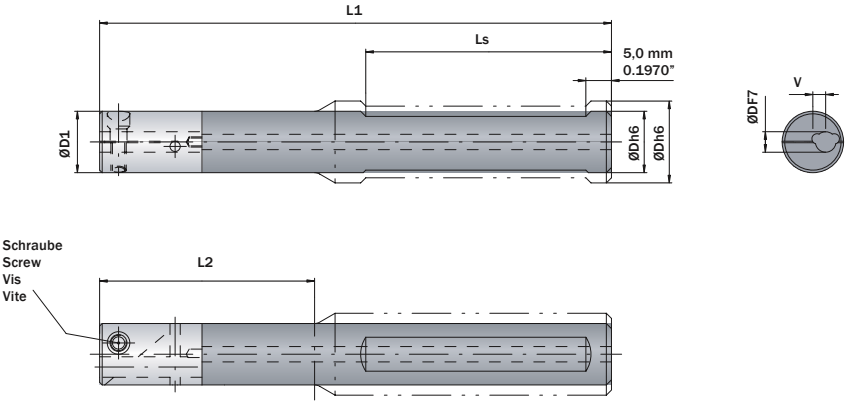
Artikel-Nr. order no.	Liefer-status stock	Ø D (mm)	Ø D1 (mm)	Ø D2 (mm)	L2 (mm)	L1 (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.VD16	◉	16,0	40,0	19,0	23,0	41,5	AM6x7,5T15F	T15F	A04. ...
A05.VD16	◉	16,0	40,0	20,0	23,0	41,5	AM6x7,5T15F	T15F	A05. ...
A06.VD16	◉	16,0	40,0	21,0	23,0	41,5	AM6x7,5T15F	T15F	A06. ...
A07.VD16	◉	16,0	40,0	22,0	23,0	41,5	AM6x7,5T15F	T15F	A07. ...
A08.VD16	◈	16,0	40,0	23,0	23,0	41,5	AM6x7,5T15F	T15F	A08. ...
A10.VD16	◈	16,0	40,0	25,0	23,0	41,5	AM6x7,5T15F	T15F	A10. ...
A04.VD20	◈	20,0	50,0	19,0	23,0	46,5	AM6x7,5T15F	T15F	A04. ...
A05.VD20	◈	20,0	50,0	20,0	23,0	46,5	AM6x7,5T15F	T15F	A05. ...
A06.VD20	◈	20,0	50,0	21,0	23,0	46,5	AM6x7,5T15F	T15F	A06. ...
A07.VD20	◈	20,0	50,0	22,0	23,0	46,5	AM6x7,5T15F	T15F	A07. ...
A08.VD20	◈	20,0	50,0	23,0	23,0	46,5	AM6x7,5T15F	T15F	A08. ...
A10.VD20	◈	20,0	50,0	25,0	23,0	46,5	AM6x7,5T15F	T15F	A10. ...
A04.VD25	◈	25,0	58,0	19,0	28,0	52,0	AM6x7,5T15F	T15F	A04. ...
A05.VD25	◈	25,0	58,0	20,0	28,0	52,0	AM6x7,5T15F	T15F	A05. ...
A06.VD25	◈	25,0	58,0	21,0	28,0	52,0	AM6x7,5T15F	T15F	A06. ...
A07.VD25	◈	25,0	58,0	22,0	28,0	52,0	AM6x7,5T15F	T15F	A07. ...
A08.VD25	◈	25,0	58,0	23,0	28,0	52,0	AM6x7,5T15F	T15F	A08. ...
A10.VD25	◈	25,0	58,0	25,0	28,0	52,0	AM6x7,5T15F	T15F	A10. ...
A04.VD30	◈	30,0	68,0	19,0	28,0	52,0	AM6x7,5T15F	T15F	A04. ...
A05.VD30	◈	30,0	68,0	20,0	28,0	52,0	AM6x7,5T15F	T15F	A05. ...
A06.VD30	◈	30,0	68,0	21,0	28,0	52,0	AM6x7,5T15F	T15F	A06. ...
A07.VD30	◈	30,0	68,0	22,0	28,0	52,0	AM6x7,5T15F	T15F	A07. ...
A08.VD30	◈	30,0	68,0	23,0	28,0	52,0	AM6x7,5T15F	T15F	A08. ...
A10.VD30	◈	30,0	68,0	25,0	28,0	52,0	AM6x7,5T15F	T15F	A10. ...



Artikel-Nr. order no.	Liefer-status stock	Ø Dg6 (mm)	Ø DS (mm)	Ø DF7 (mm)	Ø Dk (mm)	V (mm)	LK (mm)	L (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.0016.05BST	◈	16,0	5,9	4,0	21,0	1,00	14,0	75,0	AM6x7,5T15F	T15F	A04. ...
A04.0016.06BST	◈	16,0	6,0	4,0	21,0	1,05	14,0	75,0	AM6x7,5T15F	T15F	A04. ...
A05.0016.07BST	◈	16,0	6,9	5,0	22,0	1,00	14,0	75,0	AM6x7,5T15F	T15F	A05. ...
A05.0016.08BST	◈	16,0	7,5	5,0	22,0	1,30	14,0	75,0	AM6x7,5T15F	T15F	A05. ...
A05.0016.10BST	◈	16,0	9,8	6,0	22,0	1,95	14,0	75,0	AM6x7,5T15F	T15F	A05. ...
A05.0016.13BST	◈	16,0	12,7	7,0	22,0	2,90	14,0	75,0	AM6x7,5T15F	T15F	A05. ...

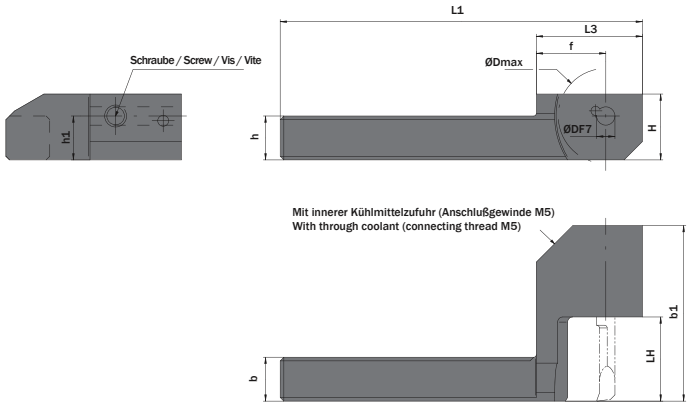


Artikel-Nr. order no.	Liefer-status stock	Ø C (mm)	Ø DS (mm)	Ø DF7 (mm)	L1 (mm)	LK (mm)	Max. Frästiefe Max. depth of cut (Milling) (mm)	V (mm)	Ø D1 (mm)	Dmin (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A04.00C3.05	◈	32,0	5,9	4,0	42,0	22,0	0,75	1,00	21,0	6,4	AM6x7,5T15F	T15F	A04. ...
A04.00C3.06	◈	32,0	6,0	4,0	42,0	22,0	0,80	1,05	21,0	6,5	AM6x7,5T15F	T15F	A04. ...
A05.00C3.07	◈	32,0	6,9	5,0	42,0	22,0	0,70	1,00	22,0	7,4	AM6x7,5T15F	T15F	A05. ...
A05.00C3.08	◈	32,0	7,5	5,0	42,0	22,0	1,00	1,30	22,0	8,0	AM6x7,5T15F	T15F	A05. ...
A06.00C3.08	◈	32,0	7,9	6,0	42,0	22,0	0,65	1,00	23,0	8,4	AM6x7,5T15F	T15F	A06. ...
A06.00C3.10	◈	32,0	9,8	6,0	42,0	22,0	1,60	1,95	23,5	10,3	AM6x7,5T15F	T15F	A06. ...
A07.00C3.09	◈	32,0	8,9	7,0	42,0	22,0	0,60	1,00	24,0	9,4	AM6x7,5T15F	T15F	A07. ...
A07.00C3.13	◈	32,0	12,7	7,0	42,0	22,0	2,50	2,90	25,0	13,2	AM6x7,5T15F	T15F	A07. ...
A04.00C4.05	◈	40,0	5,9	4,0	47,0	22,0	0,75	1,00	21,0	6,4	AM6x7,5T15F	T15F	A04. ...
A04.00C4.06	◈	40,0	6,0	4,0	47,0	22,0	0,80	1,05	21,0	6,5	AM6x7,5T15F	T15F	A04. ...
A05.00C4.07	◈	40,0	6,9	5,0	47,0	22,0	0,70	1,00	22,0	7,4	AM6x7,5T15F	T15F	A05. ...
A05.00C4.08	◈	40,0	7,5	5,0	47,0	22,0	1,00	1,30	22,0	8,0	AM6x7,5T15F	T15F	A05. ...
A06.00C4.08	◈	40,0	7,9	6,0	47,0	22,0	0,65	1,00	23,0	8,4	AM6x7,5T15F	T15F	A06. ...
A06.00C4.10	◉	40,0	9,8	6,0	47,0	22,0	1,60	1,95	23,5	10,3	AM6x7,5T15F	T15F	A06. ...
A07.00C4.09	◈	40,0	8,9	7,0	47,0	22,0	0,60	1,00	24,0	9,4	AM6x7,5T15F	T15F	A07. ...
A07.00C4.13	◈	40,0	12,7	7,0	47,0	22,0	2,50	2,90	25,0	13,2	AM6x7,5T15F	T15F	A07. ...



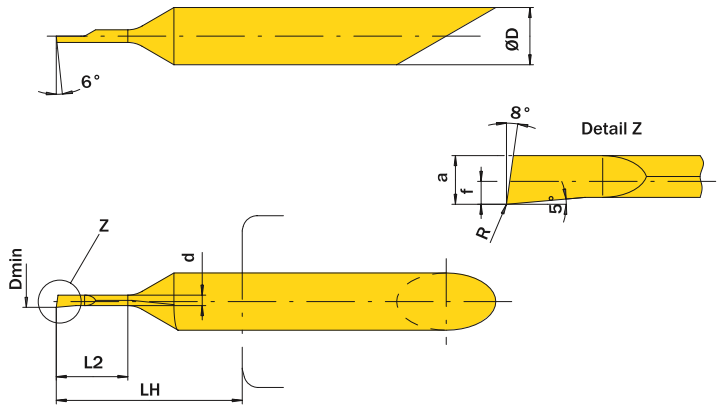
Artikel-Nr. order no.	Liefer-status stock	Ø DF7 (mm)	Ø D1 (mm)	L2 (mm)	Ø Dh6 (mm)	L1 (mm)	Ls (mm)	V (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
Rechte Ausführung / Right hand execution											
A04.0010.42HMR	◉	4,0	10,0	42,0	12,0	100,0	48,0	2,2	AM2,6x8T8F	T8F	A04. ...
A04.0012.42HMR	◉	4,0	12,0	42,0	12,0	100,0	48,0	2,5	AM3x9T9F	T9F	A04. ...
A05.0012.42HMR	◉	5,0	12,0	42,0	12,0	105,0	48,0	2,3	AM3x9T9F	T9F	A05. ...
Linke Ausführung / Left hand execution											
A04.0010.42HML	◉	4,0	10,0	42,0	12,0	100,0	48,0	2,2	AM2,6x8T8F	T8F	A04. ...
A04.0012.42HML	◉	4,0	12,0	42,0	12,0	100,0	48,0	2,5	AM3x9T9F	T9F	A04. ...
A05.0012.42HML	◉	5,0	12,0	42,0	12,0	105,0	48,0	2,3	AM3x9T9F	T9F	A04. ...

CRANKED TOOLHOLDER FOR SMALL PART MACHINING

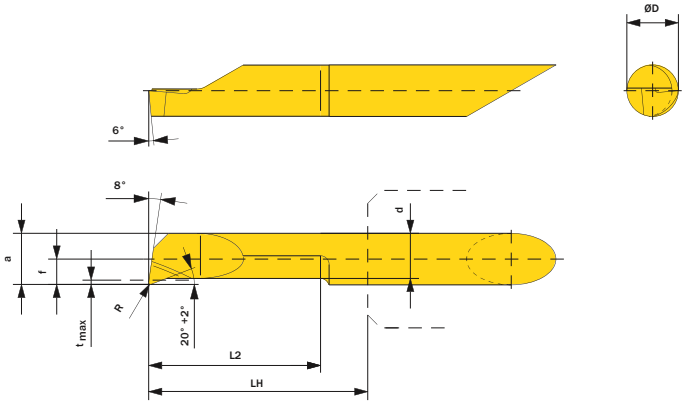


Artikel-Nr. order no.	Liefer-status stock	b (mm)	h (mm)	LH (mm)	Ø DF7 (mm)	Ø Dmax (mm)	f (mm)	L3 (mm)	L1 (mm)	H (mm)	b1 (mm)	h1 (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewinde-platte inserts
Rechte Ausführung / Right hand execution															
A04.0808.10R	⊙	8,0	8,0	13,0	4,0	26,0	19,0	29,0	99,0	14,0	31,5	8,0	AM6x7,5T15F	T15F	A04. ...
A04.0808.15R	⊙	8,0	8,0	18,0	4,0	26,0	19,0	29,0	99,0	14,0	36,5	8,0	AM6x7,5T15F	T15F	A04. ...
A05.0808.15R	⊙	8,0	8,0	18,0	5,0	26,0	19,0	29,0	99,0	14,0	43,0	8,0	AM6x7,5T15F	T15F	A05. ...
A04.1010.10R	⊙	10,0	10,0	13,0	4,0	26,0	19,0	29,0	99,0	16,0	31,5	10,0	AM6x7,5T15F	T15F	A04. ...
A04.1010.15R	◈	10,0	10,0	18,0	4,0	26,0	19,0	29,0	99,0	16,0	36,5	10,0	AM6x7,5T15F	T15F	A04. ...
A05.1010.20R	◈	10,0	10,0	23,0	5,0	26,0	19,0	29,0	99,0	16,0	48,0	10,0	AM6x7,5T15F	T15F	A05. ...
A05.1010.25R	◈	10,0	10,0	28,0	6,0	26,0	19,0	29,0	99,0	16,0	53,0	10,0	AM6x7,5T15F	T15F	A05. ...
A04.1212.10R	⊙	12,0	12,0	13,0	4,0	26,0	19,0	29,0	99,0	18,0	31,5	12,0	AM6x7,5T15F	T15F	A04. ...
A04.1212.15R	◈	12,0	12,0	18,0	4,0	26,0	19,0	29,0	99,0	18,0	36,5	12,0	AM6x7,5T15F	T15F	A04. ...
A05.1212.20R	◈	12,0	12,0	23,0	5,0	26,0	19,0	29,0	99,0	18,0	48,0	12,0	AM6x7,5T15F	T15F	A05. ...
A05.1212.25R	◈	12,0	12,0	28,0	6,0	26,0	19,0	29,0	99,0	18,0	53,0	12,0	AM6x7,5T15F	T15F	A05. ...
A04.1616.15R	◈	16,00	16,0	18,0	4,0	36,0	24,0	34,0	104,0	22,0	36,5	16,0	AM6x7,5T15F	T15F	A04. ...
A05.1616.20R	◈	16,00	16,0	23,0	5,0	36,0	24,0	34,0	104,0	22,0	48,0	16,0	AM6x7,5T15F	T15F	A05. ...
A06.1616.25R	◈	16,00	16,0	28,0	6,0	36,0	24,0	34,0	104,0	22,0	53,0	16,0	AM6x7,5T15F	T15F	A06. ...
A07.1616.25R	⊙	16,00	16,0	28,0	7,0	36,0	24,0	34,0	104,0	22,0	53,5	16,0	AM6x7,5T15F	T15F	A07. ...
Linke Ausführung / Left hand execution															
A04.0808.10L	◈	8,0	8,0	13,0	4,0	26,0	19,0	29,0	99,0	14,0	31,5	8,0	AM6x7,5T15F	T15F	A04. ...
A04.0808.15L	⊙	8,0	8,0	18,0	4,0	26,0	19,0	29,0	99,0	14,0	36,5	8,0	AM6x7,5T15F	T15F	A04. ...
A05.0808.15L	◈	8,0	8,0	18,0	5,0	26,0	19,0	29,0	99,0	14,0	43,0	8,0	AM6x7,5T15F	T15F	A05. ...
A04.1010.10L	◈	10,0	10,0	13,0	4,0	26,0	19,0	29,0	99,0	16,0	31,5	10,0	AM6x7,5T15F	T15F	A04. ...
A04.1010.15L	◈	10,0	10,0	18,0	4,0	26,0	19,0	29,0	99,0	16,0	36,5	10,0	AM6x7,5T15F	T15F	A04. ...
A05.1010.20L	◈	10,0	10,0	23,0	5,0	26,0	19,0	29,0	99,0	16,0	48,0	10,0	AM6x7,5T15F	T15F	A05. ...
A05.1010.25L	◈	10,0	10,0	28,0	6,0	26,0	19,0	29,0	99,0	16,0	53,0	10,0	AM6x7,5T15F	T15F	A05. ...
A04.1212.10L	⊙	12,0	12,0	13,0	4,0	26,0	19,0	29,0	99,0	18,0	31,5	12,0	AM6x7,5T15F	T15F	A04. ...
A04.1212.15L	◈	12,0	12,0	18,0	4,0	26,0	19,0	29,0	99,0	18,0	36,5	12,0	AM6x7,5T15F	T15F	A04. ...
A05.1212.20L	◈	12,0	12,0	23,0	5,0	26,0	19,0	29,0	99,0	18,0	48,0	12,0	AM6x7,5T15F	T15F	A05. ...
A05.1212.25L	◈	12,0	12,0	28,0	6,0	26,0	19,0	29,0	99,0	18,0	53,0	12,0	AM6x7,5T15F	T15F	A05. ...
A04.1616.15L	◈	16,00	16,0	18,0	4,0	36,0	24,0	34,0	104,0	22,0	36,5	16,0	AM6x7,5T15F	T15F	A04. ...
A05.1616.20L	◈	16,00	16,0	23,0	5,0	36,0	24,0	34,0	104,0	22,0	48,0	16,0	AM6x7,5T15F	T15F	A05. ...
A06.1616.25L	◈	16,00	16,0	28,0	6,0	36,0	24,0	34,0	104,0	22,0	53,0	16,0	AM6x7,5T15F	T15F	A06. ...
A07.1616.25L	◈	16,00	16,0	28,0	7,0	36,0	24,0	34,0	104,0	22,0	53,5	16,0	AM6x7,5T15F	T15F	A07. ...

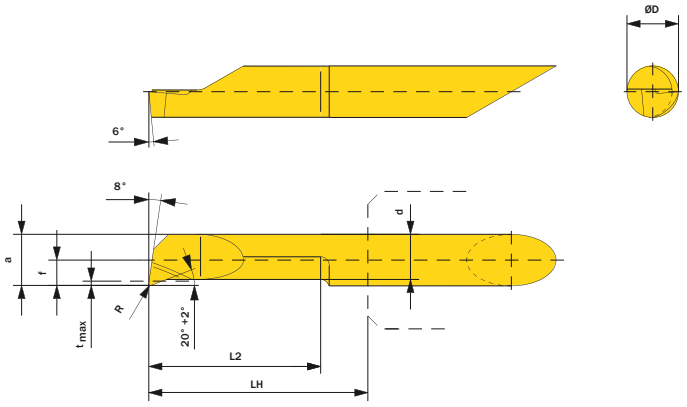
BORING (INTERNAL) AS OF Ø 0,3 MM / BORING (INTERNAL) AS OF Ø 2,7 MM R = 0,03 MM



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	d (mm) +0,03	LH (mm)	a (mm)	Halter Toolholder
Schneideinsätze - Rechtsausführung / Inserts - right hand execution														
A04.5015.01.03.00YR	◈		◈	⊙	⊙	4,0	0,10	1,2	0,30	-	0,19	13,0	0,25	A04....
A04.5020.01.04.00YR	◈		◈	⊙	⊙	4,0	0,15	1,6	0,40	-	0,28	13,0	0,35	A04....
A04.5025.02.05.00YR	◈		◈	⊙	⊙	4,0	0,20	2,0	0,50	-	0,37	13,0	0,45	A04....
A04.5030.02.06.00YR	◈		◈	⊙	⊙	4,0	0,25	2,5	0,60	-	0,46	13,0	0,55	A04....
A04.5035.03.07.00YR	◈		◈	⊙	⊙	4,0	0,30	3,6	0,70	-	0,55	13,0	0,65	A04....
A04.5040.04.08.00YR	◈		◈	⊙	⊙	4,0	0,35	4,1	0,80	-	0,64	13,0	0,75	A04....
A04.5045.05.09.00YR	◈		◈	⊙	◈	4,0	0,40	5,1	0,90	-	0,73	13,0	0,85	A04....
Schneideinsätze - Linksausführung / Inserts - left hand execution														
A04.5015.01.03.00YL	◈		◈	◈	◈	4,0	0,10	1,2	0,30	-	0,19	13,0	0,25	A04....
A04.5020.01.04.00YL	◈		◈	◈	⊙	4,0	0,15	1,6	0,40	-	0,28	13,0	0,35	A04....
A04.5025.02.05.00YL	◈		◈	◈	◈	4,0	0,20	2,0	0,50	-	0,37	13,0	0,45	A04....
A04.5030.02.06.00YL	◈		◈	◈	◈	4,0	0,25	2,5	0,60	-	0,46	13,0	0,55	A04....
A04.5035.03.07.00YL	◈		◈	⊙	◈	4,0	0,30	3,6	0,70	-	0,55	13,0	0,65	A04....
A04.5040.04.08.00YL	◈		◈	⊙	◈	4,0	0,35	4,1	0,80	-	0,64	13,0	0,75	A04....
A04.5045.05.09.00YL	◈		◈	⊙	◈	4,0	0,40	5,1	0,90	-	0,73	13,0	0,85	A04....

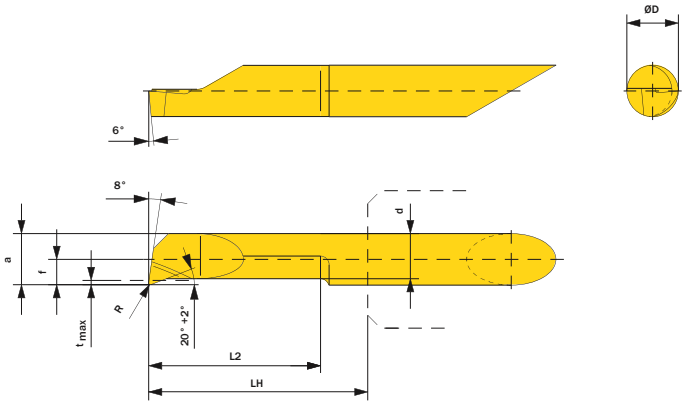


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.1812.10.27.03YR	◈		◈	◈	⊙	4,0	1,20	10,2	2,7	0,03	13,0	0,2	2,45	2,05	A04...
A04.1815.10.32.03YR	◈		◈	⊙	⊙	4,0	1,45	10,2	3,2	0,03	13,0	0,2	2,95	2,55	A04...
A04.1820.10.42.03YR	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,03	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.03YR	◈		◈	⊙	⊙	4,0	1,95	15,2	4,2	0,03	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.03YR	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,03	23,0	0,3	3,95	3,45	A04...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.1812.10.27.03YL	◈		◈	◈	⊙	4,0	1,20	10,2	2,7	0,03	13,0	0,2	2,45	2,05	A04...
A04.1815.10.32.03YL	◈		◈	◈	◈	4,0	1,45	10,2	3,2	0,03	13,0	0,2	2,95	2,55	A04...
A04.1820.10.42.03YL	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,03	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.03YL	◈		◈	◈	◈	4,0	1,95	15,2	4,2	0,03	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.03YL	◈		◈	◈	◈	4,00	1,95	20,3	4,2	0,03	23,0	0,3	3,95	3,45	A04...

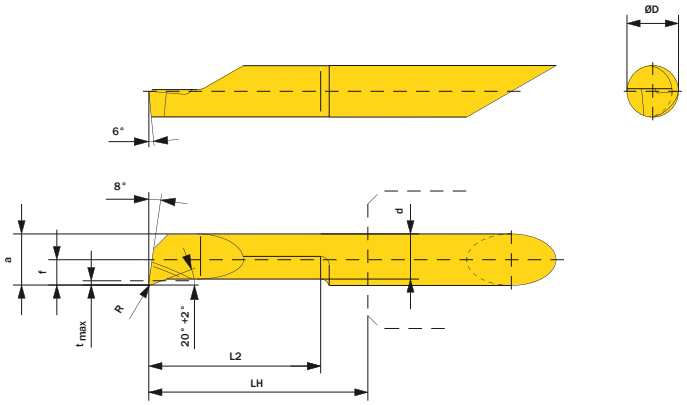


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	d (mm)	LH (mm)	tmax (mm)	a (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A05.1825.10.52.20YR	◈		◈	⊙	⊙	5,0	2,45	10,2	5,2	0,2	4,25	13,0	0,5	4,95	A05...
A05.1825.15.52.20YR	◈		◈	⊙	⊙	5,0	2,45	15,2	5,2	0,2	4,25	18,0	0,5	4,95	A05...
A05.1825.20.52.20YR	◈		◈	⊙	⊙	5,0	2,45	20,3	5,2	0,2	4,25	23,0	0,5	4,95	A05...
A05.1825.25.52.20YR	◈		◈	⊙	⊙	5,0	2,45	25,4	5,2	0,2	4,25	28,0	0,5	4,95	A05...
A05.1825.30.52.20YR	◈		◈	⊙	⊙	5,0	2,45	30,5	5,2	0,2	4,25	33,0	0,5	4,95	A05...
A05.1825.35.52.20YR	◈		◈	⊙	⊙	5,0	2,45	35,6	5,2	0,2	4,25	38,0	0,5	4,95	A05...
A05.1825.40.52.20YR	◈		◈	⊙	⊙	5,0	2,45	40,6	5,2	0,2	4,25	43,0	0,5	4,95	A05...
A06.1830.15.62.20YR	◈		◈	⊙	⊙	6,0	2,95	15,2	6,2	0,2	5,25	18,0	0,5	5,95	A06...
A06.1830.20.62.20YR	◈		◈	⊙	⊙	6,0	2,95	20,3	6,2	0,2	5,25	23,0	0,5	5,95	A06...
A06.1830.25.62.20YR	◈		◈	⊙	⊙	6,0	2,95	25,4	6,2	0,2	5,25	28,0	0,5	5,95	A06...
A06.1830.30.62.20YR	◈		◈	⊙	⊙	6,0	2,95	30,5	6,2	0,2	5,25	33,0	0,5	5,95	A06...
A06.1830.35.62.20YR	◈		⊙	⊙	⊙	6,0	2,95	35,6	6,2	0,2	5,25	38,0	0,5	5,95	A06...
A06.1830.40.62.20YR	◈		◈	⊙	⊙	6,0	2,95	40,6	6,2	0,2	5,25	43,0	0,5	5,95	A06...
A07.1835.25.72.20YR	◈		◈	⊙	⊙	7,0	3,45	25,4	7,2	0,2	6,25	28,0	0,5	6,95	A07...
A07.1835.30.72.20YR	◈		◈	⊙	⊙	7,0	3,45	30,5	7,2	0,2	6,25	33,0	0,5	6,95	A07...
A07.1835.35.72.20YR	◈		◈	⊙	⊙	7,0	3,45	35,6	7,2	0,2	6,25	38,0	0,5	6,95	A07...
A07.1835.40.72.20YR	◈		◈	⊙	⊙	7,0	3,45	40,6	7,2	0,2	6,25	43,0	0,5	6,95	A07...
A07.1835.45.72.20YR	◈		◈	⊙	⊙	7,0	3,45	45,7	7,2	0,2	6,25	48,0	0,5	6,95	A07...
A07.1835.50.72.20YR	◈		◈	⊙	⊙	7,0	3,45	50,8	7,2	0,2	6,25	53,0	0,5	6,95	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A05.1825.10.52.20YL	◈		◈	⊙	⊙	5,0	2,45	10,2	5,2	0,2	4,25	13,0	0,5	4,95	A05...
A05.1825.15.52.20YL	◈		◈	⊙	⊙	5,0	2,45	15,2	5,2	0,2	4,25	18,0	0,5	4,95	A05...
A05.1825.20.52.20YL	◈		◈	⊙	⊙	5,0	2,45	20,3	5,2	0,2	4,25	23,0	0,5	4,95	A05...
A05.1825.25.52.20YL	◈		◈	⊙	⊙	5,0	2,45	25,4	5,2	0,2	4,25	28,0	0,5	4,95	A05...
A05.1825.30.52.20YL	◈		◈	⊙	⊙	5,0	2,45	30,5	5,2	0,2	4,25	33,0	0,5	4,95	A05...
A05.1825.35.52.20YL	◈		◈	⊙	⊙	5,0	2,45	35,6	5,2	0,2	4,25	38,0	0,5	4,95	A05...
A05.1825.40.52.20YL	◈		◈	⊙	⊙	5,0	2,45	40,6	5,2	0,2	4,25	43,0	0,5	4,95	A05...
A06.1830.15.62.20YL	◈		◈	⊙	⊙	6,0	2,95	15,2	6,2	0,2	5,25	18,0	0,5	5,95	A06...
A06.1830.20.62.20YL	◈		◈	⊙	⊙	6,0	2,95	20,3	6,2	0,2	5,25	23,0	0,5	5,95	A06...
A06.1830.25.62.20YL	◈		◈	⊙	⊙	6,0	2,95	25,4	6,2	0,2	5,25	28,0	0,5	5,95	A06...
A06.1830.30.62.20YL	◈		◈	⊙	⊙	6,0	2,95	30,5	6,2	0,2	5,25	33,0	0,5	5,95	A06...
A06.1830.35.62.20YL	◈		◈	⊙	⊙	6,0	2,95	35,6	6,2	0,2	5,25	38,0	0,5	5,95	A06...
A06.1830.40.62.20YL	◈		◈	⊙	⊙	6,0	2,95	40,6	6,2	0,2	5,25	43,0	0,5	5,95	A06...
A07.1835.25.72.20YL	◈		◈	⊙	⊙	7,0	3,45	25,4	7,2	0,2	6,25	28,0	0,5	6,95	A07...
A07.1835.30.72.20YL	◈		◈	⊙	⊙	7,0	3,45	30,5	7,2	0,2	6,25	33,0	0,5	6,95	A07...
A07.1835.35.72.20YL	◈		◈	⊙	⊙	7,0	3,45	35,6	7,2	0,2	6,25	38,0	0,5	6,95	A07...
A07.1835.40.72.20YL	◈		◈	⊙	⊙	7,0	3,45	40,6	7,2	0,2	6,25	43,0	0,5	6,95	A07...
A07.1835.45.72.20YL	◈		◈	⊙	⊙	7,0	3,45	45,7	7,2	0,2	6,25	48,0	0,5	6,95	A07...
A07.1835.50.72.20YL	◈		◈	⊙	⊙	7,00	3,45	50,8	7,2	0,2	6,25	53,0	0,5	6,95	A07...

BORING (INTERNAL) AS OF Ø 1,2 MM
R=0,05 MM



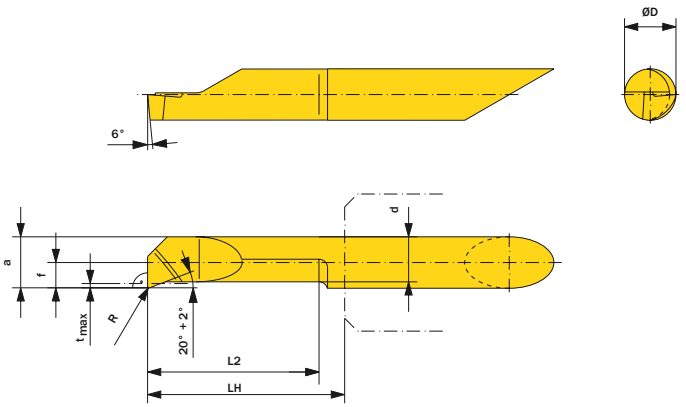
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.1804.04.10.05YR	◈		◈	⊙	⊙	4,0	0,45	4,1	1,0	0,05	13,0	0,1	0,95	0,65	A04...
A04.1804.06.10.05YR	◈		◈	⊙	⊙	4,0	0,45	6,1	1,0	0,05	13,0	0,1	0,95	0,65	A04...
A04.1807.06.17.05YR	◈		◈	⊙	⊙	4,0	0,70	6,1	1,7	0,05	13,0	0,2	1,45	1,05	A04...
A04.1807.09.17.05YR	◈		◈	⊙	⊙	4,0	0,70	9,1	1,7	0,05	13,0	0,2	1,45	1,05	A04...
A04.1810.06.22.05YR	◈		◈	⊙	⊙	4,0	0,95	6,1	2,2	0,05	13,0	0,2	1,95	1,55	A04...
A04.1810.09.22.05YR	◈		◈	⊙	⊙	4,0	0,95	9,1	2,2	0,05	13,0	0,2	1,95	1,55	A04...
A04.1812.10.27.05YR	◈		◈	⊙	⊙	4,0	1,20	10,2	2,7	0,05	13,0	0,2	2,45	2,05	A04...
A04.1812.15.27.05YR	◈		◈	⊙	⊙	4,0	1,20	15,2	2,7	0,05	18,0	0,2	2,45	2,05	A04...
A04.1815.10.32.05YR	◈		◈	⊙	⊙	4,0	1,45	10,2	3,2	0,05	13,0	0,2	2,95	2,55	A04...
A04.1815.15.32.05YR	◈		◈	⊙	⊙	4,0	1,45	15,2	3,2	0,05	18,0	0,2	2,95	2,55	A04...
A04.1815.20.32.05YR	◈		◈	⊙	⊙	4,0	1,45	20,3	3,2	0,05	23,0	0,2	2,95	2,55	A04...
A04.1820.10.42.05YR	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,05	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.05YR	◈		◈	⊙	⊙	4,0	1,95	15,2	4,2	0,05	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.05YR	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,05	23,0	0,3	3,95	3,45	A04...
A04.1820.25.42.05YR	◈		◈	⊙	⊙	4,0	1,95	25,4	4,2	0,05	28,0	0,3	3,95	3,45	A04...
A05.1825.20.52.05YR	◈		◈	⊙	⊙	5,0	2,45	20,3	5,2	0,05	23,0	0,5	4,95	4,25	A05...
A05.1825.30.52.05YR	◈		◈	⊙	⊙	5,0	2,45	30,5	5,2	0,05	33,0	0,5	4,95	4,25	A05...
A06.1830.20.62.05YR	◈		◈	◈	⊙	6,0	2,95	20,3	6,2	0,05	23,0	0,5	5,95	5,25	A06...
A06.1830.30.62.05YR	◈		◈	◈	⊙	6,0	2,95	30,5	6,2	0,05	33,0	0,5	5,95	5,25	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.1804.04.10.05YL	◈		◈	◈	◈	4,0	0,45	4,1	1,0	0,05	13,0	0,1	0,95	0,65	A04...
A04.1804.06.10.05YL	◈		◈	◈	◈	4,0	0,45	6,1	1,0	0,05	13,0	0,1	0,95	0,65	A04...
A04.1807.06.17.05YL	◈		◈	⊙	◈	4,0	0,70	6,1	1,7	0,05	13,0	0,2	1,45	1,05	A04...
A04.1807.09.17.05YL	◈		◈	◈	◈	4,0	0,70	9,1	1,7	0,05	13,0	0,2	1,45	1,05	A04...
A04.1810.06.22.05YL	◈		◈	◈	◈	4,0	0,95	6,1	2,2	0,05	13,0	0,2	1,95	1,55	A04...
A04.1810.09.22.05YL	◈		◈	◈	◈	4,0	0,95	9,1	2,2	0,05	13,0	0,2	1,95	1,55	A04...
A04.1812.10.27.05YL	◈		◈	◈	◈	4,0	1,20	10,2	2,7	0,05	13,0	0,2	2,45	2,05	A04...
A04.1812.15.27.05YL	◈		◈	⊙	◈	4,0	1,20	15,2	2,7	0,05	18,0	0,2	2,45	2,05	A04...
A04.1815.10.32.05YL	◈		◈	◈	◈	4,0	1,45	10,2	3,2	0,05	13,0	0,2	2,95	2,55	A04...
A04.1815.15.32.05YL	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,05	18,0	0,2	2,95	2,55	A04...
A04.1815.20.32.05YL	◈		◈	◈	◈	4,0	1,45	20,3	3,2	0,05	23,0	0,2	2,95	2,55	A04...
A04.1820.10.42.05YL	◈		◈	◈	◈	4,0	1,95	10,2	4,2	0,05	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.05YL	◈		◈	◈	◈	4,0	1,95	15,2	4,2	0,05	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.05YL	◈		◈	◈	◈	4,0	1,95	20,3	4,2	0,05	23,0	0,3	3,95	3,45	A04...
A04.1820.25.42.05YL	◈		◈	◈	◈	4,0	1,95	25,4	4,2	0,05	28,0	0,3	3,95	3,45	A04...
A05.1825.20.52.05YL	◈		◈	◈	◈	5,0	2,45	20,3	5,2	0,05	23,0	0,5	4,95	4,25	A05...
A05.1825.30.52.05YL	◈		◈	◈	◈	5,0	2,45	30,5	5,2	0,05	33,0	0,5	4,95	4,25	A05...
A06.1830.20.62.05YL	◈		◈	◈	◈	6,0	2,95	20,3	6,2	0,05	23,0	0,5	5,95	5,25	A06...
A06.1830.30.62.05YL	◈		◈	◈	◈	6,0	2,95	30,5	6,2	0,05	33,0	0,5	5,95	5,25	A06...



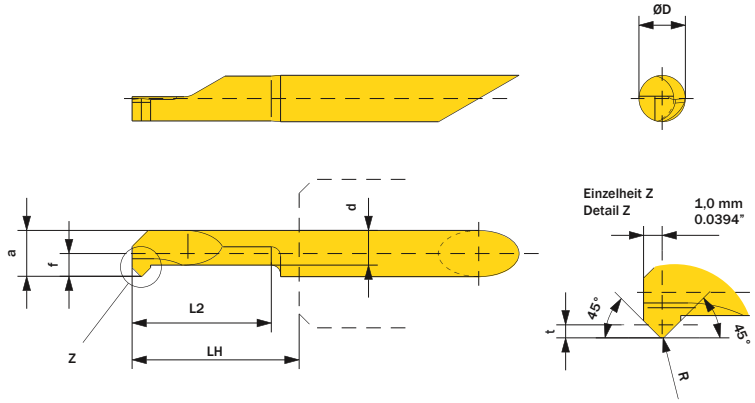
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.1804.04.10.10YR	◈		◈	⊙	⊙	4,0	0,45	4,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1804.06.10.10YR	◈		⊙	⊙	⊙	4,0	0,45	6,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1804.08.10.10YR	◈		◈	⊙	⊙	4,0	0,45	8,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1807.06.17.10YR	◈		◈	⊙	⊙	4,0	0,70	6,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.1807.09.17.10YR	◈		◈	⊙	⊙	4,0	0,70	9,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.1810.06.22.10YR	◈		◈	⊙	⊙	4,0	0,95	6,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.1810.09.22.10YR	◈		⊙	⊙	⊙	4,0	0,95	9,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.1810.13.22.10YR	◈		◈	⊙	⊙	4,0	0,95	13,2	2,2	0,10	16,0	0,2	1,95	1,55	A04...
A04.1812.10.27.15YR	◈		◈	⊙	⊙	4,0	1,20	10,2	2,7	0,15	13,0	0,2	2,45	2,05	A04...
A04.1812.15.27.15YR	◈		⊙	⊙	⊙	4,0	1,20	15,2	2,7	0,15	18,0	0,2	2,45	2,05	A04...
A04.1814.20.30.15YR	◈		◈	⊙	⊙	4,0	1,35	20,3	3,0	0,15	23,0	0,2	2,75	2,35	A04...
A04.1815.10.32.15YR	◈		◈	⊙	⊙	4,0	1,45	10,2	3,2	0,15	13,0	0,2	2,95	2,55	A04...
A04.1815.15.32.15YR	◈		◈	⊙	⊙	4,0	1,45	15,2	3,2	0,15	18,0	0,2	2,95	2,55	A04...
A04.1815.20.32.15YR	◈		◈	⊙	⊙	4,0	1,45	20,3	3,2	0,15	23,0	0,2	2,95	2,55	A04...
A04.1817.10.37.15YR	◈		◈	⊙	⊙	4,0	1,70	10,2	3,7	0,15	13,0	0,2	3,45	3,05	A04...
A04.1817.15.37.15YR	◈		⊙	⊙	⊙	4,0	1,70	15,2	3,7	0,15	18,0	0,2	3,45	3,05	A04...
A04.1817.20.37.15YR	◈		⊙	⊙	⊙	4,0	1,70	20,3	3,7	0,15	23,0	0,2	3,45	3,05	A04...
A04.1817.25.37.10YR	◈		◈	⊙	◈	4,0	1,70	25,4	3,7	0,10	28,0	0,2	3,45	3,05	A04...
A04.1820.10.42.15YR	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,15	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.15YR	◈		◈	⊙	⊙	4,0	1,95	15,2	4,2	0,15	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.15YR	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,15	23,0	0,3	3,95	3,45	A04...
A04.1820.25.42.15YR	◈		◈	⊙	⊙	4,0	1,95	25,4	4,2	0,15	28,0	0,3	3,95	3,45	A04...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.1804.04.10.10YL	◈		◈	⊙	⊙	4,0	0,45	4,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1804.06.10.10YL	◈		◈	⊙	⊙	4,0	0,45	6,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1804.08.10.10YL	◈		◈	⊙	⊙	4,0	0,45	8,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.1807.06.17.10YL	◈		◈	⊙	⊙	4,0	0,70	6,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.1807.09.17.10YL	◈		◈	⊙	⊙	4,0	0,70	9,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.1810.06.22.10YL	◈		◈	⊙	⊙	4,0	0,95	6,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.1810.09.22.10YL	◈		◈	⊙	⊙	4,0	0,95	9,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.1810.13.22.10YL	◈		◈	⊙	⊙	4,0	0,95	13,2	2,2	0,10	16,0	0,2	1,95	1,55	A04...
A04.1812.10.27.15YL	◈		◈	⊙	⊙	4,0	1,20	10,2	2,7	0,15	13,0	0,2	2,45	2,05	A04...
A04.1812.15.27.15YL	◈		◈	⊙	⊙	4,0	1,20	15,2	2,7	0,15	18,0	0,2	2,45	2,05	A04...
A04.1814.20.30.15YL						4,0	1,35	20,3	3,0	0,15	23,0	0,2	2,75	2,35	A04...
A04.1815.10.32.15YL	◈		◈	⊙	⊙	4,0	1,45	10,2	3,2	0,15	13,0	0,2	2,95	2,55	A04...
A04.1815.15.32.15YL	◈		◈	⊙	⊙	4,0	1,45	15,2	3,2	0,15	18,0	0,2	2,95	2,55	A04...
A04.1815.20.32.15YL	◈		◈	⊙	⊙	4,0	1,45	20,3	3,2	0,15	23,0	0,2	2,95	2,55	A04...
A04.1817.10.37.15YL	◈		◈	⊙	⊙	4,0	1,70	10,2	3,7	0,15	13,0	0,2	3,45	3,05	A04...
A04.1817.15.37.15YL	◈		◈	⊙	⊙	4,0	1,70	15,2	3,7	0,15	18,0	0,2	3,45	3,05	A04...
A04.1817.20.37.15YL	◈		◈	⊙	⊙	4,0	1,70	20,3	3,7	0,15	23,0	0,2	3,45	3,05	A04...
A04.1817.25.37.10YL	◈		◈	◈	◈	4,0	1,70	25,4	3,7	0,10	28,0	0,2	3,45	3,05	A04...
A04.1820.10.42.15YL	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,15	13,0	0,3	3,95	3,45	A04...
A04.1820.15.42.15YL	◈		◈	⊙	⊙	4,0	1,95	15,2	4,2	0,15	18,0	0,3	3,95	3,45	A04...
A04.1820.20.42.15YL	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,15	23,0	0,3	3,95	3,45	A04...
A04.1820.25.42.15YL	◈		◈	⊙	⊙	4,0	1,95	25,4	4,2	0,15	28,0	0,3	3,95	3,45	A04...

BORING WITH 90° SETTING ANGLE (INTERNAL) AS OF Ø 3,2 MM BORING AND CHAMFERING (INTERNAL) AS OF Ø 5,2 MM

ADD engineering

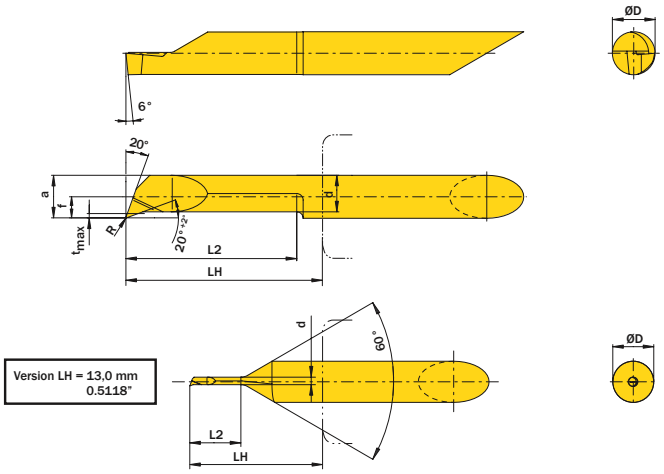


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.9015.12.32.15YR	◈		◈	⊙	⊙	4,0	1,45	12,2	3,2	0,15	15,0	2,95	2,55	0,2	A04...
A04.9020.15.42.15YR	◈		◈	⊙	⊙	4,0	1,95	15,2	4,2	0,15	18,0	3,95	3,45	0,3	A04...
A05.9025.10.52.20YR	◈		◈	⊙	⊙	5,0	2,45	10,2	5,2	0,20	13,0	4,95	4,25	0,5	A05...
A05.9025.15.52.20YR	◈		◈	⊙	⊙	5,0	2,45	15,2	5,2	0,20	18,0	4,95	4,25	0,5	A05...
A05.9025.20.52.20YR	◈		◈	⊙	⊙	5,0	2,45	20,3	5,2	0,20	23,0	4,95	4,25	0,5	A05...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.9015.12.32.15YL	◈		◈	◈	◈	4,0	1,45	12,2	3,2	0,15	15,0	2,95	2,55	0,2	A04...
A04.9020.15.42.15YL	◈		◈	◈	⊙	4,0	1,95	15,2	4,2	0,15	18,0	3,95	3,45	0,3	A04...
A05.9025.10.52.20YL	◈		◈	◈	⊙	5,0	2,45	10,2	5,2	0,20	13,0	4,95	4,25	0,5	A05...
A05.9025.15.52.20YL	◈		◈	◈	⊙	5,0	2,45	15,2	5,2	0,20	18,0	4,95	4,25	0,5	A05...
A05.9025.20.52.20YL	◈		◈	⊙	⊙	5,0	2,45	20,3	5,2	0,20	23,0	4,95	4,25	0,5	A05...



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	t (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A05.4545.15.52FR	◈		◈	⊙	⊙	5,0	15,2	5,2	0,2	18,0	2,45	4,95	3,75	0,7	A05...
A05.4545.20.52FR	◈		◈	⊙	⊙	5,0	20,3	5,2	0,2	23,0	2,45	4,95	3,75	0,7	A05...
A06.4545.20.62FR	◈		◈	⊙	⊙	6,0	20,3	6,2	0,2	23,0	2,95	5,95	3,95	0,7	A06...
A06.4545.25.62FR	◈		◈	◈	⊙	6,0	25,4	6,2	0,2	28,0	2,95	5,95	3,95	0,7	A06...
A07.4545.20.72FR	◈		◈	◈	⊙	7,0	20,3	7,2	0,2	23,0	3,45	6,95	4,25	0,7	A07...
A07.4545.40.72FR	◈		◈	⊙	⊙	7,0	40,6	7,2	0,2	43,0	3,45	6,95	4,25	0,7	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A05.4545.15.52FL	◈		◈	◈	⊙	5,0	15,2	5,2	0,2	18,0	2,45	4,95	3,75	0,7	A05...
A05.4545.20.52FL	◈		◈	◈	◈	5,0	20,3	5,2	0,2	23,0	2,45	4,95	3,75	0,7	A05...
A06.4545.20.62FL	◈		◈	◈	◈	6,0	20,3	6,2	0,2	23,0	2,95	5,95	3,95	0,7	A06...
A06.4545.25.62FL	◈		◈	⊙	⊙	6,0	25,4	6,2	0,2	28,0	2,95	5,95	3,95	0,7	A06...
A07.4545.20.72FL	◈		◈	◈	⊙	7,0	20,3	7,2	0,2	23,0	3,45	6,95	4,25	0,7	A07...
A07.4545.40.72FL	◈		◈	◈	⊙	7,0	40,6	7,2	0,2	43,0	3,45	6,95	4,25	0,7	A07...

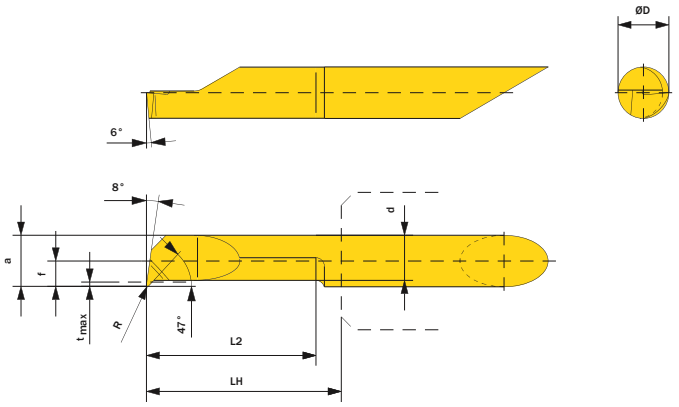
BORING (INTERNAL) AS OF Ø 1,0 MM WITH 20⁰ CLEARANCE ANGLE



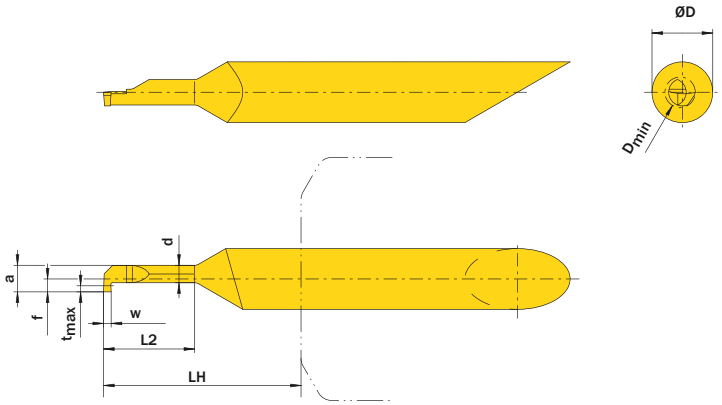
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.2004.04.10.10YR	◈		◈	◈	◈	4,0	0,45	4,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.2004.06.10.10YR	◈		◈	◈	◈	4,0	0,45	6,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.2007.06.17.10YR	◈		◈	◈	◈	4,0	0,70	6,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.2007.09.17.10YR	◈		◈	◈	◈	4,0	0,70	9,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.2010.06.22.10YR	◈		◈	◈	◈	4,0	0,95	6,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.2010.09.22.10YR	◈		◈	◈	◈	4,0	0,95	9,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.2012.10.27.15YR	◈		◈	◈	◈	4,0	1,20	10,2	2,7	0,15	13,0	0,2	2,45	2,05	A04...
A04.2012.15.27.15YR	◈		◈	◈	◈	4,0	1,20	15,2	2,7	0,15	18,0	0,2	2,45	2,05	A04...
A04.2015.10.32.15YR	◈		◈	◈	◈	4,0	1,45	10,2	3,2	0,15	13,0	0,2	2,95	2,55	A04...
A04.2015.15.32.15YR	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,15	18,0	0,2	2,95	2,55	A04...
A04.2015.20.32.15YR	◈		◈	◈	◈	4,0	1,45	20,3	3,2	0,15	23,0	0,2	2,95	2,55	A04...
A04.2020.10.42.15YR	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,15	13,0	0,3	3,95	3,45	A04...
A04.2020.15.42.15YR	◈		◈	◈	◈	4,0	1,95	15,2	4,2	0,15	18,0	0,3	3,95	3,45	A04...
A04.2020.20.42.15YR	◈		◈	◈	◈	4,0	1,95	20,3	4,2	0,15	23,0	0,3	3,95	3,45	A04...
A04.2020.25.42.15YR	◈		◈	◈	◈	4,0	1,95	25,4	4,2	0,15	28,0	0,3	3,95	3,45	A04...
A05.2025.10.52.20YR	◈		◈	◈	⊙	5,0	2,45	10,2	5,2	0,20	13,0	0,5	4,95	4,20	A05...
A05.2025.20.52.20YR	◈		◈	◈	⊙	5,0	2,45	20,3	5,2	0,20	23,0	0,5	4,95	4,20	A05...
A05.2025.30.52.20YR	◈		◈	◈	⊙	5,0	2,45	30,5	5,2	0,20	33,0	0,5	4,95	4,20	A05...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.2004.04.10.10YL	◈		◈	◈	◈	4,0	0,45	4,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.2004.06.10.10YL	◈		◈	◈	◈	4,0	0,45	6,1	1,0	0,10	13,0	0,1	0,95	0,65	A04...
A04.2007.06.17.10YL	◈		◈	◈	◈	4,0	0,70	6,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.2007.09.17.10YL	◈		◈	◈	◈	4,0	0,70	9,1	1,7	0,10	13,0	0,2	1,45	1,05	A04...
A04.2010.06.22.10YL	◈		◈	◈	◈	4,0	0,95	6,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.2010.09.22.10YL	◈		◈	◈	◈	4,0	0,95	9,1	2,2	0,10	13,0	0,2	1,95	1,55	A04...
A04.2012.10.27.15YL	◈		◈	◈	◈	4,0	1,20	10,2	2,7	0,15	13,0	0,2	2,45	2,05	A04...
A04.2012.15.27.15YL	◈		◈	◈	◈	4,0	1,20	15,2	2,7	0,15	18,0	0,2	2,45	2,05	A04...
A04.2015.10.32.15YL	◈		◈	◈	◈	4,0	1,45	10,2	3,2	0,15	13,0	0,2	2,95	2,55	A04...
A04.2015.15.32.15YL	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,15	18,0	0,2	2,95	2,55	A04...
A04.2015.20.32.15YL	◈		◈	◈	◈	4,0	1,45	20,3	3,2	0,15	23,0	0,2	2,95	2,55	A04...
A04.2020.10.42.15YL	◈		◈	⊙	⊙	4,0	1,95	10,2	4,2	0,15	13,0	0,3	3,95	3,45	A04...
A04.2020.15.42.15YL	◈		◈	◈	◈	4,0	1,95	15,2	4,2	0,15	18,0	0,3	3,95	3,45	A04...
A04.2020.20.42.15YL	◈		◈	◈	◈	4,0	1,95	20,3	4,2	0,15	23,0	0,3	3,95	3,45	A04...
A04.2020.25.42.15YL	◈		◈	◈	◈	4,0	1,95	25,4	4,2	0,15	28,0	0,3	3,95	3,45	A04...
A05.2025.10.52.20YL	◈		◈	◈	⊙	5,0	2,45	10,2	5,2	0,20	13,0	0,5	4,95	4,20	A05...
A05.2025.20.52.20YL	◈		◈	◈	⊙	5,0	2,45	20,3	5,2	0,20	23,0	0,5	4,95	4,20	A05...
A05.2025.30.52.20YL	◈		◈	◈	⊙	5,0	2,45	30,5	5,2	0,20	33,0	0,5	4,95	4,20	A05...

COPYING (INTERNAL) FALLING SHAPES UP TO 45⁰ AS OF Ø 2,2 MM / GROOVING (INTERNAL) AS OF Ø 2,0 MM

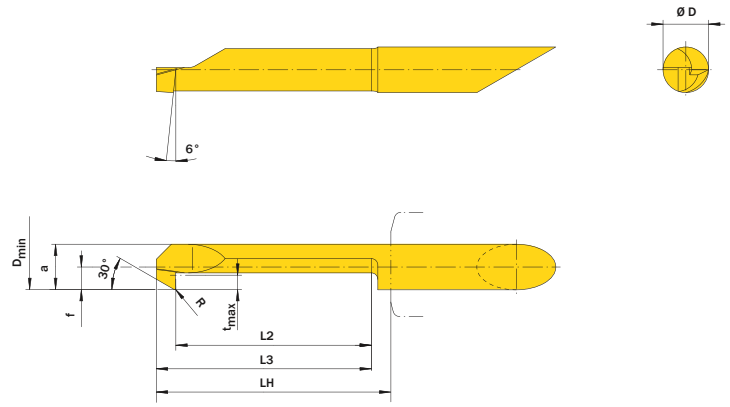
ADD engineering



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	a (mm)	d (mm)	tmax (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.4710.10.22.10YR	◈		◈	◈	◈	4,0	0,95	10,2	2,2	0,10	13,0	1,95	1,35	0,4	A04...
A04.4712.15.27.10YR	◈		◈	◈	◈	4,0	1,20	15,2	2,7	0,10	18,0	2,45	1,75	0,5	A04...
A04.4715.15.32.10YR	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,10	18,0	2,95	2,15	0,6	A04...
A04.4720.20.42.15YR	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,15	23,0	3,95	2,95	0,8	A04...
A05.4725.25.52.15YR	◈		◈	⊙	⊙	5,0	2,45	25,4	5,2	0,15	28,0	4,95	3,75	1,0	A05...
A06.4730.20.62.15YR	◈		◈		⊙	6,0	2,95	20,3	6,2	0,15	23,0	5,95	3,95	1,8	A06...
A06.4730.30.62.15YR	◈		◈	⊙	⊙	6,0	2,95	30,5	6,2	0,15	33,0	5,95	3,95	1,8	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.4710.10.22.10YL	◈		◈	◈	◈	4,0	0,95	10,2	2,2	0,10	13,0	1,95	1,35	0,4	A04...
A04.4712.15.27.10YL	◈		◈	◈	◈	4,0	1,20	15,2	2,7	0,10	18,0	2,45	1,75	0,5	A04...
A04.4715.15.32.10YL	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,10	18,0	2,95	2,15	0,6	A04...
A04.4720.20.42.15YL	◈		◈	⊙	⊙	4,0	1,95	20,3	4,2	0,15	23,0	3,95	2,95	0,8	A04...
A05.4725.25.52.15YL	◈		◈	⊙	⊙	5,0	2,45	25,4	5,2	0,15	28,0	4,95	3,75	1,0	A05...
A06.4730.20.62.15YL	◈		◈		◈	6,0	2,95	20,3	6,2	0,15	23,0	5,95	3,95	1,8	A06...
A06.4730.30.62.15YL	◈		◈	⊙	⊙	6,0	2,95	30,5	6,2	0,15	33,0	5,95	3,95	1,8	A06...

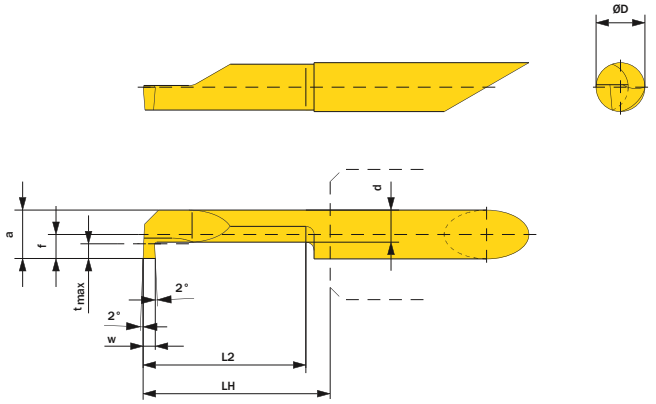


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.0050.06.20GR	◈		◈	◈	⊙	4,0	0,50	6,1	2,0	13,00	0,4	0,85	1,75	1,15	A04...
A04.0050.09.20GR	◈		◈	◈	⊙	4,0	0,50	9,1	2,0	16,00	0,4	0,85	1,75	1,15	A04...
A04.0050.12.20GR	◈		◈	◈	⊙	4,0	0,50	12,2	2,0	18,00	0,4	0,85	1,75	1,15	A04...
A04.0070.08.30GR	◈		◈	⊙	⊙	4,0	0,70	8,1	3,0	13,00	0,6	1,35	2,75	1,95	A04...
A04.0070.12.30GR	◈		◈	◈	⊙	4,0	0,70	12,2	3,0	18,00	0,6	1,35	2,75	1,95	A04...
A04.0070.16.30GR	◈		◈	◈	⊙	4,0	0,70	16,3	3,0	23,00	0,6	1,35	2,75	1,95	A04...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.0050.06.20GL	◈		◈	◈	⊙	4,0	0,50	6,1	2,0	13,00	0,4	0,85	1,75	1,15	A04...
A04.0050.09.20GL	◈		◈	⊙	◈	4,0	0,50	9,1	2,0	16,00	0,4	0,85	1,75	1,15	A04...
A04.0050.12.20GL	◈		◈	◈	◈	4,0	0,50	12,2	2,0	18,00	0,4	0,85	1,75	1,15	A04...
A04.0070.08.30GL	◈		◈	◈	◈	4,0	0,70	8,1	3,0	13,00	0,6	1,35	2,75	1,95	A04...
A04.0070.12.30GL	◈		◈	◈	⊙	4,0	0,70	12,2	3,0	18,00	0,6	1,35	2,75	1,95	A04...
A04.0070.16.30GL	◈		◈	◈	◈	4,0	0,70	16,3	3,0	23,00	0,6	1,35	2,75	1,95	A04...

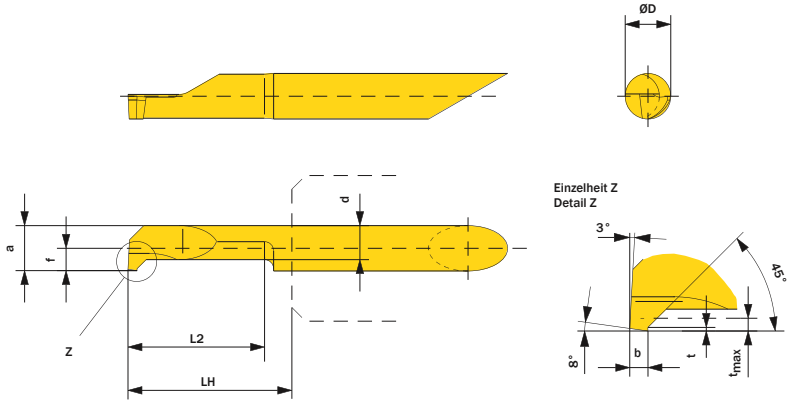


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	f (mm)	L3 (mm)	Dmin (mm)	R (mm)	L2 (mm)	a (mm)	LH (mm)	tmax (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.3015.15.32.10YR	◈		◈	⊙	◈	4,0	1,45	15,2	3,2	0,10	13,2	2,95	18,0	0,5	A04...
A04.3015.20.32.10YR	◈		◈	◈	◈	4,0	1,45	20,3	3,2	0,10	18,3	2,95	23,0	0,5	A04...
A04.3020.15.42.15YR	◈		◈	⊙	◈	4,0	1,95	15,2	4,2	0,15	13,2	3,95	18,0	0,8	A04...
A04.3020.25.42.15YR	◈		◈	◈	⊙	4,0	1,95	25,4	4,2	0,15	23,4	3,95	28,0	0,8	A04...
A05.3025.20.52.20YR	◈		◈	⊙	◈	5,0	2,45	20,3	5,2	0,20	18,3	4,95	23,0	1,0	A05...
A05.3025.30.52.20YR	◈		◈	⊙	◈	5,0	2,45	30,5	5,2	0,20	28,5	4,95	33,0	1,0	A05...
A06.3030.20.62.20YR	◈		◈	◈	◈	6,0	2,95	20,3	6,2	0,20	18,3	5,95	23,0	1,8	A06...
A06.3030.30.62.20YR	◈		◈	◈	◈	6,0	2,95	30,5	6,2	0,20	28,5	5,95	33,0	1,8	A06...
A07.3035.20.72.20YR	◈		◈	◈	◈	7,0	3,45	20,3	7,2	0,20	17,3	6,95	23,0	2,5	A07...
A07.3035.30.72.20YR	◈		◈	◈	◈	7,0	3,45	30,5	7,2	0,20	27,5	6,95	33,0	2,5	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.3015.15.32.10YL	◈		◈	◈	◈	4,0	1,45	15,2	3,2	0,10	13,2	2,95	18,0	0,5	A04...
A04.3015.20.32.10YL	◈		◈	◈	◈	4,0	1,45	20,3	3,2	0,10	18,3	2,95	23,0	0,5	A04...
A04.3020.15.42.15YL	◈		◈	⊙	◈	4,0	1,95	15,2	4,2	0,15	13,2	3,95	18,0	0,8	A04...
A04.3020.25.42.15YL	◈		◈	⊙	◈	4,0	1,95	25,4	4,2	0,15	23,4	3,95	28,0	0,8	A04...
A05.3025.20.52.20YL	◈		◈	⊙	◈	5,0	2,45	20,3	5,2	0,20	18,3	4,95	23,0	1,0	A05...
A05.3025.30.52.20YL	◈		◈	◈	◈	5,0	2,45	30,5	5,2	0,20	28,5	4,95	33,0	1,0	A05...
A06.3030.20.62.20YL	◈		◈	◈	◈	6,0	2,95	20,3	6,2	0,20	18,3	5,95	23,0	1,8	A06...
A06.3030.30.62.20YL	◈		◈	◈	◈	6,0	2,95	30,5	6,2	0,20	28,5	5,95	33,0	1,8	A06...
A07.3035.20.72.20YL	◈		◈	◈	◈	7,0	3,45	20,3	7,2	0,20	17,3	6,95	23,0	2,5	A07...
A07.3035.30.72.20YL	◈		◈	◈	◈	7,0	3,45	30,5	7,2	0,20	27,5	6,95	33,0	2,5	A07...

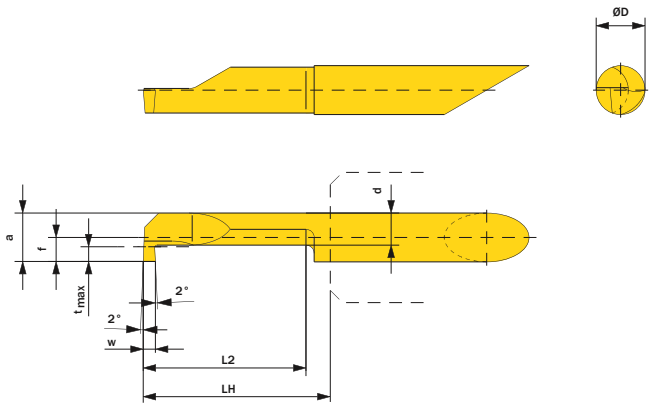
GROOVING (INTERNAL) AS OF Ø 4,2 MM / PRE PART OFF AND CHAMFERING (INTERNAL) AS OF Ø 3,7 MM



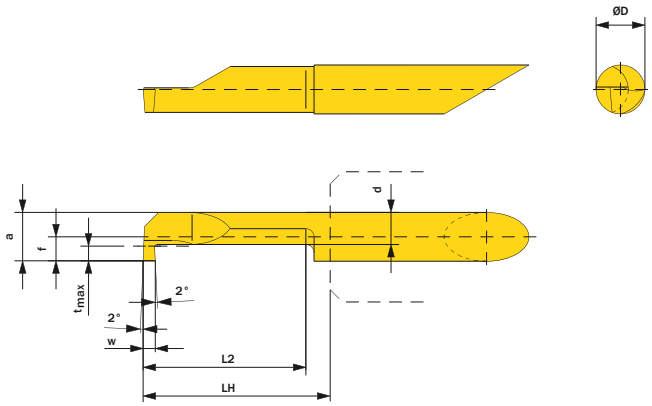
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A04.0078.10.42GR	◈		◈	◈	◈	4,0	0,79	10,2	4,2	13,0	0,8	1,95	3,95	2,95	A04...
A04.0078.15.42GR	◈		◈	◈	◈	4,0	0,79	15,2	4,2	18,0	0,8	1,95	3,95	2,95	A04...
A04.0078.20.42GR	◈		◈	◈	◈	4,0	0,79	20,3	4,2	23,0	0,8	1,95	3,95	2,95	A04...
A04.0078.25.42GR	◈		◈	◈	◈	4,0	0,79	25,4	4,2	28,0	0,8	1,95	3,95	2,95	A04...
A04.0100.10.42GR	◈		⊙	⊙	⊙	4,0	1,00	10,2	4,2	13,0	0,8	1,95	3,95	2,95	A04...
A04.0100.15.42GR	◈		◈	⊙	⊙	4,0	1,00	15,2	4,2	18,0	0,8	1,95	3,95	2,95	A04...
A04.0100.20.42GR	◈		⊙	⊙	⊙	4,0	1,00	20,3	4,2	23,0	0,8	1,95	3,95	2,95	A04...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A04.0078.10.42GL	◈		◈	◈	◈	4,0	0,79	10,2	4,2	13,0	0,8	1,95	3,95	2,95	A04...
A04.0078.15.42GL	◈		◈	◈	◈	4,0	0,79	15,2	4,2	18,0	0,8	1,95	3,95	2,95	A04...
A04.0078.20.42GL	◈		◈	◈	◈	4,0	0,79	20,3	4,2	23,0	0,8	1,95	3,95	2,95	A04...
A04.0078.25.42GL	◈		◈	◈	◈	4,0	0,79	25,4	4,2	28,0	0,8	1,95	3,95	2,95	A04...
A04.0100.10.42GL	◈		◈	⊙	⊙	4,0	1,00	10,2	4,2	13,0	0,8	1,95	3,95	2,95	A04...
A04.0100.15.42GL	◈		◈	⊙	⊙	4,0	1,00	15,2	4,2	18,0	0,8	1,95	3,95	2,95	A04...
A04.0100.20.42GL	◈		◈	⊙	⊙	4,0	1,00	20,3	4,2	23,0	0,8	1,95	3,95	2,95	A04...



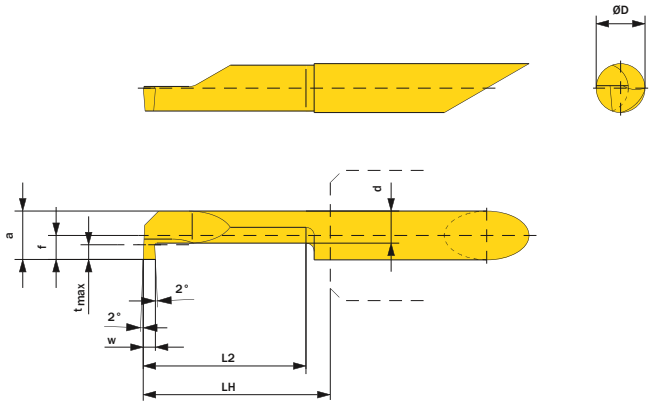
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	b (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	t (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution																
A04.0100.10.37PR	◈		◈	◈	⊙	4,0	1,0	10,2	3,7	13,0	0,7	0,2	1,70	3,45	2,45	A04...
A04.0100.15.37PR	◈		◈	◈	⊙	4,0	1,0	15,2	3,7	18,0	0,7	0,2	1,70	3,45	2,45	A04...
A04.0100.20.42PR	◈		◈	◈	⊙	4,0	1,0	20,3	4,2	23,0	0,7	0,2	1,95	3,95	2,95	A04...
A05.0100.15.52PR	◈		◈	⊙	⊙	5,0	1,0	15,2	5,2	18,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.20.52PR	◈		◈	⊙	⊙	5,0	1,0	20,3	5,2	23,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.25.52PR	◈		◈	⊙	⊙	5,0	1,0	25,4	5,2	28,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.30.52PR	◈		◈	⊙	⊙	5,0	1,0	30,5	5,2	33,0	0,7	0,2	2,45	4,95	3,75	A05...
A06.0100.30.62PR	◈		◈	◈	⊙	6,0	1,0	30,5	6,2	33,0	0,7	0,2	2,95	5,95	3,95	A06...
A06.0100.40.62PR	◈		◈	◈	⊙	6,0	1,0	40,6	6,2	43,0	0,7	0,2	2,95	5,95	3,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution																
A05.0100.15.52PL	◈		◈	⊙	⊙	5,0	1,0	15,2	5,2	18,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.20.52PL	◈		◈	⊙	⊙	5,0	1,0	20,3	5,2	23,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.25.52PL	◈		◈	⊙	⊙	5,0	1,0	25,4	5,2	28,0	0,7	0,2	2,45	4,95	3,75	A05...
A05.0100.30.52PL	◈		◈	⊙	⊙	5,0	1,0	30,5	5,2	33,0	0,7	0,2	2,45	4,95	3,75	A05...



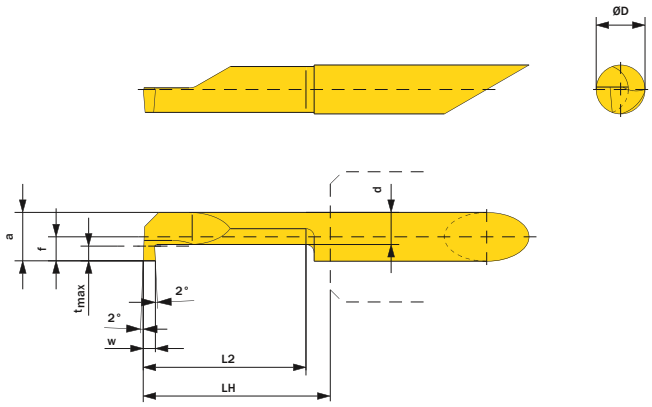
Artikel-Nr. orderno.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze-Rechtausführung / Inserts - right hand execution															
A05.0078.10.52GR	◈		◈		⊙	5,0	0,79	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0078.15.52GR	◈		◈		⊙	5,0	0,79	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0078.20.52GR	◈		◈		⊙	5,0	0,79	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0078.25.52GR	◈		◈		⊙	5,0	0,79	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0078.30.52GR	◈		◈		⊙	5,0	0,79	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0078.35.52GR	◈		◈		⊙	5,0	0,79	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...
A05.0100.10.52GR	◈		◈		⊙	5,0	1,00	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0100.15.52GR	◈		◈		⊙	5,0	1,00	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0100.20.52GR	◈		◈		⊙	5,0	1,00	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0100.25.52GR	◈		◈		⊙	5,0	1,00	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0100.30.52GR	◈		◈		⊙	5,0	1,00	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0100.35.52GR	◈		◈		⊙	5,0	1,00	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...
A05.0117.10.52GR	◈		◈		⊙	5,0	1,17	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0117.15.52GR	◈		◈		⊙	5,0	1,17	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0117.20.52GR	◈		◈		⊙	5,0	1,17	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0117.25.52GR	◈		◈		⊙	5,0	1,17	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0117.30.52GR	◈		◈		⊙	5,0	1,17	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0117.35.52GR	◈		◈		⊙	5,0	1,17	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...
Schneideinsätze-Linksausführung / Inserts - left hand execution															
A05.0078.10.52GL	◈		◈		◈	5,0	0,79	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0078.15.52GL	◈		◈		◈	5,0	0,79	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0078.20.52GL	◈		◈		◈	5,0	0,79	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0078.25.52GL	◈		◈		◈	5,0	0,79	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0078.30.52GL	◈		◈		◈	5,0	0,79	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0078.35.52GL	◈		◈		◈	5,0	0,79	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...
A05.0100.10.52GL	◈		◈		⊙	5,0	1,00	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0100.15.52GL	◈		◈		⊙	5,0	1,00	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0100.20.52GL	◈		◈		⊙	5,0	1,00	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0100.25.52GL	◈		◈		◈	5,0	1,00	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0100.30.52GL	◈		◈		◈	5,0	1,00	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0100.35.52GL	◈		◈		⊙	5,0	1,00	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...
A05.0117.10.52GL	◈		◈		⊙	5,0	1,17	10,2	5,20	13,00	1,0	2,45	4,95	3,75	A05...
A05.0117.15.52GL	◈		◈		⊙	5,0	1,17	15,2	5,20	18,00	1,0	2,45	4,95	3,75	A05...
A05.0117.20.52GL	◈		◈		◈	5,0	1,17	20,3	5,20	23,00	1,0	2,45	4,95	3,75	A05...
A05.0117.25.52GL	◈		◈		◈	5,0	1,17	25,4	5,20	28,00	1,0	2,45	4,95	3,75	A05...
A05.0117.30.52GL	◈		◈		◈	5,0	1,17	30,5	5,20	33,00	1,0	2,45	4,95	3,75	A05...
A05.0117.35.52GL	◈		◈		◈	5,0	1,17	35,6	5,20	38,00	1,0	2,45	4,95	3,75	A05...



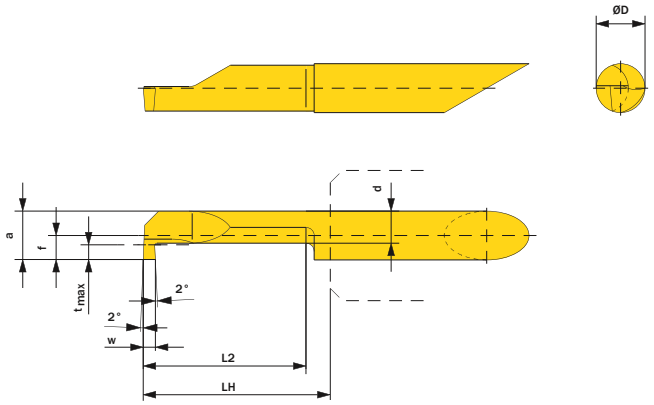
Artikel-Nr. orderno.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze-Rechtausführung / Inserts - right hand execution															
A05.0150.10.52GR	◈		◈	⊙	⊙	5,0	1,50	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0150.15.52GR	◈		◈	⊙	⊙	5,0	1,50	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0150.20.52GR	◈		◈	⊙	⊙	5,0	1,50	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0150.25.52GR	◈		◈	⊙	⊙	5,0	1,50	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0150.30.52GR	◈		◈	⊙	⊙	5,0	1,50	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0150.35.52GR	◈		◈	◈	◈	5,0	1,50	35,6	5,2	38,0	1,0	2,45	4,95	3,75	A05...
A05.0157.10.52GR	◈		◈		⊙	5,0	1,57	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0157.15.52GR	◈		◈		⊙	5,0	1,57	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0157.20.52GR	◈		◈		⊙	5,0	1,57	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0157.25.52GR	◈		◈		⊙	5,0	1,57	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0157.30.52GR	◈		◈		⊙	5,0	1,57	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0198.10.52GR	◈		◈		⊙	5,0	1,98	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0198.15.52GR	◈		◈		⊙	5,0	1,98	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0198.20.52GR	◈		◈		⊙	5,0	1,98	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0198.25.52GR	◈		◈		⊙	5,0	1,98	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0198.30.52GR	◈		◈		⊙	5,0	1,98	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0200.10.52GR	◈		◈	⊙	⊙	5,0	2,00	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0200.15.52GR	◈		◈	⊙	⊙	5,0	2,00	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0200.20.52GR	◈		◈	⊙	⊙	5,0	2,00	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0200.25.52GR	◈		◈	⊙	⊙	5,0	2,00	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0200.30.52GR	◈		◈	⊙	⊙	5,0	2,00	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
Schneideinsätze-Linksausführung / Inserts - left hand execution															
A05.0150.10.52GL	◈		◈	⊙	⊙	5,0	1,50	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0150.15.52GL	◈		◈	⊙	⊙	5,0	1,50	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0150.20.52GL	◈		◈	◈	◈	5,0	1,50	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0150.25.52GL	◈		◈	◈	◈	5,0	1,50	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0150.30.52GL	◈		◈	◈	◈	5,0	1,50	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0157.10.52GL	◈		◈		◈	5,0	1,57	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0157.15.52GL	◈		◈		◈	5,0	1,57	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0157.20.52GL	◈		◈		◈	5,0	1,57	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0157.25.52GL	◈		◈		◈	5,0	1,57	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0157.30.52GL	◈		◈		◈	5,0	1,57	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0198.10.52GL	◈		◈		◈	5,0	1,98	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0198.15.52GL	◈		◈		◈	5,0	1,98	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0198.20.52GL	◈		◈		◈	5,0	1,98	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0198.25.52GL	◈		◈		◈	5,0	1,98	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0198.30.52GL	◈		◈		◈	5,0	1,98	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...
A05.0200.10.52GL	◈		◈	⊙	⊙	5,0	2,00	10,2	5,2	13,0	1,0	2,45	4,95	3,75	A05...
A05.0200.15.52GL	◈		◈	⊙	⊙	5,0	2,00	15,2	5,2	18,0	1,0	2,45	4,95	3,75	A05...
A05.0200.20.52GL	◈		◈	⊙	⊙	5,0	2,00	20,3	5,2	23,0	1,0	2,45	4,95	3,75	A05...
A05.0200.25.52GL	◈		◈	⊙	◈	5,0	2,00	25,4	5,2	28,0	1,0	2,45	4,95	3,75	A05...
A05.0200.30.52GL	◈		◈	⊙	◈	5,0	2,00	30,5	5,2	33,0	1,0	2,45	4,95	3,75	A05...



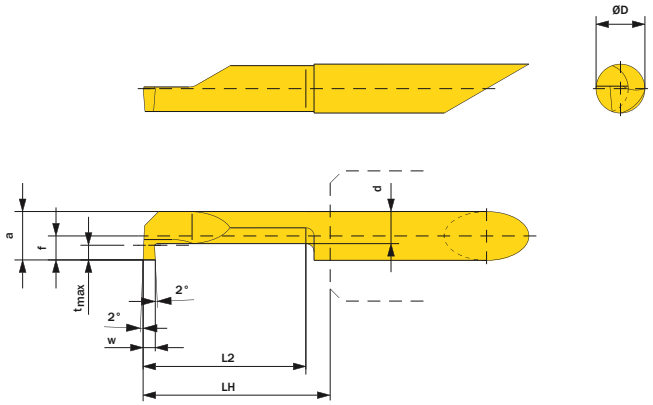
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A06.0078.10.62GR	◈		◈		⊙	6,0	0,79	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0078.15.62GR	◈		◈		⊙	6,0	0,79	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0078.20.62GR	◈		◈		⊙	6,0	0,79	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0078.25.62GR	◈		◈		⊙	6,0	0,79	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0078.30.62GR	◈		◈		⊙	6,0	0,79	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0078.35.62GR	◈		◈		⊙	6,0	0,79	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0100.10.62GR	◈		◈	⊙	⊙	6,0	1,00	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0100.15.62GR	◈		◈	⊙	⊙	6,0	1,00	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0100.20.62GR	◈		◈	⊙	⊙	6,0	1,00	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0100.25.62GR	◈		◈	⊙	⊙	6,0	1,00	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0100.30.62GR	◈		◈	⊙	⊙	6,0	1,00	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0100.35.62GR	◈		◈	⊙	⊙	6,0	1,00	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0100.40.62GR	◈		◈	⊙	⊙	6,0	1,00	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...
A06.0117.10.62GR	◈		◈		⊙	6,0	1,17	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0117.15.62GR	◈		◈		⊙	6,0	1,17	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0117.20.62GR	◈		◈		⊙	6,0	1,17	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0117.25.62GR	◈		◈		⊙	6,0	1,17	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0117.30.62GR	◈		◈		⊙	6,0	1,17	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0117.35.62GR	◈		◈		⊙	6,0	1,17	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0117.40.62GR	◈		◈		◈	6,0	1,17	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A06.0078.10.62GL	◈		◈		◈	6,0	0,79	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0078.15.62GL	◈		◈		◈	6,0	0,79	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0078.20.62GL	◈		◈		◈	6,0	0,79	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0078.25.62GL	◈		◈		◈	6,0	0,79	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0078.30.62GL	◈		◈		◈	6,0	0,79	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0078.35.62GL	◈		◈		◈	6,0	0,79	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0100.10.62GL	◈		◈	⊙	⊙	6,0	1,00	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0100.15.62GL	◈		◈	⊙	⊙	6,0	1,00	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0100.20.62GL	◈		◈	◈	◈	6,0	1,00	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0100.25.62GL	◈		◈	◈	◈	6,0	1,00	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0100.30.62GL	◈		◈	◈	◈	6,0	1,00	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0100.35.62GL	◈		◈	⊙	⊙	6,0	1,00	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0100.40.62GL	◈		◈	⊙	⊙	6,0	1,00	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...
A06.0117.10.62GL	◈		◈		◈	6,0	1,17	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0117.15.62GL	◈		◈		◈	6,0	1,17	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0117.20.62GL	◈		◈		◈	6,0	1,17	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0117.25.62GL	◈		◈		◈	6,0	1,17	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0117.30.62GL	◈		◈		◈	6,0	1,17	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0117.35.62GL	◈		◈		◈	6,0	1,17	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0117.40.62GL	◈		◈		◈	6,0	1,17	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	Lh (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A06.0150.10.62GR	◈		◈	⊙	⊙	6,0	1,50	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0150.15.62GR	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0150.20.62GR	◈		◈	⊙	⊙	6,0	1,50	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0150.25.62GR	◈		◈	⊙	⊙	6,0	1,50	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0150.30.62GR	◈		◈	⊙	⊙	6,0	1,50	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0150.35.62GR	◈		◈	⊙	⊙	6,0	1,50	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0157.10.62GR	◈		◈		⊙	6,0	1,57	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0157.15.62GR	◈		◈		⊙	6,0	1,57	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0157.20.62GR	◈		◈		⊙	6,0	1,57	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0157.25.62GR	◈		◈		⊙	6,0	1,57	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0157.30.62GR	◈		◈		⊙	6,0	1,57	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0157.35.62GR	◈		◈		⊙	6,0	1,57	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0157.40.62GR	◈		◈		◈	6,0	1,57	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...
A06.0198.10.62GR	◈		◈		⊙	6,0	1,98	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0198.15.62GR	◈		◈		⊙	6,0	1,98	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0198.25.62GR	◈		◈		⊙	6,0	1,98	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0198.30.62GR	◈		◈		⊙	6,0	1,98	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0200.10.62GR	◈		◈	⊙	⊙	6,0	2,00	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0200.15.62GR	◈		◈	⊙	⊙	6,0	2,00	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0200.20.62GR	◈		◈	⊙	⊙	6,0	2,00	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0200.25.62GR	◈		◈	⊙	⊙	6,0	2,00	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0200.30.62GR	◈		◈	⊙	⊙	6,0	2,00	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A06.0150.10.62GL	◈		◈	◈	⊙	6,0	1,50	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0150.15.62GL	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0150.20.62GL	◈		◈	⊙	⊙	6,0	1,50	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0150.25.62GL	◈		◈	◈	⊙	6,0	1,50	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0150.30.62GL	◈		◈	⊙	◈	6,0	1,50	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0150.35.62GL	◈		◈	⊙	◈	6,0	1,50	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0157.10.62GL	◈		◈		◈	6,0	1,57	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0157.15.62GL	◈		◈		⊙	6,0	1,57	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0157.20.62GL	◈		◈		◈	6,0	1,57	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0157.25.62GL	◈		◈		◈	6,0	1,57	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0157.30.62GL	◈		◈		◈	6,0	1,57	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0157.35.62GL	◈		◈		◈	6,0	1,57	35,6	6,2	38,00	1,8	2,95	5,95	3,95	A06...
A06.0157.40.62GL	◈		◈		◈	6,0	1,57	40,6	6,2	43,00	1,8	2,95	5,95	3,95	A06...
A06.0198.10.62GL	◈		◈		◈	6,0	1,98	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0198.15.62GL	◈		◈		◈	6,0	1,98	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0198.25.62GL	◈		◈		◈	6,0	1,98	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0198.30.62GL	◈		◈		◈	6,0	1,98	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...
A06.0200.10.62GL	◈		◈	◈	◈	6,0	2,00	10,2	6,2	13,00	1,8	2,95	5,95	3,95	A06...
A06.0200.15.62GL	◈		◈	◈	⊙	6,0	2,00	15,2	6,2	18,00	1,8	2,95	5,95	3,95	A06...
A06.0200.20.62GL	◈		◈	⊙	⊙	6,0	2,00	20,3	6,2	23,00	1,8	2,95	5,95	3,95	A06...
A06.0200.25.62GL	◈		◈	⊙	⊙	6,0	2,00	25,4	6,2	28,00	1,8	2,95	5,95	3,95	A06...
A06.0200.30.62GL	◈		◈	◈	⊙	6,0	2,00	30,5	6,2	33,00	1,8	2,95	5,95	3,95	A06...

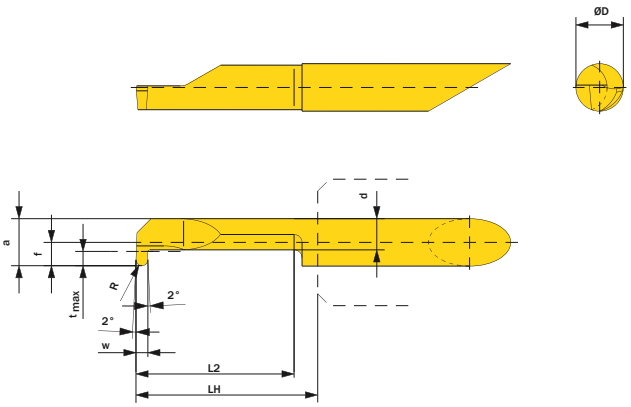


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A07.0078.10.72GR	◈		◈		⊙	7,0	0,79	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0078.15.72GR	◈		◈		⊙	7,0	0,79	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0078.20.72GR	◈		◈		⊙	7,0	0,79	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0078.25.72GR	◈		◈		⊙	7,0	0,79	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0078.30.72GR	◈		◈		⊙	7,0	0,79	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0078.35.72GR	◈		◈		⊙	7,0	0,79	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0078.40.72GR	◈		◈		⊙	7,0	0,79	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0100.10.72GR	◈		◈	⊙	⊙	7,0	1,00	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0100.15.72GR	◈		◈	⊙	⊙	7,0	1,00	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0100.20.72GR	◈		◈	⊙	⊙	7,0	1,00	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0100.25.72GR	◈		◈	⊙	⊙	7,0	1,00	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0100.30.72GR	◈		◈	⊙	⊙	7,0	1,00	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0100.35.72GR	◈		◈	◈	⊙	7,0	1,00	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0100.40.72GR	◈		◈	⊙	⊙	7,0	1,00	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0117.10.72GR	◈		◈		⊙	7,0	1,17	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0117.15.72GR	◈		◈		⊙	7,0	1,17	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0117.20.72GR	◈		◈		⊙	7,0	1,17	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0117.25.72GR	◈		◈		⊙	7,0	1,17	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0117.30.72GR	◈		◈		⊙	7,0	1,17	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0117.35.72GR	◈		◈		⊙	7,0	1,17	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0117.40.72GR	◈		◈		⊙	7,0	1,17	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A07.0078.10.72GL	◈		◈		◈	7,0	0,79	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0078.15.72GL	◈		◈		◈	7,0	0,79	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0078.20.72GL	◈		◈		◈	7,0	0,79	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0078.25.72GL	◈		◈		◈	7,0	0,79	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0078.30.72GL	◈		◈		◈	7,0	0,79	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0078.35.72GL	◈		◈		◈	7,0	0,79	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0078.40.72GL	◈		◈		◈	7,0	0,79	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0100.10.72GL	◈		◈	⊙	⊙	7,0	1,00	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0100.15.72GL	◈		◈	◈	⊙	7,0	1,00	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0100.20.72GL	◈		◈	◈	◈	7,0	1,00	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0100.25.72GL	◈		◈	◈	⊙	7,0	1,00	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0100.30.72GL	◈		◈	◈	◈	7,0	1,00	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0100.35.72GL	◈		◈	◈	◈	7,0	1,00	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0100.40.72GL	◈		◈	◈	◈	7,0	1,00	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0117.10.72GL	◈		◈		◈	7,0	1,17	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0117.15.72GL	◈		◈		◈	7,0	1,17	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0117.20.72GL	◈		◈		◈	7,0	1,17	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0117.25.72GL	◈		◈		◈	7,0	1,17	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0117.30.72GL	◈		◈		◈	7,0	1,17	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0117.35.72GL	◈		◈		◈	7,0	1,17	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0117.40.72GL	◈		◈		◈	7,0	1,17	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...

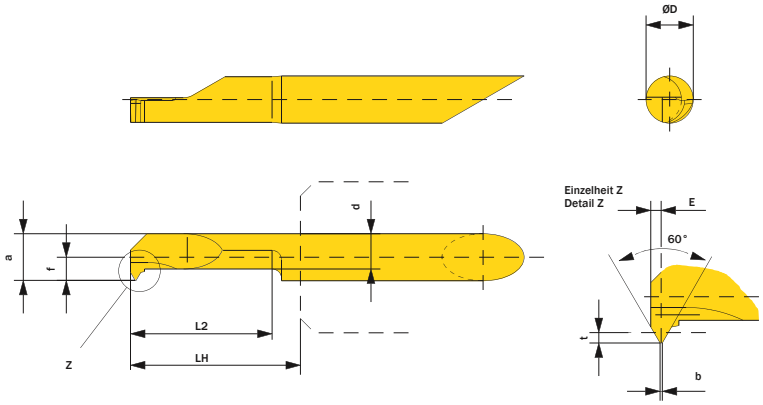


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A07.0150.10.72GR	◈		◈	⊙	⊙	7,0	1,50	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0150.15.72GR	◈		◈	⊙	⊙	7,0	1,50	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0150.20.72GR	◈		◈	⊙	⊙	7,0	1,50	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0150.25.72GR	◈		◈	⊙	⊙	7,0	1,50	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0150.30.72GR	◈		◈	⊙	⊙	7,0	1,50	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0150.35.72GR	◈		◈	⊙	⊙	7,0	1,50	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0150.40.72GR	◈		◈	⊙	⊙	7,0	1,50	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0157.10.72GR	◈		◈	⊙	⊙	7,0	1,57	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0157.15.72GR	◈		◈		⊙	7,0	1,57	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0157.20.72GR	◈		◈		⊙	7,0	1,57	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0157.25.72GR	◈		◈		⊙	7,0	1,57	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0157.30.72GR	◈		◈		⊙	7,0	1,57	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0157.35.72GR	◈		◈		⊙	7,0	1,57	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0157.40.72GR	◈		◈		⊙	7,0	1,57	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0198.10.72GR	◈		◈		⊙	7,0	1,98	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0198.15.72GR	◈		◈		⊙	7,0	1,98	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0198.20.72GR	◈		◈		⊙	7,0	1,98	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0198.25.72GR	◈		◈		⊙	7,0	1,98	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0198.30.72GR	◈		◈		⊙	7,0	1,98	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0198.35.72GR	◈		◈		⊙	7,0	1,98	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0200.10.72GR	◈		◈	⊙	⊙	7,0	2,00	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0200.15.72GR	◈		◈	⊙	⊙	7,0	2,00	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0200.20.72GR	◈		◈	⊙	⊙	7,0	2,00	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0200.25.72GR	◈		◈	⊙	⊙	7,0	2,00	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0200.30.72GR	◈		◈	⊙	⊙	7,0	2,00	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0200.35.72GR	◈		◈	⊙	⊙	7,0	2,00	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A07.0150.10.72GL	◈		◈	⊙	◈	7,0	1,50	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0150.15.72GL	◈		◈	◈	⊙	7,0	1,50	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0150.20.72GL	◈		◈	⊙	⊙	7,0	1,50	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0150.25.72GL	◈		◈	⊙	⊙	7,0	1,50	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0150.30.72GL	◈		◈	⊙	◈	7,0	1,50	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0150.35.72GL	◈		◈	◈	◈	7,0	1,50	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0150.40.72GL	◈		◈	◈	◈	7,0	1,50	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0157.10.72GL	◈		◈		◈	7,0	1,57	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0157.15.72GL	◈		◈		◈	7,0	1,57	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0157.20.72GL	◈		◈		◈	7,0	1,57	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0157.25.72GL	◈		◈		◈	7,0	1,57	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0157.30.72GL	◈		◈		◈	7,0	1,57	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0157.35.72GL	◈		◈		◈	7,0	1,57	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0157.40.72GL	◈		◈		◈	7,0	1,57	40,6	7,2	43,0	2,5	3,45	6,95	4,25	A07...
A07.0198.10.72GL	◈		◈		◈	7,0	1,98	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0198.15.72GL	◈		◈		◈	7,0	1,98	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0198.20.72GL	◈		◈		◈	7,0	1,98	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0198.25.72GL	◈		◈		◈	7,0	1,98	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0198.30.72GL	◈		◈		◈	7,0	1,98	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0198.35.72GL	◈		◈		◈	7,0	1,98	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...
A07.0200.10.72GL	◈		◈	⊙	⊙	7,0	2,00	10,2	7,2	13,0	2,5	3,45	6,95	4,25	A07...
A07.0200.15.72GL	◈		◈	⊙	⊙	7,0	2,00	15,2	7,2	18,0	2,5	3,45	6,95	4,25	A07...
A07.0200.20.72GL	◈		◈	⊙	⊙	7,0	2,00	20,3	7,2	23,0	2,5	3,45	6,95	4,25	A07...
A07.0200.25.72GL	◈		◈	◈	⊙	7,0	2,00	25,4	7,2	28,0	2,5	3,45	6,95	4,25	A07...
A07.0200.30.72GL	◈		◈	◈	⊙	7,0	2,00	30,5	7,2	33,0	2,5	3,45	6,95	4,25	A07...
A07.0200.35.72GL	◈		◈	◈	⊙	7,0	2,00	35,6	7,2	38,0	2,5	3,45	6,95	4,25	A07...

GROOVING, FULL NOSE RADIUS (INTERNAL) AS OF Ø 4,2 MM

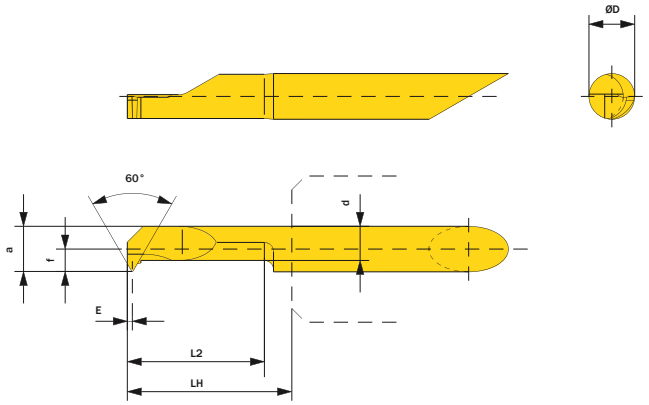


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution																
A04.0100.15.42VR	◈		◈	⊙	⊙	4,0	1,00	15,2	4,2	0,50	18,0	0,8	1,95	3,95	2,95	A04...
A04.0117.15.42VR	◈		◈	◈	⊙	4,0	1,17	15,2	4,2	0,58	18,0	0,8	1,95	3,95	2,95	A04...
A05.0100.20.52VR	◈		◈	⊙	⊙	5,0	1,00	20,3	5,2	0,50	23,0	1,0	2,45	4,95	3,75	A05...
A05.0150.20.52VR	◈		◈	⊙	⊙	5,0	1,50	20,3	5,2	0,75	23,0	1,0	2,45	4,95	3,75	A05...
A05.0157.20.52VR	◈		◈		◈	5,0	1,57	20,3	5,2	0,79	23,0	1,0	2,45	4,95	3,75	A05...
A05.0200.20.52VR	◈		◈	⊙	⊙	5,0	2,00	20,3	5,2	1,00	23,0	1,0	2,45	4,95	3,75	A05...
A06.0100.25.62VR	◈		◈	⊙	⊙	6,0	1,00	25,4	6,2	0,50	28,0	1,8	2,95	5,95	3,95	A06...
A06.0117.25.62VR	◈		◈		◈	6,0	1,17	25,4	6,2	0,58	28,0	1,8	2,95	5,95	3,95	A06...
A06.0150.25.62VR	◈		◈	⊙	⊙	6,0	1,50	25,4	6,2	0,75	28,0	1,8	2,95	5,95	3,95	A06...
A06.0157.25.62VR	◈		◈		◈	6,0	1,57	25,4	6,2	0,79	28,0	1,8	2,95	5,95	3,95	A06...
A06.0200.20.62VR	◈		◈	◈	◈	6,0	2,00	20,3	6,2	1,00	23,0	1,8	2,95	5,95	3,95	A06...
A06.0200.25.62VR	◈		◈	⊙	⊙	6,0	2,00	25,4	6,2	1,00	28,0	1,8	2,95	5,95	3,95	A06...
A07.0100.30.72VR	◈		◈	⊙	⊙	7,0	1,00	30,5	7,2	0,50	33,0	2,5	3,45	6,95	4,25	A07...
A07.0117.30.72VR	◈		◈		◈	7,0	1,17	30,5	7,2	0,58	33,0	2,5	3,45	6,95	4,25	A07...
A07.0150.30.72VR	◈		◈	⊙	⊙	7,0	1,50	30,5	7,2	0,75	33,0	2,5	3,45	6,95	4,25	A07...
A07.0157.30.72VR	◈		◈		◈	7,0	1,57	30,5	7,2	0,79	33,0	2,5	3,45	6,95	4,25	A07...
A07.0200.30.72VR	◈		◈	⊙	⊙	7,0	2,00	30,5	7,2	1,00	33,0	2,5	3,45	6,95	4,25	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution																
A04.0100.15.42VL	◈		◈	⊙	⊙	4,0	1,00	15,2	4,2	0,50	18,0	0,8	1,95	3,95	2,95	A04...
A04.0117.15.42VL	◈		◈	◈	⊙	4,0	1,17	15,2	4,2	0,58	18,0	0,8	1,95	3,95	2,95	A04...
A05.0100.20.52VL	◈		◈	⊙	⊙	5,0	1,00	20,3	5,2	0,50	23,0	1,0	2,45	4,95	3,75	A05...
A05.0150.20.52VL	◈		◈	⊙	◈	5,0	1,50	20,3	5,2	0,75	23,0	1,0	2,45	4,95	3,75	A05...
A05.0157.20.52VL	◈		◈		◈	5,0	1,57	20,3	5,2	0,79	23,0	1,0	2,45	4,95	3,75	A05...
A05.0200.20.52VL	◈		◈	⊙	⊙	5,0	2,00	20,3	5,2	1,00	23,0	1,0	2,45	4,95	3,75	A05...
A06.0100.25.62VL	◈		◈	⊙	⊙	6,0	1,00	25,4	6,2	0,50	28,0	1,8	2,95	5,95	3,95	A06...
A06.0117.25.62VL	◈		◈		◈	6,0	1,17	25,4	6,2	0,58	28,0	1,8	2,95	5,95	3,95	A06...
A06.0150.25.62VL	◈		◈	◈	◈	6,0	1,50	25,4	6,2	0,75	28,0	1,8	2,95	5,95	3,95	A06...
A06.0157.25.62VL	◈		◈		◈	6,0	1,57	25,4	6,2	0,79	28,0	1,8	2,95	5,95	3,95	A06...
A06.0200.25.62VL	◈		◈	◈	⊙	6,0	2,00	25,4	6,2	1,00	28,0	1,8	2,95	5,95	3,95	A06...
A07.0100.30.72VL	◈		◈	◈	⊙	7,0	1,00	30,5	7,2	0,50	33,0	2,5	3,45	6,95	4,25	A07...
A07.0117.30.72VL	◈		◈		◈	7,0	1,17	30,5	7,2	0,58	33,0	2,5	3,45	6,95	4,25	A07...
A07.0150.30.72VL	◈		◈	⊙	⊙	7,0	1,50	30,5	7,2	0,75	33,0	2,5	3,45	6,95	4,25	A07...
A07.0157.30.72VL	◈		◈		◈	7,0	1,57	30,5	7,2	0,79	33,0	2,5	3,45	6,95	4,25	A07...
A07.0200.30.72VL	◈		◈	⊙	⊙	7,0	2,00	30,5	7,2	1,00	33,0	2,5	3,45	6,95	4,25	A07...



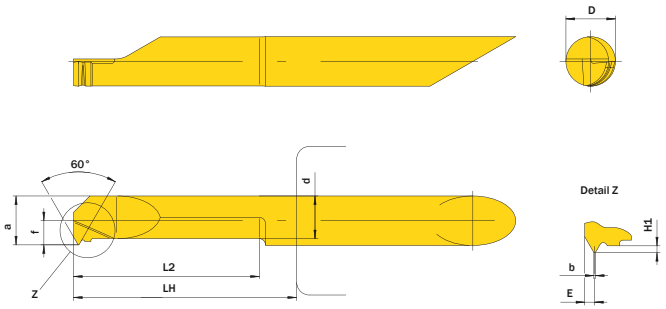
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	P (mm)	L2 (mm)	Dmin (mm)	t (mm)	b (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	E (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution																	
A04.MT05.01.15.42MR	◈		◈	⊙	⊙	4,0	0,50	15,2	4,2	0,27	0,06	18,0	1,95	3,95	2,95	0,35	A04...
A05.MT05.01.15.52MR	◈		◈	⊙	⊙	5,0	0,50	15,2	5,2	0,27	0,06	18,0	2,45	4,95	3,75	0,35	A05...
A05.MT07.01.15.51MR	◈		◈	⊙	⊙	5,0	0,75	15,2	5,1	0,40	0,09	18,0	2,35	4,85	3,65	0,45	A05...
A04.MT08.01.15.40MR	◈		◈	⊙	⊙	4,0	0,80	15,2	4,0	0,43	0,10	18,0	1,85	3,75	2,70	0,45	A04...
A05.MT10.01.15.48MR	◈		◈	⊙	⊙	5,0	1,00	15,2	4,8	0,55	0,12	18,0	2,25	4,55	3,55	0,55	A05...
A06.MT10.01.15.62MR	◈		◈	⊙	⊙	6,0	1,00	15,2	6,2	0,55	0,12	18,0	2,95	5,95	3,95	0,55	A06...
A06.MT12.01.15.62MR	◈		◈	⊙	⊙	6,0	1,25	15,2	6,2	0,68	0,15	18,0	2,95	5,95	3,95	0,65	A06...
A06.MT15.01.15.62MR	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	0,81	0,18	18,0	2,95	5,95	3,95	0,75	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution																	
A04.MT05.01.15.42ML	◈		◈	⊙	⊙	4,0	0,50	15,2	4,2	0,27	0,06	18,0	1,95	3,95	2,95	0,35	A04...
A05.MT05.01.15.52ML	◈		◈	◈	⊙	5,0	0,50	15,2	5,2	0,27	0,06	18,0	2,45	4,95	3,75	0,35	A05...
A05.MT07.01.15.51ML	◈		◈	⊙	⊙	5,0	0,75	15,2	5,1	0,40	0,09	18,0	2,35	4,85	3,65	0,45	A05...
A04.MT08.01.15.40ML	◈		◈	⊙	⊙	4,0	0,80	15,2	4,0	0,43	0,10	18,0	1,85	3,75	2,70	0,45	A04...
A05.MT10.01.15.48ML	◈		◈	⊙	⊙	5,0	1,00	15,2	4,8	0,55	0,12	18,0	2,25	4,55	3,55	0,55	A05...
A06.MT10.01.15.62ML	◈		◈	◈	⊙	6,0	1,00	15,2	6,2	0,55	0,12	18,0	2,95	5,95	3,95	0,55	A06...
A06.MT12.01.15.62ML	◈		◈	⊙	⊙	6,0	1,25	15,2	6,2	0,68	0,15	18,0	2,95	5,95	3,95	0,65	A06...
A06.MT15.01.15.62ML	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	0,81	0,18	18,0	2,95	5,95	3,95	0,75	A06...

Gewindedrehen NPT Teilprofil 18 oder 27 Gang / Zoll ab Ø 6,2 mm
Threading NPT partial profile 18 or 27 threads / inch as of Ø 6,2 mm



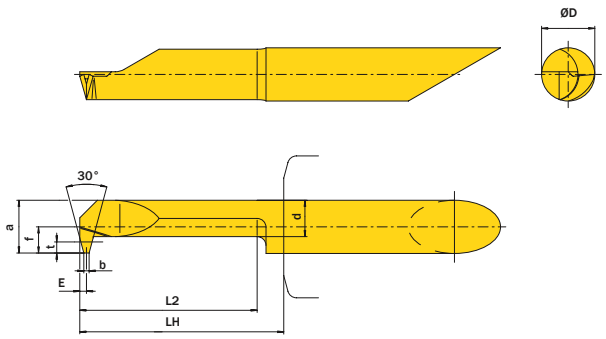
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	ØD (mm)	Gang / Zahl Threads / Inch (mm)	L2 (mm)	Dmin (mm)	E (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A06.NP18.01.15.62MR	◈		◈	⊙	⊙	6,0	18	15,2	6,2	1,0	18,0	2,95	5,95	3,95	A06...
A06.NP27.01.15.62MR	◈		◈	⊙	⊙	6,0	27	15,2	6,2	0,8	18,0	2,95	5,95	3,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A06.NP18.01.15.62ML	◈		◈	◈	⊙	6,0	18	15,2	6,2	1,0	18,0	2,95	5,95	3,95	A06...
A06.NP27.01.15.62ML	◈		◈	◈	◈	6,0	27	15,2	6,2	0,8	18,0	2,95	5,95	3,95	A06...

THREADING METRIC ISO FULL PROFILE
PITCH P=0,5 MM - 2,0 MM

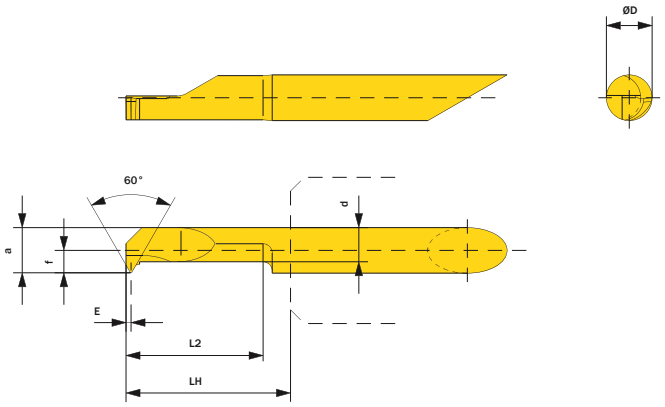


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	P (mm)	L2 (mm)	Dmin (mm)	H1 (mm)	b (mm)	E (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholde
Schneideinsätze - Rechtausführung / Inserts - right hand execution																	
A04.MT05.02.15.42MR	◈		◈	◈	⊙	4,0	0,50	15,2	4,2	0,27	0,06	0,40	18,0	1,95	3,95	3,45	A04...
A05.MT05.02.15.52MR	◈		◈	◈	⊙	5,0	0,50	15,2	5,2	0,27	0,06	0,40	18,0	2,45	4,95	4,45	A05...
A05.MT75.02.15.51MR	◈		◈	⊙	⊙	5,0	0,75	15,2	5,1	0,40	0,09	0,50	18,0	2,40	4,85	4,15	A05...
A04.MT08.02.15.40MR	◈		◈	⊙	⊙	4,0	0,80	15,2	4,0	0,43	0,10	0,50	18,0	1,85	3,75	3,00	A04...
A05.MT10.02.15.48MR	◈		◈	⊙	⊙	5,0	1,00	15,2	4,8	0,54	0,12	0,60	18,0	2,25	4,55	3,55	A05...
A06.MT10.02.15.62MR	◈		◈	◈	⊙	6,0	1,00	15,2	6,2	0,54	0,12	0,60	18,0	2,95	5,95	5,05	A06...
A06.MT12.02.15.62MR	◈		◈	◈	◈	6,0	1,25	15,2	6,2	0,67	0,15	0,70	18,0	2,95	5,95	4,80	A06...
A06.MT15.02.15.62MR	◈		◈	⊙	◈	6,0	1,50	15,2	6,2	0,81	0,18	0,80	18,0	2,95	5,95	4,50	A06...
A06.MT17.02.15.62MR	◈		◈	◈	◈	6,0	1,75	15,2	6,2	0,94	0,21	0,90	18,0	2,95	5,95	4,30	A06...
A06.MT20.02.15.62MR	◈		◈	◈	◈	6,0	2,00	15,2	6,2	1,08	0,25	1,00	18,0	2,95	5,95	4,10	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution																	
A04.MT05.02.15.42ML	◈		◈	◈	◈	4,0	0,50	15,2	4,2	0,27	0,06	0,40	18,0	1,95	3,95	3,45	A04...
A05.MT05.02.15.52ML	◈		◈	◈	◈	5,0	0,50	15,2	5,2	0,27	0,06	0,40	18,0	2,45	4,95	4,45	A05...
A05.MT75.02.15.51ML	◈		◈	◈	◈	5,0	0,75	15,2	5,1	0,40	0,09	0,50	18,0	2,40	4,85	4,15	A05...
A04.MT08.02.15.40ML	◈		◈	◈	⊙	4,0	0,80	15,2	4,0	0,43	0,10	0,50	18,0	1,85	3,75	3,00	A04...
A05.MT10.02.15.48ML	◈		◈	◈	◈	5,0	1,00	15,2	4,8	0,54	0,12	0,60	18,0	2,25	4,55	3,55	A05...
A06.MT10.02.15.62ML	◈		◈	◈	◈	6,0	1,00	15,2	6,2	0,54	0,12	0,60	18,0	2,95	5,95	5,05	A06...
A06.MT12.02.15.62ML	◈		◈	◈	◈	6,0	1,25	15,2	6,2	0,67	0,15	0,70	18,0	2,95	5,95	4,80	A06...
A06.MT15.02.15.62ML	◈		◈	◈	⊙	6,0	1,50	15,2	6,2	0,81	0,18	0,80	18,0	2,95	5,95	4,50	A06...
A06.MT17.02.15.62ML	◈		◈	◈	◈	6,0	1,75	15,2	6,2	0,94	0,21	0,90	18,0	2,95	5,95	4,30	A06...
A06.MT20.02.15.62ML	◈		◈	◈	◈	6,0	2,00	15,2	6,2	1,08	0,25	1,00	18,0	2,95	5,95	4,10	A06...

Gewindedrehen Trapez-Gewinde, Teilprofil steigung P = 2,0 mm - 3,0 mm
Threading trapezoidal, partial profile pitch P = 2,0 mm - 3,0 mm

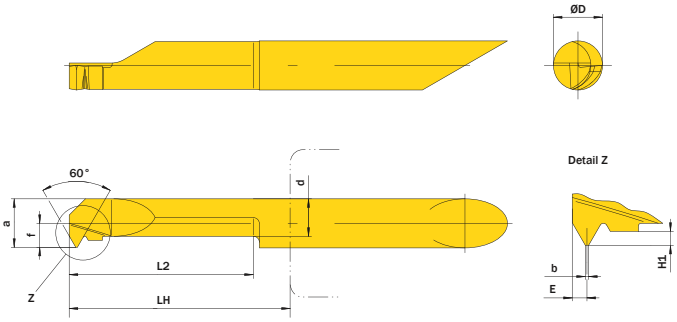


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	Steigung Pitch P (mm)	L2 (mm)	Dmin (mm)	t (mm)	b (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	E (mm)	Halter Toolholde
Schneideinsätze - Rechtausführung / Inserts - right hand execution																	
A07.TR20.01.20.72MR	◈		◈	◈	⊙	7,0	2,00	20,3	7,2	1,25	0,6	23,0	3,45	6,95	5,05	0,75	A07...
A07.TR20.01.30.72MR	◈		◈	◈	⊙	7,0	2,00	30,5	7,2	1,25	0,6	33,0	3,45	6,95	5,05	0,75	A07...
A07.TR30.01.20.72MR	◈		◈	◈	⊙	7,0	3,00	20,3	7,2	1,75	1,0	23,0	3,45	6,95	4,55	1,10	A07...
A07.TR30.01.30.72MR	◈		◈	◈	⊙	7,0	3,00	30,5	7,2	1,75	1,0	33,0	3,45	6,95	4,55	1,10	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution																	
A07.TR20.01.20.72ML	◈		◈	◈	◈	7,0	2,00	20,3	7,2	1,25	0,6	23,0	3,45	6,95	5,05	0,75	A07...
A07.TR20.01.30.72ML	◈		◈	◈	◈	7,0	2,00	30,5	7,2	1,25	0,6	33,0	3,45	6,95	5,05	0,75	A07...
A07.TR30.01.20.72ML	◈		◈	◈	◈	7,0	3,00	20,3	7,2	1,75	1,0	23,0	3,45	6,95	4,55	1,10	A07...
A07.TR30.01.30.72ML	◈		◈	◈	◈	7,0	3,00	30,5	7,2	1,75	1,0	33,0	3,45	6,95	4,55	1,10	A07...



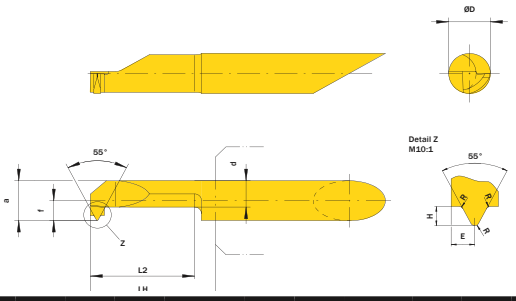
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	Gang / Zahl Threads / Inch (mm)	L2 (mm)	Dmin (mm)	E (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A06.UN16.01.15.62MR	◈		◈	⊙	⊙	6,0	16 - 20	15,2	6,2	0,70	18,0	2,95	5,95	3,95	A06...
A05.UN24.01.15.52MR	◈		◈	⊙	⊙	5,0	24 - 28	15,2	5,2	0,55	18,0	2,45	4,95	3,75	A05...
A06.UN24.01.15.62MR	◈		◈	⊙	⊙	6,0	24 - 28	15,2	6,2	0,55	18,0	2,95	5,95	3,95	A06...
A04.UN32.01.15.42MR	◈		◈	⊙	⊙	4,0	32 - 40	15,2	4,2	0,45	18,0	1,95	3,95	2,95	A04...
A05.UN32.01.15.52MR	◈		◈	◈	◈	5,0	32 - 40	15,2	5,2	0,45	18,0	2,45	4,95	3,75	A05...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A06.UN16.01.15.62ML	◈		◈	⊙	◈	6,0	16 - 20	15,2	6,2	0,70	18,0	2,95	5,95	3,95	A06...
A05.UN24.01.15.52ML	◈		◈	◈	◈	5,0	24 - 28	15,2	5,2	0,55	18,0	2,45	4,95	3,75	A05...
A06.UN24.01.15.62ML	◈		◈	◈	⊙	6,0	24 - 28	15,2	6,2	0,55	18,0	2,95	5,95	3,95	A06...
A04.UN32.01.15.42ML	◈		◈	⊙	◈	4,0	32 - 40	15,2	4,2	0,45	18,0	1,95	3,95	2,95	A04...
A05.UN32.01.15.52ML	◈		◈	◈	◈	5,0	32 - 40	15,2	5,2	0,45	18,0	2,45	4,95	3,75	A05...

Gewindedrehen UNC Vollprofil ab Ø 4,0 mm
Threading UNC full profile as of Ø 4,0 mm

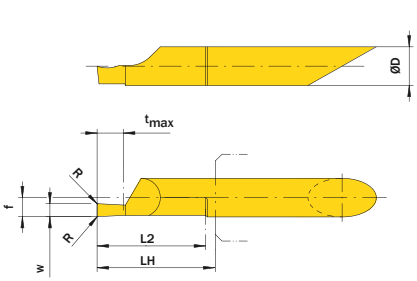


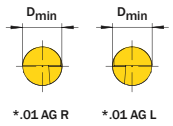
Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	Gang / Zahl Threads / Inch (mm)	L2 (mm)	Dmin (mm)	E (mm)	LH (mm)	Steigung Pitch P (mm)	b (mm)	H1 (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution																		
A06.UN14.02.15.62MR	◈		◈	◈	◈	6,0	14	15,2	6,2	0,90	18,0	1,81	0,23	0,98	2,95	5,95	4,55	A06...
A06.UN16.02.15.62MR	◈		◈	◈	◈	6,0	16	15,2	6,2	0,85	18,0	1,59	0,20	0,86	2,95	5,95	4,75	A06...
A06.UN18.02.15.62MR	◈		◈	◈	◈	6,0	18	15,2	6,2	0,75	18,0	1,41	0,18	0,76	2,95	5,95	4,85	A06...
A05.UN20.02.15.52MR	◈		◈	◈	⊙	5,0	20	15,2	5,2	0,70	18,0	1,27	0,16	0,69	2,45	4,95	3,95	A05...
A04.UN24.02.15.42MR	◈		◈	◈	⊙	4,0	24	15,2	4,2	0,65	18,0	1,06	0,13	0,57	1,95	3,95	3,05	A04...
A04.UN28.02.15.40MR	◈		◈	◈	⊙	4,0	28	15,2	4,0	0,60	18,0	0,91	0,11	0,49	1,85	3,75	2,95	A04...
A04.UN32.02.15.40MR	◈		◈	◈	⊙	4,0	32	15,2	4,0	0,55	18,0	0,79	0,10	0,43	1,85	3,75	2,95	A04...
Schneideinsätze - Linksausführung / Inserts - left hand execution																		
A06.UN14.02.15.62ML	◈		◈	◈	◈	6,0	14	15,2	6,2	0,90	18,0	1,81	0,23	0,98	2,95	5,95	4,55	A06...
A06.UN16.02.15.62ML	◈		◈	◈	◈	6,0	16	15,2	6,2	0,85	18,0	1,59	0,20	0,86	2,95	5,95	4,75	A06...
A06.UN18.02.15.62ML	◈		◈	◈	◈	6,0	18	15,2	6,2	0,75	18,0	1,41	0,18	0,76	2,95	5,95	4,85	A06...
A04.UN24.02.15.42ML	◈		◈	◈	◈	4,0	24	15,2	4,2	0,65	18,0	1,06	0,13	0,57	1,95	3,95	3,05	A04...
A04.UN28.02.15.40ML	◈		◈	◈	◈	4,0	28	15,2	4,0	0,60	18,0	0,91	0,11	0,49	1,85	3,75	2,95	A04...
A04.UN32.02.15.40ML	◈		◈	◈	◈	4,0	32	15,2	4,0	0,55	18,0	0,79	0,10	0,43	1,85	3,75	2,95	A04...

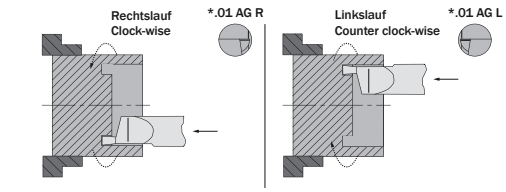
THREADING BSW/BSF (FULL PROFILE)INCH 19 - 28 AS OF Ø 5,2 MM / FACE GROOVING INSIDE BORES MIN. BORE Ø 6,2 MM



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	Gang / Zahl Threads / Inch (mm)	L2 (mm)	Dmin (mm)	Steigung Pitch P (mm)	R (mm)	H (mm)	E (mm)	LH (mm)	f (mm)	a (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution																		
A05.BS24.02.15.52MR	◈		◈	⊙	⊙	5,0	24	15,2	5,2	1,06	0,15	0,68	0,8	18,0	2,45	4,95	3,75	A05...
A05.BS26.02.15.52MR	◈		◈	◈	⊙	5,0	26	15,2	5,2	0,98	0,13	0,63	0,8	18,0	2,45	4,95	3,75	A05...
A05.BS28.02.15.52MR	◈		◈	⊙	⊙	5,0	28	15,2	5,2	0,91	0,12	0,58	0,8	18,0	2,45	4,95	3,75	A05...
A06.BS19.02.15.62MR	◈		◈	⊙	⊙	6,0	19	15,2	6,2	1,34	0,18	0,86	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS20.02.15.62MR	◈		◈	⊙	⊙	6,0	20	15,2	6,2	1,27	0,17	0,81	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS22.02.15.62MR	◈		◈	◈	⊙	6,0	22	15,2	6,2	1,16	0,16	0,74	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS24.02.15.62MR	◈		◈	◈	⊙	6,0	24	15,2	6,2	1,06	0,15	0,68	0,8	18,0	2,95	5,95	3,95	A06...
A06.BS26.02.15.62MR	◈		◈	⊙	⊙	6,0	26	15,2	6,2	0,98	0,13	0,63	0,8	18,0	2,95	5,95	3,95	A06...
A06.BS28.02.15.62MR	◈		◈	⊙	⊙	6,0	28	15,2	6,2	0,91	0,12	0,58	0,8	18,0	2,95	5,95	3,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution																		
A05.BS24.02.15.52ML	◈		◈	◈	⊙	5,0	24	15,2	5,2	1,06	0,15	0,68	0,8	18,0	2,45	4,95	3,75	A05...
A05.BS26.02.15.52ML	◈		◈	◈	⊙	5,0	26	15,2	5,2	0,98	0,13	0,63	0,8	18,0	2,45	4,95	3,75	A05...
A05.BS28.02.15.52ML	◈		◈	⊙	⊙	5,0	28	15,2	5,2	0,91	0,12	0,58	0,8	18,0	2,45	4,95	3,75	A05...
A06.BS19.02.15.62ML	◈		◈	◈	⊙	6,0	19	15,2	6,2	1,34	0,18	0,86	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS20.02.15.62ML	◈		◈	◈	◈	6,0	20	15,2	6,2	1,27	0,17	0,81	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS22.02.15.62ML	◈		◈	◈	◈	6,0	22	15,2	6,2	1,16	0,16	0,74	1,0	18,0	2,95	5,95	3,95	A06...
A06.BS24.02.15.62ML	◈		◈	◈	◈	6,0	24	15,2	6,2	1,06	0,15	0,68	0,8	18,0	2,95	5,95	3,95	A06...
A06.BS26.02.15.62ML	◈		◈	◈	◈	6,0	26	15,2	6,2	0,98	0,13	0,63	0,8	18,0	2,95	5,95	3,95	A06...
A06.BS28.02.15.62ML	◈		◈	◈	◈	6,0	28	15,2	6,2	0,91	0,12	0,58	0,8	18,0	2,95	5,95	3,95	A06...

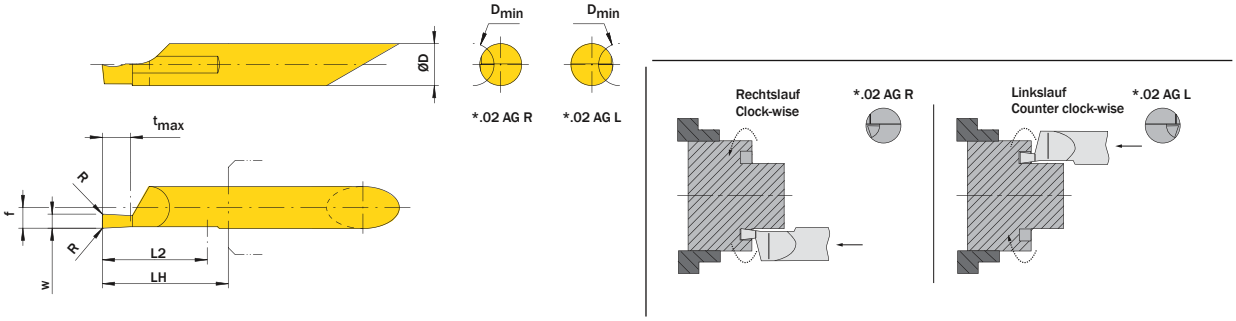




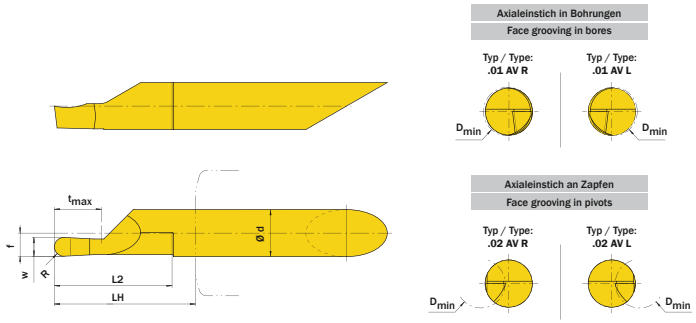


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	f (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution														
A06.0100.15.01AGR	◈		◈	⊙	⊙	6,0	1,00	15,2	6,2	0,15	18,0	2,00	2,95	A06...
A06.0117.15.01AGR	◈		◈		◈	6,0	1,17	15,2	6,2	0,15	18,0	2,34	2,95	A06...
A06.0150.15.01AGR	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	0,15	18,0	3,00	2,95	A06...
A06.0157.15.01AGR	◈		◈		◈	6,0	1,57	15,2	6,2	0,15	18,0	3,15	2,95	A06...
A06.0198.15.01AGR	◈		◈		◈	6,0	1,98	15,2	6,2	0,15	18,0	3,96	2,95	A06...
A06.0200.15.01AGR	◈		◈	⊙	⊙	6,0	2,00	15,2	6,2	0,15	18,0	4,00	2,95	A06...
A06.0239.15.01AGR	◈		◈		◈	6,0	2,39	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0250.15.01AGR	◈		◈	⊙	⊙	6,0	2,50	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0300.15.01AGR	◈		◈	⊙	⊙	6,0	3,00	15,2	6,2	0,15	18,0	6,00	2,95	A06...
A06.0318.15.01AGR	◈		◈		◈	6,0	3,18	15,2	6,2	0,15	18,0	5,99	2,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution														
A06.0100.15.01AGL	◈		◈	◈	⊙	6,0	1,00	15,2	6,2	0,15	18,0	2,00	2,95	A06...
A06.0117.15.01AGL	◈		◈		◈	6,0	1,17	15,2	6,2	0,15	18,0	2,34	2,95	A06...
A06.0150.15.01AGL	◈		◈	◈	⊙	6,0	1,50	15,2	6,2	0,15	18,0	3,00	2,95	A06...
A06.0157.15.01AGL	◈		◈		◈	6,0	1,57	15,2	6,2	0,15	18,0	3,15	2,95	A06...
A06.0198.15.01AGL	◈		◈		◈	6,0	1,98	15,2	6,2	0,15	18,0	3,96	2,95	A06...
A06.0200.15.01AGL	◈		◈	⊙	⊙	6,0	2,00	15,2	6,2	0,15	18,0	4,00	2,95	A06...
A06.0239.15.01AGL	◈		◈		◈	6,0	2,39	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0250.15.01AGL	◈		◈	◈	⊙	6,0	2,50	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0300.15.01AGL	◈		◈	⊙	⊙	6,0	3,00	15,2	6,2	0,15	18,0	6,00	2,95	A06...
A06.0318.15.01AGL	◈		◈		◈	6,0	3,18	15,2	6,2	0,15	18,0	5,99	2,95	A06...

FACE GROOVING ON PIVOTS MIN. BORE DIAMETERS 6,2 MM / FACE GROOVING, FULL NOSE RADIUS MIN BORE DIAMETER 6,2 MM

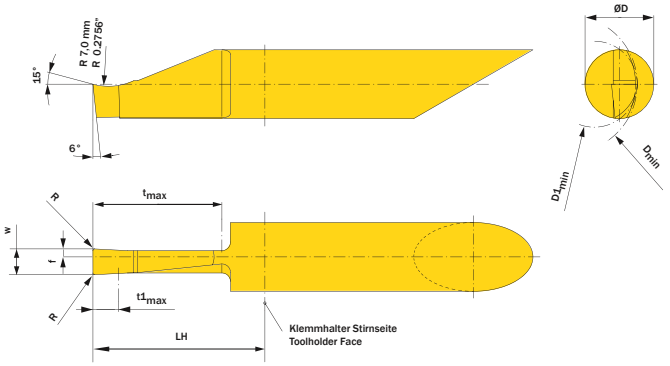


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	f (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution														
A06.0100.15.02AGR	◈		◈	⊙	⊙	6,0	1,00	15,2	6,2	0,15	18,0	2,00	2,95	A06...
A06.0117.15.02AGR	◈		◈		◈	6,0	1,17	15,2	6,2	0,15	18,0	2,34	2,95	A06...
A06.0150.15.02AGR	◈		◈	⊙	⊙	6,0	1,50	15,2	6,2	0,15	18,0	3,00	2,95	A06...
A06.0157.15.02AGR	◈		◈		◈	6,0	1,57	15,2	6,2	0,15	18,0	3,15	2,95	A06...
A06.0198.15.02AGR	◈		◈		⊙	6,0	1,98	15,2	6,2	0,15	18,0	3,96	2,95	A06...
A06.0200.15.02AGR	◈		◈	⊙	⊙	6,0	2,00	15,2	6,2	0,15	18,0	4,00	2,95	A06...
A06.0239.15.02AGR	◈		◈		◈	6,0	2,39	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0250.15.02AGR	◈		◈	⊙	⊙	6,0	2,50	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0300.15.02AGR	◈		◈	⊙	⊙	6,0	3,00	15,2	6,2	0,15	18,0	6,00	2,95	A06...
A06.0318.15.02AGR	◈		◈		◈	6,0	3,18	15,2	6,2	0,15	18,0	6,00	2,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution														
A06.0100.15.02AGL	◈		◈	◈	⊙	6,0	1,00	15,2	6,2	0,15	18,0	2,00	2,95	A06...
A06.0117.15.02AGL	◈		◈		◈	6,0	1,17	15,2	6,2	0,15	18,0	2,34	2,95	A06...
A06.0150.15.02AGL	◈		◈	◈	⊙	6,0	1,50	15,2	6,2	0,15	18,0	3,00	2,95	A06...
A06.0157.15.02AGL	◈		◈		◈	6,0	1,57	15,2	6,2	0,15	18,0	3,15	2,95	A06...
A06.0198.15.02AGL	◈		◈		◈	6,0	1,98	15,2	6,2	0,15	18,0	3,96	2,95	A06...
A06.0200.15.02AGL	◈		◈	⊙	⊙	6,0	2,00	15,2	6,2	0,15	18,0	4,00	2,95	A06...
A06.0239.15.02AGL	◈		◈		◈	6,0	2,39	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0250.15.02AGL	◈		◈	◈	⊙	6,0	2,50	15,2	6,2	0,15	18,0	5,00	2,95	A06...
A06.0300.15.02AGL	◈		◈	⊙	⊙	6,0	3,00	15,2	6,2	0,15	18,0	6,00	2,95	A06...
A06.0318.15.02AGL	◈		◈		◈	6,0	3,18	15,2	6,2	0,15	18,0	6,00	2,95	A06...

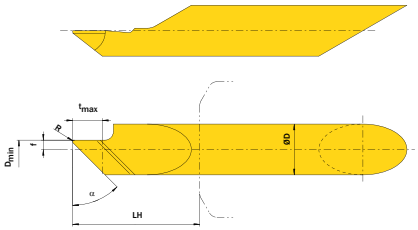


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	R (mm)	Dmin (mm)	LH (mm)	tmax (mm)	f (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution														
A06.0100.15.01AVR	◈		◈	◈	⊙	6,0	1,0	15,2	0,50	6,2	18,0	2,0	2,95	A06...
A06.0100.15.02AVR	◈		◈	◈	◈	6,0	1,0	15,2	0,50	6,2	18,0	2,0	2,95	A06...
A06.0160.15.01AVR	◈		◈	◈	⊙	6,0	1,6	15,2	0,80	6,2	18,0	3,0	2,95	A06...
A06.0160.15.02AVR	◈		◈	⊙	◈	6,0	1,6	15,2	0,80	6,2	18,0	3,0	2,95	A06...
A06.0200.15.01AVR	◈		◈	⊙	⊙	6,0	2,0	15,2	1,00	6,2	18,0	4,0	2,95	A06...
A06.0200.15.02AVR	◈		◈	◈	◈	6,0	2,0	15,2	1,00	6,2	18,0	4,0	2,95	A06...
A06.0250.15.01AVR	◈		◈	⊙	◈	6,0	2,5	15,2	1,25	6,2	18,0	5,0	2,95	A06...
A06.0250.15.02AVR	◈		◈	◈	◈	6,0	2,5	15,2	1,25	6,2	18,0	5,0	2,95	A06...
A06.0300.15.01AVR	◈		⊙	⊙	◈	6,0	3,0	15,2	1,50	6,2	18,0	6,0	2,95	A06...
A06.0300.15.02AVR	◈		◈	◈	◈	6,0	3,0	15,2	1,50	6,2	18,0	6,0	2,95	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution														

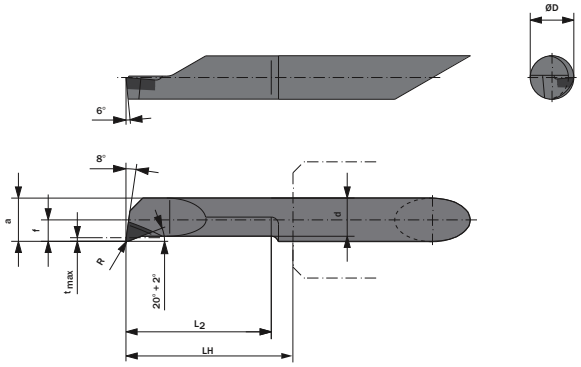
FACE GROOVING IN BORES MIN. BORE DIAMETERS 16/10MM (A08) 20/12MM (A10) / CHAMFERING AS OF Ø 1,0 MM



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	tmax (mm)	R (mm)	Dmin (mm)	D1min (mm)	t1max (mm)	f (mm)	LH (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution															
A08.0300.10.00AGR	◈		◈	⊙	⊙	8,0	3,0	10,0	0,2	16,0	10,0	3,0	0,93	15,0	A08...
A08.0300.15.00AGR	◈		◈	⊙	⊙	8,0	3,0	15,0	0,2	16,0	10,0	3,0	0,93	20,0	A08...
A10.0300.20.00AGR	◈		◈	⊙	⊙	10,0	3,0	20,0	0,2	20,0	12,0	5,0	0,93	28,0	A10...
A10.0300.25.00AGR	◈		◈	◈	⊙	10,0	3,0	25,0	0,2	20,0	12,0	5,0	0,93	33,0	A10...
A10.0300.30.00AGR	◈		◈	◈	⊙	10,0	3,0	30,0	0,2	20,0	12,0	5,0	0,93	38,0	A10...
A08.0400.10.00AGR	◈		◈	⊙	◈	8,0	4,0	10,0	0,2	16,0	10,0	3,0	1,51	15,0	A08...
A08.0400.15.00AGR	◈		◈	⊙	◈	8,0	4,0	15,0	0,2	16,0	10,0	3,0	1,51	20,0	A08...
A10.0400.20.00AGR	◈		◈	⊙	⊙	10,0	4,0	20,0	0,2	20,0	12,0	5,0	1,35	28,0	A10...
A10.0400.25.00AGR	◈		◈	◈	⊙	10,0	4,0	25,0	0,2	20,0	12,0	5,0	1,35	33,0	A10...
A10.0400.30.00AGR	◈		◈	◈	◈	10,0	4,0	30,0	0,2	20,0	12,0	5,0	1,35	38,0	A10...
A10.0500.20.00AGR	◈		◈	◈	⊙	10,0	5,0	20,0	0,2	20,0	12,0	5,0	1,90	28,0	A10...
A10.0500.25.00AGR	◈		◈	◈	⊙	10,0	5,0	25,0	0,2	20,0	12,0	5,0	1,90	33,0	A10...
A10.0500.30.00AGR	◈		◈	⊙	⊙	10,0	5,0	30,0	0,2	20,0	12,0	5,0	1,90	38,0	A10...
Schneideinsätze - Linksausführung / Inserts - left hand execution															
A08.0300.10.00AGL	◈		◈	⊙	◈	8,0	3,0	10,0	0,2	16,0	10,0	3,0	0,93	15,0	A08...
A08.0300.15.00AGL	◈		◈	⊙	◈	8,0	3,0	15,0	0,2	16,0	10,0	3,0	0,93	20,0	A08...
A10.0300.20.00AGL	◈		◈	◈	⊙	10,0	3,0	20,0	0,2	20,0	12,0	5,0	0,93	28,0	A10...
A10.0300.25.00AGL	◈		◈	◈	⊙	10,0	3,0	25,0	0,2	20,0	12,0	5,0	0,93	33,0	A10...
A10.0300.30.00AGL	◈		◈	◈	◈	10,0	3,0	30,0	0,2	20,0	12,0	5,0	0,93	38,0	A10...
A08.0400.10.00AGL	◈		◈	◈	◈	8,0	4,0	10,0	0,2	16,0	10,0	3,0	1,51	15,0	A08...
A08.0400.15.00AGL	◈		◈	⊙	◈	8,0	4,0	15,0	0,2	16,0	10,0	3,0	1,51	20,0	A08...
A10.0400.20.00AGL	◈		◈	◈	◈	10,0	4,0	20,0	0,2	20,0	12,0	5,0	1,35	28,0	A10...
A10.0400.25.00AGL	◈		◈	◈	◈	10,0	4,0	25,0	0,2	20,0	12,0	5,0	1,35	33,0	A10...
A10.0400.30.00AGL	◈		◈	◈	◈	10,0	4,0	30,0	0,2	20,0	12,0	5,0	1,35	38,0	A10...
A10.0500.20.00AGL	◈		◈	◈	◈	10,0	5,0	20,0	0,2	20,0	12,0	5,0	1,90	28,0	A10...
A10.0500.25.00AGL	◈		◈	◈	◈	10,0	5,0	25,0	0,2	20,0	12,0	5,0	1,90	33,0	A10...
A10.0500.30.00AGL	◈		◈	◈	◈	10,0	5,0	30,0	0,2	20,0	12,0	5,0	1,90	38,0	A10...

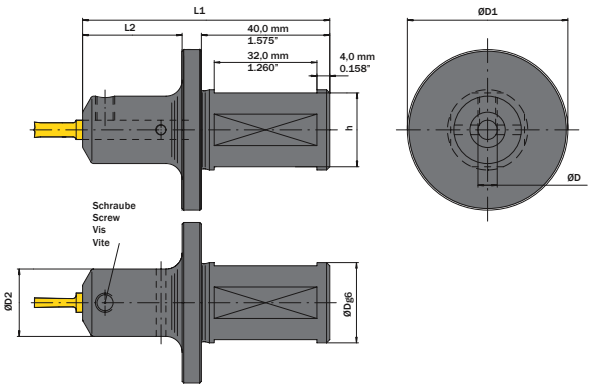


Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	α (mm)	f (mm)	R (mm)	LH (mm)	Dmin (mm)	tmax (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution													
A06.0045.11.20AFR	◈		◈	◈	⊙	6,0	45°	1,1	0,2	13,0	1,0	3,5	A06...
A06.0060.05.20AFR	◈		◈	◈	⊙	6,0	60°	0,5	0,2	13,0	1,0	4,0	A06...
Schneideinsätze - Linksausführung / Inserts - left hand execution													
A06.0045.11.20AFL	◈		◈	◈	◈	6,0	45°	1,1	0,2	13,0	1,0	3,5	A06...
A06.0060.05.20AFL	◈		◈	◈	⊙	6,0	60°	0,5	0,2	13,0	1,0	4,0	A06...



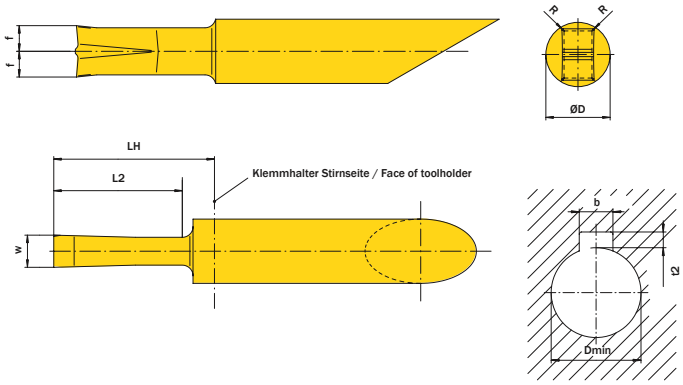
Artikel-Nr. order no.	Lieferstatus / stock ZIB -50	ØD (mm)	w (mm)	L2 (mm)	Dmin (mm)	R (mm)	LH (mm)	tmax (mm)	f (mm)	d (mm)	Halter Toolholder
Schneideinsätze - Rechtausführung / Inserts - right hand execution											
A04.1812.10.27.15YR	◈	4,0	1,20	10,2	2,7	0,15	13,0	2,1	2,45	0,20	A04...
A04.1815.15.32.15YR	◈	4,0	1,45	15,2	3,2	0,15	18,0	2,6	2,95	0,20	A04...
A04.1817.15.37.15YR	◈	4,0	1,70	15,2	3,7	0,15	18,0	3,1	3,45	0,20	A05...
A04.1820.10.42.15YR	◈	4,0	1,95	10,2	4,2	0,15	13,0	3,5	3,95	0,30	A05...
A04.1820.15.42.15YR	◈	4,0	1,95	15,2	4,2	0,15	18,0	3,5	3,95	0,30	A05...
A04.1820.20.42.15YR	◈	4,0	1,95	20,3	4,2	0,15	23,0	3,5	3,95	0,30	A05...
A05.1825.10.52.20YR	◈	5,0	2,45	10,2	5,2	0,20	13,0	4,3	4,95	0,50	A06...
A05.1825.15.52.20YR	◈	5,0	2,45	15,2	5,2	0,20	18,0	4,3	4,95	0,50	A06...
A05.1825.20.52.20YR	◈	5,0	2,45	20,3	5,2	0,20	23,0	4,3	4,95	0,50	A06...
A05.1825.25.52.20YR	◈	5,0	2,45	25,4	5,2	0,20	28,0	4,3	4,95	0,50	A06...
A06.1830.15.62.20YR	◈	6,0	2,95	15,2	6,2	0,20	18,0	5,3	5,95	0,50	A06...
A06.1830.20.62.20YR	◈	6,0	2,95	20,3	6,2	0,20	23,0	5,3	5,95	0,50	A06...
A06.1830.25.62.20YR	◈	6,0	2,95	25,4	6,2	0,20	28,0	5,3	5,95	0,50	A07...
A06.1830.30.62.20YR	◈	6,0	2,95	30,5	6,2	0,20	33,0	5,3	5,95	0,50	A07...
A06.1830.35.62.20YR	◈	6,0	2,95	35,6	6,2	0,20	38,0	5,3	5,95	0,50	A07...
Schneideinsätze - Linksausführung / Inserts - left hand execution											
A04.1812.10.27.15YL	◈	4,0	1,20	10,2	2,7	0,15	13,0	2,1	2,45	0,20	A04...
A04.1815.15.32.15YL	◈	4,0	1,45	15,2	3,2	0,15	18,0	2,6	2,95	0,20	A04...
A04.1817.15.37.15YL	◈	4,0	1,70	15,2	3,7	0,15	18,0	3,1	3,45	0,20	A05...
A04.1820.10.42.15YL	◈	4,0	1,95	10,2	4,2	0,15	13,0	3,5	3,95	0,30	A05...
A04.1820.15.42.15YL	◈	4,0	1,95	15,2	4,2	0,15	18,0	3,5	3,95	0,30	A05...
A04.1820.20.42.15YL	◈	4,0	1,95	20,3	4,2	0,15	23,0	3,5	3,95	0,30	A05...
A05.1825.10.52.20YL	◈	5,0	2,45	10,2	5,2	0,20	13,0	4,3	4,95	0,50	A06...
A05.1825.15.52.20YL	◈	5,0	2,45	15,2	5,2	0,20	18,0	4,3	4,95	0,50	A06...
A05.1825.20.52.20YL	◈	5,0	2,45	20,3	5,2	0,20	23,0	4,3	4,95	0,50	A06...
A05.1825.25.52.20YL	◈	5,0	2,45	25,4	5,2	0,20	28,0	4,3	4,95	0,50	A06...
A06.1830.15.62.20YL	◈	6,0	2,95	15,2	6,2	0,20	18,0	5,3	5,95	0,50	A06...
A06.1830.20.62.20YL	◈	6,0	2,95	20,3	6,2	0,20	23,0	5,3	5,95	0,50	A06...
A06.1830.25.62.20YL	◈	6,0	2,95	25,4	6,2	0,20	28,0	5,3	5,95	0,50	A07...
A06.1830.30.62.20YL	◈	6,0	2,95	30,5	6,2	0,20	33,0	5,3	5,95	0,50	A07...
A06.1830.35.62.20YL	◈	6,0	2,95	35,6	6,2	0,20	38,0	5,3	5,95	0,50	A07...

TOOLHOLDER KEYWAY BROACHING (DIN 6885) AS OF Ø 6,0 MM

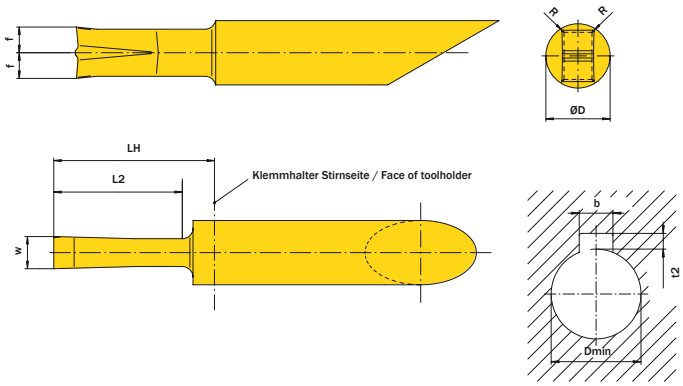


Artikel-Nr. order no.	Lieferstatus stock	Ø D (mm)	Ø Dg6 (mm)	Ø D1 (mm)	Ø D2 (mm)	h (mm)	L1 (mm)	L2 (mm)	Schraube screw	Schrauben-schlüssel screw driver	Gewindeplatte inserts
A06.SB20	◈	6,0	20,0	45,0	21,0	18,0	78,0	32,0	AM6x7,5T15F	T15F	A06 ... B
A06.SB25	◈	6,0	25,0	50,0	21,0	23,0	78,0	32,0	AM6x7,5T15F	T15F	A06 ... B
A07.SB20	⊙	7,0	20,0	45,0	22,0	18,0	78,0	32,0	AM6x7,5T15F	T15F	A07 ... B
A07.SB25	◈	7,0	25,0	50,0	22,0	23,0	78,0	32,0	AM6x7,5T15F	T15F	A07 ... B
A07.SB32	◈	7,0	32,0	58,0	22,0	30,0	78,0	32,0	AM6x7,5T15F	T15F	A07 ... B
A10.SB25	⊙	10,0	25,0	50,0	25,0	23,0	86,0	40,0	AM6x7,5T15F	T15F	A10 ... B
A10.SB32	◈	10,0	32,0	58,0	25,0	30,0	86,0	40,0	AM6x7,5T15F	T15F	A10 ... B

KEYWAY BROACHING (DIN 6885) AS OF 6,0 MM (TOLERANZ P9 / JS9)



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	R (mm)	LH (mm)	f (mm)	b (mm)	Dmin (mm)	t2 (mm)	Halter Toolholder
A06.0198.12.10B	◈		◈		◈	6,0	1,98	12,2	0,1	15,0	2,4	2,0	6,0	1,0	A06.SB...
A06.0298.12.10B	◈		◈		◈	6,0	2,98	12,2	0,1	15,0	2,4	3,0	8,0	1,4	A06.SB...
A07.0397.15.10B	◈		◈		◈	7,0	3,97	15,2	0,1	18,0	2,8	4,0	10,0	1,8	A07.SB...
A07.0397.25.20B	◈		◈		◈	7,0	3,97	25,4	0,2	28,0	2,8	4,0	10,0	1,8	A07.SB...
A07.0397.40.20B	◈		◈		◈	7,0	3,97	40,6	0,2	43,0	2,8	4,0	10,0	1,8	A07.SB...
A10.0497.25.20B	◈		◈		◈	10,0	4,97	25,4	0,2	28,0	4,0	5,0	12,0	2,3	A10.SB...
A10.0497.40.20B	◈		◈		◈	10,0	4,97	40,6	0,2	43,0	4,0	5,0	12,0	2,3	A10.SB...
A10.0597.40.20B	◈		◈		◈	10,0	5,97	40,6	0,2	43,0	3,8	6,0	17,0	2,8	A10.SB...



Artikel-Nr. order no.	Lieferstatus / stock X-Blue -144	Alu-Speed -145	GF25 -301	GX75 -308	ZGX 40 -314	Ø D (mm)	w (mm)	L2 (mm)	R (mm)	LH (mm)	f (mm)	b (mm)	Dmin (mm)	d (mm)	Halter Toolholder
A06.0200.12.10B	◈		◈		◈	6,0	2,0	12,2	0,1	15,0	2,4	2,0	6,0	1,00	A06.SB...
A06.0300.12.10B	◈		◈		◈	6,0	3,0	12,2	0,1	15,0	2,4	3,0	8,0	1,40	A06.SB...
A07.0400.15.10B	◈		◈		◈	7,0	4,0	15,2	0,1	18,0	2,8	4,0	10,0	1,80	A07.SB...
A07.0400.15.20B	◈		◈		◈	7,0	4,0	15,2	0,2	18,0	2,8	4,0	10,0	1,80	A07.SB...
A07.0400.25.20B	◈		◈		◈	7,0	4,0	25,4	0,2	28,0	2,8	4,0	10,0	1,80	A07.SB...
A07.0400.40.20B	◈		◈		◈	7,0	4,0	40,6	0,2	43,0	2,8	4,0	10,0	1,80	A07.SB...
A10.0500.25.20B	◈		◈		◈	10,0	5,0	25,4	0,2	28,0	4,0	5,0	12,0	2,30	A10.SB...
A10.0500.40.20B	◈		◈		◈	10,0	5,0	40,6	0,2	43,0	4,0	5,0	12,0	2,30	A10.SB...
A10.0600.40.20B	◈		◈		◈	10,0	6,0	40,6	0,2	43,0	3,8	6,0	17,0	2,85	A10.SB...

d-Series

- Stechdrehen ab Ø 8,0 mm
- Fasen ab Ø 8,0 mm
- Ausdrehen ab Ø 8,0 mm
- Gewindeschneiden ab Ø 8,0 mm

d^{max}-Series

- Gewindeschneiden ab Ø 10,0 mm
- vergrößerte Stechtiefen
- verbesserter Spanablauf

d-Series

- Grooving as of Ø 8,0 mm
- Chamfering as of Ø 8,0 mm
- Boring as of Ø 8,0 mm
- Threading as of Ø 8,0 mm

d^{max}-Series

- Chamfering as of Ø 10,0 mm
- higher cutting depth
- a better chip flow

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ADD engineering

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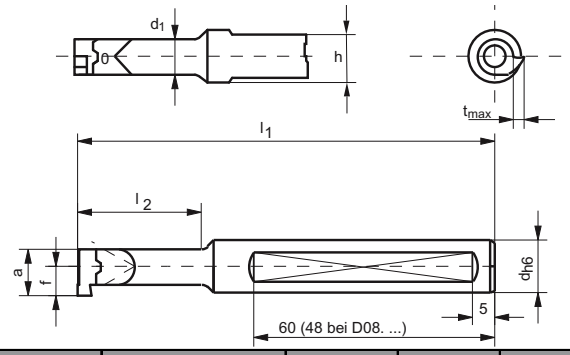


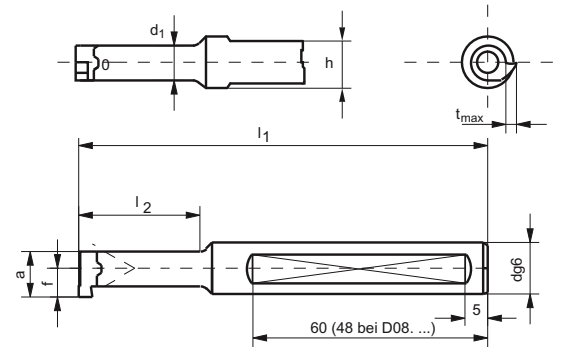
Hartmetall - Klemmhalter
Typ D08, D11, D14 und D16
Stechdrehen, Ausdrehen
und Gewindeschneiden
(Innen)
ab ø7,8 mm
mit innerer Kühlmittelzufuhr

Toolholder (carbide)
type D08, D11, D14 and D16
Grooving, boring and
threading (internal)
as of ø7,8 mm
with internal coolant supply

Bestellbeispiel / Sample order:

D08.0012.21HM

Für Schneidplatte	dg6 [mm]	l2 [mm]	Artikelnummer	Lieferstatus	l1 [mm]	d1 [mm]	f [mm]	a [mm]	h [mm]	tmax [mm]
D08	12	21	**D08.0012.21HM**	▣	80	6	4,8	7,8	11,5	1,0
D08	12	30	**D08.0012.30HM**	▣	90	6	4,8	7,8	11,5	1,0
D08	12	42	**D08.0012.42HM**	▣	100	6	4,8	7,8	11,5	1,0
D08	12	50	**D08.0012.50HM**	▣	115	6	4,8	7,8	11,5	1,0
D11	12	29	**D11.0012.29HM**	▣	95	8	6,7	10,7	11,0	2,3
D11	12	42	**D11.0012.42HM**	▣	110	8	6,7	10,7	11,0	2,3
D11	12	56	**D11.0012.56HM**	▣	120	8	6,7	10,7	11,0	2,3
D11	12	64	**D11.0012.64HM**	▣	130	8	6,7	10,7	11,0	2,3
D14	12	34	**D14.0012.34HM**	▣	100	9	9,0	13,8	11,0	4,0
D14	12	45	**D14.0012.45HM**	▣	110	9	9,0	13,8	11,0	4,0
D14	12	64	**D14.0012.64HM**	▣	130	9	9,0	13,8	11,0	4,0
D14	16	34	**D14.0016.34HM**	▣	100	9	9,0	13,8	15,0	4,0
D14	16	45	**D14.0016.45HM**	▣	110	9	9,0	13,8	15,0	4,0
D14	16	64	**D14.0016.64HM**	▣	130	9	9,0	13,8	15,0	4,0
D14	16	75	**D14.0016.75HM**	▣	145	9	9,0	13,8	15,0	4,0
D16	12	40	**D16.0012.40HM**	▣	130	11	10,2	15,7	11,0	4,3
D16	12	56	**D16.0012.56HM**	▣	130	11	10,2	15,7	11,0	4,3
D16	12	80	**D16.0012.80HM**	▣	150	11	10,2	15,7	11,0	4,3
D16	16	40	**D16.0016.40HM**	▣	130	11	10,2	15,7	15,0	4,3
D16	16	56	**D16.0016.56HM**	▣	130	11	10,2	15,7	15,0	4,3
D16	16	80	**D16.0016.80HM**	▣	150	11	10,2	15,7	15,0	4,3



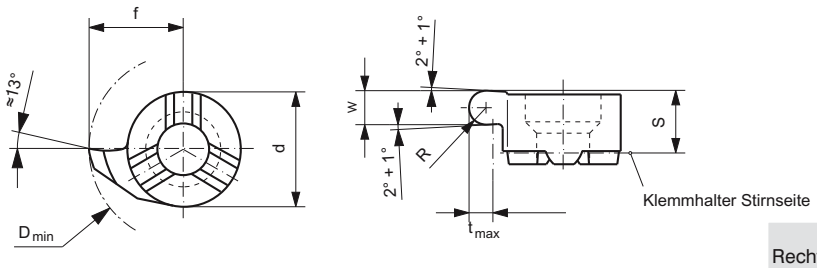
Stahl - Klemmhalter
Typ D08, D11, D14 und D16
Stechdrehen, Ausdrehen und
Gewindeschneiden (Innen)
ab ø7,8 mm
mit innerer Kühlmittelzufuhr

Toolholder (steel)
type D08, D11, D14 and D16
Grooving, boring and
threading (internal)
as of ø7,8 mm
with through tool
coolant supply

Bestellbeispiel / Sample order:

D08.0016.12ST

Für Schneidplatte	dg6 [mm]	l2 [mm]	Artikelnummer	Lieferstatus	l1 [mm]	d1 [mm]	f [mm]	a [mm]	h [mm]	tmax [mm]
D08	16	12	**D08.0016.12ST**	▣	80	6	4,8	7,8	15,5	1,0
D11	16	16	**D11.0016.16ST**	▣	97	8	6,7	10,7	15,0	2,3
D14	16	20	**D14.0016.20ST**	▣	100	---	9,0	13,8	15,0	4,0
D16	16	22	**D16.0016.22ST**	▣	100	11	10,2	15,7	15,0	4,3

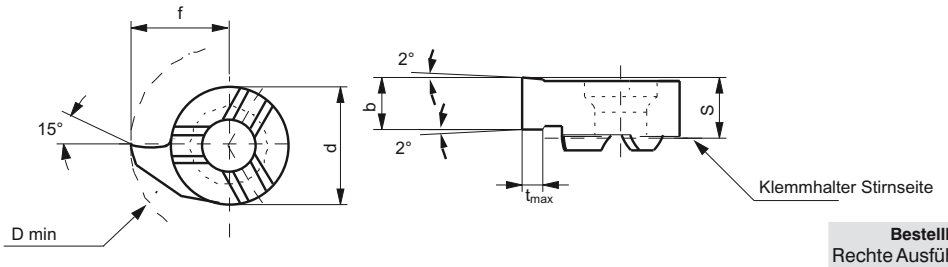


Vollradius Stechdrehen (Innen)
ab ø8,0 mm

full nose radius grooving
(internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.0004.00**VR**-301
Linke Ausführung - D08.0004.00**VL**-301

Dmin [mm]	R [mm]	w+0,05 [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
8,0	0,4	0,8	V	D08.0004.08VR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,6	1,2	V	D08.0006.12VR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,9	1,8	V	D08.0009.18VR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,4	0,8	V	D08.0004.08VL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,6	1,2	V	D08.0006.12VL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,9	1,8	V	D08.0009.18VL	▣	▣	◈	3,3	4,8	6,0	1,0

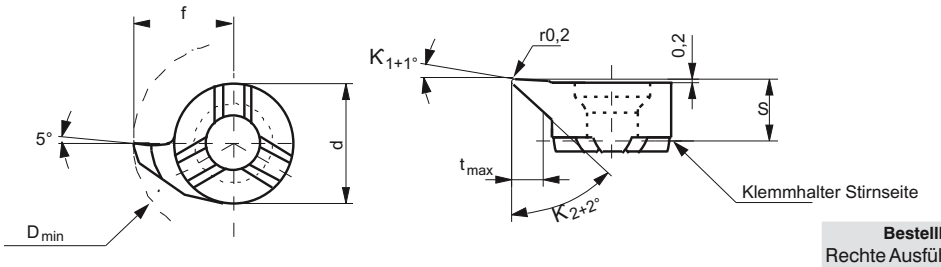


Stechdrehen (Innen)
ab ø8,0 mm

Grooving (internal)
as of ø8,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.0070.00**ZR**-301
Linke Ausführung - D08.0070.00**ZL**-301

Dmin [mm]	Nutenbreite [mm]	b+0,03 [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
Für Seeger-Ringnuten - Circlip grooves												
8,0	0,70	0,73	00	Z	D08.0070.00ZR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,80	0,83	00	Z	D08.0080.00ZR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,90	0,93	00	Z	D08.0090.00ZR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,10	1,20	00	G	D08.0110.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,30	1,40	00	G	D08.0130.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,60	1,70	00	G	D08.0160.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,70	0,73	00	Z	D08.0070.00ZL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,80	0,83	00	Z	D08.0080.00ZL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	0,90	0,93	00	Z	D08.0090.00ZL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,10	1,20	00	G	D08.0110.00GL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,30	1,40	00	G	D08.0130.00GL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,60	1,70	00	G	D08.0160.00GL	▣	▣	◈	3,3	4,8	6,0	1,0
Stechdrehen allgemein - grooving												
8,0	---	1,00	00	G	D08.0100.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	---	1,50	00	G	D08.0150.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	---	2,00	00	G	D08.0200.00GR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	---	1,00	00	G	D08.0100.00GL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	---	1,50	00	G	D08.0150.00GL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	---	2,00	00	G	D08.0200.00GL	▣	▣	◈	3,3	4,8	6,0	1,0

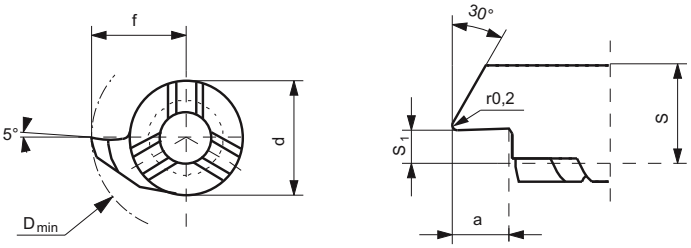


Drehen und kopieren (innen)
ab ø7,8 mm

Turning and copying (internal)
as of ø7,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.2555.02**YR**-301
Linke Ausführung - D08.2555.02**YL**-301

Dmin [mm]	κ1 °	κ2 °	f [mm]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	#NV -314	GX 75 -308	S [mm]	tmax [mm]	d [mm]
7,8	5	30	4,65	0,2	Y	D08.2555.02YR	▣	▣	◈	3,5	1,0	6,0
7,8	5	30	4,65	0,2	Y	D08.2555.02YL	▣	▣	◈	3,5	1,0	6,0

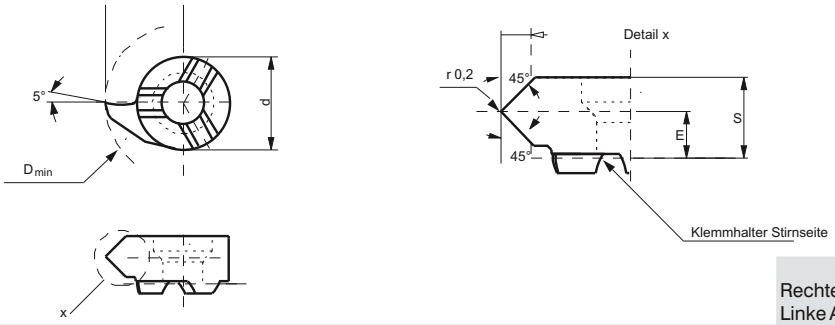


Rückwärtsdrehen (Innen)
ab ø7,8 mm

Boring by backward
motion (internal)
as of ø7,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.3046.02**YR**-301
Linke Ausführung - D08.3046.02**YL**-301

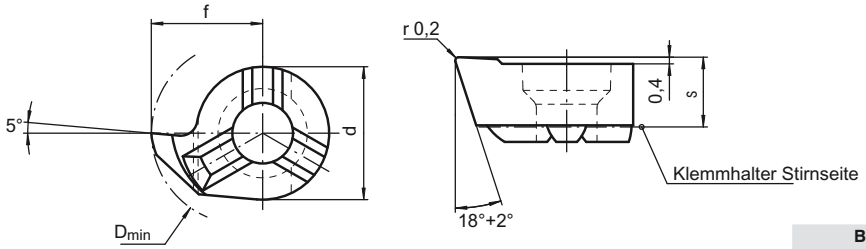
Dmin [mm]	κ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S1 [mm]	S [mm]	d [mm]	a [mm]
7,8	30	4,65	0,2	Y	D08.3046.02YR	▣	▣	◈	1,0	3,5	6,0	1,3
7,8	30	4,65	0,2	Y	D08.3046.02YL	▣	▣	◈	1,0	3,5	6,0	1,3



Fasen und Ausdrehen (Innen)
ab ø8,0 mm
Chamfering and boring
(internal)
as of ø8,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.4545.02**FR**-301
Linke Ausführung - D08.4545.02**FL**-301

Dmin [mm]	κ R&L [°]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	f [mm]	S [mm]	d [mm]	tmax [mm]
8,0	45	0,2	F	D08.4545.02FR	▣	▣	◈	1,8	4,8	3,5	6,0	1,4
8,0	45	0,2	F	D08.4545.02FL	▣	▣	◈	1,8	4,8	3,5	6,0	1,4

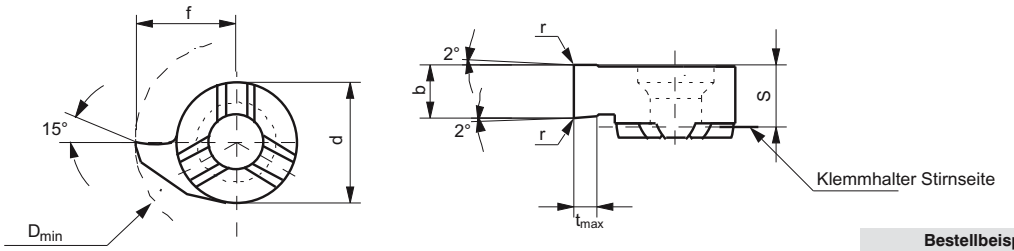


Ausdrehen und kopieren
(Innen)
ab ø7,8 mm

Boring and copying (internal)
as of ø7,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.1846.02**YR**-301
Linke Ausführung - D08.1846.02**YL**-301

Dmin [mm]	κ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	b [mm]	S [mm]	d [mm]
7,8	18	4,65	0,2	Y	D08.1846.02YR	▣	▣	◈	---	3,5	6,0
7,8	18	4,65	0,2	Y	D08.1846.02YL	▣	▣	◈	---	3,5	6,0

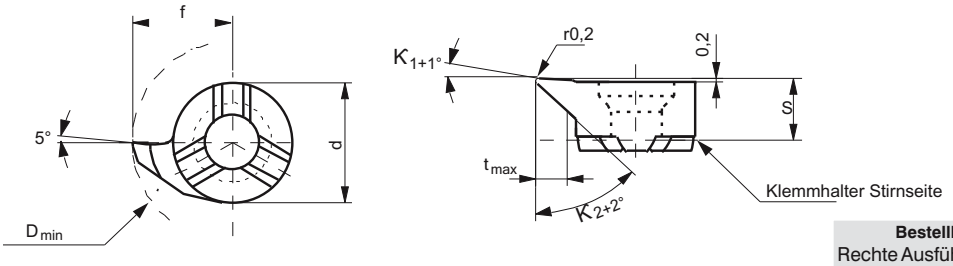


NC - Feindrehen (innen)
ab ø8,0 mm

NC - profiling (internal)
as of ø8,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.0150.02**NR**-301
Linke Ausführung - D08.0150.02**NL**-301

Dmin [mm]	b + 0,03 [mm]	r [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
8,0	1,5	0,2	N	D08.0150.02NR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	2,0	0,2	N	D08.0200.02NR	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	1,5	0,2	N	D08.0150.02NL	▣	▣	◈	3,3	4,8	6,0	1,0
8,0	2,0	0,2	N	D08.0200.02NL	▣	▣	◈	3,3	4,8	6,0	1,0

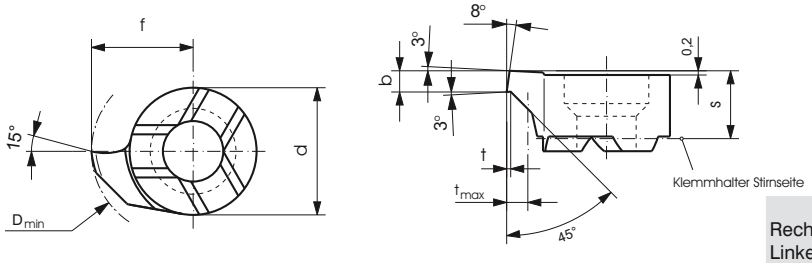


Ausdrehen und Innenfreistiche
(DIN 509)
ab ø7,8 mm

Boring and profiling undercuts
(DIN 509)
as of ø7,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.4746.02**VR**-301
Linke Ausführung - D08.4746.02**VL**-301

Dmin [mm]	κ1 °	κ2 °	f [mm]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	tmax [mm]	d [mm]
7,8	3	47	4,65	0,2	Y	D08.4746.02YR	▣	▣	◈	3,5	1,2	6,0
7,8	3	47	4,65	0,2	Y	D08.4746.02YL	▣	▣	◈	3,5	1,2	6,0

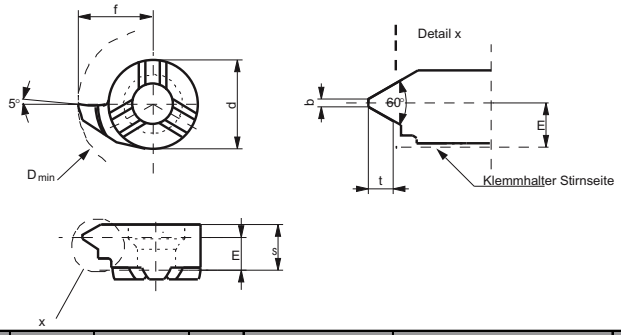


Vorstechen und Fasen
ab ø8,0 mm

Pregrooving and chamfering
as of ø8,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.0810.00**PR**-301
Linke Ausführung - D08.0810.00**PL**-301

Dmin [mm]	Hauptschneiden κ [°]	b [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	t [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
8,0	8	1,0	00	P	D08.0810.00PR	▣	▣	◈	0,2	3,3	4,8	6,0	1,0
8,0	8	1,0	00	P	D08.0810.00PL	▣	▣	◈	0,2	3,3	4,8	6,0	1,0



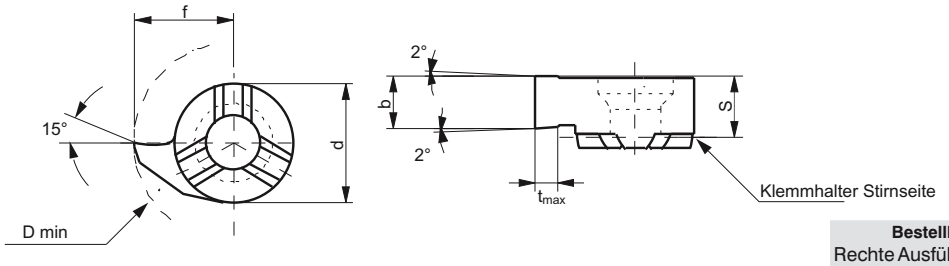
Gewindedrehen (Innen)
ab ø8,0 mm
Metrische Gewinde
ISO Teilprofil

Threading (internal)
ab ø8,0 mm
Metric threading
ISO partial profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D08.0815.01**MR**-301
Linke Ausführung - D08.0815.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - standard thread													
8,0	0,95	1,5 - 1,75	01	M	**D08.0815.01MR**	▣	▣	◈	2,5	3,5	4,8	0,18	6,0
8,0	0,95	1,5 - 1,75	01	M	**D08.0815.01ML**	▣	▣	◈	2,5	3,5	4,8	0,18	6,0
Feingewinde - fine-pitch thread													
8,0	0,43	0,5 - 0,75	01	M	**D08.0205.01MR**	▣	▣	◈	2,7	3,5	4,8	0,06	6,0
8,0	0,70	1,0 - 1,25	01	M	**D08.0510.01MR**	▣	▣	◈	2,7	3,5	4,8	0,12	6,0
8,0	0,43	0,5 - 0,75	01	M	**D08.0205.01ML**	▣	▣	◈	2,7	4,3	6,7	0,25	8,0
8,0	0,70	1,0 - 1,25	01	M	**D08.0510.01ML**	▣	▣	◈	2,7	4,3	6,7	0,31	8,0

Schneidplatten D11
Inserts D11

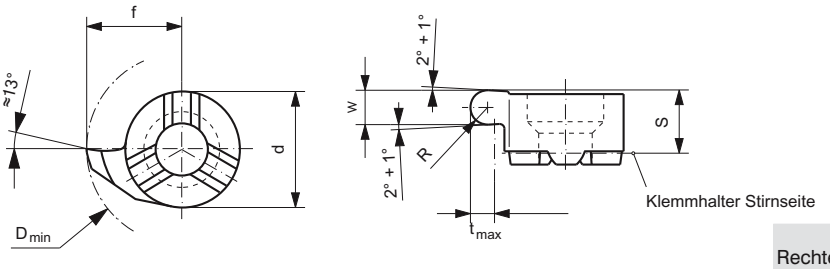


Stechdrehen (Innen)
ab ø11,0 mm

Grooving (internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.0070.00**ZR**-301
Linke Ausführung - D11.0070.00**ZL**-301

Dmin [mm]	Nutenbreite [mm]	b+0,03 [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
Für Seeger-Ringnuten - Circlip grooves												
11,0	0,70	0,73	00	Z	**D11.0070.00ZR**	▣	▣	◈	4,2	6,7	8,0	1,2
11,0	0,80	0,83	00	Z	**D11.0080.00ZR**	▣	▣	◈	4,2	6,7	8,0	1,3
11,0	0,90	0,93	00	Z	**D11.0090.00ZR**	▣	▣	◈	4,2	6,7	8,0	1,5
11,0	1,10	1,20	00	G	**D11.0110.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,30	1,40	00	G	**D11.0130.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,60	1,70	00	G	**D11.0160.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,70	0,73	00	Z	**D11.0070.00ZL**	▣	▣	◈	4,2	6,7	8,0	1,2
11,0	0,80	0,83	00	Z	**D11.0080.00ZL**	▣	▣	◈	4,2	6,7	8,0	1,3
11,0	0,90	0,93	00	Z	**D11.0090.00ZL**	▣	▣	◈	4,2	6,7	8,0	1,5
11,0	1,10	1,20	00	G	**D11.0110.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,30	1,40	00	G	**D11.0130.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,60	1,70	00	G	**D11.0160.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
Stechdrehen allgemein - grooving												
11,0	---	1,00	00	G	**D11.0100.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	1,50	00	G	**D11.0150.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	2,00	00	G	**D11.0200.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	2,50	00	G	**D11.0250.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	3,00	00	G	**D11.0300.00GR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	1,00	00	G	**D11.0100.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	1,50	00	G	**D11.0150.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	2,00	00	G	**D11.0200.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	2,50	00	G	**D11.0250.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	---	3,00	00	G	**D11.0300.00GL**	▣	▣	◈	4,2	6,7	8,0	2,3

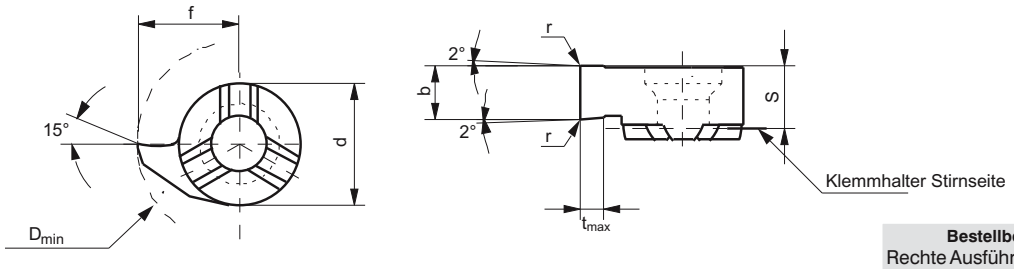


Vollradius Stechdrehen (Innen)
ab ø11,0 mm

full nose radius grooving (internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.0004.08**VR**-301
Linke Ausführung - D11.0004.08**VL**-301

Dmin [mm]	R [mm]	w+0,05 [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
11,0	0,4	0,8	V	**D11.0004.08VR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,6	1,2	V	**D11.0006.12VR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,9	1,8	V	**D11.0009.18VR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,0	2,0	V	**D11.0010.20VR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,5	3,0	V	**D11.0015.30VR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,4	0,8	V	**D11.0004.08VL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,6	1,2	V	**D11.0006.12VL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	0,9	1,8	V	**D11.0009.18VL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,0	2,0	V	**D11.0010.20VL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,5	3,0	V	**D11.0015.30VL**	▣	▣	◈	4,2	6,7	8,0	2,3

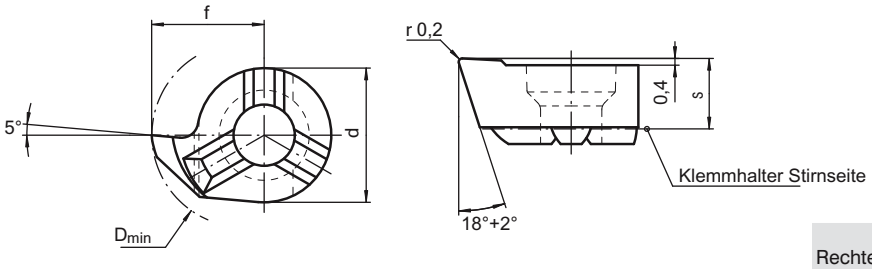


NC-Feindrehen (Innen)
ab ø11,0 mm

NC-profiling (internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.0150.02**NR**-301
Linke Ausführung - D11.0150.02**NL**-301

Dmin [mm]	b+0,03 [mm]	r [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
11,0	1,5	0,2	N	**D11.0150.02NR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	2,0	0,2	N	**D11.0200.02NR**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	1,5	0,2	N	**D11.0150.02NL**	▣	▣	◈	4,2	6,7	8,0	2,3
11,0	2,0	0,2	N	**D11.0200.02NL**	▣	▣	◈	4,2	6,7	8,0	2,3

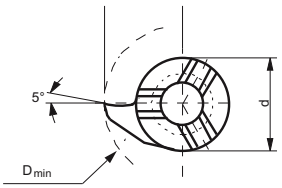


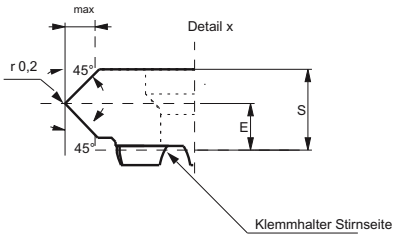
Ausdrehen und kopieren (Innen)
ab ø11,0 mm

Boring and copying (internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.1855.02**VR**-301
Linke Ausführung - D11.1855.02**VL**-301

Dmin [mm]	∢ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	b [mm]	S [mm]	d [mm]
9,8	18	5,50	0,2	Y	**D11.1855.02YR**	▣	▣	◈	---	4,2	8,0
11,0	18	6,70	0,2	Y	**D11.1867.02YR**	▣	▣	◈	---	4,2	8,0
9,8	18	5,50	0,2	Y	**D11.1855.02YL**	▣	▣	◈	---	4,2	8,0
11,0	18	6,70	0,2	Y	**D11.1867.02YL**	▣	▣	◈	---	4,2	8,0



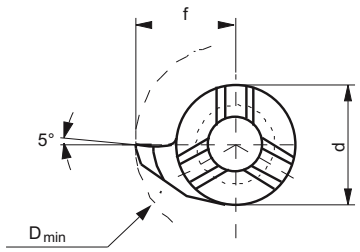


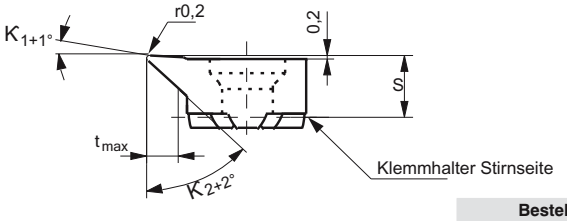
Fasen und Ausdrehen (Innen)
ab ø11,0 mm

Chamfering and boring
(internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.4545.02**FR**-301
Linke Ausführung - D11.4545.02**FL**-301

Dmin [mm]	∠ R&L [°]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	f [mm]	S [mm]	d [mm]	tmax [mm]
11,0	45	0,20	F	**D11.4545.02FR**	▣	▣	◈	2,2	6,7	4,3	8,0	1,5
11,0	45	0,20	F	**D11.4545.02FL**	▣	▣	◈	2,2	6,7	4,3	8,0	1,5



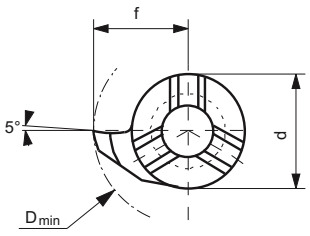


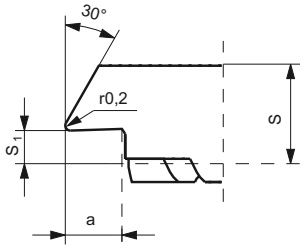
Drehen und kopieren
(Innen)
ab ø11,0 mm

Turning and copying
(Internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.2755.02**YR**-301
Linke Ausführung - D11.2755.02**YL**-301

Dmin [mm]	∠ K1 °	∠ K2 °	f [mm]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	tmax [mm]	d [mm]
11,0	5	30	6,70	0,2	Y	**D11.2755.02YR**	▣	▣	◈	4,2	2,3	8,0
11,0	5	30	6,70	0,2	Y	**D11.2755.02YL**	▣	▣	◈	4,2	2,3	8,0



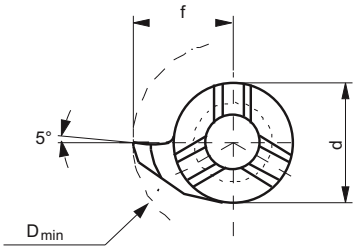


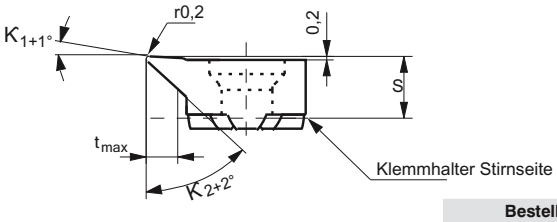
Rückwärtsdrehen (Innen)
ab ø11,0 mm

Boring by backward motion
(internal)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.3067.02**YR**-301
Linke Ausführung - D11.3067.02**YL**-301

Dmin [mm]	∠ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S1 [mm]	S [mm]	d [mm]	a [mm]
11,0	30	6,70	0,2	Y	**D11.3067.02YR**	▣	▣	◈	1,6	4,3	8,0	2,3
11,0	30	6,70	0,2	Y	**D11.3067.02YL**	▣	▣	◈	1,6	4,3	8,0	2,3

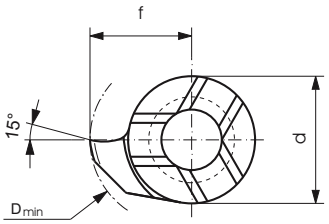


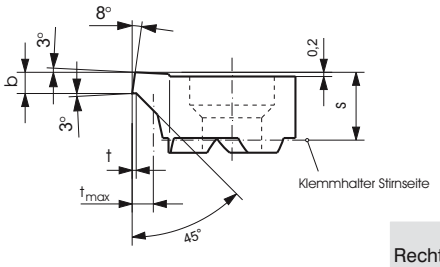


Ausdrehen und Innenfreistiche
(DIN 509)
ab ø11,0 mm

Boring and profiling undercuts
(DIN 509)
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.4767.02**YR**-301



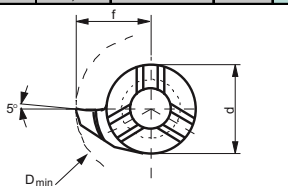


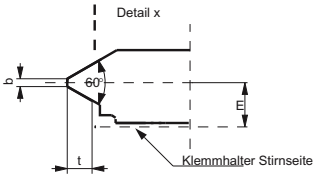
Vorstechen und Fasen
ab ø11,0 mm

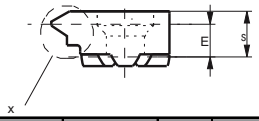
Pregrooving and chamfering
as of ø11,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.0810.00**PR**-301
Linke Ausführung - D11.0810.00**PL**-301

Dmin [mm]	Hauptschneiden ⌷ [°]	b [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	t [mm]	S [mm]	f [mm]	f [mm]
11,0	8	1,0	00	P	**D11.0810.00PR**	▣	▣	◈	0,2	4,2	6,7	8,0
11,0	8	1,0	00	P	**D11.0810.00PL**	▣	▣	◈	0,2	4,2	6,7	8,0





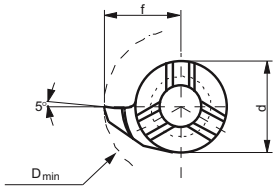


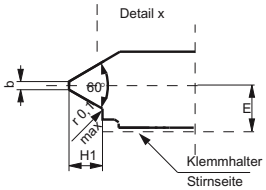
Gewindedrehen (Innen)
ab ø11,0 mm
Metrische Gewinde
ISO Teilprofil

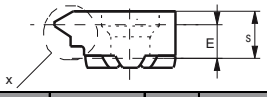
Threading (internal)
as of ø11,0 mm
Metric threading
ISO partial profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.1020.01**MR**-301
Linke Ausführung - D11.1020.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
	Regelgewinde - standard thread												
11,0	1,08	2,0	01	M	**D11.1020.01MR**	▣	▣	◈	3,0	4,3	6,7	0,25	8,0
11,0	1,35	2,5	01	M	**D11.1325.01MR**	▣	▣	◈	3,0	4,3	6,7	0,31	8,0
11,0	1,08	2,0	01	M	**D11.1020.01ML**	▣	▣	◈	3,0	4,3	6,7	0,25	8,0
11,0	1,35	2,5	01	M	**D11.1325.01ML**	▣	▣	◈	3,0	4,3	6,7	0,31	8,0
	Feingewinde - fine-pitch thread												
11,0	0,41	0,5 - 0,75	01	M	**D11.0205.01MR**	▣	▣	◈	3,5	4,3	6,7	0,06	8,0
11,0	0,55	1,0	01	M	**D11.0510.01MR**	▣	▣	◈	3,5	4,3	6,7	0,12	8,0
11,0	0,81	1,5	01	M	**D11.0815.01MR**	▣	▣	◈	3,5	4,3	6,7	0,18	8,0
11,0	0,41	0,5 - 0,75	01	M	**D11.0205.01ML**	▣	▣	◈	3,5	4,3	6,7	0,06	8,0
11,0	0,55	1,0	01	M	**D11.0510.01ML**	▣	▣	◈	3,5	4,3	6,7	0,12	8,0
11,0	0,81	1,5	01	M	**D11.0815.01MR**	▣	▣	◈	3,5	4,3	6,7	0,18	8,0





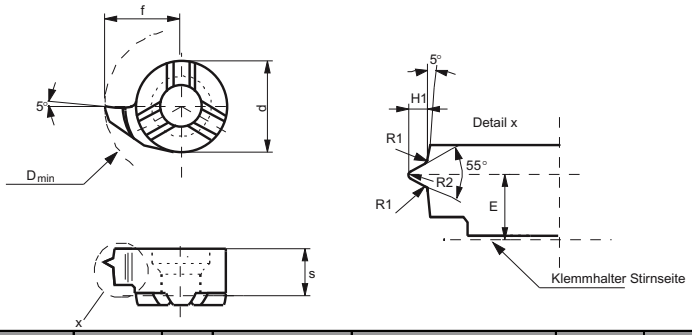


Gewindedrehen (Innen)
ab ø11,0 mm
Metrische Gewinde
ISO Vollprofil

Threading (internal)
as of ø11,0 mm
Metric threading
ISO full profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.1020.02**MR**-301
Linke Ausführung - D11.1020.02**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
	Regelgewinde - standard thread												
11,0	1,08	2,0	02	M	**D11.1020.02MR**	▣	▣	◈	3,2	4,3	6,7	0,25	8,0
11,0	1,35	2,5	02	M	**D11.1325.02MR**	▣	▣	◈	3,0	4,3	6,7	0,31	8,0
11,0	1,62	3,0	02	M	**D11.1630.02MR**	▣	▣	◈	2,9	4,3	6,7	0,37	8,0
11,0	1,08	2,0	02	M	**D11.1020.02ML**	▣	▣	◈	3,2	4,3	6,7	0,25	8,0
11,0	1,35	2,5	02	M	**D11.1325.02ML**	▣	▣	◈	3,0	4,3	6,7	0,31	8,0
11,0	1,62	3,0	02	M	**D11.1630.02ML**	▣	▣	◈	2,9	4,3	6,7	0,37	8,0
	Feingewinde - fine-pitch thread												
11,0	0,54	1,0	02	M	**D11.0510.02MR**	▣	▣	◈	3,5	4,3	6,7	0,12	8,0
11,0	0,81	1,5	02	M	**D11.0815.02MR**	▣	▣	◈	3,5	4,3	6,7	0,18	8,0
11,0	0,54	1,0	02	M	**D11.0510.02MR**	▣	▣	◈	3,5	4,3	6,7	0,12	8,0
11,0	0,81	1,5	02	M	**D11.0815.02MR**	▣	▣	◈	3,5	4,3	6,7	0,18	8,0

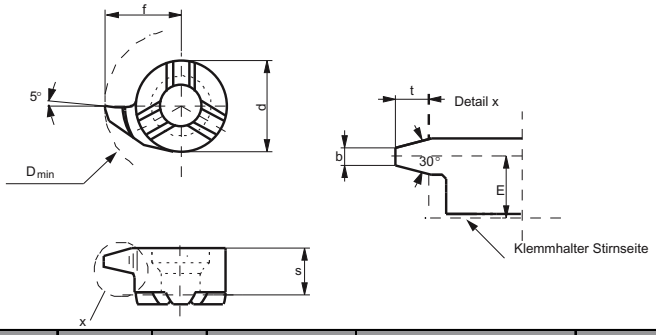


Gewindedrehen (Innen)
ab ø11,0 mm
Whitwoth Vollprofil

Threading (internal)
as of ø11,0 mm
Whitworth full profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.0813.19**MR**-301
Linke Ausführung - D11.0813.19**ML**-301

Dmin [mm]	H1 [mm]	Steigung [mm]	Gg/Zoll	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	R1 [mm]	R2 [mm]	E [mm]	S [mm]	f [mm]	d [mm]
11,0	0,85	1,337	19	M	D11.0813.19MR	▣	▣	◈	0,18	0,18	2,7	4,30	6,7	8,0
11,0	1,16	1,814	14	M	D11.1118.14MR	▣	▣	◈	0,24	0,24	3,0	4,30	6,7	8,0
11,0	0,85	1,337	19	M	D11.0813.19ML	▣	▣	◈	0,18	0,18	2,7	4,30	6,7	8,0
11,0	1,16	1,814	14	M	D11.1118.14MR	▣	▣	◈	0,24	0,24	3,0	4,30	6,7	8,0



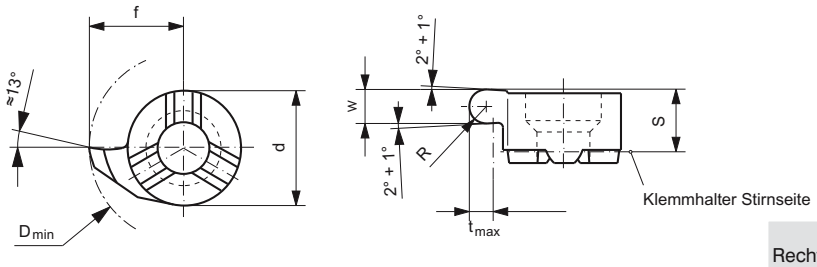
Gewindedrehen (Innen)
ab ø11,0 mm
Trapezgewinde

Threading (internal)
as of ø11,0 mm
Acme thread

Bestellbeispiel / Sample order:
Rechte Ausführung - D11.1015.01**MR**-301
Linke Ausführung - D11.1015.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
11,0	0,90	1,5	01	M	D11.1015.01MR	▣	▣	◈	3,70	4,30	6,7	0,47	8,0
11,0	1,25	2,0	01	M	D11.1220.01MR	▣	▣	◈	3,50	4,30	6,7	0,60	8,0
11,0	1,75	3,0	01	M	D11.1730.01MR	▣	▣	◈	3,20	4,30	6,7	0,96	8,0
11,0	2,25	4,0	01	M	D11.2240.01MR	▣	▣	◈	2,60	3,95	6,7	1,33	8,0
11,0	0,90	1,5	01	M	D11.1015.01ML	▣	▣	◈	3,70	4,30	6,7	0,47	8,0
11,0	1,25	2,0	01	M	D11.1220.01ML	▣	▣	◈	3,50	4,30	6,7	0,60	8,0
11,0	1,75	3,0	01	M	D11.1730.01ML	▣	▣	◈	3,20	4,30	6,7	0,96	8,0
11,0	2,25	4,0	01	M	D11.2240.01ML	▣	▣	◈	2,60	3,95	6,7	1,33	8,0

Schneidplatten D14
Inserts D14

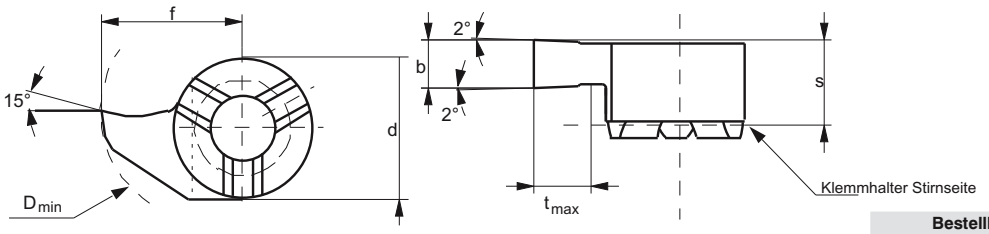


Vollradius Stechdrehen (Innen)
ab ø14,0 mm

full nose radius Grooving
(internal)
as of ø 14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0006.12**VR**-301
Linke Ausführung - D14.0006.12**VL**-301

Dmin [mm]	R [mm]	w + 0,05 [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
14,0	0,6	1,2	V	D14.0006.12VR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	0,9	1,8	V	D14.0009.18VR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,0	2,0	V	D14.0010.20VR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,1	2,2	V	D14.0011.22VR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,5	3,0	V	D14.0015.30VR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	0,6	1,2	V	D14.0006.12VL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	0,9	1,8	V	D14.0009.18VL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,0	2,0	V	D14.0010.20VL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,1	2,2	V	D14.0011.22VL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,5	3,0	V	D14.0015.30VL	▣	▣	◈	5,3	9,0	9,0	4,0

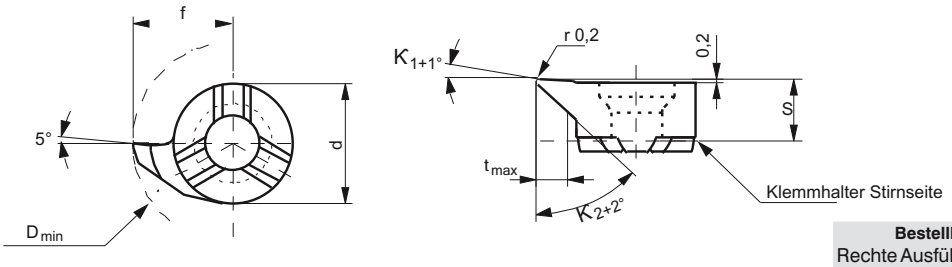


Stechdrehen (Innen)
ab ø14,0 mm

Grooving (Internal)
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0070.00**ZR**-301
Linke Ausführung - D14.0070.00**ZL**-301

Dmin [mm]	Nutenbreite [mm]	b+0,03 [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
Für Seeger-Ringnuten - Circlip grooves												
14,0	0,70	0,73	00	Z	D14.0070.00ZR	▣	▣	◈	5,3	9,0	9,0	1,2
14,0	0,80	0,83	00	Z	D14.0080.00ZR	▣	▣	◈	5,3	9,0	9,0	1,3
14,0	0,90	0,93	00	Z	D14.0090.00ZR	▣	▣	◈	5,3	9,0	9,0	1,5
14,0	1,10	1,20	00	G	D14.0110.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,30	1,40	00	G	D14.0130.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,60	1,70	00	G	D14.0160.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	0,70	0,73	00	Z	D14.0070.00ZL	▣	▣	◈	5,3	9,0	9,0	1,2
14,0	0,80	0,83	00	Z	D14.0080.00ZL	▣	▣	◈	5,3	9,0	9,0	1,3
14,0	0,90	0,93	00	Z	D14.0090.00ZL	▣	▣	◈	5,3	9,0	9,0	1,5
14,0	1,10	1,20	00	G	D14.0110.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,30	1,40	00	G	D14.0130.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,60	1,70	00	G	D14.0160.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
Stechdrehen allgemein - grooving												
14,0	---	1,50	00	G	D14.0150.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	2,00	00	G	D14.0200.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	2,50	00	G	D14.0250.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	3,00	00	G	D14.0300.00GR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	1,50	00	G	D14.0150.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	2,00	00	G	D14.0200.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	2,50	00	G	D14.0250.00GL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	---	3,00	00	G	D14.0300.00GL	▣	▣	◈	5,3	9,0	9,0	4,0

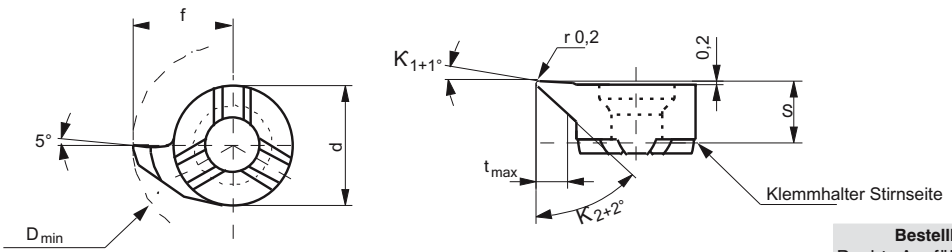


Ausdrehen und Innenfreistiche
(DIN 509)
ab ø13,7 mm

Boring and profiling undercuts
(DIN 509)
as of ø13,7 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.4787.02**YR**-301
Linke Ausführung - D14.4787.02**YL**-301

Dmin [mm]	κ 1 [mm]	κ 2 [mm]		Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	tmax [mm]	d [mm]
13,7	3	47	8,70	0,2	Y	D14.4787.02YR	▣	▣	◈	5,3	3,0	9,0
13,7	3	47	8,70	0,2	Y	D14.4787.02YL	▣	▣	◈	5,3	3,0	9,0

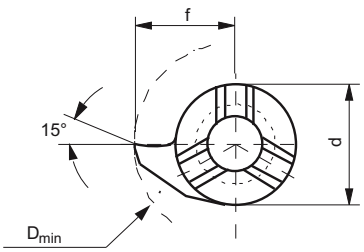


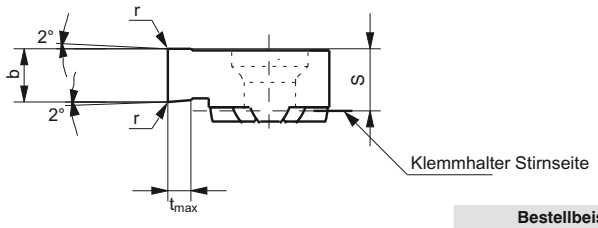
Drehen und kopieren (Innen)
ab ø13,7 mm

Turning and copying (internal)
as of ø13,7 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.3555.01**YR**-301
Linke Ausführung - D14.3555.02**YL**-301

Dmin [mm]	κ 1 °	κ 2 °	f [mm]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	tmax [mm]	d [mm]
13,7	5	30	8,70	0,2	Y	D14.3555.02YR	▣	▣	◈	5,3	4,0	9,0
13,7	5	30	8,70	0,2	Y	D14.3555.02YL	▣	▣	◈	5,3	4,0	9,0



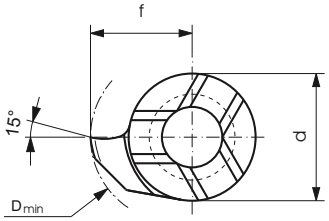


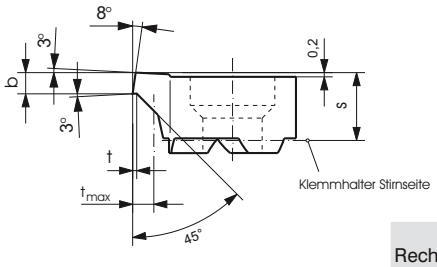
NC-Feindrehen (Innen)
ab ø14,0 mm

NC-profiling (Internal)
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0150.02**NR**-301
Linke Ausführung - D14.0150.02**NL**-301

Dmin [mm]	b + 0,03 [mm]	r [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
14,0	1,5	0,2	N	D14.0150.02NR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	2,0	0,2	N	D14.0200.02NR	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	1,5	0,2	N	D14.0150.02NL	▣	▣	◈	5,3	9,0	9,0	4,0
14,0	2,0	0,2	N	D14.0200.02NL	▣	▣	◈	5,3	9,0	9,0	4,0



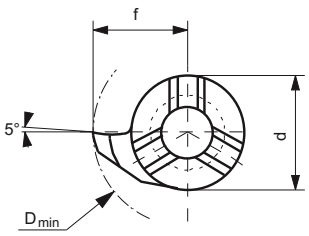


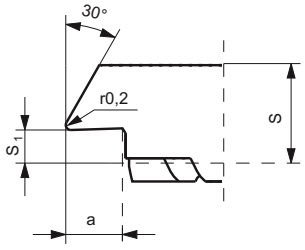
Vorstechen und Fasen
ab ø14,0 mm

Pregrooving and chamfering
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0810.00**PR**-301
Linke Ausführung - D14.0810.00**PL**-301

Dmin [mm]	Hauptschneiden ∠ [°]	b [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	t [mm]	S [mm]	f [mm]	f [mm]	tmax [mm]
14,0	8	1,0	00	P	D14.0810.00PR	▣	▣	◈	0,2	5,3	9,0	9,0	1,5
14,0	8	1,0	00	P	D14.0810.00PL	▣	▣	◈	0,2	5,3	9,0	9,0	1,5



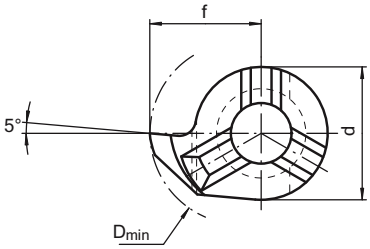


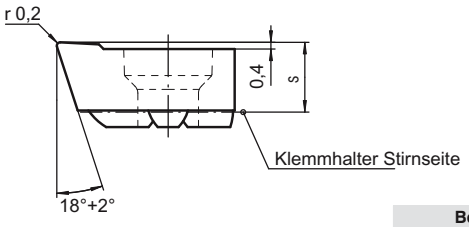
Rückwärtsdrehen (Innen)
ab ø13,8 mm

Boring by backward motion (Internal)
as of ø13,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.3087.02**YR**-301
Linke Ausführung - D14.3087.02**YL**-301

Dmin [mm]	∠ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S1 [mm]	S [mm]	d [mm]
13,8	30	8,70	0,2	Y	D14.3087.02YR	▣	▣	◈	2,4	5,4	9,0
13,8	30	8,70	0,2	Y	D14.3087.02YL	▣	▣	◈	2,4	5,4	9,0



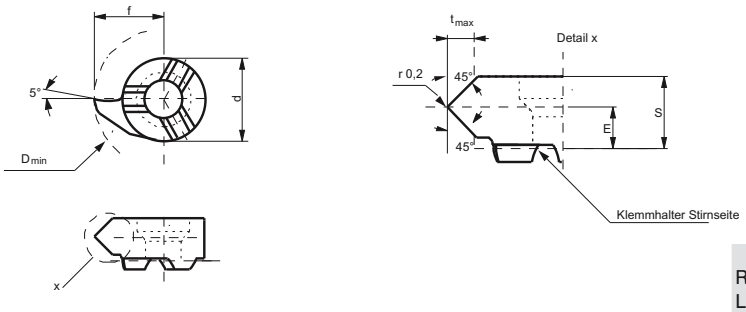


Ausdrehen und kopieren (Innen)
ab ø14,0 mm

Boring and copying (internal)
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1887.02**YR**-301
Linke Ausführung - D14.1887.02**YL**-301

Dmin [mm]	∠ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	b [mm]	S [mm]	d [mm]
13,8	18	8,70	0,2	Y	D14.1887.02YR	▣	▣	◈	---	5,3	9,0
13,8	18	8,70	0,2	Y	D14.1887.02YR	▣	▣	◈	---	5,3	9,0

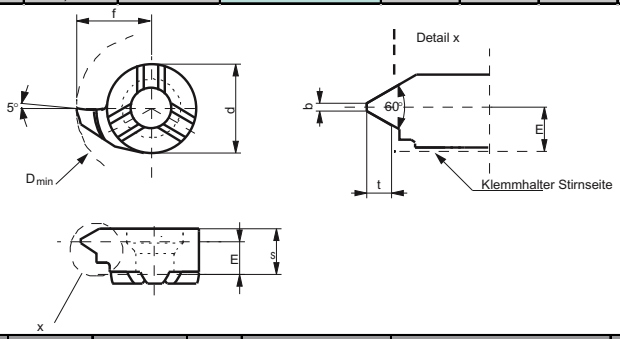


Fasen und Ausdrehen (Innen)
ab ø14,0 mm

Chamfering and boring
(Internal)
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.4545.02**FR**-301
Linke Ausführung - D14.4545.02**FL**-301

Dmin [mm]	R&L [°]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	f [mm]	S [mm]	d [mm]	tmax [mm]
14,0	45	0,20	F	**D14.4545.02FR**	▣	▣	◈	2,8	9,0	5,4	9,0	1,5
14,0	45	0,20	F	**D14.4545.02FL**	▣	▣	◈	2,8	9,0	5,4	9,0	1,5

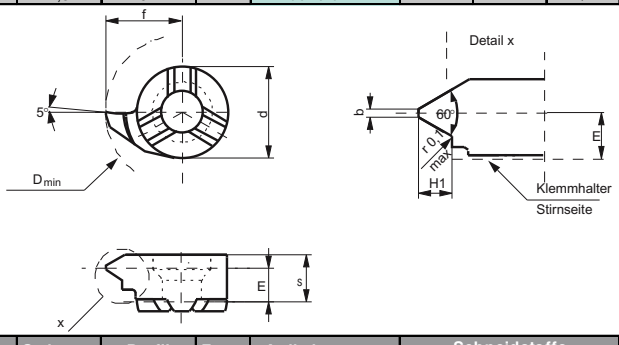


Gewindedrehen (Innen)
ab ø14,0 mm
Metrische Gewinde
ISO Teilprofil

Threading (Internal)
as of ø14.0 mm
Metric threading
ISO partial profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1020.01**MR**-301
Linke Ausführung - D14.1020.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - standard thread													
14,0	1,08	2,0	01	M	**D14.1020.01MR**	▣	▣	◈	4,2	5,4	9,0	0,25	9,0
14,0	1,35	2,5	01	M	**D14.1325.01MR**	▣	▣	◈	4,7	5,4	9,0	0,31	9,0
14,0	1,08	2,0	01	M	**D14.1020.01ML**	▣	▣	◈	4,2	5,4	9,0	0,25	9,0
14,0	1,35	2,5	01	M	**D14.1325.01ML**	▣	▣	◈	4,7	5,4	9,0	0,31	9,0
Feingewinde - fine-pitch thread													
14,0	0,55	1,0	01	M	**D14.0510.01MR**	▣	▣	◈	4,7	5,4	9,0	0,12	9,0
14,0	0,81	1,5	01	M	**D14.0815.01MR**	▣	▣	◈	4,5	5,4	9,0	0,18	9,0
14,0	0,55	1,0	01	M	**D14.0510.01ML**	▣	▣	◈	4,7	5,4	9,0	0,12	9,0
14,0	0,81	1,5	01	M	**D14.0815.01ML**	▣	▣	◈	4,5	5,4	9,0	0,18	9,0

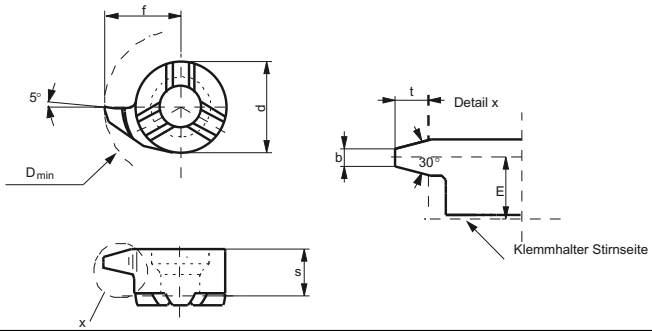


Gewindedrehen (innen)
ab ø14.0 mm
Metrische Gewinde
ISO Vollprofil

Threading (Internal)
as of ø14.0 mm
Metric threading
ISO full profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1020.02**MR**-301
Linke Ausführung - D14.1020.02**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - standard thread													
14,0	1,08	2,0	02	M	**D14.1020.02MR**	▣	▣	◈	4,2	5,4	9,0	0,25	9,0
14,0	1,35	2,5	02	M	**D14.1325.02MR**	▣	▣	◈	4,7	5,4	9,0	0,31	9,0
14,0	1,08	2,0	02	M	**D14.1020.02ML**	▣	▣	◈	4,2	5,4	9,0	0,25	9,0
14,0	1,35	2,5	02	M	**D14.1325.02ML**	▣	▣	◈	4,7	5,4	9,0	0,31	9,0
Feingewinde - fine-pitch thread													
14,0	0,27	0,5	02	M	**D14.0205.02MR**	▣	▣	◈	4,7	5,4	9,0	0,06	9,0
14,0	0,54	1,0	02	M	**D14.0510.02MR**	▣	▣	◈	4,7	5,4	9,0	0,12	9,0
14,0	0,81	1,5	02	M	**D14.0815.02MR**	▣	▣	◈	4,5	5,4	9,0	0,18	9,0
14,0	0,27	0,5	02	M	**D14.0205.02ML**	▣	▣	◈	4,7	5,4	9,0	0,06	9,0
14,0	0,54	1,0	02	M	**D14.0510.02ML**	▣	▣	◈	4,7	5,4	9,0	0,12	9,0
14,0	0,81	1,5	02	M	**D14.0815.02ML**	▣	▣	◈	4,5	5,4	9,0	0,18	9,0

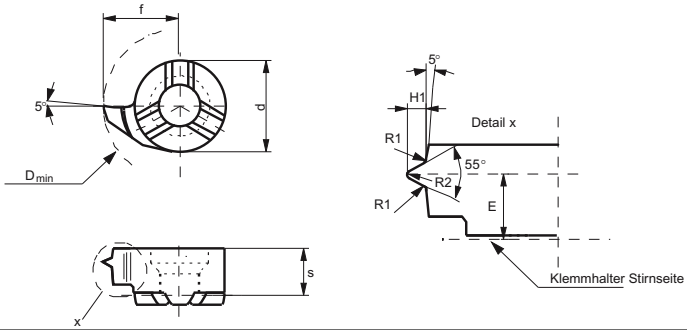


Gewindedrehen (Innen)
ab ø14,0 mm
Trapezgewinde

Threading (Internal)
as of ø14,0 mm
Acme thread

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1220.01**MR**-301
Linke Ausführung - D14.1220.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
14,0	1,25	2,0	01	M	**D14.1220.01MR**	▣	▣	◈	4,30	5,30	9,0	0,60	9,0
14,0	1,75	3,0	01	M	**D14.1730.01MR**	▣	▣	◈	4,00	5,30	9,0	0,96	9,0
14,0	2,25	4,0	01	M	**D14.2240.01MR**	▣	▣	◈	3,60	5,30	9,0	1,33	9,0
14,0	2,75	5,0	01	M	**D14.2750.01MR**	▣	▣	◈	3,30	5,30	9,0	1,69	9,0
14,0	1,25	2,0	01	M	**D14.1220.01ML**	▣	▣	◈	4,30	5,30	9,0	0,60	9,0
14,0	1,75	3,0	01	M	**D14.1730.01ML**	▣	▣	◈	4,00	5,30	9,0	0,96	9,0
14,0	2,25	4,0	01	M	**D14.2240.01ML**	▣	▣	◈	3,60	5,30	9,0	1,33	9,0
14,0	2,75	5,0	01	M	**D14.2750.01ML**	▣	▣	◈	3,30	5,30	9,0	1,69	9,0

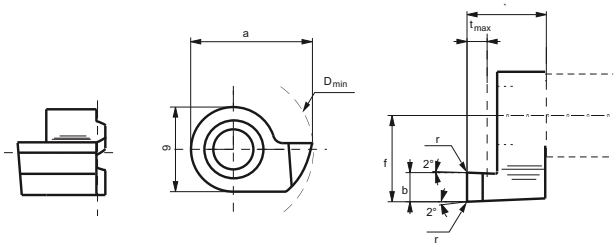


Gewindedrehen (Innen)
ab ø14,0 mm
Vollprofil Whitworth

Threading (Internal)
as of ø14,0 mm
Full profile Whitworth

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0813.19**MR**-301
Linke Ausführung - D14.0813.19**ML**-301

Dmin [mm]	H1 [mm]	Steigung [mm]	Gg/Zoll	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	R1 [mm]	R2 [mm]	E [mm]	S [mm]	f [mm]	d [mm]
14,0	0,85	1,337	19	M	**D14.0813.19MR**	▣	▣	◈	0,18	0,18	3,8	5,35	9,0	9,0
14,0	1,16	1,814	14	M	**D14.1118.14MR**	▣	▣	◈	0,24	0,24	3,6	5,35	9,0	9,0
14,0	0,85	1,337	19	M	**D14.0813.19ML**	▣	▣	◈	0,18	0,18	3,8	5,35	9,0	9,0
14,0	1,16	1,814	14	M	**D14.1118.14ML**	▣	▣	◈	0,24	0,24	3,6	5,35	9,0	9,0

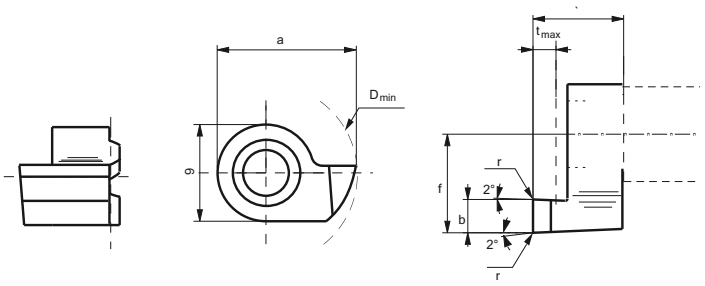


Axialstechen
ab ø14,0 mm

Face-grooving
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1410.00**AR**-301
Linke Ausführung - D14.1410.00**AL**-301

Dmin [mm]	a [mm]	b + 0,03 [mm]	r	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	tmax [mm]	f [mm]	S [mm]
14,0	13,5	1,0	---	A	**D14.1410.00AR**	▣	▣	◈	1,5	9,0	8,3
14,0	13,5	1,5	0,2	A	**D14.1415.02AR**	▣	▣	◈	2,5	9,0	8,3
14,0	13,5	2,0	0,2	A	**D14.1420.02AR**	▣	▣	◈	3,0	9,0	8,3
14,0	13,5	2,5	0,2	A	**D14.1425.02AR**	▣	▣	◈	3,0	9,0	8,3
14,0	13,5	3,0	0,2	A	**D14.1430.02AR**	▣	▣	◈	3,0	9,0	8,3
14,0	13,5	1,0	---	A	**D14.1410.00AL**	▣	▣	◈	1,5	9,0	8,3
14,0	13,5	1,5	0,2	A	**D14.1415.02AL**	▣	▣	◈	2,5	9,0	8,3
14,0	13,5	2,0	0,2	A	**D14.1420.02AL**	▣	▣	◈	3,0	9,0	8,3
14,0	13,5	2,5	0,2	A	**D14.1425.02AL**	▣	▣	◈	3,0	9,0	8,3
14,0	13,5	3,0	0,2	A	**D14.1430.02AL**	▣	▣	◈	3,0	9,0	8,3

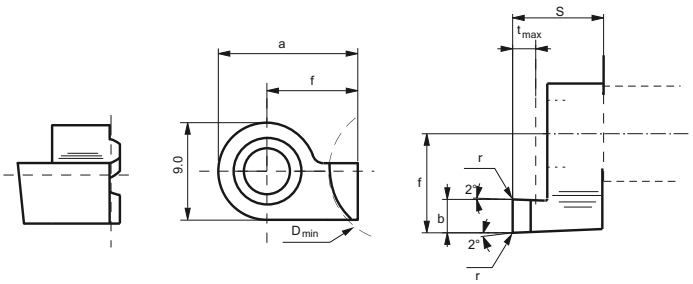


Axialstechen
ab ø14,0 mm

Face-grooving
as of ø14,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1420.52**AR**-301
Linke Ausführung - D14.1420.52**AL**-301

Dmin [mm]	a [mm]	b+0,03 [mm]	r	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	tmax [mm]	f [mm]	S [mm]
14,0	13,5	2,0	0,2	A	D14.1420.52AR	▣	▣	◈	5,0	9,0	10,3
14,0	13,5	2,5	0,2	A	D14.1425.52AR	▣	▣	◈	5,0	9,0	10,3
14,0	13,5	3,0	0,2	A	D14.1430.52AR	▣	▣	◈	5,0	9,0	10,3
14,0	13,5	2,0	0,2	A	D14.1420.52AL	▣	▣	◈	5,0	9,0	10,3
14,0	13,5	2,5	0,2	A	D14.1425.52AL	▣	▣	◈	5,0	9,0	10,3
14,0	13,5	3,0	0,2	A	D14.1430.52AL	▣	▣	◈	5,0	9,0	10,3

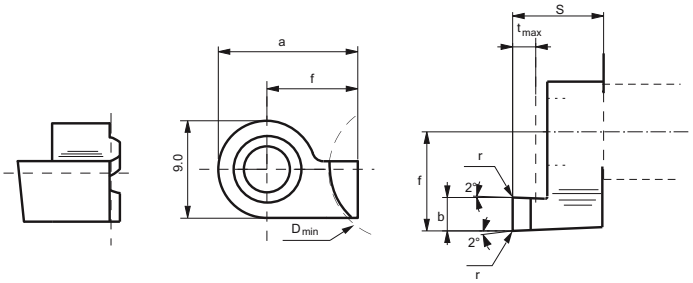


Axialstechen
ab ø12,0 mm

Face-grooving
as of ø12,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1210.00**AR**-301
Linke Ausführung - D14.1210.00**AL**-301

Dmin [mm]	a [mm]	b+0,03 [mm]	r	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	tmax [mm]	f [mm]	S [mm]
12,0	11,5	1,0	---	A	D14.1210.00AR	▣	▣	◈	1,5	7,0	8,3
12,0	12,0	1,5	0,2	A	D14.1215.02AR	▣	▣	◈	2,5	7,5	8,3
12,0	12,5	2,0	0,2	A	D14.1220.02AR	▣	▣	◈	3,0	8,0	8,3
12,0	13,0	2,5	0,2	A	D14.1225.02AR	▣	▣	◈	3,0	8,5	8,3
12,0	13,5	3,0	0,2	A	D14.1230.02AR	▣	▣	◈	3,0	9,0	8,3
12,0	11,5	1,0	---	A	D14.1210.00AL	▣	▣	◈	1,5	7,0	8,3
12,0	12,0	1,5	0,2	A	D14.1215.02AL	▣	▣	◈	2,5	7,5	8,3
12,0	12,5	2,0	0,2	A	D14.1220.02AL	▣	▣	◈	3,0	8,0	8,3
12,0	13,0	2,5	0,2	A	D14.1225.02AL	▣	▣	◈	3,0	8,5	8,3
12,0	13,5	3,0	0,2	A	D14.1230.02AL	▣	▣	◈	3,0	9,0	8,3

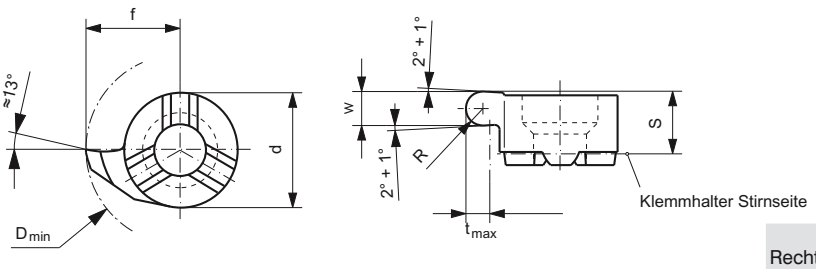


Axialstechen
ab ø12,0 mm

Face-grooving
as of ø12,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.1220.52**AR**-301
Linke Ausführung - D14.1220.52**AL**-301

Dmin [mm]	a [mm]	b+0,03 [mm]	r	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	tmax [mm]	f [mm]	S [mm]
12,0	12,5	2,0	0,2	A	D14.1220.52AR	▣	▣	◈	5,0	8,0	10,3

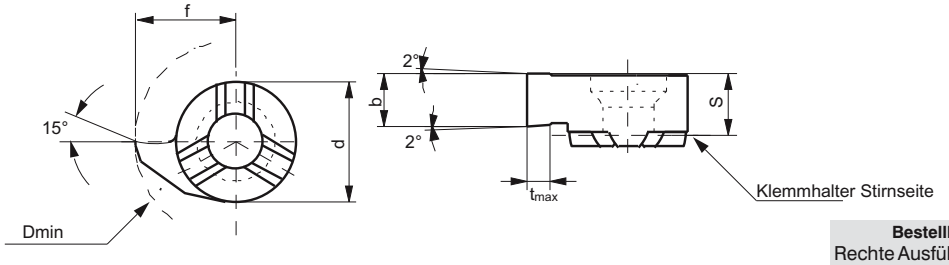


Vollradius Stechdrehen (Innen)
ab ø16,0 mm

full nose radius grooving
(Internal)
as of ø16,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.0009.18**VR**-301
Linke Ausführung - D16.0009.18**VL**-301

Dmin [mm]	R [mm]	w+0,05 [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
16,0	0,9	1,8	V	**D16.0009.18VR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,1	2,2	V	**D16.0011.22VR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,5	3,0	V	**D16.0015.30VR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	2,0	4,0	V	**D16.0020.40VR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	0,9	1,8	V	**D16.0009.18VL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,1	2,2	V	**D16.0011.22VL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,5	3,0	V	**D16.0015.30VL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	2,0	4,0	V	**D16.0020.40VL**	▣	▣	◈	5,4	10,2	11,0	4,3

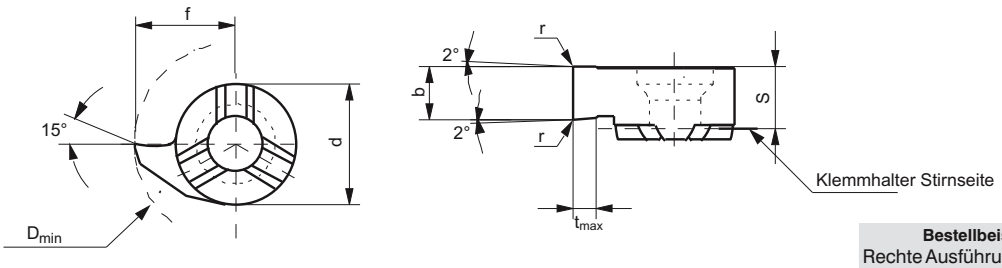


Stechdrehen (Innen)
ab ø16,0 mm

Grooving (Internal)
as of ø16,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.0070.00**ZR**-301
Linke Ausführung - D16.0070.00**ZL**-301

Dmin [mm]	Nutenbreite [mm]	b+0,03 [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
Für Seeger-Ringnuten - Circlip grooves												
16,0	0,70	0,73	00	Z	**D16.0070.00ZR**	▣	▣	◈	5,4	10,2	11,0	1,2
16,0	0,80	0,83	00	Z	**D16.0080.00ZR**	▣	▣	◈	5,4	10,2	11,0	1,3
16,0	0,90	0,93	00	Z	**D16.0090.00ZR**	▣	▣	◈	5,4	10,2	11,0	1,5
16,0	1,10	1,20	00	G	**D16.0110.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,30	1,40	00	G	**D16.0130.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,60	1,70	00	G	**D16.0160.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	0,70	0,73	00	Z	**D16.0070.00ZL**	▣	▣	◈	5,4	10,2	11,0	1,2
16,0	0,80	0,83	00	Z	**D16.0080.00ZL**	▣	▣	◈	5,4	10,2	11,0	1,3
16,0	0,90	0,93	00	Z	**D16.0090.00ZL**	▣	▣	◈	5,4	10,2	11,0	1,5
16,0	1,10	1,20	00	G	**D16.0110.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,30	1,40	00	G	**D16.0130.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	1,60	1,70	00	G	**D16.0160.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
Stechdrehen allgemein - grooving												
16,0	---	1,50	00	G	**D16.0150.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	2,00	00	G	**D16.0200.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	2,50	00	G	**D16.0250.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	3,00	00	G	**D16.0300.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	3,50	00	G	**D16.0350.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	4,00	00	G	**D16.0400.00GR**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	1,50	00	G	**D16.0150.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	2,00	00	G	**D16.0200.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	2,50	00	G	**D16.0250.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	3,00	00	G	**D16.0300.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	3,50	00	G	**D16.0350.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	---	4,00	00	G	**D16.0400.00GL**	▣	▣	◈	5,4	10,2	11,0	4,3

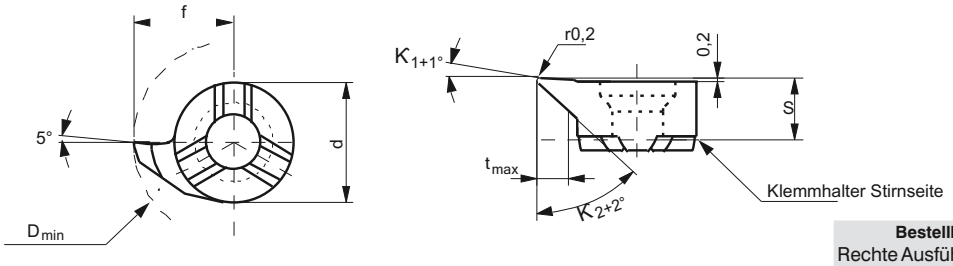


NC-Feindrehen (Innen)
ab ø16,0 mm

NC-profiling (Internal)
as of ø16,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.0200.02**NR**-301
Linke Ausführung - D16.0200.02**NL**-301

Dmin [mm]	b+0,03 [mm]	r [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
16,0	2,0	0,2	N	D16.0200.02NR	▣	▣	◈	5,4	10,2	11,0	4,3
16,0	2,0	0,2	N	D16.0200.02NL	▣	▣	◈	5,4	10,2	11,0	4,3

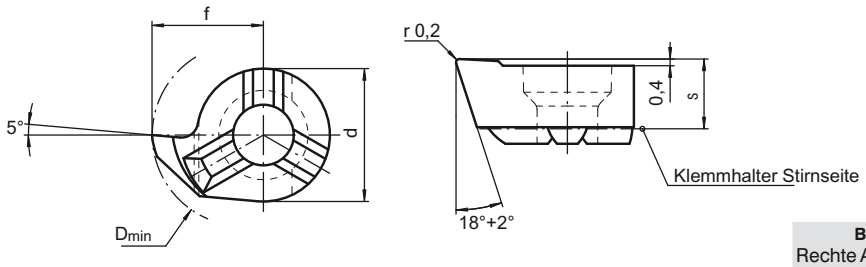


Drehen und kopieren (Innen)
ab ø15,8 mm

Turning and copying (Internal)
as of ø15,8 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.4055.02**YR**-301
Linke Ausführung - D16.4055.02**YL**-301

Dmin [mm]	κ1 °	κ2 °	f [mm]	Ecken Radius [mm]	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	tmax [mm]
15,8	5	30	10,20	0,2	Y	D16.4055.02YR	▣	▣	◈	5,4	4,3
15,8	5	30	10,20	0,2	Y	D16.4055.02YL	▣	▣	◈	5,4	4,3

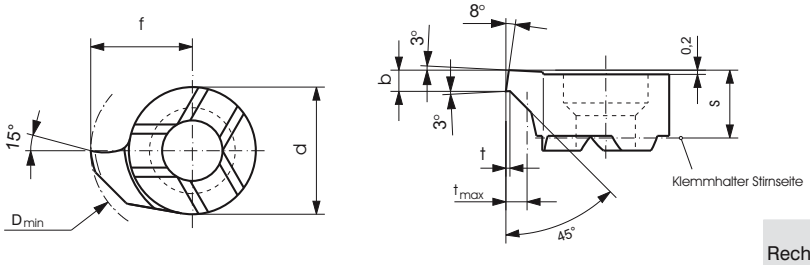


Ausdrehen und kopieren
(Innen)
ab ø16,0 mm

Boring and copying (Internal)
as of ø16,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.1897.02**YR**-301
Linke Ausführung - D16.1897.02**YL**-301

Dmin [mm]	κ [°]	f [mm]	Ecken Radius	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	b [mm]	S [mm]	d [mm]
15,5	18	9,70	0,2	Y	D16.1897.02YR	▣	▣	◈	---	5,4	11,0
15,5	18	9,70	0,2	Y	D16.1897.02YL	▣	▣	◈	---	5,4	11,0

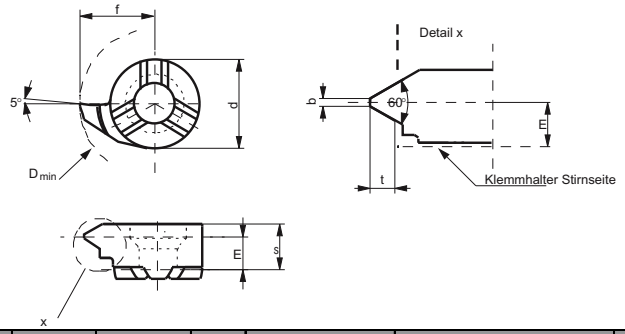


Vorstechen und Fasen
ab ø16,0 mm

Pregrooving and chamfering
as of ø16,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.0810.00**PR**-301
Linke Ausführung - D16.0810.00**PL**-301

Dmin [mm]	Hauptschneiden κ [°]	b [mm]	Geometrie	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	t [mm]	S [mm]	f [mm]	f [mm]	tmax [mm]
16,0	8	1,0	00	P	D16.0810.00PR	▣	▣	◈	0,2	5,4	10,2	11,0	1,5
16,0	8	1,0	00	P	D16.0810.00PL	▣	▣	◈	0,2	5,4	10,2	11,0	1,5

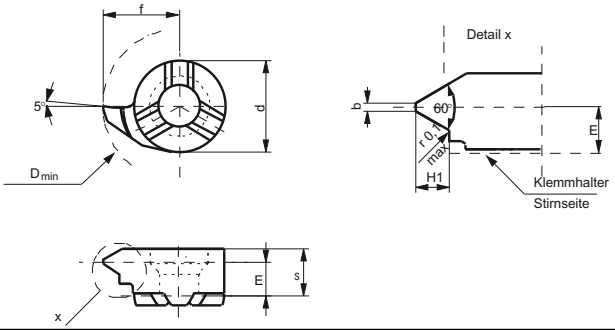


Gewindedrehen (Innen)
ab ø16,0 mm
Metrische Gewinde
ISO Teilprofil

Threading (Internal)
as of ø16,0 mm
Metric threading
ISO partial profile

Bestellbeispiel / **Sample order**:
Rechte Ausführung - D16.1325.01**MR**-301
Linke Ausführung - D16.1325.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - standard thread													
16,0	1,35	2,5	01	M	**D16.1325.01MR**	▣	▣	◈	4,2	5,5	10,2	0,31	11,0
16,0	1,35	2,5	01	M	**D16.1325.01ML**	▣	▣	◈	4,2	5,5	10,2	0,31	11,0
Feingewinde - fine-pitch thread													
16,0	0,55	1,0	01	M	**D16.0510.01MR**	▣	▣	◈	4,7	5,5	10,2	0,12	11,0
16,0	0,81	1,5	01	M	**D16.0815.01MR**	▣	▣	◈	4,5	5,5	10,2	0,18	11,0
16,0	1,08	2,0	01	M	**D16.1020.01MR**	▣	▣	◈	4,2	5,5	10,2	0,25	11,0
16,0	0,55	1,0	01	M	**D16.0510.01ML**	▣	▣	◈	4,7	5,5	10,2	0,12	11,0
16,0	0,81	1,5	01	M	**D16.0815.01ML**	▣	▣	◈	4,5	5,5	10,2	0,18	11,0
16,0	1,08	2,0	01	M	**D16.1020.01ML**	▣	▣	◈	4,2	5,5	10,2	0,25	11,0

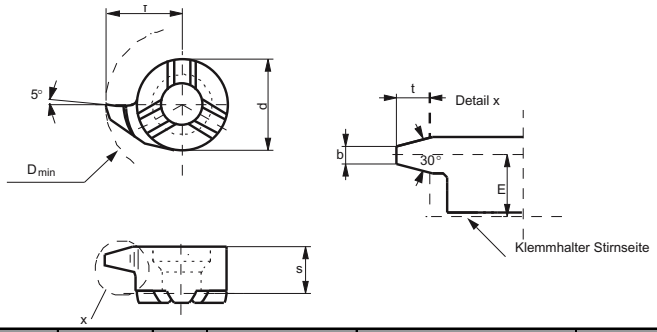


Gewindedrehen (Innen)
ab ø16,0 mm
Metrische Gewinde
ISO Vollprofil

Threading (Internal)
as of ø16,0 mm
Metric threading
ISO full profile

Bestellbeispiel / **Sample order**:
Rechte Ausführung - D16.1325.02**MR**-301
Linke Ausführung - D16.1325.02**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - standard thread													
16,0	1,35	2,5	02	M	**D16.1325.02MR**	▣	▣	◈	4,2	5,5	10,2	0,31	11,0
16,0	1,62	3,0	02	M	**D16.1630.02MR**	▣	▣	◈	4,0	5,5	10,2	0,37	11,0
16,0	1,89	3,5	02	M	**D16.1835.02MR**	▣	▣	◈	3,8	5,5	10,2	0,43	11,0
16,0	2,16	4,0	02	M	**D16.2140.02MR**	▣	▣	◈	3,6	5,5	10,2	0,50	11,0
16,0	1,35	2,5	02	M	**D16.1325.02ML**	▣	▣	◈	4,2	5,5	10,2	0,31	11,0
16,0	1,62	3,0	02	M	**D16.1630.02ML**	▣	▣	◈	4,0	5,5	10,2	0,37	11,0
16,0	1,89	3,5	02	M	**D16.1835.02ML**	▣	▣	◈	3,8	5,5	10,2	0,43	11,0
16,0	2,16	4,0	02	M	**D16.2140.02ML**	▣	▣	◈	3,6	5,5	10,2	0,50	11,0
Feingewinde - fine-pitch thread													
16,0	0,54	1,0	02	M	**D16.0510.02MR**	▣	▣	◈	4,7	5,5	10,2	0,12	11,0
16,0	0,81	1,5	02	M	**D16.0815.02MR**	▣	▣	◈	4,5	5,5	10,2	0,18	11,0
16,0	1,08	2,0	02	M	**D16.1020.02MR**	▣	▣	◈	4,2	5,5	10,2	0,25	11,0
16,0	0,54	1,0	02	M	**D16.0510.02ML**	▣	▣	◈	4,7	5,5	10,2	0,12	11,0
16,0	0,81	1,5	02	M	**D16.0815.02ML**	▣	▣	◈	4,5	5,5	10,2	0,18	11,0
16,0	1,08	2,0	02	M	**D16.1020.02ML**	▣	▣	◈	4,2	5,5	10,2	0,25	11,0

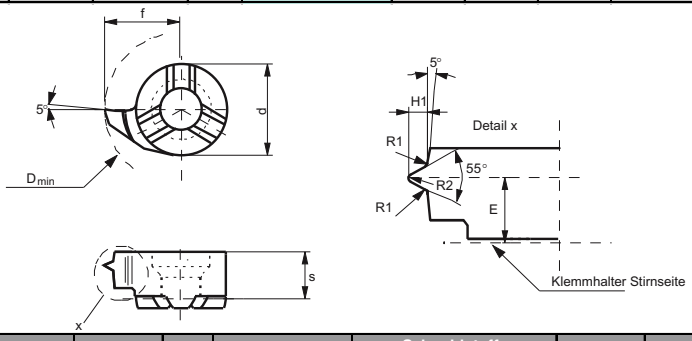


Gewindedrehen (Innen)
ab ø16,0 mm
Trapezgewinde

Threading (Internal)
as of ø16,0 mm
Acme thread

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.1220.01**MR**-301
Linke Ausführung - D16.1220.01**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Profil Code	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
16,0	1,25	2,0	01	M	**D16.1220.01MR**	▣	▣	◈	4,50	5,50	9,7	0,60	11,0
16,0	1,75	3,0	01	M	**D16.1730.01MR**	▣	▣	◈	4,30	5,50	9,7	0,96	11,0
16,0	2,25	4,0	01	M	**D16.2240.01MR**	▣	▣	◈	4,00	5,50	9,7	1,33	11,0
16,0	2,75	5,0	01	M	**D16.2750.01MR**	▣	▣	◈	3,55	5,50	10,2	1,69	11,0
16,0	1,25	2,0	01	M	**D16.1220.01ML**	▣	▣	◈	4,50	5,50	9,7	0,60	11,0
16,0	1,75	3,0	01	M	**D16.1730.01ML**	▣	▣	◈	4,30	5,50	9,7	0,96	11,0
16,0	2,25	4,0	01	M	**D16.2240.01ML**	▣	▣	◈	4,00	5,50	9,7	1,33	11,0
16,0	2,75	5,0	01	M	**D16.2750.01ML**	▣	▣	◈	3,55	5,50	10,2	1,69	11,0



Gewindedrehen (Innen)
ab ø16,0 mm
Whitworth Vollprofil

Threading (Internal)
as of ø16,0 mm
Whitworth full profile

Bestellbeispiel / Sample order:
Rechte Ausführung - D16.1118.14**MR**-301
Linke Ausführung - D16.1118.14**ML**-301

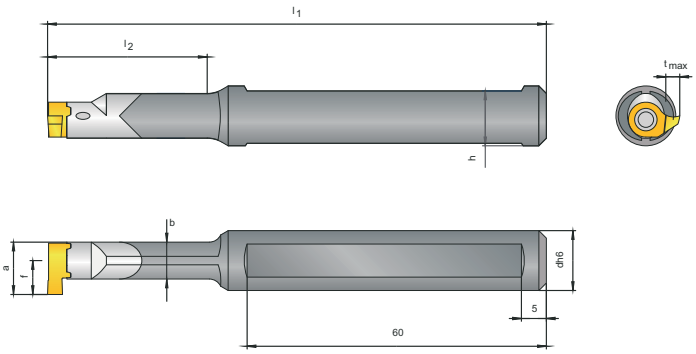
Dmin [mm]	H1 [mm]	Steigung [mm]	Gg/Zoll	Form	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	R1 [mm]	R2 [mm]	E [mm]	S [mm]	f [mm]	d [mm]
16,0	1,16	1,814	14	M	**D16.1118.14MR**	▣	▣	◈	0,24	0,24	3,9	5,50	10,2	11,0
16,0	1,48	2,309	11	M	**D16.1423.11MR**	▣	▣	◈	0,31	0,31	3,5	5,50	10,2	11,0
16,0	1,16	1,814	14	M	**D16.1118.14ML**	▣	▣	◈	0,24	0,24	3,9	5,50	10,2	11,0
16,0	1,48	2,309	11	M	**D16.1423.11ML**	▣	▣	◈	0,31	0,31	3,5	5,50	10,2	11,0

d^max-Series

- Gewindeschneiden ab Ø 10,0 mm
- vergrößerte Stechtiefen
- verbesserter Spanablauf

d^max-Series

- Chamfering as of Ø 10,0 mm
- higher cutting depth
- a better chip flow



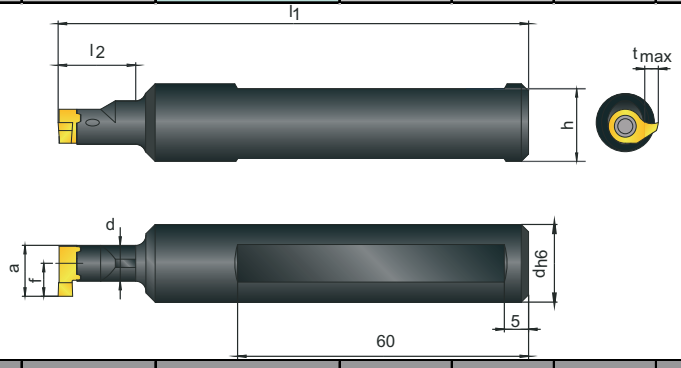
Stahl - Klemmhalter
Typ D08, D11, D14 und D16
Stechdrehen, Ausdrehen und Gewindeschneiden (Innen)
ab ø7,8 mm
mit innerer Kühlmittelzufuhr

Toolholder (steel)
type D08, D11, D14 and D16
Grooving, boring and threading (internal)
as of ø7,8 mm
with through tool coolant supply

Bestellbeispiel / Sample order:

D10.0012.32HM

Für Schneidplatte	dg6 [mm]	l2 [mm]	Artikelnummer	Lieferstatus	l1 [mm]	f [mm]	a [mm]	h [mm]	b [mm]	tmax [mm]
D10	12,0	32,0	**D10.0012.32HM**	▣	100,0	*	f+ 3,5	11,0	7,4	< 3,4
D10	12,0	48,0	**D10.0012.48HM**	▣	115,0	*	f+ 3,5	11,0	7,4	< 3,4
D10	12,0	64,0	**D10.0012.64HM**	▣	130,0	*	f+ 3,5	11,0	7,4	< 3,4
D14	12,0	34,0	**D14.0012.34HM**	▣	100,0	*	f + 4,5	11,0	9,5	< 6,5
D14	12,0	45,0	**D14.0012.45HM**	▣	110,0	*	f + 4,5	11,0	9,5	< 6,5
D14	12,0	64,0	**D14.0012.64HM**	▣	130,0	*	f + 4,5	11,0	9,5	< 6,5
D14	16,0	34,0	**D14.0016.34HM**	▣	100,0	*	f + 4,5	15,0	9,5	< 6,5
D14	16,0	45,0	**D14.0016.45HM**	▣	110,0	*	f + 4,5	15,0	9,5	< 6,5
D14	16,0	64,0	**D14.0016.64HM**	▣	130,0	*	f + 4,5	15,0	9,5	< 6,5
D14	16,0	75,0	**D14.0016.75HM**	▣	145,0	*	f + 4,5	15,0	9,5	< 6,5
D18	16,0	42,0	**D18.0016.42HM**	▣	100,0	*	f +5,5	15,0	11,5	8,0
D18	16,0	60,0	**D18.0016.60HM**	▣	130,0	*	f +5,5	15,0	11,5	8,0
D18	16,0	85,0	**D18.0016.85HM**	▣	160,0	*	f +5,5	15,0	11,5	8,0
D18	20,0	85,0	**D18.0020.85HM**	▣	160,0	*	f +5,5	19,0	11,5	8,0



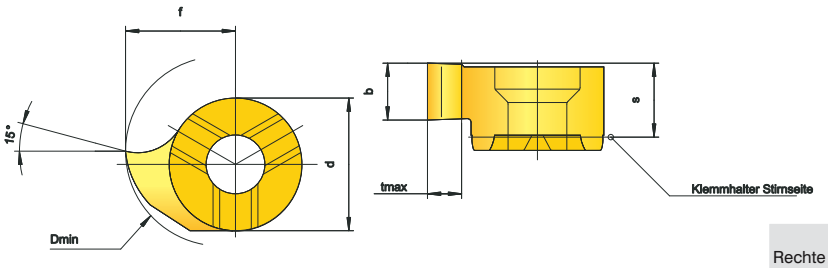
Stahl - Klemmhalter
Typ D08, D11, D14 und D16
Stechdrehen, Ausdrehen und Gewindeschneiden (Innen)
ab ø7,8 mm
mit innerer Kühlmittelzufuhr

Toolholder (steel)
type D08, D11, D14 and D16
Grooving, boring and threading (internal)
as of ø7,8 mm
with through tool coolant supply

Bestellbeispiel / Sample order:

D08.0016.12ST

Für Schneidplatte	dg6 [mm]	l2 [mm]	Artikelnummer	Lieferstatus	l1 [mm]	f [mm]	a [mm]	h [mm]	b [mm]	tmax [mm]
D10	16,0	16,0	**D10.0016.16ST**	▣	97	*	f + 3,5	15,0	7,4	< 3,4
D14	16,0	20,0	**D14.0016.20ST**	▣	100	*	f + 4,5	15,0	9,5	< 6,5

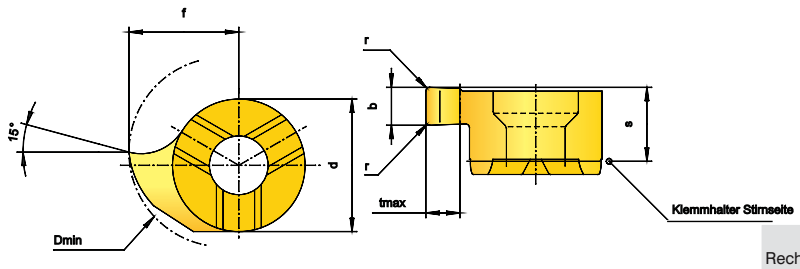


Stechdrehen (Innen)
ab ø10,0 mm

Grooving (internal)
as of ø10,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0070.00.10**VR**-301
Linke Ausführung - D10.0070.00.10**VL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
10,0	0,73	0,70	D10.0070.00.10ZR	▣	▣	◈	3,9	5,8	7,0	1,2
10,0	0,83	0,80	D10.0080.00.10ZR	▣	▣	◈	3,9	5,8	7,0	1,3
10,0	0,93	0,90	D10.0090.00.10ZR	▣	▣	◈	3,9	5,8	7,0	1,5
10,0	1,00	---	D10.0100.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,20	1,10	D10.0110.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,40	1,30	D10.0130.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,50	---	D10.0150.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,70	1,60	D10.0160.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	2,00	---	D10.0200.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	2,50	---	D10.0250.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	3,00	---	D10.0300.00.10GR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,73	0,70	D10.0070.00.10ZL	▣	▣	◈	3,9	5,8	7,0	1,2
10,0	0,83	0,80	D10.0080.00.10ZL	▣	▣	◈	3,9	5,8	7,0	1,3
10,0	0,93	0,90	D10.0090.00.10ZL	▣	▣	◈	3,9	5,8	7,0	1,5
10,0	1,00	---	D10.0100.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,20	1,10	D10.0110.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,40	1,30	D10.0130.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,50	---	D10.0150.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,70	1,60	D10.0160.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	2,00	---	D10.0200.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	2,50	---	D10.0250.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	3,00	---	D10.0300.00.10GL	▣	▣	◈	3,9	5,8	7,0	1,8

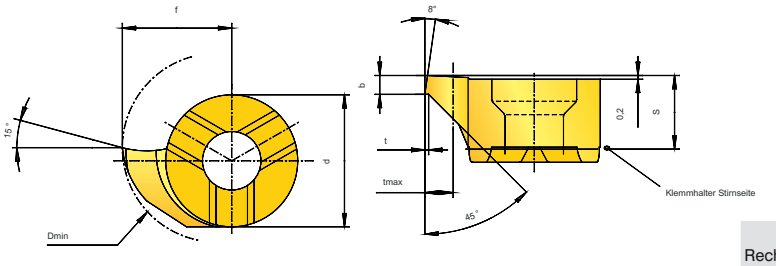


NC - Feindrehen (Innen)
ab ø10,0 mm

NC - profiling (internal)
as of ø10,0 mm

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0150.02.10**NR**-301
Linke Ausführung - D10.0150.02.10**NL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	r [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
10,0	1,5	---	D10.0150.02.10NR	▣	▣	◈	0,2	3,9	5,8	7,0	1,8
10,0	2,0	---	D10.0200.02.10NR	▣	▣	◈	0,2	3,9	5,8	7,0	1,8
10,0	1,5	---	D10.0150.02.10NL	▣	▣	◈	0,2	3,9	5,8	7,0	1,8
10,0	2,0	---	D10.0200.02.10NL	▣	▣	◈	0,2	3,9	5,8	7,0	1,8

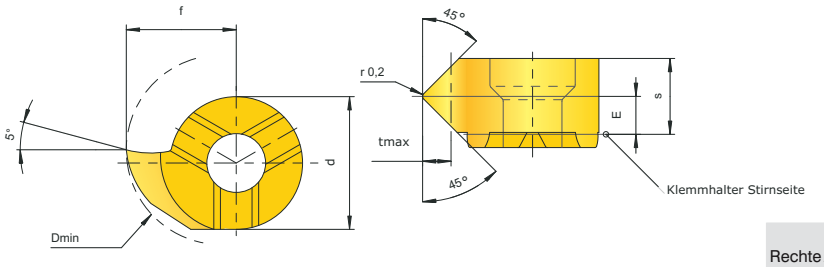


Vorstechen und Fasen (Innen)

Pre Part Off and

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0810.00.10**PR**-301
Linke Ausführung - D10.0810.00.10**PL**-301

Dmin [mm]	b [mm]	Hauptschneiden Winkel °	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	t [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
10,0	1,0	8	D10.0810.00.10PR	▣	▣	◈	0,2	3,9	5,8	7,0	1,5
10,0	1,0	8	D10.0810.00.10PL	▣	▣	◈	0,2	3,9	5,8	7,0	1,5

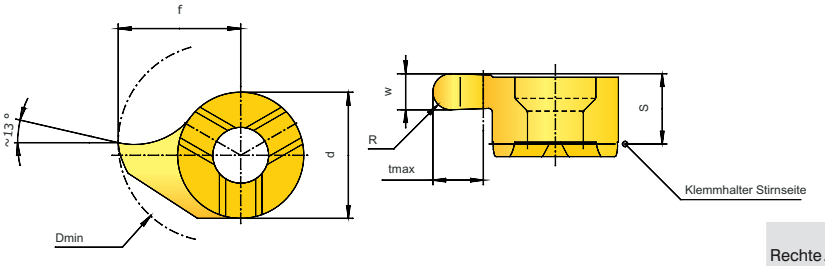


Fasen und Ausdrehen (innen)

Chamfering and boring (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.4545.02.10**FR**-301
Linke Ausführung - D10.4545.02.10**FL**-301

Dmin [mm]	R & L [mm]	Eckenradius [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	f [mm]	S [mm]	d [mm]	tmax [mm]
10,0	45°	0,2	D10.4545.02.10FR	▣	▣	◈	2,0	5,8	4,0	7,0	1,5
10,0	45°	0,2	D10.4545.02.10FL	▣	▣	◈	2,0	5,8	4,0	7,0	1,5

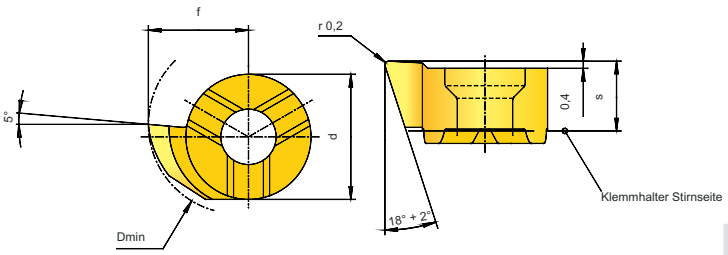


Vollradius (innen)

Full Radius (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0004.08.10**VR**-301
Linke Ausführung - D10.0004.08.10**VL**-301

Dmin [mm]	R [mm]	Nutenbreite w + 0,05 [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
10,0	0,4	0,8	D10.0004.08.10VR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,6	1,2	D10.0006.12.10VR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,9	1,8	D10.0009.18.10VR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,0	2,0	D10.0010.20.10VR	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,4	0,8	D10.0004.08.10VL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,6	1,2	D10.0006.12.10VL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	0,9	1,8	D10.0009.18.10VL	▣	▣	◈	3,9	5,8	7,0	1,8
10,0	1,0	2,0	D10.0010.20.10VL	▣	▣	◈	3,9	5,8	7,0	1,8

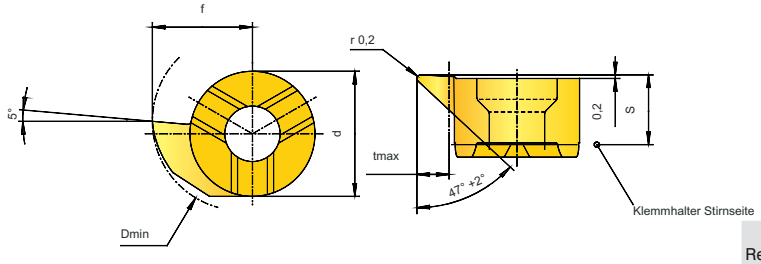


Ausdrehen (innen)

Boring (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.1856.02.10**YR**-301
Linke Ausführung - D10.1856.02.10**YL**-301

Dmin [mm]	Hauptschneiden Winkel 2°	f [mm]	Eckenradius [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	d [mm]
10,0	18°	5,6	0,2	D10.1856.02.10YR	▣	▣	◈	3,9	7,0
10,0	18°	5,6	0,2	D10.1856.02.10YL	▣	▣	◈	3,9	7,0

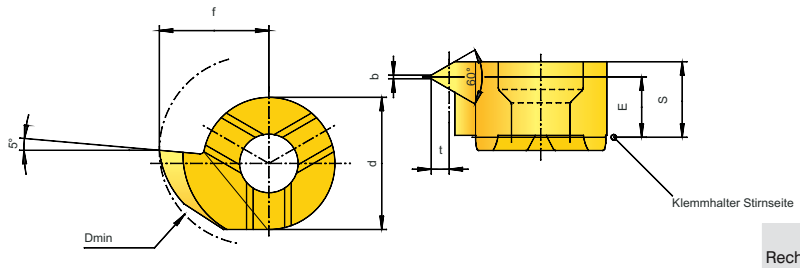


Ausdrehen (innen)

Boring (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.4758.02.10**YR**-301
Linke Ausführung - D10.4758.02.10**YL**-301

Dmin [mm]	Hauptschneiden Winkel °	f [mm]	Eckenradius [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	tmax [mm]	S [mm]	d [mm]
10,0	47°	5,8	0,2	D10.4758.02.10YR	▣	▣	◈	1,8	3,9	7,0
10,0	47°	5,8	0,2	D10.4758.02.10YL	▣	▣	◈	1,8	3,9	7,0

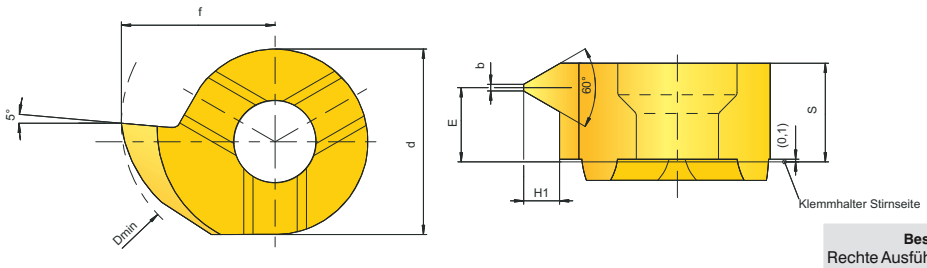


Gewindedrehen Teilprofil (innen)

Threading partial profile (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.1020.01.10**MR**-301
Linke Ausführung - D10.1020.01.10**ML**-301

Dmin [mm]	t [mm]	Steigung [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - Standard thread											
10,0	1,08	2,0	D10.1020.01.10MR	▣	▣	◈	2,8	4,0	5,8	0,25	7,0
10,0	1,35	2,5	D10.1325.01.10MR	▣	▣	◈	2,6	4,0	5,8	0,31	7,0
10,0	1,08	2,0	D10.1020.01.10ML	▣	▣	◈	2,8	4,0	5,8	0,25	7,0
10,0	1,35	2,5	D10.1325.01.10ML	▣	▣	◈	2,6	4,0	5,8	0,31	7,0
Feingewinde - Fine-Pich thread											
10,0	0,27	0,5	D10.0205.01.10MR	▣	▣	◈	3,5	4,0	5,8	0,06	7,0
10,0	0,54	1,0	D10.0510.01.10MR	▣	▣	◈	3,3	4,0	5,8	0,12	7,0
10,0	0,81	1,5	D10.0815.01.10MR	▣	▣	◈	3,1	4,0	5,8	0,18	7,0
10,0	0,27	0,5	D10.0205.01.10ML	▣	▣	◈	3,5	4,0	5,8	0,06	7,0
10,0	0,54	1,0	D10.0510.01.10ML	▣	▣	◈	3,3	4,0	5,8	0,12	7,0
10,0	0,81	1,5	D10.0815.01.10ML	▣	▣	◈	3,1	4,0	5,8	0,18	7,0



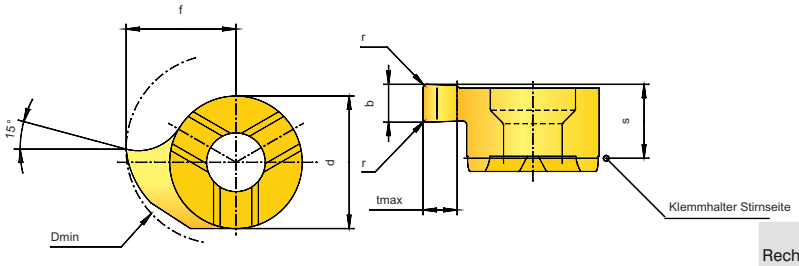
Gewindedrehen Vollprofil (innen)

Threading full profile (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.1020.02.10**MR**-301
Linke Ausführung - D10.1020.02.10**ML**-301

Dmin [mm]	H1 [mm]	Steigung [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	E [mm]	S [mm]	f [mm]	b [mm]	d [mm]
Regelgewinde - Standard thread											
10,0	1,08	2,0	D10.1020.02.10M R	▣	▣	◈	3,0	4,0	5,8	0,25	7,0
10,0	1,35	2,5	D10.1325.02.10M R	▣	▣	◈	2,8	4,0	5,8	0,31	7,0
10,0	1,62	3,0	D10.1630.02.10M R	▣	▣	◈	2,5	4,0	5,8	0,37	7,0
10,0	1,08	2,0	D10.1020.02.10M L	▣	▣	◈	3,0	4,0	5,8	0,25	7,0
10,0	1,35	2,5	D10.1325.02.10M L	▣	▣	◈	2,8	4,0	5,8	0,31	7,0
10,0	1,62	3,0	D10.1630.02.10M L	▣	▣	◈	2,5	4,0	5,8	0,37	7,0
Feingewinde - Fine-Pich thread											
10,0	0,54	1,0	D10.0510.02.10M R	▣	▣	◈	3,4	4,0	5,8	0,12	7,0
10,0	0,81	1,5	D10.0815.02.10M R	▣	▣	◈	3,2	4,0	5,8	0,18	7,0
10,0	0,54	1,0	D10.0510.02.10M L	▣	▣	◈	3,4	4,0	5,8	0,12	7,0
10,0	0,81	1,5	D10.0815.02.10M L	▣	▣	◈	3,2	4,0	5,8	0,18	7,0

Schneidplatten D10.11
Inserts D10.11

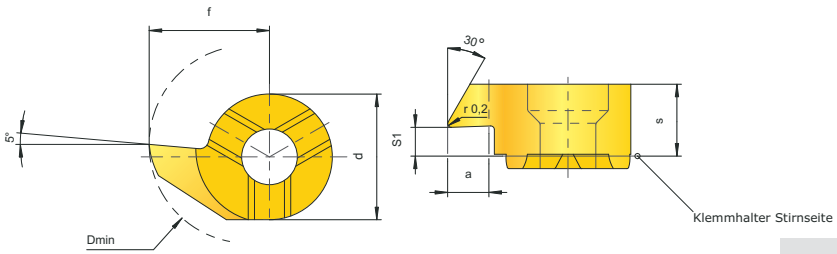


NC Feindrehen (innen)

NC Profiling (Internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0150.02.11**NR**-301
Linke Ausführung - D10.0150.02.11**NL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	r [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
11,0	1,5	---	D10.0150.02.11NR	▣	▣	◈	0,2	3,9	6,8	7,0	2,8
11,0	2,0	---	D10.0200.02.11NR	▣	▣	◈	0,2	3,9	6,8	7,0	2,8
11,0	1,5	---	D10.0150.02.11NL	▣	▣	◈	0,2	3,9	6,8	7,0	2,8
11,0	2,0	---	D10.0200.02.11NL	▣	▣	◈	0,2	3,9	6,8	7,0	2,8

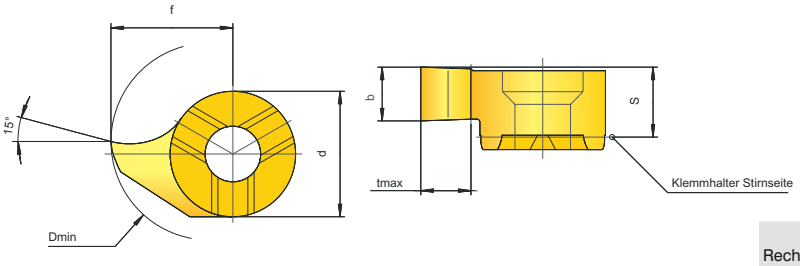


Rückwärtsdrehen (innen)

Backboring (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.3068.02.11**YR**-301
Linke Ausführung - D10.3068.02.11**YL**-301

Dmin [mm]	f [mm]	Hauptschneiden Winkel °	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	S1 [mm]	d [mm]	a [mm]
11,0	6,8	30	D10.3068.02.11YR	▣	▣	◈	4,0	1,3	7,0	2,6
11,0	6,8	30	D10.3068.02.11YL	▣	▣	◈	4,0	1,3	7,0	2,6



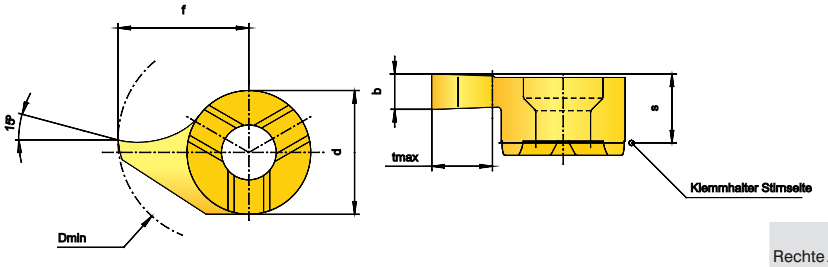
Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0100.00.11**GR**-301
Linke Ausführung - D10.0100.00.11**GL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
11,0	1,0	---	D10.0100.00.11GR	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	1,5	---	D10.0150.00.11GR	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	2,0	---	D10.0200.00.11GR	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	2,5	---	D10.0250.00.11GR	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	3,0	---	D10.0300.00.11GR	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	1,0	---	D10.0100.00.11GL	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	1,5	---	D10.0150.00.11GL	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	2,0	---	D10.0200.00.11GL	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	2,5	---	D10.0250.00.11GL	▣	▣	◈	3,9	6,8	7,0	2,8
11,0	3,0	---	D10.0300.00.11GL	▣	▣	◈	3,9	6,8	7,0	2,8

Schneidplatten D10.12
Inserts D10.12

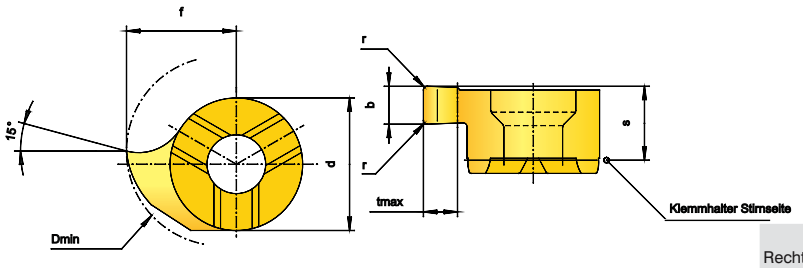


Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0100.00.12**GR**-301
Linke Ausführung - D10.0100.00.12**GL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
12,0	1,0	---	D10.0100.00.12GR	▣	▣	◈	3,9	7,4	7,0	3,4
12,0	1,5	---	D10.0150.00.12GR	▣	▣	◈	3,9	7,4	7,0	3,4
12,0	2,0	---	D10.0200.00.12GR	▣	▣	◈	3,9	7,4	7,0	3,4
12,0	1,0	---	D10.0100.00.12GL	▣	▣	◈	3,9	7,4	7,0	3,4
12,0	1,5	---	D10.0150.00.12GL	▣	▣	◈	3,9	7,4	7,0	3,4
12,0	2,0	---	D10.0200.00.12GL	▣	▣	◈	3,9	7,4	7,0	3,4

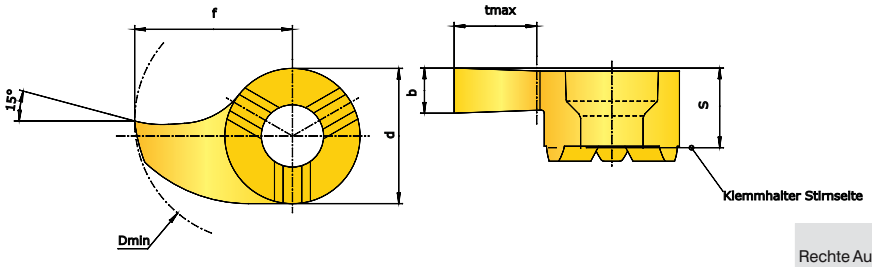


NC Feindrehen (innen)

NC Profiling (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D10.0150.02.12**NR**-301
Linke Ausführung - D10.0150.02.12**NL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	r [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
12,0	1,5	---	D10.0150.02.12NR	▣	▣	◈	0,2	3,9	7,4	7,0	3,4
12,0	2,0	---	D10.0200.02.12NR	▣	▣	◈	0,2	3,9	7,4	7,0	3,4
12,0	1,5	---	D10.0150.02.12NL	▣	▣	◈	0,2	3,9	7,4	7,0	3,4
12,0	2,0	---	D10.0200.02.12NL	▣	▣	◈	0,2	3,9	7,4	7,0	3,4

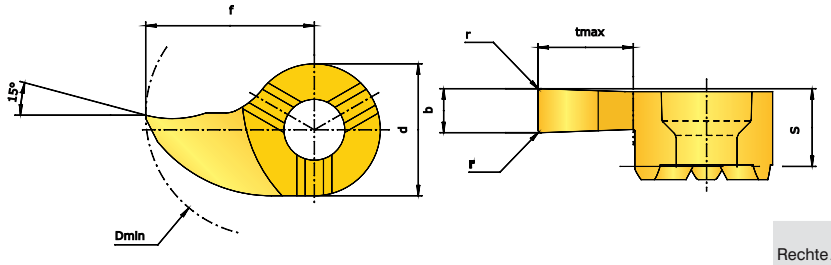


Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0150.00.16**GR**-301
Linke Ausführung - D14.0150.00.16**GL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
16,0	1,5	---	D14.0150.00.16GR	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	2,0	---	D14.0200.00.16GR	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	2,5	---	D14.0250.00.16GR	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	3,0	---	D14.0300.00.16GR	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	1,5	---	D14.0150.00.16GL	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	2,0	---	D14.0200.00.16GL	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	2,5	---	D14.0250.00.16GL	▣	▣	◈	5,2	10,5	9,0	5,5
16,0	3,0	---	D14.0300.00.16GL	▣	▣	◈	5,2	10,5	9,0	5,5



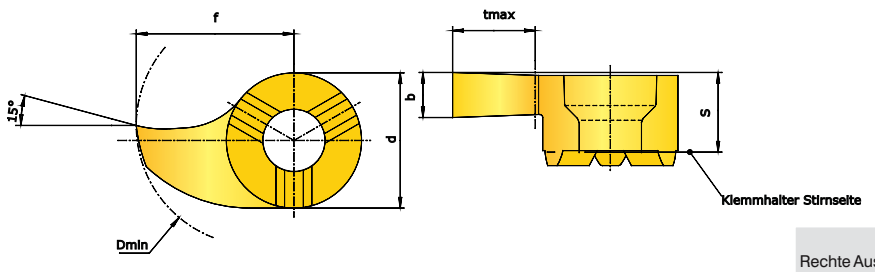
NC Feindrehen (innen)

NC Profiling (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0150.02.16**NR**-301
Linke Ausführung - D14.0150.02.16**NL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	r [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
16,0	1,5	---	D14.0150.02.16NR	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	2,0	---	D14.0200.02.16NR	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	2,5	---	D14.0250.02.16NR	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	3,0	---	D14.0300.02.16NR	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	1,5	---	D14.0150.02.16NL	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	2,0	---	D14.0200.02.16NL	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	2,5	---	D14.0250.02.16NL	▣	▣	◈	0,2	5,2	10,5	9,0	5,5
16,0	3,0	---	D14.0300.02.16NL	▣	▣	◈	0,2	5,2	10,5	9,0	5,5

Schneidplatten D14.17
Inserts D14.17

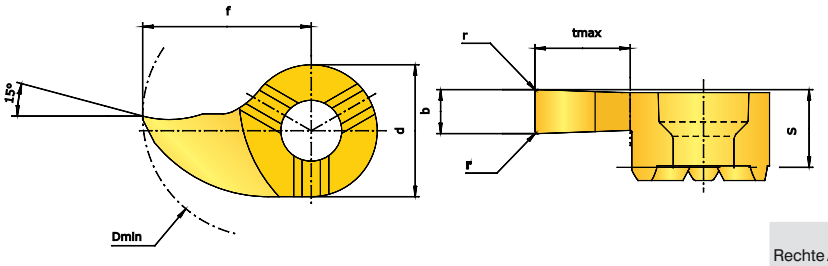


Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0150.02.17**GR**-301
Linke Ausführung - D14.0150.02.17**GL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
17,0	1,5	---	D14.0150.00.17GR	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	2,0	---	D14.0200.00.17GR	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	2,5	---	D14.0250.00.17GR	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	3,0	---	D14.0300.00.17GR	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	1,5	---	D14.0150.00.17GL	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	2,0	---	D14.0200.00.17GL	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	2,5	---	D14.0250.00.17GL	▣	▣	◈	5,2	11,5	9,0	6,5
17,0	3,0	---	D14.0300.00.17GL	▣	▣	◈	5,2	11,5	9,0	6,5



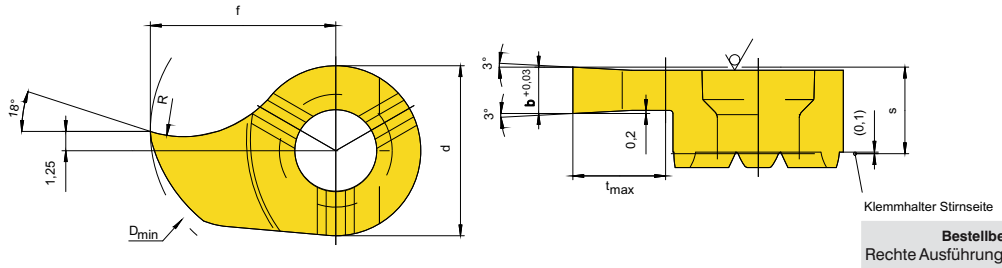
NC Feindrehen (innen)

NC Profiling (internal

Bestellbeispiel / Sample order:
Rechte Ausführung - D14.0150.02.17**NR**-301
Linke Ausführung - D14.0150.02.17**NL**-301

Dmin [mm]	b+0,03 [mm]	Nutenbreite [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	r [mm]	S [mm]	f [mm]	d [mm]	tmax [mm]
17,0	1,5	---	D14.0150.02.17NR	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	2,0	---	D14.0200.02.17NR	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	2,5	---	D14.0250.02.17NR	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	3,0	---	D14.0300.02.17NR	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	1,5	---	D14.0150.02.17NL	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	2,0	---	D14.0200.02.17NL	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	2,5	---	D14.0250.02.17NL	▣	▣	◈	0,2	5,2	11,5	9,0	6,5
17,0	3,0	---	D14.0300.02.17NL	▣	▣	◈	0,2	5,2	11,5	9,0	6,5

Schneidplatten D18.18
Inserts D18.18

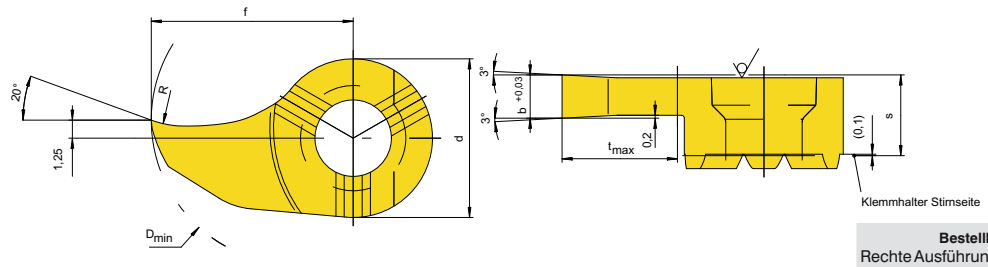


Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:
Rechte Ausführung - D18.0150.02.18**GR**-301
Linke Ausführung - D18.0150.02.18**GL**-301

Dmin [mm]	Nutenbreite w+0,05 [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
18,0	1,50	D18.0150.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	2,00	D18.0200.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	2,50	D18.0250.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	3,00	D18.0300.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	3,50	D18.0350.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	4,00	D18.0400.00.18GR	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	1,50	D18.0150.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	2,00	D18.0200.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	2,50	D18.0250.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	3,00	D18.0300.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	3,50	D18.0350.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0
18,0	4,00	D18.0400.00.18GL	▣	▣	◈	5,6	12,0	11,0	6,0



Stechdrehen (innen)

Grooving (internal)

Bestellbeispiel / Sample order:

Rechte Ausführung - D18.0150.00.20**GR**-301

Linke Ausführung - D18.0150.00.20**GL**-301

Dmin [mm]	Nutenbreite w + 0,03 [mm]	Artikelnummer	Schneidstoffe GF 25 -301	ZGX 40 -314	GX 75 -308	S [mm]	f [mm]	d [mm]	tmax [mm]
20,0	1,50	D18.0150.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	2,00	D18.0200.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	2,50	D18.0250.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	3,00	D18.0300.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	3,50	D18.0350.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	4,00	D18.0400.00.20GR	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	1,50	D18.0150.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	2,00	D18.0200.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	2,50	D18.0250.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	3,00	D18.0300.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	3,50	D18.0350.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0
20,0	4,00	D18.0400.00.20GL	▣	▣	◈	5,6	14,0	11,0	8,0

Technische Informationen - Schnittdaten & Schneidstoffe

technical information - speeds and feeds & grade selection

Material Materials	Festigkeit / Härte Tensile strength / Hardness	Beispiel Sample	Schneidstoffe Grades		
			GF 25	ZGX 40	GX 75
Kohlenstoff-Stahl carbon steel	0,15 %	ST 37, C15	-	120 - 300	120 - 200
	0,45 %	ST50, C50	30 - 110	100 - 280	100 - 200
C-Gehalt (carnon content)	0,60 %	ST60, C60	-	90 - 220	90 - 180
Legierter Stahl alloy steel	niedrig / low	16 MnCr5	-	100 - 240	100 - 200
	mittel / medium	90 MnCrV8	30 - 80	90 - 200	90 - 160
	hoch / high	X210Cr1234	-	70 - 140	70 - 100
Rostbeständiger Stahl Inox steel		1.4301 1.4571	-	80 - 160	30 - 160
Stahlguss cast steel	unlegiert / non alloyed	< 500 N/mm²	-	90 - 200	90 - 160
	legiert / alloyed	> 500 N/mm²	-	70 - 140	70 - 110
Grauguss	unlegiert / non alloyed	GG20 / GG30	70 - 90	45 - 160	70 - 160
Aluminium aluminium	~ 180 HB				
	~ 50 HB				
	~ 100 HB				
Legierungen Nickel-Basis nickel based alloys		X 16CrNi16 X 50Cr-Mn-	20 - 60	-	30 - 80
Bronze, Messing, Rotguss bronze, brass, red brass			90 - 180	-	90 - 200

Schneidstoffe

GF 25

Unbeschichtete fein - mittelkörnige Hartmetallsorte mit hoher Biegebruch-festigkeit (3000 N/mm2) zur Bearbeitung von legiertem und unlegiertem Stahl, Aluminium, Aluminiumlegierungen, Messing, Bronze, Nickellegierungen und unterbrochenen Schnitten im unteren Schnittgeschwindigkeiten

ZGX 40

PCD-beschichtet fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung

GX 75

TIALN-beschichtete fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung. Besonders geeignet für Nirosta Stähle

Grade selection

GF 25

Uncoated carbide (micro grain), high rupture and fatigue strength (3000 N/mm2). For workpiece material: alloysteel, ordinary steel, aluminium, aluminium alloy, brass, gunmetal and nickel alloy. For interrupted cuts and lower cutting speed.

ZGX 40

PCD - coated micro grain carbide. Extremly universal use, highest cutting edge life, suitable for dry cutting.

GX 75

TIALN-coated micro grain carbide. Extremely universal use, highest cutting edge life, suitable for dry cutting.

e - Series

- 3 schneidige Wendeplatte
- Kurzstechen bis Stechtiefen von 8.0 mm
- Axialstechen ab Außendurchmesser 20.0 mm
- Schneidplatten für Sicherungsringnuten (DIN 471/472)
- Schneidplatten für Seegerringe und Sicherungsscheiben
- Schneidplatten für Gewindefreistiche (DIN 76)
- Schneidplatte für Poly-V-Nuten
- Schneidplatten zum Stechdrehen

e - Series

- 3 cutting edge inserts
- short cutting - depth of cut 8.0 mm max.
- axial cutting - min. outside diameter 20.0 mm
- inserts for circlip grooves (DIN 471/472)
- Inserts for Seeger-lock rings and lock washers
- Inserts for thread undercuts (DIN 76)
- Inserts for poly-V-beltgrooves
- inserts for turn-cut operations

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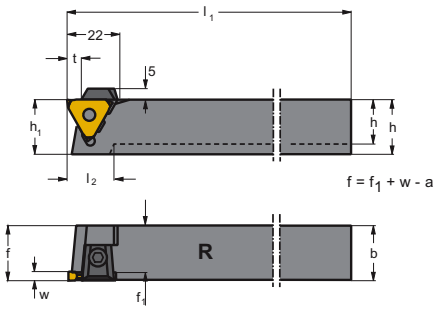


R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Ersatzteile
Spare parts

Spannelement / clamp

Artikelnummer / part number
E12.1-3 / E16.1-3 / E20.1-4
komplett mit Spannschraube
complete with screw

Spannschraube / screw

Artikelnummer / part number
E M6x25

Inbus Schlüssel / wrench

Artikelnummer / part number
SW3

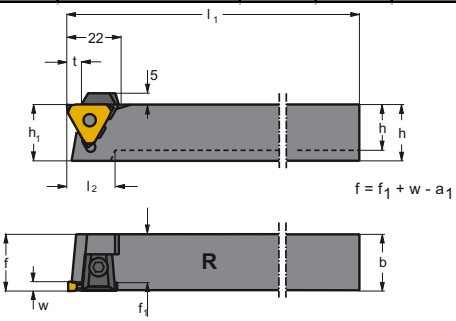
Typ E60
für Außenbearbeitung
für Stechbreiten bis 6,3 mm
für Stechtiefen von 4 bis 6 mm

Type E60
for external grooving
width of cut up to 6,3 mm
depth of cut up to 4 - 6 mm

Schneideinsätze • Inserts
Seite / Page
05 - 10

Bestellbeispiel / Sample order:
E60.1212.01**R**
E60.1212.01**L**

h ± 0,1mm	b ± 0,1mm	Spannbereich w [mm]	Artikelnummer	Ausführung R	Ausführung L	l1 [mm]	h1 js 14	f1 ± 0,05mm	t [mm]	l2 [mm]
12	12	0,5 - 2,0	**E60.1212.01**	▣	▣	100	25	10,5	4	24
16	16	0,5 - 2,0	**E60.1616.01**	▣	▣	125	25	14,5	4	22
20	20	0,5 - 2,0	**E60.2020.01**	▣	▣	125	25	18,5	4	21
25	25	0,5 - 2,0	**E60.2525.01**	▣	▣	150	25	23,5	4	-
32	32	0,5 - 2,0	**E60.3232.01**	▣	▣	170	32	30,5	4	-
12	12	2,0 - 3,0	**E60.1212.02**	▣	▣	100	25	9,5	6	24
16	16	2,0 - 3,0	**E60.1616.02**	▣	▣	125	25	13,5	6	22
20	20	2,0 - 3,0	**E60.2020.02**	▣	▣	125	25	17,5	6	21
25	25	2,0 - 3,0	**E60.2525.02**	▣	▣	150	25	22,5	6	-
32	32	2,0 - 3,0	**E60.3232.02**	▣	▣	170	32	29,5	6	-
12	12	3,0 - 4,0	**E60.1212.03**	▣	▣	100	25	10,8	6	24
16	16	3,0 - 4,0	**E60.1616.03**	▣	▣	125	25	12,5	6	22
20	20	3,0 - 4,0	**E60.2020.03**	▣	▣	125	25	16,5	6	21
25	25	3,0 - 4,0	**E60.2525.03**	▣	▣	150	25	21,5	6	-
32	32	3,0 - 4,0	**E60.3232.03**	▣	▣	170	32	28,5	6	-
16	16	4,0 - 6,3	**E60.1616.04**	▣	▣	125	25	10,8	6	22
20	20	4,0 - 6,3	**E60.2020.04**	▣	▣	125	25	14,8	6	21
25	25	4,0 - 6,3	**E60.2525.04**	▣	▣	150	25	19,8	6	-
32	32	4,0 - 6,3	**E60.3232.04**	▣	▣	170	32	26,8	6	-



R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Ersatzteile
Spare parts

Spannelement / clamp

Artikelnummer / part number
E12.1-3 / E16.1-3 / E20.1-4
komplett mit Spannschraube
complete with screw

Spannschraube / screw

Artikelnummer / part number
E M6x25

Inbus Schlüssel / wrench

Artikelnummer / part number
SW3

Typ E90
für Außenbearbeitung
Stechbreite: 1,0 - 2,0 mm
Einstechbreite bis 5,3 mm
Stechtiefe bis 8,0 mm

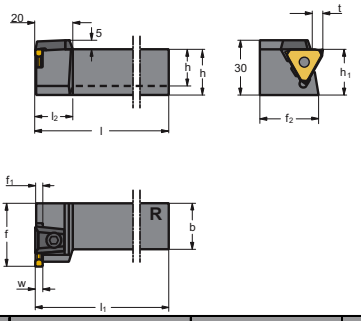
Type E90
for external grooving
width of cut 1,0 - 5,3 mm
depth of cut up to 8,0 mm

Schneideinsätze • Inserts
Seite / Page
05 - 10

Bestellbeispiel / Sample order:
E90.1212.01**R**
E90.1212.01**L**

h ± 0,1mm	b ± 0,1mm	Spannbereich w [mm]	Artikelnummer	Ausführung R	Ausführung L	l1 [mm]	h1 js 14	f1 ± 0,05mm	t [mm]	l2 [mm]
12	12	0,5 - 2,0	**E90.1212.01**	▣	▣	100	25	10,5	8*	24
16	16	0,5 - 2,0	**E90.1616.01**	▣	▣	125	25	14,5	8*	22
20	20	0,5 - 2,0	**E90.2020.01**	▣	▣	125	25	18,5	8*	22
25	25	0,5 - 2,0	**E90.2525.01**	▣	▣	150	25	23,5	8*	-
20	20	1,9 - 3,0	**E90.2020.02**	▣	▣	125	25	17,5	8*	22
25	25	1,9 - 3,0	**E90.2525.02**	▣	▣	150	25	22,5	8*	-
32	32	1,9 - 3,0	**E90.3232.02**	▣	▣	170	32	29,5	8*	-
20	20	3,0 - 4,0	**E90.2020.03**	▣	▣	125	25	16,5	8*	22
25	25	3,0 - 4,0	**E90.2525.03**	▣	▣	150	25	21,5	8*	-
32	32	3,0 - 4,0	**E90.3232.03**	▣	▣	170	32	28,5	8*	-
20	20	4,0 - 5,3	**E90.2020.04**	▣	▣	125	25	14,8	8*	22
25	25	4,0 - 5,3	**E90.2525.04**	▣	▣	150	25	19,8	8*	-
32	32	4,0 - 5,3	**E90.3232.04**	▣	▣	170	32	26,8	8*	-

Die Stechtiefe verringert sich proportional , wenn der Durchmesser des Werkstücks größer als 20 ist
The depth of of cut will be reduced proportional, when the work piece diameter is larger than 20



R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Ersatzteile
Spare parts

Spannelement / clamp

Artikelnummer / part number
E20.1-4
komplett mit Spannschraube
complete with screw

Spannschraube / screw

Artikelnummer / part number
E M6x25

Inbus Schlüssel / wrench

Artikelnummer / part number
SW3

Typ E69
Außenbearbeitung radial
Stechbreiten von 0,5 - 6,3 mm
Stechtiefe 4 - 6 mm bei ø bis 30 mm

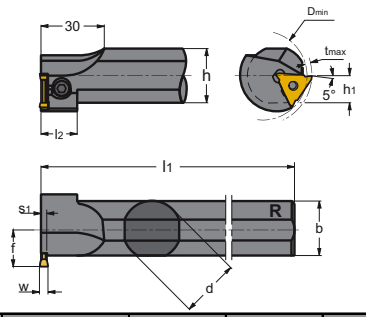
Type E69
external grooving radial
width of cut 0,5 - 6,3 mm
depth of cut up to 4 - 6 mm max. ø 30 mm

Schneideinsätze • Inserts
Seite / Page
05 - 10

Bestellbeispiel / Sample order:
E69.2020.01**R**
E69.2020.01**L**

h ± 0,1mm	b ± 0,1mm	Spannbereich w [mm]	Artikelnummer	Ausführung R	Ausführung L	l1 [mm]	h1 js 14	f1 ± 0,05mm	t [mm]	l2 [mm]
20	20	0,5 - 2,0	**E69.2020.01**	▣	▣	125	25	27	1,5	24,5
25	25	0,5 - 2,0	**E69.2525.01**	▣	▣	150	25	32	1,5	24,5
20	20	2,0 - 3,0	**E69.2020.02**	▣	▣	125	25	27	2,5	24,5
25	25	2,0 - 3,0	**E69.2525.02**	▣	▣	150	25	32	2,5	29,5
20	20	3,0 - 4,0	**E69.2020.03**	▣	▣	125	25	27	3,5	24,5
25	25	3,0 - 4,0	**E69.2525.03**	▣	▣	150	25	32	3,5	29,5
20	20	4,0 - 6,3	**E69.2020.04**	▣	▣	125	25	27	5,2	24,5
25	25	4,0 - 6,3	**E69.2525.04**	▣	▣	150	25	32	5,2	29,5

ø D_{min}	t_{max}
46 mm	2 mm
50 mm	3 mm
60 mm	4 mm
100 mm	5 mm



R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Ersatzteile
Spare parts

Spannelement / clamp

Artikelnummer / part number
E30.1-4
komplett mit Spannschraube
complete with screw

Spannschraube / screw

Artikelnummer / part number
E M6x25

Inbus Schlüssel / wrench

Artikelnummer / part number
SW3

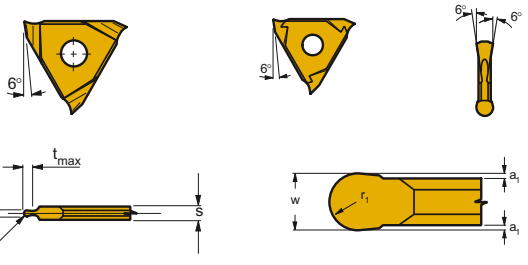
Typ E30
für Innenbearbeitung
Stechbreiten 0,5 - 6,3 mm
Stechtiefe 2 - 5 mm
Bohrungsdurchmesser ≧ 46 mm

Type E30
internal grooving
width of cut 0,5 - 6,3 mm
depth of cut 2 - 5 mm
bore diameter ≧ 46 mm

Schneideinsätze • Inserts
Seite / Page
05 - 10

Bestellbeispiel / Sample order:
E30.0025.01**R**
E30.0025.01**L**

d g7mm	Spannbereich w [mm]	Artikelnummer	Ausführung R	Ausführung L	h ± 0,1mm	b ± 0,1mm	l1 mm	h1 js 14	f ± 0,1mm	Dmin mm	S1 ± 0,05mm	l2 mm
25	0,5 - 2,0	**E30.0025.01**	▣	▣	23	25	170	11,5	20	46	1,5	20
32	0,5 - 2,0	**E30.0032.01**	▣	▣	30	30	200	15	20	46	1,5	20
40	0,5 - 2,0	**E30.0040.01**	▣	▣	38	38	250	19	24	46	1,5	-
25	2,0 - 3,0	**E30.0025.02**	▣	▣	23	25	170	11,5	20	46	2,5	20
32	2,0 - 3,0	**E30.0032.02**	▣	▣	30	30	200	15	20	46	2,5	20
40	2,0 - 3,0	**E30.0040.02**	▣	▣	38	38	250	19	24	46	2,5	-
25	3,0 - 4,0	**E30.0025.03**	▣	▣	23	25	170	11,5	20	46	3,5	20
32	3,0 - 4,0	**E30.0032.03**	▣	▣	30	30	200	15	20	46	3,5	20
40	3,0 - 4,0	**E30.0040.03**	▣	▣	38	38	250	19	24	46	3,5	-
25	4,0 - 6,3	**E30.0025.04**	▣	▣	23	25	170	11,5	20	46	5,5	20
32	4,0 - 6,3	**E30.0032.04**	▣	▣	30	30	200	15	20	46	5,5	20
40	4,0 - 6,3	**E30.0040.04**	▣	▣	38	38	250	19	24	46	5,5	-



Ausführung "V" Vollradius
Für Nuten DIN 7993
Schneidgeometrie .00 = Universal

Version "V"
for groove DIN 7993
cutting edge geometry .00 = universal

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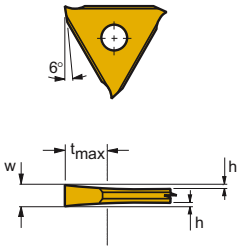
Bestellbeispiel / Sample order:
E12.1302.00V-**314**
E12.1302.00V-**308**

Grundbreite h ± 0,1mm	Nutradius b ± 0,1mm	Geometrie mm	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	w mm	tmax js 14	a1 ± 0,05mm
1,3	0,2	.00	E12.1302.00V	◈	◈	0,4	0,3	-
1,3	0,5	.00	E12.1305.00V	▣	▣	1	0,7	-
1,3	0,6	.00	E12.1306.00V	▣	▣	1,2	0,8	-
-	0,8	.00	E12.0008.00V	▣	▣	1,6	4	0,3
-	0,9	.00	E12.0009.00V	▣	▣	1,8	4	0,3
-	1,1	.00	E12.0011.00V	▣	▣	2,2	6	0,3
-	1,4	.00	E12.0014.00V	▣	▣	2,8	6	0,3
-	1,8	.00	E12.0018.00V	▣	▣	3,6	6	0,3



Ausführung "H" gerade
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .00 = Universal

Version "H"
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .00 = universal

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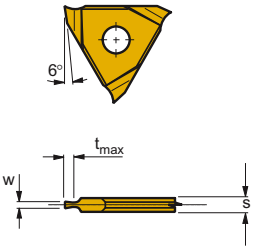
Bestellbeispiel / Sample order:
E12.0050.00H-**314**
E12.0050.00H-**308**

Grundbreite h ± 0,2mm	Nutradius b mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Schneidenbreite w - 0,05mm	Hohlschliff h - 0,02mm	Schneidecke mm x °	Stechtiefe tmax mm
-	0,50	.00	E12.0050.00H	▣	▣	0,57	0,08		4
-	0,60	.00	E12.0060.00H	▣	▣	0,67	0,08		4
-	0,70	.00	E12.0070.00H	▣	▣	0,77	0,08		4
-	0,80	.00	E12.0080.00H	▣	▣	0,87	0,08		4
-	0,90	.00	E12.0090.00H	▣	▣	0,97	0,08		4
-	1,00	.00	E12.0100.00H	▣	▣	1,07	0,09		4



Ausführung "Z" gerade
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .00 = Universal

Version "Z"
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .00 = universal

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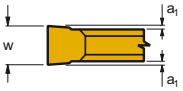
Bestellbeispiel / Sample order:
E12.1034.00Z-**314**
E12.1034.00Z-**308**

Grundbreite h ± 0,2mm	Nutradius b mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Schneidenbreite w - 0,05mm	Hohlschliff h - 0,02mm	Stechtiefe tmax mm
1,3	0,34	.00	E12.1034.00Z	▣	▣	0,40	-	0,6
1,3	0,44	.00	E12.1044.00Z	▣	▣	0,50	-	0,7
1,3	0,50	.00	E12.1050.00Z	▣	▣	0,57	-	0,9
1,3	0,54	.00	E12.1054.00Z	▣	▣	0,60	-	0,8
1,3	0,60	.00	E12.1060.00Z	▣	▣	0,67	-	1,1
1,3	0,64	.00	E12.1064.00Z	▣	▣	0,70	-	1,0
1,3	0,70	.00	E12.1070.00Z	▣	▣	0,77	-	1,7
1,3	0,74	.00	E12.1074.00Z	▣	▣	0,80	-	1,7
1,3	0,80	.00	E12.1080.00Z	▣	▣	0,87	-	2,3
1,3	0,85	.00	E12.1085.00Z	▣	▣	0,91	-	2,3
1,3	0,90	.00	E12.1090.00Z	▣	▣	0,97	-	2,3
1,3	0,94	.00	E12.1094.00Z	▣	▣	1,00	-	2,3
1,3	1,00	.00	E12.1100.00Z	▣	▣	1,07	-	2,3
1,3	1,05	.00	E12.1105.00Z	▣	▣	1,12	-	2,3
1,3	1,10	.00	E12.1115.00Z	▣	▣	1,22	-	2,3



Ausführung "G"
Eingeengte Toleranz
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .00 = Universal
Version "G"
tight tolerance
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .00 = universal

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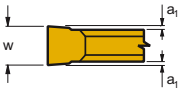
Bestellbeispiel / Sample order:
E12.0110.00G-**314**
E12.0110.00G-**308**

Nutnenn-breite mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Schneiden-breite w - 0,05 mm	Absetzung a1 - 0,04 mm	Schneidecke mm x °
1,10	.00	**E12.0110.00G**	▣	▣	1,24	0,20	~ 0,05 x 45°
1,30	.00	**E12.0130.00G**	▣	▣	1,44	0,22	~ 0,05 x 45°
1,60	.00	**E12.0160.00G**	▣	▣	1,74	0,22	~ 0,05 x 45°
1,85	.00	**E12.0185.00G**	▣	▣	1,99	0,22	~ 0,05 x 45°
2,15	.00	**E12.0215.00G**	▣	▣	2,29	0,22	~ 0,05 x 45°
2,65	.00	**E12.0265.00G**	▣	▣	2,79	0,22	~ 0,05 x 45°
3,15	.00	**E12.0315.00G**	▣	▣	3,29	0,22	~ 0,05 x 45°
4,15	.00	**E12.0415.00G**	▣	▣	4,29	0,22	~ 0,05 x 45°
5,15	.00	**E12.0515.00G**	▣	▣	5,29	0,22	~ 0,05 x 45°



Ausführung "C"
Eingeengte Toleranz
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .40 = für Leichtmetall
Version "C"
tight tolerance
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .40 = light alloy

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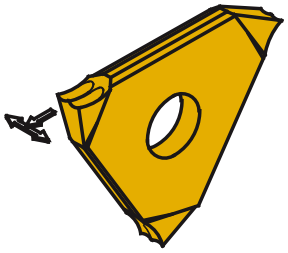
Bestellbeispiel / Sample order:
E12.0110.40C-**301**
E12.0110.40C-**312**

Nutnenn-breite mm	Geometrie	Artikelnummer	Schneidstoffe GF 25 -301	Schneidstoffe AS -312	Schneiden-breite w - 0,05 mm	Absetzung a1 mm	Schneidecke mm x °
1,10	.40	**E12.0110.40C**	▣	◈	1,24	0,20	~ 0,03 x 45°
1,30	.40	**E12.0130.40C**	▣	◈	1,44	0,22	~ 0,03 x 45°
1,60	.40	**E12.0160.40C**	▣	◈	1,74	0,22	~ 0,03 x 45°
1,85	.40	**E12.0185.40C**	▣	◈	1,99	0,22	~ 0,03 x 45°
2,15	.40	**E12.0215.40C**	▣	◈	2,29	0,22	~ 0,03 x 45°
2,65	.40	**E12.0265.40C**	▣	◈	2,79	0,22	~ 0,03 x 45°
3,15	.40	**E12.0315.40C**	▣	◈	3,29	0,22	~ 0,03 x 45°
4,15	.40	**E12.0415.40C**	▣	◈	4,29	0,22	~ 0,03 x 45°
5,15	.40	**E12.0515.40C**	▣	◈	5,29	0,22	~ 0,03 x 45°



Ausführung "W"
Für Nuten DIN 7993
Stechen-, Längsdrehen- Doppelspanformer
Schneidgeometrie .44 = Bifunktional
Version "W"
for groove DIN 7993
cutting and turning with double chipformer
cutting edge geometry .44 = bifunctional

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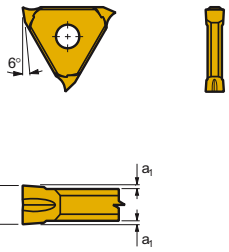
Bestellbeispiel / Sample order:
E12.0025.44W-**314**
E12.0025.44W-**308**

Nutnenn-breite w - 0,05 mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Eckenradius mm	Absetzung -0,04 mm	tmax mm
2,5	.44	**E12.0025.44W**	▣	▣	0,2	0,3	6,0



Ausführung "K" Spanformrille
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .11 = Spanformer

Version "K" Chipformer
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .00 = universal

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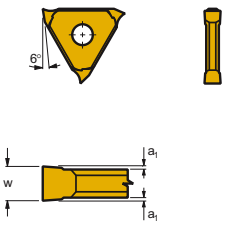
Bestellbeispiel / Sample order:
E12.0110.11K-**314**
E12.0110.11K-**308**

Nutnenn-breite mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Schneidenbreite w - 0,05mm	Absetzung a1 mm	Schneidecke mm x °
1,10	.11	E12.0110.11K	▣	▣	1,24	0,20	~ 0,05 x 45°
1,30	.11	E12.0130.11K	▣	▣	1,44	0,22	~ 0,05 x 45°
1,60	.11	E12.0160.11K	▣	▣	1,74	0,22	~ 0,05 x 45°
1,85	.11	E12.0185.11K	▣	▣	1,99	0,22	~ 0,05 x 45°
2,15	.11	E12.0215.11K	▣	▣	2,29	0,22	~ 0,05 x 45°
2,65	.11	E12.0265.11K	▣	▣	2,79	0,22	~ 0,05 x 45°
3,15	.11	E12.0315.11K	▣	▣	3,29	0,22	~ 0,05 x 45°



Ausführung "U"
Eingeengte Toleranz
Für Nuten DIN 471/472 und DIN 983/984
Schneidgeometrie .80 = unterbrochener Schnitt

Version "U"
tight tolerance
for groove DIN 471/472 and DIN 983/984
cutting edge geometry .80 = interrupted cut

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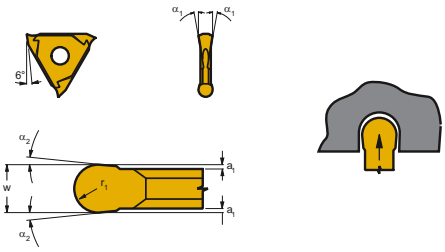
Bestellbeispiel / Sample order:
E12.0110.80U-**314**
E12.0110.80U-**308**

Nutnenn-breite mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Schneidenbreite w - 0,05mm	Absetzung a1 mm	Schneidecke mm x °
1,10	.80	E12.0110.80U	▣	▣	1,24	0,20	~ 0,05 x 45°
1,30	.80	E12.0130.80U	▣	▣	1,44	0,22	~ 0,05 x 45°
1,60	.80	E12.0160.80U	▣	▣	1,74	0,22	~ 0,05 x 45°
1,85	.80	E12.0185.80U	▣	▣	1,99	0,22	~ 0,05 x 45°
2,15	.80	E12.0215.80U	▣	▣	2,29	0,22	~ 0,05 x 45°
2,65	.80	E12.0265.80U	▣		2,79	0,22	~ 0,05 x 45°
3,15	.80	E12.0315.80U	▣		3,29	0,22	~ 0,05 x 45°
4,15	.80	E12.0415.80U	▣		4,29	0,22	~ 0,05 x 45°
5,15	.80	E12.0515.80U	▣		5,29	0,22	~ 0,05 x 45°



Ausführung "V" Vollradius
Für Nuten DIN 7993
Schneidgeometrie .00 = Universal

Version "V"
for groove DIN 7993
cutting edge geometry .00 = universal

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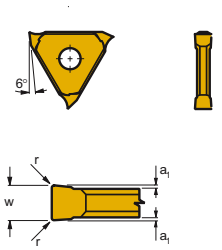
Bestellbeispiel / Sample order:
E12.0100.05V-**314**

Schneidenbreite w + 0,04mm	Radius r1 mm	Artikelnummer	Schneidstoffe ZGX 40 -314		Absetzung a1 ± 0,02mm	□1 °	□2 °
1,0	0,50	E12.0100.05V	▣		0,08	4	2
1,5	0,75	E12.0150.07V	▣		0,15	4	2
2,0	1,00	E12.0200.10V	▣		0,3	6	3
2,5	1,25	E12.0250.12V	▣		0,3	6	3
3,0	1,50	E12.0300.15V	▣		0,3	6	3
4,0	2,00	E12.0400.20V	▣		0,3	6	3



Ausführung "N"
Schneidgeometrie = Universal

Version "N"
cutting edge geometry = universal

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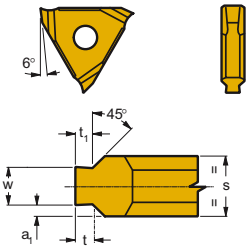
Bestellbeispiel / Sample order:
E12.0100.00N-**314**
E12.0100.00N-**308**

Schneid-breite w + 0,03mm	Eckenradius r mm	Artikelnummer	Schneidstoffe ZGX 40 -314	Schneidstoffe GX 75 -308	Absetzung a1 - 0,04mm
1,0	0,05	E12.0100.00N	▣	▣	0,10
1,0	0,20	E12.0100.02N	▣	▣	0,10
1,5	0,05	E12.0150.00N	▣	▣	0,20
1,5	0,20	E12.0150.02N	▣	▣	0,20
2,0	0,05	E12.0200.00N	▣	▣	0,30
2,0	0,20	E12.0200.02N	▣	▣	0,30
2,0	0,40	E12.0200.04N	▣	▣	0,30
2,5	0,05	E12.0250.00N	▣	▣	0,30
2,5	0,20	E12.0250.02N	▣	▣	0,30
2,5	0,40	E12.0250.04N	▣	▣	0,30
3,0	0,05	E12.0300.00N	▣	▣	0,30
3,0	0,20	E12.0300.02N	▣	▣	0,30
3,0	0,60	E12.0300.06N	▣	▣	0,30
3,0	0,80	E12.0300.08N	▣	▣	0,30
4,0	0,05	E12.0400.00N	▣	▣	0,30
4,0	0,20	E12.0400.02N	▣	▣	0,30
4,0	0,80	E12.0400.08N	▣	▣	0,30
4,0	1,20	E12.0400.12N	▣	▣	0,30



Ausführung "F"
Für Nuten DIN 471/472 mit Nutaußenkanten - Fasung
Schneidgeometrie = Universal
Version "V"
for groove DIN 471/472 with chamfer
cutting edge geometry = universal

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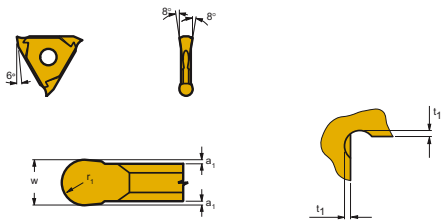
Bestellbeispiel / Sample order:
E12.1105.25F-**314**

Nutnennbreite m mm	Stechtiefe t mm	Grundbreite s ± 0,02mm	Artikelnummer	Schneidstoffe ZGX 40 -314		Schneidenbreite w - 0,05mm	Formtiefe a1 mm	Absetzung g - 0,02mm	Schneidecke mm x °
1,10	0,40	2,50	E12.1105.25F	▣		1,24	0,36	0,64	~0,05 x 45°
1,30	0,55	2,50	E12.1306.25F	▣		1,44	0,45	0,54	~0,05 x 45°
1,60	0,70	3,30	E12.1607.33F	▣		1,74	0,60	0,79	~0,05 x 45°
1,60	0,85	3,30	E12.1608.33F	▣		1,74	0,75	0,79	~0,05 x 45°
1,60	1,00	3,30	E12.1609.33F	▣		1,74	0,85	0,79	~0,05 x 45°
1,85	1,00	3,30	E12.1810.33F	▣		1,99	0,85	0,67	~0,05 x 45°
1,85	1,25	3,30	E12.1812.33F	▣		1,99	1,10	0,67	~0,05 x 45°
2,15	1,50	4,30	E12.2115.43F	▣		2,29	1,35	1,02	~0,05 x 45°
2,65	1,50	4,30	E12.2616.43F	▣		2,79	1,35	0,77	~0,05 x 45°
2,65	1,75	4,30	E12.2617.43F	▣		2,79	1,60	0,77	~0,05 x 45°
3,15	1,75	5,30	E12.3118.53F	▣		3,29	1,60	1,02	~0,05 x 45°
4,15	2,00	5,30	E12.4120.53F	▣		4,29	1,85	0,52	~0,05 x 45°
4,15	2,50	5,30	E12.4125.53F	▣		4,29	2,35	0,52	~0,05 x 45°
5,15	3,00	6,30	E12.5130.63F	▣		5,29	2,85	0,52	~0,05 x 45°



Ausführung "V" Vollradius
Eckenfreistechen
Schneidgeometrie = Universal

Version "V"
corner undercut
cutting edge geometry = universal

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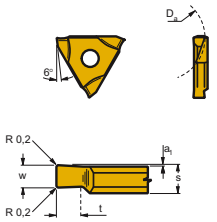
Bestellbeispiel / Sample order:
E12.0010.20V-**314**

R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Schneidenbreite w + 0,04mm	Radius r1 mm	Artikelnummer	Schneidstoffe ZGX 40 -314		Absetzung a1 - 0,04mm	Eckenfreistiche t1 mm
1,0	2,00	E12.0010.20V	▣		0,3	0,70
1,5	3,00	E12.0015.30V	▣		0,3	1,00
2,0	4,00	E12.0020.40V	▣		0,3	1,20
2,5	5,00	E12.0025.50V	▣		0,3	1,50



Ausführung "A"
Axial - Stechen ab 20mm
Schneidgeometrie = Universal

Version "A"
face - grooving > 20mm
cutting edge geometry = universal

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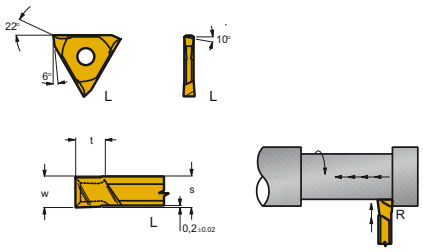
Bestellbeispiel / Sample order:
E12.2015.02AR-**314**
E12.2015.02AR-**308**

R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Nutnennbreite w ± 0,02mm	Geometrie a1 - 0,04mm	Artikelnummer	Schneidstoffe ZGX 40 -314	GX 75 -308	Grundbreite s mm	Stechtiefe t mm	Nutaußen - ø Da mm
1,5	0,22	E12.2015.02AR	▣	▣	2,7	2,0	20,0
2,0	0,22	E12.3020.02AR	▣	▣	2,7	3,0	30,0
3,0	0,22	E12.3030.02AR	▣	▣	3,7	3,0	30,0
1,5	0,22	E12.2015.02AL	▣	▣	2,7	2,0	20,0
2,0	0,22	E12.3020.02AL	▣	▣	2,7	3,0	30,0
3,0	0,22	E12.3030.02AL	▣	▣	3,7	3,0	30,0



Ausführung "Y"
Stech- und Längsdrehen
Schneidgeometrie .33 = Bifunktional

Version "Y"
cutting and turning
cutting edge geometry .33 = bifunctional

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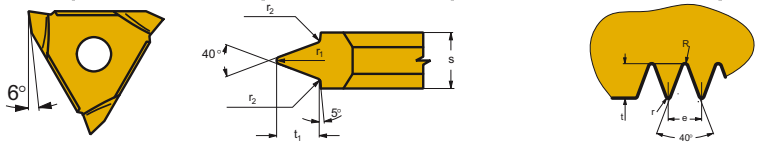
Bestellbeispiel / Sample order:
E12.2025.33YR-**314**
E12.2025.33YR-**308**

L = links wie gezeichnet
R = rechts, spiegelbildlich
L = lefthand version shown
R = righthand version, mirror image

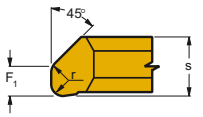
Schneidenbreite w - 0,05mm	Sockelmaß s - 0,05mm	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	GX 75 -308	Stechtiefe t mm
2,50	2,4	.33	E12.2025.33YR	▣	▣	3,0
3,29	3,2	.33	E12.3031.33YR	▣	▣	3,0
2,50	2,4	.33	E12.2025.33YL	▣	▣	3,0
3,29	3,2	.33	E12.3031.33YL	▣	▣	3,0

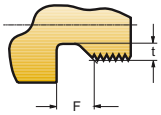


Ausführung "J"
Poly-V-Nuten
Version "J"
poly-V-grooves

Bestellbeispiel / Sample order:
E12.0223.30J-**314**
E12.0223.30J-**308**

r ± 0,02mm	e - 0,04mm	Grundbreite s - 0,04mm	Grundbreite s - 0,04mm	Artikelnummer	Schneidstoffe ZGX 40 -314	GX 75 -308	R (min - max)	r ± 0,025mm	Formtiefe t (min - max)	t1 mm
0,25	0,20	2,34	3,3	E12.0223.30J	▣	▣	0,25 - 0,38	0,20 min	2,08 - 2,34	2,30
0,35	0,25	3,56	4,3	E12.0356.43J	▣	▣	0,35 - 0,50	0,25 min	3,18 - 3,73	3,69





Ausführung "E"
Gewindefreistich nach DIN 76
Schneidgeometrie = Universal

Version "E"
threading undercut
cutting edge geometry = universal

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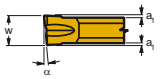
Bestellbeispiel / Sample order:

E12.1050.17ER-**314**

R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

Steigung P mm	Sockelmaß s + 0,05mm	Artikelnummer	Schneidstoffe ZGX 40 -314		Eckenradius s r mm	F1 ± 0,05mm	F mm	Stechtiefe t mm
0,50	1,7	E12.1050.17ER	▣		0,2	0,60	1,0	0,40
0,80	2,7	E12.1080.27ER	▣		0,4	0,95	1,6	0,65
1,00	2,7	E12.1100.27ER	▣		0,6	1,20	2,0	0,80
1,25	2,7	E12.1125.27ER	▣		0,6	1,50	2,5	1,00
1,50	3,7	E12.1150.37ER	▣		0,8	1,85	3,0	1,15
1,75	3,7	E12.1175.37ER	▣		1,0	2,20	3,5	1,30
2,00	5,3	E12.1200.53ER	▣		1,0	2,50	4,0	1,50
1,50	5,3	E12.3150.53ER	▣		0,8	3,35	4,5	1,15
0,50	1,7	E12.1050.17EL	▣		0,2	0,60	1,0	0,40
0,80	2,7	E12.1080.27EL	▣		0,4	0,95	1,6	0,65
1,00	2,7	E12.1100.27EL	▣		0,6	1,20	2,0	0,80
1,25	2,7	E12.1125.27EL	▣		0,6	1,50	2,5	1,00
1,50	3,7	E12.1150.37EL	▣		0,8	1,85	3,0	1,15
1,75	3,7	E12.1175.37EL	▣		1,0	2,20	3,5	1,30
2,00	5,3	E12.1200.53EL	▣		1,0	2,50	4,0	1,50
1,50	5,3	E12.3150.53EL	▣		0,8	3,35	4,5	1,15



Ausführung "P" Abstechen
Stechtiefe - halterabhängig
Schneidgeometrie .11 = mit Spanformer
Schneidgeometrie .00 = ohne Spanformer

Version "P" cut off
depth of cut - dependet on holder size
cutting edge geometry .11 = with chipformer
cutting edge geometry .00 = without chipformer

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Bestellbeispiel / Sample order:

E12.1210.00PR-**314**
E12.1210.00PR-**308**

R = rechts wie gezeichnet
L = links, spiegelbildlich
R = righthand version shown
L = lefthand version, mirror image

w - 0,05mm	°	Geometrie	Artikelnummer	Schneidstoffe ZGX 40 -314	GX 75 -308	Absetzung a1 - 0,04mm
1,0	12	.00	E12.1210.00PR	▣	▣	0,10
1,3	6 - 7	.00	E12.0613.00PR	▣	▣	0,20
1,6	6 - 7	.00	E12.0516.00PR	▣	▣	0,22
2,0	5 - 6	.00	E12.0520.00PR	▣	▣	0,22
1,0	12	.11	E12.1210.11PR	▣	▣	0,10
1,3	6 - 7	.11	E12.0613.11PR	▣	▣	0,20
1,6	6 - 7	.11	E12.0516.11PR	▣	▣	0,22
2,0	5 - 6	.11	E12.0520.11PR	▣	▣	0,22
2,0	15	.11	E12.1520.11PR	▣	▣	0,22
2,1	5 - 6	.11	E12.0521.11PR	▣	▣	0,22
1,0	12	.00	E12.1210.00PL	▣	▣	0,10
1,3	6 - 7	.00	E12.0613.00PL	▣	▣	0,20
1,6	6 - 7	.00	E12.0516.00PL	▣	▣	0,22

Schneidstoffe

GF 25

Unbeschichtete fein - mittelkörnige Hartmetallsorte mit hoher Biegebruch-festigkeit (3000 N/mm2) zur Bearbeitung von legiertem und unlegiertem Stahl, Aluminium, Aluminiumlegierungen, Messing, Bronze, Nickellegierungen und unterbrochenen Schnitten unteren Schnittgeschwindigkeitsbereich.

ZGX 40

PCD-beschichtet fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung

GX 75

TIALN-beschichtete fein- bis mittelkörnige Hartmetallsorte, extrem universelles Einsatzgebiet, höchste Standzeiten, geeignet für Trockenbearbeitung. Besonders geeignet für Nirosta Stähle

AS

Speziell für die optimale Bearbeitung von Leichtmetallen.

Diese Tabelle enthält die gebräuchlichsten HM-Sorten bzw. Beschichtungen. Andere Beschichtungen sind jederzeit erhältlich. Wegen der entsprechenden Lieferzeit fragen Sie bitte an.

Grade selection

GF 25

Uncoated carbide (micro grain), high rupture and fatigue strength (3000 N/mm2). For workpiece material: alloysteel, ordinary steel, aluminium, aluminium alloy, brass, gunmetal and nickel alloy. For interrupted cuts and lower cutting speed.

ZGX 40

PCD - coated micro grain carbide. Extremly universal use, highest cutting edge life, suitable for dry cutting.

GX 75

TIALN-coated micro grain carbide. Extremely universal use, highest cutting edge life, suitable for dry cutting.

AS

Special coating for optimal work of light alloy.

This table contains the most common carbide grades. Other coatings are available any time. Please contact us for the correspon-ding delivery time.

Material Materials	Festigkeit / Härte Tensile strength / Hardness	Beispiel Sample	Schneidstoffe Grades			
			GF 25	ZGX 40	GX 75	AS
Kohlenstoff-Stahl carbon steel	0,15 %	ST 37, C15	-	120 - 200	100 - 180	-
	0,45 %	ST50, C50	30 - 110	100 - 200	90 - 180	-
C-Gehalt (carnon content)	0,60 %	ST60, C60	-	90 - 180	80 - 170	-
Legierter Stahl alloy steel	niedrig / low	16 MnCr5	-	100 - 210	100 - 200	-
	mittel / medium	90 MnCrV8	30 - 80	80 - 160	70 - 150	-
	hoch / high	X210Cr1234	-	70 - 90	65 - 80	-
Rostbeständiger Stahl Inox steel		1.4301 1.4571	-	40 - 120	40 - 70	-
Stahlguss cast steel	unlegiert / non alloyed	< 500 N/mm²	-	90 - 160	80 - 150	-
	legiert / alloyed	> 500 N/mm²	-	70 - 110	60 - 120	-
Grauguss grey cast iron		GG20 / GG30	60 - 90	70 - 180	70 - 180	-
		GGG50 / GGG70	50 - 80	60 - 150	60 - 150	-
Aluminium aluminium	~ 180 HB		200 - 250	400 - 1100	300 - 950	600 - 1550
	~ 50 HB		700 - 850	200 - 1300	180 - 1150	300 - 1900
	~ 100 HB		280 - 350	250 - 800	230 - 800	375 - 1150
Legierungen Nickel-Basis nickel based alloys		X 16CrNi16 X 50Cr-Mn-	20 - 50	30 - 85	30 - 85	-
Bronze, Messing, Rotguss bronze, brass, red brass			90 - 180	80 - 200	80 - 200	-

Vorschubempfehlung beim Stechdrehen: 0,07 - 0,18 mm/U
Feed-recommendation for grooving application: 0,07 - 0,18 mm/ref.

Die Verwendung von Kühlschmiermitteln wird allgemein empfohlen.
The use of cooling fluid is generaly recommended

Für "Trockenbearbeitung" und die Bearbeitung nichtrostender Stähle empfehlen wir unsere Schneidstoff-Sorte GX75.
The recommended grade for applications without coolant and machining stainless steel is GX 75.

ADD engineering