



SUPERMINI UND MINI INNENBEARBEITUNG

**SUPERMINI AND MINI
INTERNAL MACHINING**

2025/2026



ERLEBEN SIE HORN
EXPLORE HORN

Erleben Sie HORN

Herausragende Ergebnisse sind immer die Kombination aus optimalem Zerspanungsprozess und perfektem Werkzeug. HORN verbindet dafür Spitzentechnologie, Leistungsfähigkeit und Zuverlässigkeit. Von der Einzelteil- bis zur Serienfertigung, für Standard- oder Sonderanwendungen: Unsere Werkzeuge bieten Ihnen schnelle, wirtschaftliche und qualitativ hochwertige Lösungen. Bei der Auswahl der individuellen Schnittparameter unterstützen Sie unsere Tabellen mit praxiserprobten Erfahrungswerten im jeweiligen Katalog. Nutzen Sie darüber hinaus das Know-how unserer Mitarbeiterinnen und Mitarbeiter im Innen- und Außendienst.

Nachhaltigkeit ist ein zentraler Bestandteil unserer Unternehmensphilosophie. Deshalb stehen Qualitätssicherung, Umweltschutz, Energieeffizienz und Sicherheit bei unseren Produkten und in der Produktion seit jeher im Fokus. Als leistungsstarker und zuverlässiger Werkzeugpartner sorgen wir dafür, dass Sie mit uns gemeinsam in eine innovative und wirtschaftliche Zukunft gehen.

Besuchen Sie auch unseren eShop, der Ihnen rund um die Uhr zur Verfügung steht.



Markus Horn
Geschäftsführer
Paul Horn GmbH



Matthias Rommel
Geschäftsführer
Paul Horn GmbH

Explore HORN

Outstanding results are always a combination of the optimum cutting process and the perfect tool. To achieve this, HORN combines advanced technology, performance and reliability. From single part to series production, for standard or special applications: Our tools offer you fast, economical, high quality solutions. To assist you when choosing cutting parameters, our tables in the respective catalogue provide proven empirical values. Take advantage of the expertise of our office staff and sales engineers.

Sustainability is a central part of our corporate philosophy. That is why we have always focused on quality assurance, environmental protection, energy efficiency and safety with regard to our products and our production. As an efficient and reliable tool partner, we make sure that you join us in an innovative and strong economic future.

Please visit our eShop, which is available around the clock.



Markus Horn
CEO
Paul Horn GmbH



Matthias Rommel
CEO
Paul Horn GmbH

A	Supermini System 105 Ausdrehen, Einstechen, Fasen, Gewindedrehen, Axialeinstechen Boring, Grooving, Chamfering, Threading, Face Grooving
B	Supermini System 109 Ausdrehen, Einstechen, Fasen, Gewindedrehen, Axialeinstechen Boring, Grooving, Chamfering, Threading, Face Grooving
C	Supermini System 110 Ausdrehen, Einstechen, Axialeinstechen Boring, Grooving, Face Grooving
D	Mini System 106 Ausdrehen, Einstechen, Fasen Boring, Grooving, Chamfering
E	Mini System 107 Ausdrehen, Einstechen, Fasen, Gewindedrehen Boring, Grooving, Chamfering, Threading
F	Mini System 108 Ausdrehen, Einstechen, Fasen, Gewindedrehen Boring, Grooving, Chamfering, Threading
G	Mini System 10P Ausdrehen, Einstechen Boring, Grooving
H	Mini System 111 Ausdrehen, Einstechen, Fasen, Gewindedrehen Boring, Grooving, Chamfering, Threading
I	Mini System 11P Ausdrehen, Einstechen Boring, Grooving
J	Mini System 114 Ausdrehen, Einstechen, Fasen, Gewindedrehen, Axialeinstechen Boring, Grooving, Chamfering, Threading, Face Grooving
K	Mini System 116 Ausdrehen, Einstechen, Fasen, Gewindedrehen Boring, Grooving, Chamfering, Threading
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M	Technische Hinweise, Anwendungsbeispiele, Zubehör Technical Instructions, Examples for machining, Additional equipment
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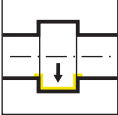
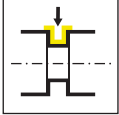
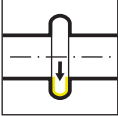
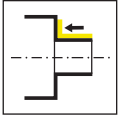
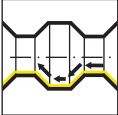
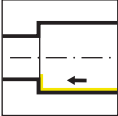
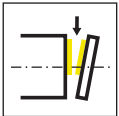
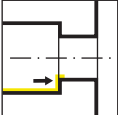
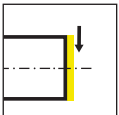
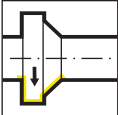
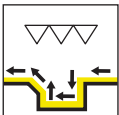
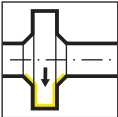
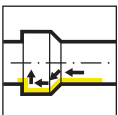
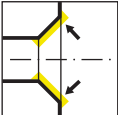
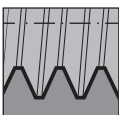
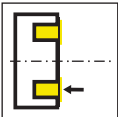
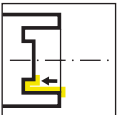
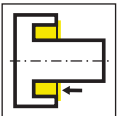
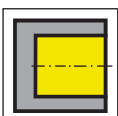
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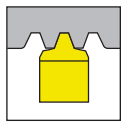
M

Übersicht Anwendungen

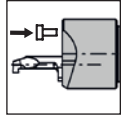
Overview Application



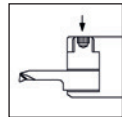
	Einstecken innen Internal grooving		Einstecken außen External grooving
	Einstecken innen Vollradius Internal grooving full radius		Längsdrehen außen External side turning
	Drehen innen Fase Internal boring and grooving chamfer		Kopierdrehen außen External copy turning
	Bohrung Ausdrehen Internal boring		Abstechen Parting off
	Rückwärtsdrehen innen Internal back turning		Plandrehen Face turning
	Vorstecken und Fasen innen Internal pre-grooving and chamfering		Feindrehen Fine turning
	Einstecken mit Fase innen Internal grooving with chamfer		Gewinde Teilprofil Partial profile thread
	Bohrung Kontur Ausdrehen Boring and profiling		Gewinde Vollprofil Full profile thread
	Fasen innen Internal chamfering		Gewinde innen Internal thread
	Axialstechen Face grooving		BSW BSF Whitworth-Rohrgewinde BSW/BSF Whitworth pipe thread BSW/BSF
	Axialstechen innen vor Mitte Internal axial grooving in front of center		NPT NPTF National pipe thread
	Axialstechen mit Bund Axial grooving with collar		60° Gewinde metrisch Metric ISO thread
	Bohren ins Volle Boring into solid		UN Unified-Gewinde Unified thread



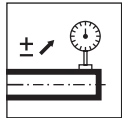
Trapezgewinde
Trapezoidal thread



Stirnspannelement
Face clamping



Abhebeelement
Lift element



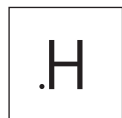
Einrichten
Setup



Geometrie D
Geometry D



Geometrie FB
Geometry FB



Geometrie H
Geometry H



Geometrie HV
Geometry HV



Geometrie I
Geometry I



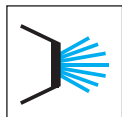
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Geometry R



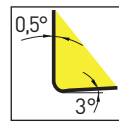
Geometrie GM - Filetage
Geometry GM - Filettatura



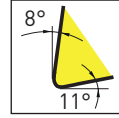
Geometrie U
Geometry U



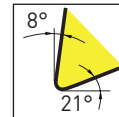
Innenkühlung
Internal coolant



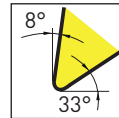
Schneidenwinkel
Cutting angle



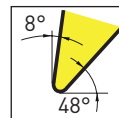
Schneidenwinkel
Cutting angle



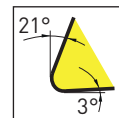
Schneidenwinkel
Cutting angle



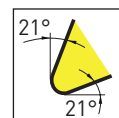
Schneidenwinkel
Cutting angle



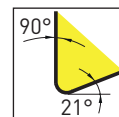
Schneidenwinkel
Cutting angle



Schneidenwinkel
Cutting angle



Schneidenwinkel
Cutting angle



Schneidenwinkel
Cutting angle



Feinstbearbeitung
Precision machining



Seegerring
Circlip grooves



Panzerrohrgewinde
Steel conduit thread



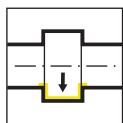
Hartbearbeitung
Hard machining

Geometrie Geometry	Werkstoff Material	Vorschubbereich f [mm/U] Feed rate f [mm/rev]	Bearbeitung Machining
	P M K N S H	← $f = 0,04-0,06$ $ap = 0,15-0,5 \text{ mm}$	
	P M K N S H	← $f = 0,05-0,1$ $ap = 0,15-0,5 \text{ mm}$	
	P M K N S H	↓ $f = 0,01-0,04$ $ap = 0,03-0,05 \text{ mm}$	
	P M K N S H	← $f = 0,003-0,04$ $ap = 0,005-0,1 \text{ mm}$	
	P M K N S H	← $f = 0,03-0,07$ $ap = 0,1-0,4 \text{ mm}$	

Vorschubbereich f [mm/U]

Feed rate f [mm/rev]

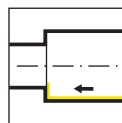
$f = 0,01-0,03$



Einstechen
Grooving

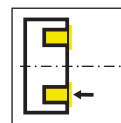
$f = 0,02-0,05$

$ap = 0,15-0,5 \text{ mm}$



Längsdrehen
Side Turning

$f = 0,02-0,05$



Axialeinstechen
Face Grooving

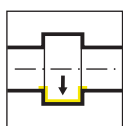
Geometrie Geometry	Werkstoff Material	Vorschubbereich f [mm/U] Feed rate f [mm/rev]	Bearbeitung Machining
	P M K N S H	↓ f = 0,03-0,08 ↔ ap = 0,2-1,5*	
	P M K N S H	↓ f = 0,015-0,05 ↔ ap = 0,03-0,07*	
	P M K N S H	← f = 0,05-0,15 ← ap = 0,05-0,6	
	P M K N S H	← f = 0,05-0,15 ← ap = 0,2-2,0*	

*Systemabhängig / System dependent

Vorschubbereich f [mm/U]

Feed rate f [mm/rev]

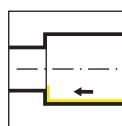
f = 0,01-0,05



Einstechen
Grooving

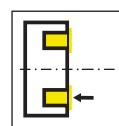
f = 0,03-0,1

ap = 0,1-0,5 mm



Längsdrehen
Side Turning

f = 0,02-0,08



Axialeinstechen
Face Grooving

- Alle Abmessungen sind in mm angegeben, sofern nicht anders vermerkt.
All dimensions are in mm unless otherwise noted.
- Weitere Abmessungen und Ausführungen sind auf Anfrage erhältlich.
Further dimensions and versions are available on request.
- Das Anzugsmoment der Schrauben finden Sie im Kapitel "Technische Hinweise".
For torque specification of the screw, please see "Technical Instructions".
- Alle Klemmhalter der Systeme "Mini" können von unserem Reparaturservice instandgesetzt werden.
All toolholders of the systems "Mini" with damaged seating can be repaired by HORN.
- Lieferzeiten / Delivery times
 - ▲ ab Lager / on stock
 - Δ 4 Wochen / 4 weeks
- Einsatz für Werkstoffgruppen / Use for material groups
 - empfohlen / recommended
 - bedingt einsetzbar / alternative recommended
 - nicht geeignet / not suitable

Die HORN-Trennstellencodierung - wofür wird sie benötigt?

Die Trennstellencodierung stellt sicher, dass Sie immer die zueinander passenden Werkzeuge finden und wird bei Werkzeughaltern und bei Schneidplatten ausgewiesen. Wenn die Codes übereinstimmen, kann die Schneidplatte im entsprechenden Werkzeughalter verwendet werden.
Das gilt auch für unser modulares Haltersystem, hier gibt die Trennstellencodierung die Schnittstelle zwischen Grundhalter und Kassette an.

The HORN connection interface code - what is it needed for?

The connection interface code ensures that you will always find the appropriate tools and is shown on toolholders and inserts. If the codes match, the insert can be used in the corresponding toolholder.
This also applies to our modular holder system, where the connection code indicates the interface between the holder and the cassette.

HORN-Trennstellencodes und mögliche Kombinationen:

HORN connection interface codes and possible combinations:

HIS = Plattensitzgröße / Insert seat
HWS = Trennstelle Werkstückseitig / Interface workpiece side
HMS = Trennstelle Maschinenseitig / Interface machine side

HIS	↔	HWS
HMS	↔	HWS

Beispiel Schneidplatte

Example insert

Bestellnummer Part number	r	f	a	d	l ₂	l _s	t _{max}	D _{min}	HIS	TH35
R109.1828.1.6	0,2	2,8	5,7	5	10	28	0,4	6	109140	Δ

Beispiel Klemmhalter

Example toolholder

Bestellnummer Part number	d	l ₁	h	l ₄	l ₂	d ₂	HWS
B109.0012.01	12	75	10	50	16	20	109140

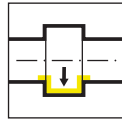
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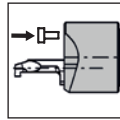
**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

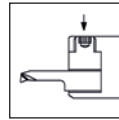
Klemmhalter
Toolholder
B105/BU105/H105/
HC105/962/963/
AIH/HF.N/HSKT40/
VDI/B105C/B105TS/
WFB.105



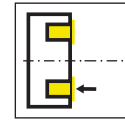
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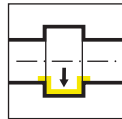


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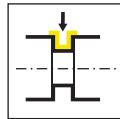
Übersicht
Overview

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Grundhalter Graf
Basic toolholder Graf
IR105/G

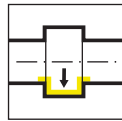


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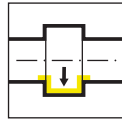
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Einbauhalter Graf
Cartridge Graf
IR105

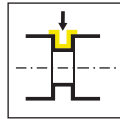


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Grundhalter
Basic toolholder
HC105/L760/BGT

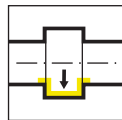


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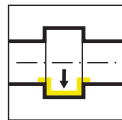
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Kassette
Cassette
KC760



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Einstellbare Halter
Adjustable holder
BKT/N



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Zwischenstück Graf
Adaptor Graf
Z/N



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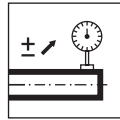
Ersatzteile und Zubehör
Spare Parts and Additional
Equipment

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Technische Hinweise
Technical Instructions

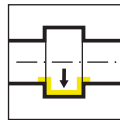
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Höheneinstell-
vorrichtung
Device for height adjusting
HVR.40



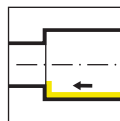
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Bohrstangen-Aufnahme
Adaptor for boring bars
001C

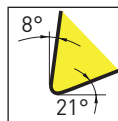


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Schneidplatte
Insert
105/S105/HSKT40/A105



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76, 138



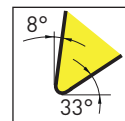
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77-82



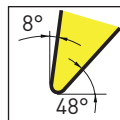
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83



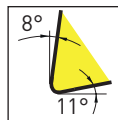
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84-91



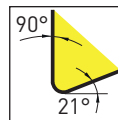
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92



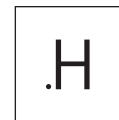
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93



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94-97



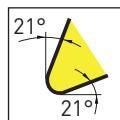
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98-99



Seite/Page
100-101



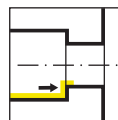
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102-105



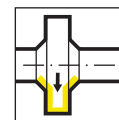
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106-107



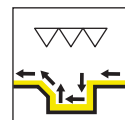
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108



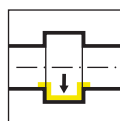
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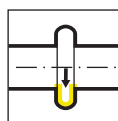
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110



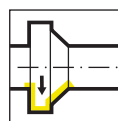
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111



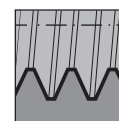
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112-120, 137



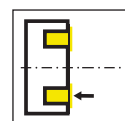
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121-123



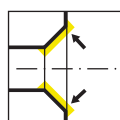
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124



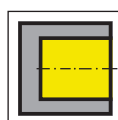
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125-134



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139-144, 147-148

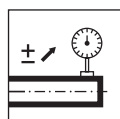


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149-150

Platte
Insert
105



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151-152

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

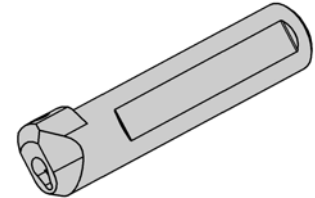
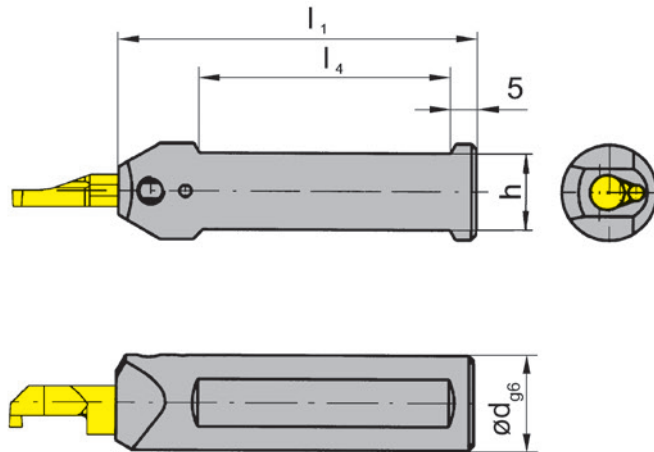
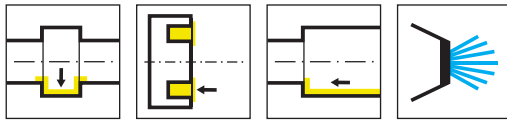


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	HWS
B105.0010.01	10	75	9	50	105123 • 105124 • 105125
B105.0012.01	12	75	11	50	105123 • 105124 • 105125
B105.0016.01	16	75	14	50	105123 • 105124 • 105125
B105.0020.01	20	90	18	55	105123 • 105124 • 105125
B105.0022.01	22	90	20	55	105123 • 105124 • 105125
B105.0025.01	25	100	23	55	105123 • 105124 • 105125
B105.0028.01	28	120	26	72	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

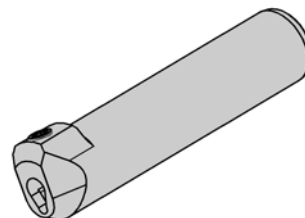
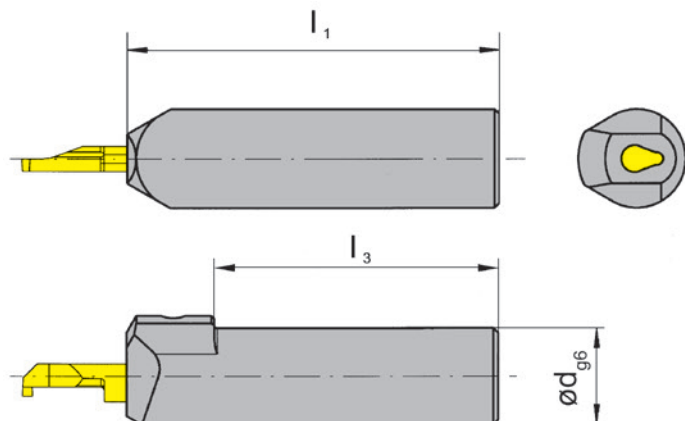
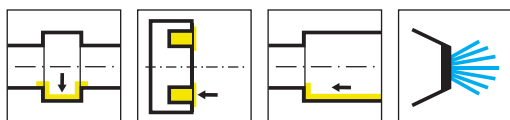


Abbildung = rechtsschneidend

Picture = right hand cutting version

Bestellnummer Part number	d	l_1	l_3	HWS
B105.0010.01A	10	75	57	105123 • 105124 • 105125
B105.0012.01A	12	75	63	105123 • 105124 • 105125
B105.0016.01A	16	75	63	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

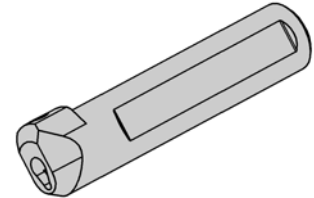
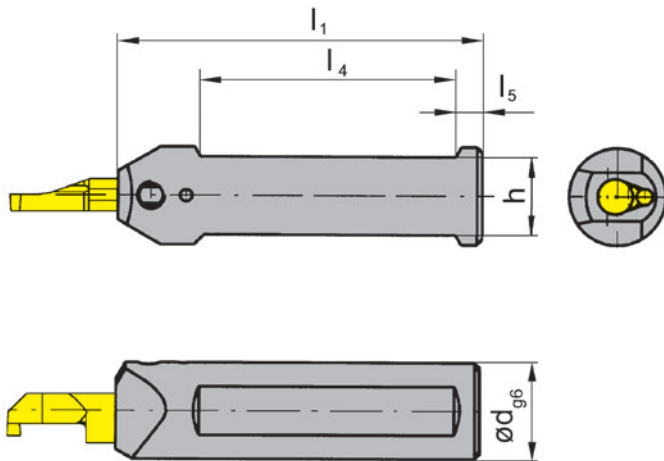
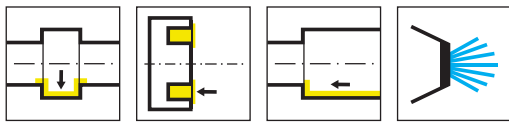


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	l ₅	HWS
BU105.0750.5.01	3/4"	90	17,04	70	5	105123 • 105124 • 105125
BU105.0750.5.3.01	3/4"	152,5	17,05	70	5	105123 • 105124 • 105125
BU105.1000.5.01	1"	90	23,4	65	5	105123 • 105124 • 105125
BU105.1000.5.3.01	1"	152,5	23,4	70	5	105123 • 105124 • 105125

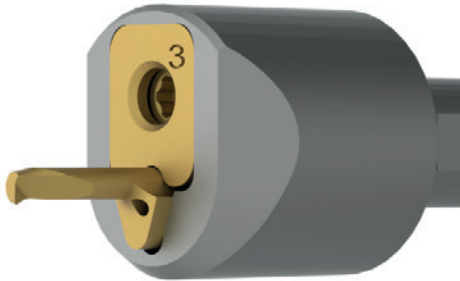
Abmessungen in inch und mm
Dimensions in inch and mm

Kühlmittelanschluss M12x1,5 für Traub Maschinen
Der Kühlmittelanschluss gehört nicht zum Lieferumfang.
Adapter of cooling M12x1,5 for Traub machines
Coolant supply is not included.

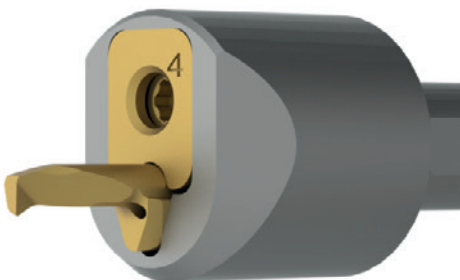
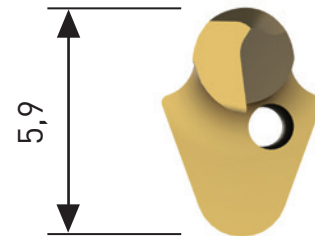
Ersatzteile

Spare Parts

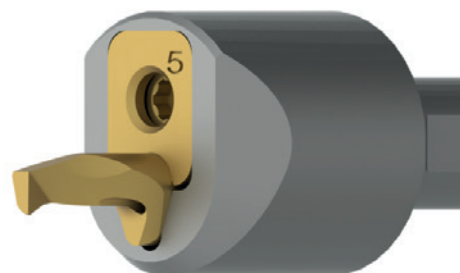
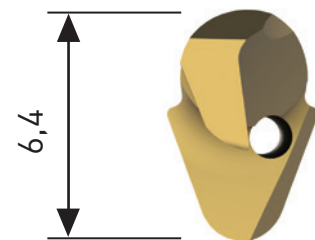
Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BU105...	6.075T15P	T15PQ



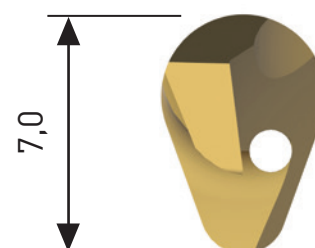
Größe 3 (HWS = 105123)
Size 3



Größe 4 (HWS = 105124)
Size 4



Größe 5 (HWS = 105125)
Size 5



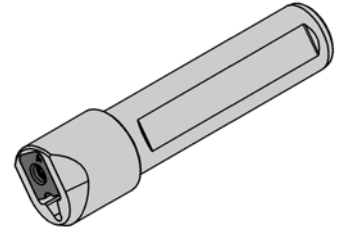
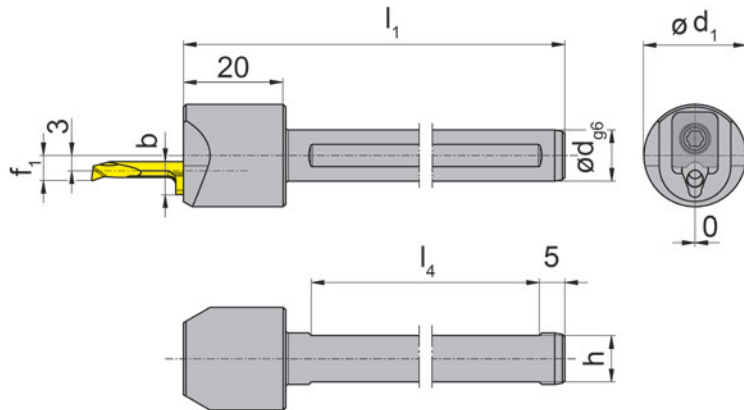
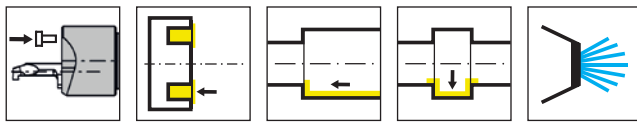


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	f ₁	d ₁	b	HWS
B105.0010.S.03	10	80	9	50	4,3	20	5,9	105123
B105.0012.S.03	12	80	11	50	4,3	20	5,9	105123
B105.0016.S.03	16	80	14	50	4,3	20	5,9	105123
B105.0020.S.03	20	90	18	55	4,3	20	5,9	105123
B105.0022.S.03	22	90	20	55	4,3	22	5,9	105123
B105.0025.S.03	25	100	23	55	4,3	25	5,9	105123
B105.0028.S.03	28	120	26	55	4,3	28	5,9	105123
B105.0010.S.04	10	80	9	50	4,9	20	6,4	105124
B105.0012.S.04	12	80	11	50	4,9	20	6,4	105124
B105.0016.S.04	16	80	14	50	4,9	20	6,4	105124
B105.0020.S.04	20	90	18	55	4,9	20	6,4	105124
B105.0022.S.04	22	90	20	55	4,9	22	6,4	105124
B105.0025.S.04	25	100	23	55	4,9	25	6,4	105124
B105.0028.S.04	28	120	26	55	4,9	28	6,4	105124
B105.0010.S.05	10	80	9	50	6,3	20	7	105125
B105.0012.S.05	12	80	11	50	6,3	20	7	105125
B105.0016.S.05	16	80	14	50	6,3	20	7	105125
B105.0020.S.05	20	90	18	55	6,3	20	7	105125
B105.0022.S.05	22	90	20	55	6,3	22	7	105125
B105.0025.S.05	25	100	23	55	6,3	25	7	105125
B105.0028.S.05	28	120	26	55	6,3	28	7	105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0...03	010.0105.03	T15PL
B105.0...04	010.0105.04	T15PL
B105.0...05	010.0105.05	T15PL

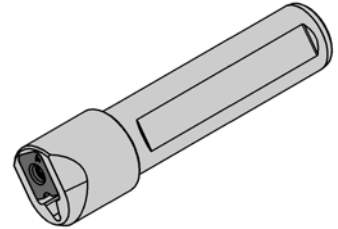
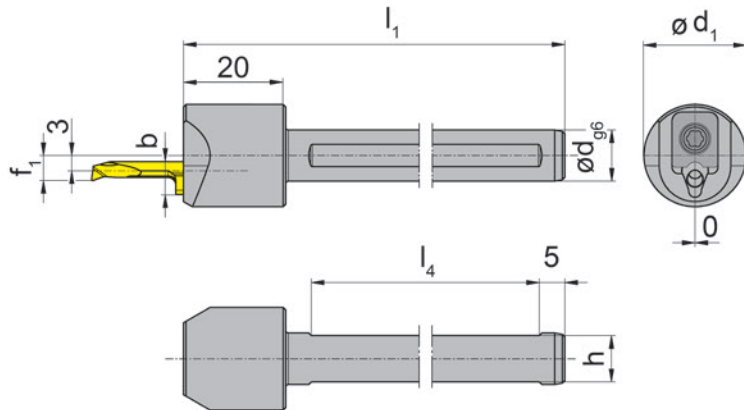
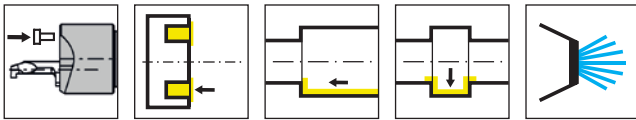


Abbildung = rechtsschneidend
Picture = right hand cutting version

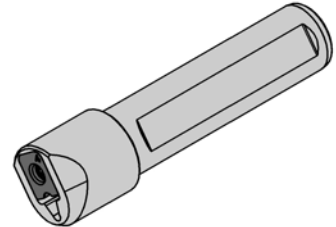
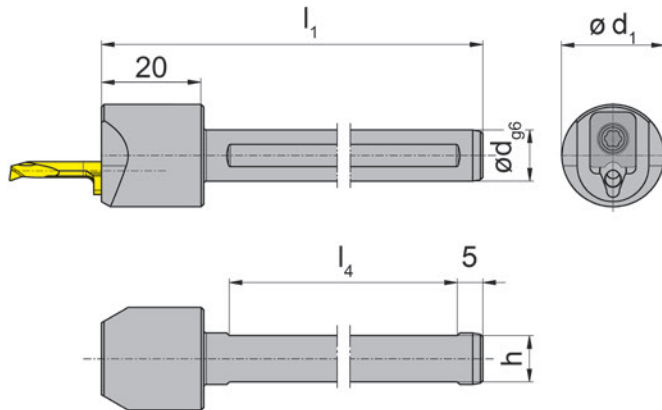
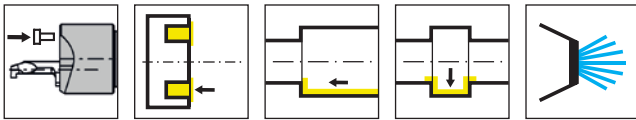
Bestellnummer Part number	d	l ₁	h	l ₄	f ₁	d ₁	b	HWS
BU105.0500.S.03	1/2"	80	10,7	50	4,3	20	5,9	105123
BU105.0625.S.03	5/8"	80	13,87	50	4,3	20	5,9	105123
BU105.0750.S.03	3/4"	90	17,05	55	4,3	19,05	5,9	105123
BU105.1000.S.03	1"	90	23,4	55	4,3	25,4	5,9	105123
BU105.0500.S.04	1/2"	80	10,7	50	4,9	20	6,4	105124
BU105.0625.S.04	5/8"	80	13,87	50	4,9	20	6,4	105124
BU105.0750.S.04	3/4"	90	17,05	55	4,9	19,05	6,4	105124
BU105.1000.S.04	1"	90	23,4	55	4,9	25,4	6,4	105124
BU105.0500.S.05	1/2"	80	10,7	50	6,3	20	7	105125
BU105.0625.S.05	5/8"	80	13,87	50	6,3	20	7	105125
BU105.0750.S.05	3/4"	90	17,05	55	6,3	19,05	7	105125
BU105.1000.S.05	1"	90	23,4	55	6,3	25,4	7	105125

Abmessungen in inch und mm
Dimensions in inch and mm

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BU105.0...03	010.0105.03	T15PL
BU105.0...04	010.0105.04	T15PL
BU105.0...05	010.0105.05	T15PL



Bestellnummer Part number	d	h	l ₁	l ₄	d ₁	HWS
B105.0010.S.SET	10	9	80	50	20	105123 • 105124 • 105125
B105.0012.S.SET	12	11	80	50	20	105123 • 105124 • 105125
B105.0016.S.SET	16	14	80	50	20	105123 • 105124 • 105125
B105.0020.S.SET	20	18	90	55	20	105123 • 105124 • 105125
B105.0022.S.SET	22	20	90	55	22	105123 • 105124 • 105125
B105.0025.S.SET	25	23	100	55	25	105123 • 105124 • 105125
B105.0028.S.SET	28	26	120	55	28	105123 • 105124 • 105125

Hinweis:

Ein Klemmhalter-Set beinhaltet je 3 Spannelemente

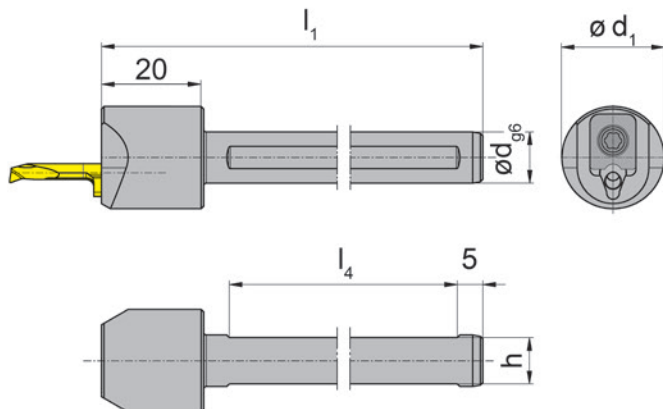
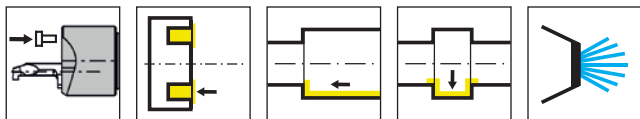
Note:

One toolholder set includes 3 clamping elements each

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	010.0105.03 010.0105.04 010.0105.05	T15PW



Bestellnummer Part number	d	h	l ₁	l ₄	d ₁	HWS
BU105.0500.S.SET	.500"	10,7	80	50	20	105123 • 105124 • 105125
BU105.0625.S.SET	.625"	13,875	80	50	20	105123 • 105124 • 105125
BU105.0750.S.SET	.750"	17,05	90	55	.750"	105123 • 105124 • 105125
BU105.1000.S.SET	1"	23,4	90	55	1"	105123 • 105124 • 105125

Abmessungen in inch und mm
Dimensions in inch and mm

Hinweis:

Ein Klemmhalter-Set beinhaltet je 3 Spannelemente

Note:

One toolholder set includes 3 clamping elements each

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BU105...	010.0105.03 010.0105.04 010.0105.05	T15PW

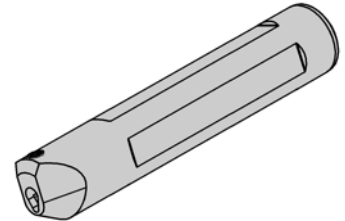
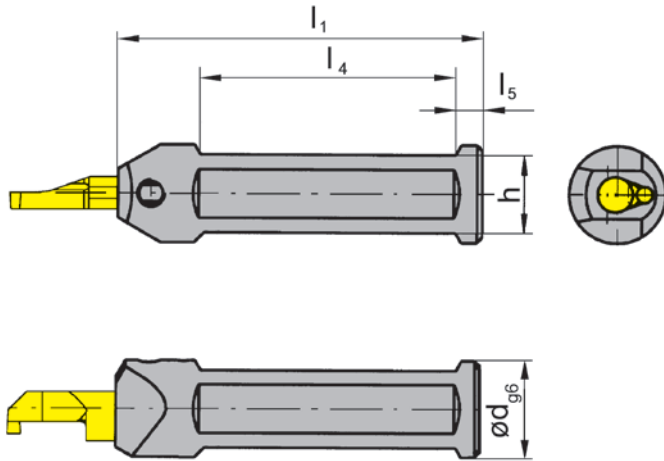
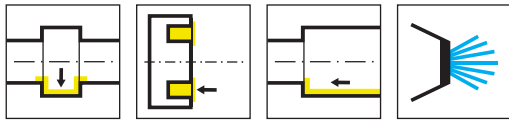


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	l ₅	HWS
B105.0022.1.2.01	22	120	20	72	5	105123 • 105124 • 105125

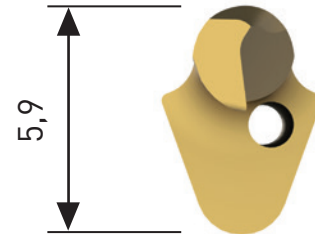
Ersatzteile

Spare Parts

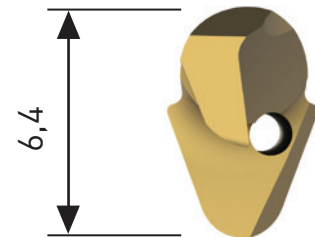
Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0022.1.2.01	6.075T15P	T15PQ



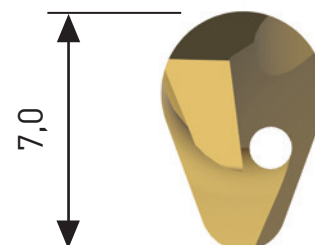
Größe 3 (HWS = 105123)
Size 3

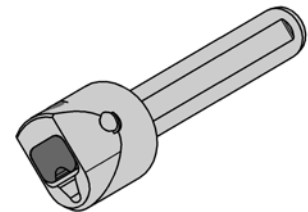
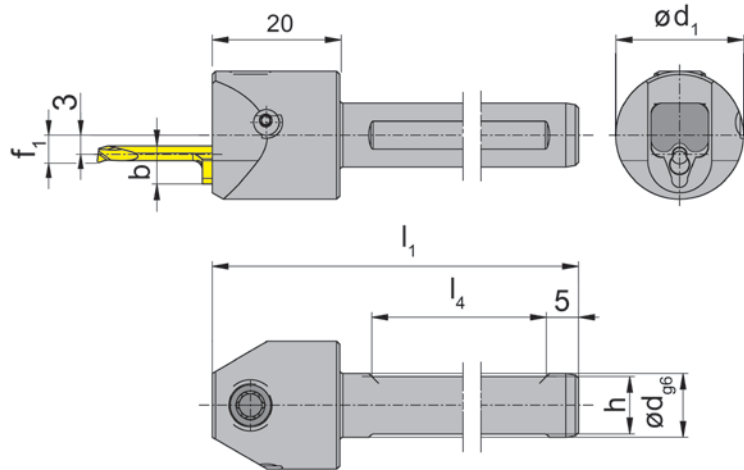
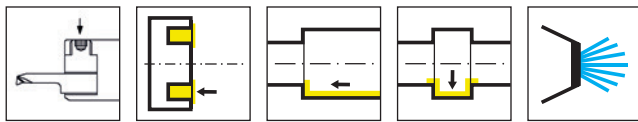


Größe 4 (HWS = 105124)
Size 4



Größe 5 (HWS = 105125)
Size 5





Bestellnummer Part number	d	l ₁	h	l ₄	f ₁	d ₁	b	HWS
B105.0010.A.03	10	80	9	50	4,3	20	5,9	105123
B105.0012.A.03	12	80	11	50	4,3	20	5,9	105123
B105.0016.A.03	16	80	14	50	4,3	20	5,9	105123
B105.0020.A.03	20	90	18	55	4,3	20	5,9	105123
B105.0025.A.03	25	100	23	55	4,3	25	5,9	105123
B105.0010.A.04	10	80	9	50	4,9	20	6,4	105124
B105.0012.A.04	12	80	11	50	4,9	20	6,4	105124
B105.0016.A.04	16	80	14	50	4,9	20	6,4	105124
B105.0020.A.04	20	90	18	55	4,9	20	6,4	105124
B105.0025.A.04	25	100	23	55	4,9	25	6,4	105124
B105.0010.A.05	10	80	9	50	6,3	20	7	105125
B105.0012.A.05	12	80	11	50	6,3	20	7	105125
B105.0016.A.05	16	80	14	50	6,3	20	7	105125
B105.0020.A.05	20	90	18	55	6,3	20	7	105125
B105.0025.A.05	25	100	23	55	6,3	25	7	105125

b = Schneidplattenhöhe
b = Height of insert

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0...03	010.0003.0668	T25PQ
B105.0...04	010.0004.0667	T25PQ
B105.0...05	010.0005.0663	T25PQ

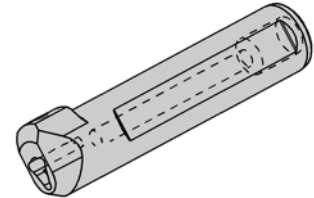
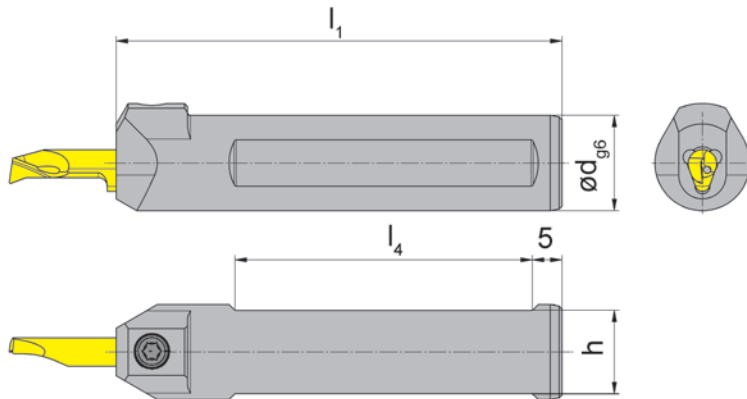
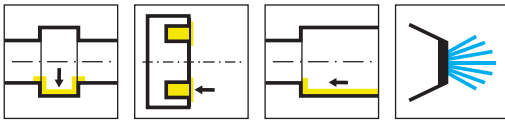
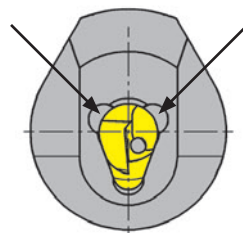


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	HWS
B105.0012.K.01	12	75	11	50	105123 • 105124 • 105125
B105.0016.K.01	16	75	14	50	105123 • 105124 • 105125
B105.0020.K.01	20	90	18	50	105123 • 105124 • 105125
B105.0022.K.01	22	90	20	55	105123 • 105124 • 105125
B105.0025.K.01	25	100	23	55	105123 • 105124 • 105125
B105.0012.M8.K.01	12	75	11	50	105123 • 105124 • 105125
B105.0016.M8.K.01	16	75	14	50	105123 • 105124 • 105125
B105.0020.M8.K.01	20	90	18	55	105123 • 105124 • 105125

mit zusätzlichen Spülbohrungen
with additional through coolant bores



Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

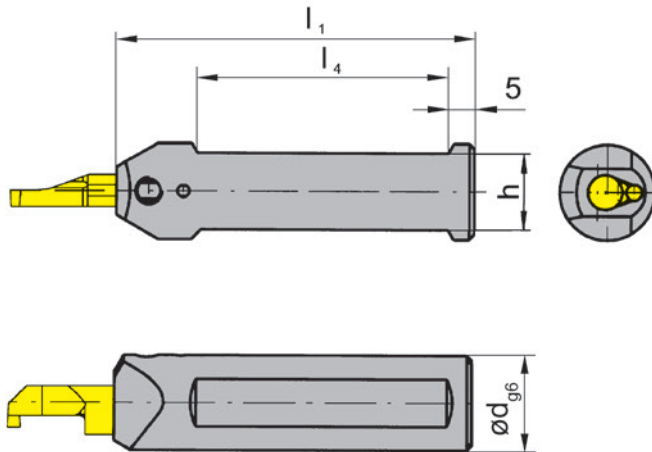
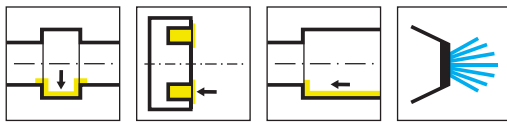


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	HWS
B105.0012.M8.01	12	75	11	50	105123 • 105124 • 105125
B105.0016.M8.01	16	75	14	50	105123 • 105124 • 105125
B105.0020.M8.01	20	90	18	55	105123 • 105124 • 105125
B105.0025.M8.01	25	100	23	55	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

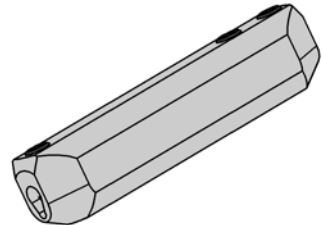
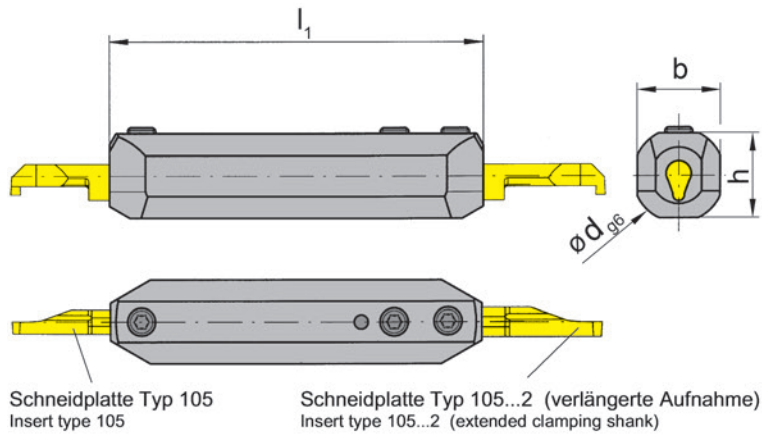
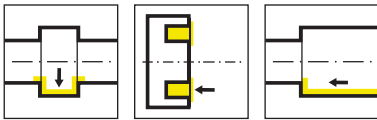


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	b	HWS
B105.0020.1.03	20	80	18	18	105123 • 105124 • 105125 • 105225

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0020.1.03	6.075T15P	T15PQ

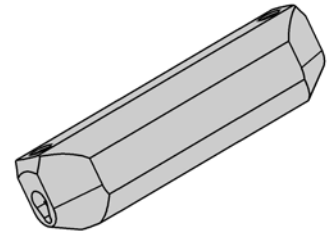
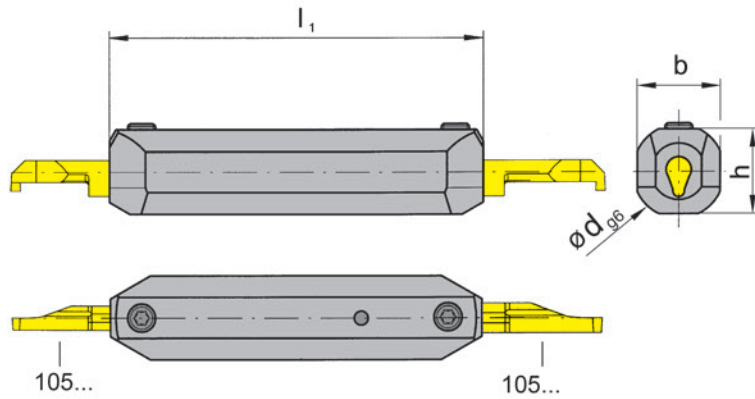
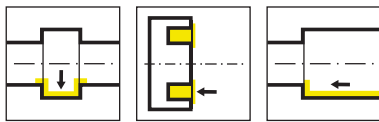


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	b	HWS
B105.0022.2.1.01	22	80	20	20	105123 • 105124 • 105125
B105.0022.2.2.01	22	120	20	20	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

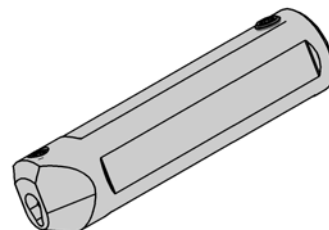
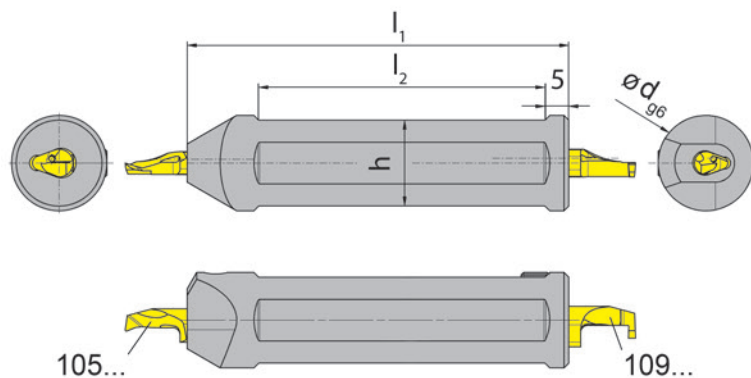
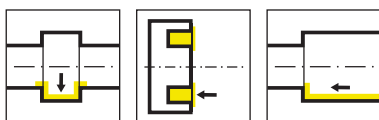


Abbildung = rechtsschneidend

Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₂	HWS
B105.0020.1.09	20	80	18	60	105123 • 105124 • 105125 • 109140

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0020.1.09	6.075T15P	T15PQ

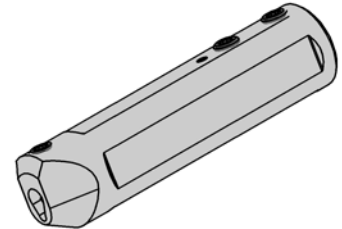
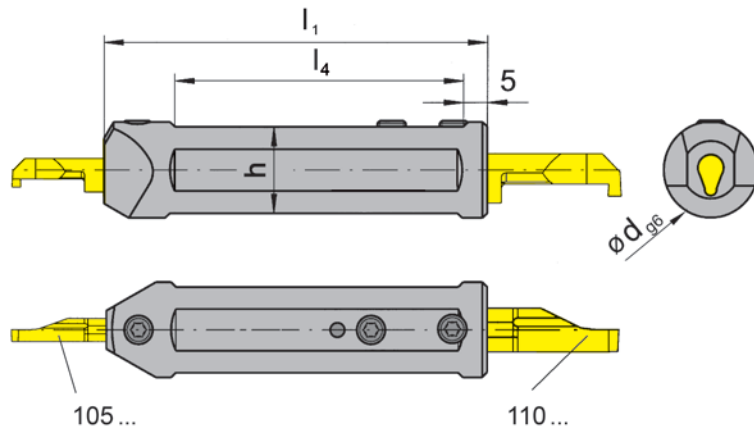
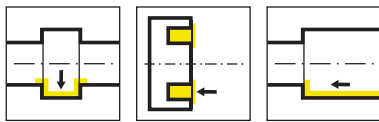


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	HWS
B105.0020.1.10	20	80	18	60	105123 • 105124 • 105125 • 110260

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105.0020.1.10	6.075T15P	T15PQ

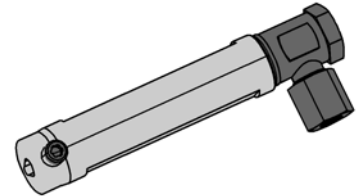
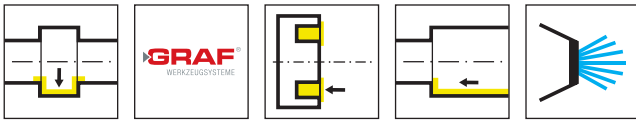


Abbildung = rechtsschneidend

Picture = right hand cutting version

Bestellnummer Part number	d	L ₁	Maschinentyp Machine type	HWS
IR.105.34.100.IK	3/4"	100	Citizen	105123 • 105124 • 105125
IR.105.34.40.IK	3/4"	40	Citizen	105123 • 105124 • 105125
IR.105.34.50.IK	3/4"	50	Citizen	105123 • 105124 • 105125
IR.105.34.70.IK	3/4"	70	Citizen	105123 • 105124 • 105125
IR.105.10.100.IK	1"	100	Citizen	105123 • 105124 • 105125
IR.105.10.60.IK	1"	60	Citizen	105123 • 105124 • 105125
IR.105.20.30.IK	20	30	Citizen	105123 • 105124 • 105125
IR.105.20.50.IK	20	50	Citizen	105123 • 105124 • 105125
IR.105.16.100.IK	16	100	Star	105123 • 105124 • 105125
IR.105.16.30.IK	16	30	Star	105123 • 105124 • 105125
IR.105.16.50.IK	16	50	Star	105123 • 105124 • 105125
IR.105.16.70.IK	16	70	Star	105123 • 105124 • 105125
IR.105.20.100.IK	20	100	Star	105123 • 105124 • 105125
IR.105.22.100.IK	22	100	Star	105123 • 105124 • 105125
IR.105.22.120.3.IK	22	120	Star	105123 • 105124 • 105125
IR.105.22.120.IK	22	120	Star	105123 • 105124 • 105125
IR.105.22.150.IK	22	150	Star	105123 • 105124 • 105125
IR.105.22.38.IK	22	38	Star	105123 • 105124 • 105125
IR.105.22.50.IK	22	50	Star	105123 • 105124 • 105125
IR.105.22.70.IK	22	70	Star	105123 • 105124 • 105125
IR.105.20.170.IK	20	170	Tornos	105123 • 105124 • 105125
IR.105.20.185.IK	20	185	Tornos	105123 • 105124 • 105125
IR.105.25.100.IK	25	100	Tornos	105123 • 105124 • 105125
IR.105.25.150.IK	25	150	Tornos	105123 • 105124 • 105125
IR.105.28.80.IK	28	80	Tornos	105123 • 105124 • 105125

Abmessungen in inch und mm
Dimensions in inch and mm

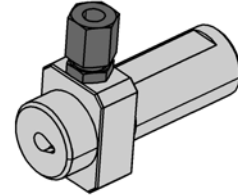
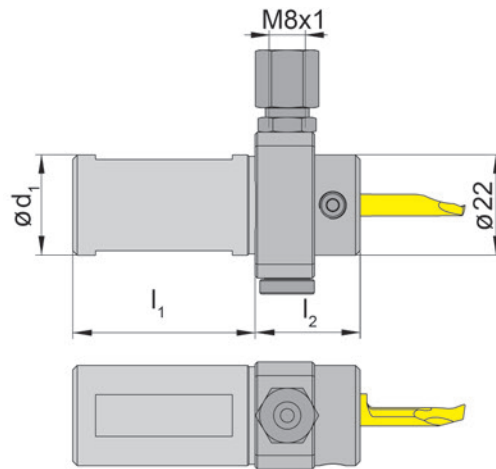
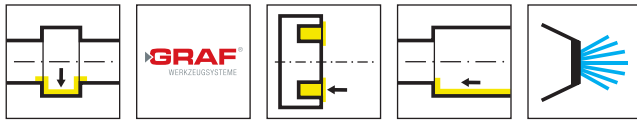


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d ₁	l ₁	l ₂	HWS
IR.105.1640.IKV	16	40	25	105123 • 105124 • 105125
IR.105.3440.IKV	3/4"	40	25	105123 • 105124 • 105125
IR.105.2040.IKV	20	40	25	105123 • 105124 • 105125
IR.105.2240.IKV	22	40	25	105123 • 105124 • 105125
IR.105.2560.IKV	25	60	25	105123 • 105124 • 105125
IR.105.1060.IKV	1"	60	25	105123 • 105124 • 105125

Abmessungen in inch und mm
Dimensions in inch and mm

Ersatzteile

Spare Parts

Einbauhalter Graf Cartridge Graf	Spannschraube Clamping Screw	Kühlmittelanschluss Coolant supply	TORX PLUS®-Schlüssel TORX PLUS® Wrench
IR...	6.075T15P	004.00.19	T15PQ

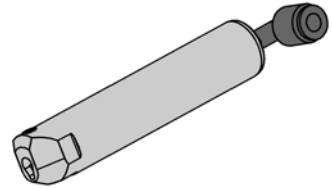
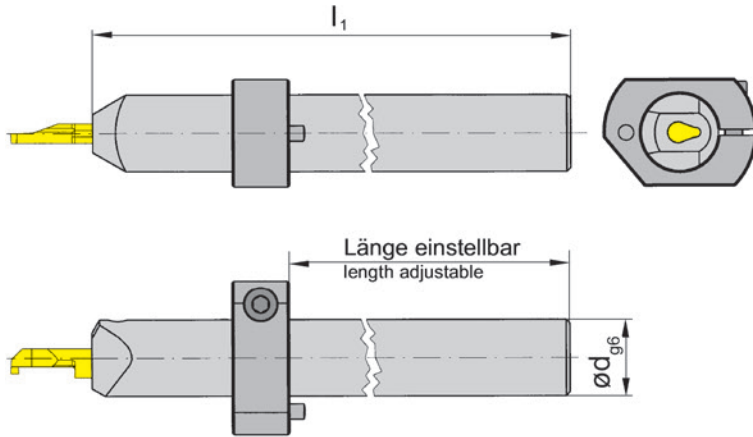
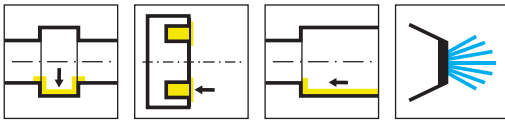
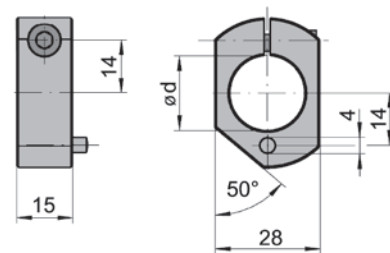


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l_1	HWS
B105.0020.2.01	20	150	105123 • 105124 • 105125
B105.0025.2.01	25	150	105123 • 105124 • 105125

Stellring ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Adjusting ring is not combined with the toolholder - separate order required!

Stellring Adjusting ring	d	Maschinentyp Type of machine
020.0020.1665	20	Tornos
020.0025.2234	25	Tornos



Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ

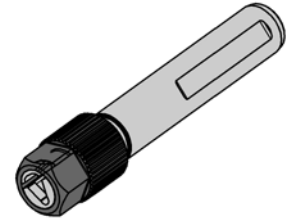
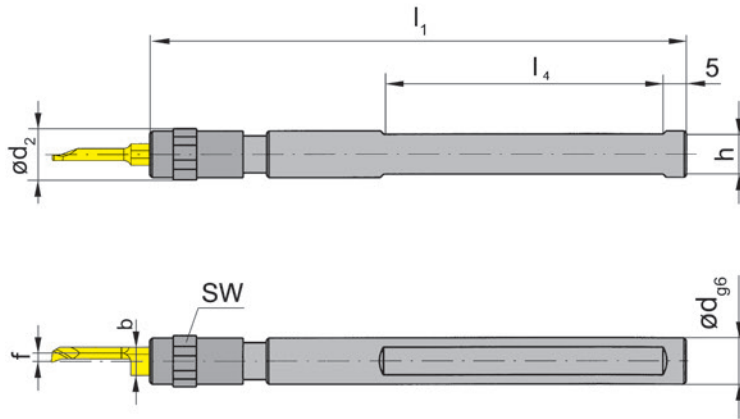
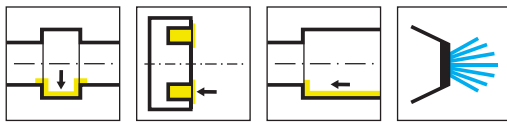


Abbildung = rechtsschneidend
Picture = right hand cutting version

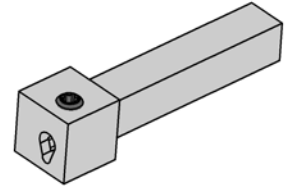
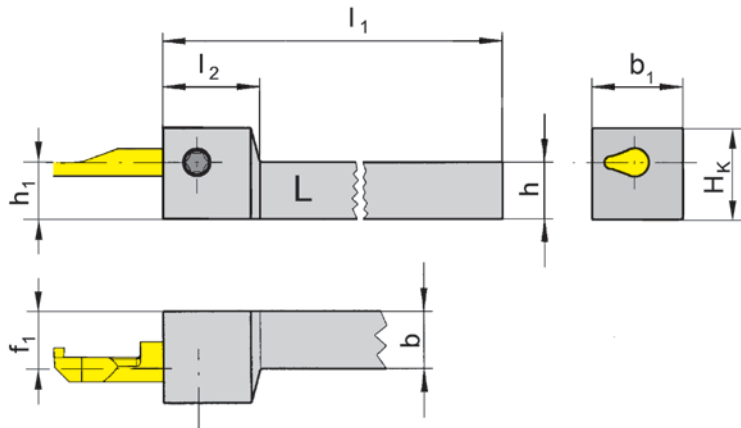
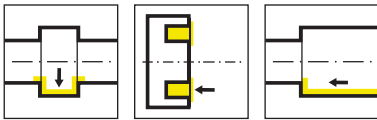
Bestellnummer Part number	d	l_1	h	l_4	f	d_2	SW	b	HWS
B105.0010.9.01	10	100	9	50	1,6	11	10	5,9	105123
B105.0012.11.01	12	100	11	50	1,2	16	13	7	105125
B105.0016.11.01	16	100	15	50	1,2	16	13	7	105125

b = Schneidplattenhöhe
b = Height of insert

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannmutter Clamping nut
B105.0010.9.01	020.0010.1719
B105.00...	020.0016.1999



L = links wie gezeichnet
L = left hand version shown

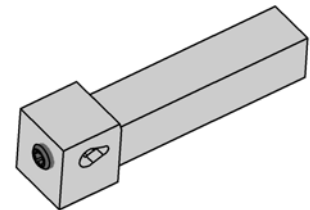
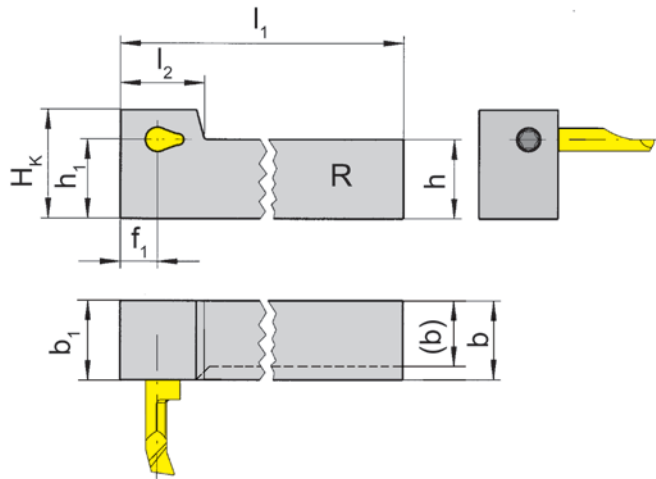
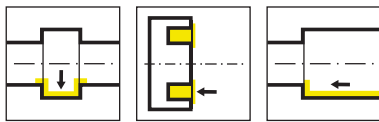
R = rechts spiegelbildlich
R = right hand version

Bestellnummer Part number	h	b	l_1	h_1	b_1	f_1	H_k	l_2	HWS
RH105.0808.01	8	8	90	8	16	7,5	14	17	105123 • 105124 • 105125
RH105.1010.01	10	10	90	10	16	7,5	16	17	105123 • 105124 • 105125
RH105.1212.01	12	12	90	12	16	7,5	18	17	105123 • 105124 • 105125
RH105.1616.01	16	16	110	16	16	7,5	22	17	105123 • 105124 • 105125
LH105.0808.01	8	8	90	8	16	7,5	14	17	105123 • 105124 • 105125
LH105.1010.01	10	10	90	10	16	7,5	16	17	105123 • 105124 • 105125
LH105.1212.01	12	12	90	12	16	7,5	18	17	105123 • 105124 • 105125
LH105.1616.01	16	16	110	16	16	7,5	22	17	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LH105...	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

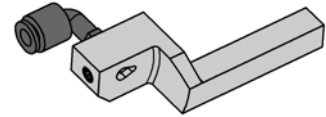
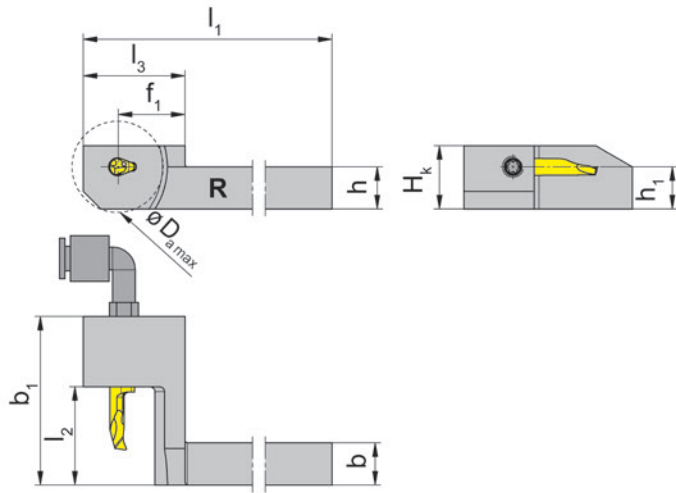
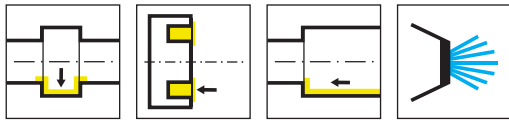
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	h	b	l ₁	l ₂	h ₁	b ₁	f ₁	H _K	HWS
RHC105.1212.01	12	12	90	17	12	16	7,5	18	105123 • 105124 • 105125
RHC105.1616.01	16	16	130	17	16	16	7,5	22	105123 • 105124 • 105125
LHC105.1212.01	12	12	90	17	12	16	7,5	18	105123 • 105124 • 105125
LHC105.1616.01	16	16	130	17	16	16	7,5	22	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LHC105...	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	h	b	l ₁	l ₃	h ₁	b ₁	f ₁	D _{a max}	H _K	l ₂	HWS
RHC105.0808.21	8	8	99	29	8	32	19	26	13	18	105123 • 105124 • 105125
RHC105.1010.11	10	10	99	29	10	22,7	19	26	16	8	105123 • 105124 • 105125
RHC105.1010.21	10	10	99	29	10	38	19	26	16	18	105123 • 105124 • 105125
RHC105.1010.41	10	10	99	29	10	48	19	26	16	28	105123 • 105124 • 105125
RHC105.1212.21	12	12	99	29	12	38	19	26	18	18	105123 • 105124 • 105125
RHC105.1212.41	12	12	99	29	12	48	19	26	18	28	105123 • 105124 • 105125
RHC105.1616.21	16	16	104	34	16	38	24	36	22	18	105123 • 105124 • 105125
RHC105.1616.41	16	16	104	34	16	48	24	36	22	28	105123 • 105124 • 105125
LHC105.0808.21	8	8	99	29	8	32	19	26	13	18	105123 • 105124 • 105125
LHC105.1212.21	12	12	99	29	12	38	19	26	18	18	105123 • 105124 • 105125
LHC105.1616.21	16	16	104	34	16	38	24	36	22	18	105123 • 105124 • 105125

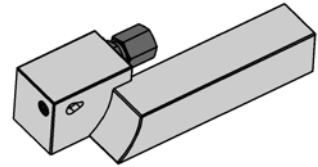
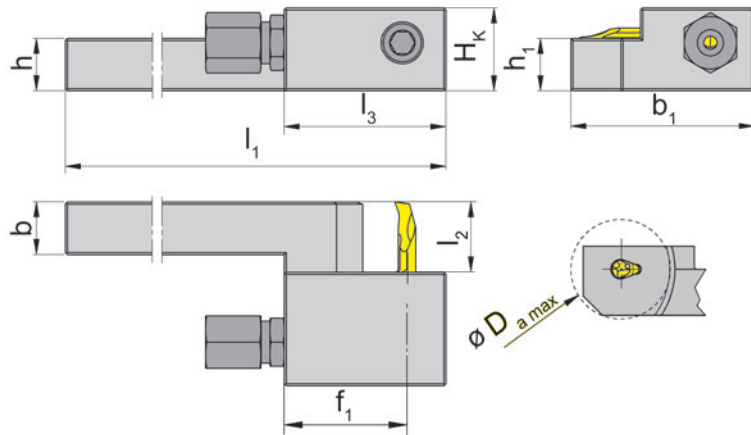
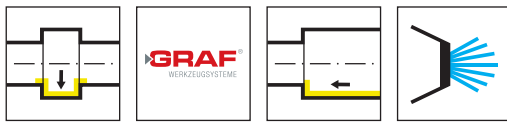
Kühlmittelzufuhr über Winkelverschraubung
Coolant supply through cranked fitting

R/LHC105.08.../.1010.11 ohne Innenkühlung
R/LHC105.08.../.1010.11 without trough coolant

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LHC105...	6.075T15P	T15PQ

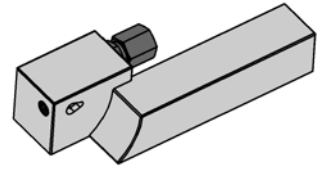
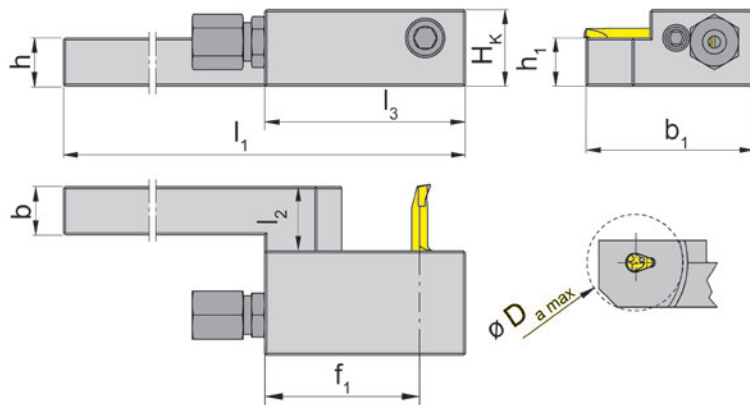
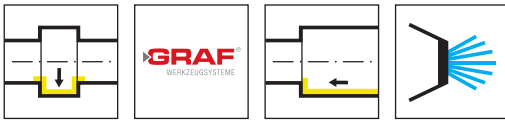


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	h	b	f ₁	l ₁	l ₃	h ₁	H _k	b ₁	l ₂	D _{a max}	HWS
962.08.01.R.IK	8	8	27	130	37	8	15	42	18	30	105123 • 105124 • 105125
962.08.02.L.IK	8	8	27	130	37	8	15	42	18	30	105123 • 105124 • 105125
962.10.01.R.IK	10	10	27	130	37	10	17	42	18	30	105123 • 105124 • 105125
962.10.02.L.IK	10	10	27	130	37	10	17	42	18	30	105123 • 105124 • 105125
962.10.03.R.IK	10	10	27	130	37	10	17	57	33	30	105123 • 105124 • 105125
962.10.04.L.IK	10	10	27	130	37	10	7	57	33	30	105123 • 105124 • 105125
962.12.01.R.IK	12	12	27	130	37	12	19	42	18	30	105123 • 105124 • 105125
962.12.02.L.IK	12	12	27	130	37	12	19	42	18	30	105123 • 105124 • 105125
962.12.03.R.IK	12	12	27	130	37	12	19	57	33	30	105123 • 105124 • 105125
962.12.04.L.IK	12	12	27	130	37	12	19	57	33	30	105123 • 105124 • 105125
962.16.01.R.IK	16	16	27	130	37	16	23	42	18	34	105123 • 105124 • 105125
962.16.02.L.IK	16	16	27	130	37	16	23	42	18	34	105123 • 105124 • 105125
962.16.03.R.IK	16	16	27	130	37	16	23	57	33	34	105123 • 105124 • 105125
962.16.04.L.IK	16	16	27	130	37	16	23	57	33	34	105123 • 105124 • 105125
962.20.01.R.IK	20	20	27	130	37	20	27	42	18	34	105123 • 105124 • 105125
962.20.02.L.IK	20	20	27	130	37	20	27	42	18	34	105123 • 105124 • 105125

Kühlmittelzufuhr über Verschraubung
Coolant through fitting

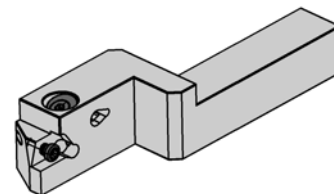
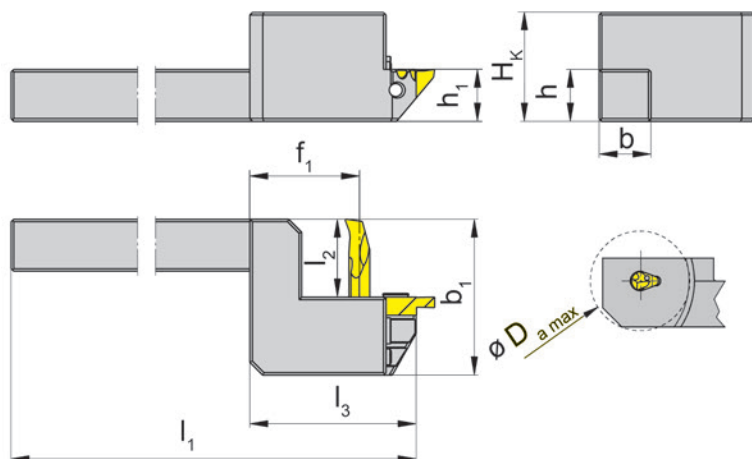


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	h	b	f ₁	l ₁	l ₃	h ₁	H _k	b ₁	l ₂	D _{a max}	HWS
963.12.01.R.IK	12	12	40	130	50	12	19	42	18	46	105123 • 105124 • 105125
963.12.02.L.IK	12	12	40	130	50	12	19	42	18	46	105123 • 105124 • 105125
963.16.01.R.IK	16	16	45	130	50	16	23	42	18	52	105123 • 105124 • 105125
963.16.02.L.IK	16	16	45	130	50	16	23	42	18	52	105123 • 105124 • 105125

Kühlmittelzufuhr über Verschraubung
Coolant through fitting



R = rechts wie gezeichnet
R = right hand version shown

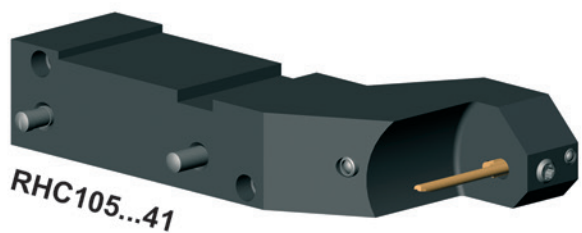
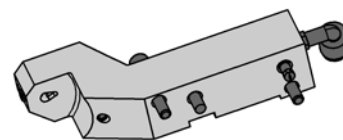
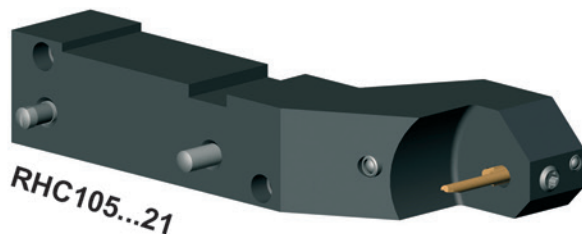
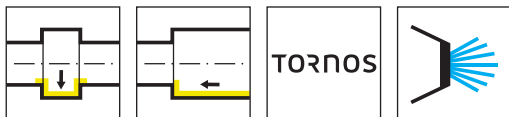
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	h	b	f ₁	l ₁	l ₃	h ₁	H _K	b ₁	l ₂	D _{a max}	HWS
AIH.974.R.1212.K04	12	12	23	130	50	12	19	33	16,5	20	105123 • 105124 • 105125 • 274040R
AIH.974.R.1616.K04	16	16	26	130	50	16	23	33	16,5	26	105123 • 105124 • 105125 • 274040R
AIH.974.R.2020.K04	20	20	29	130	55	20	27	33	16,5	32	105123 • 105124 • 105125 • 274040R

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
AIH...	6.075T15P	T15PQ



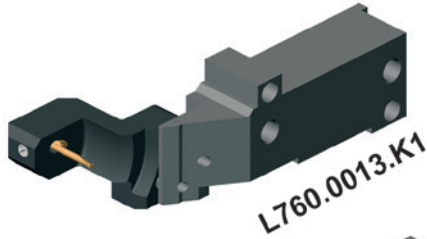
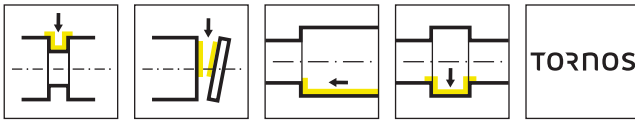
Bestellnummer Part number	Maschinentyp Machine type	Schneidplatte Insert	HWS	HMS
RHC105.0710.21	EvoDECO 10	105...21 L ₂ bis/up to 15 mm	105123 • 105124 • 105125	Tornos
RHC105.0710.41	EvoDECO 10	105...41 L ₂ bis/up to 25 mm	105123 • 105124 • 105125	Tornos

Werkzeug für Tornos
Tool for Tornos

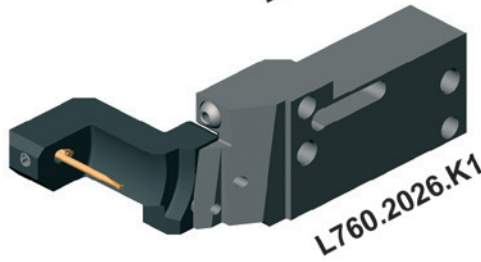
Ersatzteile

Spare Parts

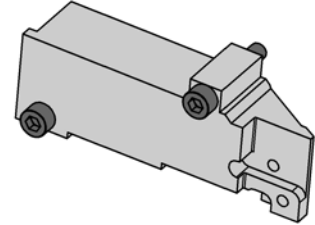
Grundhalter Basic toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RHC105...	6.075T15P	T15PQ



L760.0013.K1

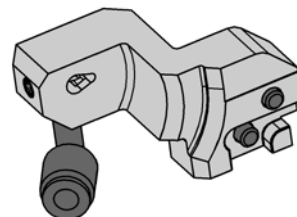
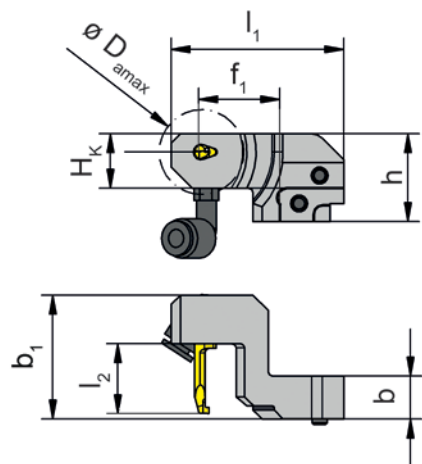
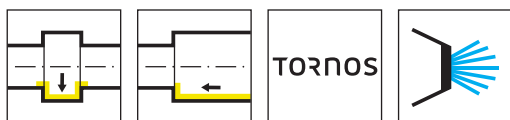


L760.2026.K1



Bestellnummer Part number	Schneidplatte Insert	Kassette Cassette	Maschinentyp Machine type
L760.0013.K1	105...21 l ₂ bis/up to 15 mm	RKC760.0105.21	EvoDECO 16
L760.2026.K1	105...41 l ₂ bis/up to 25 mm	RKC760.0105.41	EvoDECO 20/ EvoDECO 32

Werkzeug für Tornos
Tool for Tornos



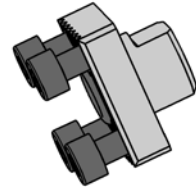
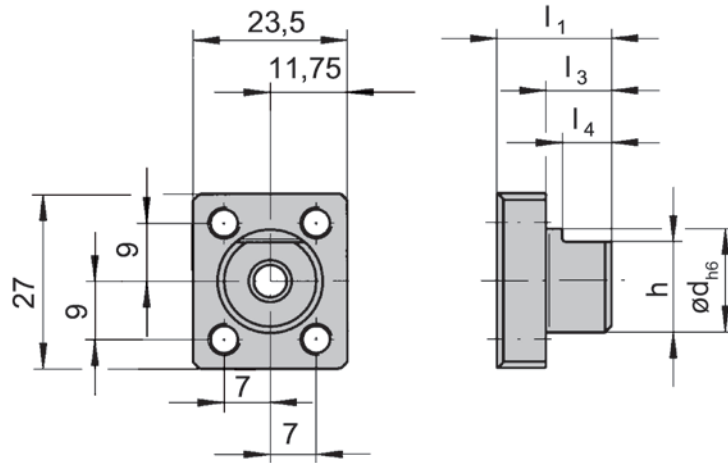
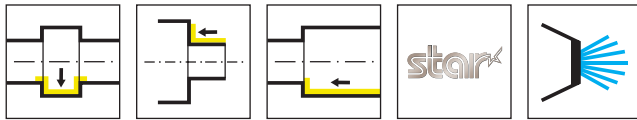
Bestellnummer Part number	l_1	l_2	b_1	b	h	H_K	f_1	$D_{a\ max}$	HWS
RKC760.0105.21	57	24,9	40,9	14,2	29	18	26	28	105123 • 105124 • 105125
RKC760.0105.41	57	34,9	50,9	14,2	29	18	26	28	105123 • 105124 • 105125

Werkzeug für Tornos Grundhalter L760
 Tool for Tornos Basic toolholder L760

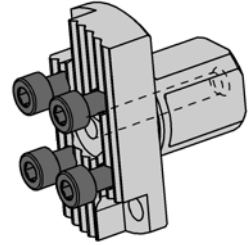
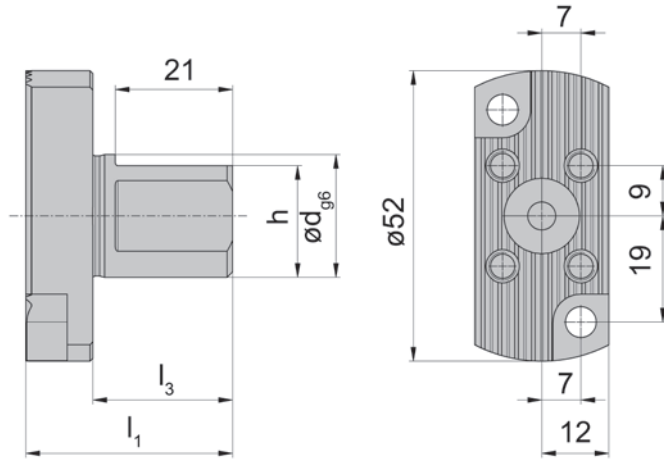
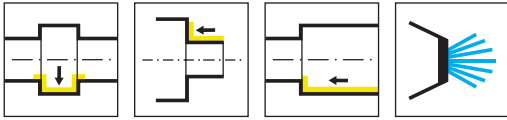
Ersatzteile

Spare Parts

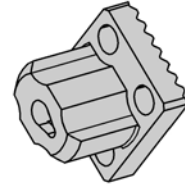
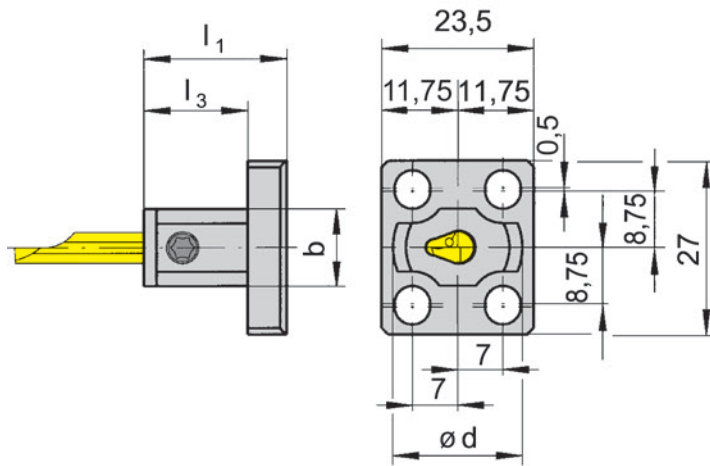
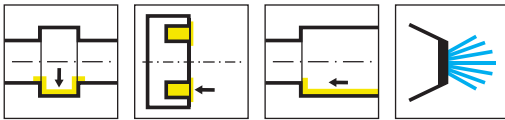
Kassette Cassette	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RKC760...	5.12T20P	T15PQ



Bestellnummer Part number	h	d	l_1	l_3	l_4	Maschinentyp Machine type	HMS
BGT001.1627.10	14	16	17,5	10	7,5	Star	Kerbverzahnung 90° / T3



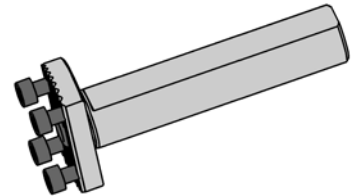
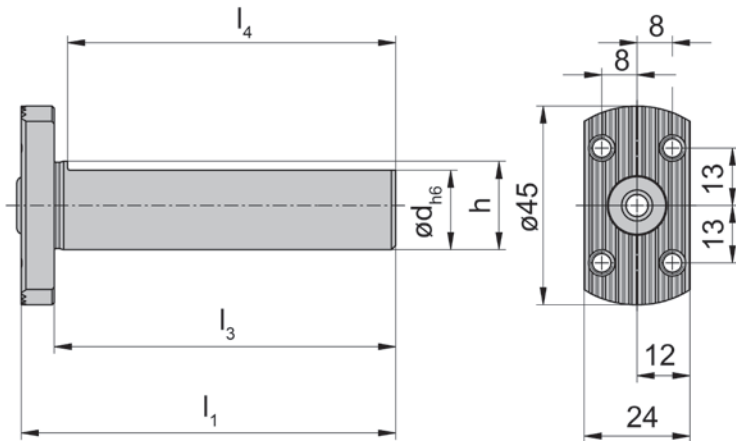
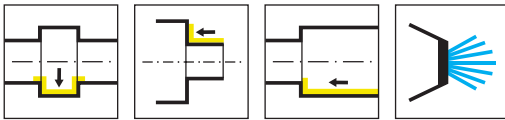
Bestellnummer Part number	h	d	l_1	l_3	l_4	HMS
BGT001.0R22.25	20	22	37	25	21	Kerbverzahnung 90° / T3



Bestellnummer Part number	d	l ₁	l ₃	b	HWS	HMS
BKT105.2327.01	20	22	16	12	105123 • 105124 • 105125	Kerbverzahnung 90° / T3

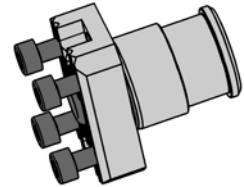
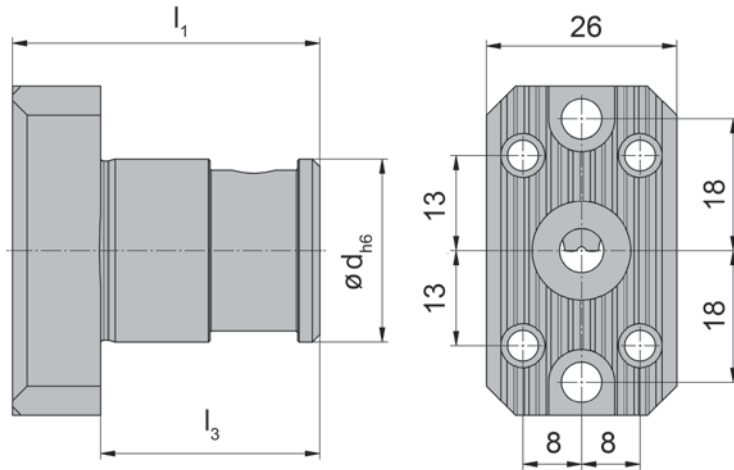
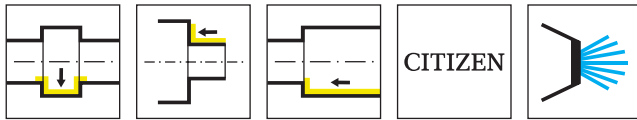
Ersatzteile
Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BKT105.2327.01	6.075T15P	T15PQ

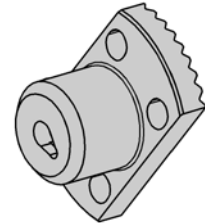
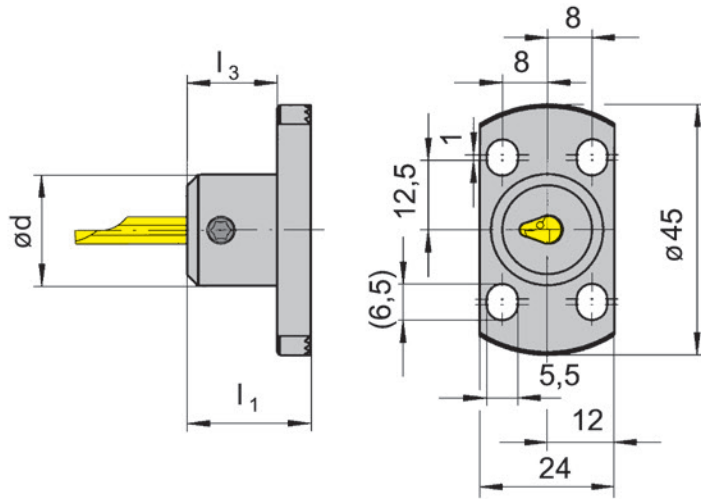
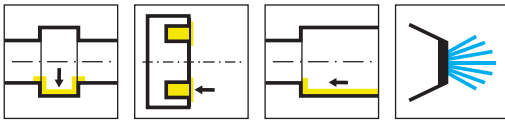


Bestellnummer Part number	h	d	l ₁	l ₃	l ₄	Maschinentyp Machine type	HMS
BGT001.0010.50	9	10	57,5	50	47		Kerbverzahnung 90° / T3
BGT001.0016.21	14	16	28,5	21	18	Star	Kerbverzahnung 90° / T3
BGT001.0R16.21	14	16	28,5	21	18	Star	Kerbverzahnung 90° / T3
BGT001.0020.100	18	20	107,5	100	97	Tornos	Kerbverzahnung 90° / T3
BGT001.0022.30	20	22	36,35	30	27	Star	Kerbverzahnung 90° / T3
BGT001.0025.70	23	25	77,5	70	67		Kerbverzahnung 90° / T3

BGT001.0022.30 ohne innere Kühlmittelzufuhr
 BGT001.0022.30 without through coolant supply



Bestellnummer Part number	d	l ₁	l ₃	Maschinentyp Machine type	HMS
BGT001.C025.30IK	25	42	30	Citizen L20X	Kerbverzahnung 90° / T3

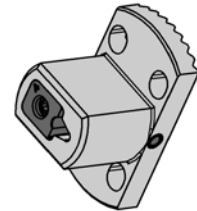
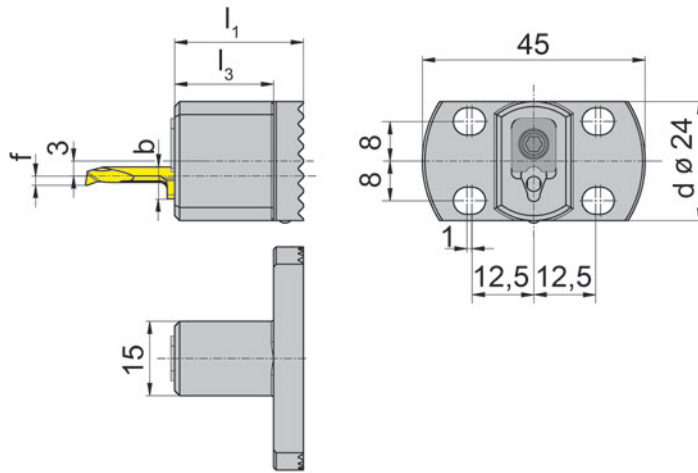
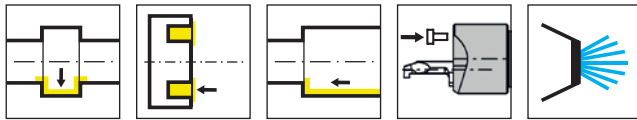


Bestellnummer Part number	d	l ₁	l ₃	HWS	HMS
BKT105.2445.01	20	22	16	105123 • 105124 • 105125	Kerbverzahnung 90° / T3
BKT105.2445.02	20	32	26	105225	Kerbverzahnung 90° / T3

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BKT105...	6.075T15P	T15PQ



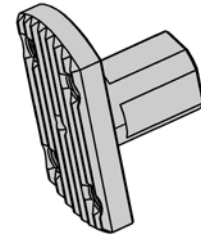
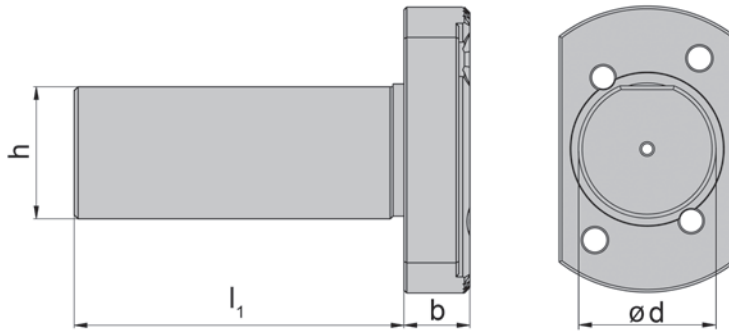
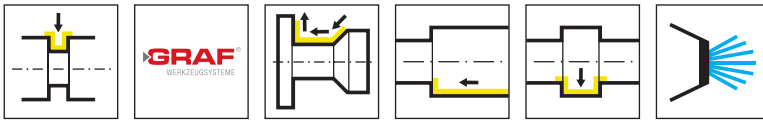
Bestellnummer Part number	l_1	d	l_3	b	HWS	HMS
BKT105.2445.S.03	26	24	20	5,9	105123	Kerbverzahnung 90° / T3
BKT105.2445.S.04	26	24	20	6,4	105124	Kerbverzahnung 90° / T3
BKT105.2445.S.05	26	24	20	7	105125	Kerbverzahnung 90° / T3

f siehe Schneidplatte Typ 105
f see inserts type 105

Ersatzteile

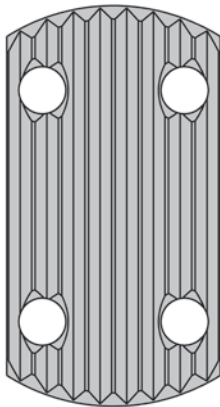
Spare Parts

Einstellbare Halter Adjustable holder	Spannelement Clamping element	TORX PLUS®-Schlüssel TORX PLUS® Wrench
BKT105.2445.S.03	010.0105.03	T15PL
BKT105.2445.S.04	010.0105.04	T15PL
BKT105.2445.S.05	010.0105.05	T15PL

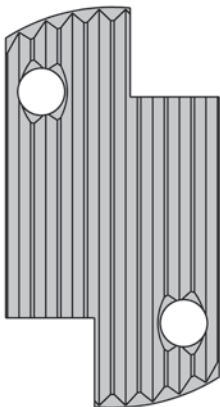


Bestellnummer Part number	d	l ₁	h	b	Maschinentyp Machine type
G.016.021	16	21	14	6	Star
G.016.040	16	40	14	6	Traub/ Manurhin
G.034.040	3/4"	40	18	6	Citizen
G.034.050	3/4"	50	18	6	Citizen
G.034.120	3/4"	120	18	6	Citizen
G.020.030	20	30	18	6	Citizen
G.020.040	20	40	18	6	Citizen
G.020.100	20	100	18	6	Citizen
G.020.150	20	150	18	6	Citizen
G.022.023	22	23	20	6	Star
G.022.030	22	30	20	6	Star
G.022.070	22	70	20	6	Star
G.025.060	25	60	23	12	Hanwha
G.025.070	25	70	23	6	Manurhin/ Tornos
G.025.100	25	100	23	6	Manurhin/ Tornos
G.025.160	25	160	23	6	Manurhin/ Tornos
G.010.060	1"	60	23	6	Citizen
G.010.100	1"	100	23	6	Citizen
G.028.006	28	6	26	6	Hanwha
G.028.080	28	80	26	12	Traub
G.034.020	34	20	32	12	Maier
G.034.044	34	44	32	12	Maier/ Hanwha

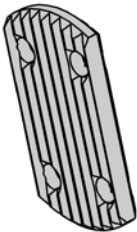
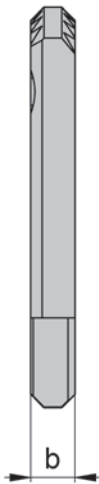
Abmessungen in inch und mm
Dimensions in inch and mm



A



B



Bestellnummer Part number	b	Form
Z.5	5	A
Z.10	10	A
Z.15	15	A
Z.20	20	A
Z.25	25	A
Z.30	30	A
Z10SR16/20R	10	B
Z25SR16/20R	25	B
Z30SR16/20R	30	B



Rückseitenbearbeitung

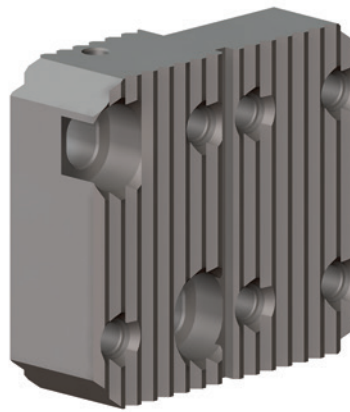
Back working

passend für Halter Graf Typ N und HORN BKT105.2445.01/02 und BKT105.2445.S.03/04/05
suitable for holder Graf type N and HORN BKT105.2445.01/02 and BKT105.2445.S.03/04/05

Bestellnummer N11

Part number

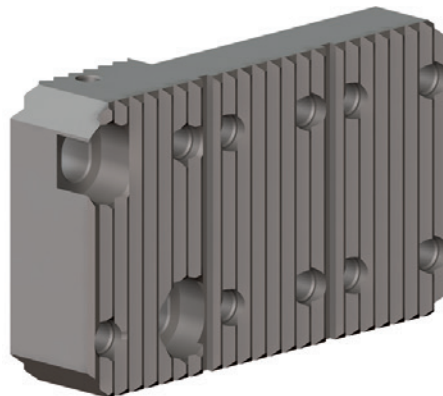
Für wahlweise 2 Einsätze
For alternatively 2 cartridges



Bestellnummer N12

Part number

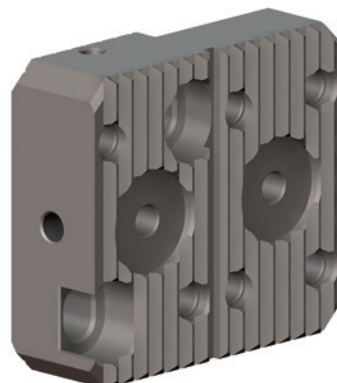
Für wahlweise 3 Einsätze
For alternatively 3 cartridges



Bestellnummer N93IK

Part number

mit innerer Kühlmittelzufuhr
with through coolant supply



Einstellbare Halter

Adjustable holder

N



A

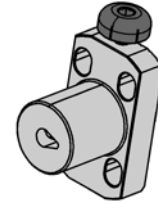
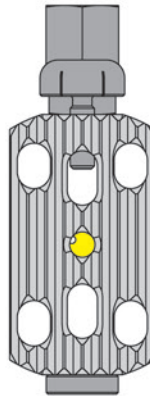
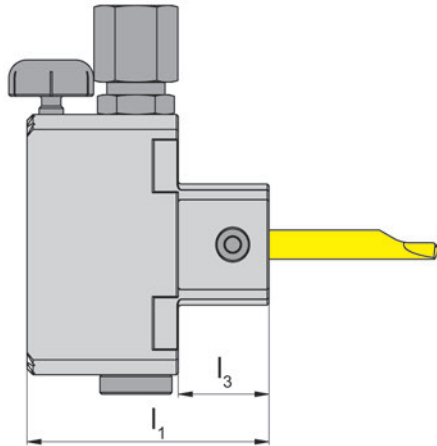
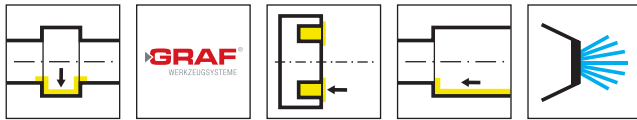


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	l_1	l_3	HWS
N.09.IK	40	15	105123 • 105124 • 105125

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw	Kühlmittelanschluss Coolant supply
N.09.IK	6.075T15P	004.00.19

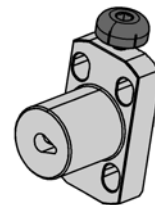
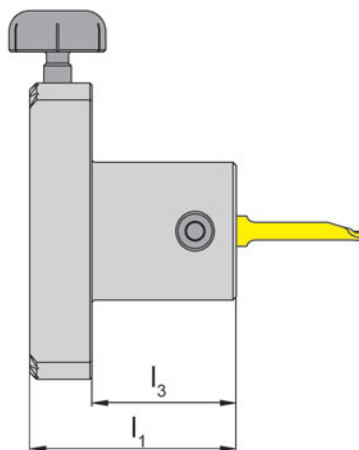
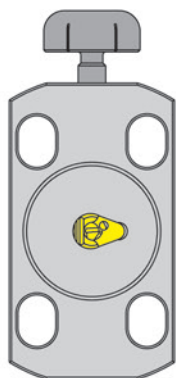
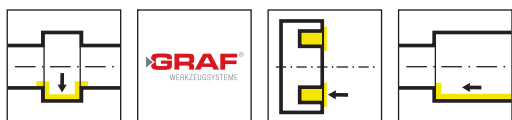


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	l_1	l_3	HWS
N.09	30	20	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw
N.09	6.075T15P

Einstellbare Halter

Adjustable holder

N



A

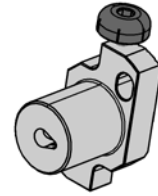
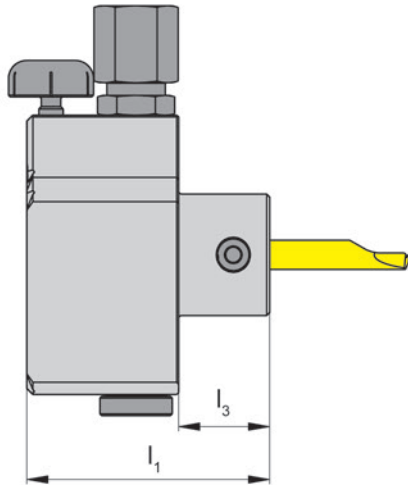
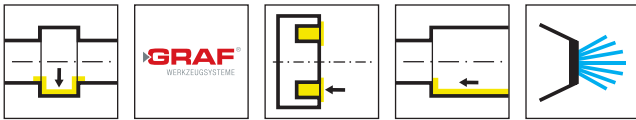


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	l_1	l_3	HWS
N.73.IK	40	15	105123 • 105124 • 105125

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw	Kühlmittelanschluss Coolant supply
N.73.IK	6.075T15P	004.00.19

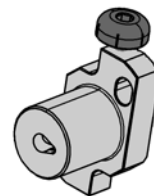
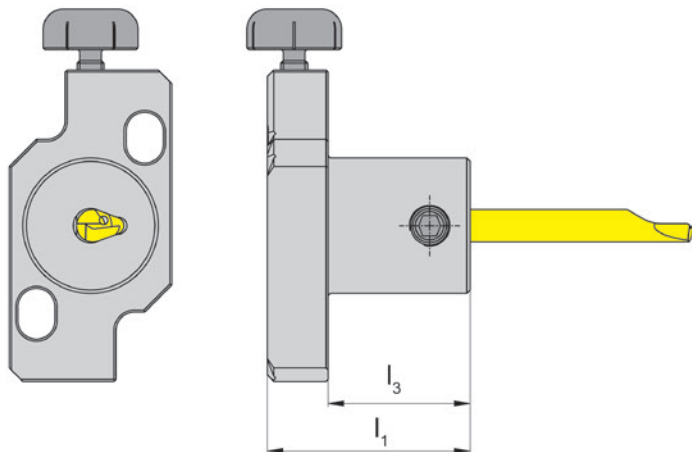
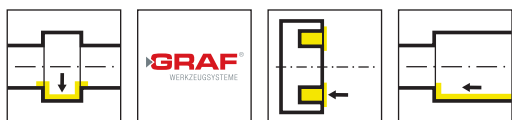


Abbildung = rechtsschneidend

Picture = right hand cutting version

Bestellnummer Part number	l_1	l_3	HWS
N.73	30	20	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw
N.73	6.075T15P

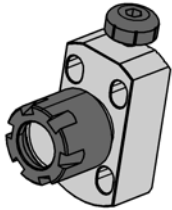
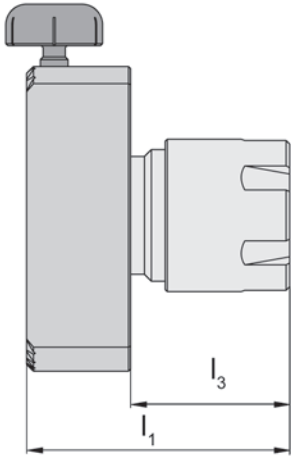
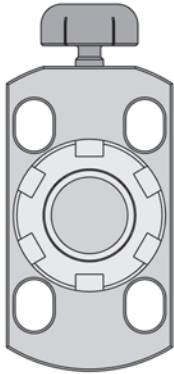
Einstellbare Halter

Adjustable holder

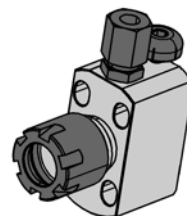
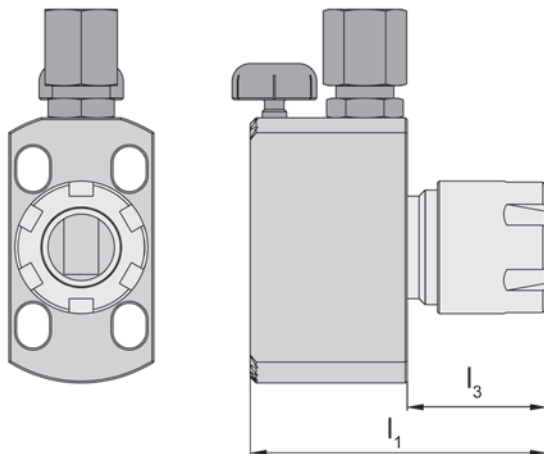
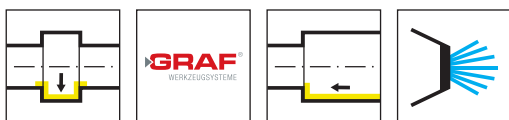
N



A



Bestellnummer Part number	l_1	l_3	Spannmutter Clamping nut
N.07	37	18	ER16



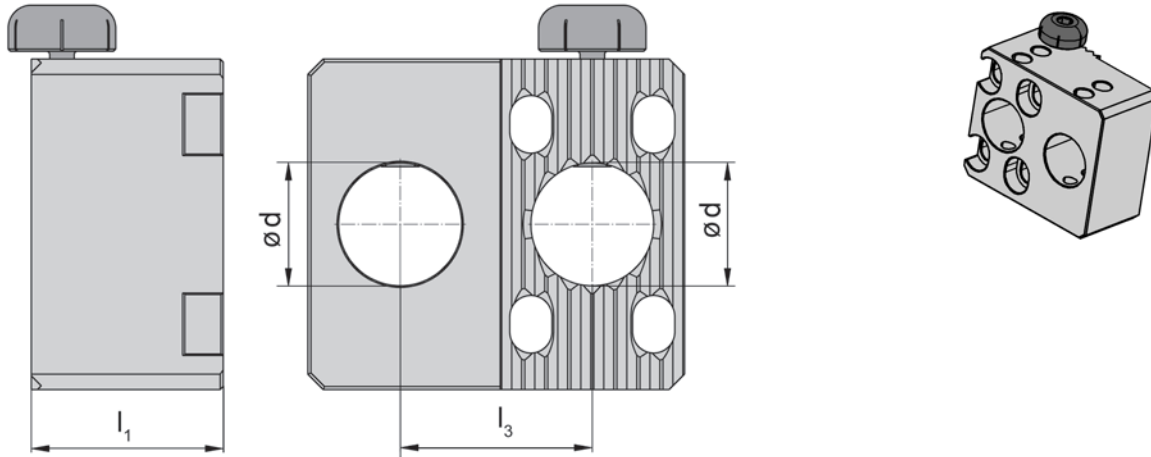
Bestellnummer Part number	l_1	l_3	Spannmutter Clamping nut
N.07.IK	54	18	ER16
N.41.IK	64	26	ER20

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Kühlmittelanschluss Coolant supply
N...	004.00.19



Bestellnummer Part number	d	l ₁	l ₃
N.10	16	25	25

Die Spannzangenaufnahmen sind nicht im Lieferumfang enthalten - bitte separat bestellen!
The collet adaptors are not included - separate order required!

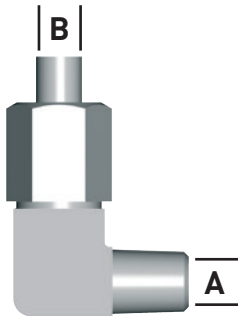
Kühlmittelanschluss Standard für Rohr Ø 6 mm

Standard connection for coolant supply for pipe Ø 6 mm



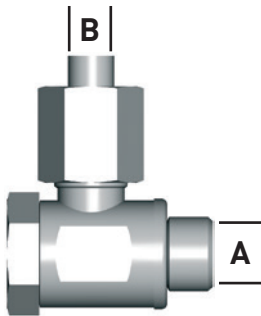
Kühlmittelanschluss, gerade
Connection for coolant supply
straight screwed

Bestellnummer Part number	A	B
004.00.19	M8 x 1	ø 6 mm
004.00.14	G1/8"	ø 6 mm



Kühlmittelanschluss,
winkelig fest
Connection for coolant supply
angled and fix

Bestellnummer Part number	A	B
004.00.22	M8 x 1	ø 6 mm
004.00.33	G1/8"	ø 6 mm



Schwenkverschraubung
Swivelling screw-fitting

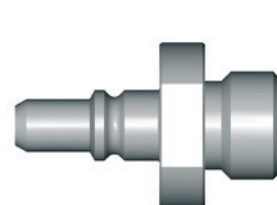
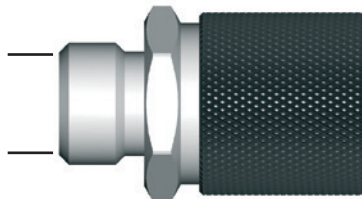
Bestellnummer Part number	A	B
004.00.61	M8 x 1	ø 6 mm
004.00.16	G1/8"	ø 6 mm

Kühlmittelanschluss Schnellkupplung

Clip connection for coolant supply

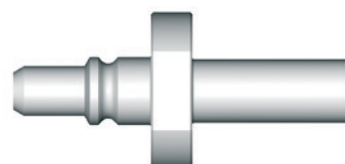
Schnellkupplung
Quick connector

M10 x 1 - 004.00.49



Stecker
Plug

M8 x 1 - 004.00.56
G1/8" - 004.00.57



Stecker
Plug

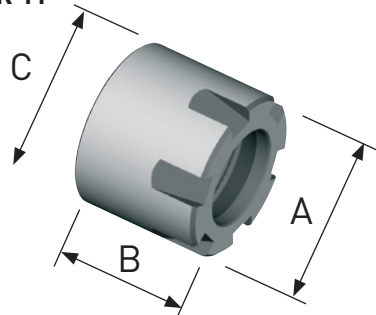
Ø 6 mm - 004.00.59

Spannmutter

Chucking nut

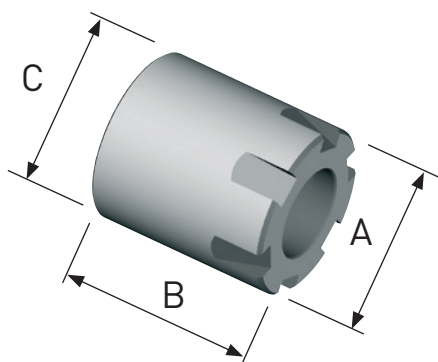


ER-M



ER-M	A	B	C
62 000 08-ER 8	12	10,8	M10x0,75
62 000 11-ER 11	16	12	M13x0,75
62 000 16-ER 16	22	18	M19x1
62 000 20-ER 20	28	19	M24x1
62 000 25-ER 25	35	20	M30x1

ER-MA abdichtbar sealed



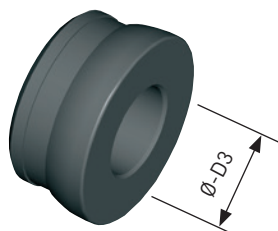
ER-MA	A	B	C
62 600 16-ER 16	22	24,5	M19x1
62 600 20-ER 20	28	26,5	M24x1
62 600 25-ER 25	35	27,5	M30x1

Dichtscheiben

für abdichtbare Spannmutter ER-MA...

Sealing rings

for chucking nuts ER-MA...



kompletter Satz:
completed set:

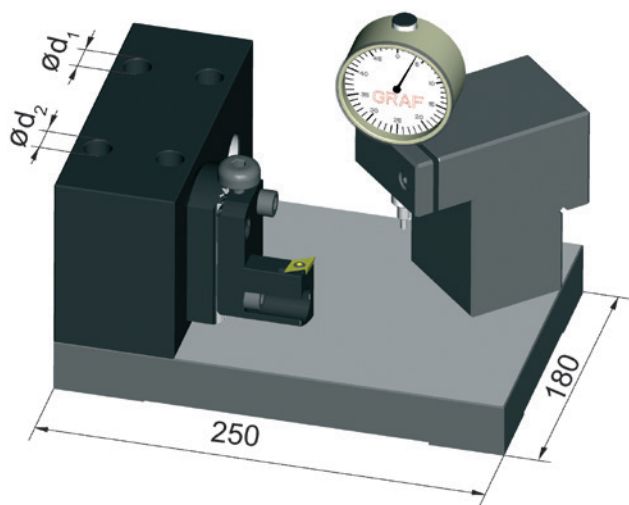
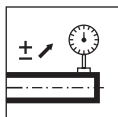
Bestellnummer Part number	Ø D3
64 600 16-ER 16	3,0-3,5...9,5-10,0 mm
64 600 20-ER 20	3,0-3,5...12,5-13,0 mm
64 600 25-ER 25	3,0-3,5...15,5-16,0 mm

Die Dichtscheiben können auch einzeln bestellt werden.
The sealing rings can be ordered separately.

Beispiel:

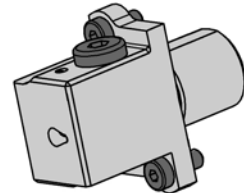
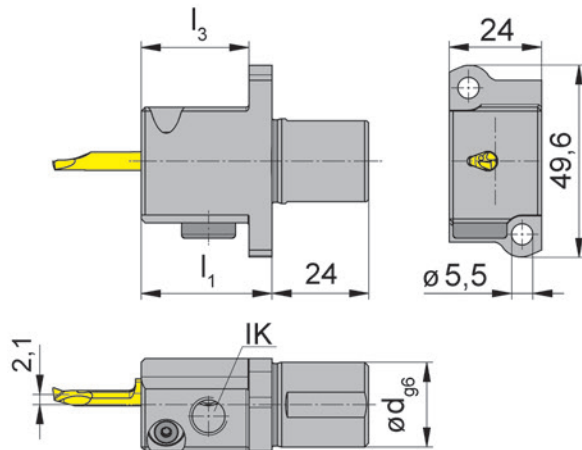
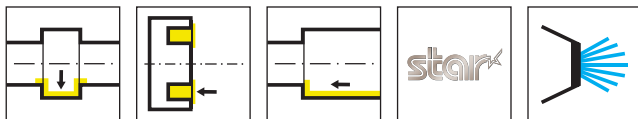
Example:

Bestellnummer Part number	Durchmesserbereich Diameter range	möglich von-bis possible from-up to
ER 16 64 600 16 30	3,01 - 3,50	3 - 10
ER 20 64 600 20 45	4,51 - 5,00	3 - 13
ER 25 64 600 25 80	8,01 - 8,50	3 - 16



Bestellnummer Part number	d_1	d_2	Maschinentyp Machine type
HVR.40.16.22	16	22	Star
HVR.40.20.22	20	22	Star
HVR.40.20.25	20	25	Tornos
HVR.40.20.28	20	28	Hanwha
HVR.40.25.28	25	28	Hanwha
HVR.40.25.33	25	33	Hanwha
HVR.40.25.34	25	34	Hanwha
HVR.40.30.34	30	34	Maier
HVR.40.34.10	3/4"	1"	Citizen

Abmessungen in inch und mm
Dimensions in inch and mm



L = Linksausführung
L = left hand version

Bestellnummer Part number	d	l ₁	l ₃	HWS	HMS
LB105.A022.26.31	22	35	29	105123 • 105124 • 105125	Star

Star Langdrehautomaten:

ECAS-12/20, SB16D/E, SR-20, SR20J/JN, RS-20RII, RS-20RIII, RS-20RIV, RS-32J/JN, SW-12RIII

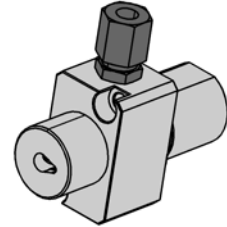
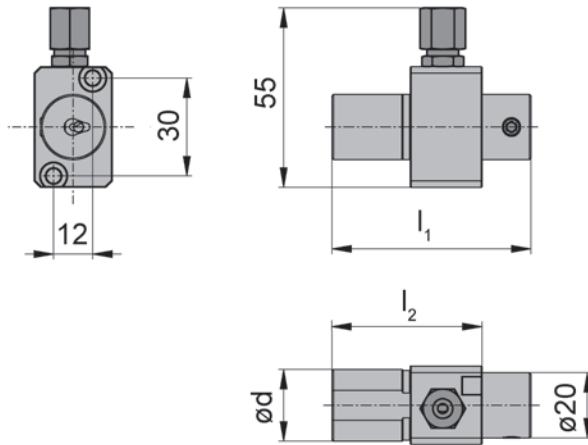
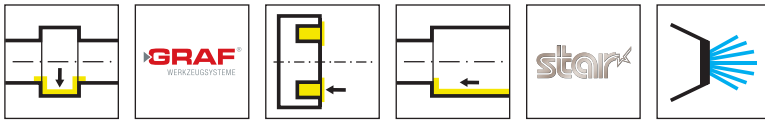
Swiss Type Machines Star:

ECAS-12/20, SB16D/E, SR-20, SR20J/JN, RS-20RII, RS-20RIII, RS-20RIV, RS-32J/JN, SW-12RII

Ersatzteile

Spare Parts

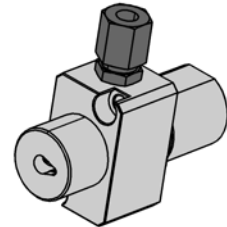
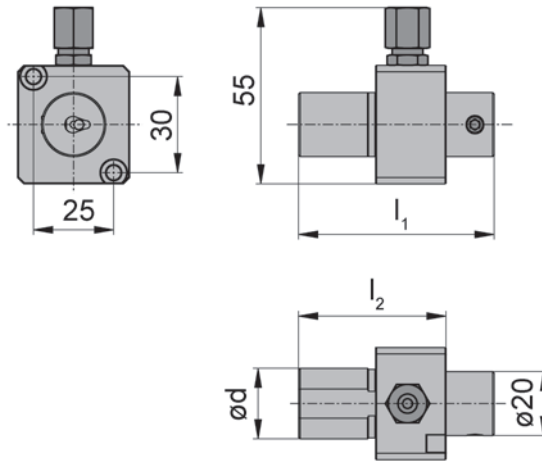
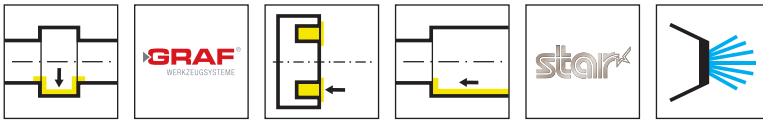
Klemmhalter Toolholder	TORX PLUS®-Schlüssel TORX PLUS® Wrench	Verschlusschraube Screw Plug
LB105.A022.26.31	T10PL	18.908



Bestellnummer Part number	d	l_1	l_2	HWS
RHF.N.145.H105.S1.IK	22	61	46	105123 • 105124 • 105125

Star Langdrehautomaten: SW-20
Swiss Type Machines Star: SW-20

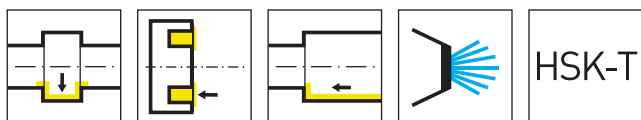
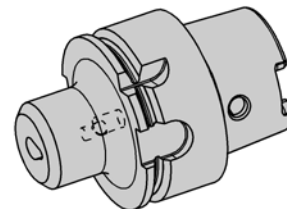
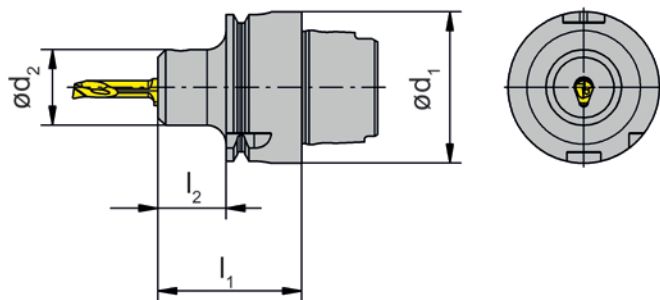
Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!



Bestellnummer Part number	d	l_1	l_2	HWS
RHF.N.151.H105.S2.IK	22	61	46	105123 • 105124 • 105125

Star Langdrehautomaten: SW-20
Swiss Type Machines Star: SW-20

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!

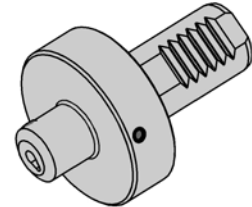
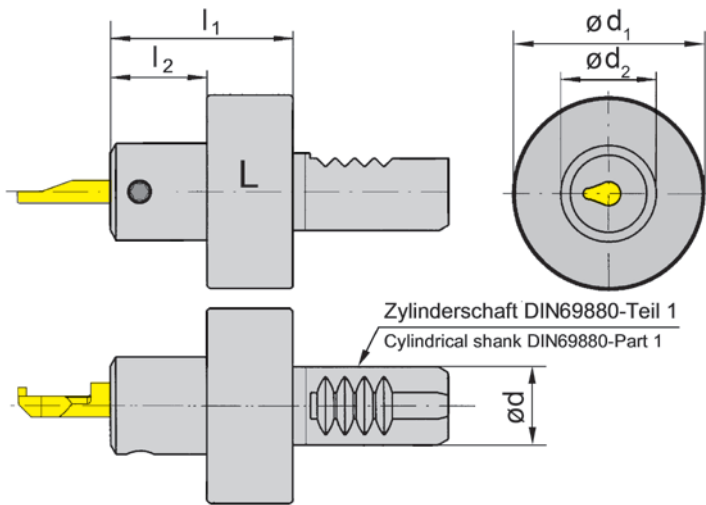
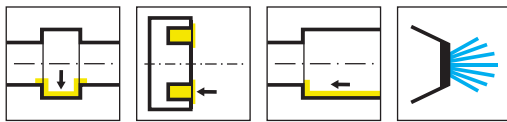

HSK-T

 R = rechts wie gezeichnet
 R = right hand version shown

 L = links spiegelbildlich
 L = left hand version

Bestellnummer Part number	d_1	l_1	l_2	d_2	HWS
HSKT40.RB105.20.1.01	40	38	18	20	105123 • 105124 • 105125

Ersatzteile
 Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
HSKT40...	6.075T15P	T15PQ



L = links wie gezeichnet
L = left hand version shown

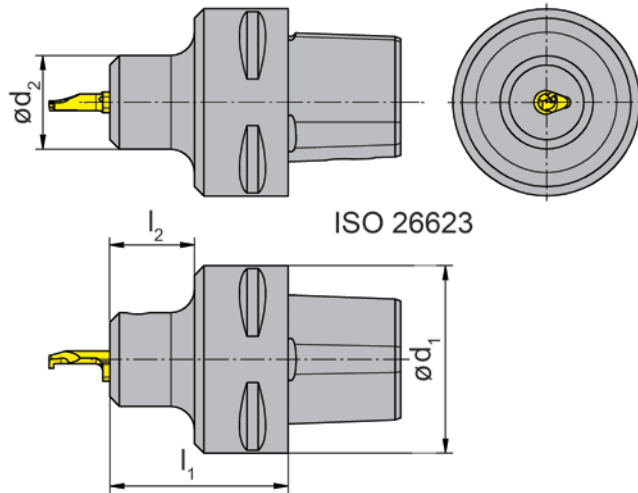
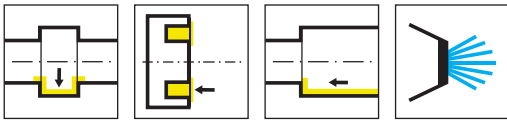
R = rechts spiegelbildlich
R = right hand version

Bestellnummer Part number	d	l ₁	l ₂	d ₂	d ₁	HWS
VDI16.R105.20.01	16	38	20	20	40	105123 • 105124 • 105125
VDI20.R105.20.01	20	38	20	20	50	105123 • 105124 • 105125
VDI25.R105.20.01	25	38	20	20	58	105123 • 105124 • 105125
VDI30.R105.20.01	30	38	20	20	68	105123 • 105124 • 105125
VDI40.R105.20.01	40	38	20	20	83	105123 • 105124 • 105125
VDI16.L105.20.01	16	38	20	20	40	105123 • 105124 • 105125
VDI20.L105.20.01	20	38	20	20	50	105123 • 105124 • 105125
VDI25.L105.20.01	25	38	20	20	58	105123 • 105124 • 105125
VDI30.L105.20.01	30	38	20	20	68	105123 • 105124 • 105125
VDI40.L105.20.01	40	38	20	20	83	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
VDI16...	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

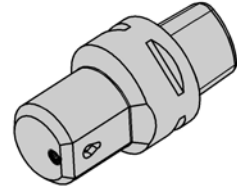
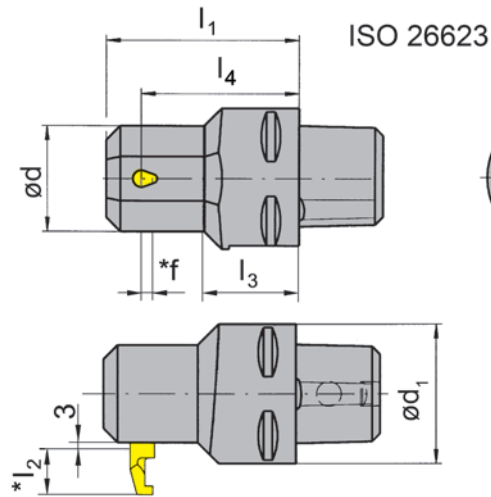
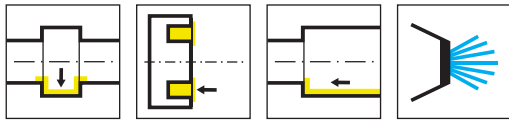
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d ₁	d ₂	l ₁	l ₂	HWS
RB105.00C3.20.1.01	32	20	30	15	105123 • 105124 • 105125
RB105.00C4.20.1.01	40	20	38	18	105123 • 105124 • 105125
RB105.00C5.20.1.01	50	20	38	18	105123 • 105124 • 105125
RB105.00C6.20.1.01	63	20	42	20	105123 • 105124 • 105125
LB105.00C3.20.1.01	32	20	30	15	105123 • 105124 • 105125
LB105.00C4.20.1.01	40	20	38	18	105123 • 105124 • 105125
LB105.00C5.20.1.01	50	20	38	18	105123 • 105124 • 105125
LB105.00C6.20.1.01	63	20	42	20	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB105...	6.075T15P	T15PQ



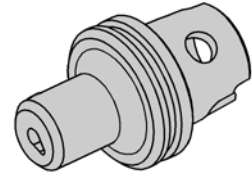
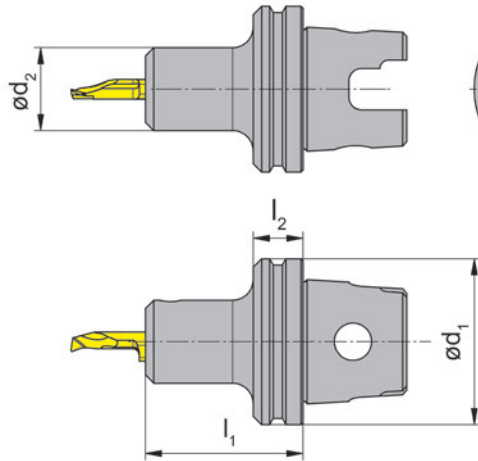
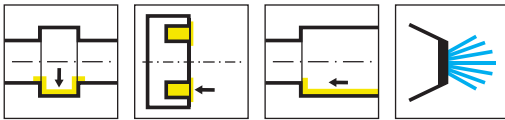
Bestellnummer Part number	d ₁	l ₃	d	l ₁	l ₄	b ₁	HWS
RB105.00C3.2.2.01	32	17	30	55	45	14	105123 • 105124 • 105125
RB105.00C3.2.2.02	32	15	36	55	45	18	105123 • 105124 • 105125
RB105.00C4.2.2.01	40	26	30	55	45	14	105123 • 105124 • 105125
RB105.00C4.2.2.02	40	22	36	55	45	18	105123 • 105124 • 105125

f, l2 siehe Schneidplatte Typ 105
f, l2 see inserts type 105

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RB105...	6.075T15P	T15PQ



R = rechts wie gezeichnet
 R = right hand version shown

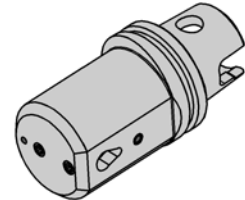
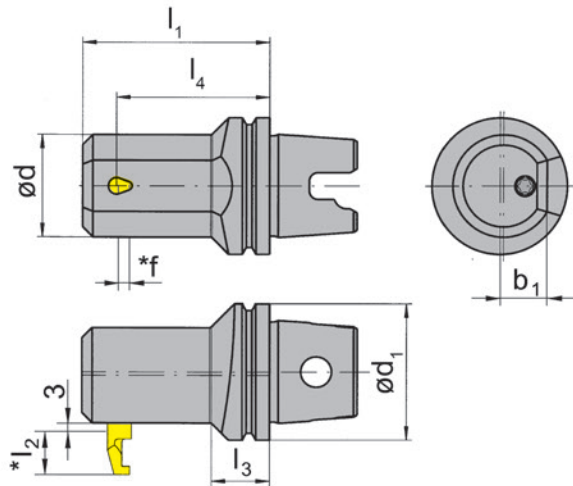
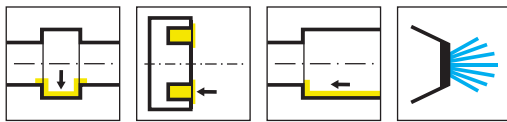
L = links spiegelbildlich
 L = left hand version

Bestellnummer Part number	d ₁	d ₂	l ₁	l ₂	HWS
RB105.TS40.20.1.01	40	20	38	26	105123 • 105124 • 105125
LB105.TS40.20.1.01	40	20	38	26	105123 • 105124 • 105125

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB105.TS40.20.1.01	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

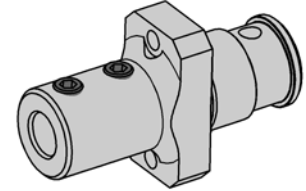
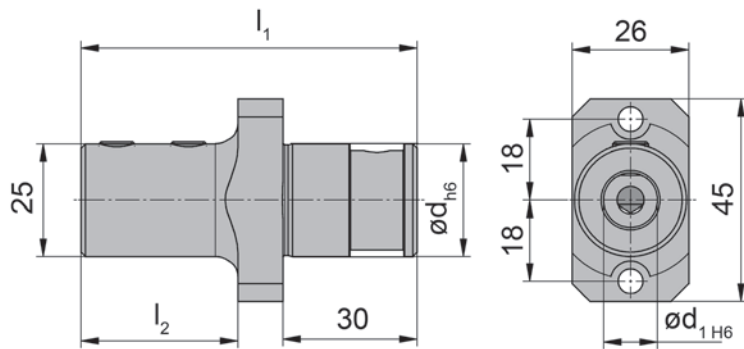
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d ₁	l ₃	d	l ₁	l ₄	b ₁	HWS
RB105.TS40.2.2.01	40	17	30	55	45	14	105123 • 105124 • 105125
RB105.TS40.2.2.02	40	14	36	55	45	18	105123 • 105124 • 105125
RB105.TS50.2.2.01	50	26	30	55	45	14	105123 • 105124 • 105125
RB105.TS50.2.2.02	50	22	36	55	45	18	105223 • 105224 • 105225

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RB105...	6.075T15P	T15PQ

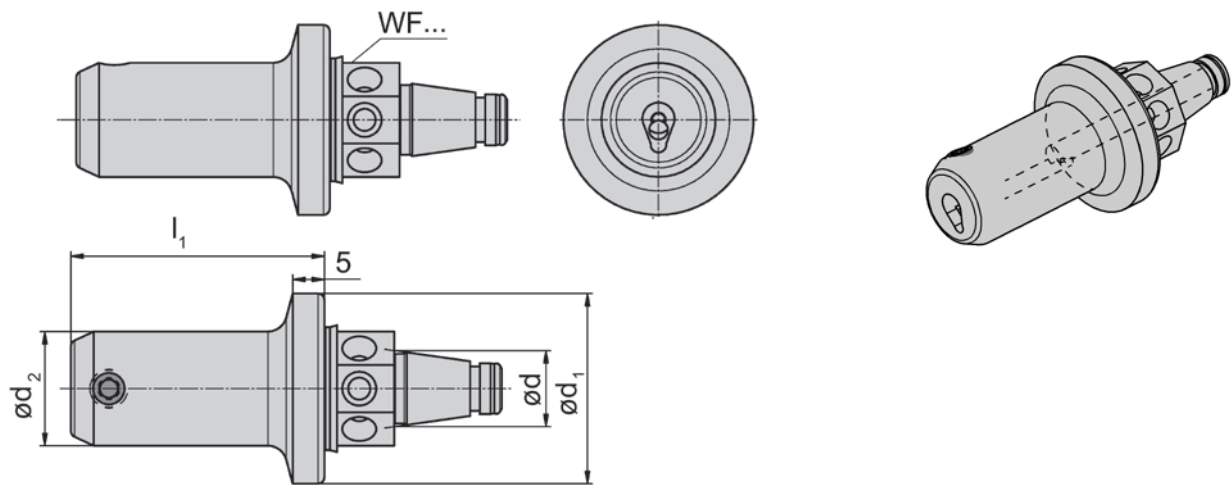
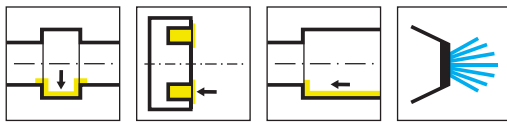


Bestellnummer Part number	d	l_1	d_1	l_2	Maschinentyp Machine type
001.C025.12.30IK	25	75	12	35	Citizen L20X

Ersatzteile

Spare Parts

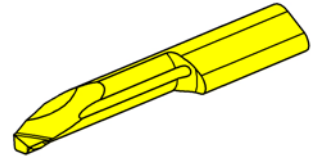
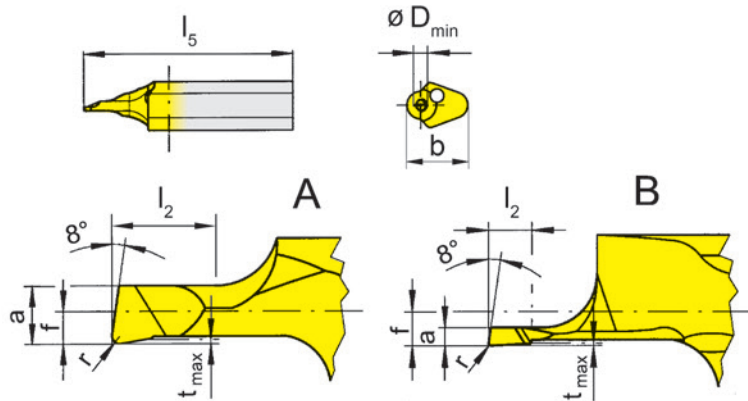
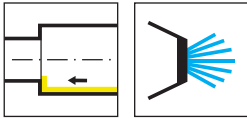
Bohrstangen-Aufnahme Adaptor for boring bars	Spannschraube Clamping Screw
001.C025.12.30IK	8.075.1835



Bestellnummer Part number	d ₁	l ₁	d	d ₂	HWS	HMS
WFB.2H0.105	30	40	12	18	105123 • 105124 • 105125	WFB
WFB.2H0.105.055	30	55	12	18	105123 • 105124 • 105125	WFB
WFB.3H0.105	50	40	20	18	105123 • 105124 • 105125	WFB
WFB.3H0.105.055	50	55	20	18	105123 • 105124 • 105125	WFB

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
WFB...	6.075T15P	T15PQ



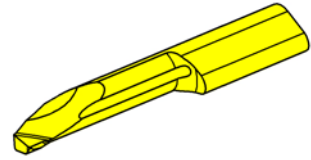
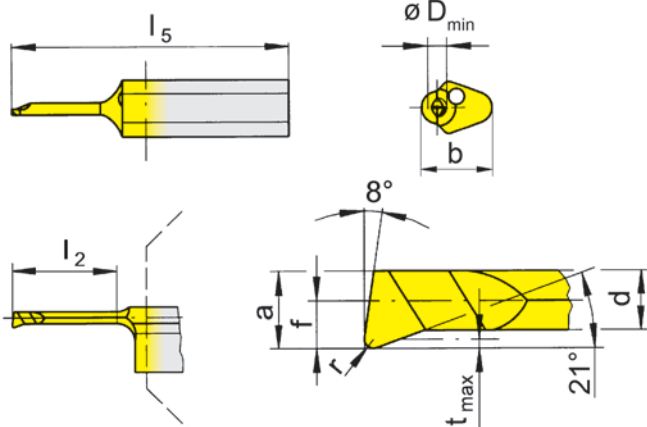
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	b	l_2	l_5	t_{max}	D_{min}	Form	HIS		EG35	IG35
R105.1802.0.02	0,02	1	0,17	5,9	1	23	0,02	0,2	B	105123		Δ	
R105.1802.0.03	0,02	1	0,25	5,9	1	23	0,02	0,3	B	105123		Δ	
R105.1802.0.05	0,05	1	0,4	5,9	2	23	0,05	0,5	B	105123		▲	▲
R105.1803.0.07	0,05	0,3	0,6	5,9	2	23	0,05	0,7	A	105123		▲	▲
L105.1802.0.02	0,02	1	0,17	5,9	1	23	0,02	0,2	B	105123		Δ	
L105.1802.0.03	0,02	1	0,25	5,9	1	23	0,02	0,3	B	105123		Δ	
L105.1802.0.05	0,05	1	0,4	5,9	2	23	0,05	0,5	B	105123		Δ	
L105.1803.0.07	0,05	0,3	0,6	5,9	2	23	0,05	0,7	A	105123		Δ	
											P	●	-
											M	●	●
											K	○	-
											N	-	-
											S	-	●
											H	-	-



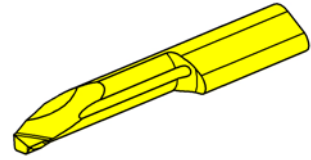
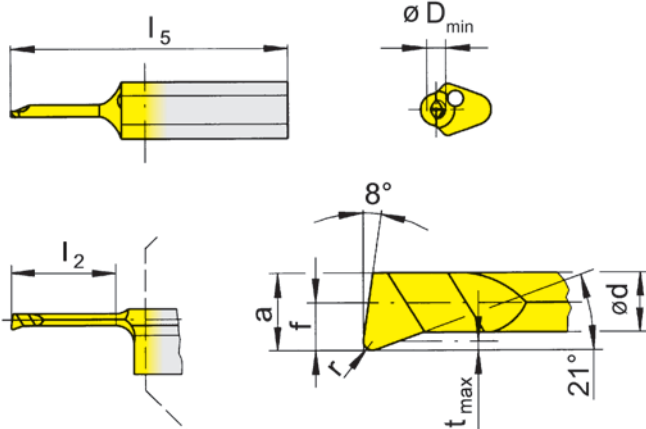
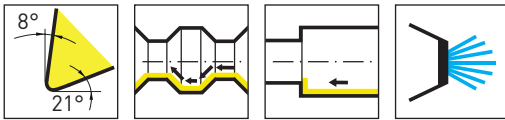
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	IG35	TH35	TI25	TN35
R105.1805.005.0.1	0,05	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	▲	▲	▲		
R105.1805.005.1.1	0,05	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	▲	▲	▲		
R105.1805.005.2.1	0,05	0,5	0,9	0,65	5,9	8	25	0,1	1	105123	Δ	▲	▲		
R105.1805.0.1	0,1	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	▲	▲		▲	▲
R105.1805.1.1	0,1	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	▲	▲		▲	▲
R105.1805.2.1	0,1	0,5	0,9	0,65	5,9	8	25	0,1	1	105123	▲	▲		▲	▲
R105.1813.005.0.15	0,05	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	▲	▲	▲		
R105.1813.005.1.15	0,05	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	▲	▲	▲		
R105.1813.005.2.15	0,05	1,3	1,4	1,1	5,9	12	30	0,15	1,5	105123	▲	▲	▲		
R105.1813.01.0.15	0,1	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	▲	▲	▲	▲	
R105.1813.01.1.15	0,1	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	▲	▲	▲	▲	
R105.1813.01.2.15	0,1	1,3	1,4	1,1	5,9	12	30	0,15	1,5	105123	Δ	▲	▲	▲	
L105.1805.005.0.1	0,05	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	Δ		▲		
L105.1805.005.1.1	0,05	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	Δ		▲		
L105.1805.005.2.1	0,05	0,5	0,9	0,65	5,9	8	25	0,1	1	105123			▲		
L105.1805.0.1	0,1	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	▲			▲	▲
L105.1805.1.1	0,1	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	▲			▲	▲
L105.1805.2.1	0,1	0,5	0,9	0,65	5,9	8	25	0,1	1	105123	Δ			Δ	▲
L105.1813.005.0.15	0,05	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	Δ		▲		
L105.1813.005.1.15	0,05	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	Δ		▲		
L105.1813.005.2.15	0,05	1,3	1,4	1,1	5,9	12	30	0,15	1,5	105123	Δ				
L105.1813.01.0.15	0,1	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	Δ		▲	▲	
L105.1813.01.1.15	0,1	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	Δ		▲	▲	
L105.1813.01.2.15	0,1	1,3	1,4	1,1	5,9	12	30	0,15	1,5	105123	Δ		▲	▲	
P	●	-	●	●	●						●	●	●	●	●
M	●	●	●	●	●						●	●	●	●	●
K	○	-	●	●	●						○	○	○	○	○
N	-	-	●	●	●						-	-	-	-	-
S	-	●	●	●	●						-	-	-	-	-
H	-	-	-	-	-						-	-	-	-	-



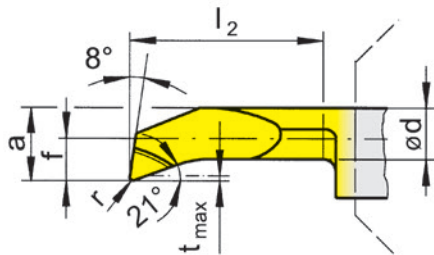
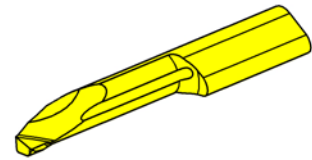
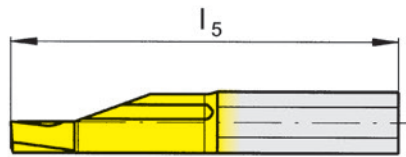
R = rechts wie gezeichnet
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	EG35	IG35	TH35	TI25	TN35
R105.1809.005.0.2	0,05	1	1,9	1,6	5,9	6	25	0,15	2	105123	▲	▲	▲	Δ	Δ
R105.1809.005.1.2	0,05	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲	▲	▲	Δ	Δ
R105.1809.005.2.2	0,05	1	1,9	1,6	5,9	12	30	0,15	2	105123	▲	▲	▲	Δ	Δ
R105.1809.01.0.2	0,1	1	1,9	1,6	5,9	6	25	0,15	2	105123	Δ	▲	▲	▲	
R105.1809.01.1.2	0,1	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲	▲	▲	▲	
R105.1809.01.2.2	0,1	1	1,9	1,6	5,9	12	30	0,15	2	105123	Δ	▲	▲	▲	
R105.1809.0.2	0,15	1	1,9	1,6	5,9	6	25	0,15	2	105123	▲	▲	▲	▲	▲
R105.1809.1.2	0,15	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲	▲	▲	▲	▲
R105.1809.2.2	0,15	1	1,9	1,6	5,9	12	30	0,15	2	105123	▲	▲	▲	▲	▲
R105.1813.005.0.25	0,05	1,3	2,3	1,95	5,9	6	25	0,15	2,5	105123	▲	▲	▲		
R105.1813.005.1.25	0,05	1,3	2,3	1,95	5,9	9	25	0,15	2,5	105123	▲	▲	▲		
R105.1813.005.2.25	0,05	1,3	2,3	1,95	5,9	12	30	0,15	2,5	105123	Δ	▲	▲		
R105.1813.005.3.25	0,05	1,3	2,3	1,95	5,9	16	35	0,15	2,5	105123	▲	▲	▲		
L105.1809.005.0.2	0,05	1	1,9	1,6	5,9	6	25	0,15	2	105123	Δ		▲		
L105.1809.005.1.2	0,05	1	1,9	1,6	5,9	9	25	0,15	2	105123	Δ		▲		
L105.1809.005.2.2	0,05	1	1,9	1,6	5,9	12	30	0,15	2	105123	Δ		▲		
L105.1809.01.0.2	0,1	1	1,9	1,6	5,9	6	25	0,15	2	105123	Δ		▲	▲	
L105.1809.01.1.2	0,1	1	1,9	1,6	5,9	9	25	0,15	2	105123	Δ		▲	Δ	
L105.1809.01.2.2	0,1	1	1,9	1,6	5,9	12	30	0,15	2	105123	Δ		▲	▲	
L105.1809.0.2	0,15	1	1,9	1,6	5,9	6	25	0,15	2	105123	▲		▲	▲	▲
L105.1809.1.2	0,15	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲		▲	▲	▲
L105.1809.2.2	0,15	1	1,9	1,6	5,9	12	30	0,15	2	105123	▲		▲	▲	▲
L105.1813.005.0.25	0,05	1,3	2,3	1,95	5,9	6	25	0,15	2,5	105123	Δ		▲		
L105.1813.005.1.25	0,05	1,3	2,3	1,95	5,9	9	25	0,15	2,5	105123	Δ		▲		
L105.1813.005.2.25	0,05	1,3	2,3	1,95	5,9	12	30	0,15	2,5	105123	Δ		▲		
L105.1813.005.3.25	0,05	1,3	2,3	1,95	5,9	16	35	0,15	2,5	105123	Δ		▲		
P											●	-	●	●	●
M											●	●	●	●	●
K											○	-	●	●	●
N											-	-	●	●	●
S											-	●	●	●	●
H											-	-	-	-	-



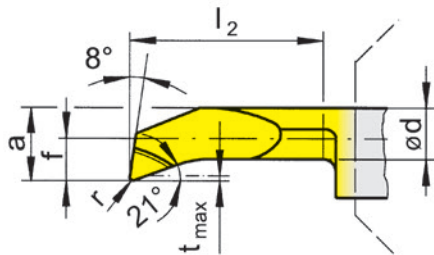
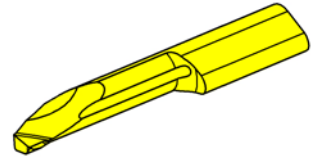
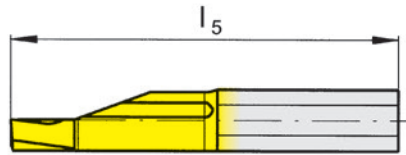
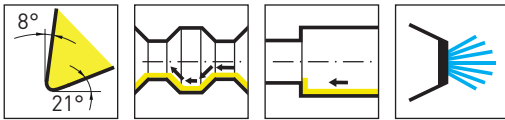
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	IG35	TH35	TI25	TN35
R105.1813.005.1.3	0,05	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲	▲	▲	Δ	Δ
R105.1813.005.2.3	0,05	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	Δ	▲	▲		Δ
R105.1813.005.3.3	0,05	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲	▲	▲	Δ	
R105.1813.01.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲	▲	▲	▲	
R105.1813.01.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲	▲	▲	▲	
R105.1813.01.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲	▲	▲	▲	
R105.1813.1.3	0,2	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲	▲	▲	▲	▲
R105.1813.2.3	0,2	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲	▲	▲	▲	▲
R105.1813.3.3	0,2	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲	▲	▲	▲	▲
L105.1813.005.1.3	0,05	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	Δ		▲		
L105.1813.005.2.3	0,05	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	Δ		▲		
L105.1813.005.3.3	0,05	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	Δ		▲		
L105.1813.01.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	Δ		▲	▲	
L105.1813.01.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	Δ		▲	▲	
L105.1813.01.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	Δ		▲	▲	
L105.1813.1.3	0,2	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲		▲	▲	▲
L105.1813.2.3	0,2	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲		▲	▲	▲
L105.1813.3.3	0,2	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲		▲	▲	▲
P	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	-	●	●	●	●	●	●	●	●	●	●	●	●	●
N	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



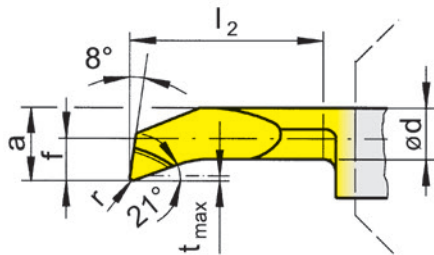
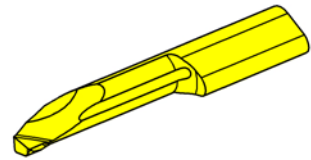
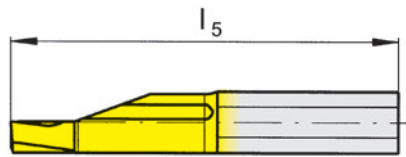
R = rechts wie gezeichnet
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▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35	TI25	TN35
R105.1819.005.1.4	0,05	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		▲	▲	▲	Δ	
R105.1819.005.2.4	0,05	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		▲	▲	▲		
R105.1819.005.3.4	0,05	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		▲	▲	▲		
R105.1819.1.4	0,2	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		▲	▲	▲	▲	▲
R105.1819.2.4	0,2	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		▲	▲	▲	▲	▲
R105.1819.3.4	0,2	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		▲	▲	▲	▲	▲
L105.1819.005.1.4	0,05	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		Δ		▲		
L105.1819.005.2.4	0,05	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		Δ		▲		
L105.1819.005.3.4	0,05	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		Δ		▲		
L105.1819.1.4	0,2	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		▲		▲	▲	▲
L105.1819.2.4	0,2	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		▲		▲	▲	▲
L105.1819.3.4	0,2	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		▲		▲	▲	▲
P												●	-	●	●	●
M												●	●	●	●	●
K												○	-	●	●	●
N												-	-	●	●	●
S												-	●	●	●	●
H												-	-	-	-	-



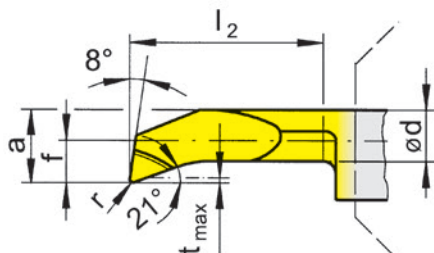
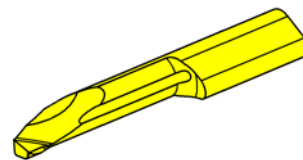
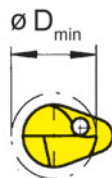
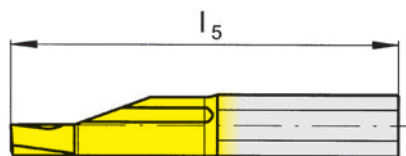
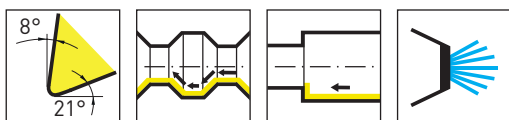
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	IG35	TH35	TI25	TN35
R105.1823.005.1.5	0,05	2,3	4,7	4	7	10	25	0,5	5	105125	▲	▲	▲		
R105.1823.005.2.5	0,05	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲	▲		Δ
R105.1823.005.3.5	0,05	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲	▲		Δ
R105.1823.005.4.5	0,05	2,3	4,7	4	7	25	40	0,5	5	105125	▲	▲	▲		Δ
R105.1823.005.5.5	0,05	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	▲	▲		
R105.1823.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	▲	▲	▲	▲	▲
R105.1823.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲	▲	▲	▲
R105.1823.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲	▲	▲	▲
R105.1823.4.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	▲	▲	▲	▲	▲
R105.1823.5.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	▲	▲	▲	▲	▲
R105.1823.6.5	0,2	2,3	4,7	4	7	35	50	0,5	5	105125			Δ		
L105.1823.005.1.5	0,05	2,3	4,7	4	7	10	25	0,5	5	105125	Δ		▲	Δ	
L105.1823.005.2.5	0,05	2,3	4,7	4	7	15	30	0,5	5	105125	Δ		▲		
L105.1823.005.3.5	0,05	2,3	4,7	4	7	20	35	0,5	5	105125	Δ		▲		
L105.1823.005.4.5	0,05	2,3	4,7	4	7	25	40	0,5	5	105125	▲		▲		
L105.1823.005.5.5	0,05	2,3	4,7	4	7	30	45	0,5	5	105125	Δ		▲		
L105.1823.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	▲		▲	▲	▲
L105.1823.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲		▲	▲	▲
L105.1823.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	▲		▲	▲	▲
L105.1823.4.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	▲		▲	▲	▲
L105.1823.5.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	▲		▲	▲	▲
P	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	-	●	●	●	●	●	●	●	●	●	●	●	●	●
N	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



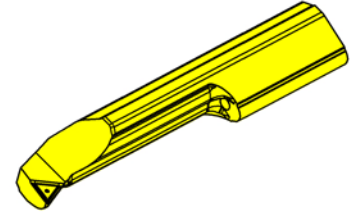
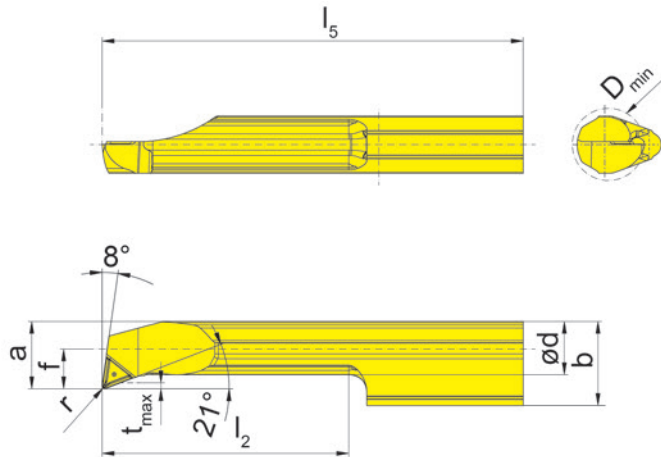
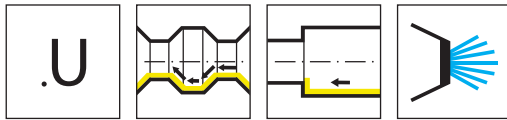
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	EG35	IG35	TH35	TI25	TN35
R105.1833.005.2.6	0,05	3,3	5,7	4,7	7	15	30	0,5	6	105125	▲	▲	▲		
R105.1833.005.3.6	0,05	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ	▲	▲		
R105.1833.005.4.6	0,05	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	▲	▲		
R105.1833.005.5.6	0,05	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	▲			Δ
R105.1833.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	▲	▲	▲	▲	▲
R105.1833.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	▲	▲	▲	▲	▲
R105.1833.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	▲	▲	▲	▲	▲
R105.1833.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	▲	▲	▲	▲	▲
R105.1840.005.3.7	0,05	4	6,4	5,2	7	20	35	0,5	6,8	105125	Δ	▲	▲		
R105.1840.005.4.7	0,05	4	6,4	5,2	7	25	40	0,5	6,8	105125	Δ	▲	▲		
R105.1840.005.5.7	0,05	4	6,4	5,2	7	30	45	0,5	6,8	105125	Δ	▲	▲		
R105.1840.3.7	0,2	4	6,4	5,2	7	20	35	0,5	6,8	105125	▲	▲	▲	▲	▲
R105.1840.4.7	0,2	4	6,4	5,2	7	25	40	0,5	6,8	105125	▲	▲	▲	▲	▲
R105.1840.5.7	0,2	4	6,4	5,2	7	30	45	0,5	6,8	105125	▲	▲	▲	▲	▲
L105.1833.005.2.6	0,05	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ		▲		
L105.1833.005.3.6	0,05	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ		▲		
L105.1833.005.4.6	0,05	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ				
L105.1833.005.5.6	0,05	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ		Δ		
L105.1833.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	▲		▲	▲	▲
L105.1833.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	▲		▲	▲	▲
L105.1833.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	▲		▲	▲	▲
L105.1833.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	▲		▲	▲	▲
L105.1840.005.3.7	0,05	4	6,4	5,2	7	20	35	0,5	6,8	105125	Δ		▲		
L105.1840.005.4.7	0,05	4	6,4	5,2	7	25	40	0,5	6,8	105125	Δ		▲		
L105.1840.005.5.7	0,05	4	6,4	5,2	7	30	45	0,5	6,8	105125	Δ		▲		
L105.1840.3.7	0,2	4	6,4	5,2	7	20	35	0,5	6,8	105125	▲		▲	▲	▲
L105.1840.4.7	0,2	4	6,4	5,2	7	25	40	0,5	6,8	105125	▲		▲	▲	▲
L105.1840.5.7	0,2	4	6,4	5,2	7	30	45	0,5	6,8	105125	▲		▲	▲	▲
P	●	-	●	●	●						●	●	●	●	●
M	●	●	●	●	●						●	●	●	●	●
K	○	-	●	●	●						○	○	○	○	○
N	-	-	●	●	●						-	-	-	-	-
S	-	●	●	●	●						-	-	-	-	-
H	-	-	-	-	-						-	-	-	-	-

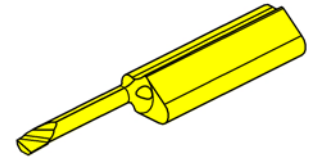
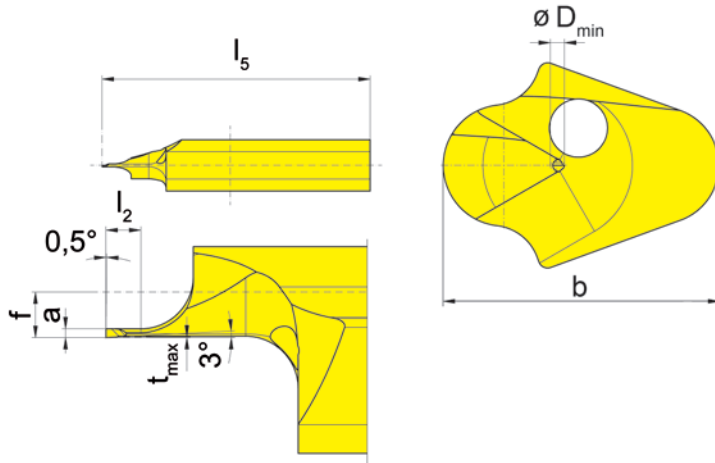
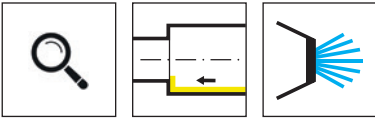


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		IG35	TH35
RS105.1833.2.4.U20	0,2	3,3	3,7	2,5	7	15	30	0,5	4	105125	▲	▲	▲
RS105.1833.3.4.U20	0,2	3,3	3,7	2,5	7	20	35	0,5	4	105125	▲	▲	▲
RS105.1833.2.5.U20	0,2	3,3	4,7	3,5	7	15	30	0,5	5	105125	▲	▲	▲
RS105.1833.3.5.U20	0,2	3,3	4,7	3,5	7	20	35	0,5	5	105125	▲	▲	▲
RS105.1833.4.5.U20	0,2	3,3	4,7	3,5	7	25	40	0,5	5	105125	▲	▲	▲
RS105.1833.2.6.U20	0,2	3,3	5,6	4,4	7	15	30	0,5	6	105125	▲	▲	▲
RS105.1833.3.6.U20	0,2	3,3	5,6	4,4	7	20	35	0,5	6	105125	▲	▲	▲
RS105.1833.4.6.U20	0,2	3,3	5,6	4,4	7	25	40	0,5	6	105125	▲	▲	▲
											P	-	●
											M	●	●
											K	-	●
											N	-	●
											S	●	●
											H	-	-

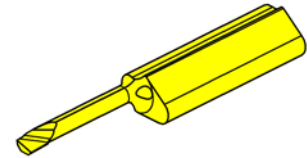
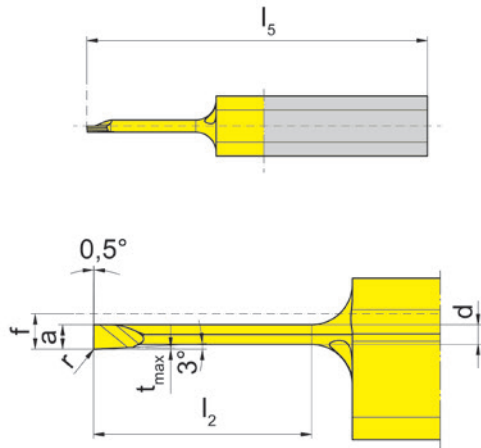
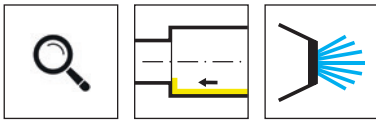


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	f	a	b	l_2	l_5	t_{max}	D_{min}	HIS	ES15	
R105.9013.000.0.02	1,3	0,17	5,9	1	23	0,015	0,2	105123	Δ	•
R105.9013.000.0.03	1,3	0,25	5,9	1	23	0,015	0,3	105123	▲	•
R105.9013.000.0.05	1,3	0,4	5,9	2	23	0,02	0,5	105123	▲	•
R105.9013.000.0.07	1,3	0,6	5,9	2	23	0,02	0,7	105123	▲	•
									P	•
									M	•
									K	•
									N	-
									S	-
									H	-

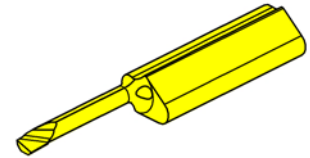
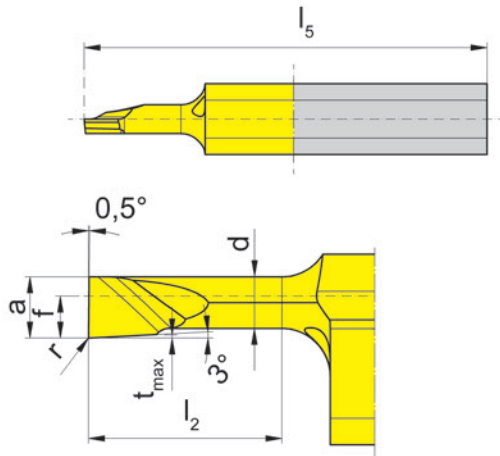
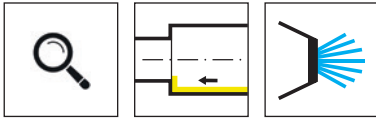


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	ES15
R105.9013.000.0.1	-	1,3	0,9	0,72	5,9	4	25	0,05	1	105123	▲
R105.9013.000.2.1	-	1,3	0,9	0,72	5,9	8	25	0,05	1	105123	Δ
R105.9013.003.0.1	0,03	1,3	0,9	0,72	5,9	4	25	0,05	1	105123	▲
R105.9013.003.2.1	0,03	1,3	0,9	0,72	5,9	8	25	0,05	1	105123	Δ
R105.9013.000.0.15	-	1,3	1,4	1,15	5,9	6	25	0,1	1,5	105123	▲
R105.9013.000.1.15	-	1,3	1,4	1,15	5,9	9	25	0,1	1,5	105123	▲
R105.9013.003.0.15	0,03	1,3	1,4	1,15	5,9	6	25	0,1	1,5	105123	▲
R105.9013.003.1.15	0,03	1,3	1,4	1,15	5,9	9	25	0,1	1,5	105123	▲
											P ●
											M ●
											K ○
											N -
											S -
											H -

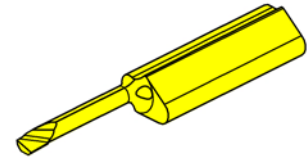
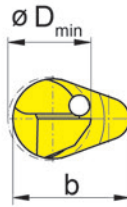
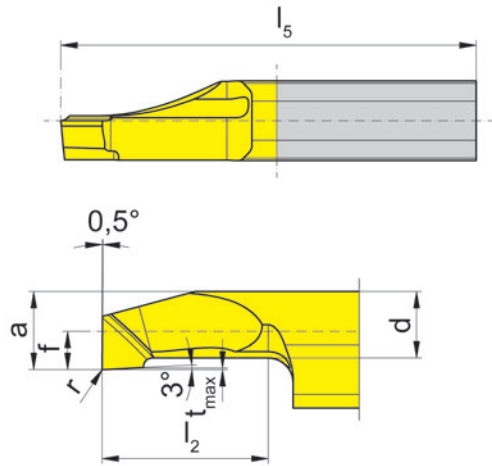
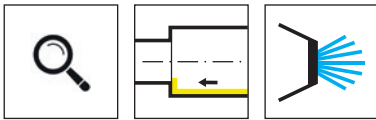


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	ES15
R105.9013.000.0.2	-	1,3	1,9	1,6	5,9	6	25	0,1	2	105123	▲
R105.9013.000.2.2	-	1,3	1,9	1,6	5,9	12	30	0,1	2	105123	Δ
R105.9013.003.0.2	0,03	1,3	1,9	1,6	5,9	6	25	0,1	2	105123	▲
R105.9013.003.2.2	0,03	1,3	1,9	1,6	5,9	12	30	0,1	2	105123	▲
R105.9013.000.0.25	-	1,3	2,3	2	5,9	6	25	0,1	2,5	105123	Δ
R105.9013.000.2.25	-	1,3	2,3	2	5,9	12	30	0,1	2,5	105123	Δ
R105.9013.000.3.25	-	1,3	2,3	2	5,9	16	35	0,1	2,5	105123	Δ
R105.9013.003.0.25	0,03	1,3	2,3	2	5,9	6	25	0,1	2,5	105123	▲
R105.9013.003.2.25	0,03	1,3	2,3	2	5,9	12	30	0,1	2,5	105123	▲
R105.9013.003.3.25	0,03	1,3	2,3	2	5,9	16	35	0,1	2,5	105123	▲
											P ●
											M ●
											K o
											N -
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											H -

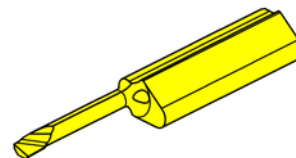
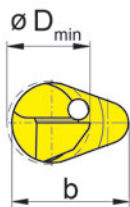
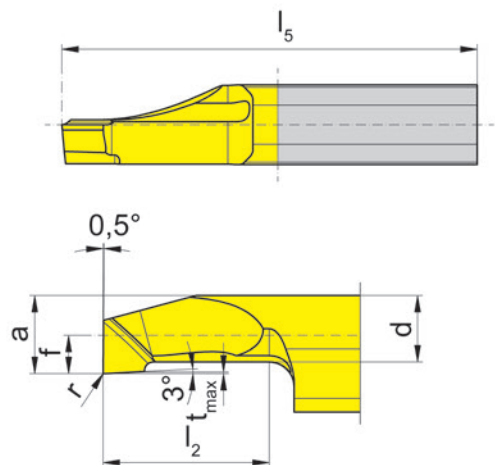
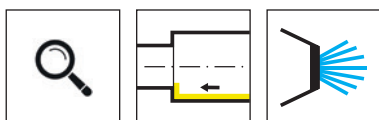


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	ES15
R105.9013.000.1.3	-	1,3	2,6	2,3	5,9	10	25	0,1	3	105123	▲
R105.9013.000.3.3	-	1,3	2,6	2,3	5,9	20	35	0,1	3	105123	Δ
R105.9013.003.1.3	0,03	1,3	2,6	2,3	5,9	10	25	0,1	3	105123	▲
R105.9013.003.3.3	0,03	1,3	2,6	2,3	5,9	20	35	0,1	3	105123	▲
R105.9019.000.1.4	-	1,9	3,7	3,2	6,4	10	25	0,1	4	105124	Δ
R105.9019.000.3.4	-	1,9	3,7	3,2	6,4	20	35	0,1	4	105124	Δ
R105.9019.003.1.4	0,03	1,9	3,7	3,2	6,4	10	25	0,1	4	105124	Δ
R105.9019.003.3.4	0,03	1,9	3,7	3,2	6,4	20	35	0,1	4	105124	▲
											P ●
											M ●
											K ○
											N -
											S -
											H -



R = rechts wie gezeichnet

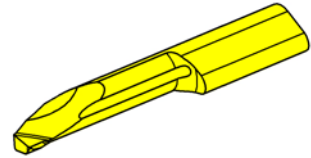
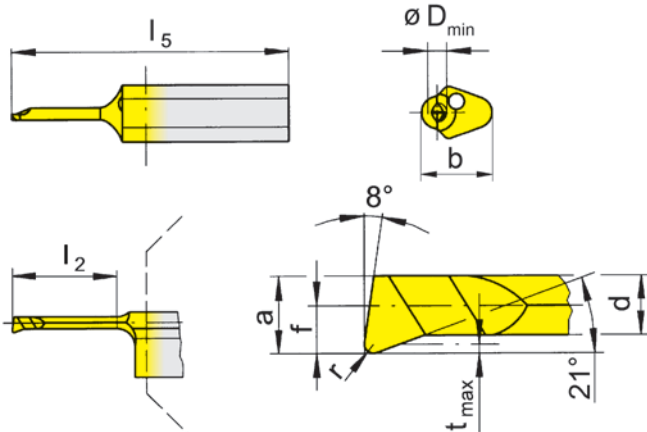
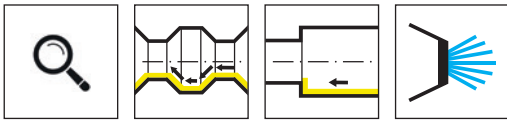
R = right hand version shown

HM-Sorten
Carbide grades

▲ ab Lager
on stock

Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	ES15
R105.9023.000.1.5	-	2,3	4,7	4	7	10	25	0,1	5	105125	▲
R105.9023.000.3.5	-	2,3	4,7	4	7	20	35	0,1	5	105125	Δ
R105.9023.000.5.5	-	2,3	4,7	4	7	30	45	0,1	5	105125	▲
R105.9023.003.1.5	0,03	2,3	4,7	4	7	10	25	0,1	5	105125	▲
R105.9023.003.3.5	0,03	2,3	4,7	4	7	20	35	0,1	5	105125	Δ
R105.9023.003.5.5	0,03	2,3	4,7	4	7	30	45	0,1	5	105125	▲
											P ●
											M ●
											K ○
											N -
											S -
											H -



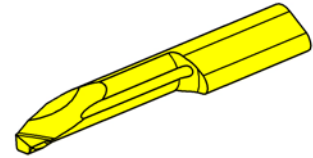
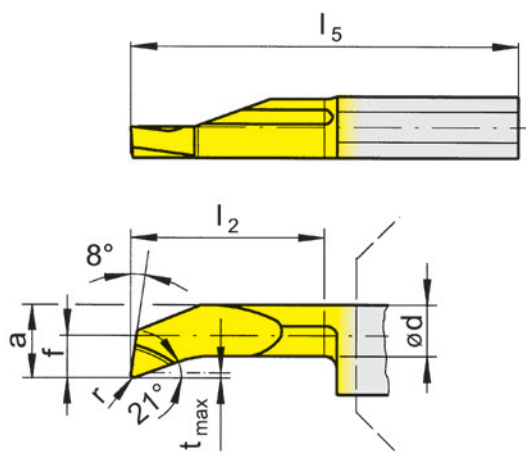
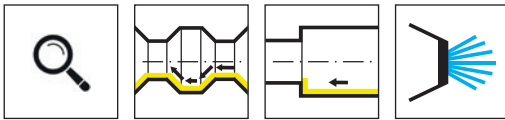
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	ES15
R105.2108.003.0.1	0,03	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	▲
R105.2108.003.1.1	0,03	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	▲
R105.2108.003.2.1	0,03	0,5	0,9	0,65	5,9	8	25	0,1	1	105123	▲
R105.2108.008.0.1	0,08	0,5	0,9	0,65	5,9	4	25	0,1	1	105123	▲
R105.2108.008.1.1	0,08	0,5	0,9	0,65	5,9	6	25	0,1	1	105123	▲
R105.2108.008.2.1	0,08	0,5	0,9	0,65	5,9	8	25	0,1	1	105123	▲
R105.2108.003.0.15	0,03	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	▲
R105.2108.003.1.15	0,03	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	▲
R105.2108.003.2.15	0,03	1,3	1,4	1,1	5,9	12	25	0,15	1,5	105123	▲
R105.2108.008.0.15	0,08	1,3	1,4	1,1	5,9	6	25	0,15	1,5	105123	▲
R105.2108.008.1.15	0,08	1,3	1,4	1,1	5,9	9	25	0,15	1,5	105123	▲
R105.2108.008.2.15	0,08	1,3	1,4	1,1	5,9	12	30	0,15	1,5	105123	▲
											P ●
											M ●
											K o
											N -
											S -
											H -



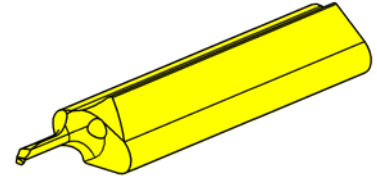
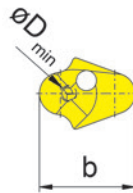
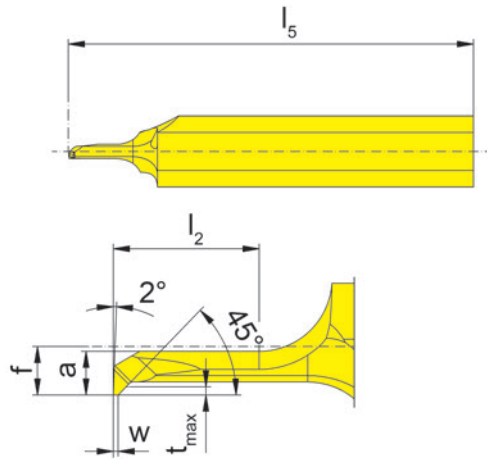
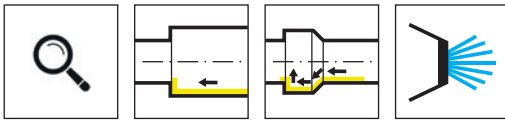
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	ES15
R105.2108.003.0.2	0,03	1	1,9	1,6	5,9	6	25	0,15	2	105123	▲
R105.2108.003.1.2	0,03	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲
R105.2108.003.2.2	0,03	1	1,9	1,6	5,9	12	30	0,15	2	105123	▲
R105.2108.008.0.2	0,08	1	1,9	1,6	5,9	6	25	0,15	2	105123	▲
R105.2108.008.1.2	0,08	1	1,9	1,6	5,9	9	25	0,15	2	105123	▲
R105.2108.008.2.2	0,08	1	1,9	1,6	5,9	12	30	0,15	2	105123	▲
R105.2108.003.1.3	0,03	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲
R105.2108.003.2.3	0,03	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲
R105.2108.003.3.3	0,03	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲
R105.2108.008.1.3	0,08	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲
R105.2108.008.2.3	0,08	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲
R105.2108.008.3.3	0,08	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲
											P ●
											M ●
											K o
											N -
											S -
											H -



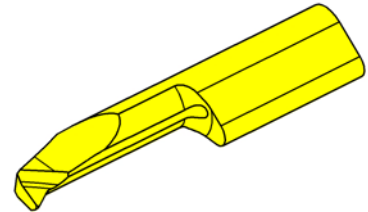
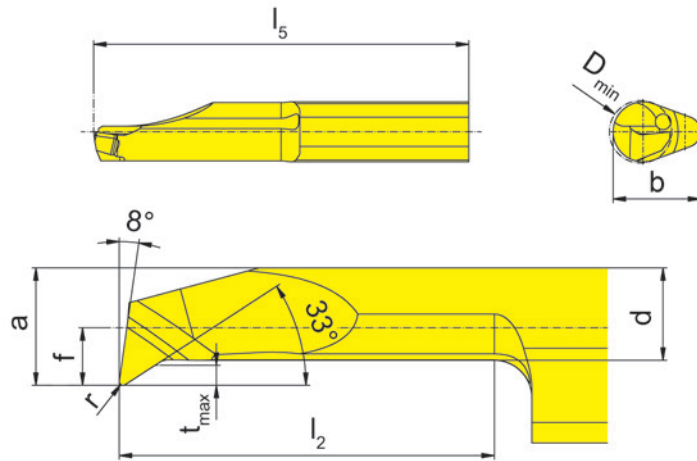
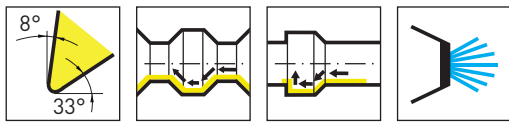
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	b	l ₂	l ₅	t _{max}	D _{min}	HIS	ES15
R105.4502.003.0.03	0,03	1	0,25	5,9	0,6	25	0,05	0,3	105123	▲
R105.4502.003.0.04	0,03	1	0,33	5,9	0,8	25	0,07	0,4	105123	▲
R105.4502.003.0.05	0,03	1	0,45	5,9	1,2	25	0,08	0,5	105123	▲
R105.4502.003.0.06	0,03	1	0,52	5,9	1,2	25	0,1	0,6	105123	▲
R105.4502.003.0.07	0,03	1	0,6	5,9	1,2	25	0,12	0,7	105123	▲
R105.4502.005.0.08	0,05	1	0,7	5,9	1,8	25	0,15	0,8	105123	▲
R105.4502.005.0.09	0,05	1	0,8	5,9	1,8	25	0,15	0,9	105123	▲
R105.4502.010.0.10	0,1	1	0,9	5,9	3	25	0,17	1	105123	▲
R105.4502.010.0.12	0,1	1	1	5,9	3,6	25	0,2	1,2	105123	▲
R105.4502.010.0.15	0,1	1,3	1,4	5,9	4,5	25	0,25	1,5	105123	▲
R105.4502.020.0.20	0,2	1,3	1,8	5,9	6	25	0,35	2	105123	▲
R105.4502.020.0.25	0,2	1,3	2,3	5,9	7,5	25	0,45	2,5	105123	▲
R105.4502.030.0.30	0,3	1,3	2,6	5,9	9	25	0,5	3	105123	▲
R105.4502.030.0.35	0,3	1,9	3,2	6,4	10	25	0,6	3,5	105124	▲
										P ●
										M ●
										K o
										N -
										S -
										H -



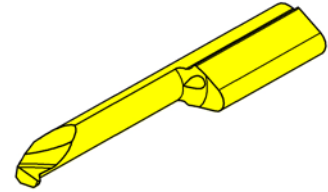
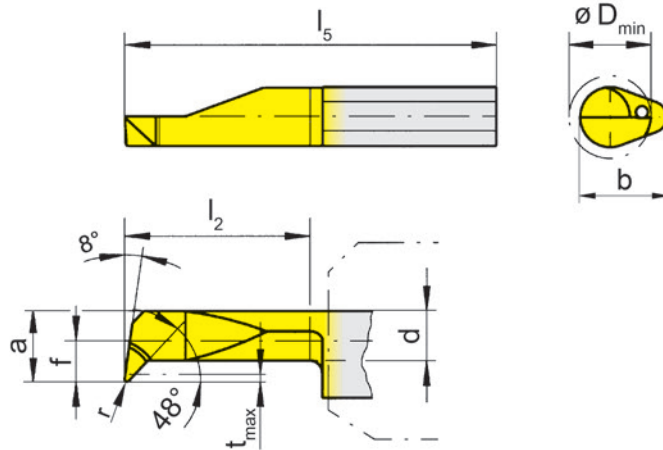
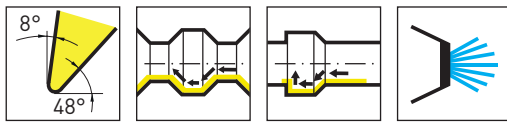
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS		EG35	IG35
R105.3315.005.1.2	0,05	1,5	1,9	1,45	5,9	9	25	0,3	2	105123	▲	▲	▲
R105.3315.005.2.2	0,05	1,5	1,9	1,45	5,9	12	30	0,3	2	105123	▲	▲	▲
R105.3313.005.1.3	0,05	1,3	2,6	2	5,9	10	25	0,4	3	105123	▲	▲	▲
R105.3313.005.2.3	0,05	1,3	2,6	2	5,9	15	30	0,4	3	105123	▲	▲	▲
R105.3319.1.4	0,15	1,9	3,7	2,9	6,4	10	25	0,6	4	105124	▲	▲	▲
R105.3319.3.4	0,15	1,9	3,7	2,9	6,4	20	35	0,6	4	105124	▲	▲	▲
R105.3323.2.5	0,15	2,3	4,7	3,7	7	15	30	0,8	5	105125	▲	▲	▲
R105.3323.4.5	0,15	2,3	4,7	3,7	7	25	40	0,8	5	105125	▲	▲	▲
R105.3333.3.6	0,15	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲	▲	▲
R105.3333.5.6	0,15	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲	▲	▲
L105.3319.1.4	0,15	1,9	3,7	2,9	6,4	10	25	0,6	4	105124	Δ		
L105.3319.3.4	0,15	1,9	3,7	2,9	6,4	20	35	0,6	4	105124	Δ		
L105.3323.2.5	0,15	2,3	4,7	3,7	7	15	30	0,8	5	105125	Δ		
L105.3323.4.5	0,15	2,3	4,7	3,7	7	25	40	0,8	5	105125	Δ		
L105.3333.3.6	0,15	3,3	5,7	3,7	7	20	35	1,8	6	105125	Δ		
L105.3333.5.6	0,15	3,3	5,7	3,7	7	30	45	1,8	6	105125	Δ		
											P	●	-
											M	●	●
											K	o	-
											N	-	-
											S	-	●
											H	-	-



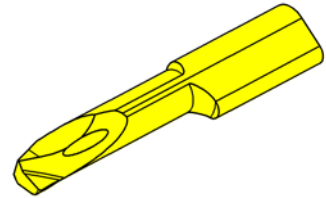
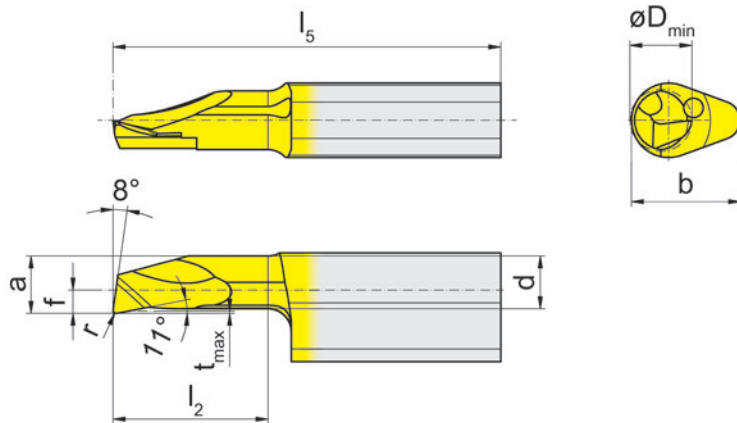
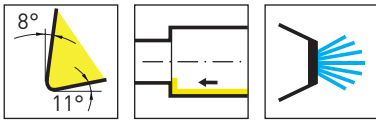
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	ES15	IG35	TH35	TI25	TN35
R105.4715.005.1.2	0,05	1,5	1,9	1,45	5,9	9	25	0,3	2	105123	▲	▲	▲			
R105.4715.005.2.2	0,05	1,5	1,9	1,45	5,9	12	30	0,3	2	105123	▲	Δ	▲			
R105.4713.005.1.3	0,05	1,3	2,6	2	5,9	10	25	0,4	3	105123	▲	▲	▲			
R105.4713.005.2.3	0,05	1,3	2,6	2	5,9	15	30	0,4	3	105123	▲	▲	▲			
R105.4719.1.4	0,15	1,9	3,7	2,9	6,4	10	25	0,6	4	105124	▲		▲	▲		
R105.4719.3.4	0,15	1,9	3,7	2,9	6,4	20	35	0,6	4	105124	▲		▲	▲	▲	▲
R105.4723.2.5	0,15	2,3	4,7	3,7	7	15	30	0,8	5	105125	▲		▲	▲		Δ
R105.4723.4.5	0,15	2,3	4,7	3,7	7	25	40	0,8	5	105125	▲		▲	▲	▲	▲
R105.4733.3.6	0,15	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲		▲	▲		
R105.4733.5.6	0,15	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲		▲	▲	Δ	▲
L105.4719.1.4	0,15	1,9	3,7	2,9	6,4	10	25	0,6	4	105124	▲			▲		
L105.4719.3.4	0,15	1,9	3,7	2,9	6,4	20	35	0,6	4	105124	▲			▲	▲	▲
L105.4723.2.5	0,15	2,3	4,7	3,7	7	15	30	0,8	5	105125	Δ			▲		
L105.4723.4.5	0,15	2,3	4,7	3,7	7	25	40	0,8	5	105125	▲			▲	▲	▲
L105.4733.3.6	0,15	3,3	5,7	3,7	7	20	35	1,8	6	105125	Δ			▲		
L105.4733.5.6	0,15	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲			▲	Δ	▲
P	●	●	-	●	●	●	●	●	●		●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●
K	○	○	-	●	●	●	●	●	●		●	●	●	●	●	●
N	-	-	-	●	●	●	●	●	●		●	●	●	●	●	●
S	-	-	●	●	●	●	●	●	●		●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-		●	●	●	●	●	●



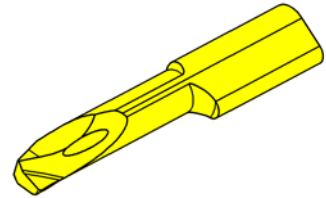
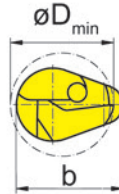
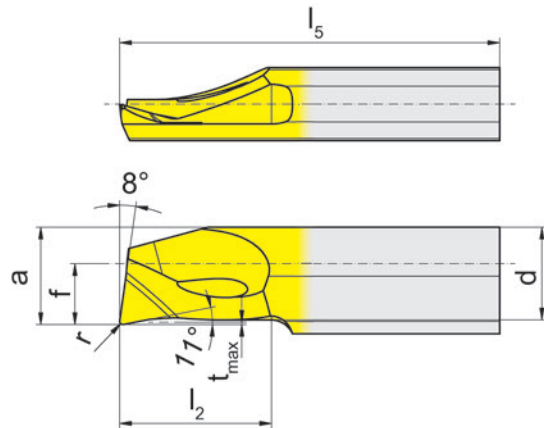
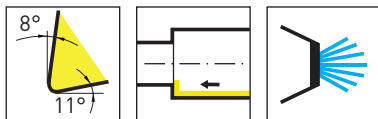
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35
R105.1019.005.1.4	0,05	1,5	3,7	3,4	7	10	25	0,15	4	105125		▲	▲	▲
R105.1019.005.2.4	0,05	1,5	3,7	3,4	7	15	30	0,15	4	105125		△	▲	▲
R105.1019.005.3.4	0,05	1,5	3,7	3,4	7	20	35	0,15	4	105125		△	▲	▲
R105.1019.005.4.4	0,05	1,5	3,7	3,4	7	25	40	0,15	4	105125		△	▲	▲
R105.1019.1.4	0,2	1,5	3,7	3,4	7	10	25	0,15	4	105125		▲	▲	▲
R105.1019.2.4	0,2	1,5	3,7	3,4	7	15	30	0,15	4	105125		▲	▲	▲
R105.1019.3.4	0,2	1,5	3,7	3,4	7	20	35	0,15	4	105125		▲	▲	▲
R105.1019.4.4	0,2	1,5	3,7	3,4	7	25	40	0,15	4	105125		▲	▲	▲
L105.1019.005.1.4	0,05	1,5	3,7	3,4	7	10	25	0,15	4	105125		▲		▲
L105.1019.005.2.4	0,05	1,5	3,7	3,4	7	15	30	0,15	4	105125		△		▲
L105.1019.005.3.4	0,05	1,5	3,7	3,4	7	20	35	0,15	4	105125		△		▲
L105.1019.005.4.4	0,05	1,5	3,7	3,4	7	25	40	0,15	4	105125		△		▲
L105.1019.1.4	0,2	1,5	3,7	3,4	7	10	25	0,15	4	105125		△		▲
L105.1019.2.4	0,2	1,5	3,7	3,4	7	15	30	0,15	4	105125		△		▲
L105.1019.3.4	0,2	1,5	3,7	3,4	7	20	35	0,15	4	105125		△		▲
L105.1019.4.4	0,2	1,5	3,7	3,4	7	25	40	0,15	4	105125		△		▲
verstärkte Ausführung reinforced version											P	●	-	●
											M	●	●	●
											K	○	-	●
											N	-	-	●
											S	-	●	●
											H	-	-	-



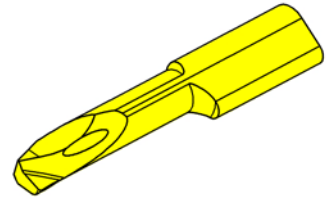
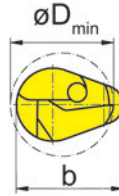
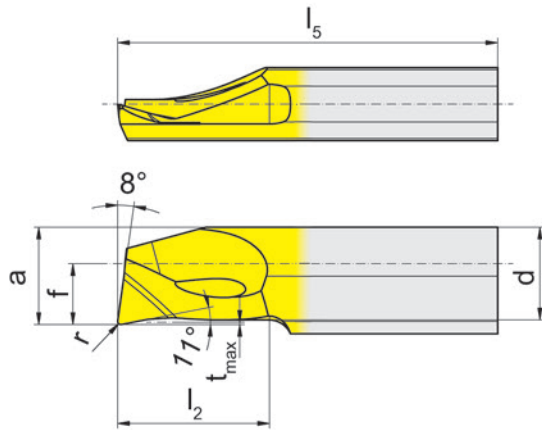
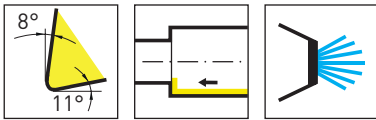
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35
R105.1023.005.1.5	0,05	2,8	4,7	4,4	7	10	25	0,15	5	105125		▲	▲	▲
R105.1023.005.2.5	0,05	2,8	4,7	4,4	7	15	30	0,15	5	105125		▲	▲	▲
R105.1023.005.3.5	0,05	2,8	4,7	4,4	7	20	35	0,15	5	105125		Δ	▲	▲
R105.1023.005.4.5	0,05	2,8	4,7	4,4	7	25	40	0,15	5	105125		Δ	▲	▲
R105.1023.005.5.5	0,05	2,8	4,7	4,4	7	30	45	0,15	5	105125		Δ	▲	▲
R105.1023.005.6.5	0,05	2,8	4,7	4,4	7	35	50	0,15	5	105125		Δ	▲	▲
R105.1023.1.5	0,2	2,8	4,7	4,4	7	10	25	0,15	5	105125		▲	▲	▲
R105.1023.2.5	0,2	2,8	4,7	4,4	7	15	30	0,15	5	105125		▲	▲	▲
R105.1023.3.5	0,2	2,8	4,7	4,4	7	20	35	0,15	5	105125		▲	▲	▲
R105.1023.4.5	0,2	2,8	4,7	4,4	7	25	40	0,15	5	105125		▲	▲	▲
R105.1023.5.5	0,2	2,8	4,7	4,4	7	30	45	0,15	5	105125		▲	▲	▲
R105.1023.6.5	0,2	2,8	4,7	4,4	7	35	50	0,15	5	105125		▲	▲	▲
L105.1023.005.1.5	0,05	2,8	4,7	4,4	7	10	25	0,15	5	105125		Δ		▲
L105.1023.005.2.5	0,05	2,8	4,7	4,4	7	15	30	0,15	5	105125		Δ		Δ
L105.1023.005.3.5	0,05	2,8	4,7	4,4	7	20	35	0,15	5	105125		Δ		▲
L105.1023.005.4.5	0,05	2,8	4,7	4,4	7	25	40	0,15	5	105125		Δ		▲
L105.1023.005.5.5	0,05	2,8	4,7	4,4	7	30	45	0,15	5	105125		Δ		▲
L105.1023.005.6.5	0,05	2,8	4,7	4,4	7	35	50	0,15	5	105125		Δ		▲
L105.1023.1.5	0,2	2,8	4,7	4,4	7	10	25	0,15	5	105125		Δ		▲
L105.1023.2.5	0,2	2,8	4,7	4,4	7	15	30	0,15	5	105125				▲
L105.1023.3.5	0,2	2,8	4,7	4,4	7	20	35	0,15	5	105125		Δ		▲
L105.1023.4.5	0,2	2,8	4,7	4,4	7	25	40	0,15	5	105125		Δ		▲
L105.1023.5.5	0,2	2,8	4,7	4,4	7	30	45	0,15	5	105125		Δ		▲
L105.1023.6.5	0,2	2,8	4,7	4,4	7	35	50	0,15	5	105125		Δ		▲
verstärkte Ausführung reinforced version											P	●	-	●
											M	●	●	●
											K	○	-	●
											N	-	-	●
											S	-	●	●
											H	-	-	



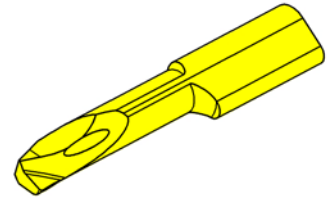
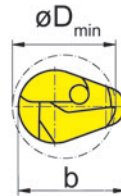
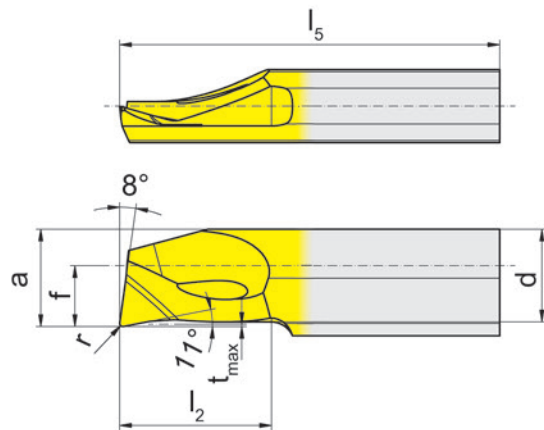
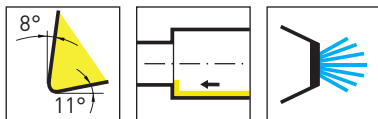
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35
R105.1033.005.1.6	0,05	3,3	5,7	5,4	7	10	25	0,15	6	105125		▲	▲	▲
R105.1033.005.2.6	0,05	3,3	5,7	5,4	7	15	30	0,15	6	105125		Δ	▲	▲
R105.1033.005.3.6	0,05	3,3	5,7	5,4	7	20	35	0,15	6	105125		▲	▲	▲
R105.1033.005.4.6	0,05	3,3	5,7	5,4	7	25	40	0,15	6	105125		Δ	▲	▲
R105.1033.005.5.6	0,05	3,3	5,7	5,4	7	30	45	0,15	6	105125		Δ	▲	▲
R105.1033.005.6.6	0,05	3,3	5,7	5,4	7	35	50	0,15	6	105125		Δ	▲	▲
R105.1033.1.6	0,2	3,3	5,7	5,4	7	10	25	0,15	6	105125		▲	▲	▲
R105.1033.2.6	0,2	3,3	5,7	5,4	7	15	30	0,15	6	105125		▲	▲	▲
R105.1033.3.6	0,2	3,3	5,7	5,4	7	20	35	0,15	6	105125		▲	▲	▲
R105.1033.4.6	0,2	3,3	5,7	5,4	7	25	40	0,15	6	105125		▲	▲	▲
R105.1033.5.6	0,2	3,3	5,7	5,4	7	30	45	0,15	6	105125		▲	▲	▲
R105.1033.6.6	0,2	3,3	5,7	5,4	7	35	50	0,15	6	105125		▲	▲	▲
L105.1033.005.1.6	0,05	3,3	5,7	5,4	7	10	25	0,15	6	105125		Δ		▲
L105.1033.005.2.6	0,05	3,3	5,7	5,4	7	15	30	0,15	6	105125		Δ		▲
L105.1033.005.3.6	0,05	3,3	5,7	5,4	7	20	35	0,15	6	105125		Δ		▲
L105.1033.005.4.6	0,05	3,3	5,7	5,4	7	25	40	0,15	6	105125		Δ		Δ
L105.1033.005.5.6	0,05	3,3	5,7	5,4	7	30	45	0,15	6	105125		Δ		▲
L105.1033.005.6.6	0,05	3,3	5,7	5,4	7	35	50	0,15	6	105125		Δ		▲
L105.1033.1.6	0,2	3,3	5,7	5,4	7	10	25	0,15	6	105125				▲
L105.1033.2.6	0,2	3,3	5,7	5,4	7	15	30	0,15	6	105125		Δ		▲
L105.1033.3.6	0,2	3,3	5,7	5,4	7	20	35	0,15	6	105125		Δ		▲
L105.1033.4.6	0,2	3,3	5,7	5,4	7	25	40	0,15	6	105125		Δ		▲
L105.1033.5.6	0,2	3,3	5,7	5,4	7	30	45	0,15	6	105125		Δ		▲
L105.1033.6.6	0,2	3,3	5,7	5,4	7	35	50	0,15	6	105125		Δ		▲
verstärkte Ausführung reinforced version											P	●	-	●
											M	●	●	●
											K	○	-	●
											N	-	-	●
											S	-	●	●
											H	-	-	-



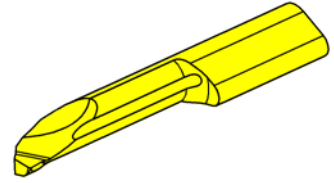
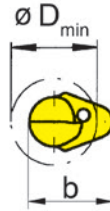
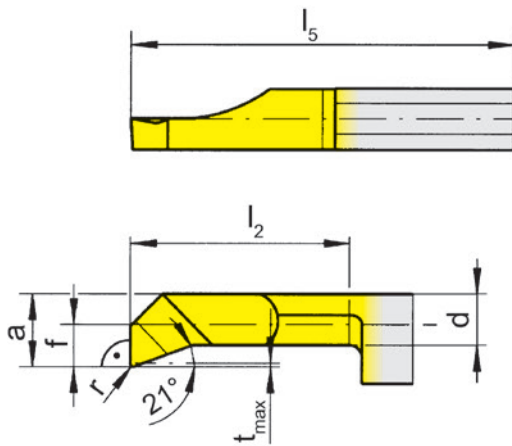
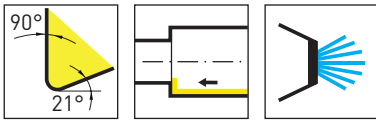
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35
R105.1040.1.7	0,2	4	6,4	6,1	7	10	25	0,15	6,8	105125		▲	▲	▲
R105.1040.2.7	0,2	4	6,4	6,1	7	15	30	0,15	6,8	105125		▲	▲	▲
R105.1040.3.7	0,2	4	6,4	6,1	7	20	35	0,15	6,8	105125		▲	▲	▲
R105.1040.4.7	0,2	4	6,4	6,1	7	25	40	0,15	6,8	105125		▲	▲	▲
R105.1040.5.7	0,2	4	6,4	6,1	7	30	45	0,15	6,8	105125		▲	▲	▲
R105.1040.6.7	0,2	4	6,4	6,1	7	35	50	0,15	6,8	105125		▲	▲	▲
L105.1040.1.7	0,2	4	6,4	6,1	7	10	25	0,15	6,8	105125		Δ		▲
L105.1040.2.7	0,2	4	6,4	6,1	7	15	30	0,15	6,8	105125		Δ		▲
L105.1040.3.7	0,2	4	6,4	6,1	7	20	35	0,15	6,8	105125		Δ		▲
L105.1040.4.7	0,2	4	6,4	6,1	7	25	40	0,15	6,8	105125		Δ		▲
L105.1040.5.7	0,2	4	6,4	6,1	7	30	45	0,15	6,8	105125		Δ		▲
L105.1040.6.7	0,2	4	6,4	6,1	7	35	50	0,15	6,8	105125		Δ		▲
verstärkte Ausführung reinforced version											P	●	-	●
											M	●	●	●
											K	○	-	●
											N	-	-	●
											S	-	●	●
											H	-	-	-



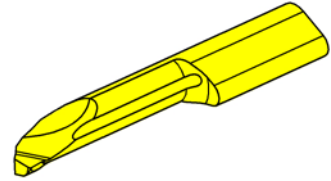
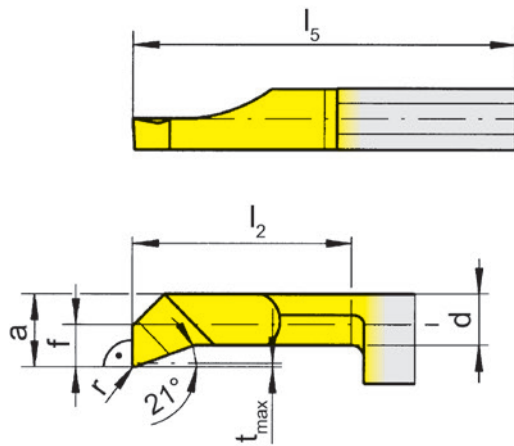
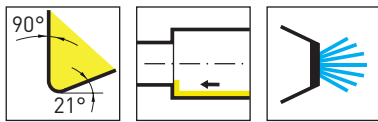
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	IG35	TH35	TN35
R105.9013.01.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123		Δ	▲	▲	
R105.9013.01.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123		Δ	▲	▲	
R105.9013.01.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123		▲	▲	Δ	
R105.9013.1.3	0,2	1,3	2,6	2,3	5,9	10	25	0,15	3	105123		▲	▲		▲
R105.9013.2.3	0,2	1,3	2,6	2,3	5,9	15	30	0,15	3	105123		▲	▲		▲
R105.9019.01.1.4	0,1	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		Δ	▲	▲	
R105.9019.01.2.4	0,1	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		Δ	▲	▲	
R105.9019.01.3.4	0,1	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		▲	▲	▲	
R105.9019.1.4	0,2	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		▲	▲		▲
R105.9019.2.4	0,2	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		▲	▲		▲
L105.9013.01.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123		Δ		▲	
L105.9013.01.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123		Δ		Δ	
L105.9013.01.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123		Δ		Δ	
L105.9013.1.3	0,2	1,3	2,6	2,3	5,9	10	25	0,15	3	105123		▲			▲
L105.9013.2.3	0,2	1,3	2,6	2,3	5,9	15	30	0,15	3	105123		▲			▲
L105.9019.01.1.4	0,1	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		Δ		Δ	
L105.9019.01.2.4	0,1	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		Δ		Δ	
L105.9019.01.3.4	0,1	1,9	3,7	2,9	6,4	20	35	0,3	4	105124		Δ		Δ	
L105.9019.1.4	0,2	1,9	3,7	2,9	6,4	10	25	0,3	4	105124		▲			▲
L105.9019.2.4	0,2	1,9	3,7	2,9	6,4	15	30	0,3	4	105124		▲			▲
P	●	-	●	●	●										
M	●	●	●	●	●										
K	○	-	●	●	●										
N	-	-	●	●	●										
S	-	●	●	●	●										
H	-	-	-	-	-										



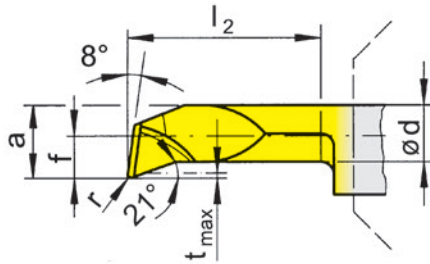
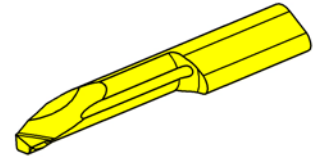
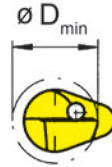
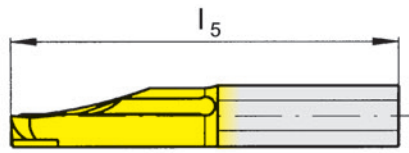
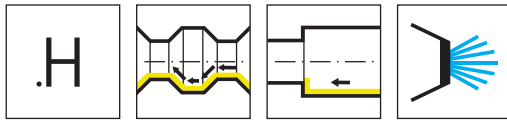
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	IG35	TH35	TN35
R105.9023.01.1.5	0,1	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	▲	▲	
R105.9023.01.2.5	0,1	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲	▲	
R105.9023.01.3.5	0,1	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲	▲	
R105.9023.01.4.5	0,1	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	▲	▲	
R105.9023.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	▲	▲	▲	▲
R105.9023.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲	▲	▲
R105.9023.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲		▲
R105.9033.1.6	0,2	3,3	5,7	4,7	7	10	25	0,5	6	105125	Δ	▲	▲	
R105.9033.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ	▲	▲	
R105.9033.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ	▲	▲	
R105.9033.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	▲	▲	
R105.9033.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	▲	▲	
L105.9023.01.1.5	0,1	2,3	4,7	4	7	10	25	0,5	5	105125	Δ		Δ	
L105.9023.01.2.5	0,1	2,3	4,7	4	7	15	30	0,5	5	105125	Δ		▲	
L105.9023.01.3.5	0,1	2,3	4,7	4	7	20	35	0,5	5	105125	Δ		▲	
L105.9023.01.4.5	0,1	2,3	4,7	4	7	25	40	0,5	5	105125	Δ		Δ	
L105.9023.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	▲			▲
L105.9023.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲			▲
L105.9023.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125				▲
L105.9033.1.6	0,2	3,3	5,7	4,7	7	10	25	0,5	6	105125	Δ			
L105.9033.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ		Δ	
L105.9033.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ		▲	
L105.9033.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ		Δ	
L105.9033.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ		▲	
P	●	-	●	●	●									
M	●	●	●	●	●									
K	○	-	●	●	●									
N	-	-	●	●	●									
S	-	●	●	●	●									
H	-	-	-	-	-									



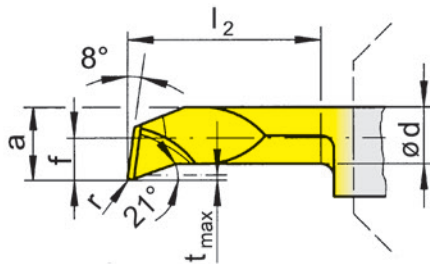
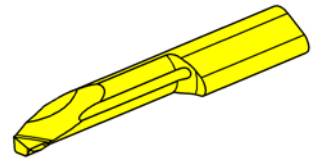
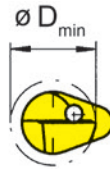
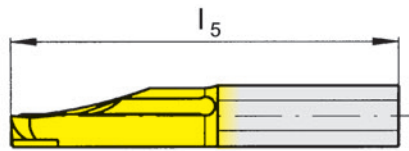
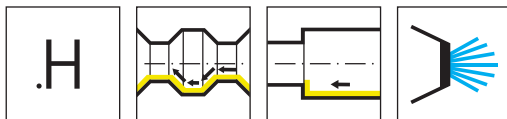
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35
R105.1819.1.H.4	0,2	1,9	3,7	2,9	7	10	25	0,3	4	105125	Δ	▲
R105.1819.2.H.4	0,2	1,9	3,7	2,9	7	15	30	0,3	4	105125	▲	▲
R105.1819.3.H.4	0,2	1,9	3,7	2,9	7	20	35	0,3	4	105125	Δ	▲
R105.1823.1.H.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	▲	▲
R105.1823.2.H.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲
R105.1823.3.H.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲
R105.1823.4.H.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	▲	▲
R105.1823.5.H.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	▲
L105.1819.1.H.4	0,2	1,9	3,7	2,9	7	10	25	0,3	4	105125	Δ	▲
L105.1819.2.H.4	0,2	1,9	3,7	2,9	7	15	30	0,3	4	105125	Δ	Δ
L105.1819.3.H.4	0,2	1,9	3,7	2,9	7	20	35	0,3	4	105125	Δ	▲
L105.1823.1.H.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	▲
L105.1823.2.H.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	Δ	Δ
L105.1823.3.H.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	Δ	▲
L105.1823.4.H.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	Δ
L105.1823.5.H.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	Δ
P	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●
N	-	-	-	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-	-	-	-



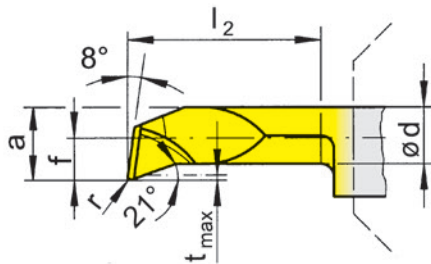
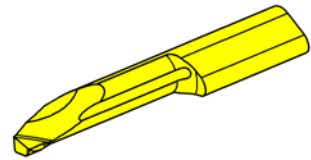
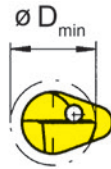
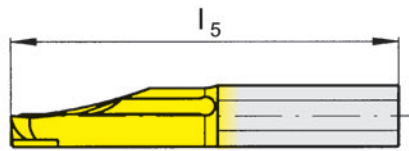
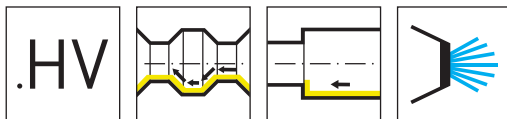
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35
R105.1833.2.H.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ	▲
R105.1833.3.H.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ	▲
R105.1833.4.H.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	▲
R105.1833.5.H.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	▲
R105.1840.3.H.7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125	▲	▲
R105.1840.4.H.7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	▲
R105.1840.5.H.7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125	Δ	▲
L105.1833.2.H.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ	Δ
L105.1833.3.H.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ	Δ
L105.1833.4.H.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	Δ
L105.1833.5.H.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	Δ
L105.1840.3.H.7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125	Δ	▲
L105.1840.4.H.7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	Δ
L105.1840.5.H.7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125	Δ	▲
P	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●
K	o	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-



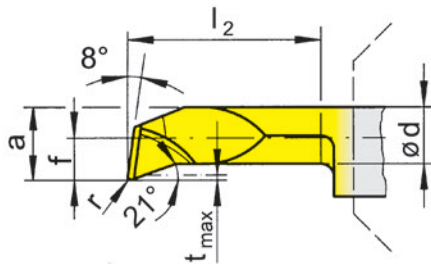
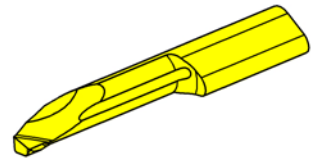
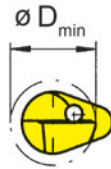
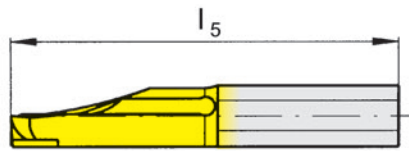
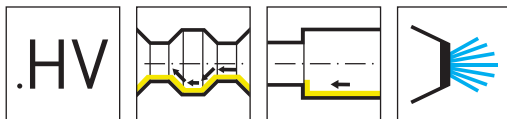
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	TH35
R105.1819.1.HV4	0,2	1,9	3,7	2,9	7	10	25	0,3	4	105125		Δ	▲
R105.1819.2.HV4	0,2	1,9	3,7	2,9	7	15	30	0,3	4	105125		Δ	▲
R105.1819.3.HV4	0,2	1,9	3,7	2,9	7	20	35	0,3	4	105125		Δ	▲
R105.1823.1.HV5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125		Δ	▲
R105.1823.2.HV5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125		▲	▲
R105.1823.3.HV5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125		▲	▲
R105.1823.4.HV5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125		Δ	▲
R105.1823.5.HV5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125		▲	▲
L105.1819.1.HV4	0,2	1,9	3,7	2,9	7	10	25	0,3	4	105125		Δ	Δ
L105.1819.2.HV4	0,2	1,9	3,7	2,9	7	15	30	0,3	4	105125		Δ	▲
L105.1819.3.HV4	0,2	1,9	3,7	2,9	7	20	35	0,3	4	105125		Δ	▲
L105.1823.1.HV5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125		Δ	▲
L105.1823.2.HV5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125		Δ	▲
L105.1823.3.HV5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125		Δ	▲
L105.1823.4.HV5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125		Δ	Δ
L105.1823.5.HV5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125			Δ
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-



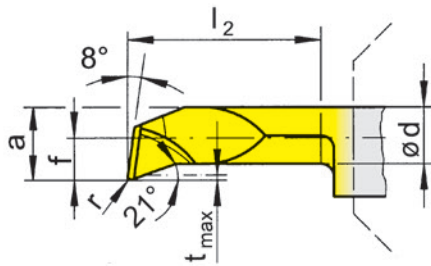
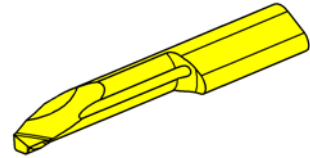
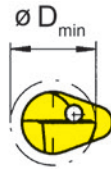
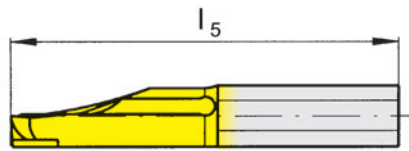
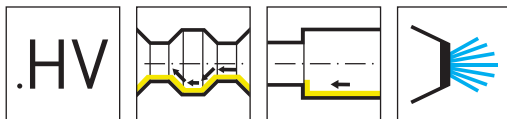
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35
R105.1819.04.1.HV4	0,4	1,9	3,7	2,9	7	10	25	0,3	4	105125	▲	▲
R105.1819.04.2.HV4	0,4	1,9	3,7	2,9	7	15	30	0,3	4	105125	▲	▲
R105.1819.04.3.HV4	0,4	1,9	3,7	2,9	7	20	35	0,3	4	105125	Δ	▲
R105.1823.04.1.HV5	0,4	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	▲
R105.1823.04.2.HV5	0,4	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲
R105.1823.04.3.HV5	0,4	2,3	4,7	4	7	20	35	0,5	5	105125	Δ	▲
R105.1823.04.4.HV5	0,4	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	▲
R105.1823.04.5.HV5	0,4	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	▲
L105.1819.04.1.HV4	0,4	1,9	3,7	2,9	7	10	25	0,3	4	105125	Δ	▲
L105.1819.04.2.HV4	0,4	1,9	3,7	2,9	7	15	30	0,3	4	105125	Δ	Δ
L105.1819.04.3.HV4	0,4	1,9	3,7	2,9	7	20	35	0,3	4	105125	Δ	Δ
L105.1823.04.1.HV5	0,4	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	▲
L105.1823.04.2.HV5	0,4	2,3	4,7	4	7	15	30	0,5	5	105125	Δ	Δ
L105.1823.04.3.HV5	0,4	2,3	4,7	4	7	20	35	0,5	5	105125	Δ	Δ
L105.1823.04.4.HV5	0,4	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	Δ
L105.1823.04.5.HV5	0,4	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	▲
											P	● ●
											M	● ●
											K	○ ●
											N	- ●
											S	- ●
											H	- -



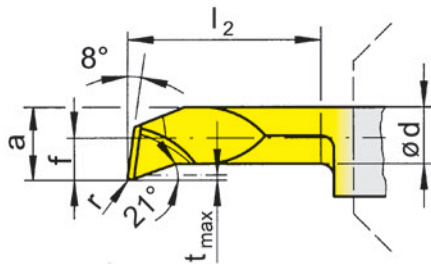
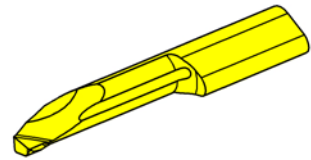
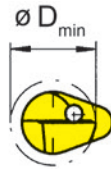
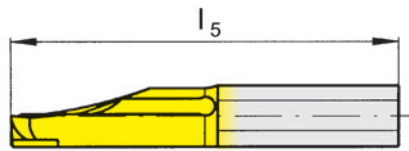
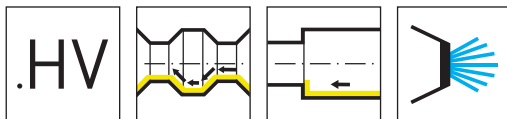
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	TH35
R105.1833.2.HV6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125		Δ	▲
R105.1833.3.HV6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125		▲	▲
R105.1833.4.HV6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125		Δ	▲
R105.1833.5.HV6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125		Δ	▲
R105.1840.2.HV7	0,2	4	6,4	5,2	7	15	30	0,5	7	105125		Δ	▲
R105.1840.3.HV7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125		Δ	▲
R105.1840.4.HV7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125		▲	▲
R105.1840.5.HV7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125		Δ	▲
L105.1833.2.HV6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125		Δ	▲
L105.1833.3.HV6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125		Δ	Δ
L105.1833.4.HV6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125		▲	▲
L105.1833.5.HV6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125		Δ	Δ
L105.1840.2.HV7	0,2	4	6,4	5,2	7	15	30	0,5	7	105125		Δ	▲
L105.1840.3.HV7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125			Δ
L105.1840.4.HV7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125		Δ	Δ
L105.1840.5.HV7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125		Δ	Δ
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-



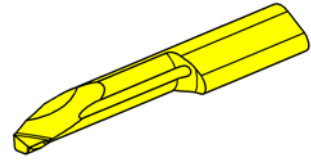
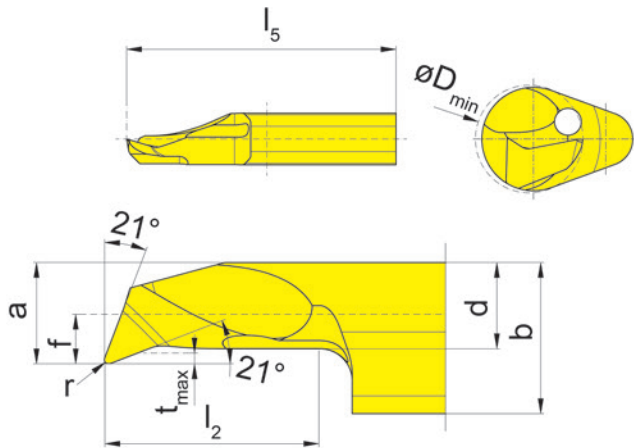
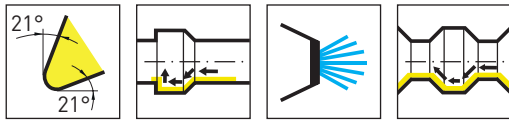
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35
R105.1833.04.2.HV6	0,4	3,3	5,7	4,7	7	15	30	0,5	6	105125	Δ	▲
R105.1833.04.3.HV6	0,4	3,3	5,7	4,7	7	20	35	0,5	6	105125	▲	▲
R105.1833.04.4.HV6	0,4	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	▲
R105.1833.04.5.HV6	0,4	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	▲
R105.1840.04.2.HV7	0,4	4	6,4	5,2	7	15	30	0,5	7	105125	Δ	▲
R105.1840.04.3.HV7	0,4	4	6,4	5,2	7	20	35	0,5	7	105125	Δ	▲
R105.1840.04.4.HV7	0,4	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	▲
R105.1840.04.5.HV7	0,4	4	6,4	5,2	7	30	45	0,5	7	105125	Δ	▲
L105.1833.04.2.HV6	0,4	3,3	5,7	4,7	7	15	30	0,5	6	105125		▲
L105.1833.04.3.HV6	0,4	3,3	5,7	4,7	7	20	35	0,5	6	105125	Δ	Δ
L105.1833.04.4.HV6	0,4	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	Δ
L105.1833.04.5.HV6	0,4	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	Δ
L105.1840.04.2.HV7	0,4	4	6,4	5,2	7	15	30	0,5	7	105125	Δ	▲
L105.1840.04.3.HV7	0,4	4	6,4	5,2	7	20	35	0,5	7	105125	Δ	▲
L105.1840.04.4.HV7	0,4	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	Δ
L105.1840.04.5.HV7	0,4	4	6,4	5,2	7	30	45	0,5	7	105125		Δ
											P	●
											M	●
											K	●
											N	-
											S	-
											H	-



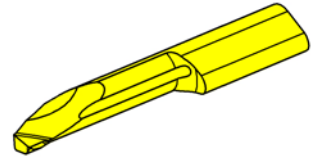
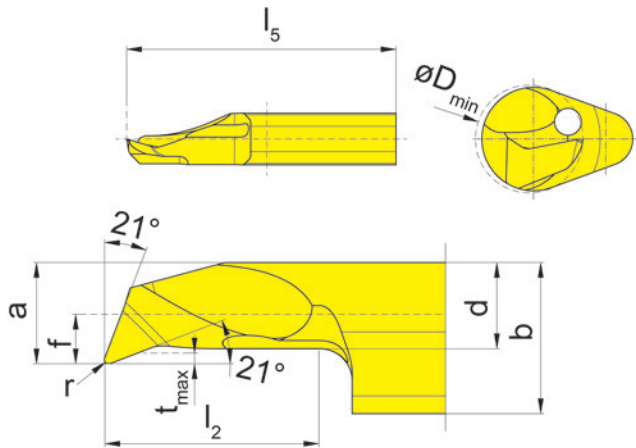
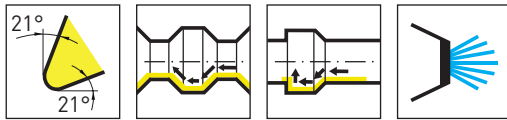
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	EG35	IG35
R105.2113.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲	▲
R105.2113.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲	▲
R105.2113.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲	▲
R105.2119.1.4	0,15	1,9	3,7	3	6,4	10	25	0,3	4	105124	▲	▲
R105.2119.2.4	0,15	1,9	3,7	3	6,4	15	30	0,3	4	105124	▲	▲
R105.2119.3.4	0,15	1,9	3,7	3	6,4	20	35	0,3	4	105124	▲	▲
R105.2119.4.4	0,15	1,9	3,7	3	6,4	25	40	0,3	4	105124	Δ	▲
R105.2123.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	▲
R105.2123.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲	▲
R105.2123.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	▲	▲
R105.2123.4.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	▲
R105.2123.5.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	▲
R105.2123.6.5	0,2	2,3	4,7	4	7	35	50	0,5	5	105125	▲	▲
L105.2113.1.3	0,1	1,3	2,6	2,3	5,9	10	25	0,15	3	105123	▲	
L105.2113.2.3	0,1	1,3	2,6	2,3	5,9	15	30	0,15	3	105123	▲	
L105.2113.3.3	0,1	1,3	2,6	2,3	5,9	20	35	0,15	3	105123	▲	
L105.2119.1.4	0,15	1,9	3,7	3	6,4	10	25	0,3	4	105124	▲	
L105.2119.2.4	0,15	1,9	3,7	3	6,4	15	30	0,3	4	105124	Δ	
L105.2119.3.4	0,15	1,9	3,7	3	6,4	20	35	0,3	4	105124	▲	
L105.2119.4.4	0,15	1,9	3,7	3	6,4	25	40	0,3	4	105124	Δ	
L105.2123.1.5	0,2	2,3	4,7	4	7	10	25	0,5	5	105125	Δ	
L105.2123.2.5	0,2	2,3	4,7	4	7	15	30	0,5	5	105125	▲	
L105.2123.3.5	0,2	2,3	4,7	4	7	20	35	0,5	5	105125	Δ	
L105.2123.4.5	0,2	2,3	4,7	4	7	25	40	0,5	5	105125	Δ	
L105.2123.5.5	0,2	2,3	4,7	4	7	30	45	0,5	5	105125	Δ	
L105.2123.6.5	0,2	2,3	4,7	4	7	35	50	0,5	5	105125	Δ	
P	●	-										
M	●	●										
K	○	-										
N	-	-										
S	-	●										
H	-	-										



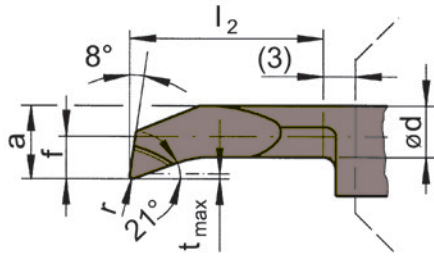
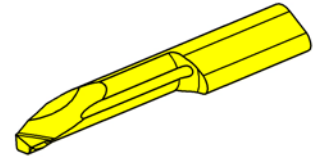
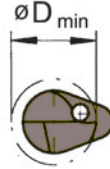
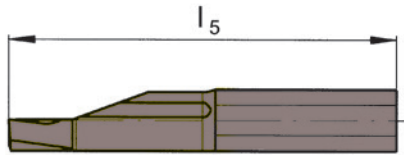
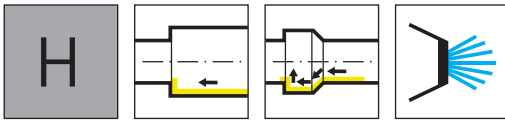
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	IG35
R105.2133.1.6	0,2	3,3	5,7	4,7	7	10	25	0,5	6	105125	▲	▲
R105.2133.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	▲	▲
R105.2133.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	▲	▲
R105.2133.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	▲
R105.2133.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	▲
R105.2133.6.6	0,2	3,3	5,7	4,7	7	35	50	0,5	6	105125	Δ	▲
R105.2140.1.7	0,2	4	6,4	5,2	7	10	25	0,5	7	105125	▲	▲
R105.2140.2.7	0,2	4	6,4	5,2	7	15	30	0,5	7	105125	▲	▲
R105.2140.3.7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125	▲	▲
R105.2140.4.7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	▲
R105.2140.5.7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125	Δ	▲
R105.2140.6.7	0,2	4	6,4	5,2	7	35	50	0,5	7	105125	Δ	▲
L105.2133.1.6	0,2	3,3	5,7	4,7	7	10	25	0,5	6	105125	▲	
L105.2133.2.6	0,2	3,3	5,7	4,7	7	15	30	0,5	6	105125	▲	
L105.2133.3.6	0,2	3,3	5,7	4,7	7	20	35	0,5	6	105125	▲	
L105.2133.4.6	0,2	3,3	5,7	4,7	7	25	40	0,5	6	105125	Δ	
L105.2133.5.6	0,2	3,3	5,7	4,7	7	30	45	0,5	6	105125	Δ	
L105.2133.6.6	0,2	3,3	5,7	4,7	7	35	50	0,5	6	105125	Δ	
L105.2140.1.7	0,2	4	6,4	5,2	7	10	25	0,5	7	105125	▲	
L105.2140.2.7	0,2	4	6,4	5,2	7	15	30	0,5	7	105125	▲	
L105.2140.3.7	0,2	4	6,4	5,2	7	20	35	0,5	7	105125	Δ	
L105.2140.4.7	0,2	4	6,4	5,2	7	25	40	0,5	7	105125	Δ	
L105.2140.5.7	0,2	4	6,4	5,2	7	30	45	0,5	7	105125	Δ	
L105.2140.6.7	0,2	4	6,4	5,2	7	35	50	0,5	7	105125	Δ	
P	●	-										
M	●	●										
K	○	-										
N	-	-										
S	-	●										
H	-	-										



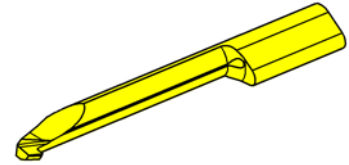
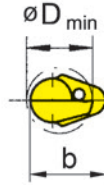
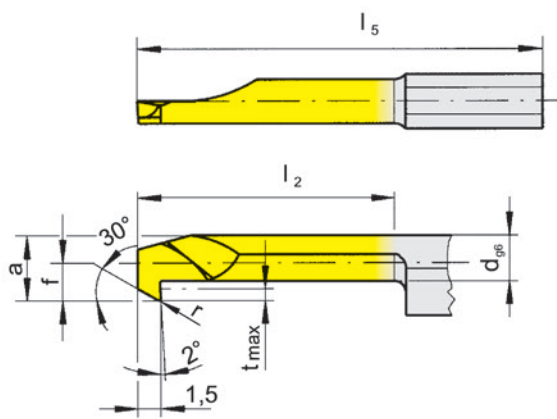
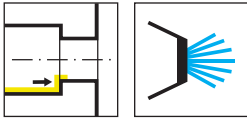
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS	SG36	
R105.1819.01.1.4F	0,1	1,9	3,7	2,9	6,4	10	25	0,3	4	105124	▲	
R105.1819.01.2.4F	0,1	1,9	3,7	2,9	6,4	15	30	0,3	4	105124	▲	
R105.1823.15.2.5F	0,15	2,3	4,7	4	7	15	30	0,5	5	105125	▲	
R105.1823.15.3.5F	0,15	2,3	4,7	4	7	20	35	0,5	5	105125	▲	
L105.1819.01.1.4F	0,1	1,9	3,7	2,9	6,4	10	25	0,3	4	105124	▲	
L105.1819.01.2.4F	0,1	1,9	3,7	2,9	6,4	15	30	0,3	4	105124	▲	
L105.1823.15.2.5F	0,15	2,3	4,7	4	7	15	30	0,5	5	105125	▲	
L105.1823.15.3.5F	0,15	2,3	4,7	4	7	20	35	0,5	5	105125	▲	
											P	-
											M	-
											K	-
											N	-
											S	•
											H	•



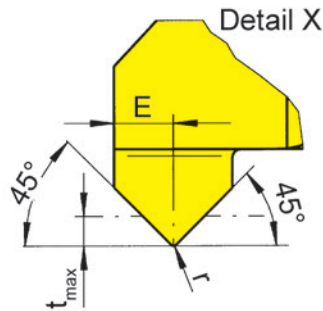
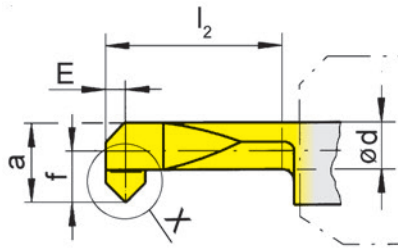
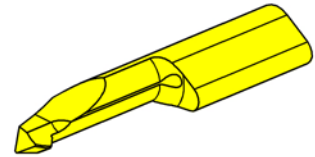
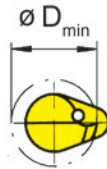
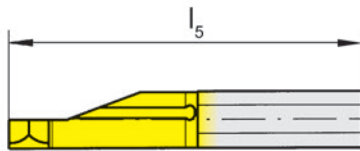
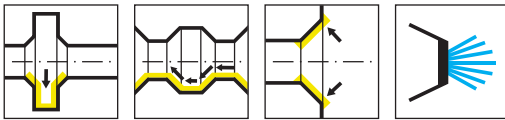
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TI25
R105.3013.2.3	0,1	1,3	2,6	1,9	5,9	15	30	0,5	3	105123	▲	▲
R105.3013.3.3	0,1	1,3	2,6	1,9	5,9	20	35	0,5	3	105123	▲	▲
R105.3019.2.4	0,15	1,9	3,7	2,7	6,4	15	30	0,8	4	105124	▲	▲
R105.3019.4.4	0,15	1,9	3,7	2,7	6,4	25	40	0,8	4	105124	▲	▲
R105.3023.3.5	0,2	2,3	4,7	3,5	7	20	35	1	5	105125	▲	▲
R105.3023.5.5	0,2	2,3	4,7	3,5	7	30	45	1	5	105125	▲	▲
R105.3033.3.6	0,2	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲	▲
R105.3033.5.6	0,2	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲	▲
R105.3040.3.7	0,2	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲
R105.3040.5.7	0,2	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲	▲
L105.3013.2.3	0,1	1,3	2,6	1,9	5,9	15	30	0,5	3	105123	Δ	▲
L105.3013.3.3	0,1	1,3	2,6	1,9	5,9	20	35	0,5	3	105123	Δ	Δ
L105.3019.2.4	0,15	1,9	3,7	2,7	6,4	15	30	0,8	4	105124		Δ
L105.3019.4.4	0,15	1,9	3,7	2,7	6,4	25	40	0,8	4	105124	Δ	Δ
L105.3023.3.5	0,2	2,3	4,7	3,5	7	20	35	1	5	105125	▲	▲
L105.3023.5.5	0,2	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	Δ
L105.3033.3.6	0,2	3,3	5,7	3,7	7	20	35	1,8	6	105125	Δ	▲
L105.3033.5.6	0,2	3,3	5,7	3,7	7	30	45	1,8	6	105125	Δ	Δ
L105.3040.3.7	0,2	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲
L105.3040.5.7	0,2	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ	Δ
P	●	●										
M	●	●										
K	○	●										
N	-	●										
S	-	●										
H	-	-										



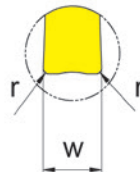
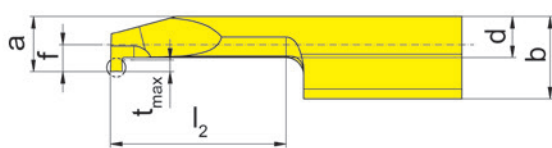
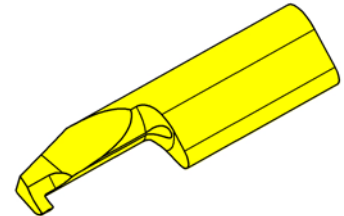
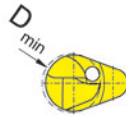
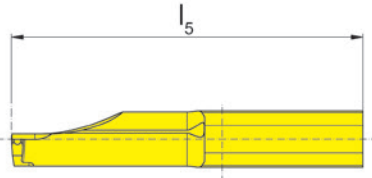
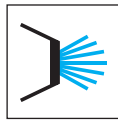
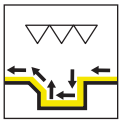
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	E	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.4545.1.3	0,2	1,4	1	2,7	1,9	5,9	10	25	0,5	3	105123		▲	
R105.4545.1.4	0,2	1,9	1	3,7	2,8	6,4	10	25	0,7	4	105124		▲	
R105.4545.2.5	0,2	2,3	1	4,7	3,5	7	15	30	0,7	5	105125	▲		▲
R105.4545.3.7	0,2	4	1	6,4	4,7	7	20	35	0,7	7	105125	▲		▲
L105.4545.1.3	0,2	1,4	1	2,7	1,9	5,9	10	25	0,5	3	105123		▲	
L105.4545.1.4	0,2	1,9	1	3,7	2,8	6,4	10	25	0,7	4	105124		▲	
L105.4545.2.5	0,2	2,3	1	4,7	3,5	7	15	30	0,7	5	105125	▲		▲
L105.4545.3.7	0,2	4	1	6,4	4,7	7	20	35	0,7	7	105125	▲		▲
P												●	●	●
M												●	●	●
K												●	●	●
N												-	●	●
S												-	●	●
H												-	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35
R105.FB10.1.01	1	0,1	2,3	4,7	3,5	7	10	25	1	5	105125	▲
R105.FB10.2.01	1	0,1	2,3	4,7	3,5	7	15	30	1	5	105125	▲
R105.FB15.1.01	1,5	0,1	2,3	4,7	3,5	7	10	25	1	5	105125	▲
R105.FB15.2.01	1,5	0,1	2,3	4,7	3,5	7	15	30	1	5	105125	▲
L105.FB10.1.01	1	0,1	2,3	4,7	3,5	7	10	25	1	5	105125	▲
L105.FB10.2.01	1	0,1	2,3	4,7	3,5	7	15	30	1	5	105125	▲
L105.FB15.1.01	1,5	0,1	2,3	4,7	3,5	7	10	25	1	5	105125	▲
L105.FB15.2.01	1,5	0,1	2,3	4,7	3,5	7	15	30	1	5	105125	▲

Berechnung der kleinstmöglichen Nutbreite w_x
Calculation of the smallest possible width of groove w_x

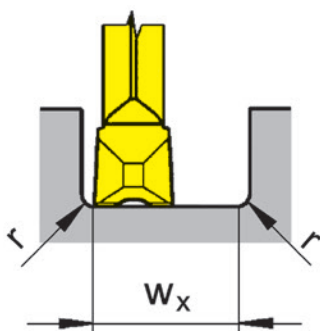
Beispiel R105.FB10.01
Example

$w_x = 2 \times \text{Schneidbreite } w - 2 \times \text{Eckenradius Schneidplatte } r$

$w_x = 2 \times \text{Width of insert } w - 2 \times \text{Corner radius insert } r$

$w_x = 2 \times 1 \text{ mm} - 2 \times 0,1 \text{ mm}$

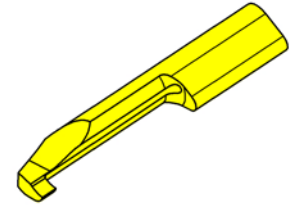
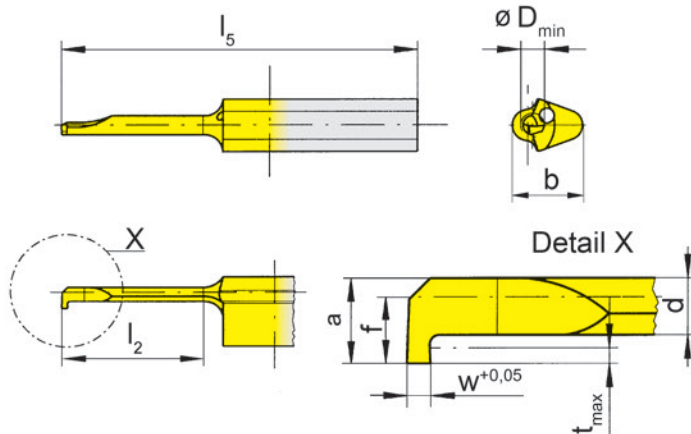
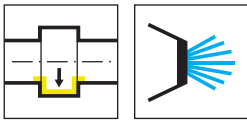
$w_x = 1,8 \text{ mm}$



Bearbeitungsablauf
Processing flow



P	●
M	●
K	○
N	-
S	-
H	-



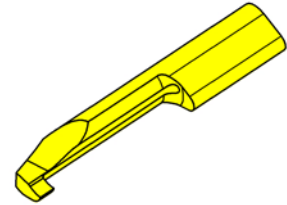
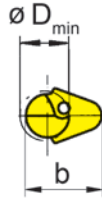
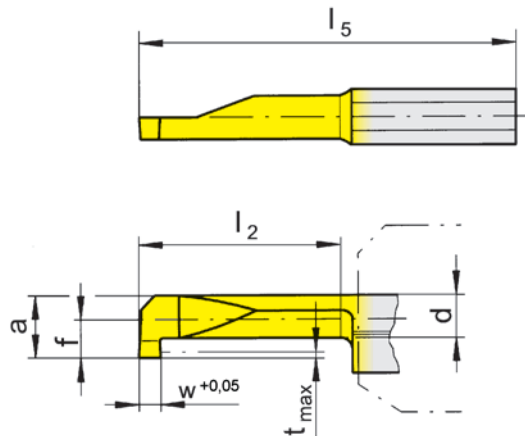
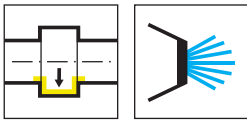
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l_2	l_5	t_{max}	D_{min}	HIS		EG35	TI25
R105.0050.0.2	0,5	1,4	1,8	1,2	5,9	6	25	0,4	2	105123	▲	▲	▲
R105.0050.1.2	0,5	1,4	1,8	1,2	5,9	9	25	0,4	2	105123	▲	▲	▲
R105.0050.2.2	0,5	1,4	1,8	1,2	5,9	12	30	0,4	2	105123	▲	▲	▲
L105.0050.0.2	0,5	1,4	1,8	1,2	5,9	6	25	0,4	2	105123	▲	▲	▲
L105.0050.1.2	0,5	1,4	1,8	1,2	5,9	9	25	0,4	2	105123	Δ	▲	▲
L105.0050.2.2	0,5	1,4	1,8	1,2	5,9	12	30	0,4	2	105123	Δ	Δ	Δ
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-



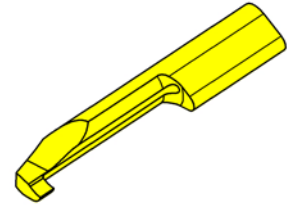
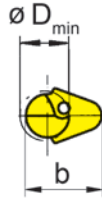
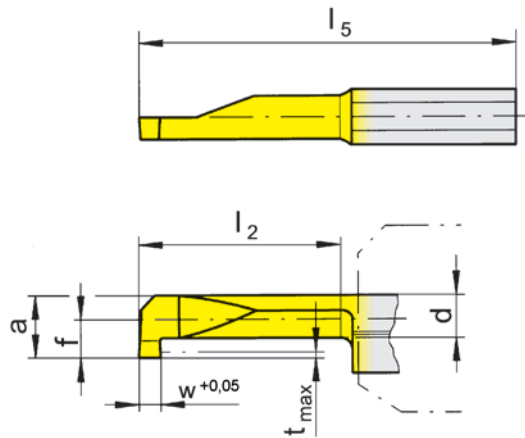
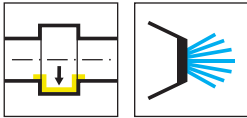
R = rechts wie gezeichnet
R = right hand version shown

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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	ES15	TI25
R105.0050.1.3	0,5	1,4	2,7	2	5,9	8	25	0,5	3	105123	▲	Δ	
R105.0050.2.3	0,5	1,4	2,7	2	5,9	12	30	0,5	3	105123	Δ	Δ	
R105.0050.3.3	0,5	1,4	2,7	2	5,9	16	35	0,5	3	105123	Δ	Δ	
R105.0070.1.3	0,7	1,4	2,7	1,9	5,9	8	25	0,6	3	105123	▲		▲
R105.0070.2.3	0,7	1,4	2,7	1,9	5,9	12	30	0,6	3	105123	▲		▲
R105.0070.3.3	0,7	1,4	2,7	1,9	5,9	16	35	0,6	3	105123	▲		▲
L105.0070.1.3	0,7	1,4	2,7	1,9	5,9	8	25	0,6	3	105123	▲		▲
L105.0070.2.3	0,7	1,4	2,7	1,9	5,9	12	30	0,6	3	105123	Δ		▲
L105.0070.3.3	0,7	1,4	2,7	1,9	5,9	16	35	0,6	3	105123	Δ		▲
P	●	●	●										
M	●	●	●										
K	○	○	○										
N	-	-	-										
S	-	-	-										
H	-	-	-										



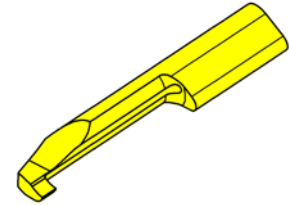
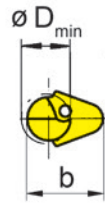
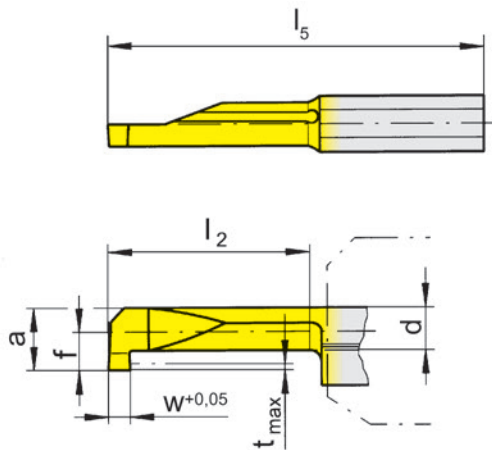
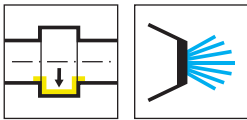
R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	EG35	ES15	TN35
R105.0050.1.4	0,5	1,9	3,7	2,9	6,4	10	25	0,6	4	105124	▲	▲	
R105.0050.2.4	0,5	1,9	3,7	2,9	6,4	15	30	0,6	4	105124	▲	▲	
R105.0050.3.4	0,5	1,9	3,7	2,9	6,4	20	35	0,6	4	105124	Δ	Δ	
R105.0100.1.4	1	1,9	3,7	2,7	6,4	10	25	0,8	4	105124	▲		▲
R105.0100.2.4	1	1,9	3,7	2,7	6,4	15	30	0,8	4	105124	▲		▲
R105.0100.3.4	1	1,9	3,7	2,7	6,4	20	35	0,8	4	105124	Δ		▲
L105.0100.1.4	1	1,9	3,7	2,7	6,4	10	25	0,8	4	105124	Δ		▲
L105.0100.2.4	1	1,9	3,7	2,7	6,4	15	30	0,8	4	105124	Δ		▲
L105.0100.3.4	1	1,9	3,7	2,7	6,4	20	35	0,8	4	105124	Δ		▲
P	●	●	●										
M	●	●	●										
K	○	○	○										
N	-	-	-										
S	-	-	-										
H	-	-	-										



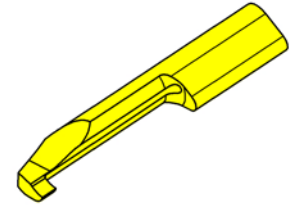
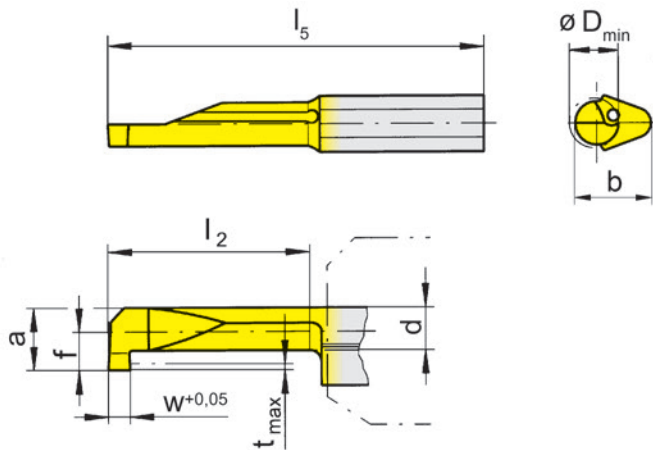
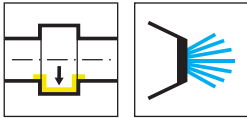
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0100.1.5	1	2,3	4,7	3,5	7	10	25	1	5	105125	▲	▲	▲
R105.0100.2.5	1	2,3	4,7	3,5	7	15	30	1	5	105125	▲	▲	▲
R105.0100.3.5	1	2,3	4,7	3,5	7	20	35	1	5	105125	▲	▲	▲
R105.0150.1.5	1,5	2,3	4,7	3,5	7	10	25	1	5	105125	▲	▲	▲
R105.0150.2.5	1,5	2,3	4,7	3,5	7	15	30	1	5	105125	▲	▲	▲
R105.0150.3.5	1,5	2,3	4,7	3,5	7	20	35	1	5	105125	▲	▲	▲
R105.0200.1.5	2	2,3	4,7	3,5	7	10	25	1	5	105125	▲	▲	▲
R105.0200.2.5	2	2,3	4,7	3,5	7	15	30	1	5	105125	▲	▲	▲
R105.0200.3.5	2	2,3	4,7	3,5	7	20	35	1	5	105125	▲	▲	▲
L105.0100.1.5	1	2,3	4,7	3,5	7	10	25	1	5	105125	▲	▲	▲
L105.0100.2.5	1	2,3	4,7	3,5	7	15	30	1	5	105125	Δ	Δ	▲
L105.0100.3.5	1	2,3	4,7	3,5	7	20	35	1	5	105125	Δ	Δ	▲
L105.0150.1.5	1,5	2,3	4,7	3,5	7	10	25	1	5	105125	Δ	Δ	▲
L105.0150.2.5	1,5	2,3	4,7	3,5	7	15	30	1	5	105125	Δ	Δ	▲
L105.0150.3.5	1,5	2,3	4,7	3,5	7	20	35	1	5	105125	Δ	Δ	▲
L105.0200.1.5	2	2,3	4,7	3,5	7	10	25	1	5	105125	Δ	▲	▲
L105.0200.2.5	2	2,3	4,7	3,5	7	15	30	1	5	105125	Δ	▲	▲
L105.0200.3.5	2	2,3	4,7	3,5	7	20	35	1	5	105125	Δ	Δ	Δ
P	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-



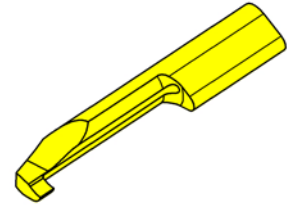
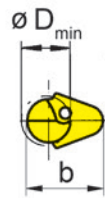
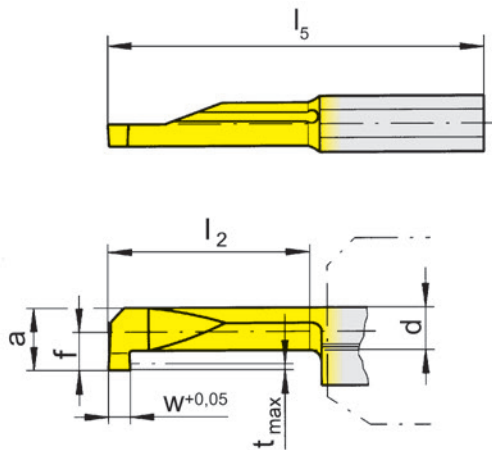
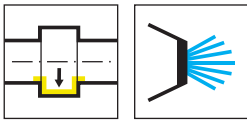
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	EG35	TH35	TN35
R105.0100.4.5	1	2,3	4,7	3,5	7	25	40	1	5	105125	▲	Δ	▲
R105.0100.5.5	1	2,3	4,7	3,5	7	30	45	1	5	105125	▲	▲	▲
R105.0150.4.5	1,5	2,3	4,7	3,5	7	25	40	1	5	105125		▲	▲
R105.0150.5.5	1,5	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	▲	▲
R105.0200.4.5	2	2,3	4,7	3,5	7	25	40	1	5	105125	▲	▲	▲
R105.0200.5.5	2	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	▲	▲
L105.0100.4.5	1	2,3	4,7	3,5	7	25	40	1	5	105125	Δ	Δ	Δ
L105.0100.5.5	1	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	Δ	Δ
L105.0150.4.5	1,5	2,3	4,7	3,5	7	25	40	1	5	105125	Δ	Δ	Δ
L105.0150.5.5	1,5	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	Δ	Δ
L105.0200.4.5	2	2,3	4,7	3,5	7	25	40	1	5	105125	Δ	Δ	Δ
L105.0200.5.5	2	2,3	4,7	3,5	7	30	45	1	5	105125	Δ	Δ	Δ
P											●	●	●
M											●	●	●
K											o	●	●
N											-	●	●
S											-	●	●
H											-	-	-



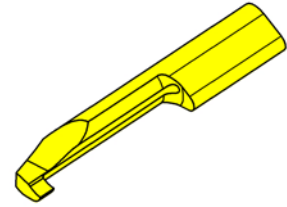
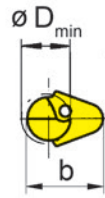
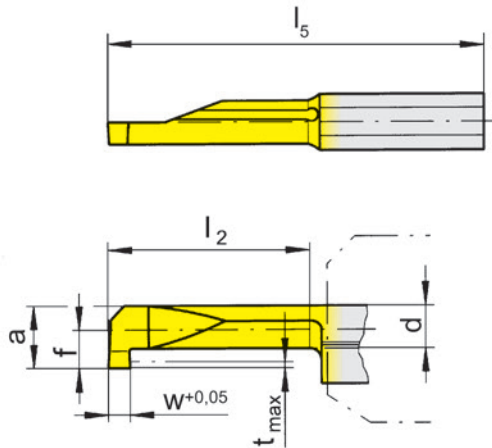
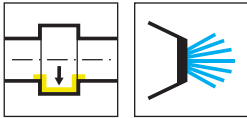
R = rechts wie gezeichnet
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0100.1.6	1	3,3	5,7	3,7	7	10	25	1,8	6	105125	▲	▲	▲
R105.0100.2.6	1	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	▲
R105.0100.3.6	1	3,3	5,7	3,7	7	20	35	1	6	105125	▲	▲	▲
R105.0150.1.6	1,5	3,3	5,7	3,7	7	10	25	1,8	6	105125	▲	▲	▲
R105.0150.2.6	1,5	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	▲
R105.0150.3.6	1,5	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲	▲	▲
R105.0200.1.6	2	3,3	5,7	3,7	7	10	25	1,8	6	105125	▲	▲	▲
R105.0200.2.6	2	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	▲
R105.0200.3.6	2	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲	▲	▲
L105.0100.1.6	1	3,3	5,7	3,7	7	10	25	1,8	6	105125	▲	▲	▲
L105.0100.2.6	1	3,3	5,7	3,7	7	15	30	1,8	6	105125	Δ	▲	▲
L105.0100.3.6	1	3,3	5,7	3,7	7	20	35	1	6	105125	Δ	▲	▲
L105.0150.1.6	1,5	3,3	5,7	3,7	7	10	25	1,8	6	105125	▲	▲	▲
L105.0150.2.6	1,5	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	▲
L105.0150.3.6	1,5	3,3	5,7	3,7	7	20	35	1,8	6	105125	Δ	▲	▲
L105.0200.1.6	2	3,3	5,7	3,7	7	10	25	1,8	6	105125		▲	▲
L105.0200.2.6	2	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	▲
L105.0200.3.6	2	3,3	5,7	3,7	7	20	35	1,8	6	105125	▲	▲	▲
P	●	●	●								●	●	●
M	●	●	●								●	●	●
K	○	●	●								○	●	●
N	-	●	●								-	●	●
S	-	●	●								-	●	●
H	-	-	-								-	-	-



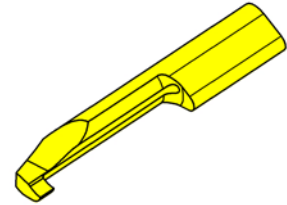
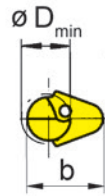
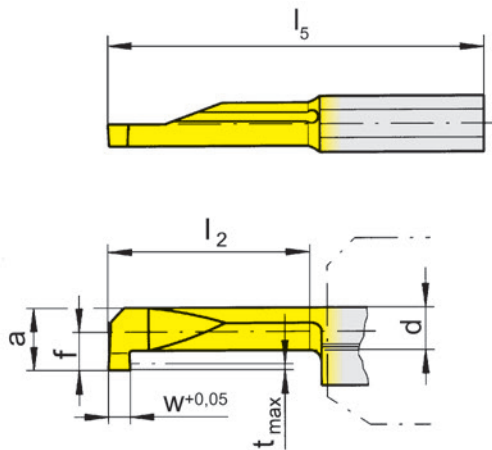
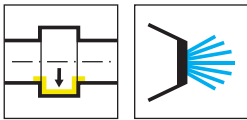
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	EG35	TH35	TN35
R105.0100.4.6	1	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲	▲	▲
R105.0100.5.6	1	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲	▲	▲
R105.0150.4.6	1,5	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲	▲	▲
R105.0150.5.6	1,5	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲	▲	▲
R105.0200.4.6	2	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲	▲	▲
R105.0200.5.6	2	3,3	5,7	3,7	7	30	45	1,8	6	105125	▲	▲	▲
L105.0100.4.6	1	3,3	5,7	3,7	7	25	40	1,8	6	105125	Δ	▲	Δ
L105.0100.5.6	1	3,3	5,7	3,7	7	30	45	1,8	6	105125	Δ	Δ	Δ
L105.0150.4.6	1,5	3,3	5,7	3,7	7	25	40	1,8	6	105125	Δ	Δ	▲
L105.0150.5.6	1,5	3,3	5,7	3,7	7	30	45	1,8	6	105125	Δ	Δ	▲
L105.0200.4.6	2	3,3	5,7	3,7	7	25	40	1,8	6	105125	Δ	Δ	▲
L105.0200.5.6	2	3,3	5,7	3,7	7	30	45	1,8	6	105125	Δ	Δ	▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-



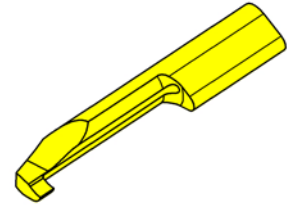
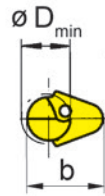
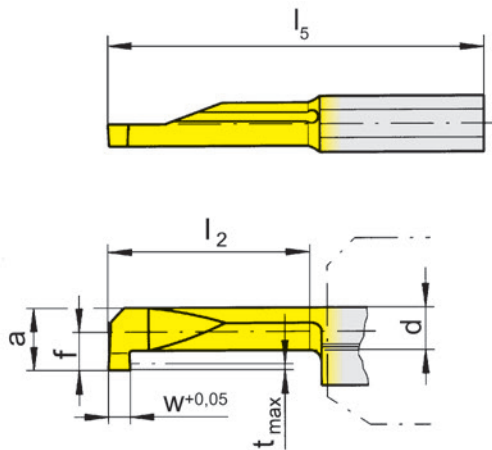
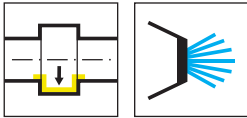
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0100.1.7	1	4	6,4	3,7	7	10	25	2,5	6,8	105125	▲	▲	▲
R105.0100.2.7	1	4	6,4	3,7	7	15	30	2,5	6,8	105125	▲	▲	▲
R105.0100.3.7	1	4	6,4	3,7	7	20	35	1	6,8	105125	▲	▲	▲
R105.0150.1.7	1,5	4	6,4	3,7	7	10	25	2,5	6,8	105125	▲	▲	▲
R105.0150.2.7	1,5	4	6,4	3,7	7	15	30	2,5	6,8	105125	▲	▲	▲
R105.0150.3.7	1,5	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲	▲
R105.0200.1.7	2	4	6,4	3,7	7	10	25	2,5	6,8	105125	▲	▲	▲
R105.0200.2.7	2	4	6,4	3,7	7	15	30	2,5	6,8	105125	▲	▲	▲
R105.0200.3.7	2	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲	▲
L105.0100.1.7	1	4	6,4	3,7	7	10	25	2,5	6,8	105125	Δ	▲	▲
L105.0100.2.7	1	4	6,4	3,7	7	15	30	2,5	6,8	105125		▲	▲
L105.0100.3.7	1	4	6,4	3,7	7	20	35	1	6,8	105125	▲	▲	▲
L105.0150.1.7	1,5	4	6,4	3,7	7	10	25	2,5	6,8	105125	▲	▲	▲
L105.0150.2.7	1,5	4	6,4	3,7	7	15	30	2,5	6,8	105125		▲	▲
L105.0150.3.7	1,5	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲	▲
L105.0200.1.7	2	4	6,4	3,7	7	10	25	2,5	6,8	105125	▲	▲	▲
L105.0200.2.7	2	4	6,4	3,7	7	15	30	2,5	6,8	105125	Δ	▲	▲
L105.0200.3.7	2	4	6,4	3,7	7	20	35	2,5	6,8	105125	Δ	▲	▲
P	●	●	●								●	●	●
M	●	●	●								●	●	●
K	○	●	●								○	●	●
N	-	●	●								-	●	●
S	-	●	●								-	●	●
H	-	-	-								-	-	-



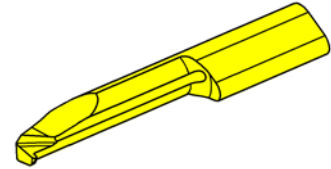
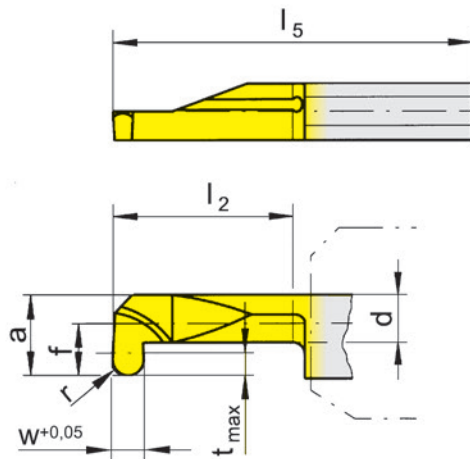
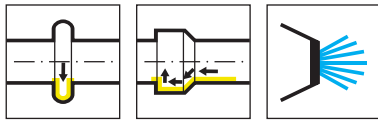
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0100.4.7	1	4	6,4	3,7	7	25	40	2,5	6,8	105125	▲	▲	▲
R105.0100.5.7	1	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ	▲	▲
R105.0150.4.7	1,5	4	6,4	3,7	7	25	40	2,5	6,8	105125	▲	▲	▲
R105.0150.5.7	1,5	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲	▲	▲
R105.0200.4.7	2	4	6,4	3,7	7	25	40	2,5	6,8	105125	▲	▲	▲
R105.0200.5.7	2	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲	▲	▲
L105.0100.4.7	1	4	6,4	3,7	7	25	40	2,5	6,8	105125	Δ	Δ	▲
L105.0100.5.7	1	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ	▲	▲
L105.0150.4.7	1,5	4	6,4	3,7	7	25	40	2,5	6,8	105125	Δ	▲	▲
L105.0150.5.7	1,5	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ	▲	▲
L105.0200.4.7	2	4	6,4	3,7	7	25	40	2,5	6,8	105125	Δ	▲	▲
L105.0200.5.7	2	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ	▲	▲
P	•	•	•	•	•	•	•	•	•	•	•	•	•
M	•	•	•	•	•	•	•	•	•	•	•	•	•
K	•	•	•	•	•	•	•	•	•	•	•	•	•
N	-	•	•	•	•	•	•	•	•	•	•	•	•
S	-	•	•	•	•	•	•	•	•	•	•	•	•
H	-	-	-	-	-	-	-	-	-	-	-	-	-



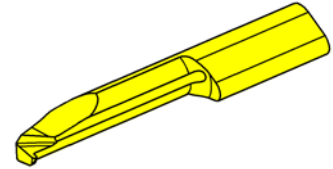
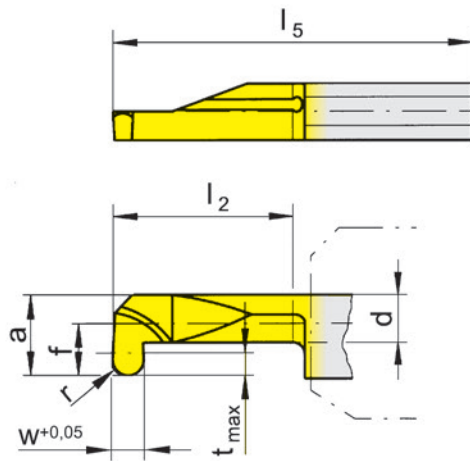
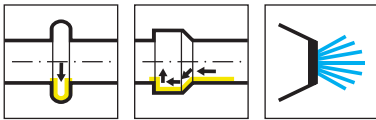
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	ES15	TH35	TN35
R105.0025.2.3	0,5	0,25	1,4	2,7	1,9	5,9	15	30	0,6	3	105123	▲	▲		
R105.0005.1.4	1	0,5	1,9	3,7	2,7	6,4	10	25	0,8	4	105124	▲		▲	
R105.0005.2.4	1	0,5	1,9	3,7	2,7	6,4	15	30	0,8	4	105124	▲			▲
R105.0025.3.5	0,5	0,25	2,3	4,7	3,9	7	20	35	0,6	5	105125	▲	Δ		
R105.0005.3.5	1	0,5	2,3	4,7	3,5	7	20	35	1	5	105125	▲			▲
R105.0007.1.5	1,5	0,75	2,3	4,7	3,5	7	10	25	1	5	105125	Δ		▲	
R105.0007.3.5	1,5	0,75	2,3	4,7	3,5	7	20	35	1	5	105125	▲			▲
R105.0010.1.5	2	1	2,3	4,7	3,5	7	10	25	1	5	105125	▲		▲	
R105.0010.3.5	2	1	2,3	4,7	3,5	7	20	35	1	5	105125	▲			▲
L105.0005.1.4	1	0,5	1,9	3,7	2,7	6,4	10	25	0,8	4	105124	Δ		▲	
L105.0005.2.4	1	0,5	1,9	3,7	2,7	6,4	15	30	0,8	4	105124	▲			▲
L105.0005.3.5	1	0,5	2,3	4,7	3,5	7	20	35	1	5	105125	▲			▲
L105.0007.1.5	1,5	0,75	2,3	4,7	3,5	7	10	25	1	5	105125	Δ		Δ	
L105.0007.3.5	1,5	0,75	2,3	4,7	3,5	7	20	35	1	5	105125	Δ			▲
L105.0010.1.5	2	1	2,3	4,7	3,5	7	10	25	1	5	105125	Δ		Δ	
L105.0010.3.5	2	1	2,3	4,7	3,5	7	20	35	1	5	105125	Δ			▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



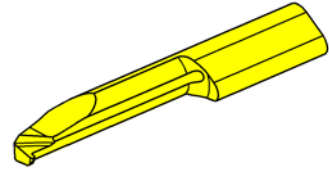
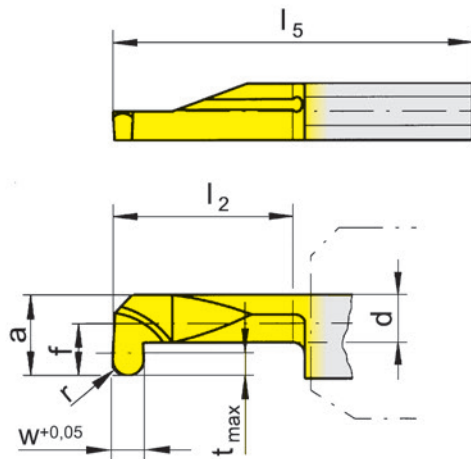
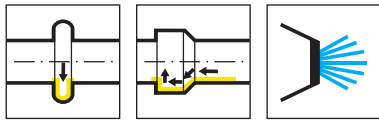
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0005.2.6	1	0,5	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	
R105.0005.4.6	1	0,5	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲		▲
R105.0007.2.6	1,5	0,75	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	
R105.0007.4.6	1,5	0,75	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲		▲
R105.0010.2.6	2	1	3,3	5,7	3,7	7	15	30	1,8	6	105125	▲	▲	
R105.0010.4.6	2	1	3,3	5,7	3,7	7	25	40	1,8	6	105125	▲		▲
L105.0005.2.6	1	0,5	3,3	5,7	3,7	7	15	30	1,8	6	105125	Δ	▲	
L105.0005.4.6	1	0,5	3,3	5,7	3,7	7	25	40	1,8	6	105125	Δ		▲
L105.0007.2.6	1,5	0,75	3,3	5,7	3,7	7	15	30	1,8	6	105125	Δ	Δ	
L105.0007.4.6	1,5	0,75	3,3	5,7	3,7	7	25	40	1,8	6	105125	Δ		▲
L105.0010.2.6	2	1	3,3	5,7	3,7	7	15	30	1,8	6	105125	Δ	Δ	
L105.0010.4.6	2	1	3,3	5,7	3,7	7	25	40	1,8	6	105125			▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-



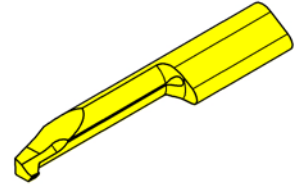
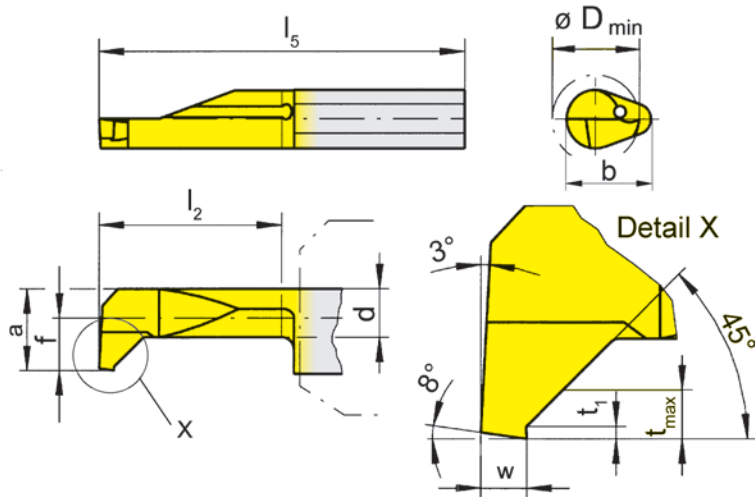
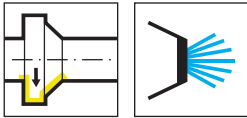
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TH35	TN35
R105.0005.3.7	1	0,5	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲	
R105.0005.5.7	1	0,5	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲		▲
R105.0007.3.7	1,5	0,75	4	6,4	3,7	7	20	35	2,5	6,8	105125	Δ	▲	
R105.0007.5.7	1,5	0,75	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲		▲
R105.0010.3.7	2	1	4	6,4	3,7	7	20	35	2,5	6,8	105125	▲	▲	
R105.0010.5.7	2	1	4	6,4	3,7	7	30	45	2,5	6,8	105125	▲		▲
L105.0005.3.7	1	0,5	4	6,4	3,7	7	20	35	2,5	6,8	105125	Δ	▲	
L105.0005.5.7	1	0,5	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ		▲
L105.0007.3.7	1,5	0,75	4	6,4	3,7	7	20	35	2,5	6,8	105125	Δ	▲	
L105.0007.5.7	1,5	0,75	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ		▲
L105.0010.3.7	2	1	4	6,4	3,7	7	20	35	2,5	6,8	105125	Δ	▲	
L105.0010.5.7	2	1	4	6,4	3,7	7	30	45	2,5	6,8	105125	Δ		▲
P	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M	•	•	•	•	•	•	•	•	•	•	•	•	•	•
K	•	•	•	•	•	•	•	•	•	•	•	•	•	•
N	-	•	•	•	•	•	•	•	•	•	•	•	•	•
S	-	•	•	•	•	•	•	•	•	•	•	•	•	•
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-



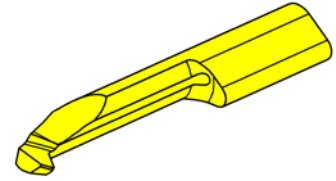
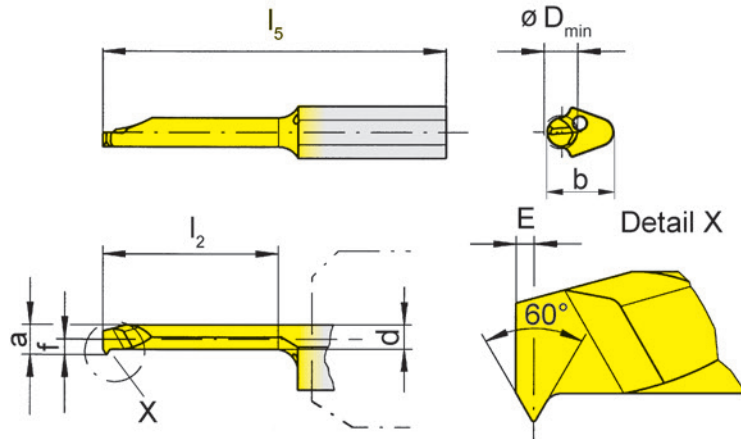
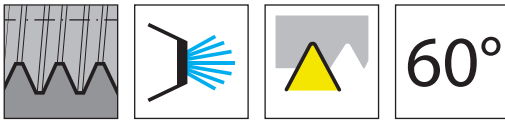
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	b	l_2	l_5	t_{max}	t_1	D_{min}	HIS	EG35	TI25	TN35
R105.0810.1.3	0,7	1,4	2,7	2	5,9	10	25	0,5	0,2	3	105123	▲		▲
R105.0810.2.3	0,7	1,4	2,7	2	5,9	15	30	0,5	0,2	3	105123	Δ		▲
R105.0810.1.4	1	1,9	3,7	2,7	6,4	10	25	0,7	0,2	4	105124	▲		▲
R105.0810.2.4	1	1,9	3,7	2,7	6,4	15	30	0,7	0,2	4	105124	▲		▲
R105.0810.3.4	1	1,9	3,7	2,7	6,4	20	35	0,7	0,2	4	105124	Δ		▲
R105.0810.3.5	1	2,3	4,7	3,5	7	20	35	0,7	0,2	5	105125	▲	▲	▲
R105.0810.4.5	1	2,3	4,7	3,5	7	25	40	0,7	0,2	5	105125	▲	▲	▲
R105.0810.5.5	1	2,3	4,7	3,5	7	30	45	0,7	0,2	5	105125	▲	▲	▲
R105.0810.5.6	1	3,1	5,5	4,2	7	30	45	1	0,2	6	105125	▲		▲
R105.0810.7.6	1	3,1	5,5	4,2	7	40	55	1	0,2	6	105125	Δ		▲
L105.0810.1.3	0,7	1,4	2,7	2	5,9	10	25	0,5	0,2	3	105123	Δ		▲
L105.0810.2.3	0,7	1,4	2,7	2	5,9	15	30	0,5	0,2	3	105123	Δ		▲
L105.0810.1.4	1	1,9	3,7	2,7	6,4	10	25	0,7	0,2	4	105124	Δ		Δ
L105.0810.2.4	1	1,9	3,7	2,7	6,4	15	30	0,7	0,2	4	105124	Δ		▲
L105.0810.3.4	1	1,9	3,7	2,7	6,4	20	35	0,7	0,2	4	105124	Δ		▲
L105.0810.3.5	1	2,3	4,7	3,5	7	20	35	0,7	0,2	5	105125	Δ	▲	▲
L105.0810.4.5	1	2,3	4,7	3,5	7	25	40	0,7	0,2	5	105125	Δ	▲	▲
L105.0810.5.5	1	2,3	4,7	3,5	7	30	45	0,7	0,2	5	105125	Δ	▲	Δ
L105.0810.5.6	1	3,1	5,5	4,2	7	30	45	1	0,2	6	105125	Δ		▲
L105.0810.7.6	1	3,1	5,5	4,2	7	40	55	1	0,2	6	105125	Δ		Δ
P	●	●	●											
M	●	●	●											
K	○	●	●											
N	-	●	●											
S	-	●	●											
H	-	-	-											



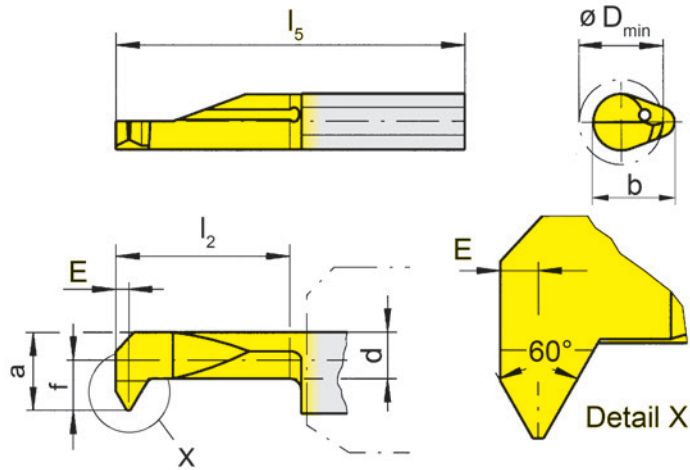
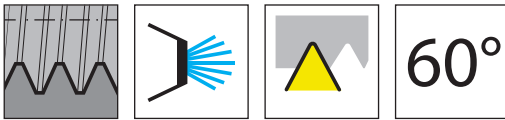
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	b	l_2	l_5	D_{min}	HIS		EG35	TN35
R105.0102.2.3	0,25	0,3	1,4	2,7	2,2	5,9	15	30	3	105123		Δ	▲
L105.0102.2.3	0,25	0,3	1,4	2,7	2,2	5,9	15	30	3	105123		Δ	▲
	P	●	●										
	M	●	●										
	K	○	●										
	N	-	●										
	S	-	●										
	H	-	-										



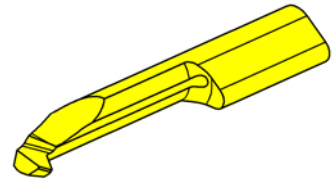
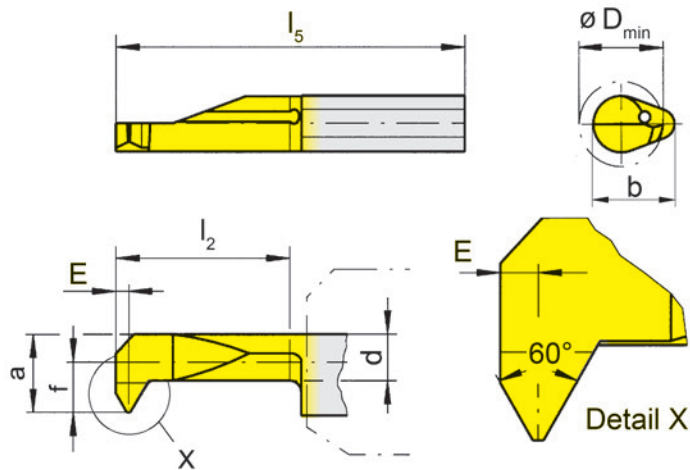
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS		EG35	TN35
R105.0203.1.3	0,35	0,3	1,4	2,7	2,1	5,9	10	25	3	105123		▲	▲
R105.0203.2.5	0,35	0,3	2,3	4,7	3,5	7	15	30	5	105125		▲	▲
L105.0203.1.3	0,35	0,3	1,4	2,7	2,1	5,9	10	25	3	105123		Δ	Δ
L105.0203.2.5	0,35	0,3	2,3	4,7	3,5	7	15	30	5	105125			▲
	P	●	●										
	M	●	●										
	K	○	●										
	N	-	●										
	S	-	●										
	H	-	-										



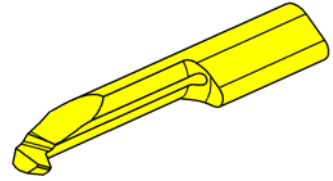
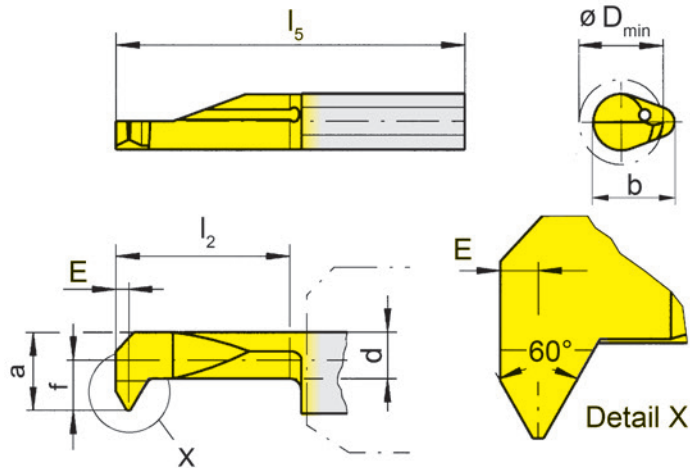
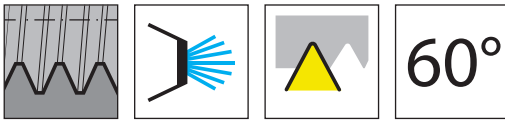
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35	TH35	TN35
R105.0205.2.3	0,5	0,35	1,4	2,7	2,1	5,9	15	30	3	105123	▲		▲
R105.0205.2.4	0,5	0,35	1,9	3,7	2,7	6,4	15	30	4	105124	▲	▲	▲
R105.0205.3.4	0,5	0,35	1,9	3,7	2,7	6,4	20	35	4	105124	▲		▲
R105.0205.2.5	0,5	0,35	2,3	4,7	3,5	7	15	30	5	105125	▲	▲	▲
R105.0205.3.5	0,5	0,35	2,3	4,7	3,5	7	20	35	5	105125	Δ		▲
R105.0205.4.5	0,5	0,35	2,3	4,7	3,5	7	25	40	5	105125			▲
R105.0205.3.6	0,5	0,35	3,3	5,7	4,8	7	20	35	6	105125	▲		▲
L105.0205.2.3	0,5	0,35	1,4	2,7	2,1	5,9	15	30	3	105123	Δ		▲
L105.0205.2.4	0,5	0,35	1,9	3,7	2,7	6,4	15	30	4	105124	Δ	Δ	▲
L105.0205.3.4	0,5	0,35	1,9	3,7	2,7	6,4	20	35	4	105124	Δ		Δ
L105.0205.2.5	0,5	0,35	2,3	4,7	3,5	7	15	30	5	105125	Δ	Δ	▲
L105.0205.3.5	0,5	0,35	2,3	4,7	3,5	7	20	35	5	105125	Δ		Δ
L105.0205.4.5	0,5	0,35	2,3	4,7	3,5	7	25	40	5	105125	Δ		Δ
L105.0205.3.6	0,5	0,35	3,3	5,7	4,8	7	20	35	6	105125	Δ		Δ
P	●	●	●										
M	●	●	●										
K	o	●	●										
N	-	●	●										
S	-	●	●										
H	-	-	-										



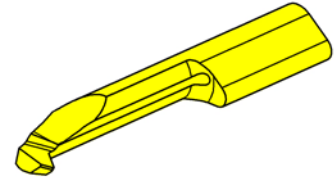
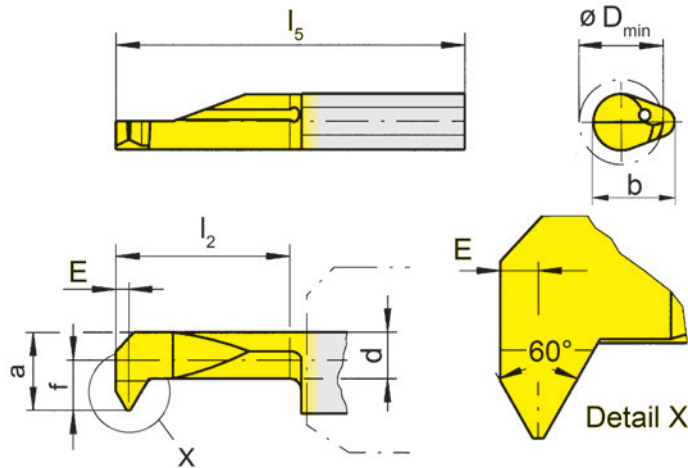
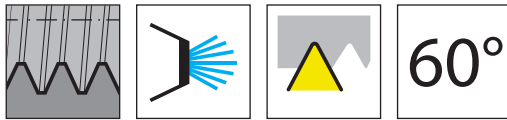
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35	TH35	TN35
R105.0407.2.3	0,5	0,75	0,45	1,4	2,7	2	5,9	15	30	3	105123	▲		▲
R105.0407.1.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	10	25	4	105124	▲		▲
R105.0407.2.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	15	30	4	105124	▲		▲
R105.0407.3.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	20	35	4	105124	▲		▲
R105.0407.2.5	0,5	0,75	0,45	2,3	4,7	3,5	7	15	30	5	105125	▲	▲	▲
R105.0407.3.5	0,5	0,75	0,45	2,3	4,7	3,5	7	20	35	5	105125	Δ		▲
R105.0407.4.5	0,5	0,75	0,45	2,3	4,7	3,5	7	25	40	5	105125	▲		▲
R105.0407.3.6	0,5	0,75	0,45	3,3	5,7	4,7	7	20	35	6	105125	▲		▲
L105.0407.2.3	0,5	0,75	0,45	1,4	2,7	2	5,9	15	30	3	105123	Δ		Δ
L105.0407.1.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	10	25	4	105124	Δ		▲
L105.0407.2.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	15	30	4	105124	Δ		▲
L105.0407.3.4	0,5	0,75	0,45	1,9	3,7	2,7	6,4	20	35	4	105124	Δ		Δ
L105.0407.2.5	0,5	0,75	0,45	2,3	4,7	3,5	7	15	30	5	105125	▲	▲	▲
L105.0407.3.5	0,5	0,75	0,45	2,3	4,7	3,5	7	20	35	5	105125	Δ		Δ
L105.0407.4.5	0,5	0,75	0,45	2,3	4,7	3,5	7	25	40	5	105125	Δ		Δ
L105.0407.3.6	0,5	0,75	0,45	3,3	5,7	4,7	7	20	35	6	105125	Δ		Δ
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-



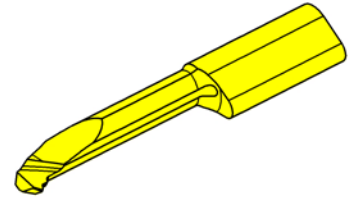
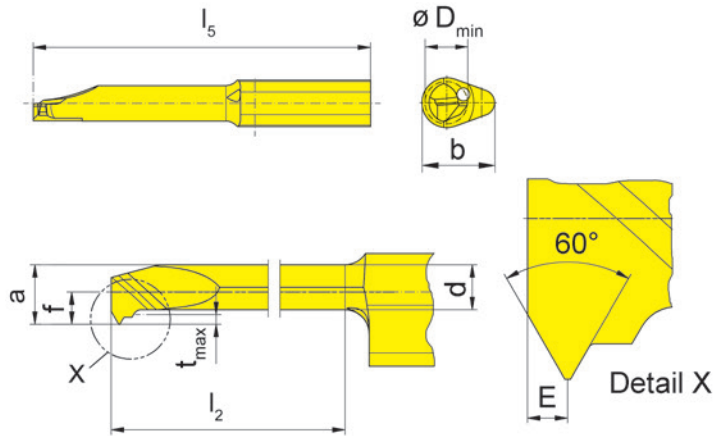
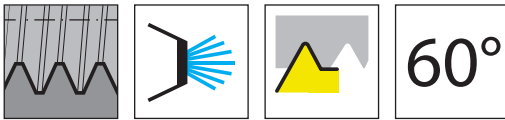
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35	TH35	TN35
R105.0510.2.5	1	1	0,55	2,1	4,5	3,5	7	15	30	4,8	105125	▲	▲	▲
R105.0510.3.5	1	1	0,55	2,1	4,5	3,5	7	20	35	4,8	105125	▲	▲	▲
R105.0510.4.5	1	1	0,55	2,1	4,5	3,5	7	25	40	4,8	105125	▲	▲	▲
R105.0510.2.6	1	1	0,55	3,3	5,7	3,7	7	15	30	6	105125	▲	▲	▲
R105.0612.2.6	1,25	1,25	0,65	3,3	5,7	3,7	7	15	30	6	105125	▲	▲	▲
R105.0612.3.6	1,25	1,25	0,65	3,3	5,7	3,7	7	20	35	6	105125	▲	▲	▲
R105.0612.4.6	1,25	1,25	0,65	3,3	5,7	3,7	7	25	40	6	105125	▲	▲	▲
R105.0815.2.7	1,5	1,5	0,75	4	6,4	3,7	7	15	30	7	105125	▲	▲	▲
R105.0815.3.7	1,5	1,5	0,75	4	6,4	3,7	7	20	35	7	105125	▲	▲	▲
R105.0815.4.7	1,5	1,5	0,75	4	6,4	3,7	7	25	40	7	105125	▲	▲	▲
L105.0510.2.5	1	1	0,55	2,1	4,5	3,5	7	15	30	4,8	105125	▲	▲	▲
L105.0510.3.5	1	1	0,55	2,1	4,5	3,5	7	20	35	4,8	105125	Δ	▲	▲
L105.0510.4.5	1	1	0,55	2,1	4,5	3,5	7	25	40	4,8	105125	Δ	▲	▲
L105.0510.2.6	1	1	0,55	3,3	5,7	3,7	7	15	30	6	105125	▲	▲	▲
L105.0612.2.6	1,25	1,25	0,65	3,3	5,7	3,7	7	15	30	6	105125	▲	▲	▲
L105.0612.3.6	1,25	1,25	0,65	3,3	5,7	3,7	7	20	35	6	105125	Δ	▲	▲
L105.0612.4.6	1,25	1,25	0,65	3,3	5,7	3,7	7	25	40	6	105125	Δ	▲	▲
L105.0815.2.7	1,5	1,5	0,75	4	6,4	3,7	7	15	30	7	105125	▲	▲	▲
L105.0815.3.7	1,5	1,5	0,75	4	6,4	3,7	7	20	35	7	105125	Δ	▲	▲
L105.0815.4.7	1,5	1,5	0,75	4	6,4	3,7	7	25	40	7	105125	Δ	▲	▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-



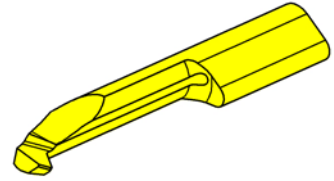
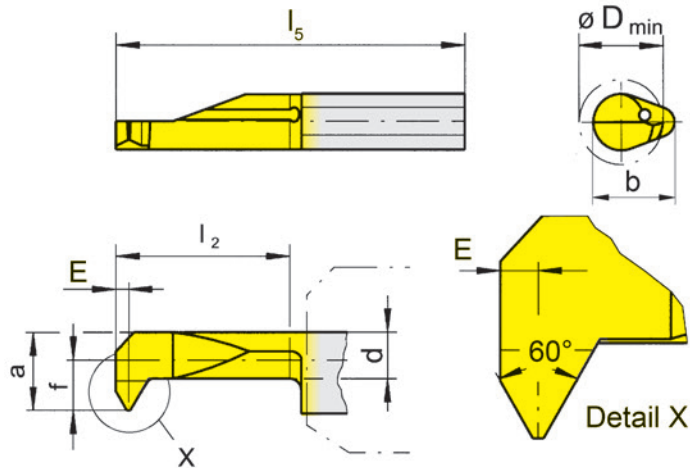
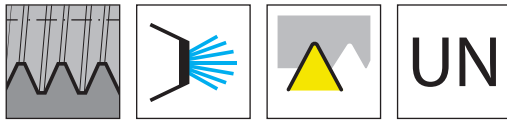
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	b	l_2	l_5	D_{min}	HIS	EG35	TH35
R105.VPM3.2.3	0,5	0,3	1,4	2,2	1,65	5,9	9	25	2,4	105123	▲	▲
R105.VPM3.4.3	0,5	0,3	1,4	2,2	1,65	5,9	16	35	2,4	105123	▲	▲
R105.VPM4.2.4	0,7	0,4	1,5	2,9	2,1	6,4	15	30	3,2	105124	▲	▲
R105.VPM4.3.4	0,7	0,4	1,5	2,9	2,1	6,4	20	35	3,2	105124	▲	▲
R105.VPM5.2.5	0,8	0,5	2	3,7	2,8	7	15	30	4,1	105125	▲	▲
R105.VPM5.4.5	0,8	0,5	2	3,7	2,8	7	25	40	4,1	105125	▲	▲
R105.VPM6.3.6	1	0,5	2,4	4,5	3,4	7	20	35	4,9	105125	▲	▲
R105.VPM6.4.6	1	0,5	2,4	4,5	3,4	7	25	40	4,9	105125	▲	▲
R105.VPM6.5.6	1	0,5	2,4	4,5	3,4	7	30	45	4,9	105125	▲	▲
R105.VPM8.3.8	1,25	0,7	3,8	6,2	4,7	7	20	35	6,6	105125	▲	▲
R105.VPM8.5.8	1,25	0,7	3,8	6,2	4,7	7	30	45	6,6	105125	▲	▲
L105.VPM3.2.3	0,5	0,3	1,4	2,2	1,65	5,9	9	25	2,4	105123	Δ	▲
L105.VPM3.4.3	0,5	0,3	1,4	2,2	1,65	5,9	16	35	2,4	105123	Δ	Δ
L105.VPM4.2.4	0,7	0,4	1,5	2,9	2,1	6,4	15	30	3,2	105124	Δ	Δ
L105.VPM4.3.4	0,7	0,4	1,5	2,9	2,1	6,4	20	35	3,2	105124	Δ	Δ
L105.VPM5.2.5	0,8	0,5	2	3,7	2,8	7	15	30	4,1	105125	Δ	▲
L105.VPM5.4.5	0,8	0,5	2	3,7	2,8	7	25	40	4,1	105125	Δ	▲
L105.VPM6.3.6	1	0,5	2,4	4,5	3,4	7	20	35	4,9	105125	▲	▲
L105.VPM6.4.6	1	0,5	2,4	4,5	3,4	7	25	40	4,9	105125	Δ	Δ
L105.VPM6.5.6	1	0,5	2,4	4,5	3,4	7	30	45	4,9	105125	Δ	▲
L105.VPM8.3.8	1,25	0,7	3,8	6,2	4,7	7	20	35	6,6	105125	Δ	▲
L105.VPM8.5.8	1,25	0,7	3,8	6,2	4,7	7	30	45	6,6	105125	Δ	▲
											P	●
											M	●
											K	●
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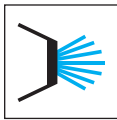
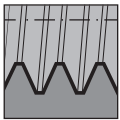
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

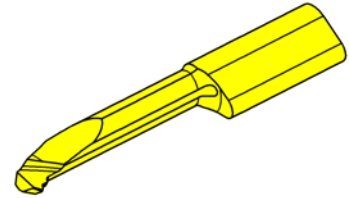
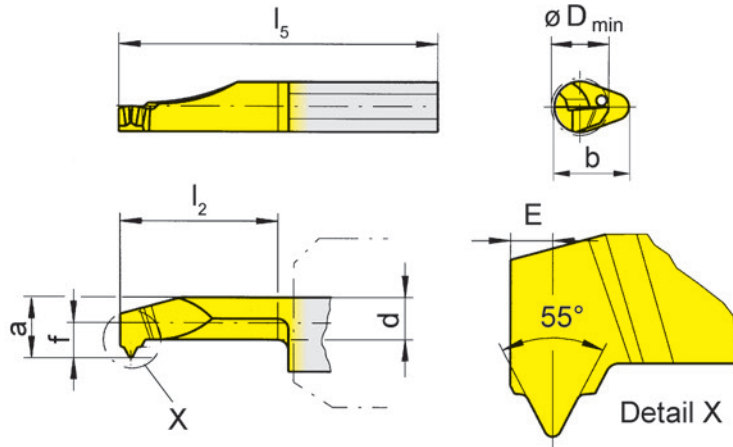
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI _{min}	TPI _{max}	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35	TH35	TN35
R105.3240.2.4	32	40	0,45	1,9	3,7	2,7	6,4	15	30	4	105124	▲		▲
R105.1620.2.5	16	20	0,7	2,3	4,7	3,3	7	15	30	5	105125	▲	▲	
R105.1620.3.5	16	20	0,7	2,3	4,7	3,3	7	20	35	5	105125	Δ	▲	
R105.2428.2.5	24	28	0,55	2,3	4,7	3,5	7	15	30	5	105125	▲	Δ	▲
R105.3240.2.5	32	40	0,45	2,3	4,7	3,5	7	15	30	5	105125	▲		▲
R105.1620.2.6	16	20	0,7	3,3	5,7	3,7	7	15	30	6	105125	▲	Δ	▲
R105.1620.3.6	16	20	0,7	3,3	5,7	3,7	7	20	35	6	105125	▲		▲
R105.1620.4.6	16	20	0,7	3,3	5,7	3,7	7	25	40	6	105125	▲		▲
R105.2428.2.6	24	28	0,55	3,3	5,7	3,7	7	15	30	6	105125	▲		▲
R105.2428.3.6	24	28	0,55	3,3	5,7	3,7	7	20	35	6	105125	▲		▲
R105.2428.4.6	24	28	0,55	3,3	5,7	3,7	7	25	40	6	105125	▲		▲
L105.3240.2.4	32	40	0,45	1,9	3,7	2,7	6,4	15	30	4	105124	Δ		▲
L105.1620.2.5	16	20	0,7	2,3	4,7	3,3	7	15	30	5	105125	Δ	▲	
L105.1620.3.5	16	20	0,7	2,3	4,7	3,3	7	20	35	5	105125	Δ	Δ	
L105.2428.2.5	24	28	0,55	2,3	4,7	3,5	7	15	30	5	105125	Δ		▲
L105.3240.2.5	32	40	0,45	2,3	4,7	3,5	7	15	30	5	105125	Δ		▲
L105.1620.2.6	16	20	0,7	3,3	5,7	3,7	7	15	30	6	105125	Δ		▲
L105.1620.3.6	16	20	0,7	3,3	5,7	3,7	7	20	35	6	105125	Δ		Δ
L105.1620.4.6	16	20	0,7	3,3	5,7	3,7	7	25	40	6	105125	Δ		Δ
L105.2428.2.6	24	28	0,55	3,3	5,7	3,7	7	15	30	6	105125	▲		▲
L105.2428.3.6	24	28	0,55	3,3	5,7	3,7	7	20	35	6	105125	Δ		Δ
L105.2428.4.6	24	28	0,55	3,3	5,7	3,7	7	25	40	6	105125	Δ		▲
P	●	●	●											
M	●	●	●											
K	○	●	●											
N	-	●	●											
S	-	●	●											
H	-	-	-											



BSW
BSF



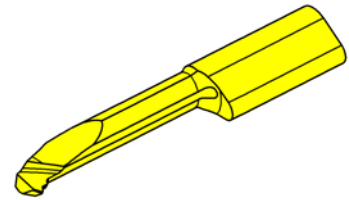
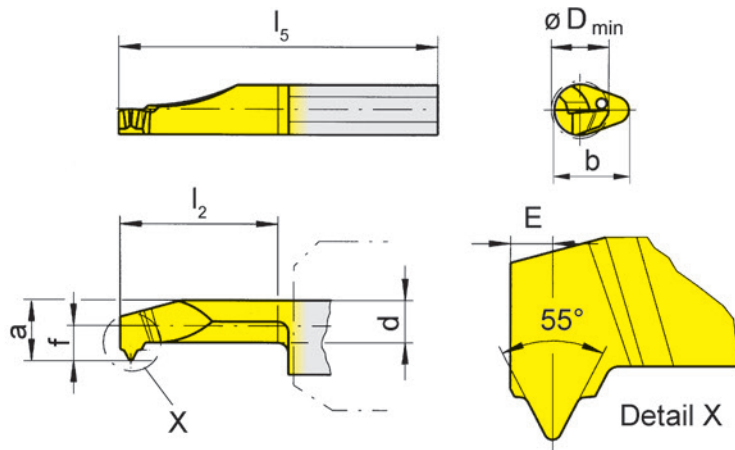
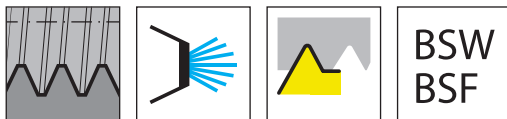
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35 TN35		
R105.5520.2.4	20	1	1,9	3,7	2,5	6,4	15	30	4	105124			
R105.5524.2.5	24	0,8	2,3	4,7	3,5	7	15	30	5	105125			
R105.5526.2.5	26	0,8	2,3	4,7	3,5	7	15	30	5	105125			
R105.5528.2.5	28	0,8	2,3	4,7	3,5	7	15	30	5	105125			
L105.5524.2.5	24	0,8	2,3	4,7	3,5	7	15	30	5	105125			
L105.5526.2.5	26	0,8	2,3	4,7	3,5	7	15	30	5	105125			
L105.5528.2.5	28	0,8	2,3	4,7	3,5	7	15	30	5	105125			
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-



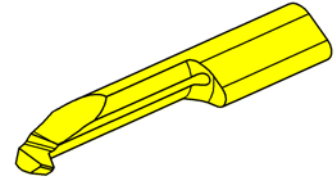
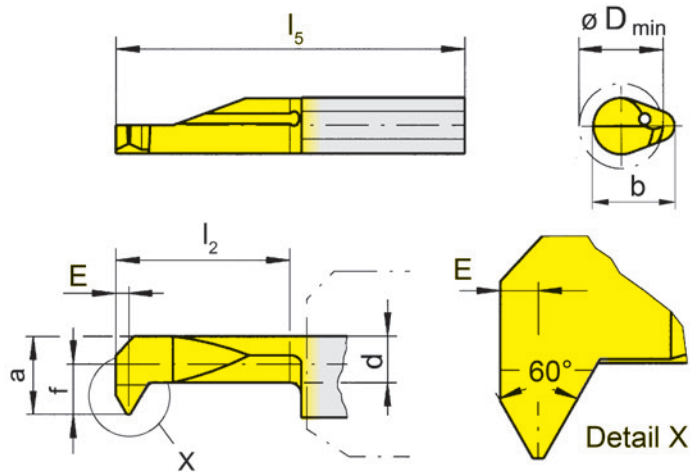
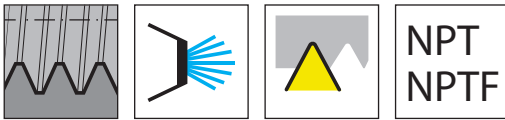
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	f	a	d	b	l ₂	l ₅	D _{min}	HIS	EG35	TN35
R105.5524.2.6	24	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
R105.5526.2.6	26	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ	▲
R105.5528.2.6	28	0,8	3,3	5,7	3,7	7	15	30	6	105125	▲	▲
R105.5519.2.6	19	1	3,3	5,7	3,7	7	15	30	6	105125	▲	▲
R105.5520.2.6	20	1	3,3	5,7	3,7	7	15	30	6	105125	Δ	▲
R105.5522.2.6	22	1	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
R105.5524.3.6	24	0,8	3,3	5,7	3,7	7	20	35	6	105125	▲	Δ
R105.5526.3.6	26	0,8	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ
R105.5528.3.6	28	0,8	3,3	5,7	3,7	7	20	35	6	105125	▲	▲
R105.5519.3.6	19	1	3,3	5,7	3,7	7	20	35	6	105125	▲	▲
R105.5522.3.6	22	1	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ
L105.5524.2.6	24	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
L105.5526.2.6	26	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
L105.5528.2.6	28	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
L105.5519.2.6	19	1	3,3	5,7	3,7	7	15	30	6	105125	Δ	▲
L105.5520.2.6	20	1	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
L105.5522.2.6	22	1	3,3	5,7	3,7	7	15	30	6	105125	Δ	Δ
L105.5528.3.6	28	0,8	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ
P	●	●										
M	●	●										
K	○	●										
N	-	●										
S	-	●										
H	-	-										



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	f	a	d	b	l_2	l_5	D_{min}	HIS	EG35	TH35	TN35
R105.NP18.2.6	18	1	3,3	5,7	3,7	7	15	30	6	105125	▲		▲
R105.NP18.3.6	18	1	3,3	5,7	3,7	7	20	35	6	105125	Δ	▲	▲
R105.NP18.4.6	18	1	3,3	5,7	3,7	7	25	40	6	105125	Δ	Δ	▲
R105.NP27.2.6	27	0,8	3,3	5,7	3,7	7	15	30	6	105125	▲		▲
R105.NP27.3.6	27	0,8	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ	Δ
R105.NP27.4.6	27	0,8	3,3	5,7	3,7	7	25	40	6	105125	Δ	Δ	Δ
L105.NP18.2.6	18	1	3,3	5,7	3,7	7	15	30	6	105125	Δ		▲
L105.NP18.3.6	18	1	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ	Δ
L105.NP18.4.6	18	1	3,3	5,7	3,7	7	25	40	6	105125	Δ	Δ	Δ
L105.NP27.2.6	27	0,8	3,3	5,7	3,7	7	15	30	6	105125	Δ		▲
L105.NP27.3.6	27	0,8	3,3	5,7	3,7	7	20	35	6	105125	Δ	Δ	
L105.NP27.4.6	27	0,8	3,3	5,7	3,7	7	25	40	6	105125	Δ	Δ	Δ
P											●	●	●
M											●	●	●
K											o	●	●
N											-	●	●
S											-	●	●
H											-	-	-

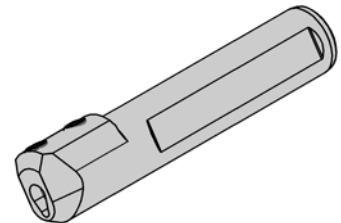
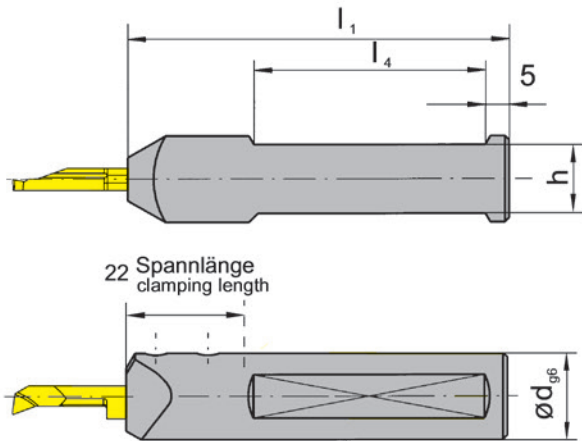
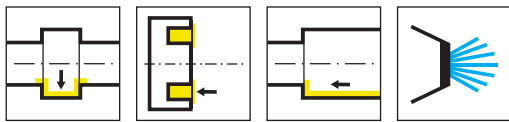


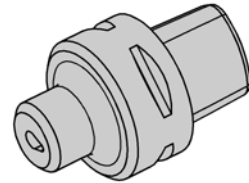
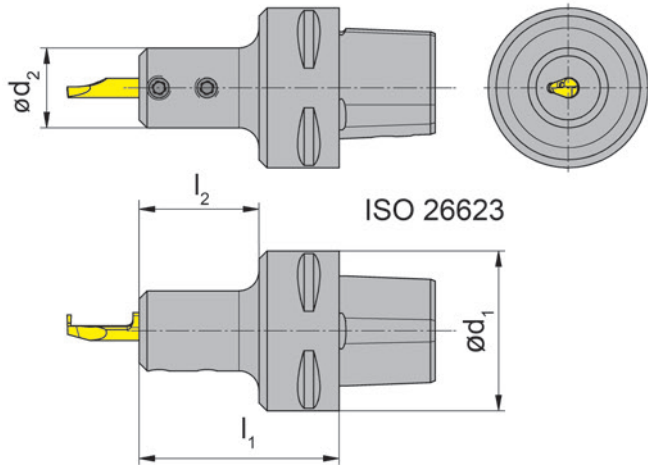
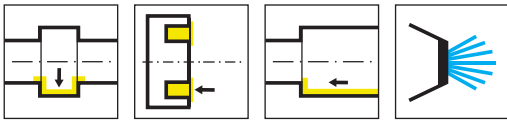
Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l_1	h	l_4	HWS
B105.0012.02	12	85	11	50	105225
B105.0016.02	16	85	14	50	105225
B105.0020.02	20	100	18	55	105225
B105.0022.02	22	100	20	55	105225

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B105...	6.075T15P	T15PQ



L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

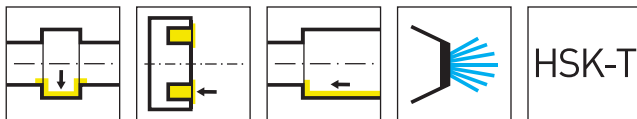
Bestellnummer Part number	d_1	d_2	l_1	l_2	HWS
RB105.00C4.20.1.02	40	20	50	20	105225
RB105.00C6.20.1.02	63	20	52	22	105225
LB105.00C4.20.1.02	40	20	50	20	105225
LB105.00C6.20.1.02	63	20	52	22	105225

nur für Schneidplatten mit verlängertem Spannschaft
only usable for inserts with extended clamping length

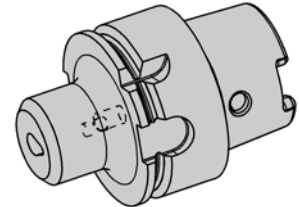
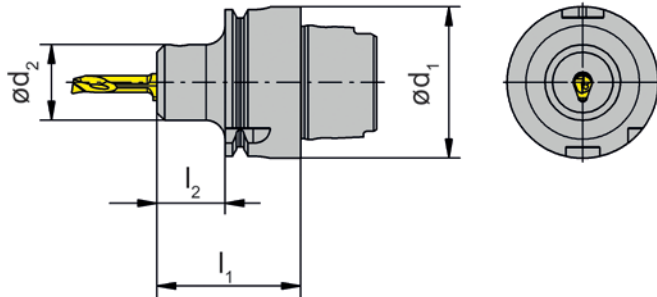
Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB105...	6.075T15P	T15PQ



HSK-T



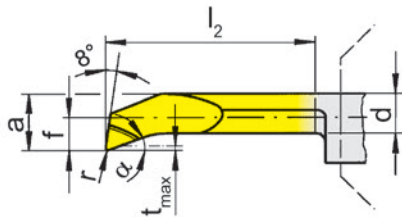
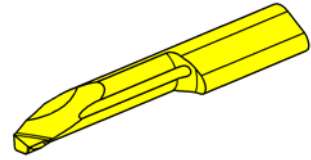
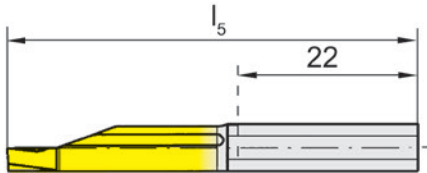
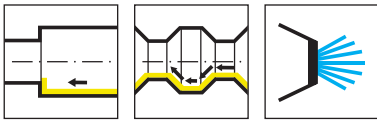
R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d_1	l_1	l_2	d_2	HWS
HSKT40.LB105.20.1.02	40	48	28	20	105223 • 105224 • 105225
HSKT40.RB105.20.1.02	40	48	28	20	105223 • 105224 • 105225

Ersatzteile
Spare Parts

Schneidplatte Insert	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
HSKT40...	6.075T15P	T15PQ



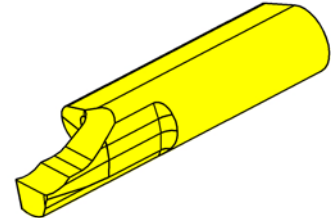
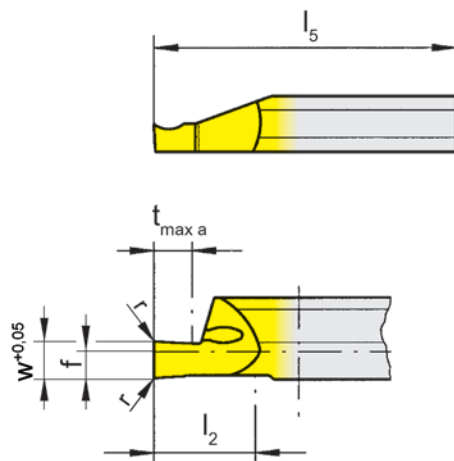
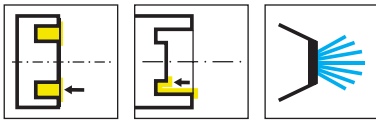
R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l ₂	l ₅	t _{max}	D _{min}	α	HIS	EG35	TH35	TI25
R105.1823.4.5.2	0,1	2,3	4,7	4,2	7	25	50	0,3	5	21°	105225	Δ	▲	▲
R105.1823.5.5.2	0,1	2,3	4,7	4,2	7	30	55	0,3	5	21°	105225	Δ	▲	▲
R105.1833.4.6.2	0,1	3,3	5,7	4,9	7	25	50	0,3	6	21°	105225	Δ	▲	▲
R105.1833.5.6.2	0,1	3,3	5,7	4,9	7	30	55	0,3	6	21°	105225	Δ	▲	▲
R105.1840.4.7.2	0,1	4	6,4	5,4	7	25	50	0,3	6,8	21°	105225	Δ	▲	▲
R105.1840.5.7.2	0,1	4	6,4	5,4	7	30	55	0,3	6,8	21°	105225	Δ	▲	▲
R105.1840.7.7.2	0,1	4	6,4	5,4	7	40	65	0,3	6,8	21°	105225	▲		▲
R105.4733.5.6.2	0,1	3,3	5,7	3,7	7	30	55	1,8	6	47°	105225	Δ	▲	▲
L105.1823.4.5.2	0,1	2,3	4,7	4,2	7	25	50	0,3	5	21°	105225	Δ	▲	▲
L105.1823.5.5.2	0,1	2,3	4,7	4,2	7	30	55	0,3	5	21°	105225		▲	Δ
L105.1833.4.6.2	0,1	3,3	5,7	4,9	7	25	50	0,3	6	21°	105225	Δ	Δ	Δ
L105.1833.5.6.2	0,1	3,3	5,7	4,9	7	30	55	0,3	6	21°	105225	Δ	▲	Δ
L105.1840.4.7.2	0,1	4	6,4	5,4	7	25	50	0,3	6,8	21°	105225	Δ	▲	▲
L105.1840.5.7.2	0,1	4	6,4	5,4	7	30	55	0,3	6,8	21°	105225	Δ	Δ	▲
L105.1840.7.7.2	0,1	4	6,4	5,4	7	40	65	0,3	6,8	21°	105225	Δ		Δ
L105.4733.5.6.2	0,1	3,3	5,7	3,7	7	30	55	1,8	6	47°	105225	Δ	Δ	Δ
mit verlängertem Spannschaft with extended clamping length												P	●	●
												M	●	●
												K	o	●
												N	-	●
												S	-	●
												H	-	-



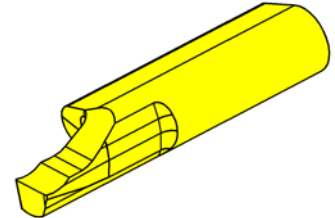
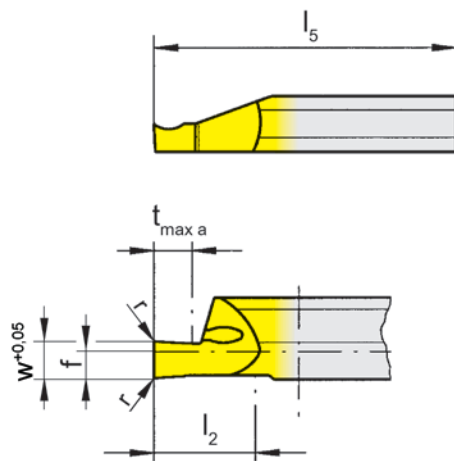
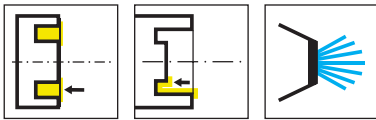
R = rechts wie gezeichnet
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▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l ₂	l ₅	t _{max a}	D _{a min}	HIS	EG35	ES15	TI25
R105.0505.1.8	0,5	-	2	7	10	25	2	5	105125	▲	▲	
R105.0510.1.8	1	0,05	2	7	10	25	2	5	105125	▲		▲
R105.0510.2.8	1	0,05	2	7	15	35	2	5	105125	▲		▲
R105.0515.1.8	1,5	0,05	2	7	10	25	3	5	105125	▲		▲
R105.0515.2.8	1,5	0,05	2	7	15	35	3	5	105125	▲		▲
R105.0520.1.8	2	0,05	2	7	10	25	5	5	105125	▲		▲
R105.0520.2.8	2	0,05	2	7	15	35	5	5	105125	▲		▲
L105.0510.1.8	1	0,05	2	7	10	25	2	5	105125	▲		▲
L105.0510.2.8	1	0,05	2	7	15	35	2	5	105125	Δ		▲
L105.0515.1.8	1,5	0,05	2	7	10	25	3	5	105125	▲		▲
L105.0515.2.8	1,5	0,05	2	7	15	35	3	5	105125	▲		▲
L105.0520.1.8	2	0,05	2	7	10	25	5	5	105125	▲		▲
L105.0520.2.8	2	0,05	2	7	15	35	5	5	105125	▲		▲
P	●	●	●									
M	●	●	●									
K	○	○	○									
N	-	-	-									
S	-	-	-									
H	-	-	-									



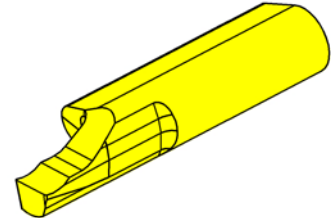
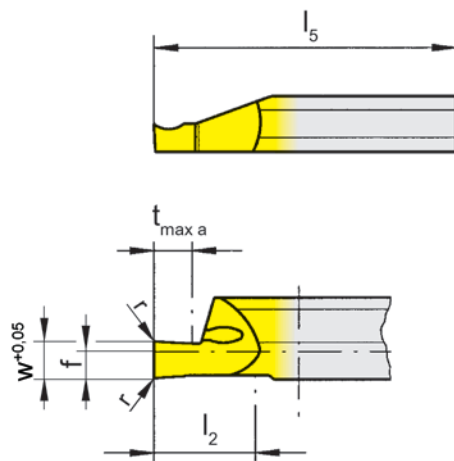
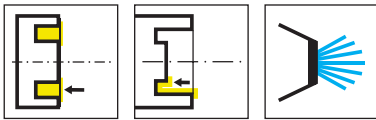
R = rechts wie gezeichnet
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l_2	l_5	$t_{\max a}$	$D_{a \min}$	HIS		EG35	TI25
R105.0610.1.8	1	0,05	2	7	10	25	2	6	105125	▲	▲	▲
R105.0615.1.8	1,5	0,05	2	7	10	25	3	6	105125	▲	▲	▲
R105.0620.1.8	2	0,05	2	7	10	25	5	6	105125	▲	▲	▲
R105.0610.2.8	1	0,05	2	7	15	35	2	6	105125	▲	▲	▲
R105.0615.2.8	1,5	0,05	2	7	15	35	3	6	105125	▲	▲	▲
R105.0620.2.8	2	0,05	2	7	15	35	5	6	105125	▲	▲	▲
L105.0610.1.8	1	0,05	2	7	10	25	2	6	105125	▲	▲	▲
L105.0615.1.8	1,5	0,05	2	7	10	25	3	6	105125	▲	▲	▲
L105.0620.1.8	2	0,05	2	7	10	25	5	6	105125	▲	▲	▲
L105.0610.2.8	1	0,05	2	7	15	35	2	6	105125	Δ	▲	▲
L105.0615.2.8	1,5	0,05	2	7	15	35	3	6	105125	Δ	▲	▲
L105.0620.2.8	2	0,05	2	7	15	35	5	6	105125	Δ	▲	▲
										P	●	●
										M	●	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



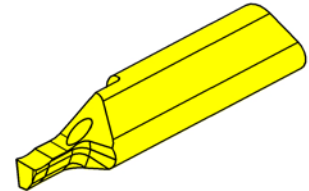
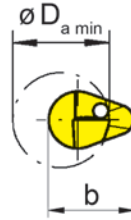
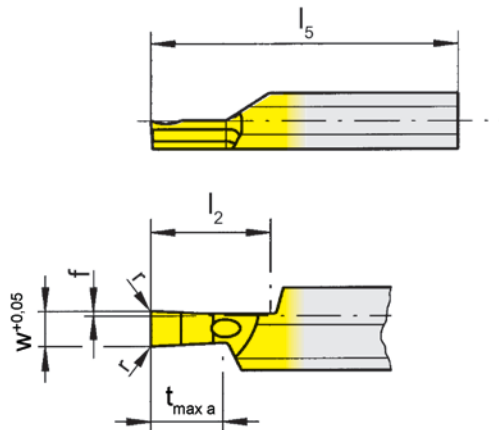
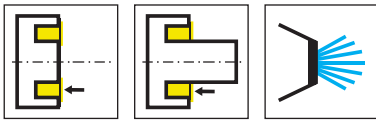
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▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l ₂	l ₅	t _{max a}	D _{a min}	HIS	EG35	TI25
R105.0810.1.8	1	0,15	2	7	10	25	2	8	105125	▲	▲
R105.0815.1.8	1,5	0,15	2	7	10	25	3	8	105125	▲	▲
R105.0820.1.8	2	0,15	2	7	10	25	4	8	105125	▲	▲
R105.0825.1.8	2,5	0,15	2	7	10	25	5	8	105125	▲	▲
R105.0830.1.8	3	0,15	2	7	10	25	6	8	105125	▲	▲
R105.0810.2.8	1	0,15	2	7	15	35	2	8	105125	▲	▲
R105.0815.2.8	1,5	0,15	2	7	15	35	3	8	105125	▲	▲
R105.0820.2.8	2	0,15	2	7	15	35	4	8	105125	▲	▲
R105.0825.2.8	2,5	0,15	2	7	15	35	5	8	105125	▲	▲
R105.0830.2.8	3	0,15	2	7	15	35	6	8	105125	▲	▲
L105.0810.1.8	1	0,15	2	7	10	25	2	8	105125	▲	▲
L105.0815.1.8	1,5	0,15	2	7	10	25	3	8	105125	▲	▲
L105.0820.1.8	2	0,15	2	7	10	25	4	8	105125	▲	▲
L105.0825.1.8	2,5	0,15	2	7	10	25	5	8	105125	▲	▲
L105.0830.1.8	3	0,15	2	7	10	25	6	8	105125	▲	▲
L105.0810.2.8	1	0,15	2	7	15	35	2	8	105125	▲	▲
L105.0815.2.8	1,5	0,15	2	7	15	35	3	8	105125	▲	▲
L105.0820.2.8	2	0,15	2	7	15	35	4	8	105125	▲	▲
L105.0825.2.8	2,5	0,15	2	7	15	35	5	8	105125	▲	▲
L105.0830.2.8	3	0,15	2	7	15	35	6	8	105125	▲	▲
P	●	●									
M	●	●									
K	o	●									
N	-	●									
S	-	●									
H	-	-									



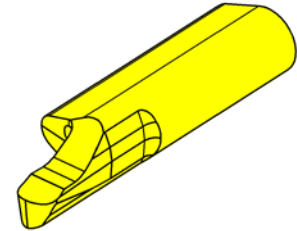
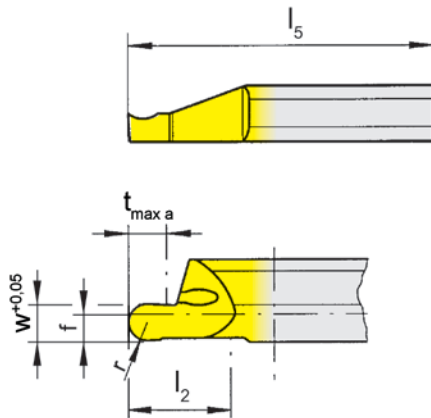
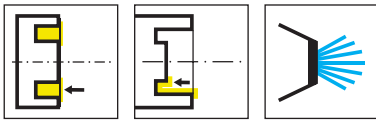
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l ₂	l ₅	t _{max a}	D _{a min}	HIS		EG35	TI25
R105.0810.1.9	1	0,15	0,4	7	10	25	2	8	105125	▲	▲	▲
R105.0815.1.9	1,5	0,15	0,4	7	10	25	3	8	105125	▲	▲	▲
R105.0820.1.9	2	0,15	0,4	7	10	25	4	8	105125	▲	▲	▲
R105.0825.1.9	2,5	0,15	0,4	7	10	25	5	8	105125	▲	▲	▲
R105.0830.1.9	3	0,15	0,4	7	10	25	6	8	105125	▲	▲	▲
L105.0810.1.9	1	0,15	0,4	7	10	25	2	8	105125	▲	▲	▲
L105.0815.1.9	1,5	0,15	0,4	7	10	25	3	8	105125	▲	▲	▲
L105.0820.1.9	2	0,15	0,4	7	10	25	4	8	105125	▲	▲	▲
L105.0825.1.9	2,5	0,15	0,4	7	10	25	5	8	105125	▲	▲	▲
L105.0830.1.9	3	0,15	0,4	7	10	25	6	8	105125	▲	▲	▲
										P	●	●
										M	●	●
										K	●	●
										N	-	●
										S	-	●
										H	-	-



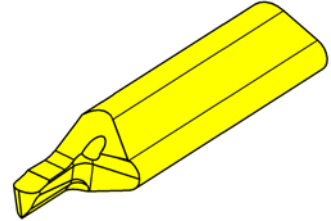
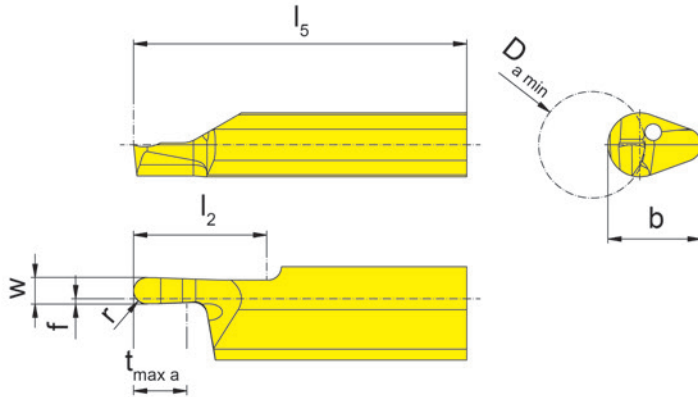
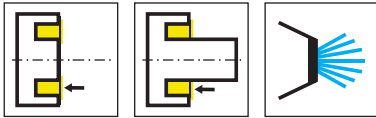
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l ₂	l ₅	t _{max a}	D _{a min}	HIS	EG35	TI25
R105.8V10.1.8	1	0,5	2	7	10	25	2	8	105125	▲	▲
R105.8V16.1.8	1,6	0,8	2	7	10	25	3	8	105125	▲	▲
R105.8V20.1.8	2	1	2	7	10	25	4	8	105125	▲	▲
R105.8V25.1.8	2,5	1,25	2	7	10	25	5	8	105125	▲	▲
R105.8V30.1.8	3	1,5	2	7	10	25	6	8	105125	▲	▲
R105.8V10.2.8	1	0,5	2	7	15	35	2	8	105125	▲	▲
R105.8V16.2.8	1,6	0,8	2	7	15	35	3	8	105125	▲	▲
R105.8V20.2.8	2	1	2	7	15	35	4	8	105125	▲	▲
R105.8V25.2.8	2,5	1,25	2	7	15	35	5	8	105125	▲	▲
R105.8V30.2.8	3	1,5	2	7	15	35	6	8	105125	▲	▲
L105.8V10.1.8	1	0,5	2	7	10	25	2	8	105125	▲	▲
L105.8V16.1.8	1,6	0,8	2	7	10	25	3	8	105125	▲	▲
L105.8V20.1.8	2	1	2	7	10	25	4	8	105125	▲	▲
L105.8V25.1.8	2,5	1,25	2	7	10	25	5	8	105125	Δ	▲
L105.8V30.1.8	3	1,5	2	7	10	25	6	8	105125	▲	▲
L105.8V10.2.8	1	0,5	2	7	15	35	2	8	105125	Δ	▲
L105.8V16.2.8	1,6	0,8	2	7	15	35	3	8	105125	Δ	▲
L105.8V20.2.8	2	1	2	7	15	35	4	8	105125	▲	▲
L105.8V25.2.8	2,5	1,25	2	7	15	35	5	8	105125	Δ	Δ
L105.8V30.2.8	3	1,5	2	7	15	35	6	8	105125	Δ	▲
P	●	●									
M	●	●									
K	○	●									
N	-	●									
S	-	●									
H	-	-									



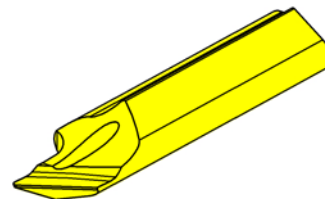
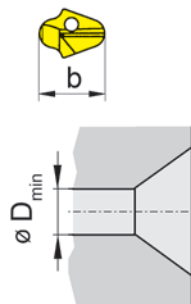
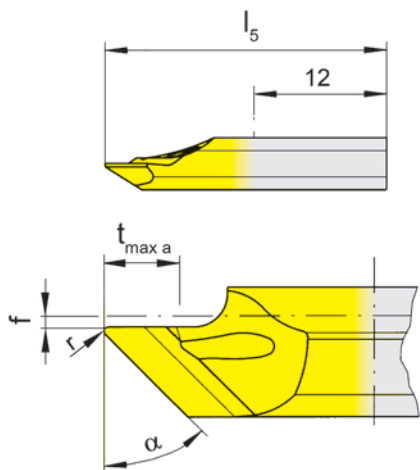
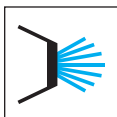
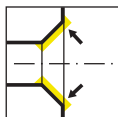
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	b	l_2	l_5	$t_{\max a}$	$D_{a \min}$	HIS	EG35	
R105.8V10.1.9	1	0,5	0,4	7	10	25	2	8	105125	▲	●
R105.8V16.1.9	1,6	0,8	0,4	7	10	25	3	8	105125	▲	●
R105.8V20.1.9	2	1	0,4	7	10	25	4	8	105125	▲	●
R105.8V25.1.9	2,5	1,25	0,4	7	10	25	5	8	105125	▲	●
R105.8V30.1.9	3	1,5	1	7	10	25	6	8	105125	▲	●
L105.8V10.1.9	1	0,5	0,4	7	10	25	2	8	105125	▲	●
L105.8V16.1.9	1,6	0,8	0,4	7	10	25	3	8	105125	▲	●
L105.8V20.1.9	2	1	0,4	7	10	25	4	8	105125	▲	●
L105.8V25.1.9	2,5	1,25	0,4	7	10	25	5	8	105125	▲	●
L105.8V30.1.9	3	1,5	1	7	10	25	6	8	105125	▲	●
										P	●
										M	●
										K	o
										N	-
										S	-
										H	-



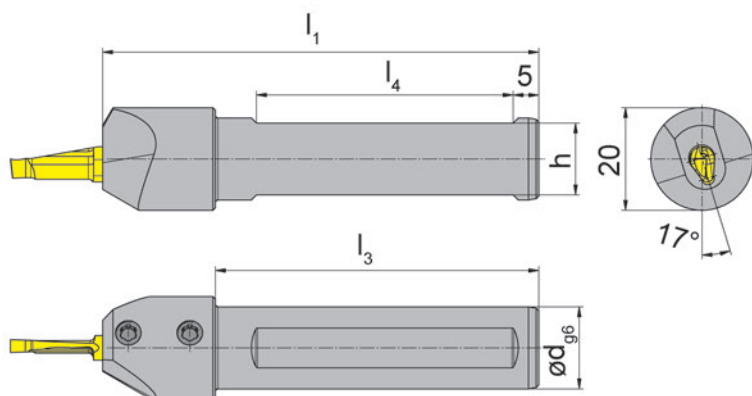
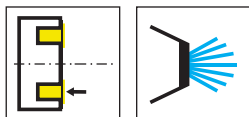
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	b	l_5	$t_{max a}$	D_{min}	α	HIS	EG35	TH35	TN35
R105.0045.0.1	0,2	0,5	5,9	20	3,5	1	45°	105123	▲	▲	▲
R105.0045.1.1	0,2	0,5	5,9	25	3,5	1	45°	105123	▲	▲	
R105.0060.0.1	0,2	0,5	5,9	20	4	1	60°	105123	▲	▲	
R105.0060.1.1	0,2	0,5	5,9	25	4	1	60°	105123	▲	▲	
L105.0045.0.1	0,2	0,5	5,9	20	3,5	1	45°	105123	▲	▲	▲
L105.0045.1.1	0,2	0,5	5,9	25	3,5	1	45°	105123	▲	▲	
L105.0060.0.1	0,2	0,5	5,9	20	4	1	60°	105123	▲	▲	
L105.0060.1.1	0,2	0,5	5,9	25	4	1	60°	105123	▲	▲	
P	●	●	●						●	●	●
M	●	●	●						●	●	●
K	●	●	●						●	●	●
N	-	●	●						-	●	●
S	-	●	●						-	●	●
H	-	-	-						-	-	-



L = links wie gezeichnet
 L = left hand version shown

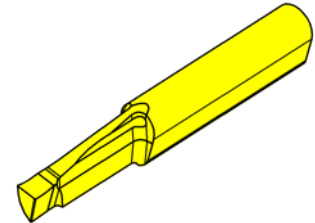
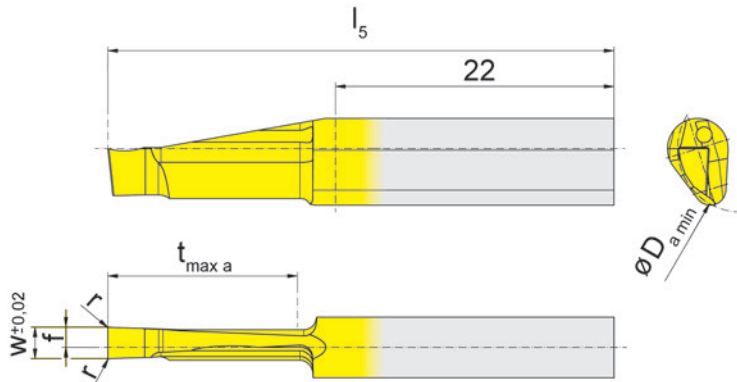
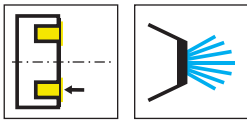
R = rechts spiegelbildlich
 R = right hand version

Bestellnummer Part number	d	l_1	l_3	h	l_4	HWS
RB105.0016.12.2	16	85	63	14	50	105225
RB105.0020.12.2	20	100	-	18	55	105225
LB105.0016.12.2	16	85	63	14	50	105225
LB105.0020.12.2	20	100	-	18	55	105225

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB105...	6.075T15P	T15PQ



L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

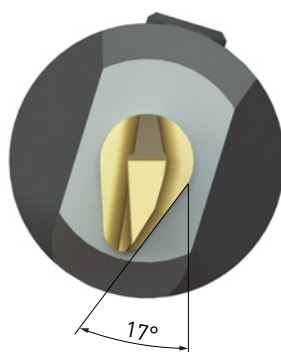
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

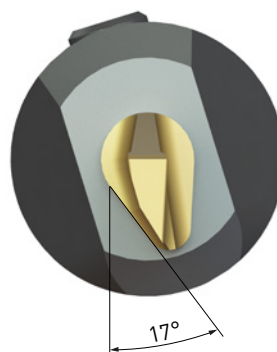
Bestellnummer Part number	w	r	f	l_5	$t_{max a}$	$D_{a min}$	$D_{a max}$	HIS	EG35	TI25
RA105.1020.2.2	2	0,1	1,4	40	15	10	44	105225	▲	▲
RA105.1025.2.2	2,5	0,1	1,6	40	15	10	45	105225	▲	▲
RA105.1030.2.2	3	0,1	1	40	15	10	46	105225	▲	▲
LA105.1020.2.2	2	0,1	1,4	40	15	10	44	105225	▲	▲
LA105.1025.2.2	2,5	0,1	1,6	40	15	10	45	105225	▲	▲
LA105.1030.2.2	3	0,1	1	40	15	10	46	105225	▲	▲

Axialstechen ins Volle bei voller Stechtiefe nur bei $D_{a min}$ 10 - 40 mm möglich!
Face grooving with full width of the full depth only possible between $D_{a min}$ 10 - 40 mm!

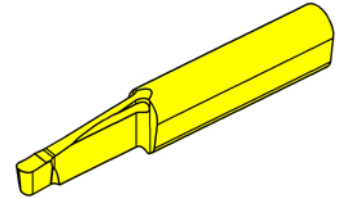
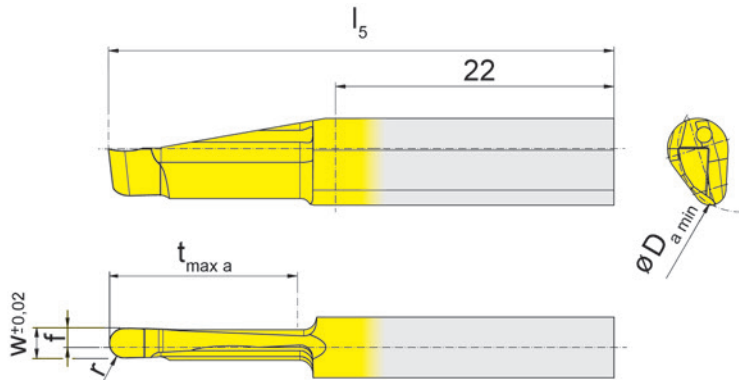
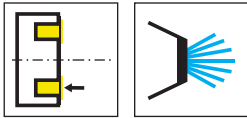
P	●	●
M	●	●
K	○	●
N	-	●
S	-	●
H	-	-



RA105 → RB105



LA105 → LB105



L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

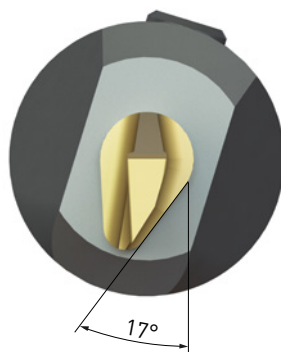
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

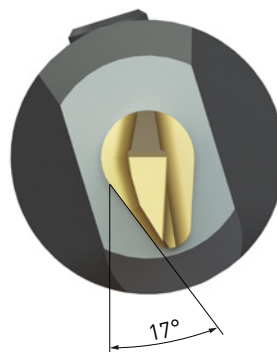
Bestellnummer Part number	w	r	f	l_5	$t_{max a}$	$D_{a min}$	$D_{a max}$	HIS	EG35	TI25
RA105.1020.10.2.2	2	1	1,4	40	15	10	44	105225	▲	▲
RA105.1025.12.2.2	2,5	1,25	1,6	40	15	10	45	105225	Δ	▲
RA105.1030.15.2.2	3	1,5	1,9	40	15	10	46	105225	▲	▲
LA105.1020.10.2.2	2	1	1,4	40	15	10	44	105225	Δ	▲
LA105.1025.12.2.2	2,5	1,25	1,6	40	15	10	45	105225	Δ	Δ
LA105.1030.15.2.2	3	1,5	1,9	40	15	10	46	105225	Δ	▲

Axialstechen ins Volle bei voller Stechtiefe nur bei $D_{a min}$ 10 - 40 mm möglich!
Face grooving with full width of the full depth only possible between $D_{a min}$ 10 - 40 mm!

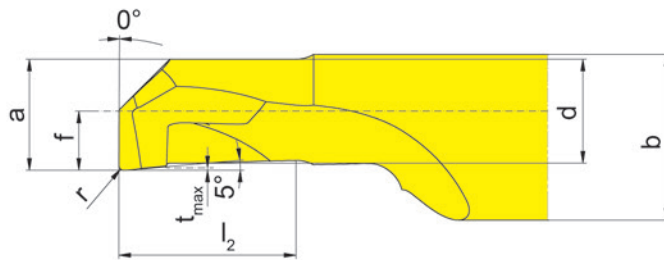
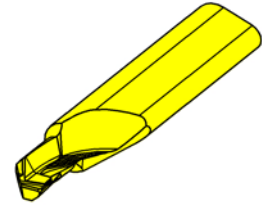
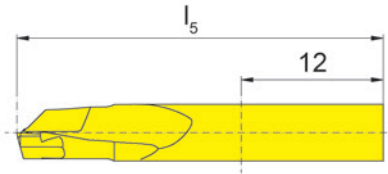
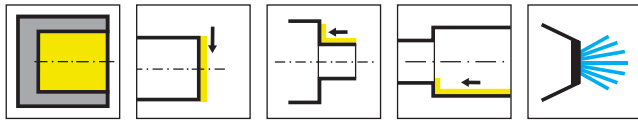
P	●	●
M	●	●
K	○	●
N	-	●
S	-	●
H	-	-



RA105 → RB105



LA105 → LB105



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

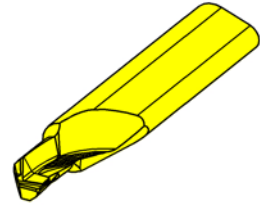
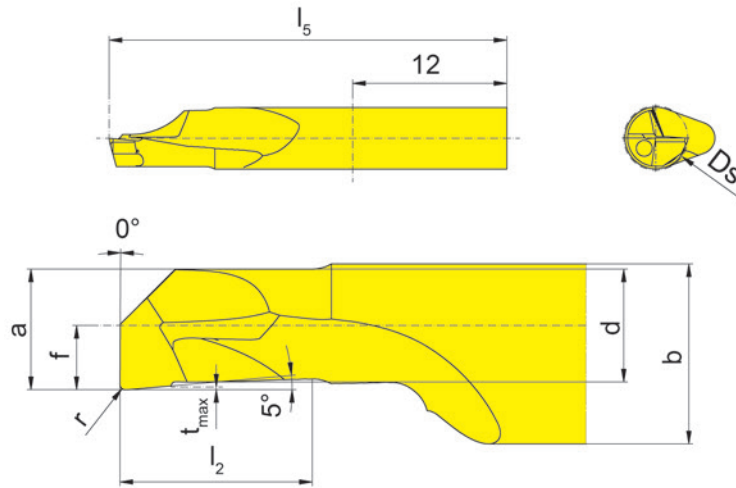
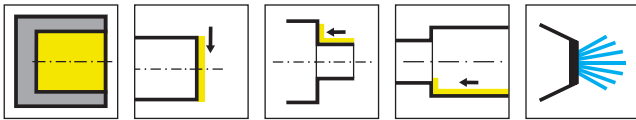
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	Ds	HIS	EG35
R105.B0.30.20.045.1	0,2	1,5	2,7	2,4	7	4,5	31	0,1	3	105125	▲
R105.B0.30.20.075.1	0,2	1,5	2,7	2,4	7	7,5	31	0,1	3	105125	▲
R105.B0.40.20.060.1	0,2	2	3,7	3,4	7	6	31	0,1	4	105125	▲
R105.B0.40.20.100.1	0,2	2	3,7	3,4	7	10	31	0,1	4	105125	▲
R105.B0.50.20.075.1	0,2	2,5	4,7	4,4	7	7,5	31	0,1	5	105125	▲
R105.B0.50.20.125.1	0,2	2,5	4,7	4,4	7	12,5	36	0,1	5	105125	▲
R105.B0.60.20.090.1	0,2	3	5,4	5,1	7	9	31	0,1	6	105125	▲
R105.B0.60.20.150.1	0,2	3	5,4	5,1	7	15	36	0,1	6	105125	▲
R105.B0.70.20.105.1	0,2	3,5	5,9	5,6	7	10,5	36	0,1	7	105125	▲
R105.B0.70.20.175.1	0,2	3,5	5,9	5,6	7	17,5	40	0,1	7	105125	▲
L105.B0.30.20.045.1	0,2	1,5	2,7	2,4	7	4,5	31	0,1	3	105125	Δ
L105.B0.30.20.075.1	0,2	1,5	2,7	2,4	7	7,5	31	0,1	3	105125	Δ
L105.B0.40.20.060.1	0,2	2	3,7	3,4	7	6	31	0,1	4	105125	Δ
L105.B0.40.20.100.1	0,2	2	3,7	3,4	7	10	31	0,1	4	105125	Δ
L105.B0.50.20.075.1	0,2	2,5	4,7	4,4	7	7,5	31	0,1	5	105125	Δ
L105.B0.50.20.125.1	0,2	2,5	4,7	4,4	7	12,5	36	0,1	5	105125	Δ
L105.B0.60.20.090.1	0,2	3	5,4	5,1	7	9	31	0,1	6	105125	Δ
L105.B0.60.20.150.1	0,2	3	5,4	5,1	7	15	36	0,1	6	105125	Δ
L105.B0.70.20.105.1	0,2	3,5	5,9	5,6	7	10,5	36	0,1	7	105125	Δ
L105.B0.70.20.175.1	0,2	3,5	5,9	5,6	7	17,5	40	0,1	7	105125	Δ

mit innerer Kühlmittelzufuhr ab Schneidkreisdurchmesser 5 mm
with through coolant supply from cutting diameter 5 mm

mit Spantreppe
with chip breaker

P	●
M	●
K	○
N	-
S	-
H	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

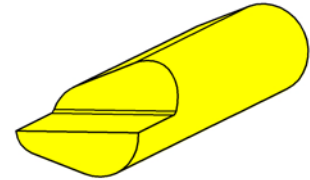
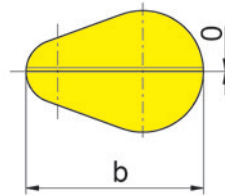
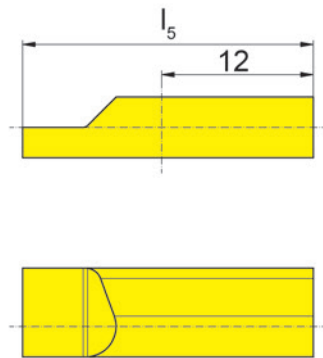
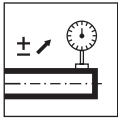
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	b	l_2	l_5	t_{max}	Ds	HIS	EG35
R105.B0.30.20.045.2	0,2	1,5	2,7	2,4	7	4,5	31	0,1	3	105125	▲
R105.B0.30.20.075.2	0,2	1,5	2,7	2,4	7	7,5	31	0,1	3	105125	▲
R105.B0.40.20.060.2	0,2	2	3,7	3,4	7	6	31	0,1	4	105125	▲
R105.B0.40.20.100.2	0,2	2	3,7	3,4	7	10	31	0,1	4	105125	▲
R105.B0.50.20.075.2	0,2	2,5	4,7	4,4	7	7,5	31	0,1	5	105125	▲
R105.B0.50.20.125.2	0,2	2,5	4,7	4,4	7	12,5	36	0,1	5	105125	▲
R105.B0.60.20.090.2	0,2	3	5,4	5,1	7	9	31	0,1	6	105125	▲
R105.B0.60.20.150.2	0,2	3	5,4	5,1	7	15	36	0,1	6	105125	▲
R105.B0.70.20.105.2	0,2	3,5	5,9	5,6	7	10,5	36	0,1	7	105125	▲
R105.B0.70.20.175.2	0,2	3,5	5,9	5,6	7	17,5	40	0,1	7	105125	▲
L105.B0.30.20.045.2	0,2	1,5	2,7	2,4	7	4,5	31	0,1	3	105125	Δ
L105.B0.30.20.075.2	0,2	1,5	2,7	2,4	7	7,5	31	0,1	3	105125	Δ
L105.B0.40.20.060.2	0,2	2	3,7	3,4	7	6	31	0,1	4	105125	Δ
L105.B0.40.20.100.2	0,2	2	3,7	3,4	7	10	31	0,1	4	105125	Δ
L105.B0.50.20.075.2	0,2	2,5	4,7	4,4	7	7,5	31	0,1	5	105125	Δ
L105.B0.50.20.125.2	0,2	2,5	4,7	4,4	7	12,5	36	0,1	5	105125	Δ
L105.B0.60.20.090.2	0,2	3	5,4	5,1	7	9	31	0,1	6	105125	Δ
L105.B0.60.20.150.2	0,2	3	5,4	5,1	7	15	36	0,1	6	105125	Δ
L105.B0.70.20.105.2	0,2	3,5	5,9	5,6	7	10,5	36	0,1	7	105125	Δ
L105.B0.70.20.175.2	0,2	3,5	5,9	5,6	7	17,5	40	0,1	7	105125	Δ

mit innerer Kühlmittelzufuhr ab Schneidkreisdurchmesser 5 mm
with through coolant supply from cutting diameter 5 mm

Universalgeometrie
universal geometry

P	●
M	●
K	○
N	-
S	-
H	-

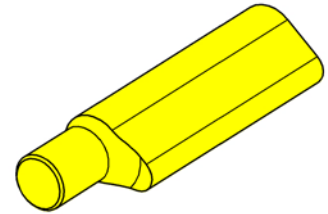
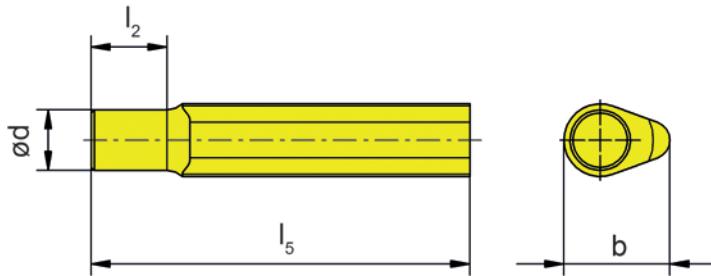
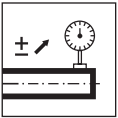


R = rechts wie gezeichnet

R = right hand version shown

Bestellnummer Part number	l_5	b	HIS
R105.LEHR.H.03	25	5,9	105123
R105.LEHR.H.04	25	6,4	105124
R105.LEHR.H.05	25	7,0	105125
L105.LEHR.H.03	25	5,9	105123
L105.LEHR.H.04	25	6,4	105124
L105.LEHR.H.05	25	7,0	105125

Platte zum Einrichten des Werkzeugs
Insert for tool set up



Bestellnummer Part number	d	b	l_2	l_5	HIS
105.LEHR.D.03	1,7	5,9	3	25	105123
105.LEHR.D.04	1,7	6,4	3	25	105124
105.LEHR.D.05	4	7	5	25	105125

Platte zum Einrichten des Werkzeugs
 Insert for tool set up

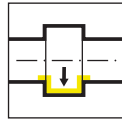
109



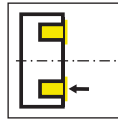
**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

Klemmhalter
Toolholder
B109

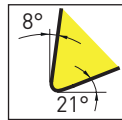


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156-157



Seite/Page
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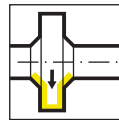
Schneidplatte
Insert
109/A109



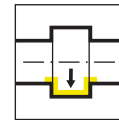
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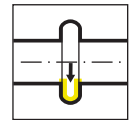
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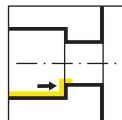
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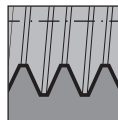
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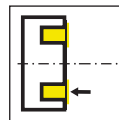
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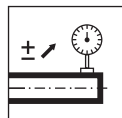


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Platte
Insert
109



Seite/Page
171-172

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

B

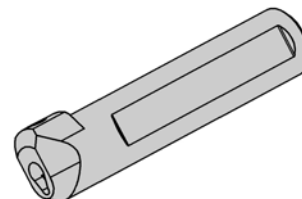
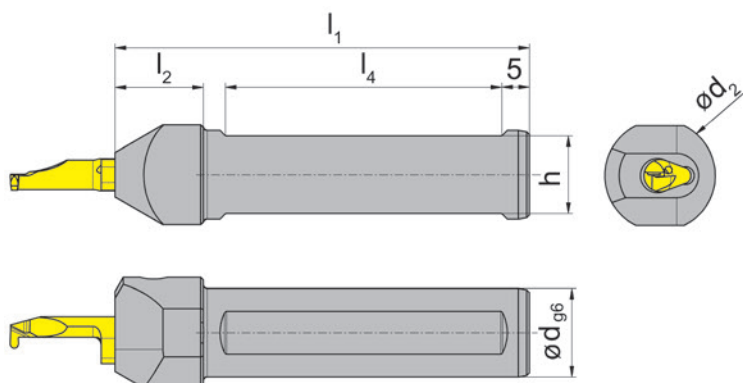
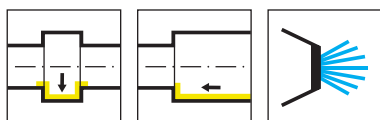


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	l ₂	d ₂	HWS
B109.0012.01	12	75	10	50	16	20	109140
B109.0016.01	16	75	14	50	16	20	109140
B109.0020.01	20	90	18	55	-	20	109140
B109.0025.01	25	100	23	55	-	25	109140

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B109...	6.075T15P	T15PQ

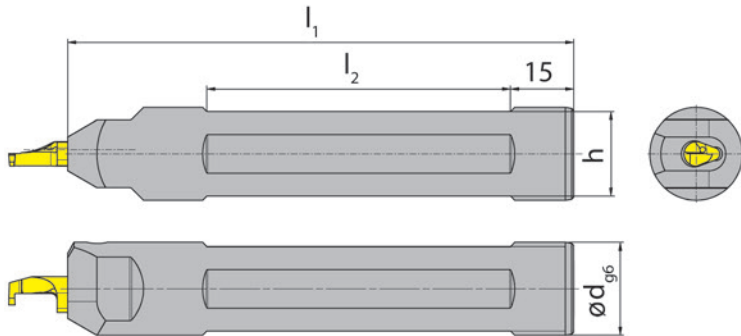
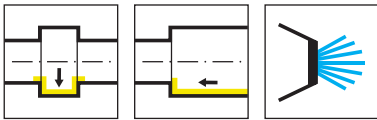


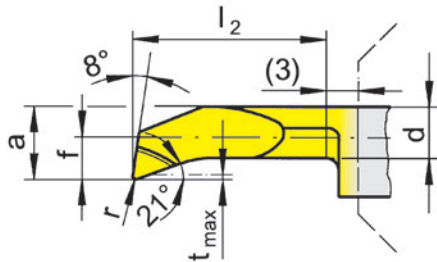
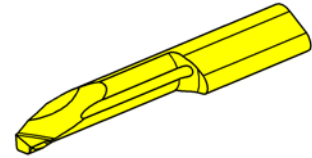
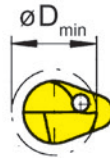
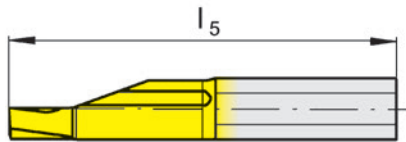
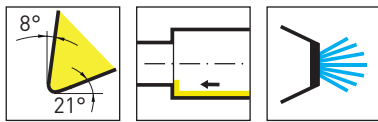
Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₂	HWS
B109.0022.1.2.01	22	120	20	72	109140

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B109.0022.1.2.01	6.075T15P	T15PQ

B



R = rechts wie gezeichnet
R = right hand version shown

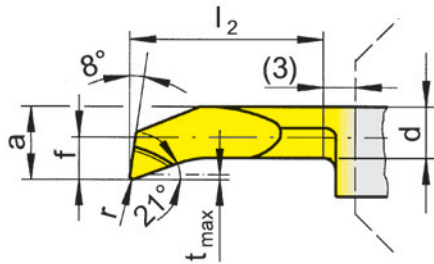
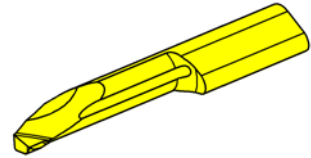
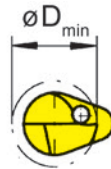
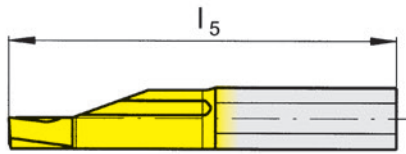
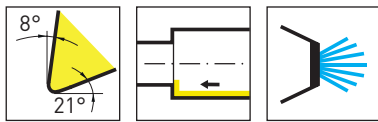
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.1828.1.6	0,2	2,8	5,7	5	10	28	0,4	6	109140	Δ
R109.1828.2.6	0,2	2,8	5,7	5	15	33	0,4	6	109140	Δ
R109.1828.3.6	0,2	2,8	5,7	5	20	38	0,4	6	109140	▲
R109.1828.4.6	0,2	2,8	5,7	5	25	43	0,4	6	109140	Δ
R109.1828.5.6	0,2	2,8	5,7	5	30	48	0,4	6	109140	Δ
R109.1828.6.6	0,2	2,8	5,7	5	35	53	0,4	6	109140	Δ
R109.1828.7.6	0,2	2,8	5,7	5	40	58	0,4	6	109140	▲
R109.1838.2.7	0,2	3,8	6,7	6	15	33	0,4	7	109140	Δ
R109.1838.3.7	0,2	3,8	6,7	6	20	38	0,4	7	109140	Δ
R109.1838.4.7	0,2	3,8	6,7	6	25	43	0,4	7	109140	Δ
R109.1838.5.7	0,2	3,8	6,7	6	30	48	0,4	7	109140	▲
R109.1838.6.7	0,2	3,8	6,7	6	35	53	0,4	7	109140	▲
R109.1838.7.7	0,2	3,8	6,7	6	40	58	0,4	7	109140	▲
R109.1838.8.7	0,2	3,8	6,7	6	45	63	0,4	7	109140	▲
L109.1828.1.6	0,2	2,8	5,7	5	10	28	0,4	6	109140	Δ
L109.1828.2.6	0,2	2,8	5,7	5	15	33	0,4	6	109140	Δ
L109.1828.3.6	0,2	2,8	5,7	5	20	38	0,4	6	109140	Δ
L109.1828.5.6	0,2	2,8	5,7	5	30	48	0,4	6	109140	Δ
L109.1828.6.6	0,2	2,8	5,7	5	35	53	0,4	6	109140	Δ
L109.1828.7.6	0,2	2,8	5,7	5	40	58	0,4	6	109140	Δ
L109.1838.2.7	0,2	3,8	6,7	6	15	33	0,4	7	109140	Δ
L109.1838.3.7	0,2	3,8	6,7	6	20	38	0,4	7	109140	Δ
L109.1838.4.7	0,2	3,8	6,7	6	25	43	0,4	7	109140	Δ
L109.1838.5.7	0,2	3,8	6,7	6	30	48	0,4	7	109140	Δ
L109.1838.6.7	0,2	3,8	6,7	6	35	53	0,4	7	109140	Δ
L109.1838.7.7	0,2	3,8	6,7	6	40	58	0,4	7	109140	Δ
L109.1838.8.7	0,2	3,8	6,7	6	45	63	0,4	7	109140	Δ

P	•
M	•
K	•
N	•
S	•
H	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

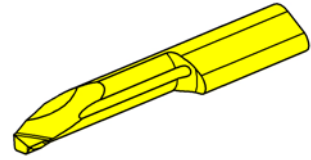
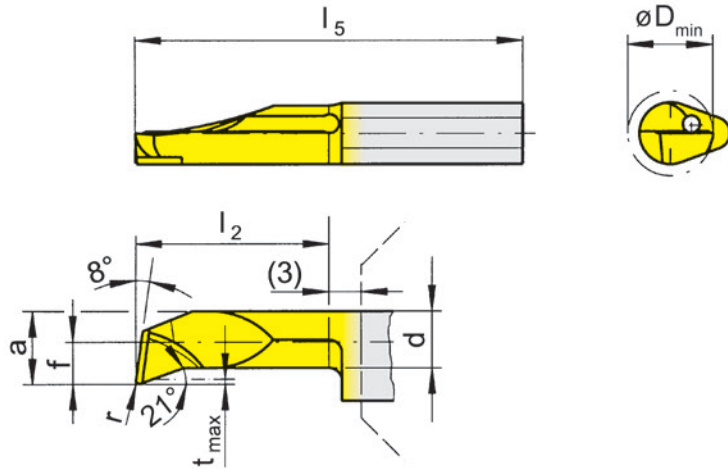
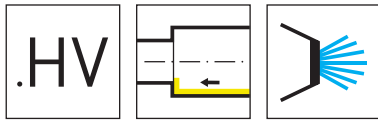
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.1828.04.1.6	0,4	2,8	5,7	5	10	28	0,4	6	109140	Δ
R109.1828.04.2.6	0,4	2,8	5,7	5	15	33	0,4	6	109140	Δ
R109.1828.04.3.6	0,4	2,8	5,7	5	20	38	0,4	6	109140	Δ
R109.1828.04.4.6	0,4	2,8	5,7	5	25	43	0,4	6	109140	Δ
R109.1828.04.5.6	0,4	2,8	5,7	5	30	48	0,4	6	109140	Δ
R109.1828.04.6.6	0,4	2,8	5,7	5	35	53	0,4	6	109140	Δ
R109.1838.04.6.7	0,4	3,8	6,7	6	35	53	0,4	7	109140	Δ
R109.1828.04.7.6	0,4	2,8	5,7	5	40	58	0,4	6	109140	Δ
R109.1838.04.2.7	0,4	3,8	6,7	6	15	33	0,4	7	109140	Δ
R109.1838.04.3.7	0,4	3,8	6,7	6	20	38	0,4	7	109140	Δ
R109.1838.04.4.7	0,4	3,8	6,7	6	25	43	0,4	7	109140	Δ
R109.1838.04.5.7	0,4	3,8	6,7	6	30	48	0,4	7	109140	Δ
R109.1838.04.7.7	0,4	3,8	6,7	6	40	58	0,4	7	109140	▲
R109.1838.04.8.7	0,4	3,8	6,7	6	45	63	0,4	7	109140	▲
L109.1828.04.1.6	0,4	2,8	5,7	5	10	28	0,4	6	109140	Δ
L109.1828.04.2.6	0,4	2,8	5,7	5	15	33	0,4	6	109140	Δ
L109.1828.04.3.6	0,4	2,8	5,7	5	20	38	0,4	6	109140	Δ
L109.1828.04.4.6	0,4	2,8	5,7	5	25	43	0,4	6	109140	Δ
L109.1828.04.6.6	0,4	2,8	5,7	5	35	53	0,4	6	109140	Δ
L109.1828.04.7.6	0,4	2,8	5,7	5	40	58	0,4	6	109140	Δ
L109.1838.04.2.7	0,4	3,8	6,7	6	15	33	0,4	7	109140	Δ
L109.1838.04.3.7	0,4	3,8	6,7	6	20	38	0,4	7	109140	Δ
L109.1838.04.8.7	0,4	3,8	6,7	6	45	63	0,4	7	109140	Δ

P	●
M	●
K	●
N	●
S	●
H	-

B



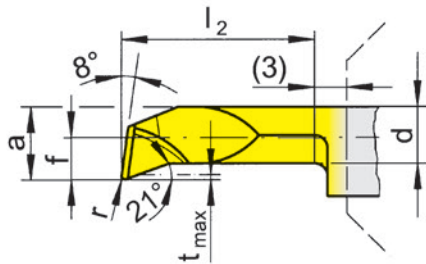
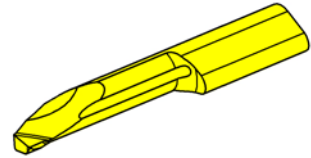
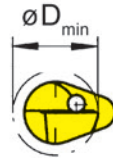
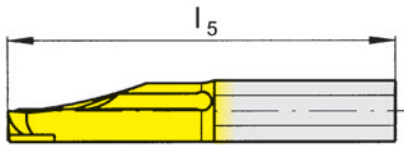
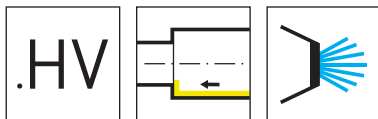
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.1828.1.HV6	0,2	2,8	5,7	5	10	28	0,4	6	109140	Δ
R109.1828.2.HV6	0,2	2,8	5,7	5	15	33	0,4	6	109140	Δ
R109.1828.3.HV6	0,2	2,8	5,7	5	20	38	0,4	6	109140	Δ
R109.1828.4.HV6	0,2	2,8	5,7	5	25	43	0,4	6	109140	Δ
R109.1828.5.HV6	0,2	2,8	5,7	5	30	48	0,4	6	109140	▲
R109.1828.6.HV6	0,2	2,8	5,7	5	35	53	0,4	6	109140	▲
R109.1828.7.HV6	0,2	2,8	5,7	5	40	58	0,4	6	109140	▲
R109.1838.3.HV7	0,2	3,8	6,7	6	20	38	0,4	7	109140	Δ
R109.1838.4.HV7	0,2	3,8	6,7	6	25	43	0,4	7	109140	Δ
R109.1838.5.HV7	0,2	3,8	6,7	6	30	48	0,4	7	109140	Δ
R109.1838.6.HV7	0,2	3,8	6,7	6	35	53	0,4	7	109140	Δ
R109.1838.7.HV7	0,2	3,8	6,7	6	40	58	0,4	7	109140	Δ
R109.1838.8.HV7	0,2	3,8	6,7	6	45	63	0,4	7	109140	Δ
L109.1828.1.HV6	0,2	2,8	5,7	5	10	28	0,4	6	109140	Δ
L109.1828.2.HV6	0,2	2,8	5,7	5	15	33	0,4	6	109140	Δ
L109.1828.3.HV6	0,2	2,8	5,7	5	20	38	0,4	6	109140	Δ
L109.1828.4.HV6	0,2	2,8	5,7	5	25	43	0,4	6	109140	Δ
L109.1828.6.HV6	0,2	2,8	5,7	5	35	53	0,4	6	109140	Δ
L109.1828.7.HV6	0,2	2,8	5,7	5	40	58	0,4	6	109140	Δ
L109.1838.2.HV7	0,2	3,8	6,7	6	15	33	0,4	7	109140	Δ
L109.1838.5.HV7	0,2	3,8	6,7	6	30	48	0,4	7	109140	Δ
L109.1838.6.HV7	0,2	3,8	6,7	6	35	53	0,4	7	109140	Δ
L109.1838.7.HV7	0,2	3,8	6,7	6	40	58	0,4	7	109140	Δ
L109.1838.8.HV7	0,2	3,8	6,7	6	45	63	0,4	7	109140	Δ
										P ●
										M ●
										K ●
										N ●
										S ●
										H -



R = rechts wie gezeichnet
R = right hand version shown

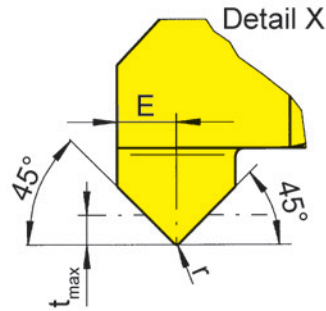
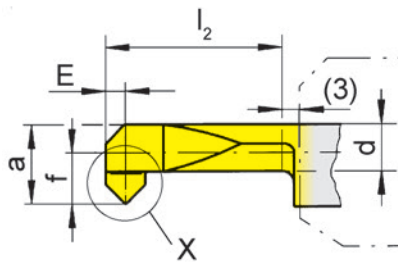
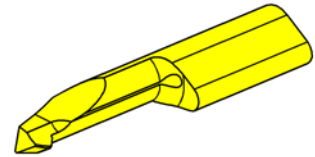
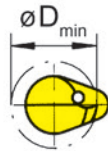
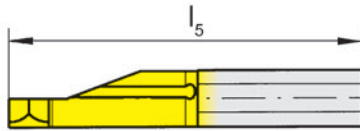
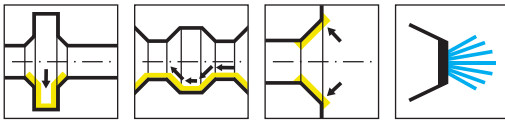
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.1828.04.1.HV6	0,4	2,8	5,7	5	10	28	0,4	6	109140	Δ
R109.1828.04.3.HV6	0,4	2,8	5,7	5	20	38	0,4	6	109140	Δ
R109.1828.04.4.HV6	0,4	2,8	5,7	5	25	43	0,4	6	109140	Δ
R109.1828.04.5.HV6	0,4	2,8	5,7	5	30	48	0,4	6	109140	Δ
R109.1828.04.7.HV6	0,4	2,8	5,7	5	40	58	0,4	6	109140	Δ
R109.1838.04.2.HV7	0,4	3,8	6,7	6	15	33	0,4	7	109140	Δ
R109.1838.04.3.HV7	0,4	3,8	6,7	6	20	38	0,4	7	109140	Δ
R109.1838.04.4.HV7	0,4	3,8	6,7	6	25	43	0,4	7	109140	Δ
R109.1838.04.5.HV7	0,4	3,8	6,7	6	30	48	0,4	7	109140	Δ
R109.1838.04.6.HV7	0,4	3,8	6,7	6	35	53	0,4	7	109140	Δ
R109.1838.04.7.HV7	0,4	3,8	6,7	6	40	58	0,4	7	109140	Δ
R109.1838.04.8.HV7	0,4	3,8	6,7	6	45	63	0,4	7	109140	▲
L109.1828.04.1.HV6	0,4	2,8	5,7	5	10	28	0,4	6	109140	Δ
L109.1828.04.4.HV6	0,4	2,8	5,7	5	25	43	0,4	6	109140	Δ
L109.1828.04.5.HV6	0,4	2,8	5,7	5	30	48	0,4	6	109140	Δ
L109.1828.04.7.HV6	0,4	2,8	5,7	5	40	58	0,4	6	109140	Δ
L109.1838.04.2.HV7	0,4	3,8	6,7	6	15	33	0,4	7	109140	Δ
L109.1838.04.3.HV7	0,4	3,8	6,7	6	20	38	0,4	7	109140	Δ
L109.1838.04.4.HV7	0,4	3,8	6,7	6	25	43	0,4	7	109140	Δ
L109.1838.04.5.HV7	0,4	3,8	6,7	6	30	48	0,4	7	109140	Δ
L109.1838.04.6.HV7	0,4	3,8	6,7	6	35	53	0,4	7	109140	Δ
L109.1838.04.7.HV7	0,4	3,8	6,7	6	40	58	0,4	7	109140	Δ
										P ●
										M ●
										K ●
										N ●
										S ●
										H -

B



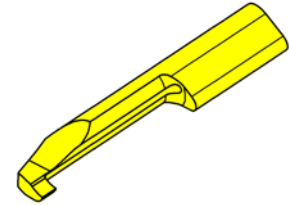
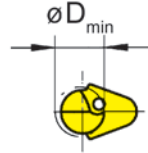
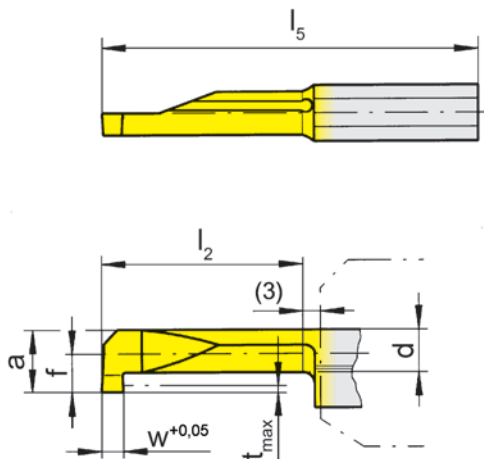
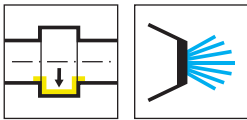
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	E	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.4545.3.6	0,2	2,8	1,2	5,7	4,3	20	38	0,9	6	109140	Δ
R109.4545.5.7	0,2	3,8	1,2	6,7	5,3	30	48	0,9	7	109140	▲
L109.4545.3.6	0,2	2,8	1,2	5,7	4,3	20	38	0,9	6	109140	Δ
L109.4545.5.7	0,2	3,8	1,2	6,7	5,3	30	48	0,9	7	109140	Δ
											P ●
											M ●
											K ●
											N ●
											S ●
											H -



R = rechts wie gezeichnet
R = right hand version shown

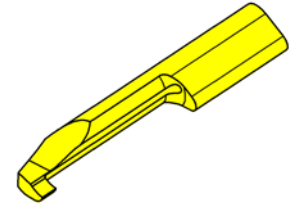
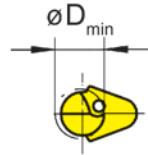
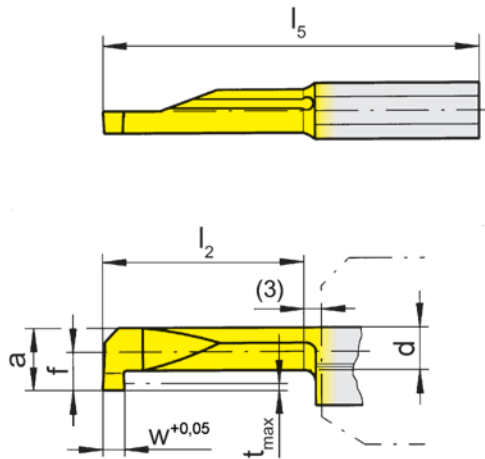
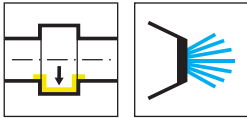
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	TH35
R109.0100.1.6	1	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
R109.0100.2.6	1	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
R109.0100.3.6	1	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
R109.0150.1.6	1,5	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
R109.0150.2.6	1,5	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
R109.0150.3.6	1,5	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
R109.0200.1.6	2	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
R109.0200.2.6	2	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
R109.0200.3.6	2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
L109.0100.1.6	1	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
L109.0100.2.6	1	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
L109.0100.3.6	1	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
L109.0150.1.6	1,5	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
L109.0150.2.6	1,5	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
L109.0150.3.6	1,5	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
L109.0200.1.6	2	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
L109.0200.2.6	2	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
L109.0200.3.6	2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
P	•									
M	•									
K	•									
N	•									
S	•									
H	-									

B



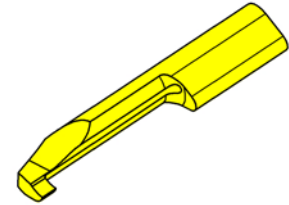
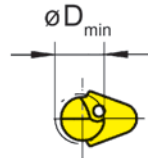
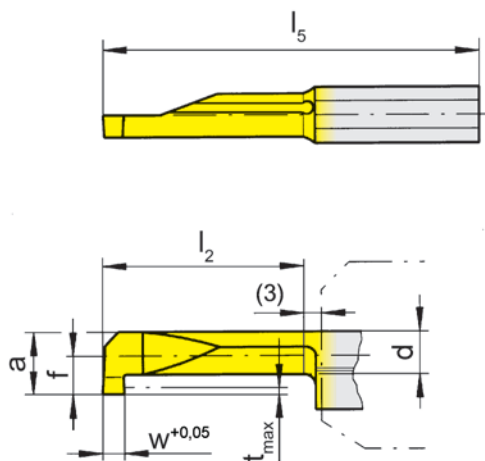
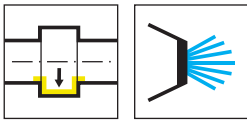
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	l_2	l_5	$t_{\max}$	$D_{\min}$	HIS	TH35
R109.0150.4.6	1,5	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
R109.0150.5.6	1,5	2,8	5,7	3,7	30	48	1,8	6	109140	Δ
R109.0150.6.6	1,5	2,8	5,7	3,7	35	53	1,8	6	109140	Δ
R109.0200.1.6	2	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
R109.0200.2.6	2	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
R109.0200.3.6	2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
R109.0200.4.6	2	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
R109.0200.5.6	2	2,8	5,7	3,7	30	48	1,8	6	109140	Δ
R109.0200.6.6	2	2,8	5,7	3,7	35	53	1,8	6	109140	▲
L109.0150.6.6	1,5	2,8	5,7	3,7	35	53	1,8	6	109140	Δ
L109.0200.1.6	2	2,8	5,7	3,7	10	28	1,8	6	109140	Δ
L109.0200.2.6	2	2,8	5,7	3,7	15	33	1,8	6	109140	Δ
L109.0200.3.6	2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
L109.0200.4.6	2	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
L109.0200.6.6	2	2,8	5,7	3,7	35	53	1,8	6	109140	Δ
P	•									
M	•									
K	•									
N	•									
S	•									
H	-									



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

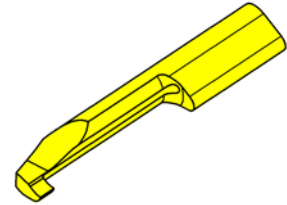
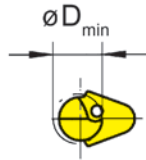
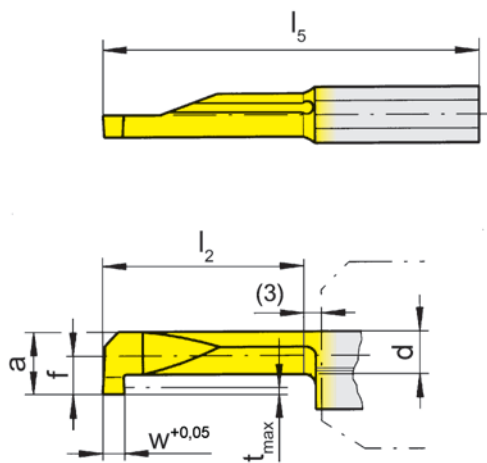
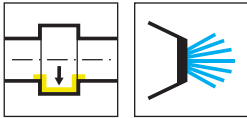
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.0100.1.7	1	3,8	6,7	4	10	28	2,5	7	109140	Δ
R109.0100.2.7	1	3,8	6,7	4	15	33	2,5	7	109140	Δ
R109.0100.3.7	1	3,8	6,7	4	20	38	2,5	7	109140	Δ
R109.0150.1.7	1,5	3,8	6,7	4	10	28	2,5	7	109140	Δ
R109.0150.2.7	1,5	3,8	6,7	4	15	33	2,5	7	109140	▲
R109.0150.3.7	1,5	3,8	6,7	4	20	38	2,5	7	109140	Δ
R109.0200.1.7	2	3,8	6,7	4	10	28	2,5	7	109140	▲
R109.0200.2.7	2	3,8	6,7	4	15	33	2,5	7	109140	▲
R109.0200.3.7	2	3,8	6,7	4	20	38	2,5	7	109140	Δ
L109.0100.1.7	1	3,8	6,7	4	10	28	2,5	7	109140	Δ
L109.0100.2.7	1	3,8	6,7	4	15	33	2,5	7	109140	Δ
L109.0100.3.7	1	3,8	6,7	4	20	38	2,5	7	109140	Δ
L109.0150.1.7	1,5	3,8	6,7	4	10	28	2,5	7	109140	Δ
L109.0150.2.7	1,5	3,8	6,7	4	15	33	2,5	7	109140	Δ
L109.0200.1.7	2	3,8	6,7	4	10	28	2,5	7	109140	Δ
L109.0200.2.7	2	3,8	6,7	4	15	33	2,5	7	109140	Δ
L109.0200.3.7	2	3,8	6,7	4	20	38	2,5	7	109140	Δ

P	●
M	●
K	●
N	●
S	●
H	-

B



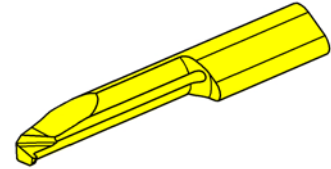
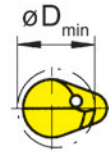
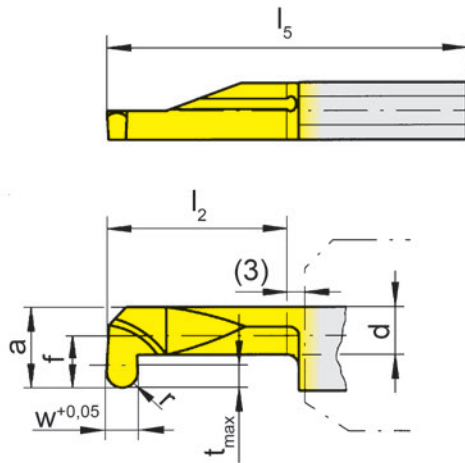
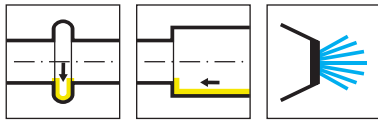
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	TH35
R109.0150.4.7	1,5	3,8	6,7	4	25	43	2,5	7	109140	Δ
R109.0150.5.7	1,5	3,8	6,7	4	30	48	2,5	7	109140	Δ
R109.0150.6.7	1,5	3,8	6,7	4	35	53	2,5	7	109140	Δ
R109.0200.1.7	2	3,8	6,7	4	10	28	2,5	7	109140	▲
R109.0200.2.7	2	3,8	6,7	4	15	33	2,5	7	109140	▲
R109.0200.3.7	2	3,8	6,7	4	20	38	2,5	7	109140	Δ
R109.0200.4.7	2	3,8	6,7	4	25	43	2,5	7	109140	Δ
R109.0200.5.7	2	3,8	6,7	4	30	48	2,5	7	109140	▲
R109.0200.6.7	2	3,8	6,7	4	35	53	2,5	7	109140	▲
L109.0150.4.7	1,5	3,8	6,7	4	25	43	2,5	7	109140	Δ
L109.0150.5.7	1,5	3,8	6,7	4	30	48	2,5	7	109140	Δ
L109.0150.6.7	1,5	3,8	6,7	4	35	53	2,5	7	109140	Δ
L109.0200.1.7	2	3,8	6,7	4	10	28	2,5	7	109140	Δ
L109.0200.2.7	2	3,8	6,7	4	15	33	2,5	7	109140	Δ
L109.0200.3.7	2	3,8	6,7	4	20	38	2,5	7	109140	Δ
L109.0200.4.7	2	3,8	6,7	4	25	43	2,5	7	109140	Δ
L109.0200.5.7	2	3,8	6,7	4	30	48	2,5	7	109140	Δ
L109.0200.6.7	2	3,8	6,7	4	35	53	2,5	7	109140	Δ
P	●									
M	●									
K	●									
N	●									
S	●									
H	-									



R = rechts wie gezeichnet
R = right hand version shown

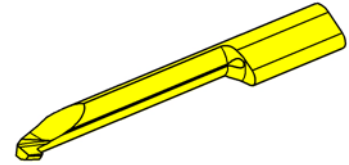
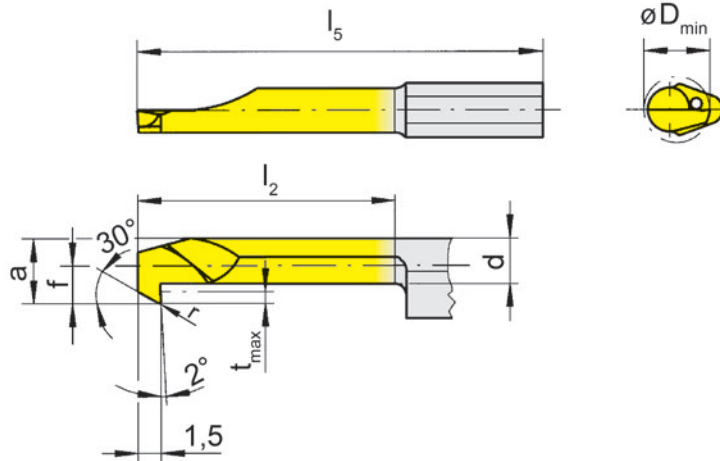
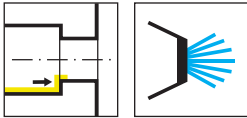
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	l_2	l_5	t_{max}	D_{min}	HIS	TH35
R109.0005.4.6	1	0,5	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
R109.0005.6.7	1	0,5	3,8	6,7	4	35	53	2,5	7	109140	Δ
R109.0007.4.6	1,5	0,75	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
R109.0007.6.7	1,5	0,75	3,8	6,7	4	35	53	2,5	7	109140	Δ
R109.0010.4.6	2	1	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
R109.0010.6.7	2	1	3,8	6,7	4	35	53	2,5	7	109140	▲
L109.0005.4.6	1	0,5	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
L109.0005.6.7	1	0,5	3,8	6,7	4	35	53	2,5	7	109140	Δ
L109.0007.4.6	1,5	0,75	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
L109.0007.6.7	1,5	0,75	3,8	6,7	4	35	53	2,5	7	109140	Δ
L109.0010.4.6	2	1	2,8	5,7	3,7	25	43	1,8	6	109140	Δ
L109.0010.6.7	2	1	3,8	6,7	4	35	53	2,5	7	109140	Δ
P	•										
M	•										
K	•										
N	•										
S	•										
H	-										

B



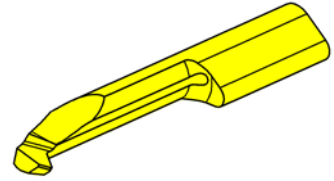
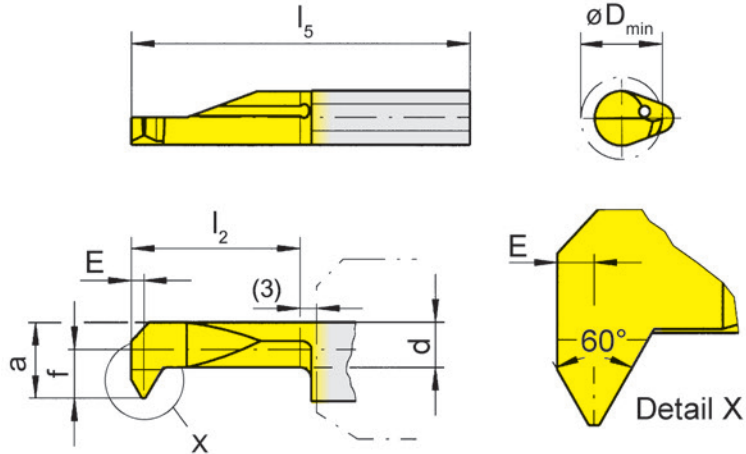
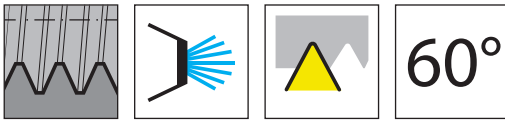
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l_2	l_5	t_{max}	D_{min}	HIS	TH35
R109.3028.3.6	0,2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
R109.3028.5.6	0,2	2,8	5,7	3,7	30	48	1,8	6	109140	Δ
R109.3038.3.7	0,2	3,8	6,7	4	20	38	2,5	7	109140	▲
R109.3038.5.7	0,2	3,8	6,7	4	30	48	2,5	7	109140	▲
L109.3028.3.6	0,2	2,8	5,7	3,7	20	38	1,8	6	109140	Δ
L109.3028.5.6	0,2	2,8	5,7	3,7	30	48	1,8	6	109140	Δ
L109.3038.3.7	0,2	3,8	6,7	4	20	38	2,5	7	109140	Δ
										P ●
										M ●
										K ●
										N ●
										S ●
										H -



R = rechts wie gezeichnet
R = right hand version shown

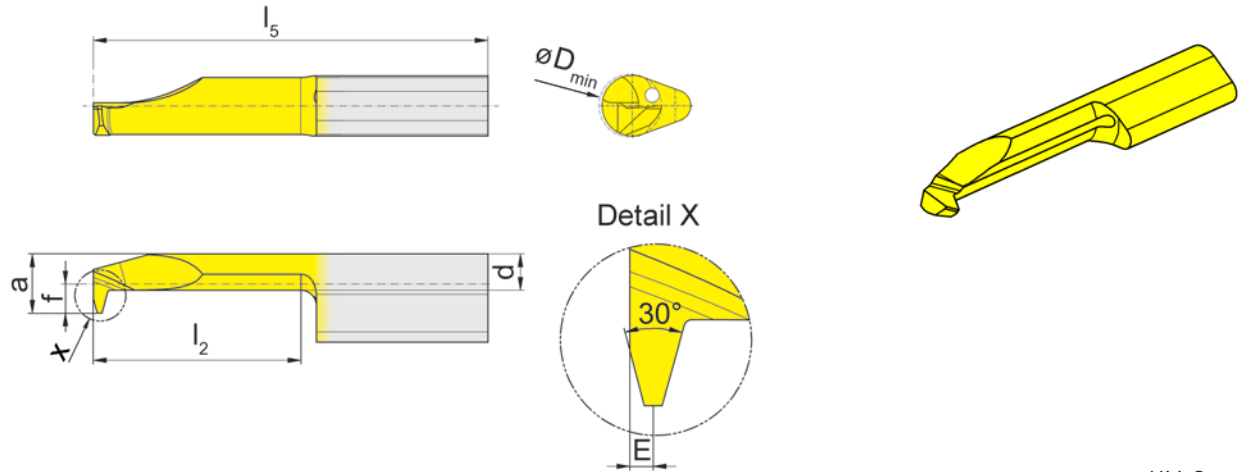
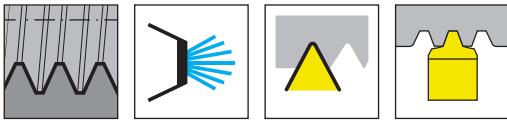
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	l ₂	l ₅	D _{min}	HIS	TH35
R109.0815.1.7	1,5	1,75	0,9	3,8	6,7	5,1	10	28	7	109140	Δ
R109.0815.3.7	1,5	1,75	0,9	3,8	6,7	5,1	20	38	7	109140	▲
R109.0815.5.7	1,5	1,75	0,9	3,8	6,7	5,1	30	48	7	109140	▲
L109.0815.1.7	1,5	1,75	0,9	3,8	6,7	5,1	10	28	7	109140	Δ
L109.0815.3.7	1,5	1,75	0,9	3,8	6,7	5,1	20	38	7	109140	Δ
L109.0815.5.7	1,5	1,75	0,9	3,8	6,7	5,1	30	48	7	109140	Δ
	P	•									
	M	•									
	K	•									
	N	•									
	S	•									
	H	-									

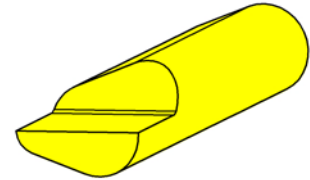
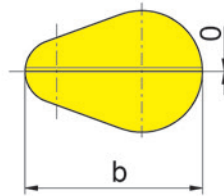
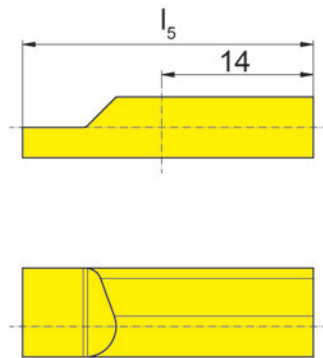
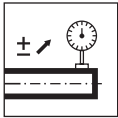
B



R = rechts wie gezeichnet, nur Rechtsgewinde herstellbar
R = right hand version shown, only right-hand thread can be produced

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	l ₂	l ₅	D _{min}	HIS	TH35
R109.0915.3.6	1,5	0,6	2,8	5,7	3,5	20	38	6	109140	▲
R109.1220.3.6	2	0,8	2,8	5,7	3,5	20	38	6	109140	▲
R109.1220.3.7	2	0,8	3,8	6,7	4,8	20	38	7	109140	▲
R109.1220.5.7	2	0,8	3,8	6,7	4,8	30	48	7	109140	▲
R109.1730.3.7	3	1,2	3,8	6,7	4,3	20	38	7	109140	▲
	P	•								
	M	•								
	K	•								
	N	•								
	S	•								
	H	-								



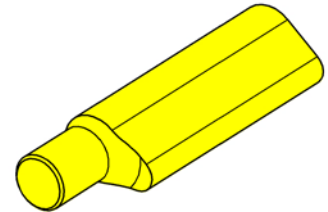
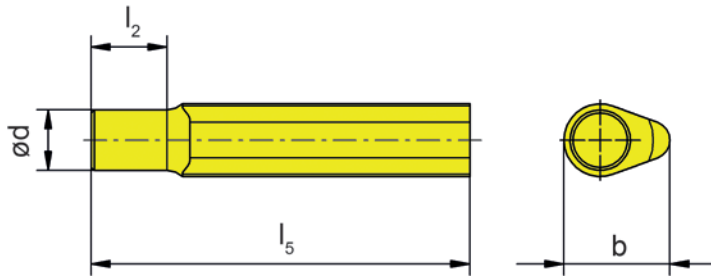
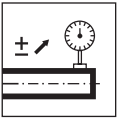
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	b	l_5	HIS
R109.LEHR.H.01	8,5	28	109140
L109.LEHR.H.01	8,5	28	109140

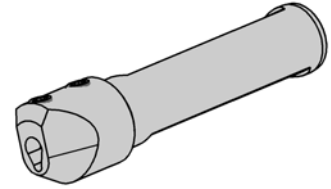
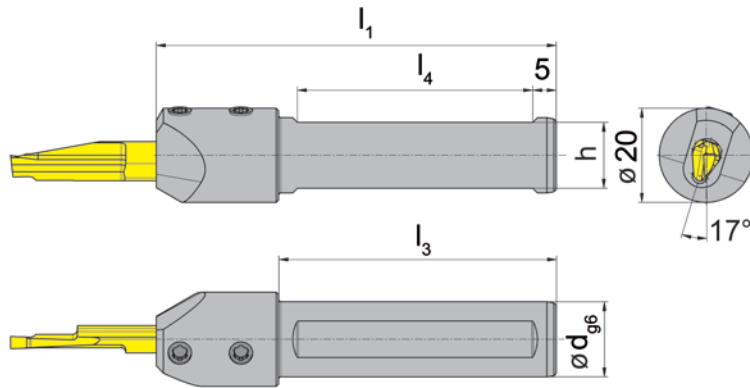
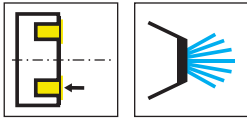
Platte zum Einrichten des Werkzeugs
Insert for tool set up

B



Bestellnummer Part number	d	b	l_2	l_5	HIS
109.LEHR.D.01	4,5	8,5	5	25	109140

Platte zum Einrichten des Werkzeugs
Insert for tool set up



R = rechts wie gezeichnet
R = right hand version shown

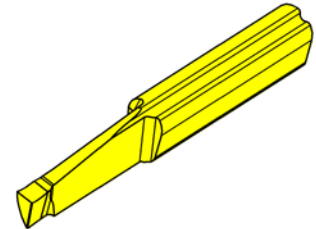
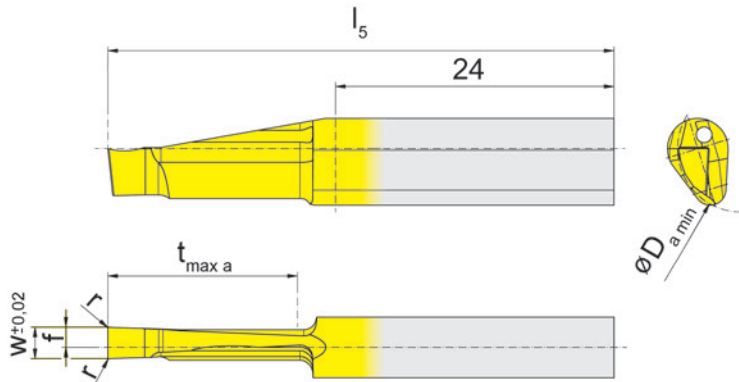
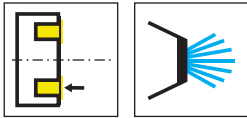
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d	l ₁	l ₃	h	l ₄	HWS
RB109.0016.14.2	16	85	59	14	50	109240
LB109.0016.14.2	16	85	59	14	50	109240

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB109.0016.14.2	6.075T15P	T15PQ

B



L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

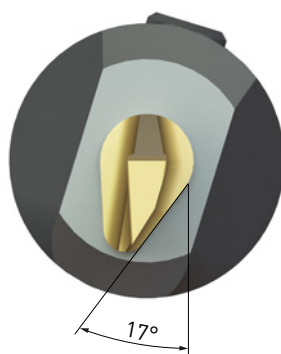
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

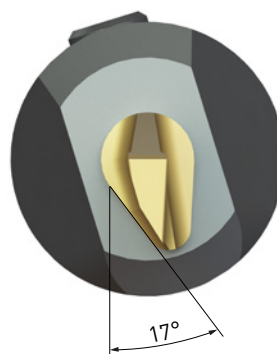
Bestellnummer Part number	w	r	f	l_5	$t_{\max a}$	$D_{a \min}$	HIS	T125
RA109.1520.3.2	2	0,1	1	48	20	15	109240	▲
RA109.1525.3.2	2,5	0,1	1,2	48	20	15	109240	▲
RA109.1530.3.2	3	0,1	1,5	48	20	15	109240	▲
LA109.1520.3.2	2	0,1	1	48	20	15	109240	Δ
LA109.1525.3.2	2,5	0,1	1,2	48	20	15	109240	Δ
LA109.1530.3.2	3	0,1	1,5	48	20	15	109240	▲

Axialstechen ins Volle bei voller Stechtiefe nur bei $D_{a \min}$ 15 - 40 mm möglich!
Face grooving with full width of the full depth only possible between $D_{a \min}$ 15 - 40 mm!

P	●
M	●
K	●
N	●
S	●
H	-



RA109 → RB109



LA109 → LB109

110

C

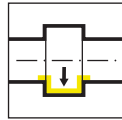


**Klemmhalter und
Schneidplatten**

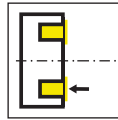
**Toolholder and
Inserts**

C

Klemmhalter
Toolholder
B110/B110TS/B110C/
VDI
WFB.110

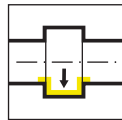


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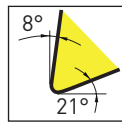
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Einstellbare Halter
Adjustable holder
N

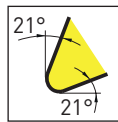


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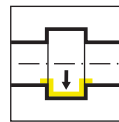
Schneidplatte
Insert
110/A110



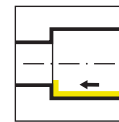
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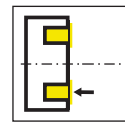
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188-189

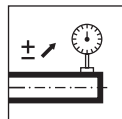


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Platte
Insert
110



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191-192

Grundabmessungen
Basic sizes

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Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

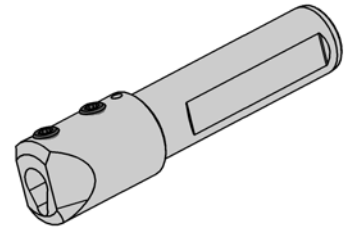
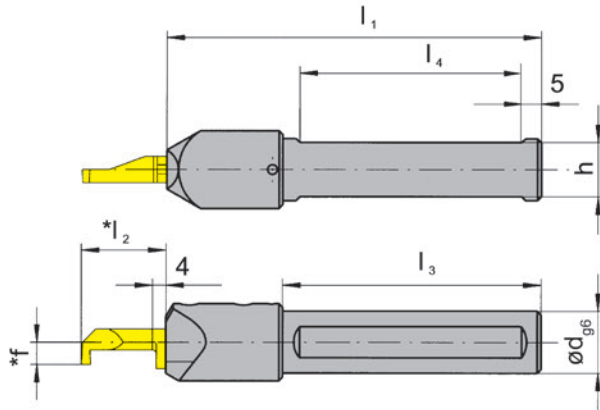
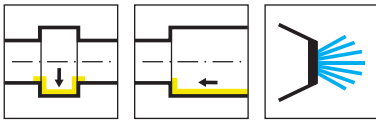


Abbildung = rechtsschneidend
Picture = right hand cutting version

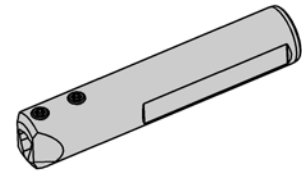
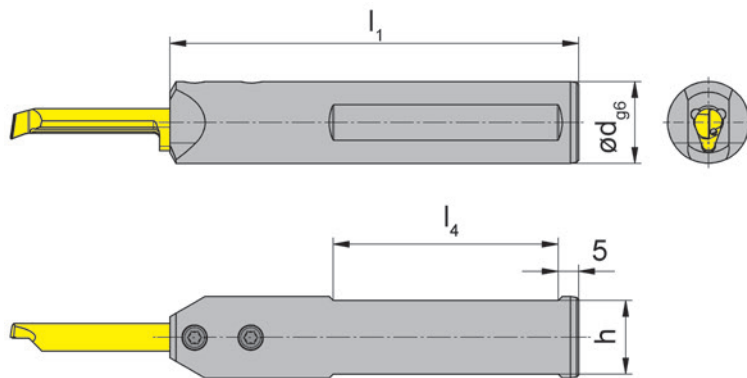
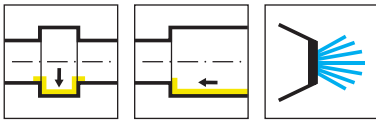
Bestellnummer Part number	d	l ₁	l ₃	h	l ₄	HWS
B110.0016.02	16	100	70	14	55	110260
B110.0020.02	20	100	-	18	55	110260
B110.0022.02	22	100	-	20	55	110260
B110.0025.02	25	100	-	23	55	110260

f, l2 siehe Schneidplatte Typ 110
f, l2 see inserts type 110

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B110...	6.075T15P	T15PQ



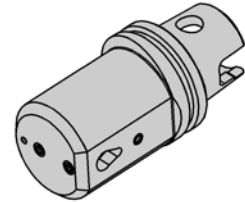
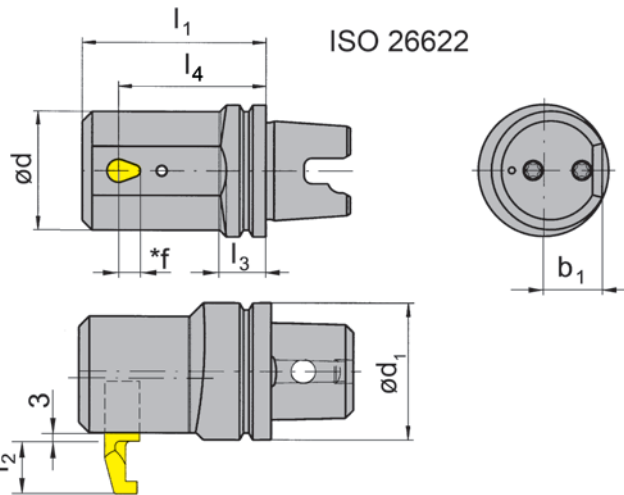
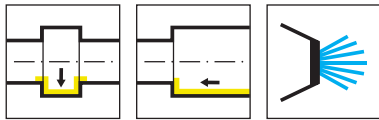
C

Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l ₁	h	l ₄	HWS
B110.0020.K.02	20	100	18	55	110260

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B110.0020.K.02	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

Bestellnummer Part number	d ₁	l ₃	d	l ₁	l ₄	b ₁	Maschinentyp Machine type	HWS
RB110.TS40.2.2.02	40	14	36	56	45	18	INDEX MS32	110260

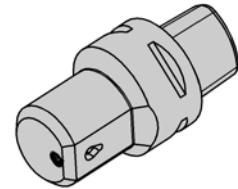
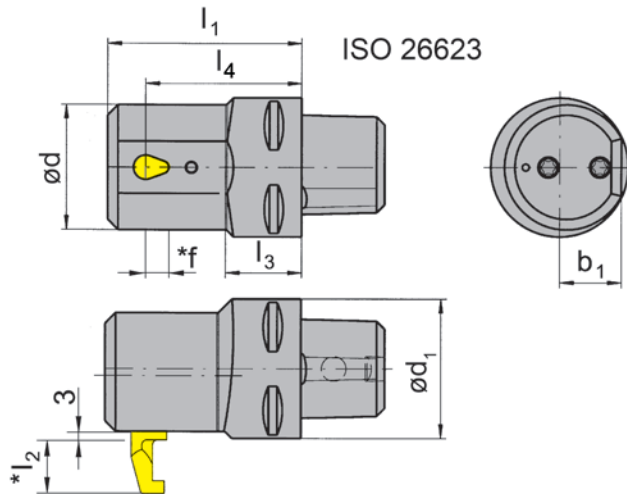
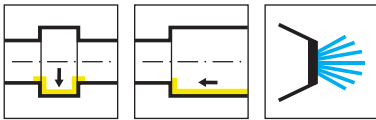
f, l2 siehe Schneidplatte Typ 110
f, l2 see inserts type 110

für INDEX Mehrspindler
for INDEX Multi spindle machines

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RB110.TS40.2.2.02	6.075T15P	T15PQ



C

R = rechts wie gezeichnet

R = right hand version shown

Bestellnummer Part number	d ₁	l ₃	d	l ₁	l ₄	b ₁	HWS
RB110.00C3.2.2.02	32	15	36	56	45	18	110260
RB110.00C4.2.2.02	40	22	36	56	45	18	110260

f, l₂ siehe Schneidplatte Typ 110

f, l₂ see inserts type 110

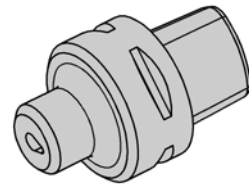
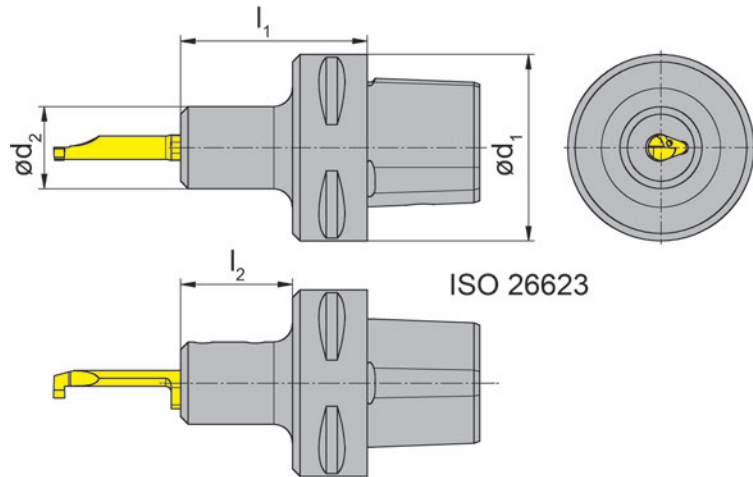
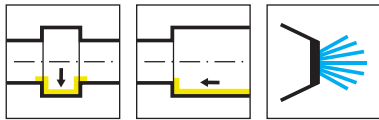
für INDEX Mehrspindler

for INDEX Multi spindle machines

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
RB110...	6.075T15P	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

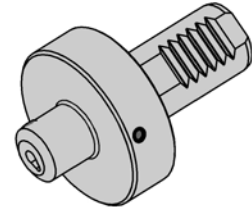
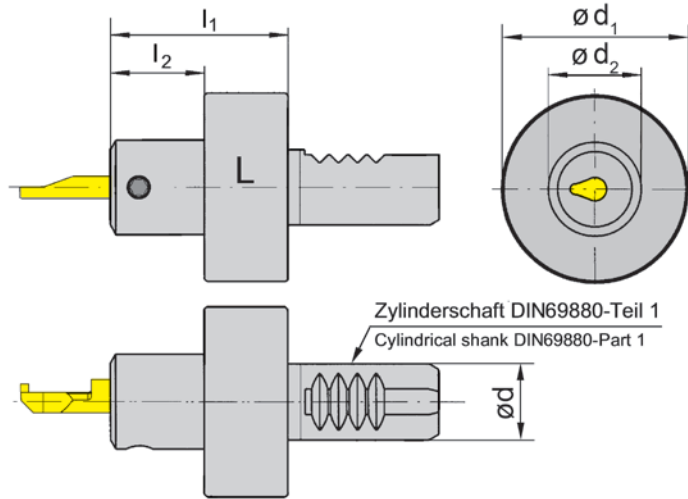
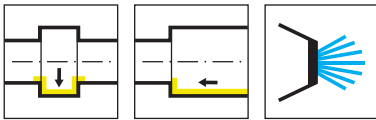
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d ₁	d ₂	l ₁	l ₂	HWS
RB110.00C3.22.1.02	32	22	45	30	110260
RB110.00C4.22.1.02	40	22	50	30	110260
RB110.00C5.22.1.02	50	22	50	30	110260
RB110.00C6.22.1.02	63	22	52	30	110260
LB110.00C3.22.1.02	32	22	45	30	110260
LB110.00C4.22.1.02	40	22	50	30	110260
LB110.00C5.22.1.02	50	22	50	30	110260
LB110.00C6.22.1.02	63	22	52	30	110260

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB110...	6.075T15P	T15PQ



L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

Bestellnummer Part number	d	l ₁	l ₂	d ₂	d ₁	HWS
VDI16.L110.30.02	16	48	30	22	40	110260
VDI16.R110.30.02	16	48	30	22	40	110260
VDI20.R110.30.02	20	48	30	22	50	110260
VDI25.L110.30.02	25	48	30	22	58	110260
VDI25.R110.30.02	25	48	30	22	58	110260
VDI30.L110.30.02	30	48	30	22	68	110260
VDI30.R110.30.02	30	48	30	22	68	110260
VDI40.L110.30.02	40	48	30	22	83	110260
VDI40.R110.30.02	40	48	30	22	83	110260

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
VDI16...	6.075T15P	T15PQ

Einstellbare Halter

Adjustable holder

N

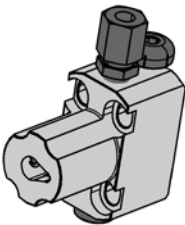
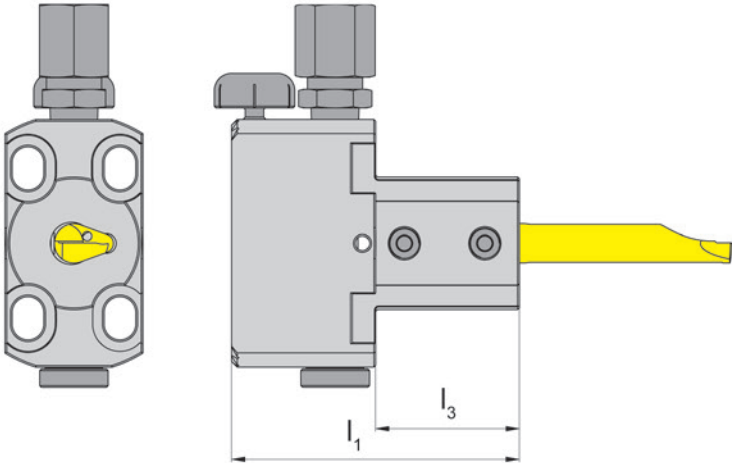


Abbildung = rechtsschneidend
Picture = right hand cutting version

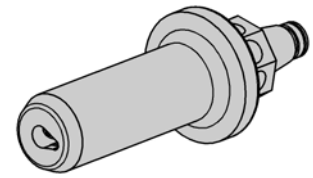
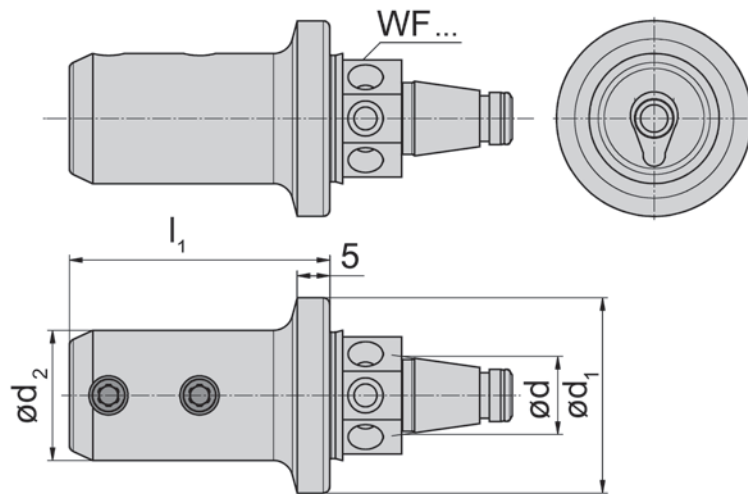
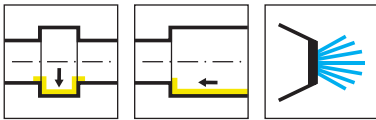
Bestellnummer Part number	l_1	l_3	HWS
N.79.IK	50	25	110260

Das K hlmit telrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!
Coolant tube is not included - separate order required!

Ersatzteile

Spare Parts

Einstellbare Halter Adjustable holder	Spannschraube Clamping Screw	K�hlmit�telanschluss Coolant supply
N.79.IK	6.075T15P	004.00.19

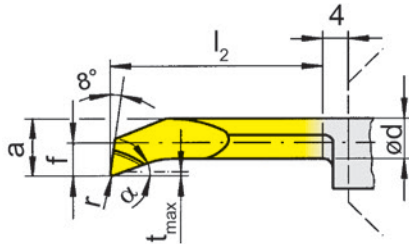
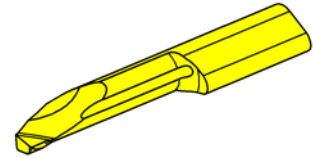
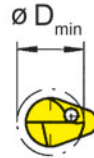
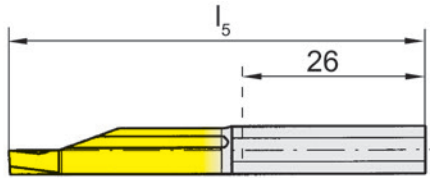
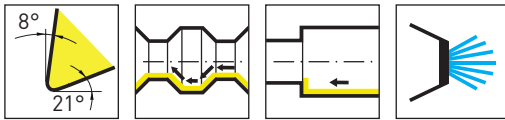


C

Bestellnummer Part number	d ₁	l ₁	d	d ₂	HWS	HMS
WFB.2H0.110	30	40	12	20	110260	WFB
WFB.3H0.110	50	40	20	20	110260	WFB

Ersatzteile
Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
WFB...	6.075T15P	T15PQ



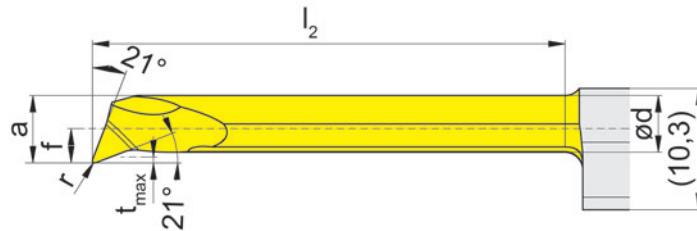
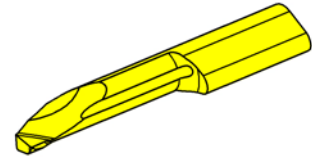
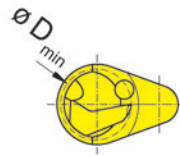
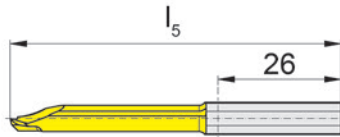
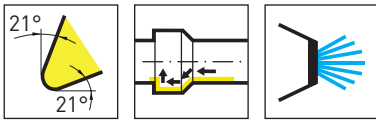
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	α	HIS	EG35	TH35	TI25
R110.1829.7.6	0,2	2,9	5,7	4,8	40	70	0,5	6	21°	110260	▲	▲	▲
R110.1829.9.6	0,2	2,9	5,7	4,8	50	80	0,5	6	21°	110260	▲	▲	▲
R110.1829.9.8	0,2	4	7,4	6	50	80	0,5	8	21°	110260	▲	▲	▲
L110.1829.7.6	0,2	2,9	5,7	4,8	40	70	0,5	6	21°	110260	▲	▲	▲
L110.1829.9.6	0,2	2,9	5,7	4,8	50	80	0,5	6	21°	110260	▲	▲	▲
L110.1829.9.8	0,2	4	7,4	6	50	80	0,5	8	21°	110260	▲	▲	▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-	-



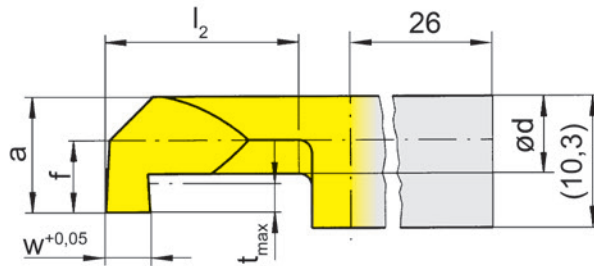
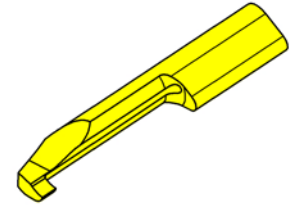
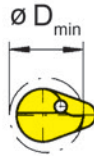
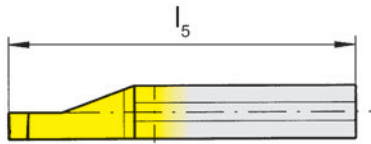
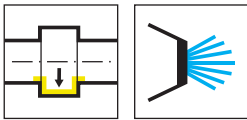
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35
R110.2129.7.6	0,2	2,9	5,7	4,8	40	70	0,5	6	110260	Δ
R110.2129.9.6	0,2	2,9	5,7	4,8	50	80	0,5	6	110260	Δ
R110.2140.7.8	0,2	4	7,4	6	40	70	0,5	8	110260	Δ
R110.2140.9.8	0,2	4	7,4	6	50	80	0,5	8	110260	Δ
L110.2129.7.6	0,2	2,9	5,7	4,8	40	70	0,5	6	110260	Δ
L110.2129.9.6	0,2	2,9	5,7	4,8	50	80	0,5	6	110260	Δ
L110.2140.7.8	0,2	4	7,4	6	40	70	0,5	8	110260	Δ
L110.2140.9.8	0,2	4	7,4	6	50	80	0,5	8	110260	Δ
										P ●
										M ●
										K o
										N -
										S -
										H -



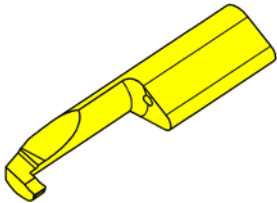
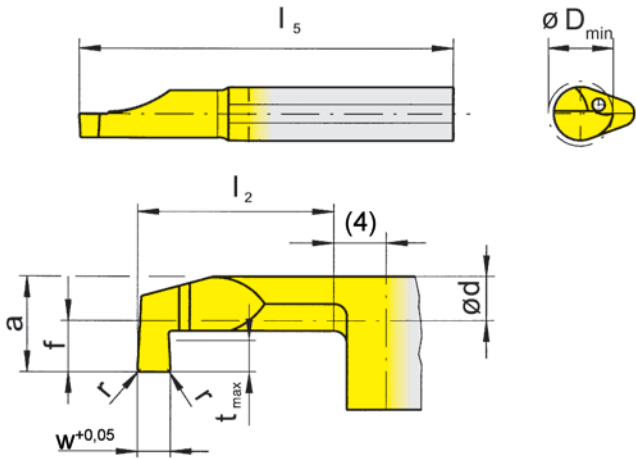
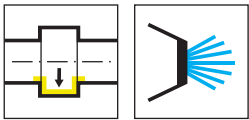
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS	EG35	TI25	TN35
R110.0100.5.8	1	4	7,4	4,2	30	60	2,8	8	110260	▲		▲
R110.0200.5.8	2	4	7,4	4,2	30	60	2,8	8	110260	▲	Δ	▲
R110.0250.5.8	2,5	4	7,4	4,2	30	60	2,8	8	110260	▲	Δ	▲
R110.0100.7.8	1	4	7,4	4,2	40	70	2,8	8	110260	▲		▲
R110.0200.7.8	2	4	7,4	4,2	40	70	2,8	8	110260	▲		▲
R110.0250.7.8	2,5	4	7,4	4,2	40	70	2,8	8	110260	▲		▲
R110.0100.5.0	1	6	9,4	5	30	60	4	10	110260	▲		▲
R110.0200.5.0	2	6	9,4	5	30	60	4	10	110260	▲	Δ	▲
R110.0300.5.0	3	6	9,4	5	30	60	4	10	110260	▲	Δ	▲
R110.0100.9.0	1	6	9,4	5	50	80	4	10	110260	Δ		▲
R110.0200.9.0	2	6	9,4	5	50	80	4	10	110260	▲		▲
R110.0300.9.0	3	6	9,4	5	50	80	4	10	110260	▲		▲
L110.0100.5.8	1	4	7,4	4,2	30	60	2,8	8	110260	▲		▲
L110.0200.5.8	2	4	7,4	4,2	30	60	2,8	8	110260	▲		▲
L110.0250.5.8	2,5	4	7,4	4,2	30	60	2,8	8	110260	▲		▲
L110.0100.7.8	1	4	7,4	4,2	40	70	2,8	8	110260	Δ		▲
L110.0200.7.8	2	4	7,4	4,2	40	70	2,8	8	110260	▲		▲
L110.0250.7.8	2,5	4	7,4	4,2	40	70	2,8	8	110260	Δ		▲
L110.0100.5.0	1	6	9,4	5	30	60	4	10	110260	▲		▲
L110.0200.5.0	2	6	9,4	5	30	60	4	10	110260	▲		▲
L110.0300.5.0	3	6	9,4	5	30	60	4	10	110260	▲		▲
L110.0100.9.0	1	6	9,4	5	50	80	4	10	110260	Δ		Δ
L110.0200.9.0	2	6	9,4	5	50	80	4	10	110260	Δ		▲
L110.0300.9.0	3	6	9,4	5	50	80	4	10	110260	Δ		Δ
P	●	●	●									
M	●	●	●									
K	○	●	●									
N	-	●	●									
S	-	●	●									
H	-	-	-									



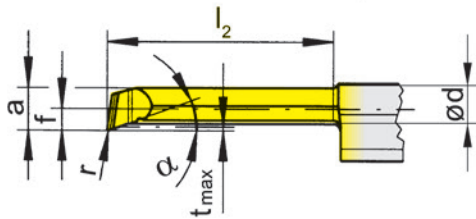
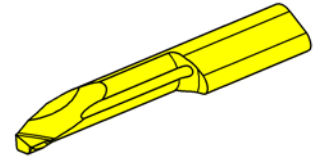
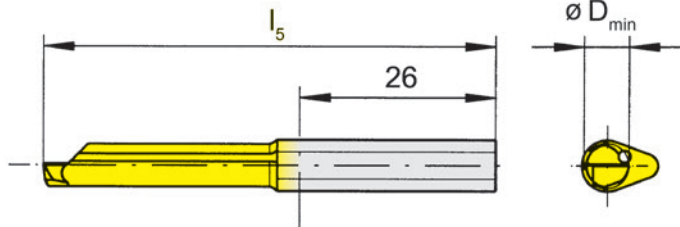
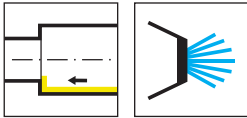
R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	HIS		EG35	TN35
R110.0200.02.3.8	2	0,2	4	7,4	4,2	20	50	2,8	8	110260		▲	▲
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-

C

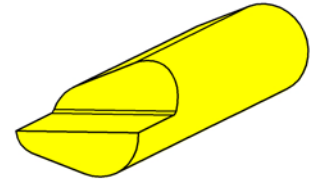
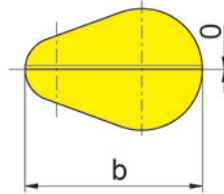
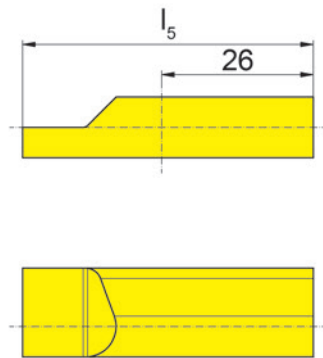
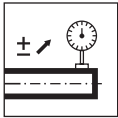


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	r	f	a	d	l ₂	l ₅	t _{max}	D _{min}	α	HIS		EG35	TI25
R110.1829.9.H6	0,2	2,9	5,7	4,8	50	80	0,5	6	20°	110260	▲	▲	▲
R110.1829.9.H8	0,2	4	7,4	6	50	80	0,5	8	20°	110260	▲	▲	▲
											P	●	●
											M	●	●
											K	○	●
											N	-	●
											S	-	●
											H	-	-



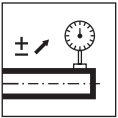
C

R = rechts wie gezeichnet
R = right hand version shown

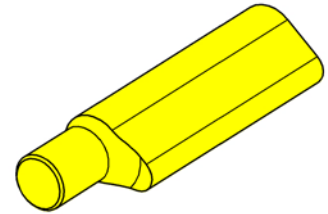
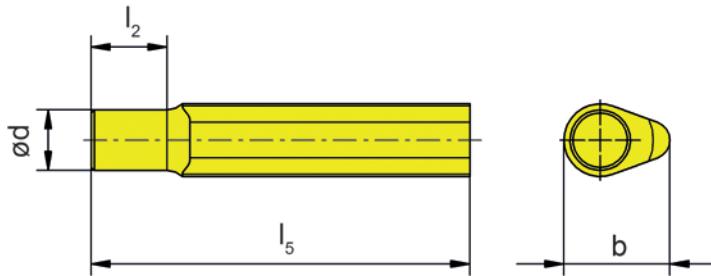
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	b	l_5	HIS
R110.LEHR.H02	10,3	40	110140
L110.LEHR.H02	10,3	40	110140

Platte zum Einrichten des Werkzeugs
Insert for tool set up

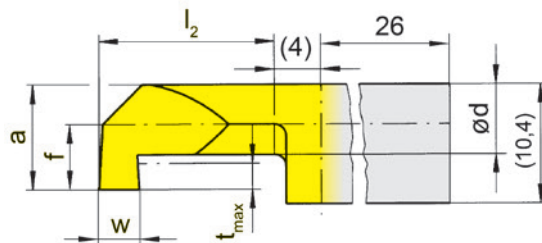
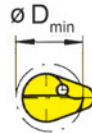
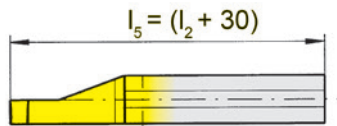
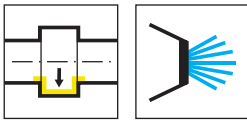


C



Bestellnummer Part number	d	b	l_2	l_5	HIS
110.LEHR.D.01	5	10,3	5	25	110140

Platte zum Einrichten des Werkzeugs
Insert for tool set up

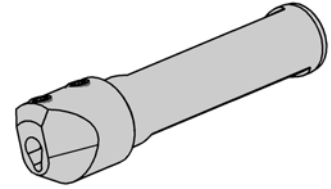
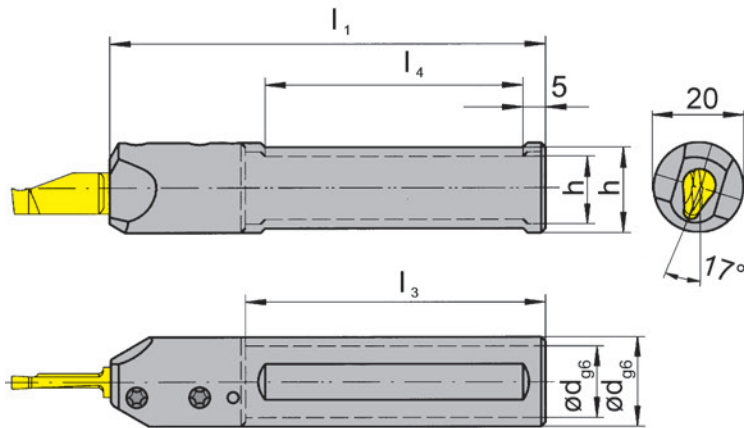
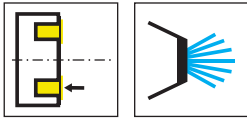


Bestellnummer Part number	f	a	d	t _{max}	D _{min}	w	l ₂	Längencode Code	MG12	TN35	TI25	TH35
110...8	4	7,4	4,2	2,8	8	0,5-3,0	10	1	Auf Anfrage Upon Request			
							15	2				
							20	3				
							25	4				
							30	5				
110...9	5	8,4	4,8	3,5	9		35	6				
110...0	6	9,4	5,2	4,0	10		40	7				

Bestellbeispiel:
Ordering example:

R110.0160.3.9^{+0,05} r 0,2 (HM-Sorte / Carbide grade)

Ausführung / Version
 Typ / type
 Schneidbreite w / width of groove w
 l₂ (Längencode / Code)
 Ø D_{min}
 Toleranz w / Tolerance w
 Eckenradius / Corner radius



R = rechts wie gezeichnet
R = right hand version shown

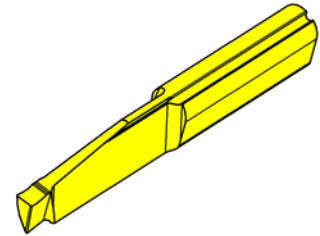
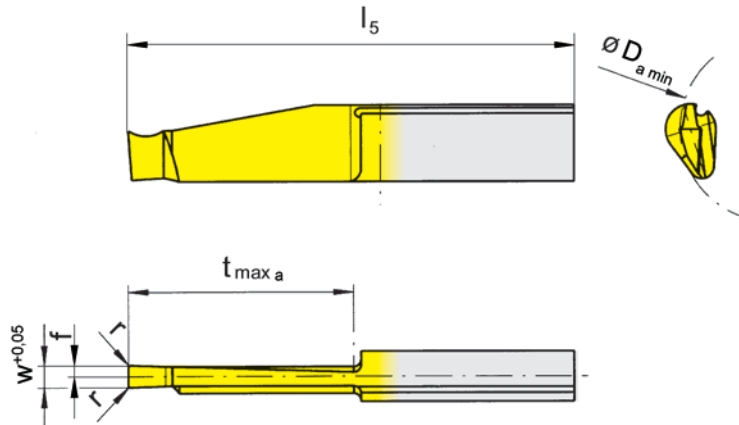
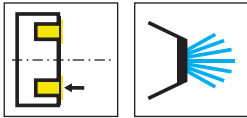
L = links spiegelbildlich
L = left hand version

Bestellnummer Part number	d	l_1	l_3	h	l_4	HWS
RB110.0016.16.2	16	100	70	14	55	110260
RB110.0020.16.2	20	100	-	18	55	110260
LB110.0016.16.2	16	100	70	14	55	110260
LB110.0020.16.2	20	100	-	18	55	110260

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB110...	6.075T15P	T15PQ



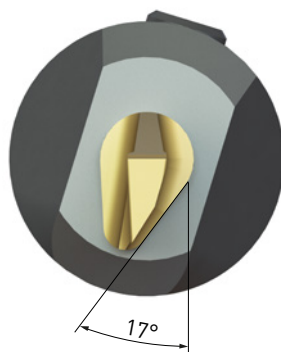
L = links wie gezeichnet
L = left hand version shown

R = rechts spiegelbildlich
R = right hand version

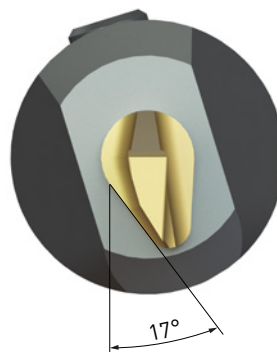
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

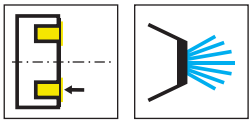
Bestellnummer Part number	w	r	f	l ₅	t _{max a}	D _{a min}	HIS		EG35	TH35	TI25	TN35
RA110.2030.3.0	3	0,2	1,5	50	20	20	110260		▲	▲	▲	▲
RA110.2030.5.0	3	0,2	1,5	60	30	20	110260		▲	▲	▲	▲
RA110.5030.3.0	3	0,2	1,5	50	20	50	110260		▲		▲	
RA110.5030.5.0	3	0,2	1,5	60	30	50	110260		▲		▲	
LA110.2030.3.0	3	0,2	1,5	50	20	20	110260		▲	▲	▲	▲
LA110.2030.5.0	3	0,2	1,5	60	30	20	110260		▲	▲	▲	▲
LA110.5030.3.0	3	0,2	1,5	50	20	50	110260		▲		▲	
LA110.5030.5.0	3	0,2	1,5	60	30	50	110260		▲		▲	
								P	•	•	•	•
								M	•	•	•	•
								K	•	•	•	•
								N	-	•	•	•
								S	-	•	•	•
								H	-	-	-	-



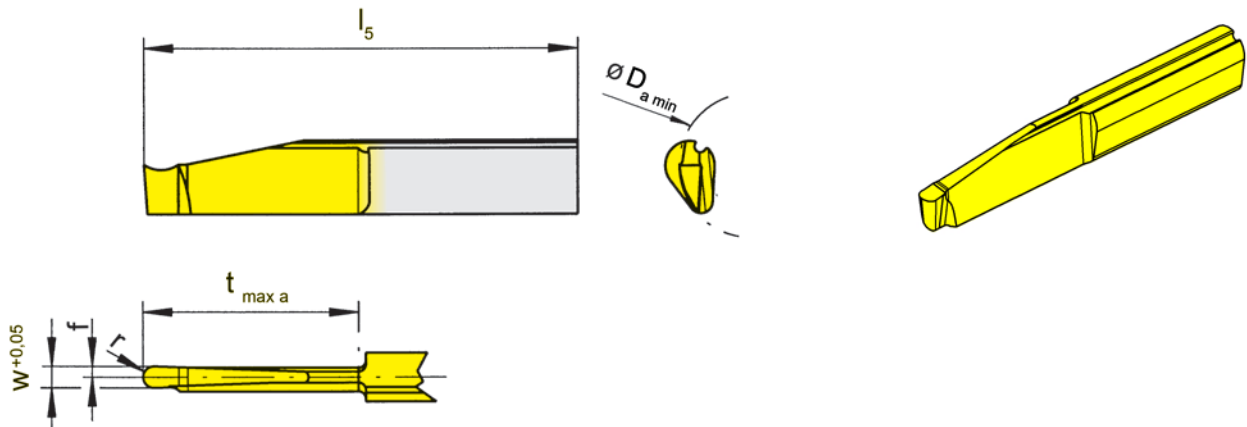
RA110 → RB110



LA110 → LB110



C

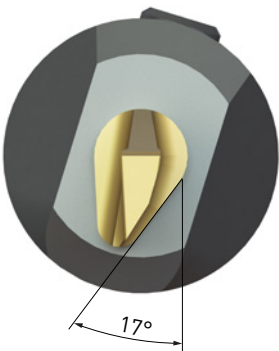


L = links wie gezeichnet
L = left hand version shown

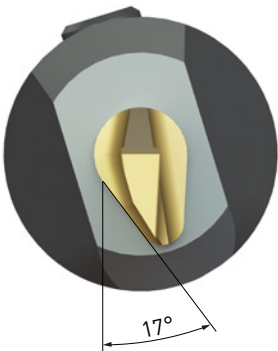
R = rechts spiegelbildlich
R = right hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	r	f	l ₅	t _{max a}	D _{a min}	HIS	EG35	TN35
RA110.2030.15.5.0	3	1,5	1,5	60	30	20	110260	▲	▲
LA110.2030.15.5.0	3	1,5	1,5	60	30	20	110260	▲	▲
P	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●
N	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-

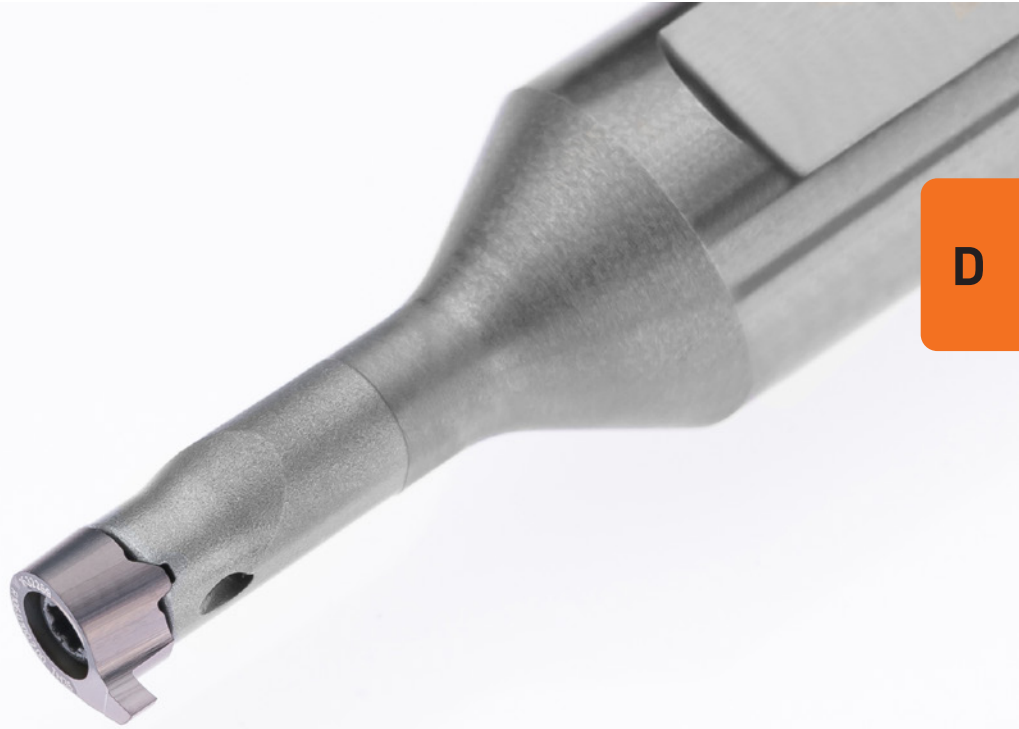


RA110 → RB110



LA110 → LB110

106

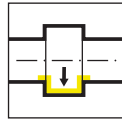


D

**Klemmhalter und
Schneidplatten**

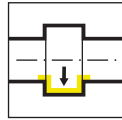
**Toolholder and
Inserts**

Klemmhalter
Toolholder
B106

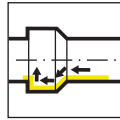


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200

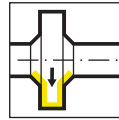
Schneidplatte
Insert
106



Seite/Page
201

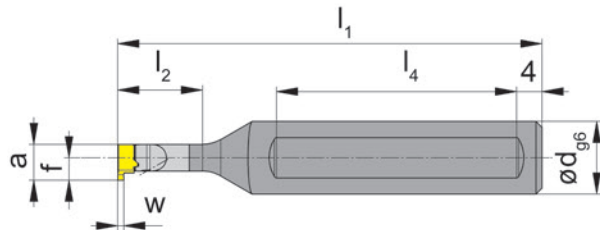
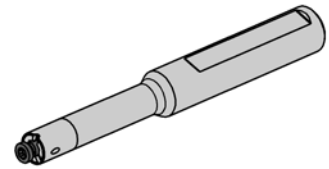
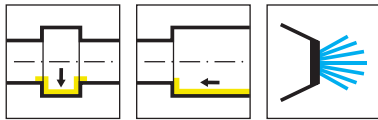


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203

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

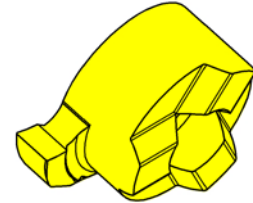
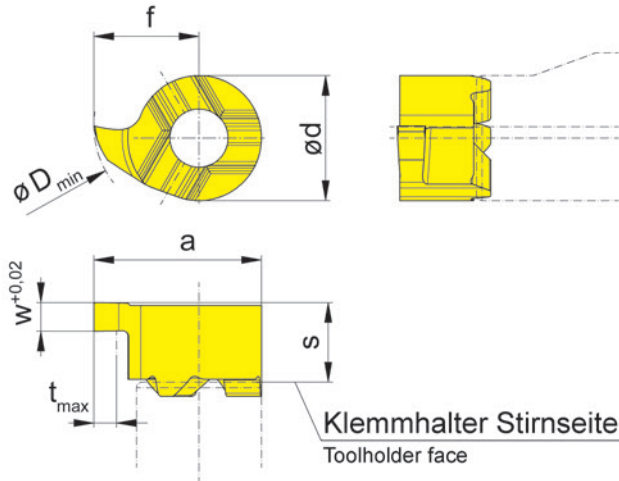
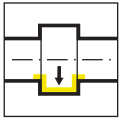
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	HWS
RB106.0012.01	12	70	14	11	40	106044R
RB106.0012.02	12	80	20	11	40	106044R
RB106.0012.03	12	90	26	11	45	106044R
LB106.0012.01	12	70	14	11	40	106044L
LB106.0012.02	12	80	20	11	40	106044L
LB106.0012.03	12	90	26	11	45	106044L

w, a, t_{max} und f siehe Schneidplatten
w, a, t_{max} and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB106...	1.8.4T6EP	T6PL



D

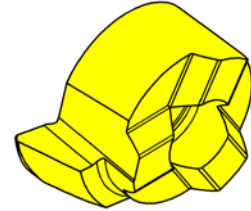
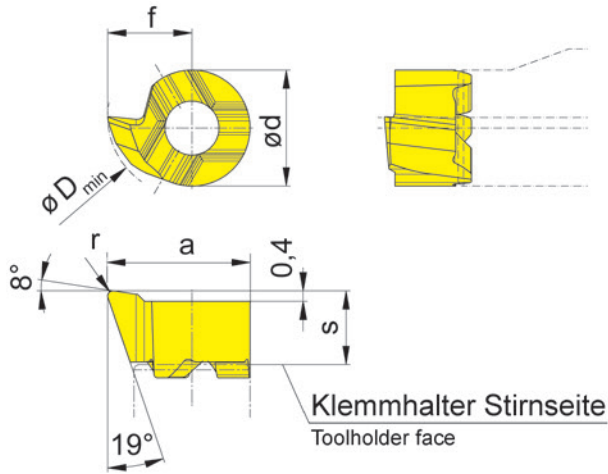
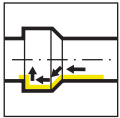
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	D _{min}	HIS	EG55	TH35
R106.0070.2.00	0,74	2,8	3,7	5,9	4,4	0,8	6,5	106044R	▲	▲
R106.0100.2.00	1	2,8	3,7	5,9	4,4	0,8	6,5	106044R	Δ	▲
R106.0150.2.00	1,5	2,8	3,7	5,9	4,4	0,8	6,5	106044R	Δ	▲
L106.0070.2.00	0,74	2,8	3,7	5,9	4,4	0,8	6,5	106044L	Δ	
L106.0100.2.00	1	2,8	3,7	5,9	4,4	0,8	6,5	106044L	Δ	
L106.0150.2.00	1,5	2,8	3,7	5,9	4,4	0,8	6,5	106044L	Δ	Δ
									P	●
									M	○
									K	○
									N	-
									S	-
									H	-



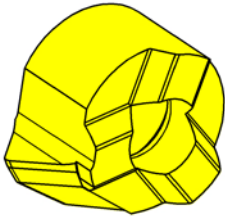
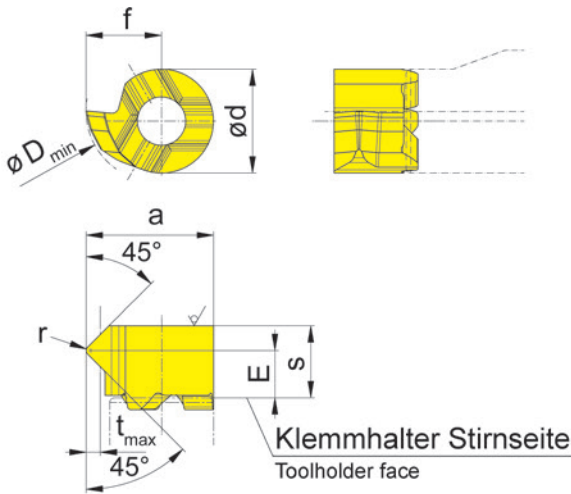
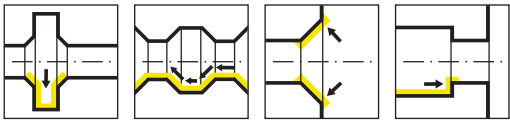
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35
R106.1831.1.005	2,8	3,2	5,4	0,05	4,4	6	106044R	▲	▲	▲
R106.1831.1.02	2,8	3,2	5,4	0,2	4,4	6	106044R	▲	▲	▲
R106.1831.1.04	2,8	3,2	5,4	0,4	4,4	6	106044R	▲	▲	▲
L106.1831.1.005	2,8	3,2	5,4	0,05	4,4	6	106044L	Δ	Δ	Δ
L106.1831.1.02	2,8	3,2	5,4	0,2	4,4	6	106044L	Δ	Δ	Δ
L106.1831.1.04	2,8	3,2	5,4	0,4	4,4	6	106044L	Δ	Δ	Δ
								P	●	●
								M	○	○
								K	○	○
								N	-	●
								S	-	●
								H	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

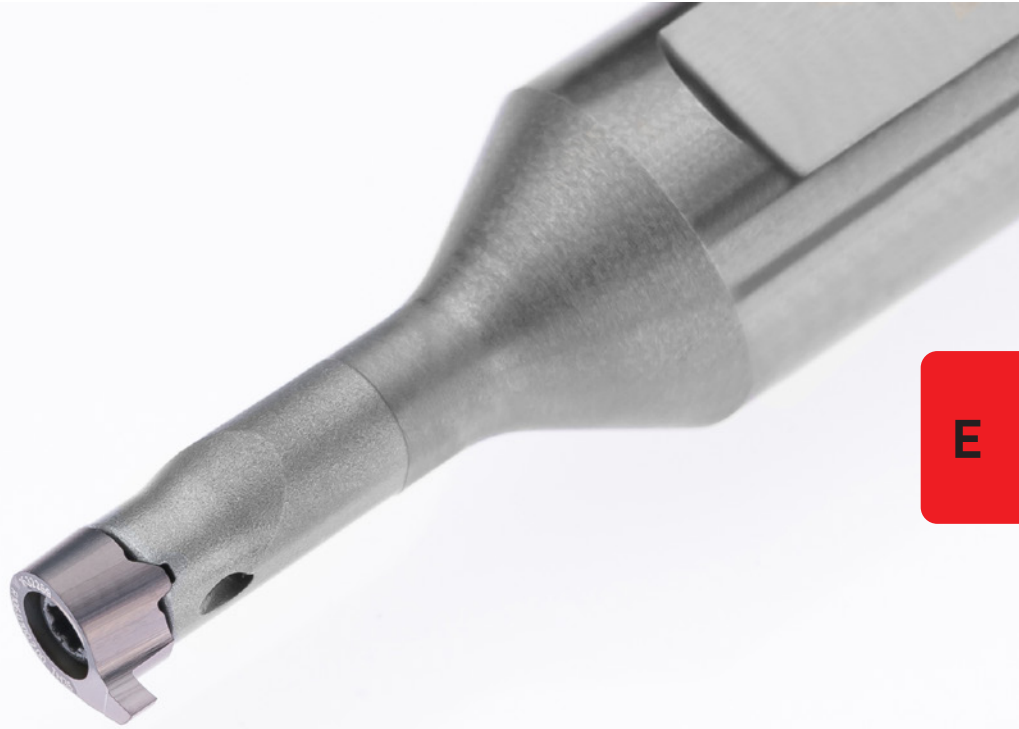
Bestellnummer Part number	E	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
R106.4545.1.02	2	3,05	3,2	5,4	0,2	4,4	0,6	6	106044R	▲	▲
L106.4545.1.02	2	3,05	3,2	5,4	0,2	4,4	0,6	6	106044L	Δ	
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



D



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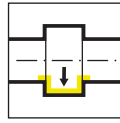


E

**Klemmhalter und
Schneidplatten**

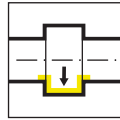
**Toolholder and
Inserts**

Klemmhalter
Toolholder
B107

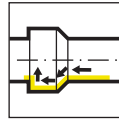


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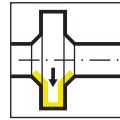
Schneidplatte
Insert
107



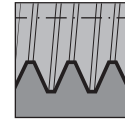
Seite/Page
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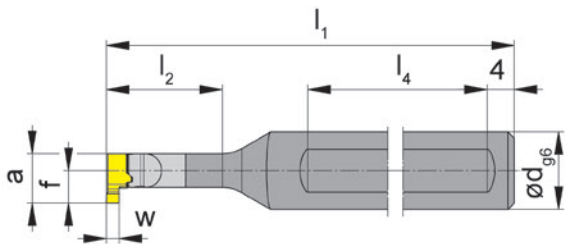
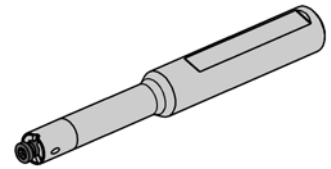
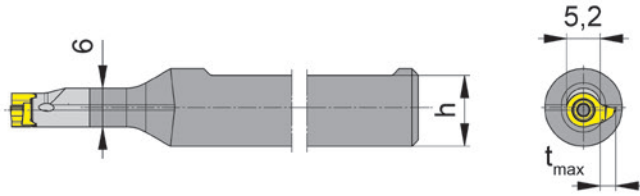
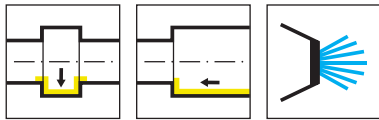


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Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

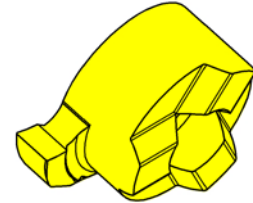
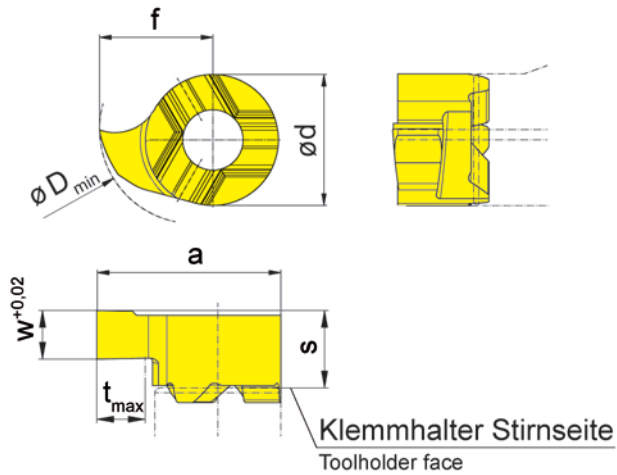
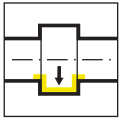
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	HWS
RB107.0012.01	12	80	18	11	45	107052R
RB107.0012.02	12	90	26	11	45	107052R
RB107.0012.03	12	100	36	11	45	107052R
LB107.0012.01	12	80	18	11	45	107052L
LB107.0012.02	12	90	26	11	45	107052L
LB107.0012.03	12	100	36	11	45	107052L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB107...	2.2.5T7EP	T7PL



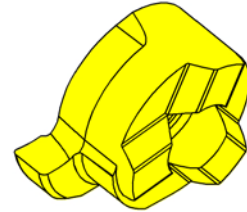
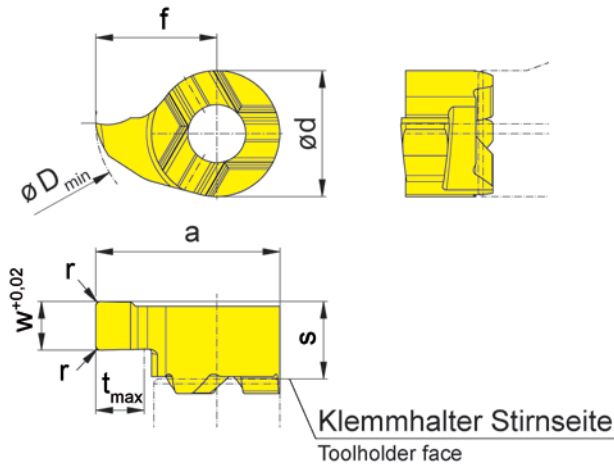
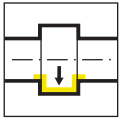
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	D _{min}	HIS	EG55	TH35
R107.0100.1.00	1	3,3	4	6,6	5,2	1	7	107052R	▲	▲
R107.0150.1.00	1,5	3,3	4	6,6	5,2	1	7	107052R	▲	▲
L107.0100.1.00	1	3,3	4	6,6	5,2	1	7	107052L	Δ	Δ
L107.0150.1.00	1,5	3,3	4	6,6	5,2	1	7	107052L	Δ	▲
									P	●
									M	○
									K	○
									N	-
									S	-
									H	-



E

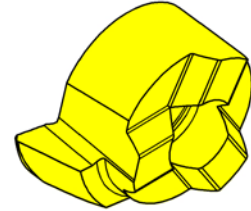
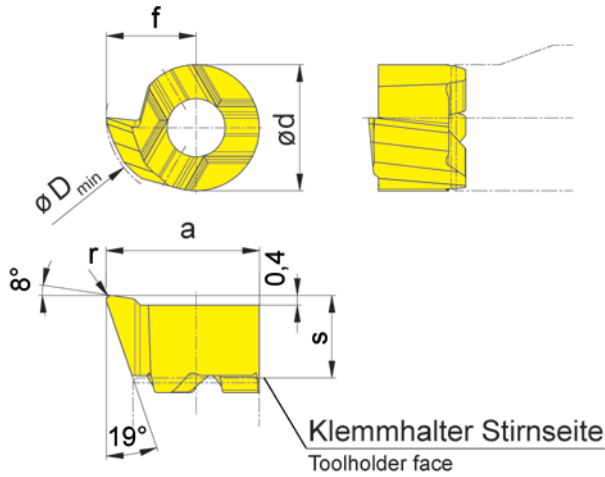
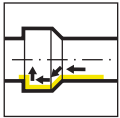
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
R107.0100.2.00	1	3,3	5	7,6	-	5,2	2	8	107052R	▲	▲
R107.0150.2.01	1,5	3,3	5	7,6	0,1	5,2	2	8	107052R	▲	▲
R107.0200.2.02	2	3,3	5	7,6	0,2	5,2	2	8	107052R	▲	▲
L107.0100.2.00	1	3,3	5	7,6	-	5,2	2	8	107052L	Δ	Δ
L107.0150.2.01	1,5	3,3	5	7,6	0,1	5,2	2	8	107052L	Δ	▲
L107.0200.2.02	2	3,3	5	7,6	0,2	5,2	2	8	107052L	Δ	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



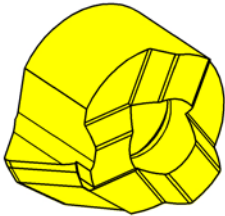
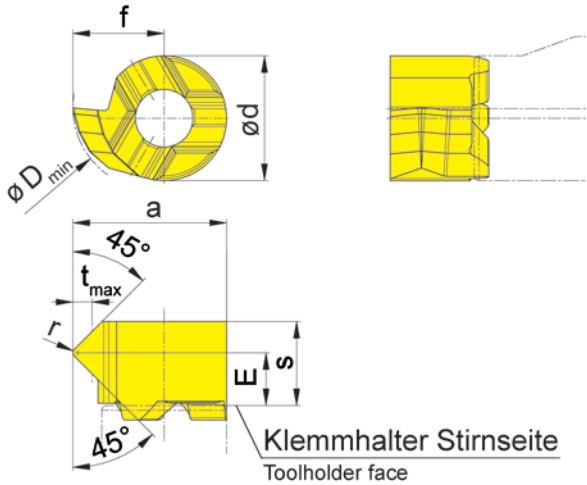
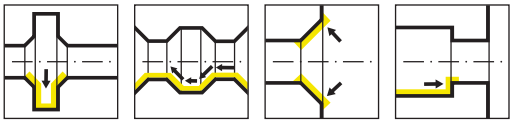
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35
R107.1837.02	3,3	3,7	6,3	0,2	5,2	6,8	107052R	▲	▲
R107.1837.04	3,3	3,7	6,3	0,4	5,2	6,8	107052R	▲	▲
L107.1837.02	3,3	3,7	6,3	0,2	5,2	6,8	107052L	▲	▲
L107.1837.04	3,3	3,7	6,3	0,4	5,2	6,8	107052L	▲	▲
								P	•
								M	o
								K	o
								N	-
								S	-
								H	-



E

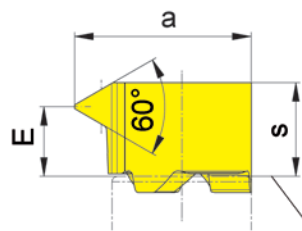
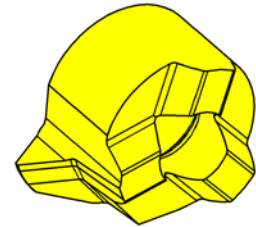
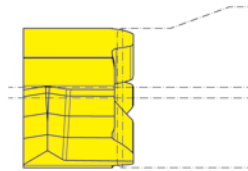
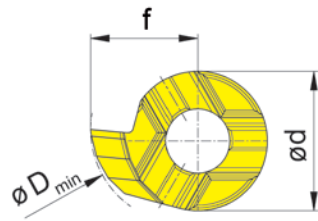
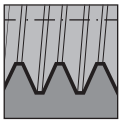
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
R107.4545.1.02	2,2	3,5	3,8	6,4	0,2	5,2	0,8	6,8	107052R	▲	▲	▲
L107.4545.1.02	2,2	3,5	3,8	6,4	0,2	5,2	0,8	6,8	107052L	Δ	Δ	Δ
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



Klemmhalter Stirnseite
Toolholder face

R = rechts wie gezeichnet
R = right hand version shown

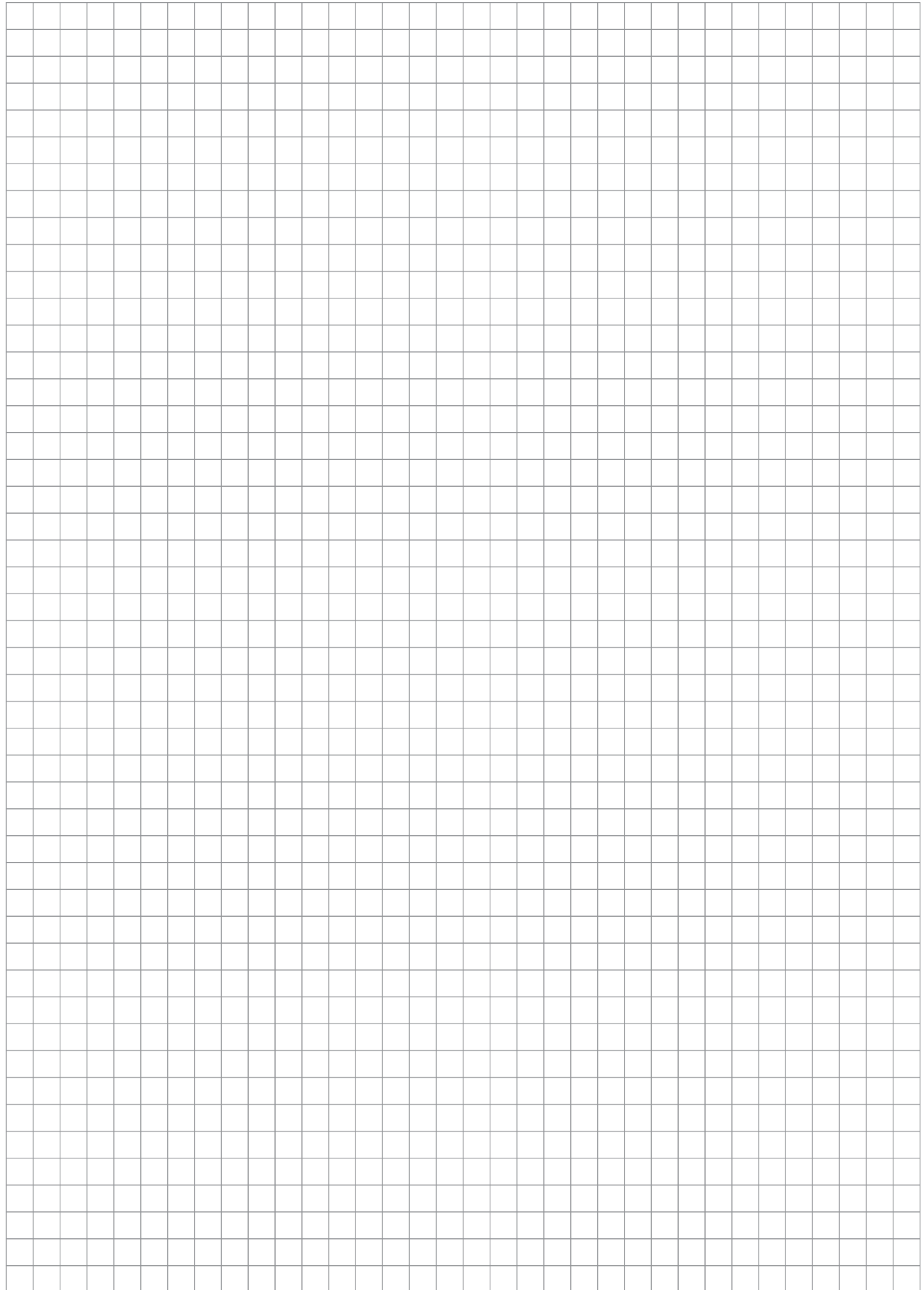
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55	TH35
R107.0205.1.01	0,5	0,75	3	4	6,6	5,2	3,5	7	107052R	Δ	▲
R107.0510.1.01	1	1,25	2,8	4	6,6	5,2	3,5	7	107052R	▲	▲
R107.0815.1.01	1,5	1,75	2,6	4	6,6	5,2	3,5	7	107052R	▲	▲
L107.0205.1.01	0,5	0,75	3	4	6,6	5,2	3,5	7	107052L	Δ	Δ
L107.0510.1.01	1	1,25	2,8	4	6,6	5,2	3,5	7	107052L	Δ	▲
L107.0815.1.01	1,5	1,75	2,6	4	6,6	5,2	3,5	7	107052L	Δ	Δ
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-

E



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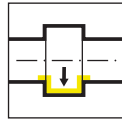


F

**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

Klemmhalter
Toolholder
B108

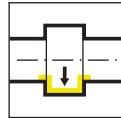


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Schneidplatte
Insert
108/S108



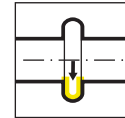
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219-220



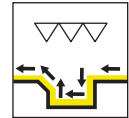
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Seite/Page
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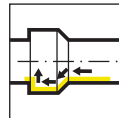
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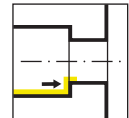
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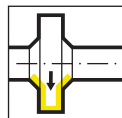
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227, 230-231



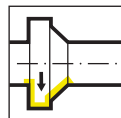
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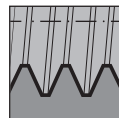
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234-238

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

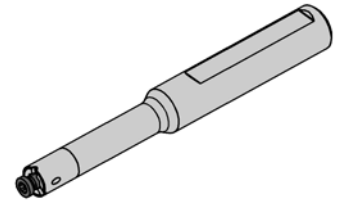
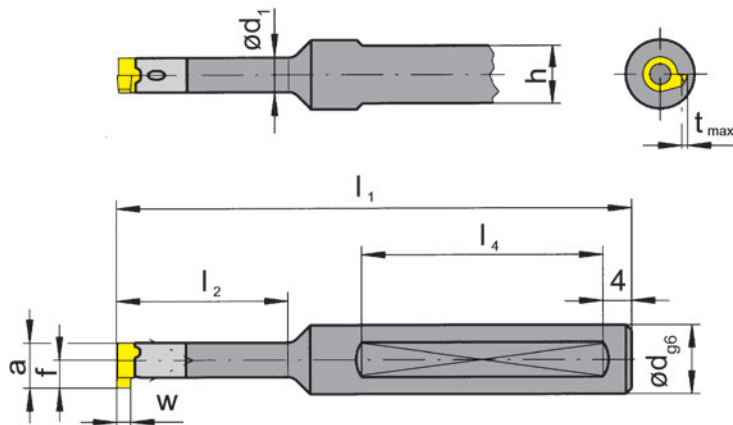
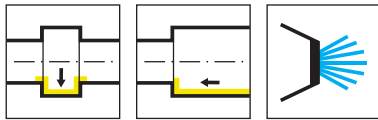


Abbildung = rechtsschneidend
Picture = right hand cutting version

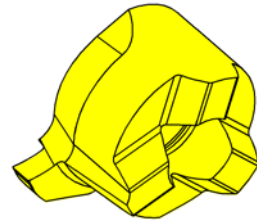
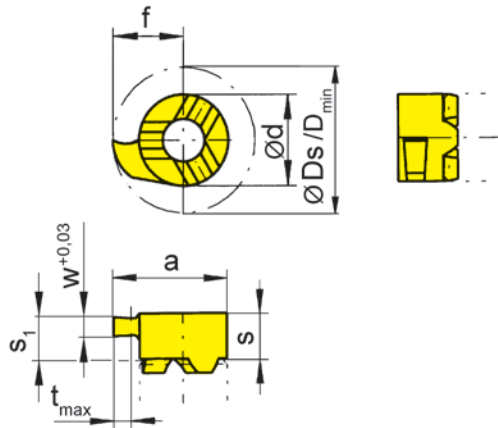
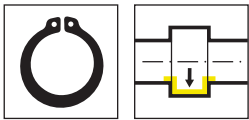
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	d ₁	HWS
B108.0006.01A	6	65	-	-	-	-	108060R • 108060L
B108.0008.00	8	60	12,5	7	35	6	108060R • 108060L
B108.0008.01	8	70	21	7	40	6	108060R • 108060L
B108.0012.00	12	70	12,5	11	40	6	108060R • 108060L
B108.0012.01	12	80	21	11	45	6	108060R • 108060L
B108.0012.02	12	90	30	11	45	6	108060R • 108060L
B108.0012.03	12	100	42	11	45	6	108060R • 108060L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B108...	2.6.5T8EP	T8PL



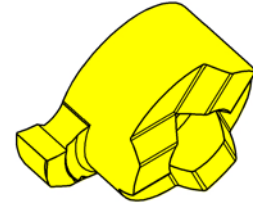
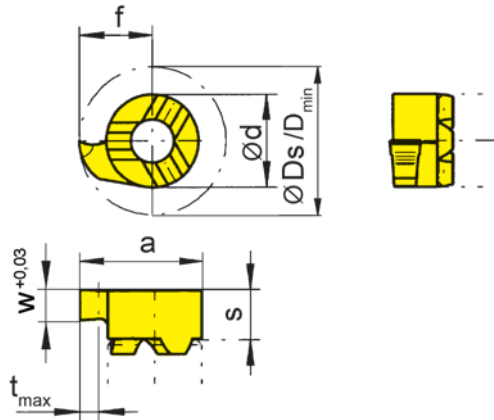
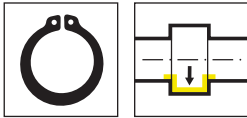
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	f	Ds	d	s	s ₁	a	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R108.0070.00	0,74	0,7	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060R	▲	▲	▲
R108.0080.00	0,84	0,8	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060R	▲	▲	▲
R108.0090.00	0,94	0,9	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060R	▲	▲	▲
L108.0070.00	0,74	0,7	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060L	Δ	▲	▲
L108.0080.00	0,84	0,8	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060L	Δ	Δ	▲
L108.0090.00	0,94	0,9	4,8	9,6	6	3,6	3,2	7,8	1	8	1	108060L	Δ	▲	▲
Zapfenausführung not face cutting, limited depth of cut													P	●	●
Abmessungen für Seegerringnuten DIN 471/472 Widths for circlip grooves DIN 471/472													M	○	●
													K	○	●
													N	-	●
													S	-	●
													H	-	-



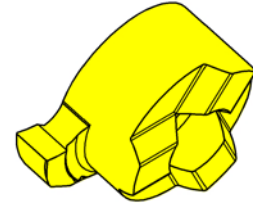
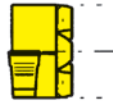
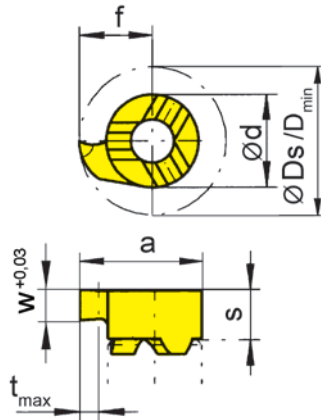
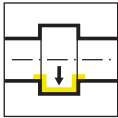
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	Ds	a	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R108.0110.00	1,19	1,1	3,2	4,8	9,6	7,8	6	1	8	1	108060R	▲	▲	▲
R108.0160.00	1,69	1,6	3,2	4,8	9,6	7,8	6	1	8	1	108060R	Δ	▲	▲
R108.0130.00	1,39	1,3	3,2	4,8	9,6	7,8	6	1	8	1	108060R	▲	▲	▲
L108.0110.00	1,19	1,1	3,2	4,8	9,6	7,8	6	1	8	1	108060L	Δ	▲	▲
L108.0160.00	1,69	1,6	3,2	4,8	9,6	7,8	6	1	8	1	108060L	▲	Δ	▲
L108.0130.00	1,39	1,3	3,2	4,8	9,6	7,8	6	1	8	1	108060L		Δ	▲
Abmessungen für Seegerringnuten DIN 471/472 Widths for circlip grooves DIN 471/472												P	●	●
												M	○	●
												K	○	●
												N	-	●
												S	-	●
												H	-	-



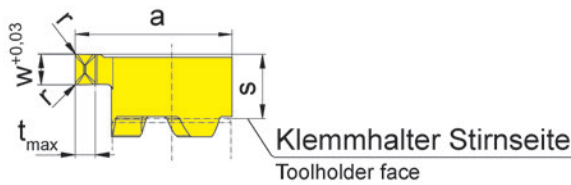
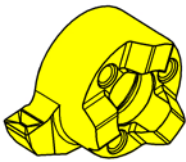
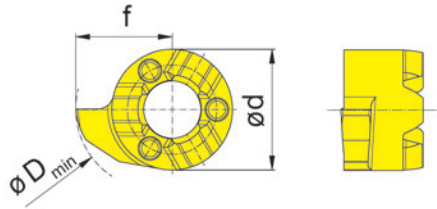
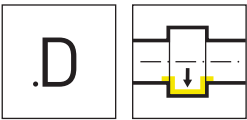
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	Ds	a	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R108.0150.00	1,5	3,2	4,8	9,6	7,8	6	1	8	1	108060R	▲	▲	▲
R108.0200.00	2	3,2	4,8	9,6	7,8	6	1	8	1	108060R	▲	▲	▲
L108.0150.00	1,5	3,2	4,8	9,6	7,8	6	1	8	1	108060L		Δ	▲
L108.0200.00	2	3,2	4,8	9,6	7,8	6	1	8	1	108060L		▲	▲
											P	•	•
											M	o	•
											K	o	•
											N	-	•
											S	-	•
											H	-	-



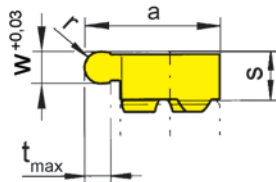
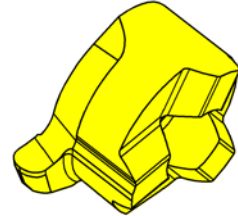
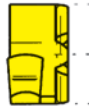
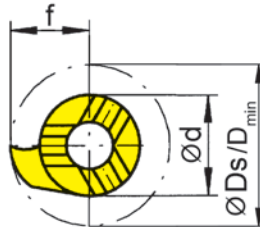
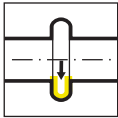
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
RS108.0100.D1	1	3,2	4,8	7,8	0,1	6	1	8	108060R	▲	▲	▲
RS108.0150.D1	1,5	3,2	4,8	7,8	0,1	6	1	8	108060R	▲	▲	▲
RS108.0200.D2	2	3,2	4,8	7,8	0,2	6	1	8	108060R	▲	▲	▲
LS108.0100.D1	1	3,2	4,8	7,8	0,1	6	1	8	108060L	Δ	Δ	Δ
LS108.0150.D1	1,5	3,2	4,8	7,8	0,1	6	1	8	108060L	Δ	Δ	Δ
LS108.0200.D2	2	3,2	4,8	7,8	0,2	6	1	8	108060L	Δ	Δ	Δ
										P	●	●
										M	○	○
										K	○	○
										N	-	●
										S	-	●
										H	-	-



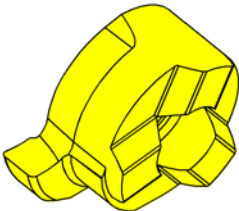
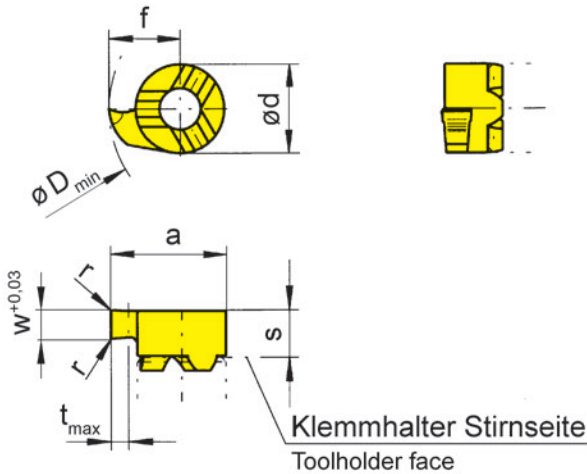
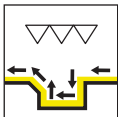
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	Ds	a	r	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R108.0004.08	0,8	3,2	4,8	9,6	7,8	0,4	6	1	8	1	108060R	▲	▲	▲
R108.0006.12	1,2	3,2	4,8	9,6	7,8	0,6	6	1	8	1	108060R	▲	▲	▲
R108.0009.18	1,8	3,2	4,8	9,6	7,8	0,9	6	1	8	1	108060R	▲	▲	▲
L108.0004.08	0,8	3,2	4,8	9,6	7,8	0,4	6	1	8	1	108060L	▲	▲	▲
L108.0006.12	1,2	3,2	4,8	9,6	7,8	0,6	6	1	8	1	108060L	▲	▲	▲
L108.0009.18	1,8	3,2	4,8	9,6	7,8	0,9	6	1	8	1	108060L	▲	▲	▲
												P	•	•
												M	•	•
												K	•	•
												N	-	•
												S	-	•
												H	-	-



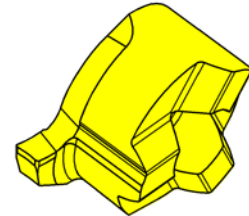
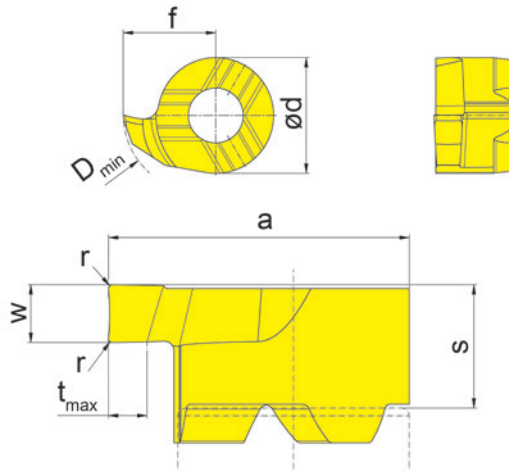
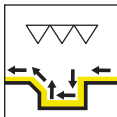
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35	TI25	TN35
R108.0150.02	1,5	3,2	4,8	7,8	0,2	6	1	8	108060R		▲	▲	▲	▲
L108.0150.02	1,5	3,2	4,8	7,8	0,2	6	1	8	108060L		▲	▲	Δ	▲
P	•	•	•	•	•	•	•	•			•	•	•	•
M	o	•	•	•	•	•	•	•			•	•	•	•
K	o	•	•	•	•	•	•	•			•	•	•	•
N	-	•	•	•	•	•	•	•			•	•	•	•
S	-	•	•	•	•	•	•	•			•	•	•	•
H	-	-	-	-	-	-	-	-			-	-	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG35
R108.FB10.01	1	3,2	4,8	7,8	0,1	6	1	8	108060R	▲
R108.FB15.01	1,5	3,2	4,8	7,8	0,1	6	1	8	108060R	▲
L108.FB10.01	1	3,2	4,8	7,8	0,1	6	1	8	108060L	▲
L108.FB15.01	1,5	3,2	4,8	7,8	0,1	6	1	8	108060L	▲
										P ●
										M ●
										K ○
										N -
										S -
										H -

Berechnung der kleinstmöglichen Nutbreite w_x
Calculation of the smallest possible width of groove w_x

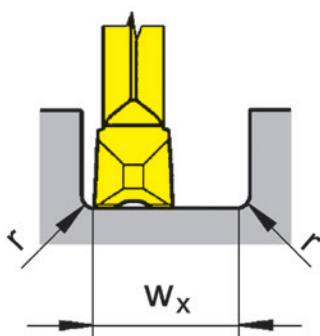
Beispiel R108.FB10.01
Example

$w_x = 2 \times \text{Schneidbreite } w - 2 \times \text{Eckenradius Schneidplatte } r$

$w_x = 2 \times \text{Width of insert } w - 2 \times \text{Corner radius insert } r$

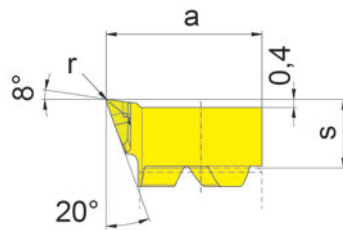
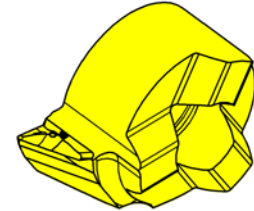
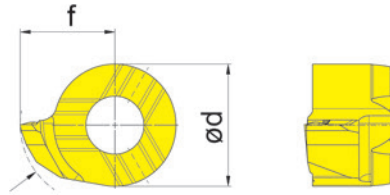
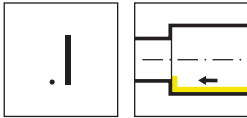
$w_x = 2 \times 1 \text{ mm} - 2 \times 0,1 \text{ mm}$

$w_x = 1,8 \text{ mm}$



Bearbeitungsablauf
Processing flow



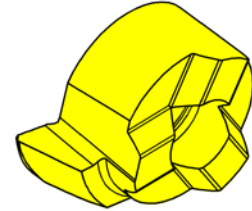
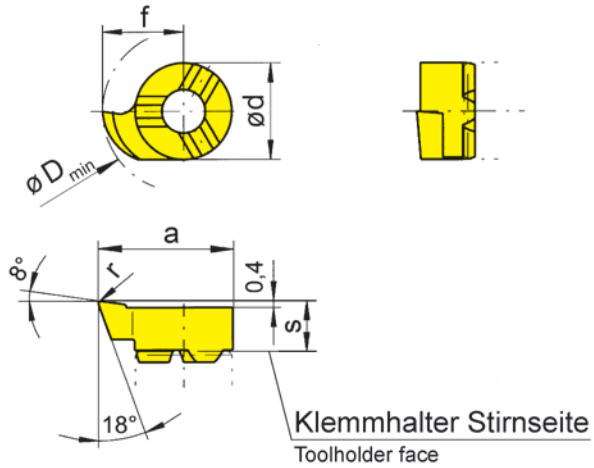
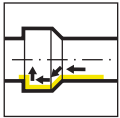


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG35	EG55	IG35
RS108.0820.105	3,37	4,65	7,65	0,05	6	7,8	108060R	▲		▲
RS108.0820.110	3,38	4,65	7,65	0,1	6	7,8	108060R	▲		▲
RS108.0820.120	3,4	4,65	7,65	0,2	6	7,8	108060R		▲	▲
P	●	●	-							
M	●	○	●							
K	○	○	-							
N	-	-	-							
S	-	-	●							
H	-	-	-							



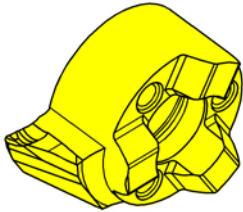
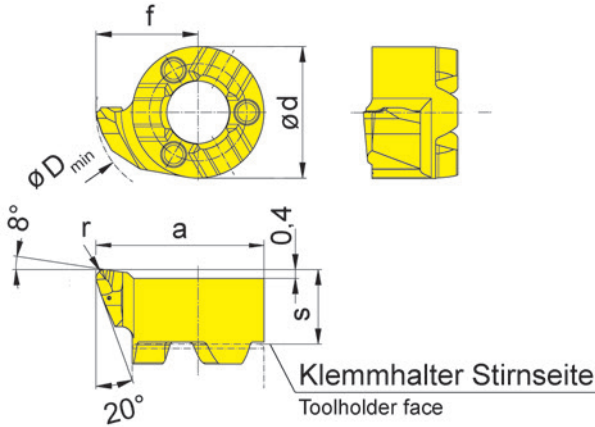
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35	TI25	TN35
R108.1846.02	3,4	4,65	7,65	0,2	6	7,8	108060R	▲	▲	▲	▲	▲
L108.1846.02	3,4	4,65	7,65	0,2	6	7,8	108060L	▲	▲	▲	▲	▲
								P	•	•	•	•
								M	•	•	•	•
								K	•	•	•	•
								N	-	•	•	•
								S	-	•	•	•
								H	-	-	-	-



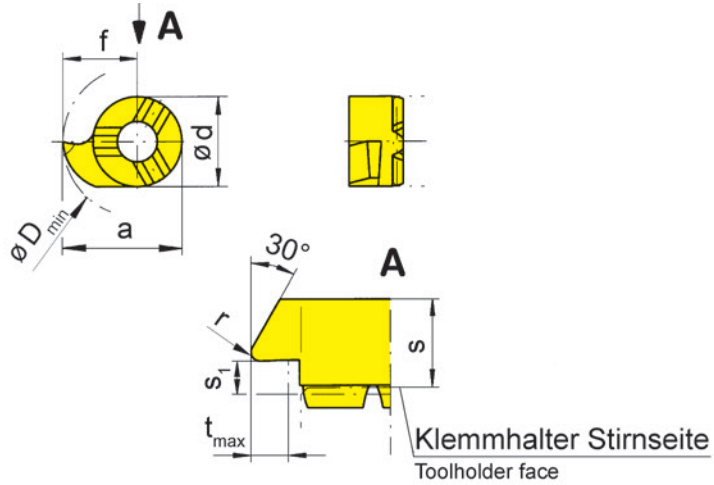
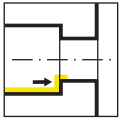
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35
RS108.1846.R2	3,4	4,65	7,65	0,2	6	7,8	108060R	▲	▲
RS108.1846.R4	3,4	4,65	7,65	0,4	6	7,8	108060R	▲	▲
LS108.1846.R2	3,4	4,65	7,65	0,2	6	7,8	108060L	▲	▲
LS108.1846.R4	3,4	4,65	7,65	0,4	6	7,8	108060L	▲	▲
								P	●
								M	○
								K	○
								N	-
								S	-
								H	-



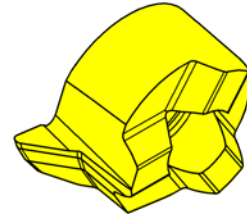
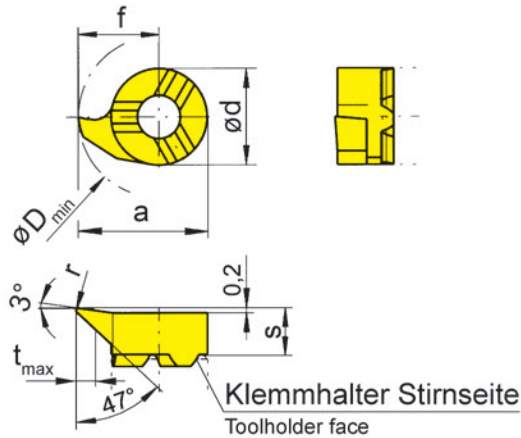
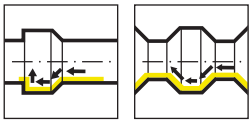
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	s ₁	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R108.3046.02	3,6	4,65	7,65	0,2	0,8	6	1,3	7,8	108060R	▲	▲	▲
L108.3046.02	3,6	4,65	7,65	0,2	0,8	6	1,3	7,8	108060L	Δ	Δ	▲
P	●	●	●	●	●	●	●	●	●	●	●	●
M	○	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-



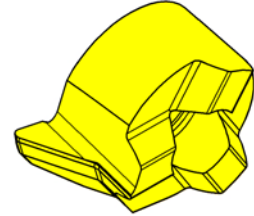
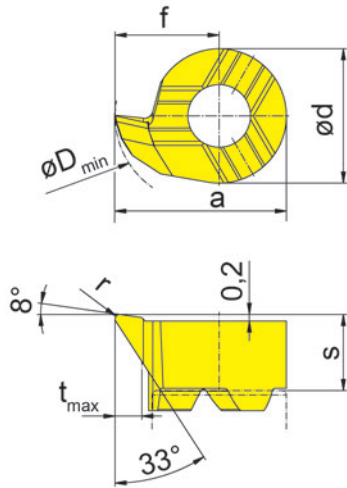
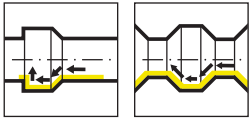
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R108.4748.01	3,2	4,65	7,65	0,1	6	1,2	7,8	108060R	▲	▲	
R108.4748.02	3,2	4,65	7,65	0,2	6	1,2	7,8	108060R	▲	▲	▲
R108.4748.04	3,2	4,65	7,65	0,4	6	1,2	7,8	108060R	▲	▲	
L108.4748.01	3,2	4,65	7,65	0,1	6	1,2	7,8	108060L	▲	▲	
L108.4748.02	3,2	4,65	7,65	0,2	6	1,2	7,8	108060L	▲	▲	▲
L108.4748.04	3,2	4,65	7,65	0,4	6	1,2	7,8	108060L	▲	▲	
P	●	●	●								
M	○	●	●								
K	○	●	●								
N	-	●	●								
S	-	●	●								
H	-	-	-								



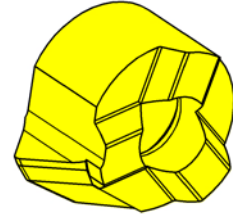
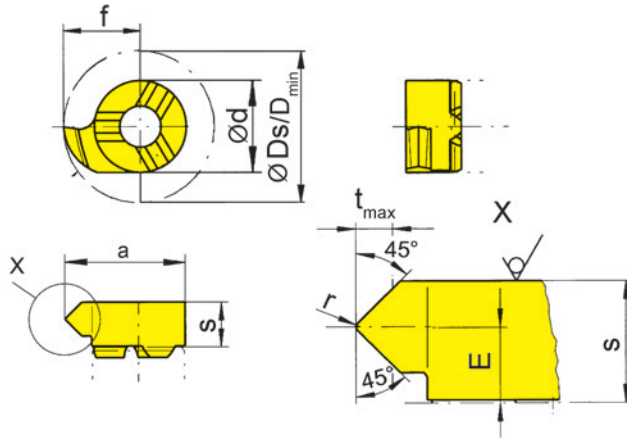
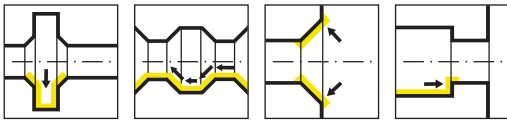
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R108.3348.01	3,4	4,65	7,65	0,1	6	1,2	7,8	108060R	▲
R108.3348.02	3,4	4,65	7,65	0,2	6	1,2	7,8	108060R	▲
R108.3348.04	3,4	4,65	7,65	0,4	6	1,2	7,8	108060R	▲
L108.3348.01	3,4	4,65	7,65	0,1	6	1,2	7,8	108060L	Δ
L108.3348.02	3,4	4,65	7,65	0,2	6	1,2	7,8	108060L	Δ
L108.3348.04	3,4	4,65	7,65	0,4	6	1,2	7,8	108060L	Δ
								P	●
								M	o
								K	o
								N	-
								S	-
								H	-



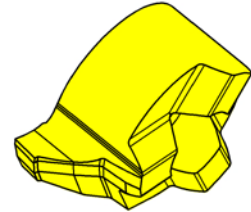
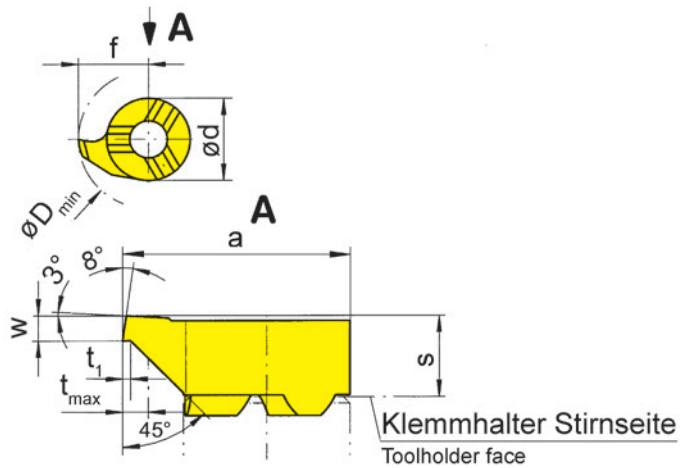
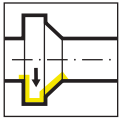
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	f	Ds	r	d	s	a	D _{min}	α	t _{max}	Z	HIS		EG55	TA45	TI25	TN35
R108.4545.02	1,8	4,65	9,3	0,2	6	3,6	7,65	7,8	45°	1,4	1	108060R		▲	▲	▲	▲
L108.4545.02	1,8	4,65	9,3	0,2	6	3,6	7,65	7,8	45°	1,4	1	108060L		▲	Δ	Δ	▲
													P	●	●	●	●
													M	○	●	●	●
													K	○	●	●	●
													N	-	●	●	●
													S	-	●	●	●
													H	-	-	-	-



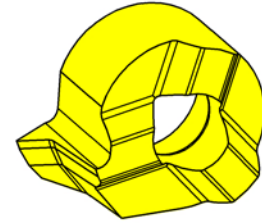
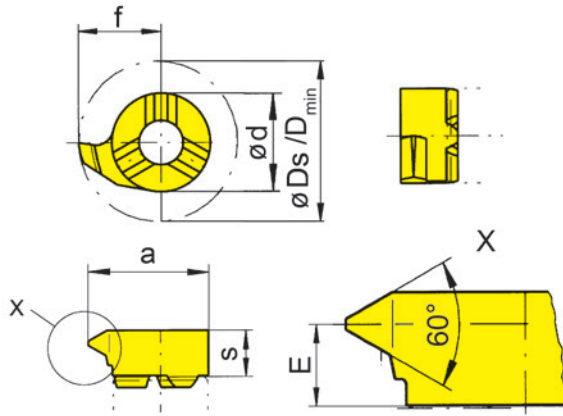
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	t ₁	D _{min}	HIS	EG55	TI25	TN35
R108.0810.45	1	3,2	4,8	7,8	6	1,5	0,2	8	108060R	▲	▲	▲
L108.0810.45	1	3,2	4,8	7,8	6	1,5	0,2	8	108060L	▲	▲	▲
P	●	●	●	●	●	●	●	●	●	●	●	●
M	○	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●
N	-	●	●	●	●	●	●	●	●	●	●	●
S	-	●	●	●	●	●	●	●	●	●	●	●
H	-	-	-	-	-	-	-	-	-	-	-	-



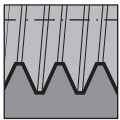
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

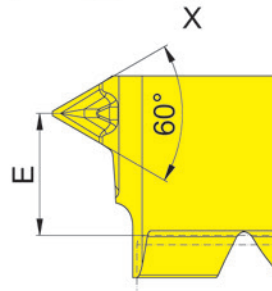
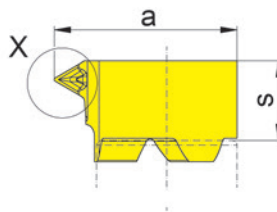
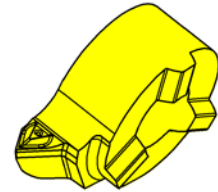
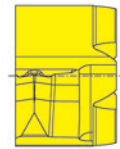
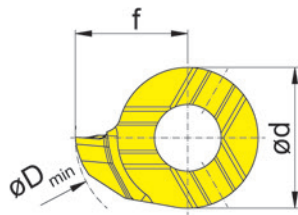
Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	Ds	HIS		EG55	TH35	TI25	TN35
R108.0205.01	0,5	0,75	2,8	4,8	7,8	6	3,6	8	9,6	108060R		▲	▲		▲
R108.0510.01	1	1,25	2,8	4,8	7,8	6	3,6	8	9,6	108060R		▲	▲	▲	▲
R108.0815.01	1,5	1,75	2,6	4,8	7,8	6	3,6	8	9,6	108060R		▲	▲		▲
L108.0205.01	0,5	0,75	2,8	4,8	7,8	6	3,6	8	9,6	108060L		▲	▲		▲
L108.0510.01	1	1,25	2,8	4,8	7,8	6	3,6	8	9,6	108060L		▲	▲	▲	▲
L108.0815.01	1,5	1,75	2,6	4,8	7,8	6	3,6	8	9,6	108060L		▲	▲		▲
											P	●	●	●	●
											M	○	●	●	●
											K	○	●	●	●
											N	-	●	●	●
											S	-	●	●	●
											H	-	-	-	-



.GM



60°



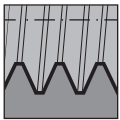
R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55
RS108.0205.GM1	0,5	0,75	2,6	4,8	7,8	6	3,4	8	108060R	▲
RS108.0510.GM1	1	1,25	2,6	4,8	7,8	6	3,4	8	108060R	▲
RS108.0815.GM1	1,5	1,5	2,6	4,8	7,8	6	3,4	8	108060R	▲
LS108.0205.GM1	0,5	0,75	2,6	4,8	7,8	6	3,4	8	108060L	▲
LS108.0510.GM1	1	1,25	2,6	4,8	7,8	6	3,4	8	108060L	▲
LS108.0815.GM1	1,5	1,5	2,6	4,8	7,8	6	3,4	8	108060L	▲
										P ●
										M ○
										K ○
										N -
										S -
										H -

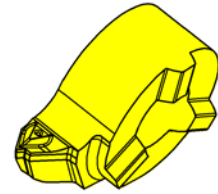
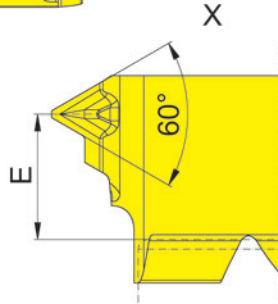
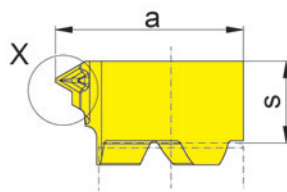
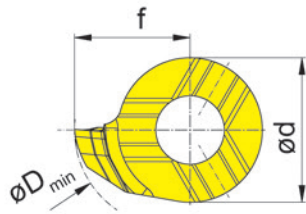
F



.GM2



60°



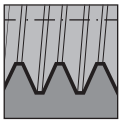
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

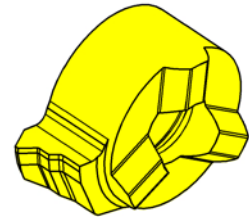
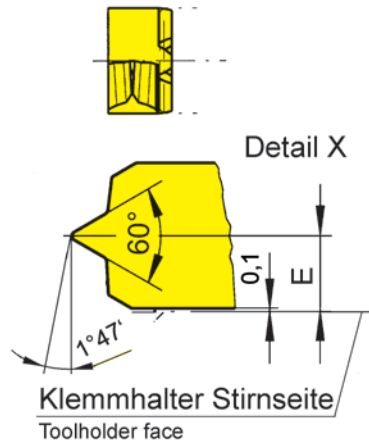
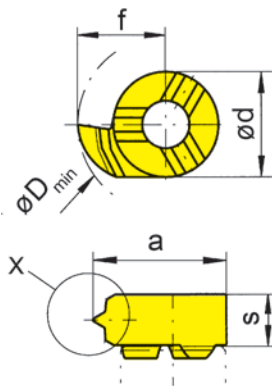
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55
RS108.0305.GM2	0,5	2,6	4,8	7,8	6	3,4	8	108060R	▲
RS108.0510.GM2	1	2,6	4,8	7,8	6	3,4	8	108060R	▲
RS108.0512.GM2	1,25	2,6	4,8	7,8	6	3,4	8	108060R	▲
RS108.0815.GM2	1,5	2,6	4,8	7,8	6	3,4	8	108060R	▲
LS108.0305.GM2	0,5	2,6	4,8	7,8	6	3,4	8	108060L	▲
LS108.0510.GM2	1	2,6	4,8	7,8	6	3,4	8	108060L	▲
LS108.0512.GM2	1,25	2,6	4,8	7,8	6	3,4	8	108060L	▲
LS108.0815.GM2	1,5	2,6	4,8	7,8	6	3,4	8	108060L	▲
	P	•							
	M	o							
	K	o							
	N	-							
	S	-							
	H	-							



NPT
NPTF



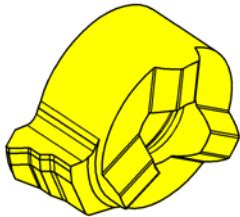
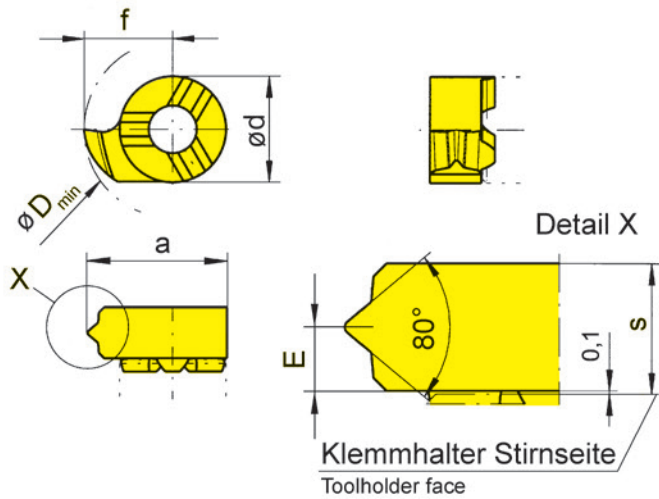
R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	f	d	s	D _{min}	HIS		EG55	TN35
R108.NP14.02	14	1,9	4,8	6	3,6	8	108060R	▲	▲	▲
R108.NP18.02	18	1,9	4,8	6	3,6	8	108060R	▲	▲	▲
R108.NP27.02	27	1,9	4,8	6	3,6	8	108060R	Δ	Δ	Δ
								P	●	●
								M	○	○
								K	○	○
								N	-	●
								S	-	●
								H	-	-

F



R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	f	d	s	D _{min}	HIS	EG55	TN35
R108.PG18.02	18	1,9	4,8	6	3,6	8	108060R	▲	▲
R108.PG20.02	20	1,9	4,8	6	3,6	8	108060R	▲	▲
P	●	●							
M	○	●							
K	○	●							
N	-	●							
S	-	●							
H	-	-							

10P

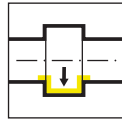


G

**Klemmhalter und
Schneidplatten**

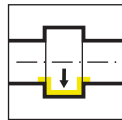
**Toolholder and
Inserts**

Klemmhalter
Toolholder
B10P



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242-243

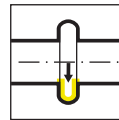
Schneidplatte
Insert
10P/S10P



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244, 246



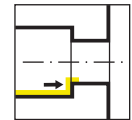
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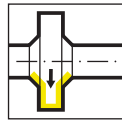
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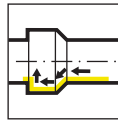
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Seite/Page
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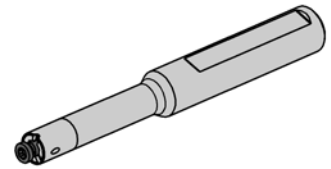
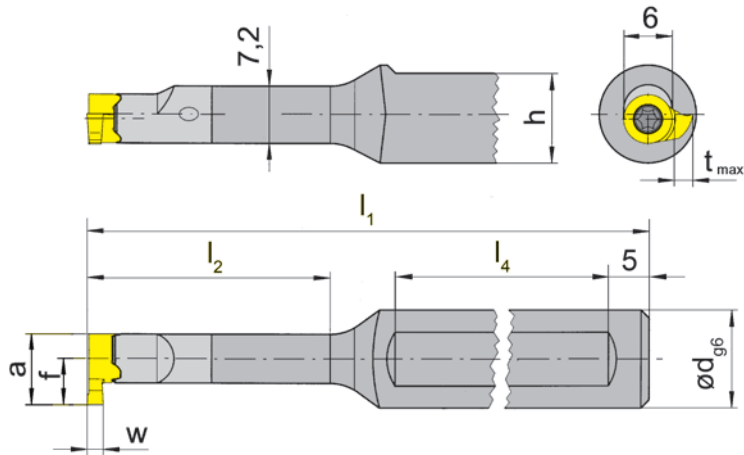
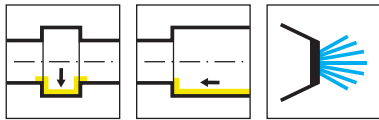


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Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											



R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

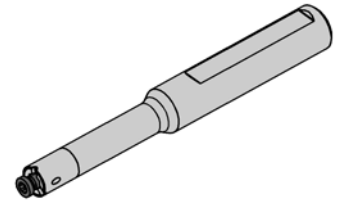
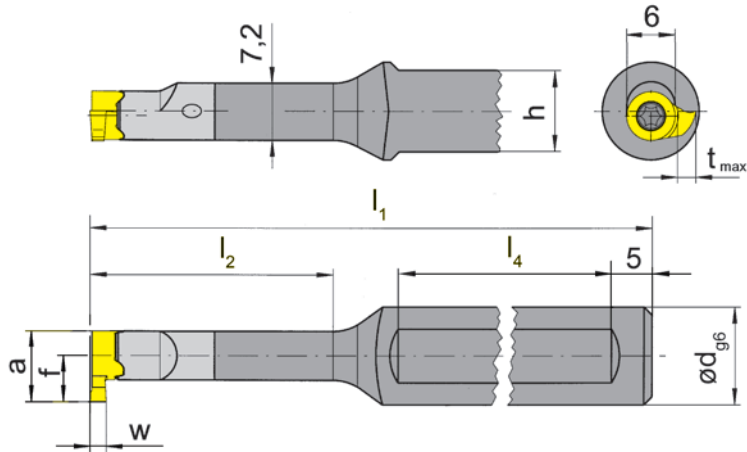
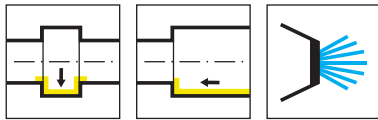
Bestellnummer Part number	d	l_1	l_2	h	l_4	HWS
RB10P.0012.00	12	70	12,5	11	40	10P060R
RB10P.0012.01	12	80	21	11	45	10P060R
RB10P.0012.02	12	90	30	11	45	10P060R
RB10P.0012.03	12	100	42	11	45	10P060R
LB10P.0012.00	12	70	12,5	11	40	10P060L
LB10P.0012.01	12	80	21	11	45	10P060L
LB10P.0012.02	12	90	30	11	45	10P060L
LB10P.0012.03	12	100	42	11	45	10P060L

w, a, t_{max} und f siehe Schneidplatten
w, a, t_{max} and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB10P...	2.6.5T8EP	T8PL



R = rechts wie gezeichnet
R = right hand version shown

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L = left hand version

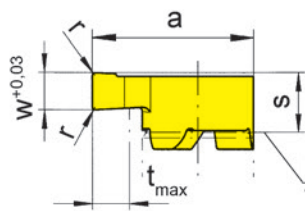
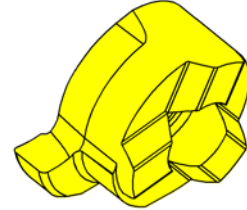
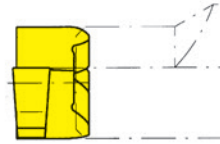
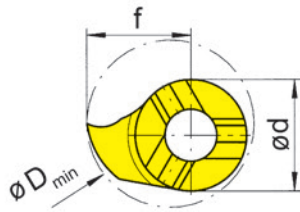
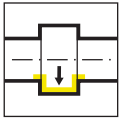
Bestellnummer Part number	d	l_1	l_2	h	l_4	HWS
RB10P.0012.2.00	12	70	12,5	11	40	10P060R
RB10P.0012.2.01	12	80	21	11	45	10P060R
RB10P.0012.2.02	12	90	30	11	45	10P060R
RB10P.0012.2.03	12	100	42	11	45	10P060R
LB10P.0012.2.00	12	70	12,5	11	40	10P060L
LB10P.0012.2.01	12	80	21	11	45	10P060L
LB10P.0012.2.02	12	90	30	11	45	10P060L
LB10P.0012.2.03	12	100	42	11	45	10P060L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB10P...	2.6.5T8EP	T8PL



Klemmhalter Stirnseite
Toolholder face

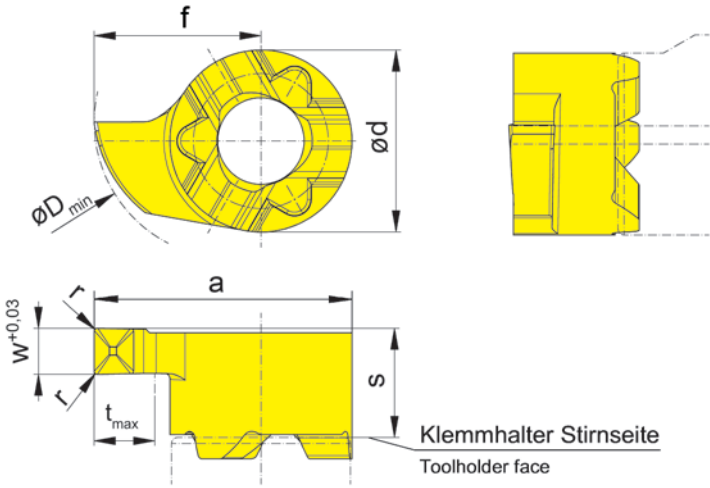
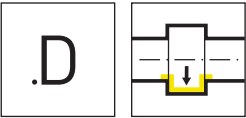
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
R10P.0100.1.00	1	3,6	5,5	8,5	-	6	2	9	10P060R	▲	▲	▲
R10P.0150.1.00	1,5	3,6	5,5	8,5	-	6	2	9	10P060R	▲	▲	▲
R10P.0200.1.02	2	3,6	5,5	8,5	0,2	6	2	9	10P060R	▲	▲	▲
R10P.0250.1.02	2,5	3,6	5,5	8,5	0,2	6	2	9	10P060R	▲	▲	▲
R10P.0300.1.02	3	3,6	5,5	8,5	0,2	6	2	9	10P060R	▲	▲	▲
L10P.0100.1.00	1	3,6	5,5	8,5	-	6	2	9	10P060L	▲	▲	▲
L10P.0150.1.00	1,5	3,6	5,5	8,5	-	6	2	9	10P060L	Δ	▲	▲
L10P.0200.1.02	2	3,6	5,5	8,5	0,2	6	2	9	10P060L	▲	▲	▲
L10P.0250.1.02	2,5	3,6	5,5	8,5	0,2	6	2	9	10P060L	Δ	▲	▲
L10P.0300.1.02	3	3,6	5,5	8,5	0,2	6	2	9	10P060L	Δ	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



R = rechts wie gezeichnet
R = right hand version shown

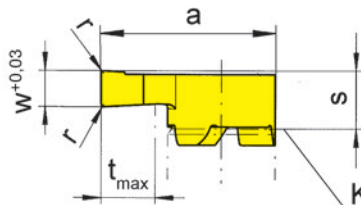
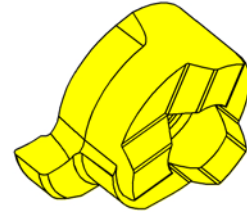
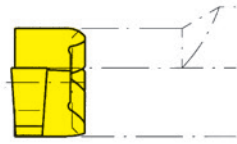
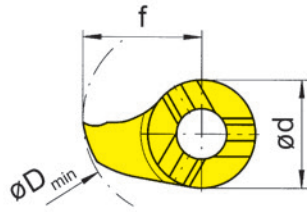
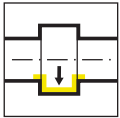
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
RS10P.0100.1.D1	1	3,6	5,5	8,5	0,1	6	2	9	10P060R	▲	▲
RS10P.0150.1.D1	1,5	3,6	5,5	8,5	0,1	6	2	9	10P060R	▲	▲
RS10P.0200.1.D2	2	3,6	5,5	8,5	0,2	6	2	9	10P060R	▲	▲
LS10P.0100.1.D1	1	3,6	5,5	8,5	0,1	6	2	9	10P060L	Δ	▲
LS10P.0150.1.D1	1,5	3,6	5,5	8,5	0,1	6	2	9	10P060L	Δ	▲
LS10P.0200.1.D2	2	3,6	5,5	8,5	0,2	6	2	9	10P060L	Δ	Δ
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-





Klemmhalter Stirnseite
Toolholder face

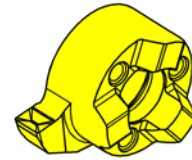
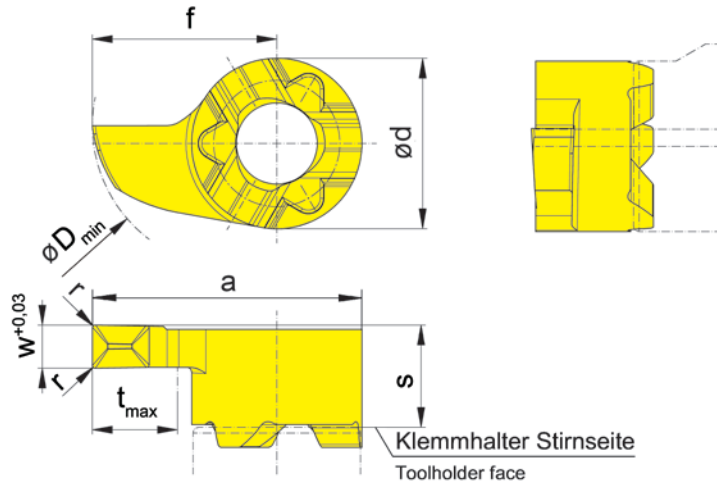
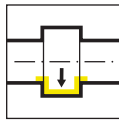
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
R10P.0100.2.00	1	3,6	6,5	9,5	-	6	3	10	10P060R	▲	▲
R10P.0150.2.00	1,5	3,6	6,5	9,5	-	6	3	10	10P060R	▲	▲
R10P.0200.2.02	2	3,6	6,5	9,5	0,2	6	3	10	10P060R	▲	▲
L10P.0100.2.00	1	3,6	6,5	9,5	-	6	3	10	10P060L	Δ	▲
L10P.0150.2.00	1,5	3,6	6,5	9,5	-	6	3	10	10P060L		▲
L10P.0200.2.02	2	3,6	6,5	9,5	0,2	6	3	10	10P060L	▲	▲
									P	●	●
									M	○	●
									K	○	●
									N	-	●
									S	-	●
									H	-	-



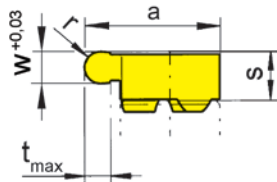
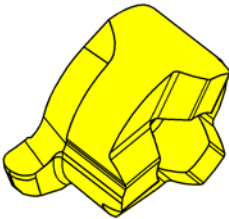
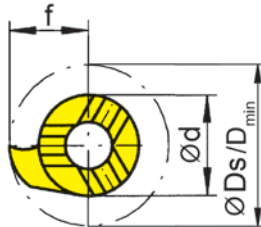
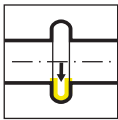
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
RS10P.0150.2.D1	1,5	3,6	6,5	9,5	0,1	6	3	10	10P060R	▲	▲
RS10P.0200.2.D2	2	3,6	6,5	9,5	0,2	6	3	10	10P060R	▲	▲
LS10P.0150.2.D1	1,5	3,6	6,5	9,5	0,1	6	3	10	10P060L	Δ	▲
LS10P.0200.2.D2	2	3,6	6,5	9,5	0,2	6	3	10	10P060L	▲	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-

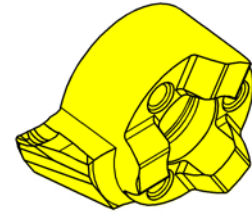
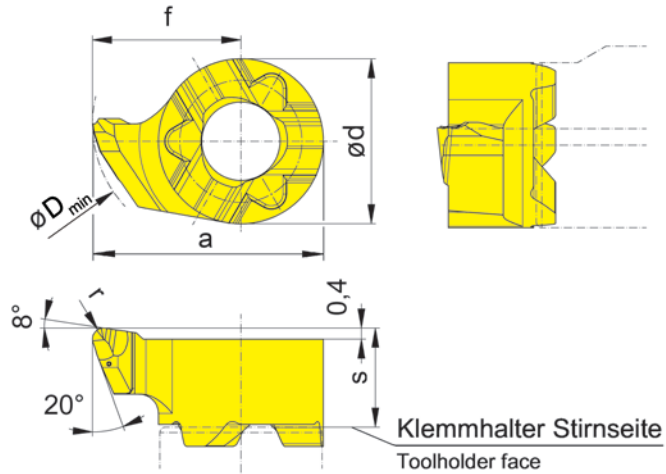
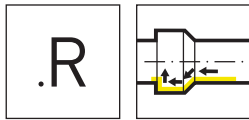


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R10P.0005.2.10	1	3,6	6,5	9,5	0,5	6	3	10	10P060R	▲
R10P.0007.2.15	1,5	3,6	6,5	9,5	0,76	6	3	10	10P060R	▲
R10P.0009.2.18	1,8	3,6	6,5	9,5	0,9	6	3	10	10P060R	▲
L10P.0005.2.10	1	3,6	6,5	9,5	0,5	6	3	10	10P060L	▲
L10P.0007.2.15	1,5	3,6	6,5	9,5	0,76	6	3	10	10P060L	▲
L10P.0009.2.18	1,8	3,6	6,5	9,5	0,9	6	3	10	10P060L	▲
									P ●	
									M o	
									K o	
									N -	
									S -	
									H -	



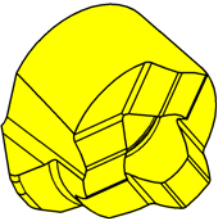
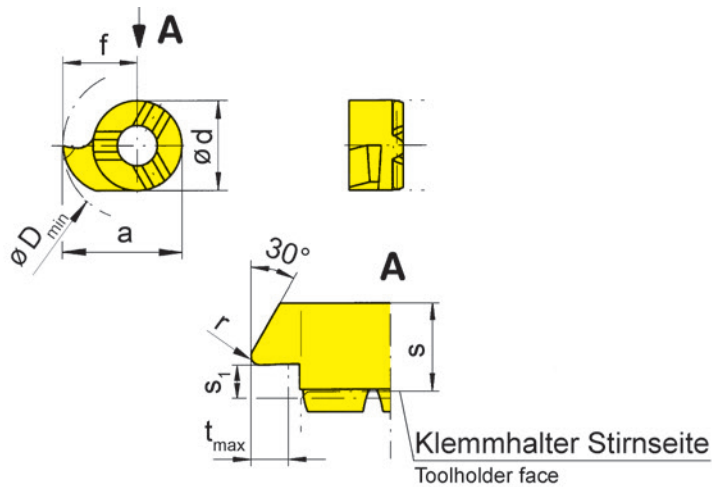
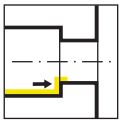
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35
RS10P.1854.R2	3,6	5,4	8,4	0,2	6	8,8	10P060R	▲	▲
RS10P.1854.R4	3,6	5,4	8,4	0,4	6	8,8	10P060R	▲	▲
LS10P.1854.R2	3,6	5,4	8,4	0,2	6	8,8	10P060L	▲	▲
LS10P.1854.R4	3,6	5,4	8,4	0,4	6	8,8	10P060L	Δ	▲
								P	●
								M	○
								K	○
								N	-
								S	-
								H	-

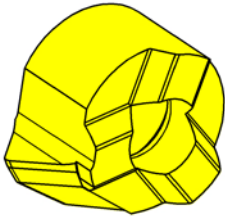
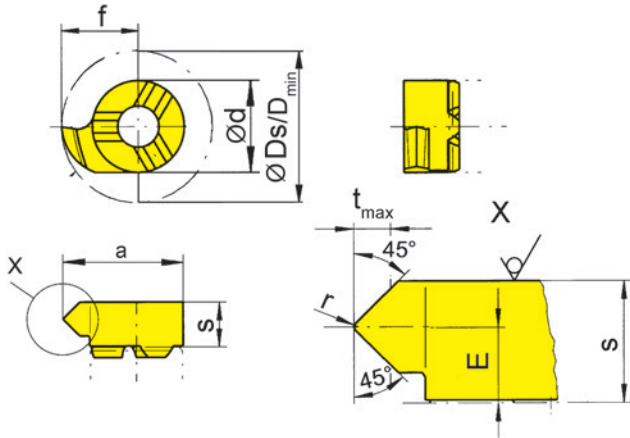
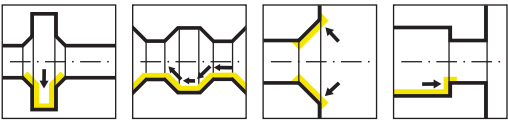


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	s ₁	d	t _{max}	D _{min}	HIS	EG55
R10P.3065.2.02	3,75	6,5	9,5	0,2	1	6	3	10	10P060R	▲
L10P.3065.2.02	3,75	6,5	9,5	0,2	1	6	3	10	10P060L	▲
										P ●
										M o
										K o
										N -
										S -
										H -



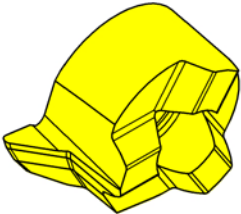
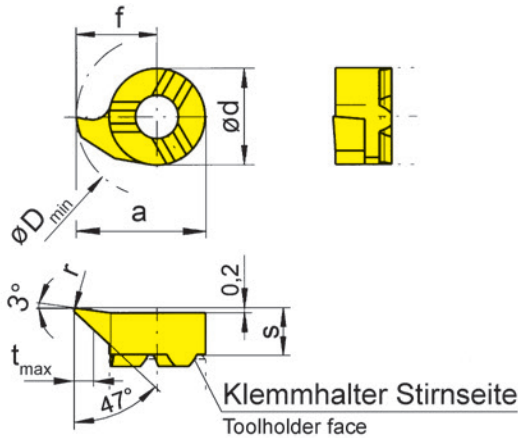
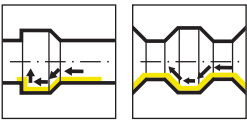
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	f	r	d	s	a	D _{min}	α	t _{max}	HIS	EG55
R10P.4545.1.02	1,9	5,5	0,2	6	3,75	8,5	9	45°	1,5	10P060R	▲
L10P.4545.1.02	1,9	5,5	0,2	6	3,75	8,5	9	45°	1,5	10P060L	▲
										P ●	
										M o	
										K o	
										N -	
										S -	
										H -	





R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R10P.4765.2.02	3,6	6,5	9,5	0,2	6	3	10	10P060R	▲
L10P.4765.2.02	3,6	6,5	9,5	0,2	6	3	10	10P060L	▲
									P ●
									M o
									K o
									N -
									S -
									H -

111

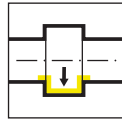


**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

H

Klemmhalter
Toolholder
B111

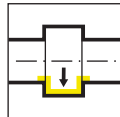


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256-257

Schneidplatte
Insert
111/S111



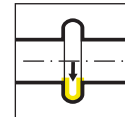
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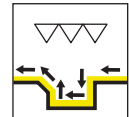
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Seite/Page
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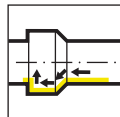
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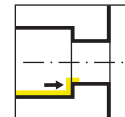
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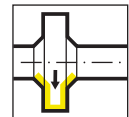
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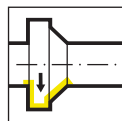
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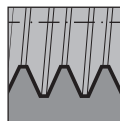
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Seite/Page
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272-277

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

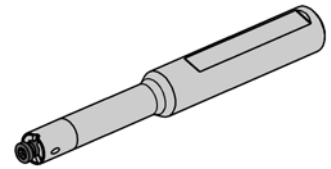
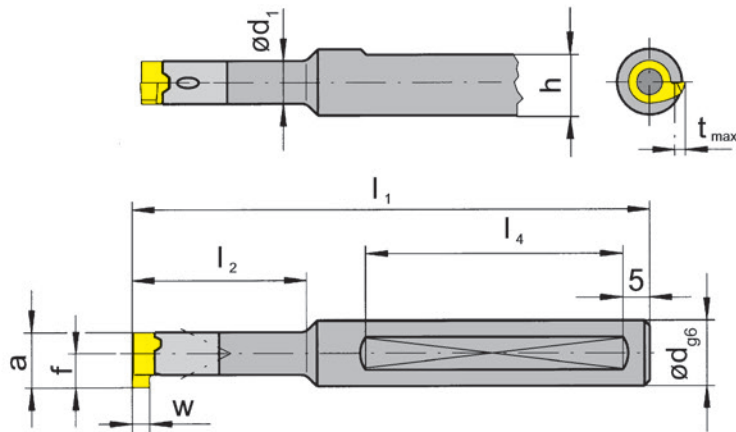
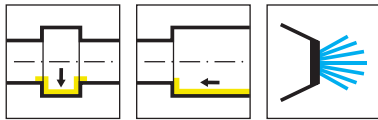


Abbildung = rechtsschneidend
Picture = right hand cutting version

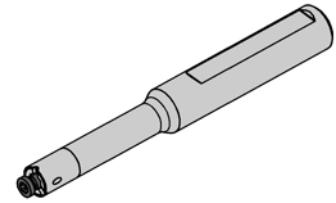
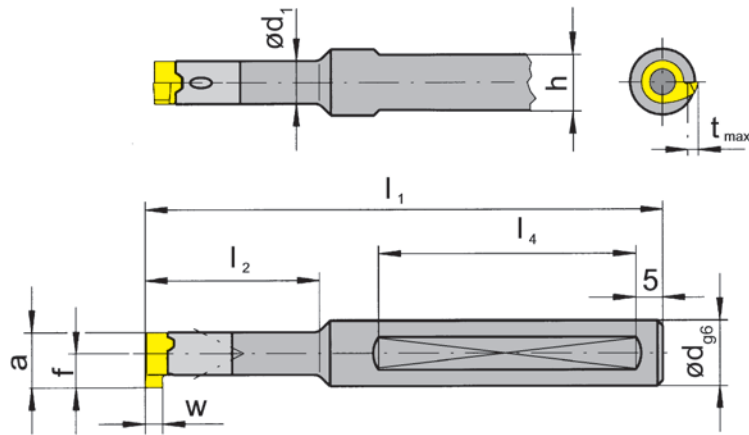
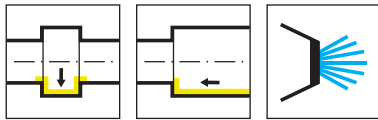
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	d ₁	HWS
B111.0008.01A	8	80	-	-	-	-	111080R • 111080L
B111.0008.01	8	80	-	7	55	8	111080R • 111080L
B111.0012.00	12	75	16,5	11	40	8	111080R • 111080L
B111.0012.01	12	95	29	11	50	8	111080R • 111080L
B111.0012.02	12	110	42	11	50	8	111080R • 111080L
B111.0012.03	12	120	56	11	50	8	111080R • 111080L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B111...	3.5.12T10EP	T10PL



R = rechts wie gezeichnet

R = right hand version shown

Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	d ₁	HWS
B111.0012.2.00	12	75	16,5	11	40	8	111080R • 111080L
B111.0012.2.01	12	95	29	11	50	8	111080R • 111080L
B111.0012.2.02	12	110	42	11	50	8	111080R • 111080L
B111.0012.2.03	12	120	56	11	50	8	111080R • 111080L

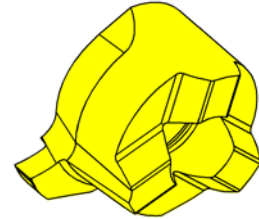
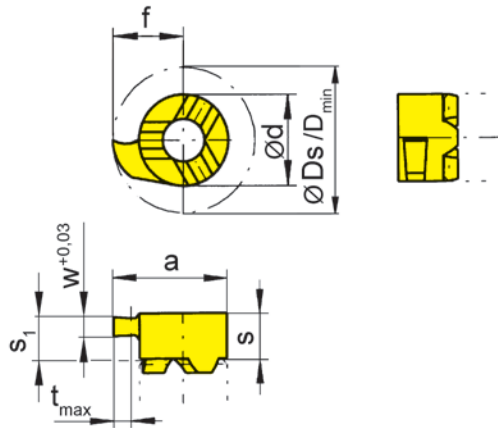
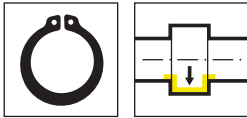
w, a, tmax und f siehe Schneidplatten

w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B111...	3.5.12T10EP	T10PL



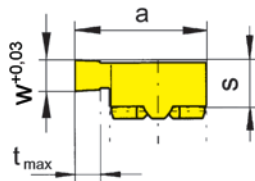
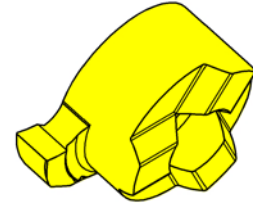
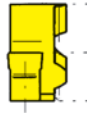
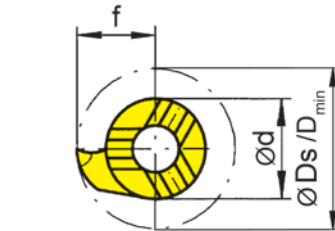
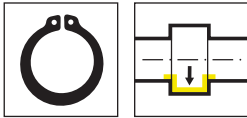
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	f	Ds	d	s	s ₁	a	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R111.0070.00	0,74	0,7	6,7	13,4	8	4,15	3,95	10,7	1,2	11	1	111080R	▲	▲	▲
R111.0080.00	0,84	0,8	6,7	13,4	8	4,15	3,95	10,7	1,3	11	1	111080R	▲	▲	▲
R111.0090.00	0,94	0,9	6,7	13,4	8	4,15	3,95	10,7	1,5	11	1	111080R	▲	▲	▲
L111.0070.00	0,74	0,7	6,7	13,4	8	4,15	3,95	10,7	1,2	11	1	111080L		Δ	▲
L111.0080.00	0,84	0,8	6,7	13,4	8	4,15	3,95	10,7	1,3	11	1	111080L		Δ	▲
L111.0090.00	0,94	0,9	6,7	13,4	8	4,15	3,95	10,7	1,5	11	1	111080L		▲	▲
Zapfenausführung not face cutting, limited depth of cut													P	●	●
Abmessungen für Seegerringnuten DIN 471/472 Widths for circlip grooves DIN 471/472													M	○	●
													K	○	●
													N	-	●
													S	-	●
													H	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

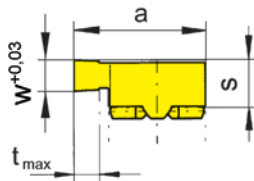
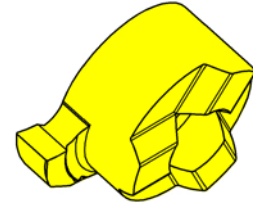
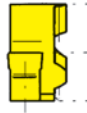
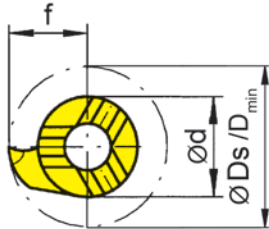
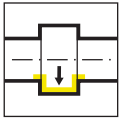
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	Ds	d	a	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R111.0110.00	1,19	1,1	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0130.00	1,39	1,3	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0160.00	1,69	1,6	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
L111.0110.00	1,19	1,1	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0130.00	1,39	1,3	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	Δ	▲	▲
L111.0160.00	1,69	1,6	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲

Abmessungen für Seegerringnuten DIN 471/472
Widths for circlip grooves DIN 471/472

	P	M	K	N	S	H
EG55	●	●	●	-	-	-
TH35	●	●	●	●	●	-
TN35	●	●	●	●	●	-



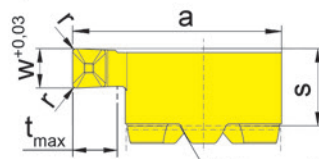
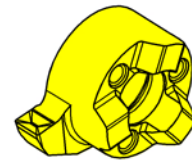
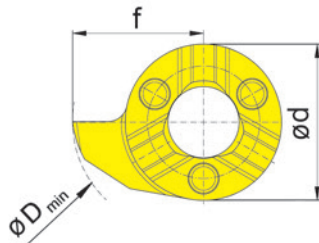
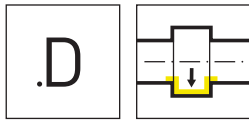
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R = right hand version shown

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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	Ds	d	a	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R111.0100.1.00	1	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	Δ		▲
R111.0150.00	1,5	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0200.00	2	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0250.00	2,5	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0300.00	3	3,95	6,7	13,4	8	10,7	2,3	11	1	111080R	▲	▲	▲
L111.0100.1.00	1	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	Δ		▲
L111.0150.00	1,5	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0200.00	2	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0250.00	2,5	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0300.00	3	3,95	6,7	13,4	8	10,7	2,3	11	1	111080L	▲	▲	▲
P											●	●	●
M											o	●	●
K											o	●	●
N											-	●	●
S											-	●	●
H											-	-	-



Klemmhalter Stirnseite
Toolholder face

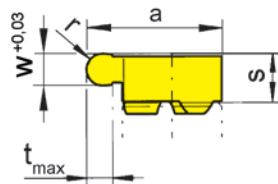
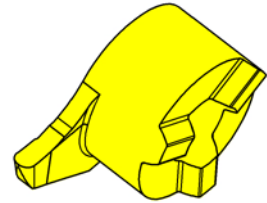
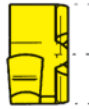
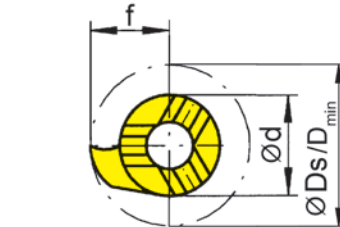
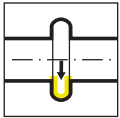
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
RS111.0150.D1	1,5	3,95	6,7	10,7	0,1	8	2,3	11	111080R	▲	▲	▲
RS111.0200.D2	2	3,95	6,7	10,7	0,2	8	2,3	11	111080R	▲	▲	▲
RS111.0250.D2	2,5	3,95	6,7	10,7	0,2	8	2,3	11	111080R	▲	▲	▲
LS111.0150.D1	1,5	3,95	6,7	10,7	0,1	8	2,3	11	111080L	Δ	▲	▲
LS111.0200.D2	2	3,95	6,7	10,7	0,2	8	2,3	11	111080L	▲	▲	▲
LS111.0250.D2	2,5	3,95	6,7	10,7	0,2	8	2,3	11	111080L	Δ	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



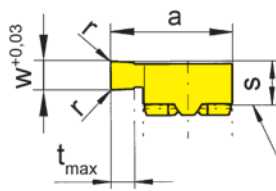
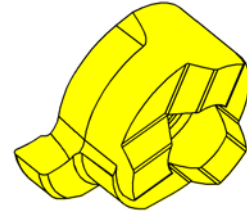
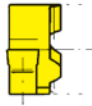
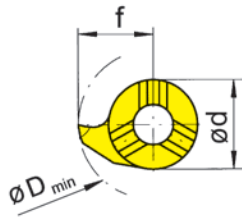
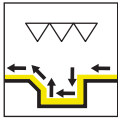
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	f	Ds	r	d	s	a	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R111.0004.08	0,8	6,7	13,4	0,4	8	3,95	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0006.12	1,2	6,7	13,4	0,6	8	3,95	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0009.18	1,8	6,7	13,4	0,9	8	3,95	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0010.20	2	6,7	13,4	1	8	3,95	10,7	2,3	11	1	111080R	▲	▲	▲
R111.0015.30	3	6,7	13,4	1,5	8	3,95	10,7	2,3	11	1	111080R	▲	▲	▲
L111.0004.08	0,8	6,7	13,4	0,4	8	3,95	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0006.12	1,2	6,7	13,4	0,6	8	3,95	10,7	2,3	11	1	111080L	▲	▲	▲
L111.0009.18	1,8	6,7	13,4	0,9	8	3,95	10,7	2,3	11	1	111080L		▲	▲
L111.0010.20	2	6,7	13,4	1	8	3,95	10,7	2,3	11	1	111080L		▲	▲
L111.0015.30	3	6,7	13,4	1,5	8	3,95	10,7	2,3	11	1	111080L		▲	▲
P	•	•	•											
M	o	•	•											
K	o	•	•											
N	-	•	•											
S	-	•	•											
H	-	-	-											



Klemmhalter Stirnseite
Toolholder face

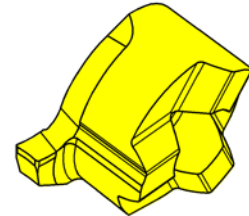
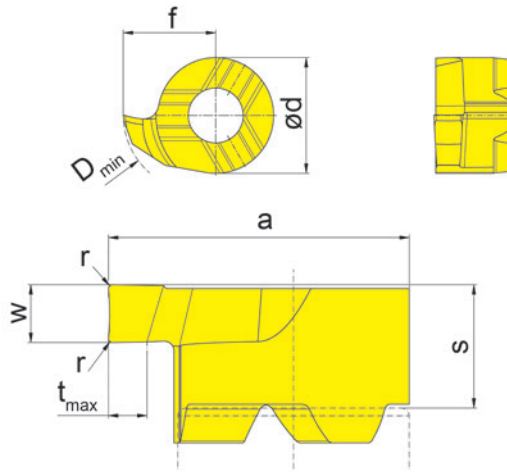
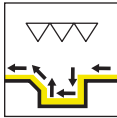
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35	TI25	TN35
R111.0200.02	2	3,95	6,7	10,7	0,2	8	2,3	11	111080R		▲	▲	▲	▲
L111.0200.02	2	3,95	6,7	10,7	0,2	8	2,3	11	111080L		▲	▲	Δ	▲
										P	•	•	•	•
										M	o	•	•	•
										K	o	•	•	•
										N	-	•	•	•
										S	-	•	•	•
										H	-	-	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG35
R111.FB10.01	1	3,95	6,7	10,7	0,1	8	2,3	11	111080R	▲
R111.FB15.01	1,5	3,95	6,7	10,7	0,1	8	2,3	11	111080R	▲
L111.FB10.01	1	3,95	6,7	10,7	0,1	8	2,3	11	111080L	▲
L111.FB15.01	1,5	3,95	6,7	10,7	0,1	8	2,3	11	111080L	▲
										P ●
										M ●
										K ○
										N -
										S -
										H -

Berechnung der kleinstmöglichen Nutbreite w_x
Calculation of the smallest possible width of groove w_x

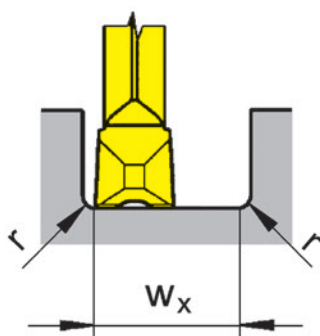
Beispiel R111.FB10.01
Example

$w_x = 2 \times \text{Schneidbreite } w - 2 \times \text{Eckenradius Schneidplatte } r$

$w_x = 2 \times \text{Width of insert } w - 2 \times \text{Corner radius insert } r$

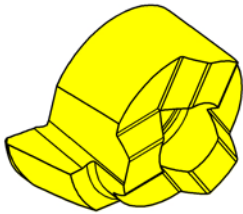
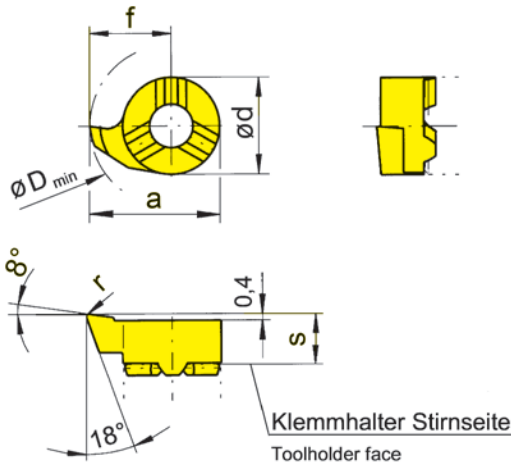
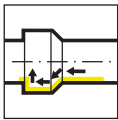
$w_x = 2 \times 1 \text{ mm} - 2 \times 0,1 \text{ mm}$

$w_x = 1,8 \text{ mm}$



Bearbeitungsablauf
Processing flow



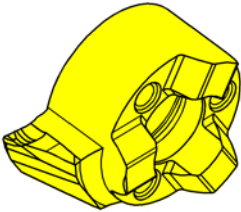
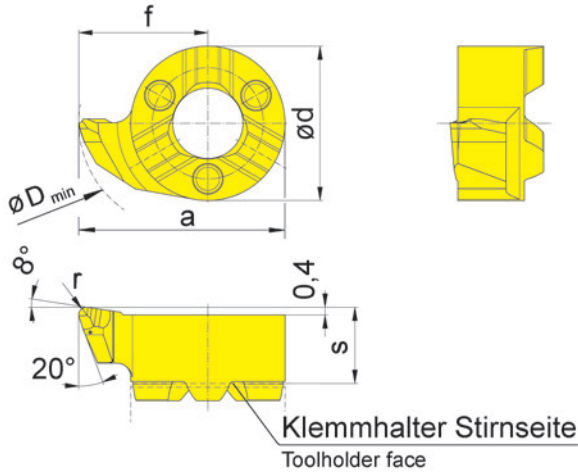


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35	TI25	TN35
R111.1855.02	3,95	5,5	9,5	0,2	8	9,8	111080R		▲	▲	▲	▲
R111.1867.02	3,95	6,7	10,7	0,2	8	11	111080R		▲	▲	▲	▲
L111.1855.02	3,95	5,5	9,5	0,2	8	9,8	111080L		▲	▲	▲	▲
L111.1867.02	3,95	6,7	10,7	0,2	8	11	111080L		▲	▲	▲	▲
								P	•	•	•	•
								M	o	•	•	•
								K	o	•	•	•
								N	-	•	•	•
								S	-	•	•	•
								H	-	-	-	-



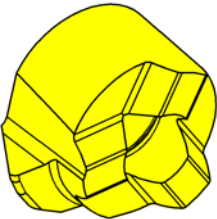
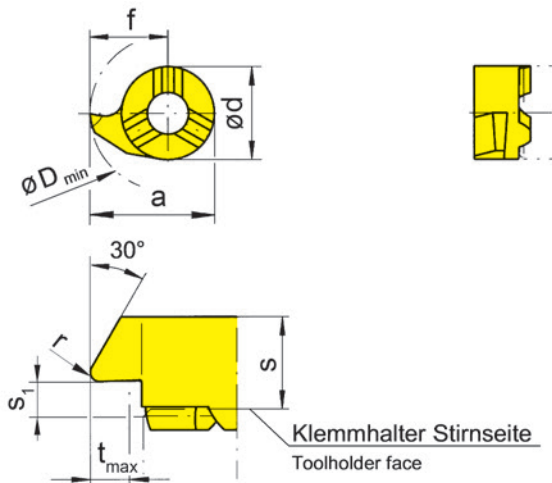
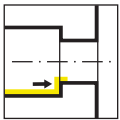
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35
RS111.1867.R2	3,95	6,7	10,7	0,2	8	11	111080R	▲	▲
RS111.1867.R4	3,95	6,7	10,7	0,4	8	11	111080R	▲	▲
LS111.1867.R2	3,95	6,7	10,7	0,2	8	11	111080L	▲	▲
LS111.1867.R4	3,95	6,7	10,7	0,4	8	11	111080L	▲	▲
								P	●
								M	○
								K	○
								N	-
								S	-
								H	-

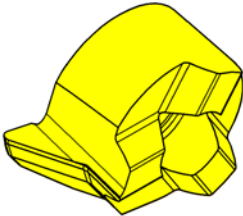
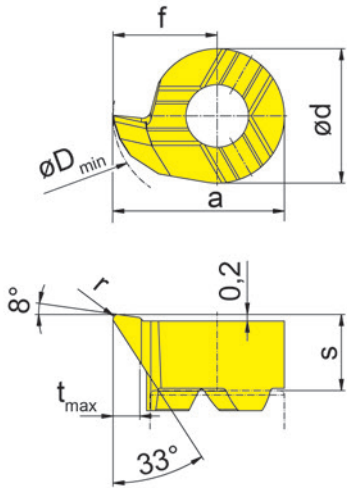
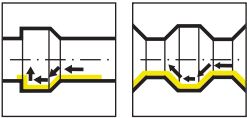


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	s ₁	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R111.3067.02	4,15	6,7	10,7	0,2	1,4	8	2,3	11	111080R	▲	▲	▲
R111.3067.04	4,15	6,7	10,7	0,4	1,4	8	2,3	11	111080R	Δ	▲	Δ
L111.3067.02	4,15	6,7	10,7	0,2	1,4	8	2,3	11	111080L	▲	▲	▲
L111.3067.04	4,15	6,7	10,7	0,4	1,4	8	2,3	11	111080L	Δ	Δ	▲
P	●	●	●									
M	○	●	●									
K	○	●	●									
N	-	●	●									
S	-	●	●									
H	-	-	-									



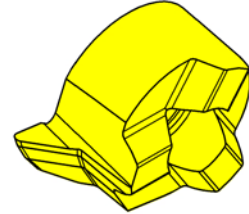
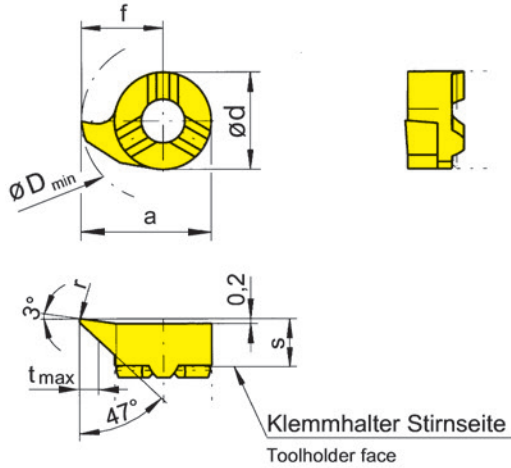
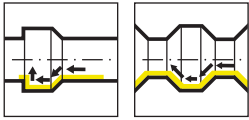
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R111.3367.02	3,95	6,7	10,7	0,2	8	1,8	11	111080R	▲
R111.3367.04	3,95	6,7	10,7	0,4	8	1,8	11	111080R	▲
L111.3367.02	3,95	6,7	10,7	0,2	8	1,8	11	111080L	Δ
L111.3367.04	3,95	6,7	10,7	0,4	8	1,8	11	111080L	Δ
									P ●
									M ○
									K ○
									N -
									S -
									H -



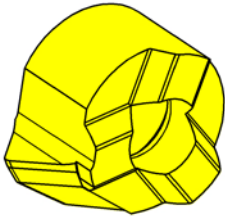
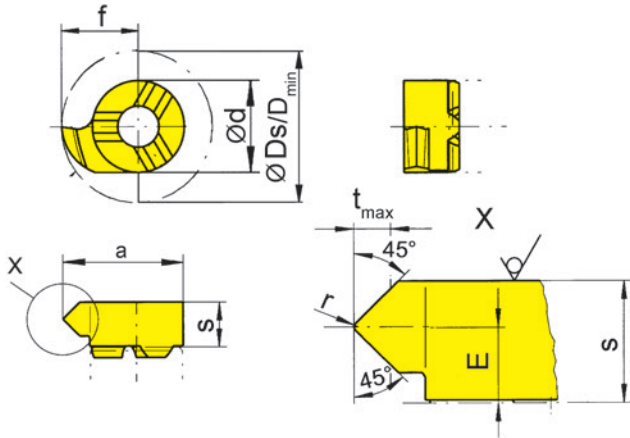
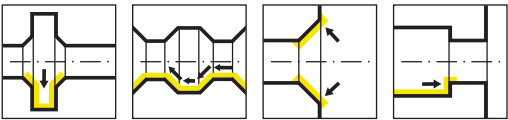
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35	TI25	TN35
R111.4767.02	3,95	6,7	10,7	0,2	8	2,3	11	111080R		▲	▲	▲	▲
R111.4767.04	3,95	6,7	10,7	0,4	8	2,3	11	111080R		▲	▲		
L111.4767.02	3,95	6,7	10,7	0,2	8	2,3	11	111080L		▲	▲	▲	▲
L111.4767.04	3,95	6,7	10,7	0,4	8	2,3	11	111080L		▲	▲	Δ	
									P	●	●	●	●
									M	○	●	●	●
									K	○	●	●	●
									N	-	●	●	●
									S	-	●	●	●
									H	-	-	-	-

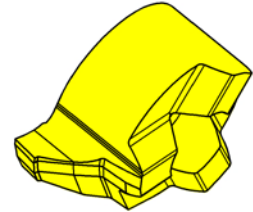
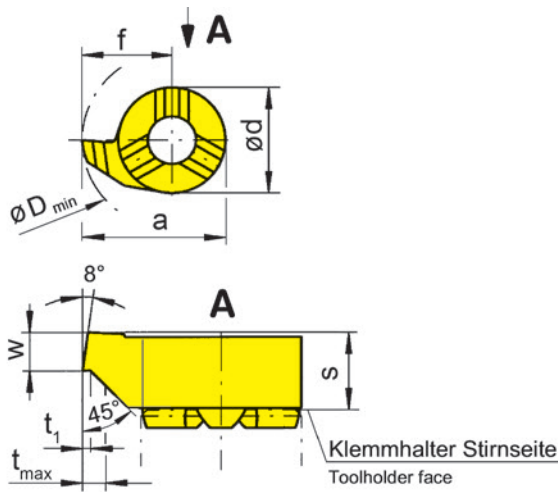
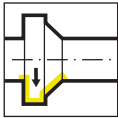


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	f	Ds	r	d	s	a	t _{max}	D _{min}	Z	HIS		EG55	TN35
R111.4545.02	2,4	6,7	13,4	0,2	8	4,15	10,7	1,5	11	1	111080R	▲	▲	▲
L111.4545.02	2,4	6,7	13,4	0,2	8	4,15	10,7	1,5	11	1	111080L	▲	▲	▲
												P	●	●
												M	○	●
												K	○	●
												N	-	●
												S	-	●
												H	-	-



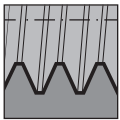
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

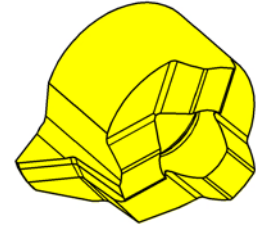
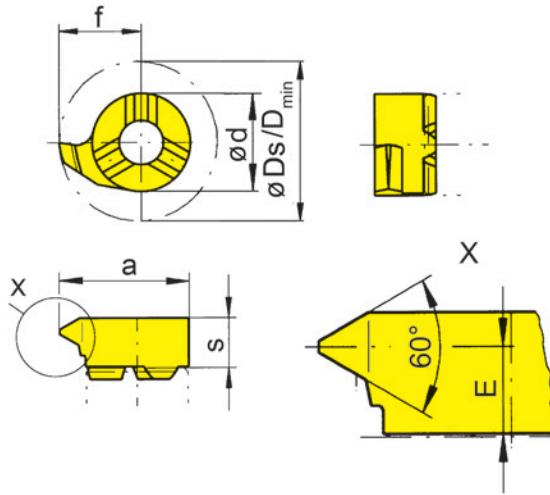
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	a	f	d	t _{max}	t _{1max}	D _{min}	HIS		EG55	TI25
R111.0810.45	1	3,95	10,7	6,7	8	1,5	0,2	11	111080R	▲	▲	▲
L111.0810.45	1	3,95	10,7	6,7	8	1,5	0,2	11	111080L	▲	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



60°



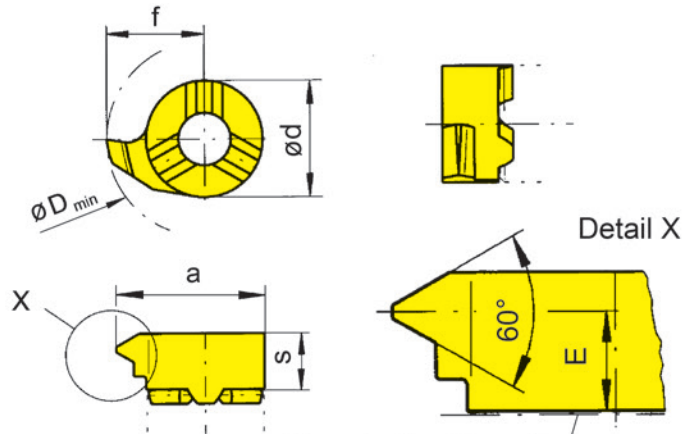
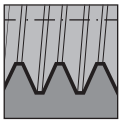
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

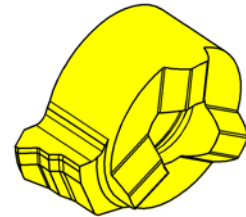
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	s	f	a	d	Ds	D _{min}	HIS	EG55	TH35	TN35
R111.0205.01	0,5	0,75	3,5	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲	▲
R111.0510.01	1	1,25	3,3	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲	▲
R111.0815.01	1,5	1,75	3,3	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲	▲
R111.1020.01	2	2	3	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲	▲
R111.1325.01	2,5	2,5	2,8	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲	▲
L111.0205.01	0,5	0,75	3,5	4,15	6,7	10,7	8	13,4	11	111080L	Δ	Δ	▲
L111.0510.01	1	1,25	3,3	4,15	6,7	10,7	8	13,4	11	111080L	▲	Δ	▲
L111.0815.01	1,5	1,75	3,3	4,15	6,7	10,7	8	13,4	11	111080L	▲	Δ	▲
L111.1020.01	2	2	3	4,15	6,7	10,7	8	13,4	11	111080L	Δ	Δ	▲
L111.1325.01	2,5	2,5	2,8	4,15	6,7	10,7	8	13,4	11	111080L	Δ	Δ	▲
P	●	●	●	●	●	●	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○
N	-	-	-	-	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-	-	-	-	-



Klemmhalter Stirnseite

Toolholder face



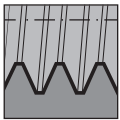
R = rechts wie gezeichnet
R = right hand version shown

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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

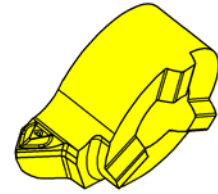
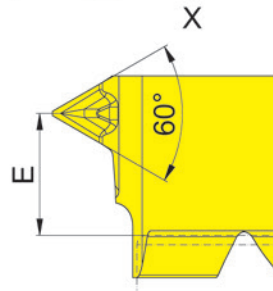
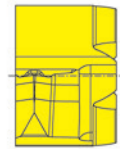
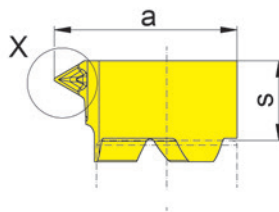
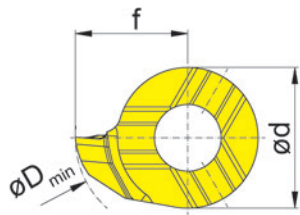
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R111.0510.02	1	3,3	6,7	10,7	8	4,15	11	111080R	▲		▲
R111.0815.02	1,5	3,3	6,7	10,7	8	4,15	11	111080R	▲	Δ	▲
R111.1020.02	2	3	6,7	10,7	8	4,15	11	111080R	▲	Δ	▲
R111.1325.02	2,5	2,8	6,7	10,7	8	4,15	11	111080R	▲		▲
R111.1630.02	3	2,8	6,7	10,7	8	4,15	11	111080R	▲	Δ	▲
L111.0510.02	1	3,3	6,7	10,7	8	4,15	11	111080L	Δ		▲
L111.0815.02	1,5	3,3	6,7	10,7	8	4,15	11	111080L	▲	Δ	▲
L111.1020.02	2	3	6,7	10,7	8	4,15	11	111080L	▲		▲
L111.1325.02	2,5	2,8	6,7	10,7	8	4,15	11	111080L	Δ		Δ
L111.1630.02	3	2,8	6,7	10,7	8	4,15	11	111080L	Δ		Δ
P	●	●	●						●	●	●
M	○	●	●						○	●	●
K	○	●	●						○	●	●
N	-	●	●						-	●	●
S	-	●	●						-	●	●
H	-	-	-						-	-	-



.GM



60°

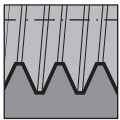


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

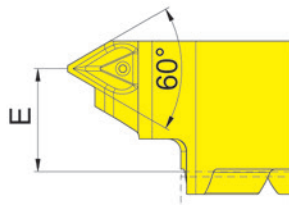
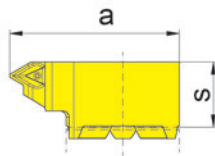
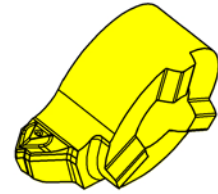
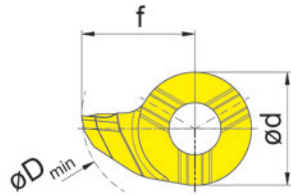
Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55
RS111.0205.GM1	0,5	0,75	3,1	6,7	10,7	8	4,1	11	111080R	▲
RS111.0510.GM1	1	1,25	3,1	6,7	10,7	8	4,1	11	111080R	▲
RS111.0815.GM1	1,5	1,75	3,1	6,7	10,7	8	4,1	11	111080R	▲
RS111.1020.GM1	2	2	3,1	6,7	10,7	8	4,1	11	111080R	▲
LS111.0205.GM1	0,5	0,75	3,1	6,7	10,7	8	4,1	11	111080L	▲
LS111.0510.GM1	1	1,25	3,1	6,7	10,7	8	4,1	11	111080L	▲
LS111.0815.GM1	1,5	1,75	3,1	6,7	10,7	8	4,1	11	111080L	▲
LS111.1020.GM1	2	2	3,1	6,7	10,7	8	4,1	11	111080L	▲
										P ●
										M o
										K o
										N -
										S -
										H -



.GM



60°

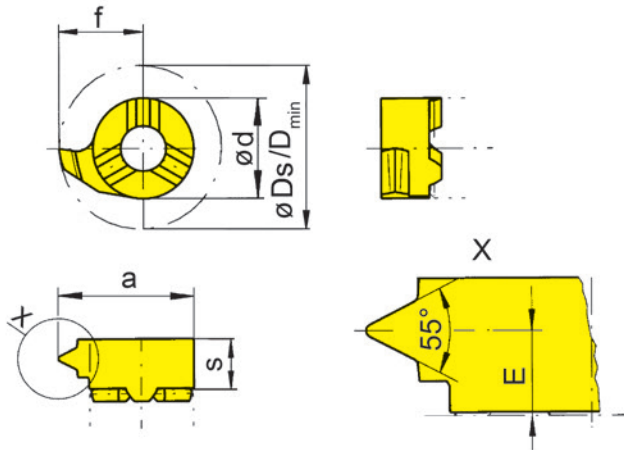


R = rechts wie gezeichnet
R = right hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55
RS111.0510.GM2	1	3,1	6,7	10,7	8	4,1	11	111080R	▲
RS111.0815.GM2	1,5	3,1	6,7	10,7	8	4,1	11	111080R	▲
RS111.1020.GM2	2	3,1	6,7	10,7	8	4,1	11	111080R	▲
LS111.0510.GM2	1	3,1	6,7	10,7	8	4,1	11	111080L	▲
LS111.0815.GM2	1,5	3,1	6,7	10,7	8	4,1	11	111080L	▲
LS111.1020.GM2	2	3,1	6,7	10,7	8	4,1	11	111080L	▲
	P	•							
	M	o							
	K	o							
	N	-							
	S	-							
	H	-							



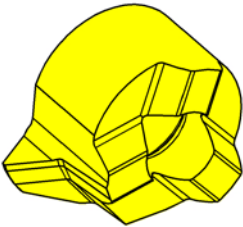
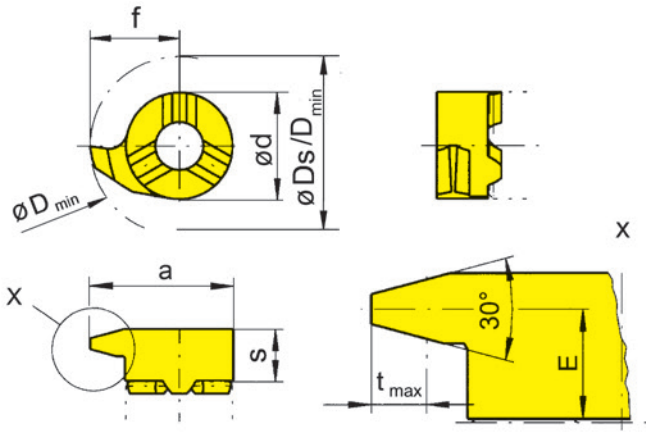
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	TPI	E	s	f	a	d	Ds	D _{min}	HIS	EG55	TN35
R111.5514.02	14	2,5	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲
R111.5519.02	19	2,9	4,15	6,7	10,7	8	13,4	11	111080R	▲	▲
L111.5514.02	14	2,5	4,15	6,7	10,7	8	13,4	11	111080L	Δ	▲
L111.5519.02	19	2,9	4,15	6,7	10,7	8	13,4	11	111080L		▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



R = rechts wie gezeichnet
R = right hand version shown

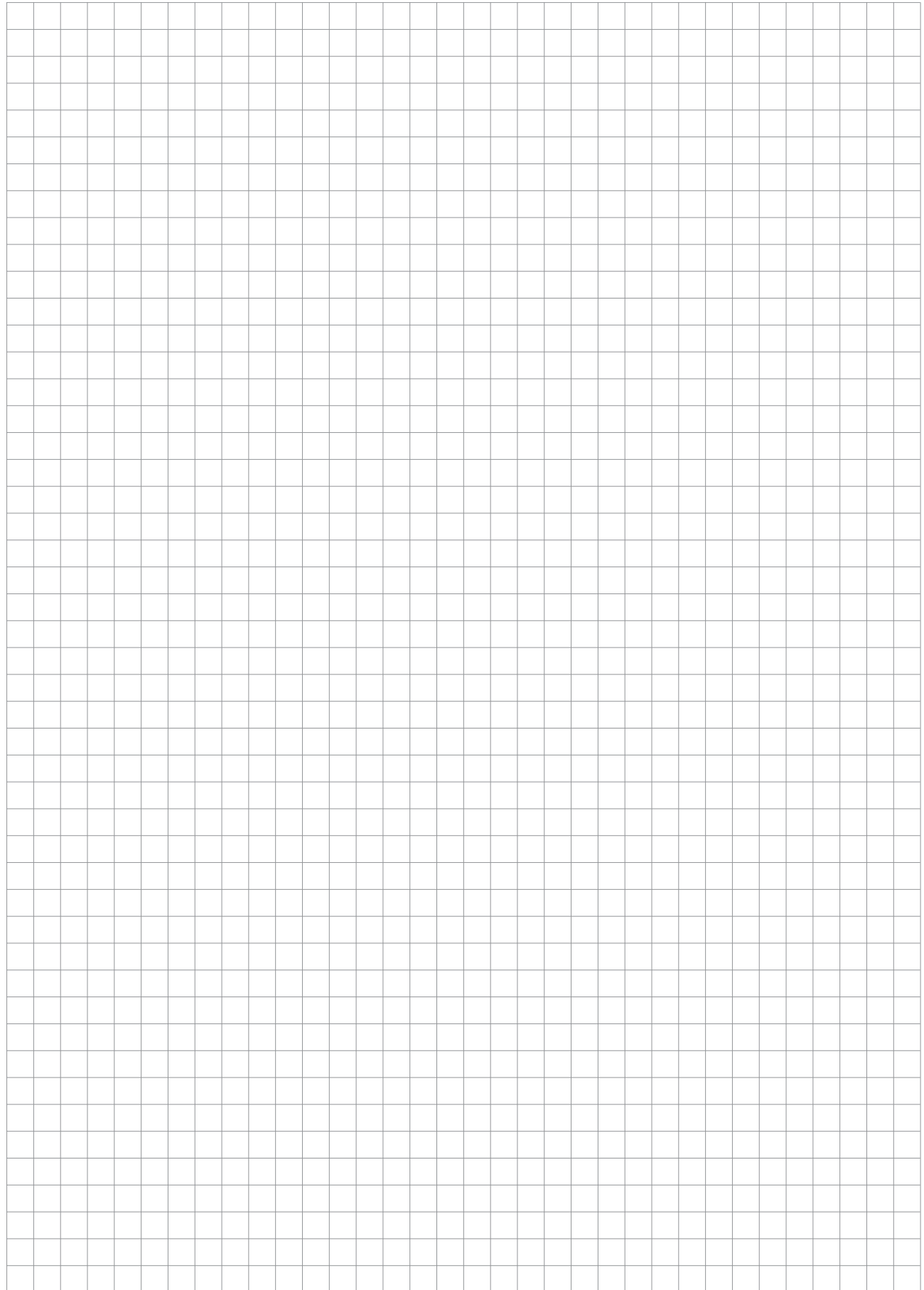
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	Ds	HIS	EG55	TN35
R111.1015.01	1,5	3,5	6,7	10,7	8	4,15	11	13,4	111080R	▲	▲
R111.1220.01	2	3,3	6,7	10,7	8	4,15	11	13,4	111080R	▲	▲
R111.2240.01	4	2,5	6,7	10,7	8	4,15	11	13,4	111080R	▲	▲
L111.1015.01	1,5	3,5	6,7	10,7	8	4,15	11	13,4	111080L	Δ	Δ
L111.1220.01	2	3,3	6,7	10,7	8	4,15	11	13,4	111080L	▲	▲
L111.2240.01	4	2,5	6,7	10,7	8	4,15	11	13,4	111080L	▲	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-

H



11P

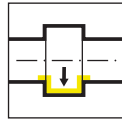


**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

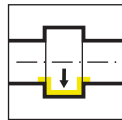
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Klemmhalter
Toolholder
B11P



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282-283

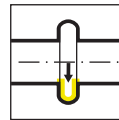
Schneidplatte
Insert
11P/S11P



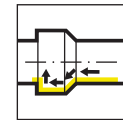
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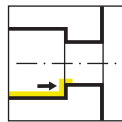
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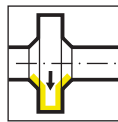
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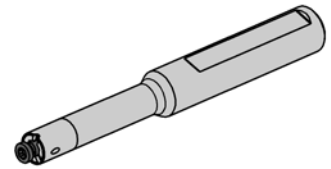
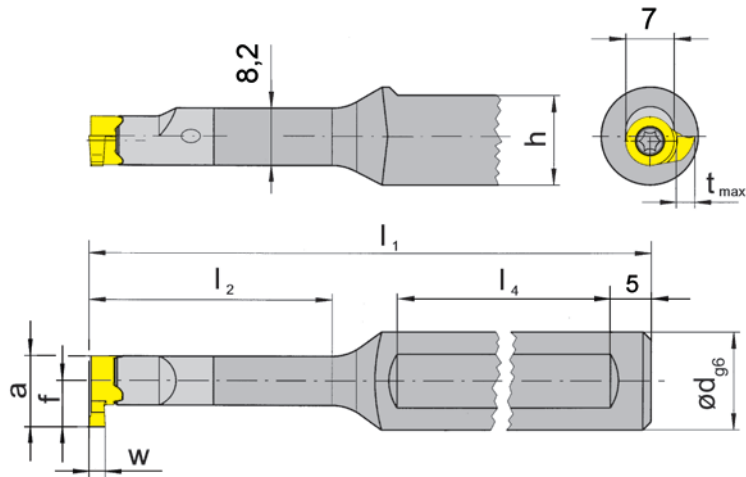
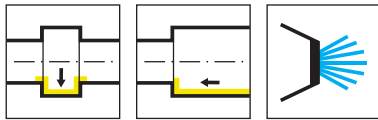


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Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											



R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

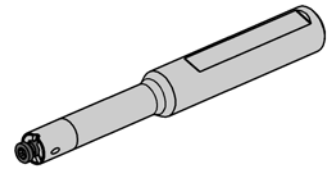
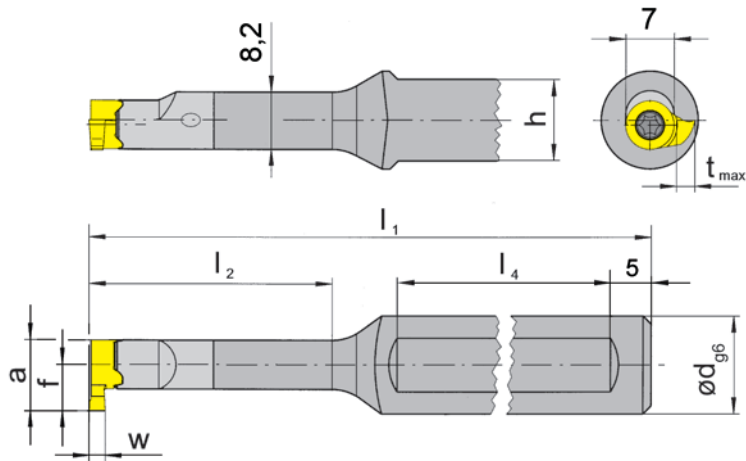
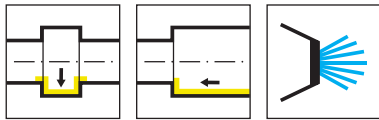
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	HWS
RB11P.0012.00	12	75	15	11	40	11P070R
RB11P.0012.01	12	95	26	11	50	11P070R
RB11P.0012.02	12	110	37	11	50	11P070R
RB11P.0012.03	12	120	50	11	50	11P070R
LB11P.0012.00	12	75	15	11	40	11P070L
LB11P.0012.01	12	95	26	11	50	11P070L
LB11P.0012.02	12	110	37	11	50	11P070L
LB11P.0012.03	12	120	50	11	50	11P070L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB11P...	3.10T9P	T9PL



R = rechts wie gezeichnet
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L = links spiegelbildlich
L = left hand version

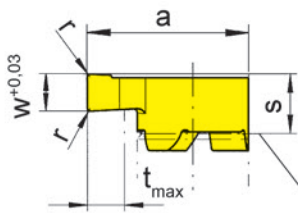
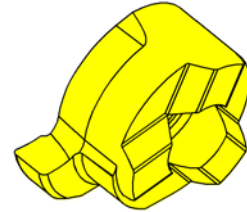
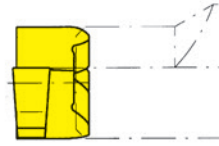
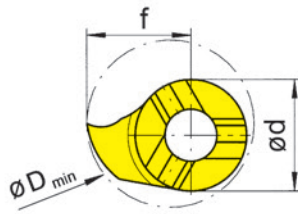
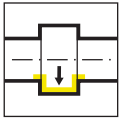
Bestellnummer Part number	d	l ₁	l ₂	h	l ₄	HWS
RB11P.0012.2.00	12	75	15	11	40	11P070R
RB11P.0012.2.01	12	95	26	11	50	11P070R
RB11P.0012.2.02	12	110	37	11	50	11P070R
RB11P.0012.2.03	12	120	50	11	50	11P070R
LB11P.0012.2.00	12	75	15	11	40	11P070L
LB11P.0012.2.01	12	95	26	11	50	11P070L
LB11P.0012.2.02	12	110	37	11	50	11P070L
LB11P.0012.2.03	12	120	50	11	50	11P070L

w, a, t_{max} und f siehe Schneidplatten
w, a, t_{max} and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB11P...	3.10T9P	T9PL



Klemmhalter Stirnseite
Toolholder face

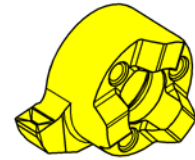
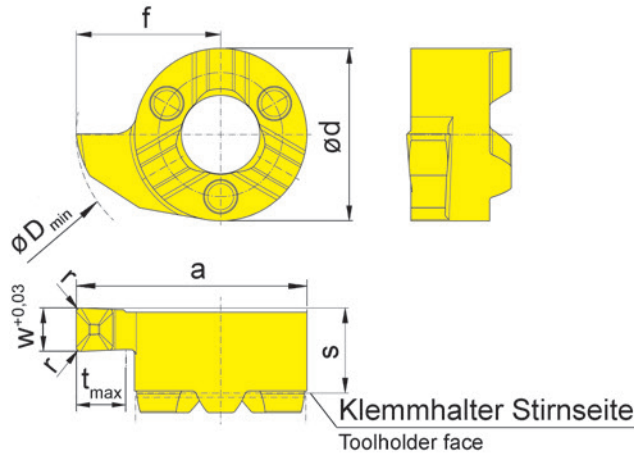
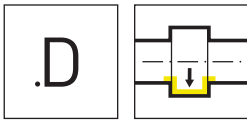
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
R11P.0100.1.00	1	4,2	6,5	10	-	7	2,5	10,5	11P070R	▲	▲
R11P.0150.1.00	1,5	4,2	6,5	10	-	7	2,5	10,5	11P070R	▲	▲
R11P.0200.1.02	2	4,2	6,5	10	0,2	7	2,5	10,5	11P070R	▲	▲
R11P.0250.1.02	2,5	4,2	6,5	10	0,2	7	2,5	10,5	11P070R	▲	▲
R11P.0300.1.02	3	4,2	6,5	10	0,2	7	2,5	10,5	11P070R	Δ	▲
L11P.0100.1.00	1	4,2	6,5	10	-	7	2,5	10,5	11P070L	Δ	▲
L11P.0150.1.00	1,5	4,2	6,5	10	-	7	2,5	10,5	11P070L	Δ	Δ
L11P.0200.1.02	2	4,2	6,5	10	0,2	7	2,5	10,5	11P070L	▲	▲
L11P.0250.1.02	2,5	4,2	6,5	10	0,2	7	2,5	10,5	11P070L	Δ	▲
L11P.0300.1.02	3	4,2	6,5	10	0,2	7	2,5	10,5	11P070L	Δ	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



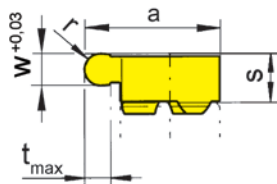
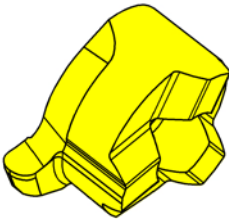
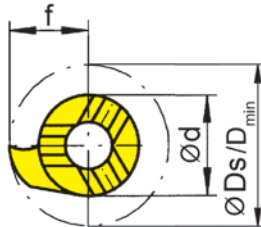
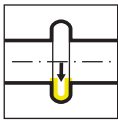
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
RS11P.0150.1.D1	1,5	4,2	6,5	10	0,1	7	2,5	10,5	11P070R	▲	▲
RS11P.0200.1.D2	2	4,2	6,5	10	0,2	7	2,5	10,5	11P070R	▲	▲
RS11P.0250.1.D2	2,5	4,2	6,5	10	0,2	7	2,5	10,5	11P070R	▲	▲
LS11P.0150.1.D1	1,5	4,2	6,5	10	0,1	7	2,5	10,5	11P070L	Δ	▲
LS11P.0200.1.D2	2	4,2	6,5	10	0,2	7	2,5	10,5	11P070L	Δ	▲
LS11P.0250.1.D2	2,5	4,2	6,5	10	0,2	7	2,5	10,5	11P070L	Δ	Δ
									P	●	●
									M	○	●
									K	○	●
									N	-	●
									S	-	●
									H	-	-



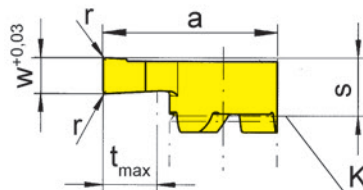
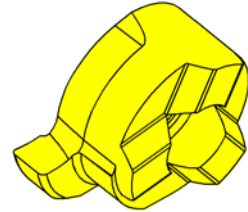
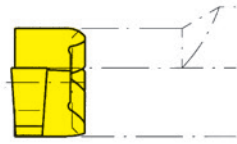
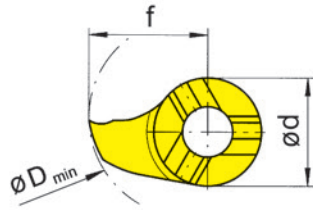
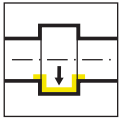
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R11P.0005.2.10	1	4,2	7,5	11	0,5	7	3,5	11,5	11P070R	▲
R11P.0007.2.15	1,5	4,2	7,5	11	0,76	7	3,5	11,5	11P070R	▲
R11P.0009.2.18	1,8	4,2	7,5	11	0,9	7	3,5	11,5	11P070R	▲
R11P.0010.2.20	2	4,2	7,5	11	1	7	3,5	11,5	11P070R	▲
L11P.0005.2.10	1	4,2	7,5	11	0,5	7	3,5	11,5	11P070L	▲
L11P.0007.2.15	1,5	4,2	7,5	11	0,76	7	3,5	11,5	11P070L	▲
L11P.0009.2.18	1,8	4,2	7,5	11	0,9	7	3,5	11,5	11P070L	▲
L11P.0010.2.20	2	4,2	7,5	11	1	7	3,5	11,5	11P070L	▲
										P ●
										M o
										K o
										N -
										S -
										H -



Klemhalter Stirnseite
Toolholder face

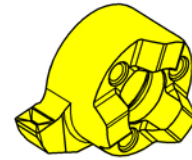
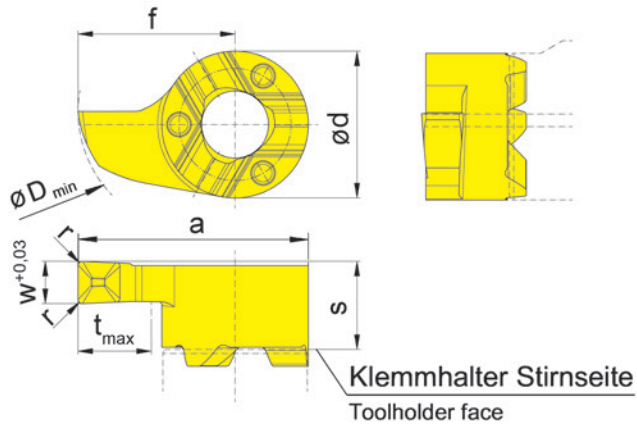
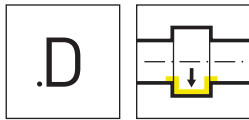
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
R11P.0100.2.00	1	4,2	7,5	11	-	7	3,5	11,5	11P070R	▲	▲
R11P.0150.2.00	1,5	4,2	7,5	11	-	7	3,5	11,5	11P070R	▲	▲
R11P.0200.2.02	2	4,2	7,5	11	0,2	7	3,5	11,5	11P070R	▲	▲
L11P.0100.2.00	1	4,2	7,5	11	-	7	3,5	11,5	11P070L	Δ	▲
L11P.0150.2.00	1,5	4,2	7,5	11	-	7	3,5	11,5	11P070L	Δ	▲
L11P.0200.2.02	2	4,2	7,5	11	0,2	7	3,5	11,5	11P070L	▲	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



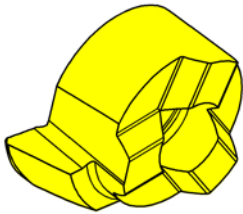
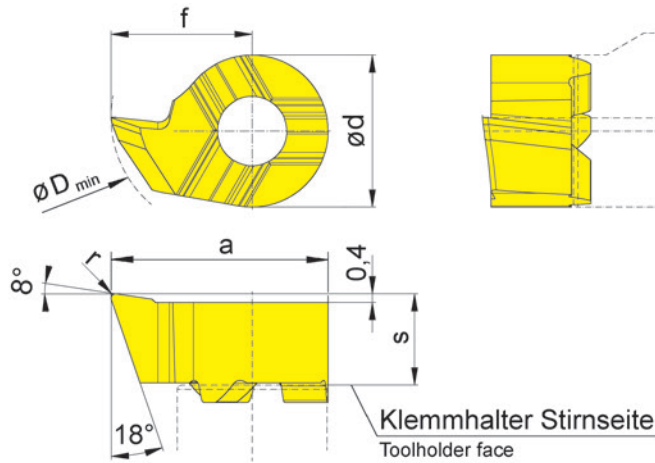
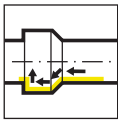
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
RS11P.0150.2.D1	1,5	4,2	7,5	11	0,1	7	3,5	11,5	11P070R	▲	▲
RS11P.0200.2.D2	2	4,2	7,5	11	0,2	7	3,5	11,5	11P070R	▲	▲
RS11P.0250.2.D2	2,5	4,2	7,5	11	0,2	7	3,5	11,5	11P070R	▲	▲
LS11P.0150.2.D1	1,5	4,2	7,5	11	0,1	7	3,5	11,5	11P070L	Δ	▲
LS11P.0200.2.D2	2	4,2	7,5	11	0,2	7	3,5	11,5	11P070L	▲	▲
LS11P.0250.2.D2	2,5	4,2	7,5	11	0,2	7	3,5	11,5	11P070L	Δ	▲
										P	●
										M	○
										K	○
										N	-
										S	-
										H	-



R = rechts wie gezeichnet
R = right hand version shown

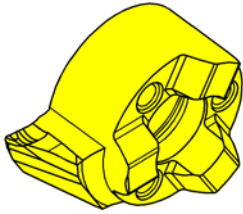
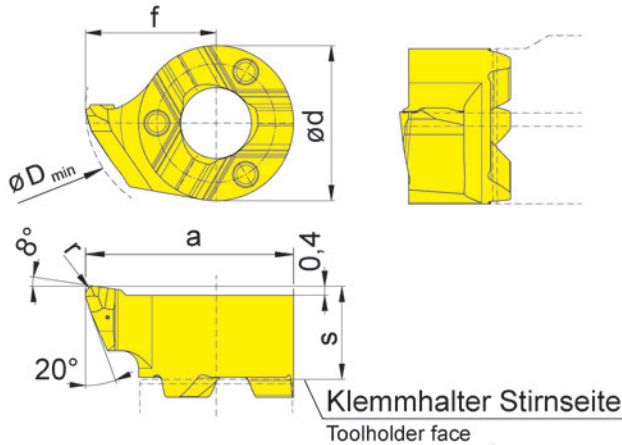
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35
R11P.1865.1.02	4,2	6,5	10	0,2	7	10,5	11P070R	▲	▲	▲
L11P.1865.1.02	4,2	6,5	10	0,2	7	10,5	11P070L	Δ	Δ	Δ
								P	●	●
								M	○	●
								K	○	●
								N	-	●
								S	-	●
								H	-	-





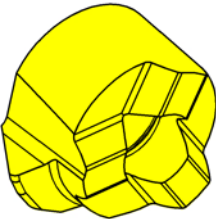
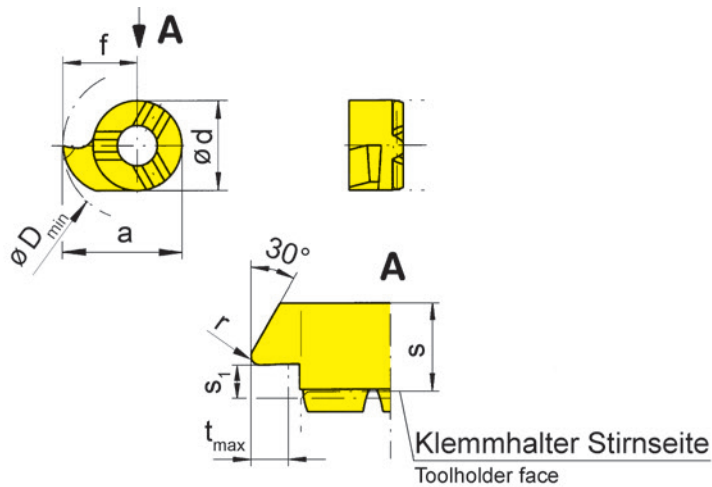
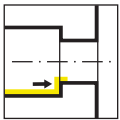
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35
RS11P.1859.R2	4,2	5,9	9,4	0,2	7	9,8	11P070R	▲	▲	▲
RS11P.1859.R4	4,2	5,9	9,4	0,4	7	9,8	11P070R	▲	▲	▲
LS11P.1859.R2	4,2	5,9	9,4	0,2	7	9,8	11P070L	▲	▲	▲
LS11P.1859.R4	4,2	5,9	9,4	0,4	7	9,8	11P070L	▲	▲	▲
								P	●	●
								M	○	●
								K	○	●
								N	-	●
								S	-	●
								H	-	-



R = rechts wie gezeichnet
R = right hand version shown

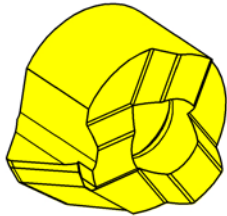
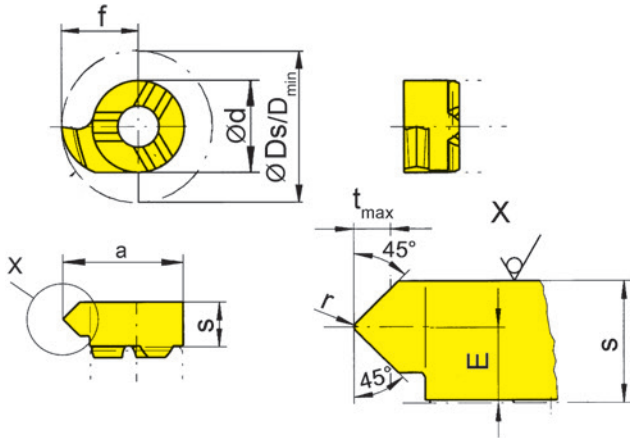
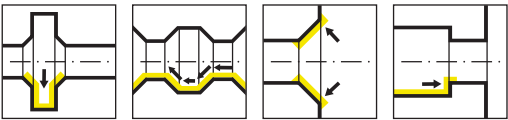
L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	s ₁	d	t _{max}	D _{min}	HIS	EG55
R11P.3075.2.02	4,35	7,5	11	0,2	1,6	7	3,5	11,5	11P070R	▲
L11P.3075.2.02	4,35	7,5	11	0,2	1,6	7	3,5	11,5	11P070L	▲
										P ●
										M ○
										K ○
										N -
										S -
										H -



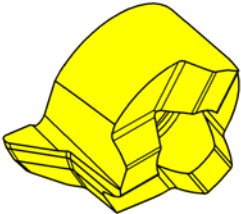
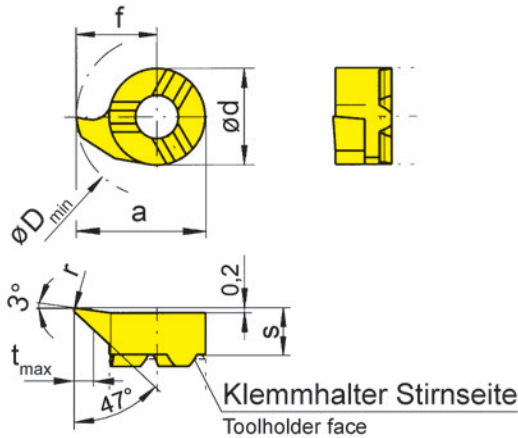
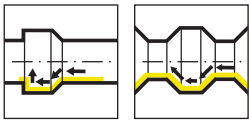


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	f	r	d	s	a	$D_{\min}$	α	$t_{\max}$	HIS	EG55
R11P.4545.1.02	2,2	6,5	0,2	7	4,35	10	10,5	45°	1,7	11P070R	▲
L11P.4545.1.02	2,2	6,5	0,2	7	4,35	10	10,5	45°	1,7	11P070L	▲
										P ●	
										M o	
										K o	
										N -	
										S -	
										H -	



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R11P.4775.2.02	4,2	7,5	11	0,2	7	3,5	11,5	11P070R	▲
L11P.4775.2.02	4,2	7,5	11	0,2	7	3,5	11,5	11P070L	▲
								P ●	
								M o	
								K o	
								N -	
								S -	
								H -	





114

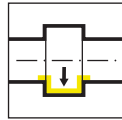


**Klemmhalter und
Schneidplatten**

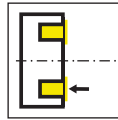
**Toolholder and
Inserts**

J

Klemmhalter
Toolholder
B114/WFB.114/BA114/
HC114



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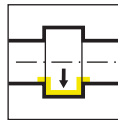


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Schneidplatte
Insert
114/S114



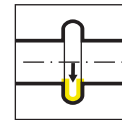
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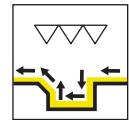
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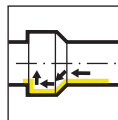
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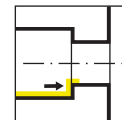
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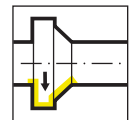
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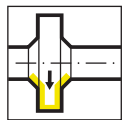
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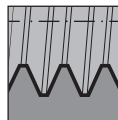
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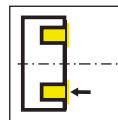
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319-323



Seite/Page
324-329

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

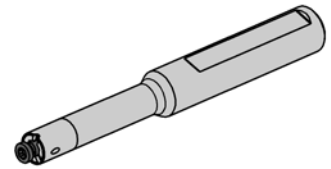
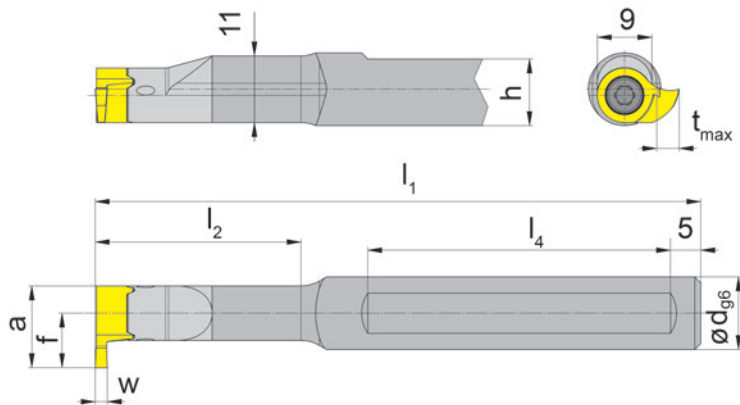
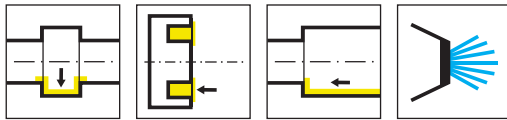


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l_1	l_2	h	l_4	HWS
B114.0012.00	12	75	19,5	11	40	114090R • 114090L
B114.0012.01	12	100	34	11	50	114090R • 114090L
B114.0012.02	12	110	45	11	50	114090R • 114090L
B114.0012.03	12	130	64	11	50	114090R • 114090L
B114.0016.00	16	80	19,5	15	40	114090R • 114090L
B114.0016.01	16	100	34	15	50	114090R • 114090L
B114.0016.02	16	110	45	15	50	114090R • 114090L
B114.0016.03	16	130	64	15	50	114090R • 114090L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B114...	4.12T15EP	T15PQ

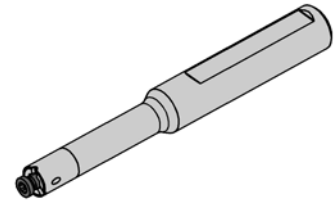
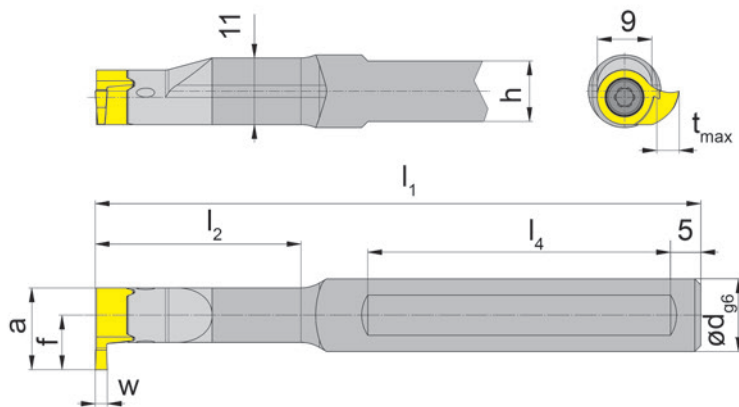
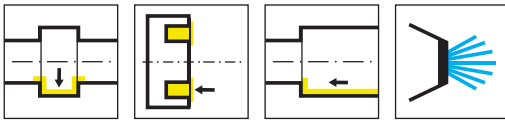


Abbildung = rechtsschneidend
Picture = right hand cutting version

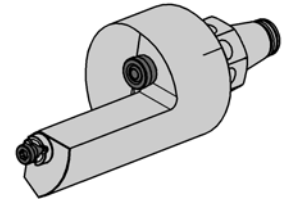
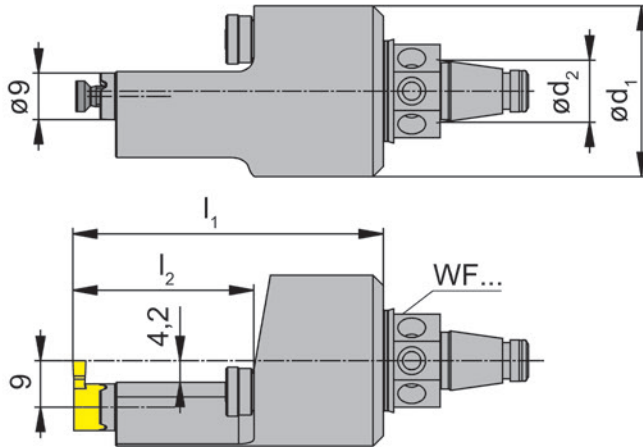
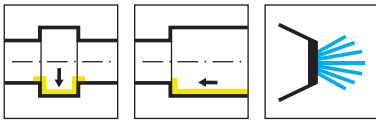
Bestellnummer Part number	d	l_1	l_2	h	l_4	HWS
B114.0012.2.00	12	75	19,5	11	40	114090R • 114090L
B114.0012.2.01	12	100	34	11	50	114090R • 114090L
B114.0012.2.02	12	110	45	11	50	114090R • 114090L
B114.0012.2.03	12	130	64	11	50	114090R • 114090L
B114.0016.2.00	16	80	19,5	14	40	114090R • 114090L
B114.0016.2.01	16	100	34	14	50	114090R • 114090L
B114.0016.2.02	16	110	45	14	50	114090R • 114090L
B114.0016.2.03	16	130	64	14	50	114090R • 114090L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B114...	4.12T15EP	T15PQ



Bestellnummer Part number	d_1	l_1	d_2	l_2	HWS	HMS
WFB.2H0.114	33	60	12	35	114090R • 114090L	WFB
WFB.3H0.114	50	80	20	32	114090R • 114090L	WFB

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	Kugelspritzdüse Coolant spray nozzle	TORX PLUS®-Schlüssel TORX PLUS® Wrench
WFB...	4.12T15EP	020.0806.3116	T15PQ

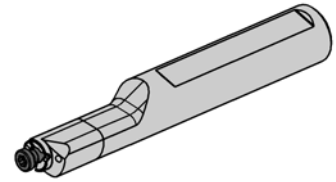
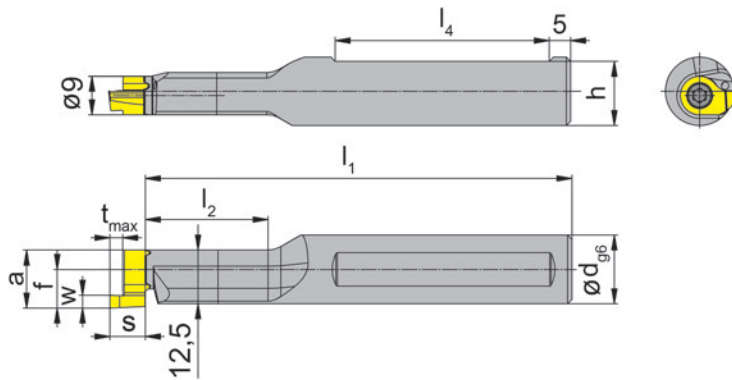
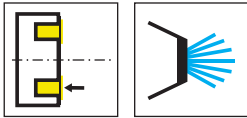


Abbildung = rechtsschneidend
Picture = right hand cutting version

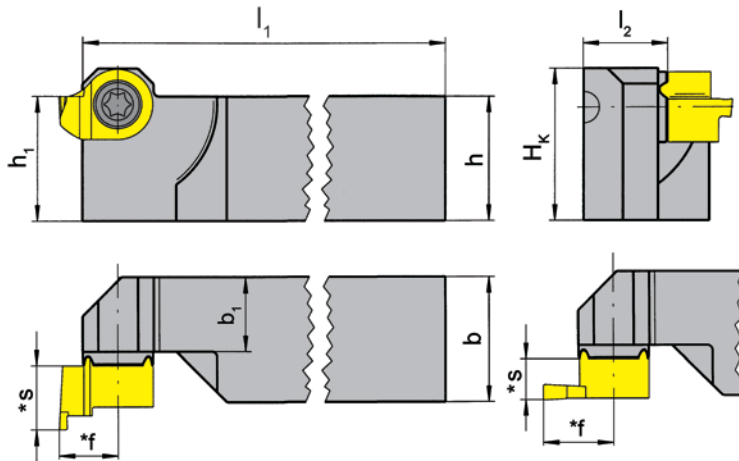
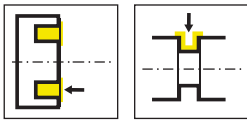
Bestellnummer Part number	d	l_1	l_2	h	l_4	HWS
RBA114.0016.01	16	99,7	28,7	15	50	114090R • 114090L
RBA114.0016.02	16	109,7	39,7	15	50	114090R • 114090L
LBA114.0016.01	16	99,7	28,7	15	50	114090R • 114090L
LBA114.0016.02	16	109,7	39,7	15	50	114090R • 114090L

w, a, s, t_{max} und f siehe Schneidplatten
w, a, s, t_{max} and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LBA114...	4.12T15EP	T15PQ



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

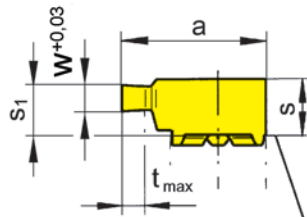
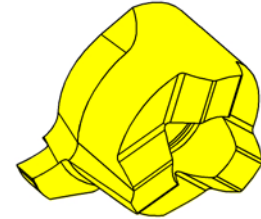
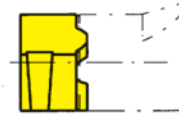
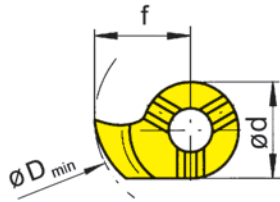
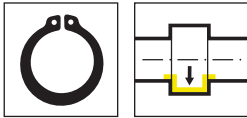
Bestellnummer Part number	h	b	l ₁	l ₂	h ₁	b ₁	H _k	HWS
RHC114.1212.01	12	12	122	11,2	12	9,5	15,6	114090R • 114090L
RHC114.1616.01	16	16	122	11,2	16	9,5	19,6	114090R • 114090L
RHC114.2020.01	20	20	122	15,2	20	13,5	23,6	114090R • 114090L
RHC114.2525.01	25	25	147	20,2	25	18,5	28,6	114090R • 114090L
LHC114.1212.01	12	12	122	11,2	12	9,5	15,6	114090R • 114090L
LHC114.1616.01	16	16	122	11,2	16	9,5	19,6	114090R • 114090L
LHC114.2020.01	20	20	122	15,2	20	13,5	23,6	114090R • 114090L
LHC114.2525.01	25	25	147	20,2	25	18,5	28,6	114090R • 114090L

* siehe Schneidplatten
* see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LHC114...	4.12T15EP	T15PQ



Klemmhalter Stirnseite

Toolholder face

R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

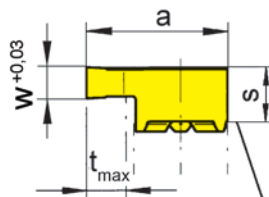
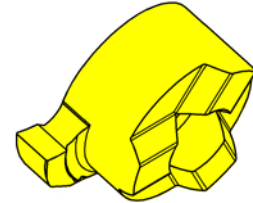
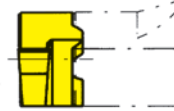
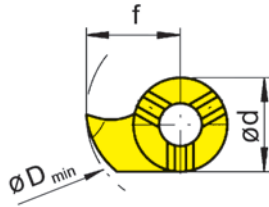
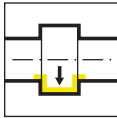
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	a	s ₁	d	t _{max}	D _{min}	HIS	EG55	TN35
R114.0070.00	0,74	0,7	5,5	9	13,5	5,3	9	1,2	14	114090R	▲	▲
R114.0080.00	0,84	0,8	5,5	9	13,5	5,3	9	1,3	14	114090R	▲	▲
R114.0090.00	0,94	0,9	5,5	9	13,5	5,3	9	1,5	14	114090R	▲	▲
L114.0070.00	0,74	0,7	5,5	9	13,5	5,3	9	1,2	14	114090L		▲
L114.0080.00	0,84	0,8	5,5	9	13,5	5,3	9	1,3	14	114090L	Δ	▲
L114.0090.00	0,94	0,9	5,5	9	13,5	5,3	9	1,5	14	114090L	▲	▲

Zapfenausführung
not face cutting, limited depth of cut

Abmessungen für Seegerringnuten DIN 471/472
Widths for circlip grooves DIN 471/472

	P	M	K	N	S	H
EG55	●	○	○	-	-	-
TN35	●	●	●	●	●	-



Klemmhalter Stirnseite
Toolholder face

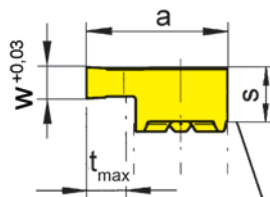
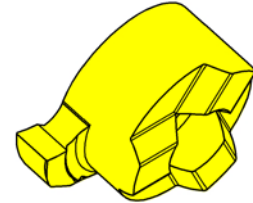
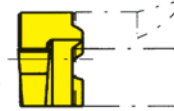
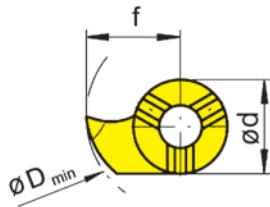
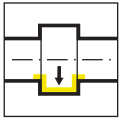
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	a	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R114.0110.00	1,19	1,1	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
R114.0130.00	1,39	1,3	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
R114.0160.00	1,69	1,6	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
L114.0110.00	1,19	1,1	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
L114.0130.00	1,39	1,3	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
L114.0160.00	1,69	1,6	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
Abmessungen für Seegerringnuten DIN 471/472 Widths for circlip grooves DIN 471/472										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



Klemmhalter Stirnseite
Toolholder face

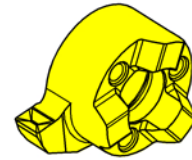
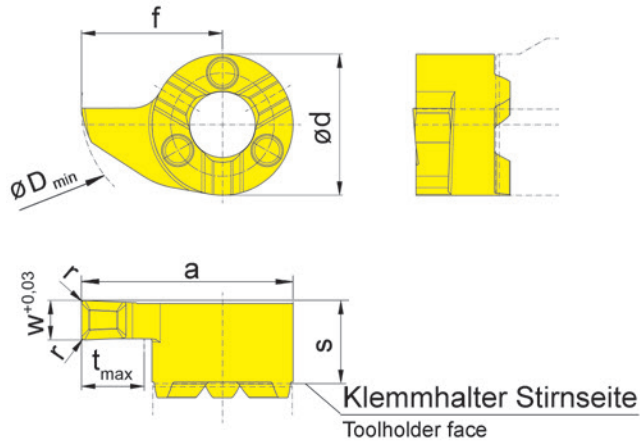
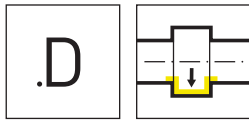
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R114.0150.00	1,5	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
R114.0200.00	2	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
R114.0250.00	2,5	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
R114.0300.00	3	5,3	9	13,5	9	4	14	114090R	▲	▲	▲
L114.0150.00	1,5	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
L114.0200.00	2	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
L114.0250.00	2,5	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
L114.0300.00	3	5,3	9	13,5	9	4	14	114090L	▲	▲	▲
P	•	•	•						•	•	•
M	o	•	•						•	•	•
K	o	•	•						•	•	•
N	-	•	•						•	•	•
S	-	•	•						•	•	•
H	-	-	-						•	•	•



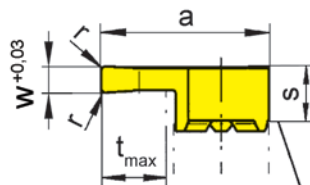
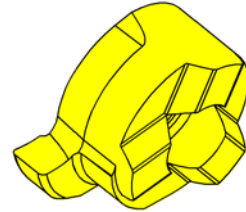
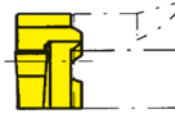
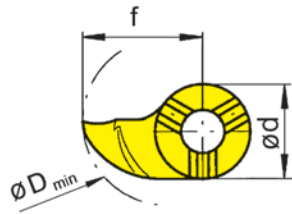
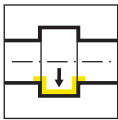
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TF45	TH35	TN35
RS114.0200.D2	2	5,3	9	13,5	0,2	9	4	14	114090R		▲	▲	▲	▲
RS114.0250.D2	2,5	5,3	9	13,5	0,2	9	4	14	114090R		▲	▲	▲	▲
RS114.0300.D2	3	5,3	9	13,5	0,2	9	4	14	114090R		▲	▲	▲	▲
LS114.0200.D2	2	5,3	9	13,5	0,2	9	4	14	114090L		▲	Δ	▲	▲
LS114.0250.D2	2,5	5,3	9	13,5	0,2	9	4	14	114090L		▲	Δ	▲	▲
LS114.0300.D2	3	5,3	9	13,5	0,2	9	4	14	114090L		▲	▲	▲	▲
										P	●	●	●	●
										M	○	●	●	●
										K	○	●	●	●
										N	-	●	●	●
										S	-	●	●	●
										H	-	-	-	-



Klemmhalter Stirnseite
Toolholder face

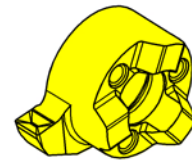
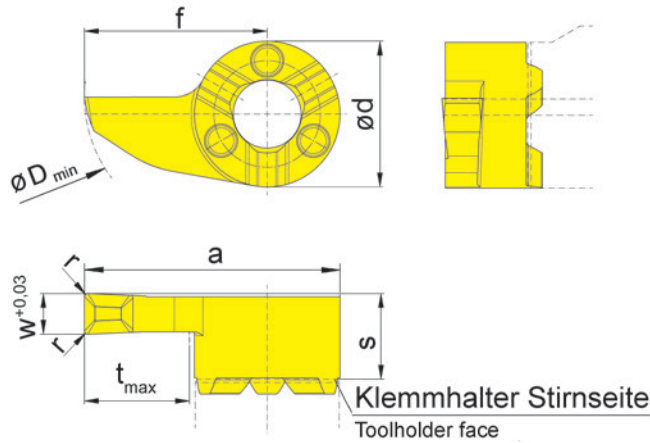
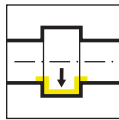
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TI25	TN35
R114.0150.1.02	1,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲		▲
R114.0200.1.02	2	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲	▲	▲
R114.0250.1.02	2,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲		▲
R114.0300.1.02	3	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲		▲
R114.0400.1.02	4	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	Δ			
L114.0150.1.02	1,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲		▲
L114.0200.1.02	2	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲	Δ	▲
L114.0250.1.02	2,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲		▲
L114.0300.1.02	3	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲		▲
L114.0400.1.02	4	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	Δ			
P	●	●	●	●	●	●	●	●		●	●	●	●
M	○	●	●	●	●	●	●	●		○	●	●	●
K	○	●	●	●	●	●	●	●		○	●	●	●
N	-	●	●	●	●	●	●	●		-	●	●	●
S	-	●	●	●	●	●	●	●		-	●	●	●
H	-	-	-	-	-	-	-	-		-	-	-	-



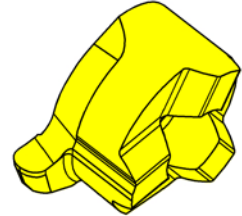
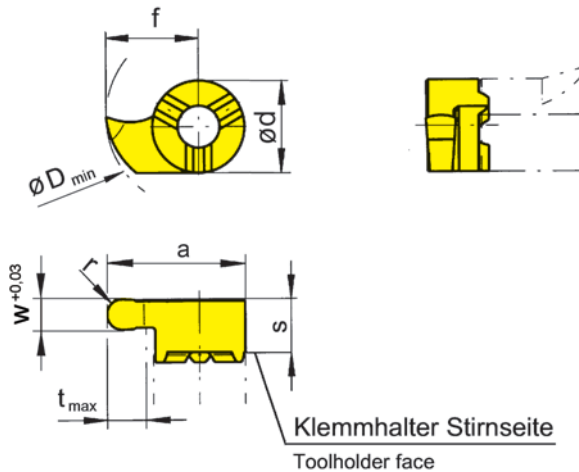
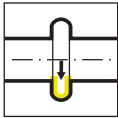
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
RS114.0200.1.D2	2	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲	▲
RS114.0250.1.D2	2,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲	▲
RS114.0300.1.D2	3	5,3	11,3	15,8	0,2	9	6,5	16,5	114090R	▲	▲	▲
LS114.0200.1.D2	2	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲	▲
LS114.0250.1.D2	2,5	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	Δ	▲	▲
LS114.0300.1.D2	3	5,3	11,3	15,8	0,2	9	6,5	16,5	114090L	▲	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



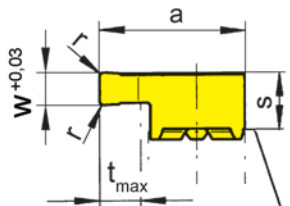
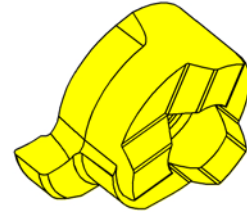
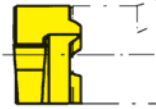
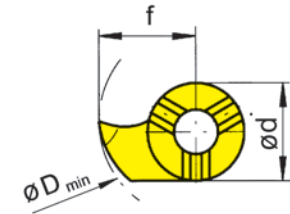
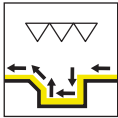
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TI25	TN35
R114.0004.08	0,8	5,3	9	13,5	0,4	9	4	14	114090R			▲	
R114.0006.12	1,2	5,3	9	13,5	0,6	9	4	14	114090R	▲	▲		▲
R114.0009.18	1,8	5,3	9	13,5	0,9	9	4	14	114090R	▲	▲		▲
R114.0010.20	2	5,3	9	13,5	1	9	4	14	114090R	▲	▲		▲
R114.0011.22	2,2	5,3	9	13,5	1,1	9	4	14	114090R	▲	▲		▲
R114.0015.30	3	5,3	9	13,5	1,5	9	4	14	114090R	▲	▲		▲
R114.0020.40	4	5,3	9	13,5	2	9	4	14	114090R	▲	▲		
L114.0004.08	0,8	5,3	9	13,5	0,4	9	4	14	114090L			▲	
L114.0006.12	1,2	5,3	9	13,5	0,6	9	4	14	114090L	▲	▲		▲
L114.0009.18	1,8	5,3	9	13,5	0,9	9	4	14	114090L	▲	▲		▲
L114.0010.20	2	5,3	9	13,5	1	9	4	14	114090L	▲	▲		▲
L114.0011.22	2,2	5,3	9	13,5	1,1	9	4	14	114090L	Δ	▲		▲
L114.0015.30	3	5,3	9	13,5	1,5	9	4	14	114090L	▲	▲		▲
L114.0020.40	4	5,3	9	13,5	2	9	4	14	114090L	Δ	Δ		
P	•	•	•	•	•								
M	o	•	•	•	•								
K	o	•	•	•	•								
N	-	•	•	•	•								
S	-	•	•	•	•								
H	-	-	-	-	-								



Klemmhalter Stirnseite
Toolholder face

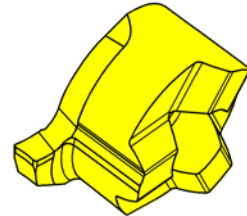
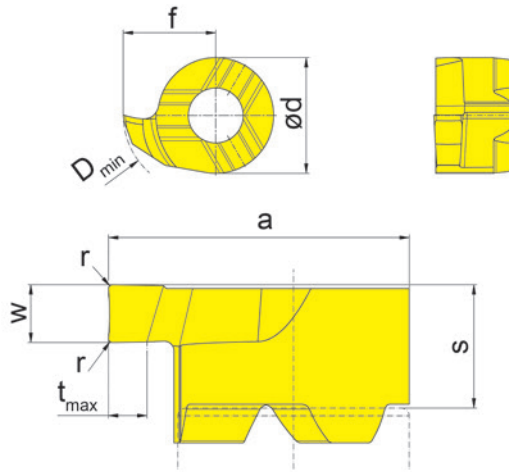
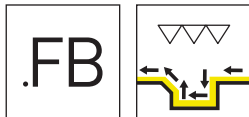
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35	TI25	TN35
R114.0200.02	2	5,3	9	13,5	0,2	9	4	14	114090R		▲	▲	▲	▲
L114.0200.02	2	5,3	9	13,5	0,2	9	4	14	114090L		▲	▲	▲	▲
										P	●	●	●	●
										M	○	●	●	●
										K	○	●	●	●
										N	-	●	●	●
										S	-	●	●	●
										H	-	-	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG35
R114.FB10.01	1	5,3	9	13,5	0,1	9	4	14	114090R	▲
R114.FB15.01	1,5	5,3	9	13,5	0,1	9	4	14	114090R	▲
L114.FB10.01	1	5,3	9	13,5	0,1	9	4	14	114090L	▲
L114.FB15.01	1,5	5,3	9	13,5	0,1	9	4	14	114090L	▲
										P ●
										M ●
										K ○
										N -
										S -
										H -

Berechnung der kleinstmöglichen Nutbreite w_x
Calculation of the smallest possible width of groove w_x

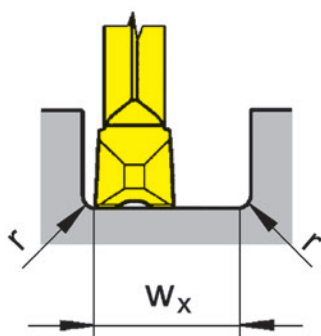
Beispiel R114.FB10.01
Example

$w_x = 2 \times \text{Schneidbreite } w - 2 \times \text{Eckenradius Schneidplatte } r$

$w_x = 2 \times \text{Width of insert } w - 2 \times \text{Corner radius insert } r$

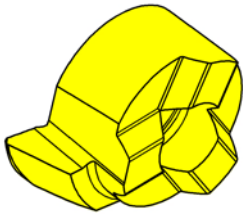
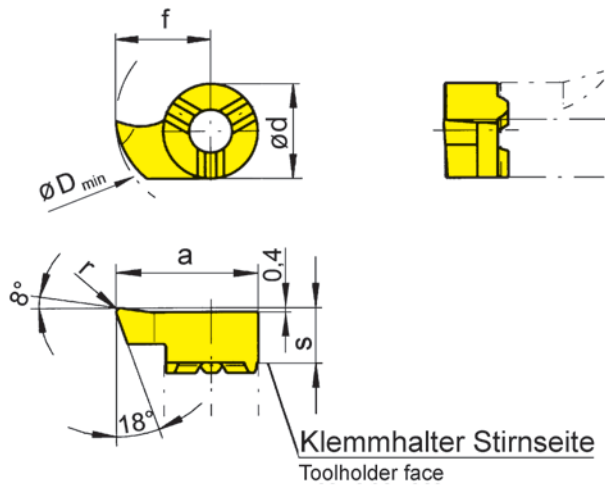
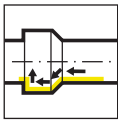
$w_x = 2 \times 1 \text{ mm} - 2 \times 0,1 \text{ mm}$

$w_x = 1,8 \text{ mm}$



Bearbeitungsablauf
Processing flow



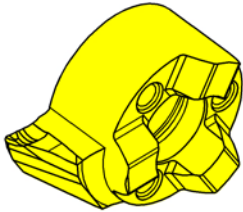
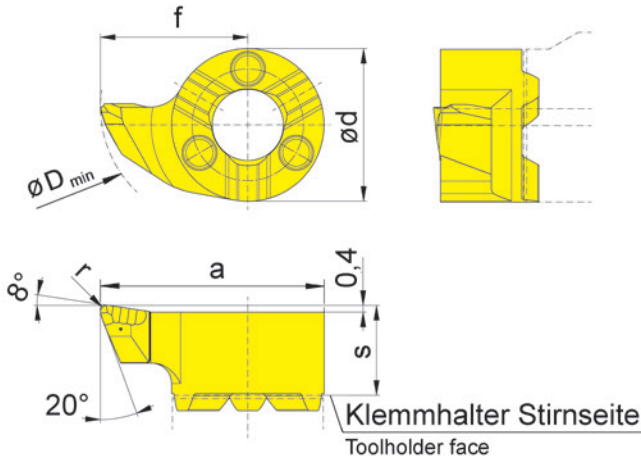


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35	TN35
R114.1890.02	5,3	8,7	13,2	0,2	9	13,8	114090R	▲	▲	▲
L114.1890.02	5,3	8,7	13,2	0,2	9	13,8	114090L	▲	▲	▲
P	●	●	●							
M	○	●	●							
K	○	●	●							
N	-	●	●							
S	-	●	●							
H	-	-	-							



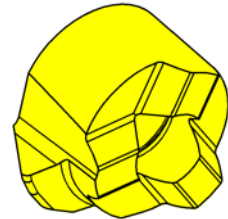
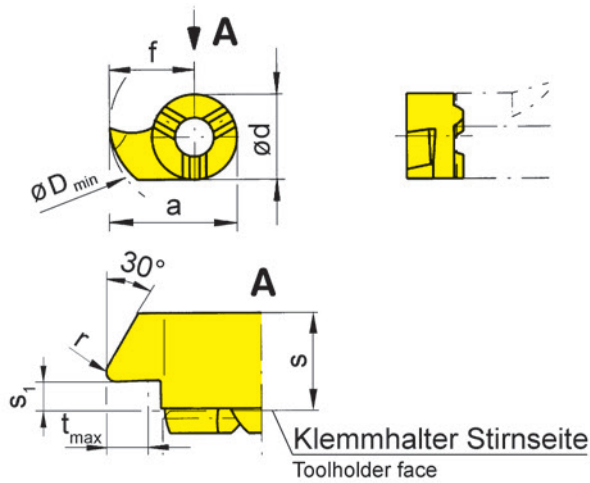
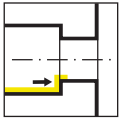
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35
RS114.1890.R2	5,3	8,7	13,2	0,2	9	13,8	114090R	▲	▲	▲
RS114.1890.R4	5,3	8,7	13,2	0,4	9	13,8	114090R	▲	▲	▲
LS114.1890.R2	5,3	8,7	13,2	0,2	9	13,8	114090L	▲	▲	▲
LS114.1890.R4	5,3	8,7	13,2	0,4	9	13,8	114090L	▲	▲	▲
								P	●	●
								M	○	●
								K	○	●
								N	-	●
								S	-	●
								H	-	-



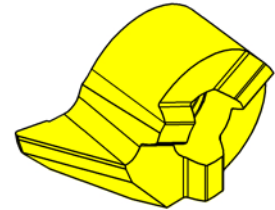
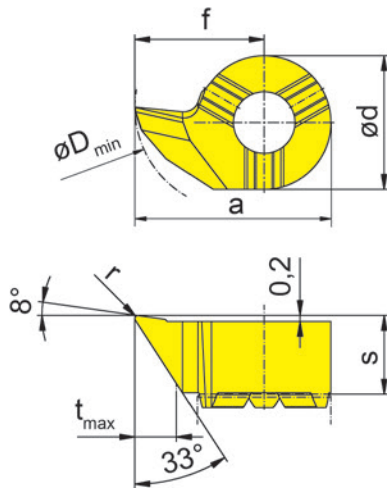
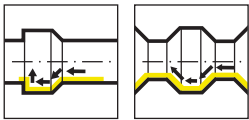
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	r	s ₁	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R114.3090.02	5,5	8,7	0,2	2,4	9	3,5	13,8	114090R	▲	▲	▲
L114.3090.02	5,5	8,7	0,2	2,4	9	3,5	13,8	114090L	▲	▲	▲
									P	•	•
									M	•	•
									K	•	•
									N	-	•
									S	-	•
									H	-	-



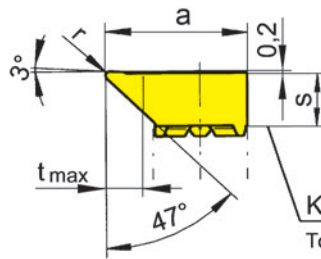
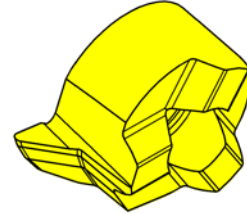
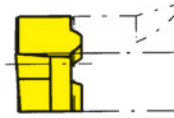
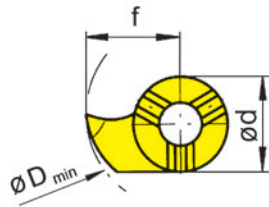
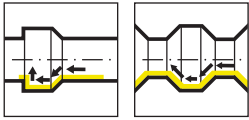
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R114.3387.02	5,3	8,7	13,2	0,2	9	2,8	13,8	114090R	▲
R114.3387.04	5,3	8,7	13,2	0,4	9	2,8	13,8	114090R	▲
L114.3387.02	5,3	8,7	13,2	0,2	9	2,8	13,8	114090L	Δ
L114.3387.04	5,3	8,7	13,2	0,4	9	2,8	13,8	114090L	Δ
								P	●
								M	o
								K	o
								N	-
								S	-
								H	-



Klemmhalter Stirnseite
Toolholder face

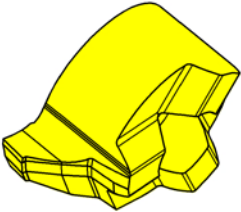
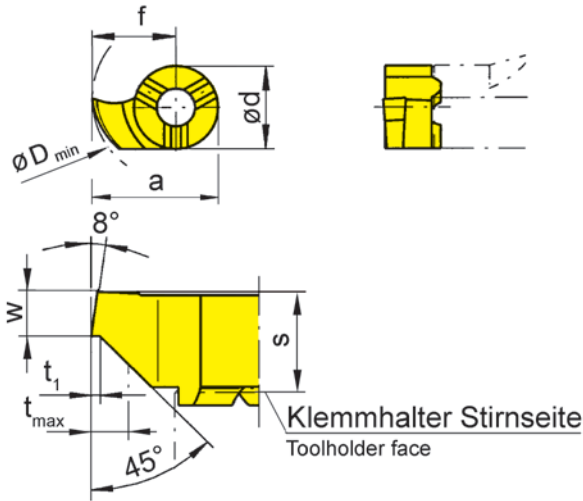
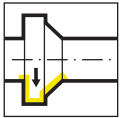
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R114.4787.02	5,3	8,7	13,2	0,2	9	3	13,8	114090R	▲	▲	▲
R114.4787.04	5,3	8,7	13,2	0,4	9	3	13,8	114090R	▲	▲	▲
R114.4710.02	5,3	11	15,5	0,2	9	5	16	114090R	▲	▲	▲
L114.4787.02	5,3	8,7	13,2	0,2	9	3	13,8	114090L	▲	▲	▲
L114.4787.04	5,3	8,7	13,2	0,4	9	3	13,8	114090L	▲	▲	▲
L114.4710.02	5,3	11	15,5	0,2	9	5	16	114090L	Δ	▲	▲
P	●	●	●								
M	○	●	●								
K	○	●	●								
N	-	●	●								
S	-	●	●								
H	-	-	-								



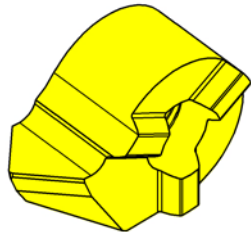
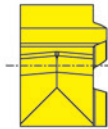
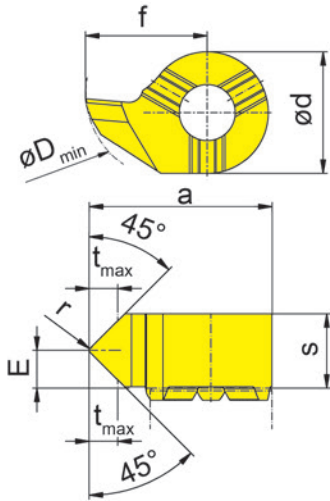
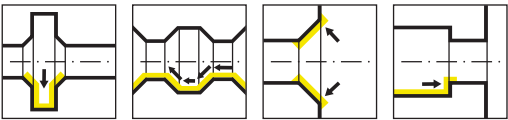
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	t ₁	D _{min}	HIS		EG55	TI25
R114.0815.45	1,5	5,3	9	13,5	9	1,5	0,2	14	114090R	▲	▲	▲
L114.0815.45	1,5	5,3	9	13,5	9	1,5	0,2	14	114090L	▲	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-

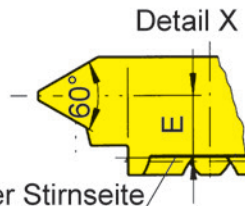
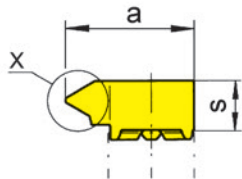
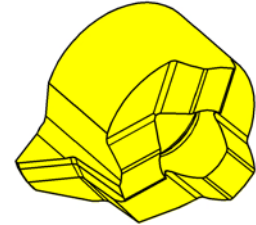
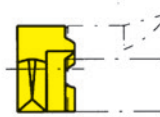
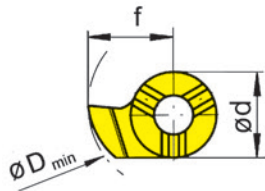
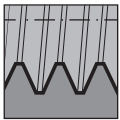


R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R114.4545.02	2,8	5,5	9	13,5	0,2	9	2,1	14	114090R	▲
L114.4545.02	2,8	5,5	9	13,5	0,2	9	2,1	14	114090L	Δ
									P	●
									M	o
									K	o
									N	-
									S	-
									H	-



Klemhalter Stirnseite
Toolholder face

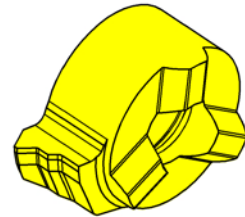
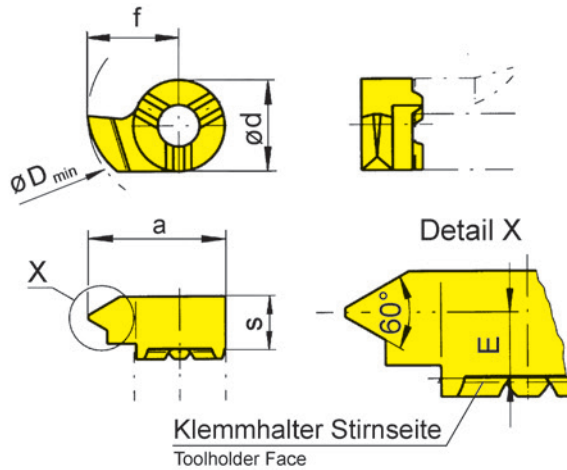
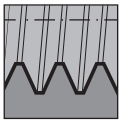
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55	TH35	TN35
R114.0205.01	0,5	0,75	4,8	9	9	9	5,5	14	114090R	▲	▲	▲
R114.0510.01	1	1,25	4,7	9	13,5	9	5,5	14	114090R	▲	▲	▲
R114.0815.01	1,5	1,75	4,5	9	13,5	9	5,5	14	114090R	▲	▲	▲
R114.1020.01	2	2	4,2	9	13,5	9	5,5	14	114090R	▲	▲	▲
R114.1325.01	2,5	2,5	4,2	9	13,5	9	5,5	14	114090R	▲	▲	▲
L114.0205.01	0,5	0,75	4,8	9	9	9	5,5	14	114090L	Δ	Δ	Δ
L114.0510.01	1	1,25	4,7	9	13,5	9	5,5	14	114090L	Δ	Δ	▲
L114.0815.01	1,5	1,75	4,5	9	13,5	9	5,5	14	114090L	▲	▲	▲
L114.1020.01	2	2	4,2	9	13,5	9	5,5	14	114090L	Δ	Δ	Δ
L114.1325.01	2,5	2,5	4,2	9	13,5	9	5,5	14	114090L	Δ	▲	Δ
P	●	●	●	●	●	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○
N	-	-	-	-	-	-	-	-	-	-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-	-	-	-



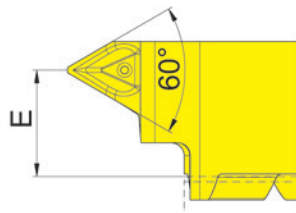
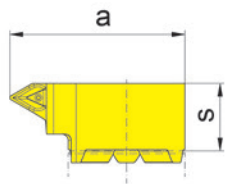
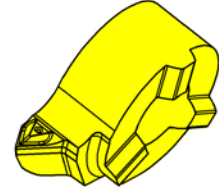
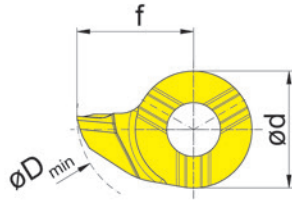
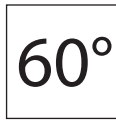
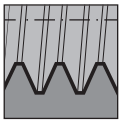
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55	TN35
R114.0510.02	1	4,7	9	13,5	9	5,5	14	114090R	▲	▲
R114.0815.02	1,5	4,5	9	13,5	9	5,5	14	114090R	▲	▲
R114.1020.02	2	4,2	9	13,5	9	5,5	14	114090R	▲	▲
R114.1325.02	2,5	4,2	9	13,5	9	5,5	14	114090R	▲	▲
L114.0510.02	1	4,7	9	13,5	9	5,5	14	114090L	Δ	▲
L114.0815.02	1,5	4,5	9	13,5	9	5,5	14	114090L	Δ	▲
L114.1020.02	2	4,2	9	13,5	9	5,5	14	114090L	Δ	▲
L114.1325.02	2,5	4,2	9	13,5	9	5,5	14	114090L	Δ	▲
	P	●	●							
	M	○	●							
	K	○	●							
	N	-	●							
	S	-	●							
	H	-	-							



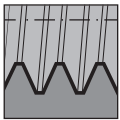
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

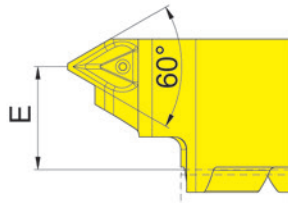
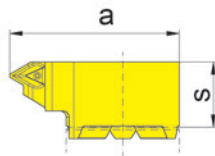
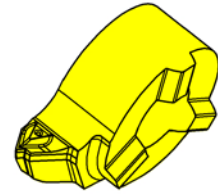
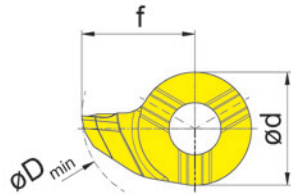
Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55
RS114.0205.GM1	0,5	0,75	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.0510.GM1	1	1,25	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.0815.GM1	1,5	1,75	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.1020.GM1	2	2	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.1325.GM1	2,5	2,5	4,1	9	13,5	9	5,2	14	114090R	▲
LS114.0205.GM1	0,5	0,75	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.0510.GM1	1	1,25	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.0815.GM1	1,5	1,75	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.1020.GM1	2	2	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.1325.GM1	2,5	2,5	4,1	9	13,5	9	5,2	14	114090L	▲
	P	•								
	M	o								
	K	o								
	N	-								
	S	-								
	H	-								



.GM



60°



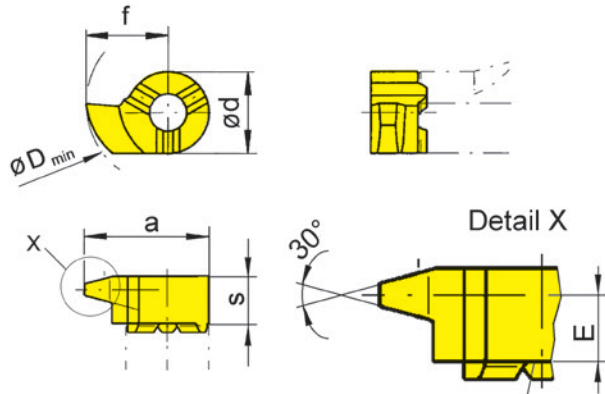
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

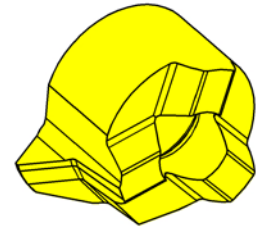
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55
RS114.0510.GM2	1	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.0815.GM2	1,5	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.1020.GM2	2	4,1	9	13,5	9	5,2	14	114090R	▲
RS114.1325.GM2	2,5	4,1	9	13,5	9	5,2	14	114090R	▲
LS114.0510.GM2	1	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.0815.GM2	1,5	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.1020.GM2	2	4,1	9	13,5	9	5,2	14	114090L	▲
LS114.1325.GM2	2,5	4,1	9	13,5	9	5,2	14	114090L	▲
	P	•							
	M	o							
	K	o							
	N	-							
	S	-							
	H	-							



Klemhalter Stirnseite
Toolholder face



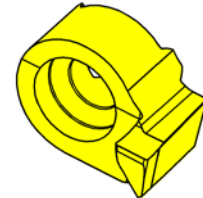
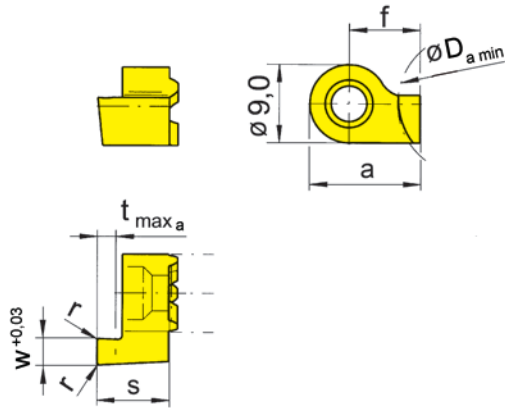
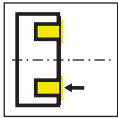
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55	TN35
R114.1730.01	3	4,3	9	13,5	9	5,5	14	114090R	▲	Δ
R114.2240.01	4	4	9	13,5	9	5,5	14	114090R	▲	▲
R114.2750.01	5	3,55	9	13,5	9	5,5	14	114090R	▲	▲
L114.2240.01	4	4	9	13,5	9	5,5	14	114090L	Δ	▲
L114.2750.01	5	3,55	9	13,5	9	5,5	14	114090L	Δ	▲
	P	●	●							
	M	○	●							
	K	○	●							
	N	-	●							
	S	-	●							
	H	-	-							



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

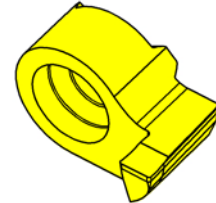
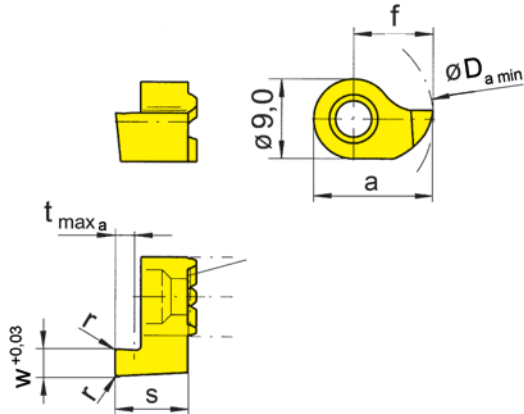
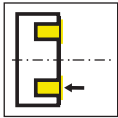
Bestellnummer Part number	w	s	f	a	r	t _{max a}	D _{a min}	HIS	EG55	TN35
R114.1205.00	0,5	8,3	7,5	12	-	1	12	114090R	Δ	▲
R114.1210.00	1	8,3	7,5	12	-	1,5	12	114090R	▲	▲
R114.1215.00	1,5	8,3	7,5	12	0,2	2,5	12	114090R	▲	▲
R114.1220.00	2	8,3	7,5	12	0,2	3	12	114090R	▲	▲
R114.1225.00	2,5	8,3	7,5	12	0,2	3	12	114090R	▲	▲
R114.1230.00	3	8,3	7,5	12	0,2	3	12	114090R	▲	▲
R114.1220.5.00	2	10,8	7,5	12	0,2	5	12	114090R	▲	▲
R114.1225.5.00	2,5	10,8	7,5	12	0,2	5	12	114090R	▲	▲
R114.1230.6.00	3	11,8	7,5	12	0,2	6	12	114090R	▲	▲
L114.1205.00	0,5	8,3	7,5	12	-	1	12	114090L	Δ	▲
L114.1210.00	1	8,3	7,5	12	-	1,5	12	114090L	▲	▲
L114.1215.00	1,5	8,3	7,5	12	0,2	2,5	12	114090L	▲	▲
L114.1220.00	2	8,3	7,5	12	0,2	3	12	114090L	▲	▲
L114.1225.00	2,5	8,3	7,5	12	0,2	3	12	114090L	▲	▲
L114.1230.00	3	8,3	7,5	12	0,2	3	12	114090L	▲	▲
L114.1220.5.00	2	10,8	7,5	12	0,2	5	12	114090L	▲	▲
L114.1225.5.00	2,5	10,8	7,5	12	0,2	5	12	114090L	▲	▲
L114.1230.6.00	3	11,8	7,5	12	0,2	6	12	114090L	▲	▲

Bearbeitung **HINTER** der Drehmitte!
Machining **BEHIND** centre line

Ausführung R = Spindel linksdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter Typ B114 verlängern sich die Haltermaße l1 und l2 um 3,0 / 5,5 oder 6,5 mm.

R = rotation anti-clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 3,0 / 5,5 or 6,5 mm.

P	●	●
M	○	●
K	○	●
N	-	●
S	-	●
H	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

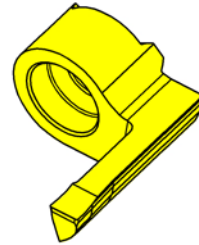
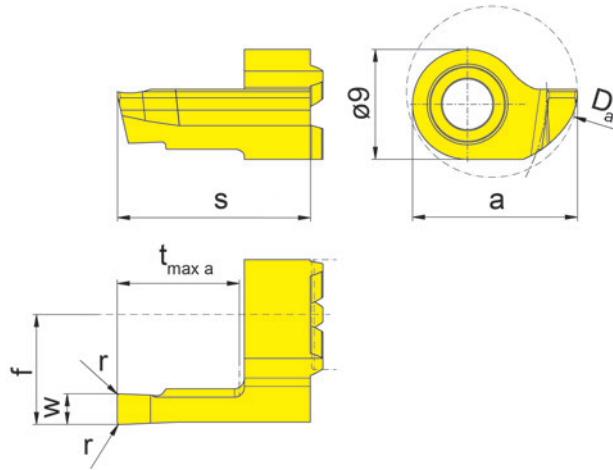
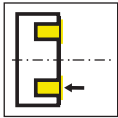
Bestellnummer Part number	w	s	f	a	r	t _{max a}	D _{a min}	HIS	EG55	TN35
R114.1410.00	1	8,3	9	13,5	-	1,5	14	114090R	▲	▲
R114.1415.00	1,5	8,3	9	13,5	0,2	2,5	14	114090R	▲	▲
R114.1420.00	2	8,3	9	13,5	0,2	3	14	114090R	▲	▲
R114.1425.00	2,5	8,3	9	13,5	0,2	3	14	114090R	▲	▲
R114.1430.00	3	8,3	9	13,5	0,2	3	14	114090R	▲	▲
R114.1420.5.00	2	10,8	9	13,5	0,2	5	14	114090R	▲	▲
R114.1425.5.00	2,5	10,8	9	13,5	0,2	5	14	114090R	▲	▲
R114.1430.6.00	3	11,8	9	13,5	0,2	6	14	114090R	▲	▲
L114.1410.00	1	8,3	9	13,5	-	1,5	14	114090L	▲	▲
L114.1415.00	1,5	8,3	9	13,5	0,2	2,5	14	114090L	▲	▲
L114.1420.00	2	8,3	9	13,5	0,2	3	14	114090L	▲	▲
L114.1425.00	2,5	8,3	9	13,5	0,2	3	14	114090L	▲	▲
L114.1430.00	3	8,3	9	13,5	0,2	3	14	114090L	▲	▲
L114.1420.5.00	2	10,8	9	13,5	0,2	5	14	114090L	▲	▲
L114.1425.5.00	2,5	10,8	9	13,5	0,2	5	14	114090L	▲	▲
L114.1430.6.00	3	11,8	9	13,5	0,2	6	14	114090L	▲	▲

Bearbeitung **VOR** der Drehmitte!
Machining IN-FRONT of centre line

Ausführung R = Spindel rechtsdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter Typ B114 verlängern sich die Haltermaße l1 und l2 um 3,0 / 5,5 oder 6,5 mm.
R = rotation clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 3,0 / 5,5 or 6,5 mm.

P	●	●
M	○	●
K	○	●
N	-	●
S	-	●
H	-	-





R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

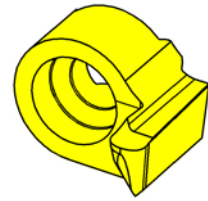
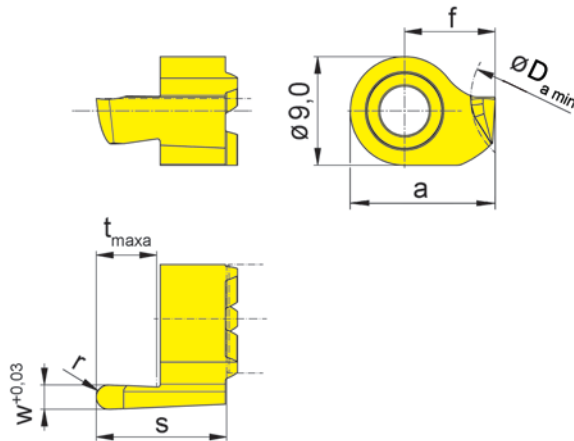
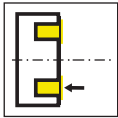
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	t _{max a}	D _{a min}	D _{a max}	HIS	EG55
R114.1420.10.00	2	15,9	9	13,5	0,2	10	14	34	114090R	▲
R114.1425.10.00	2,5	15,9	9	13,5	0,2	10	14	35	114090R	▲
R114.1430.10.00	3	15,9	9	13,5	0,2	10	14	36	114090R	▲

Bearbeitung **VOR** der Drehmitte!
Machining IN-FRONT of centre line

Ausführung R = Spindel rechtsdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter Typ B114 verlängern sich die Haltermaße l1 und l2 um 3,0 / 5,5 / 6,5 oder 10,6 mm.
R = rotation clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 3,0 / 5,5 / 6,5 or 10,6 mm.

P	●
M	o
K	o
N	-
S	-
H	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

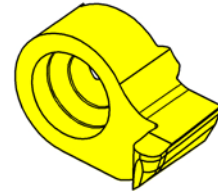
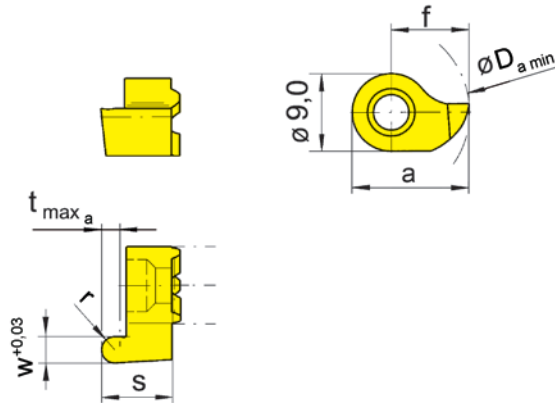
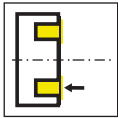
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	t _{max a}	D _{a min}	HIS	EG55	TN35
R114.1220.5.10	2	10,8	7,5	12	1	5	12	114090R	▲	▲
R114.1225.5.12	2,5	10,8	7,5	12	1,25	5	12	114090R	▲	▲
R114.1230.6.15	3	11,8	7,5	12	1,5	6	12	114090R	▲	▲
L114.1220.5.10	2	10,8	7,5	12	1	5	12	114090L	▲	▲
L114.1225.5.12	2,5	10,8	7,5	12	1,25	5	12	114090L	▲	▲
L114.1230.6.15	3	11,8	7,5	12	1,5	6	12	114090L	▲	▲

Vollradius Bearbeitung **HINTER** der Drehmitte!
Full radius Machining **BEHIND** centre line

Ausführung R = Spindel linksdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter Typ B114 verlängern sich die Haltermaße l1 und l2 um 5,5 oder 6,5 mm.
R = rotation anti-clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 5,5 mm or 6,5 mm.

P	●	●
M	○	●
K	○	●
N	-	●
S	-	●
H	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

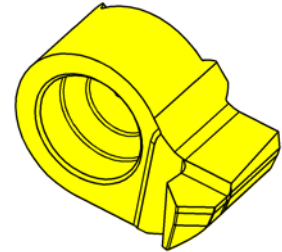
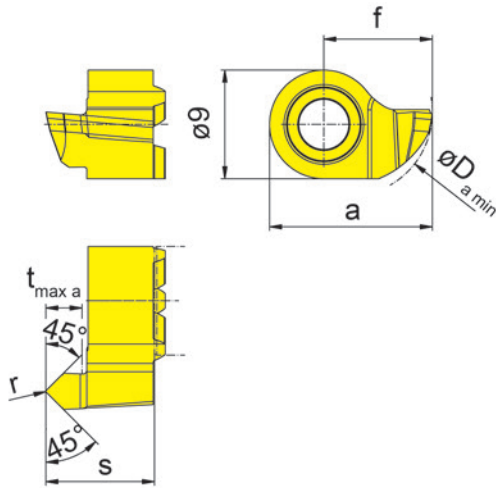
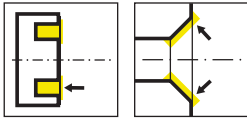
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	t _{max a}	D _{a min}	HIS	EG55	TN35
R114.1410.05	1	8,3	9	13,5	0,5	1,5	14	114090R	▲	▲
R114.1416.08	1,6	8,3	9	13,5	0,8	2,5	14	114090R	▲	▲
R114.1420.10	2	8,3	9	13,5	1	3	14	114090R	▲	▲
R114.1425.12	2,5	8,3	9	13,5	1,25	3	14	114090R	▲	▲
R114.1430.15	3	8,3	9	13,5	1,5	3	14	114090R	▲	▲
R114.1420.5.10	2	8,3	9	13,5	1	5	14	114090R	▲	
R114.1425.5.12	2,5	8,3	9	13,5	1,25	5	14	114090R	▲	
R114.1430.6.15	3	8,3	9	13,5	1,5	6	14	114090R	▲	
L114.1410.05	1	8,3	9	13,5	0,5	1,5	14	114090L	▲	▲
L114.1416.08	1,6	8,3	9	13,5	0,8	2,5	14	114090L	▲	▲
L114.1420.10	2	8,3	9	13,5	1	3	14	114090L	▲	▲
L114.1425.12	2,5	8,3	9	13,5	1,25	3	14	114090L	▲	▲
L114.1430.15	3	8,3	9	13,5	1,5	3	14	114090L	Δ	▲
L114.1420.5.10	2	8,3	9	13,5	1	5	14	114090L	Δ	
L114.1425.5.12	2,5	8,3	9	13,5	1,25	5	14	114090L	Δ	
L114.1430.6.15	3	8,3	9	13,5	1,5	6	14	114090L	Δ	

Vollradius Bearbeitung **VOR** der Drehmitte!
Full radius Machining IN-FRONT of centre line

Ausführung R = Spindel rechtsdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter Typ B114 verlängern sich die Haltermaße l1 und l2 um 3,0 mm.
R = rotation clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 3,0 mm.

P	●	●
M	○	●
K	○	●
N	-	●
S	-	●
H	-	-



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	$t_{\max a}$	$D_{a \min}$	HIS	EG55
R114.4545.14	9	9	13,5	0,1	3	14	114090R	▲
L114.4545.14	9	9	13,5	0,1	3	14	114090L	Δ

Bearbeitung **VOR** der Drehmitte!
Machining IN-FRONT of centre line

Ausführung R = Spindel rechtsdrehend! Bei Verwendung der Axialstechplatte Typ 114 mit Klemmhalter
Typ B114 verlängern sich die Haltermaße l1 und l2 um 3,0 / 5,5 oder 6,5 mm.

R = rotation clockwise! Using the face grooving insert type 114 on toolholder type B114 the size l1 and l2 will be enlarged by 3,0 / 5,5 or 6,5 mm.

P	●
M	o
K	o
N	-
S	-
H	-



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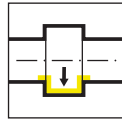


**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

K

Klemmhalter
Toolholder
B116

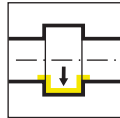


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Schneidplatte
Insert
116/S116



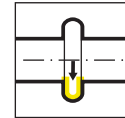
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336-337



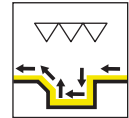
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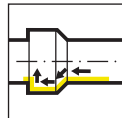
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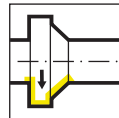
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341



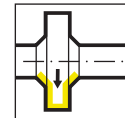
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342, 344-345



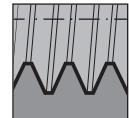
Seite/Page
343



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348-353

Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0											•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•							•		
Bohrung-Drehen Boring and Profiling	•											

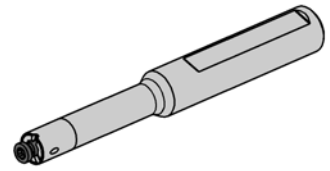
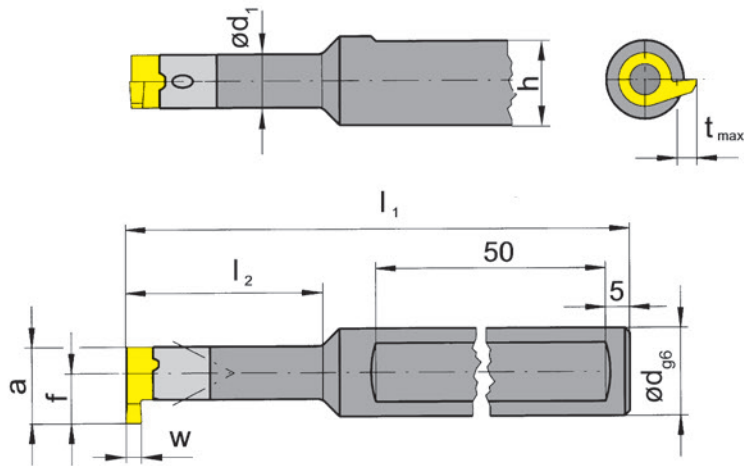
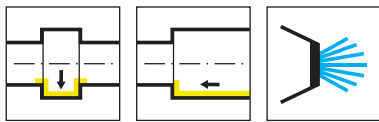


Abbildung = rechtsschneidend
Picture = right hand cutting version

Bestellnummer Part number	d	l_1	l_2	h	d_1	HWS
B116.0012.01	12	130	40	11	11	116110R • 116110L
B116.0012.02	12	130	56	11	11	116110R • 116110L
B116.0012.03	12	150	80	11	11	116110R • 116110L
B116.0016.01	16	130	40	15	11	116110R • 116110L
B116.0016.02	16	130	56	15	11	116110R • 116110L
B116.0016.03	16	150	80	15	11	116110R • 116110L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B116...	5.13T20EP	T20PQ

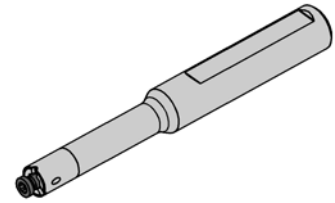
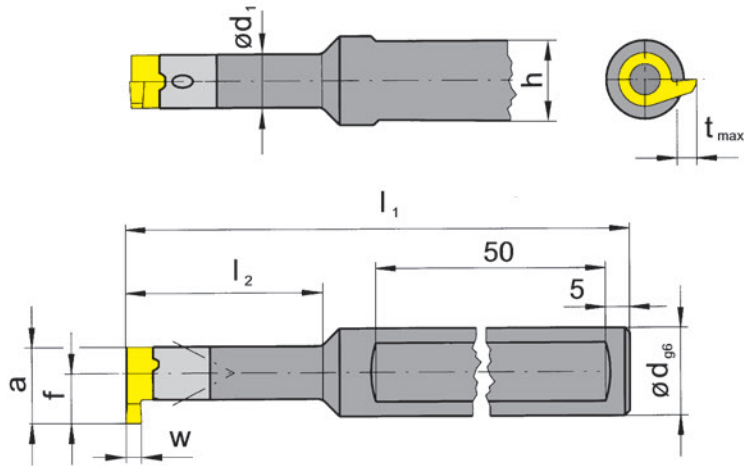
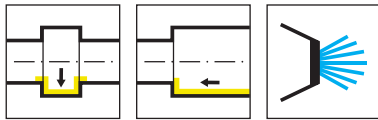


Abbildung = rechtsschneidend
Picture = right hand cutting version

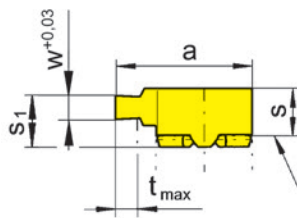
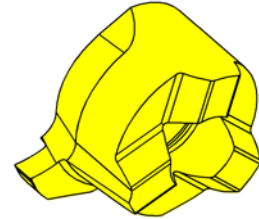
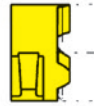
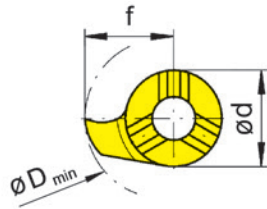
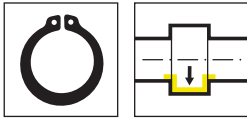
Bestellnummer Part number	d	l_1	l_2	h	d_1	HWS
B116.0012.2.01	12	130	40	11	11	116110R • 116110L
B116.0012.2.02	12	130	56	11	11	116110R • 116110L
B116.0012.2.03	12	150	80	11	11	116110R • 116110L
B116.0016.2.01	16	130	40	14	11	116110R • 116110L
B116.0016.2.02	16	130	56	14	11	116110R • 116110L
B116.0016.2.03	16	150	80	14	11	116110R • 116110L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
B116...	5.13T20EP	T20PQ



Klemmhalter Stirnseite
Toolholder face

R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

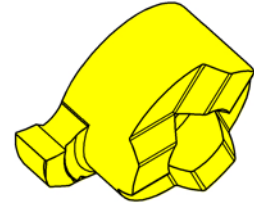
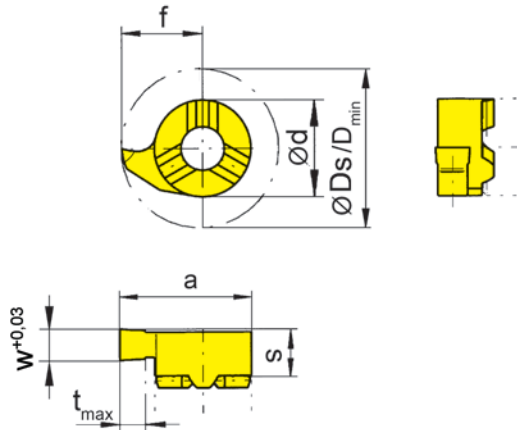
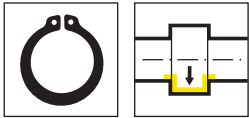
HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	a	s ₁	d	t _{max}	D _{min}	HIS	EG55	TN35
R116.0070.00	0,74	0,7	5,5	10,2	15,7	5,3	11	1,2	16	116110R	▲	▲
R116.0080.00	0,84	0,8	5,5	10,2	15,7	5,3	11	1,3	16	116110R	▲	▲
R116.0090.00	0,94	0,9	5,5	10,2	15,7	5,3	11	1,5	16	116110R	▲	▲
L116.0070.00	0,74	0,7	5,5	10,2	15,7	5,3	11	1,2	16	116110L	Δ	▲
L116.0080.00	0,84	0,8	5,5	10,2	15,7	5,3	11	1,3	16	116110L	Δ	Δ
L116.0090.00	0,94	0,9	5,5	10,2	15,7	5,3	11	1,5	16	116110L	Δ	▲

Zapfenausführung
not face cutting, limited depth of cut

Abmessungen für Seegerringnuten DIN 471/472
Widths for circlip grooves DIN 471/472

P	●	●
M	○	●
K	○	●
N	-	●
S	-	●
H	-	-



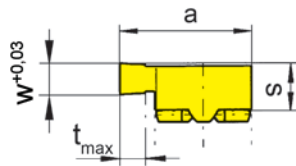
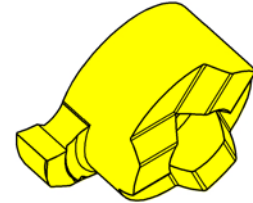
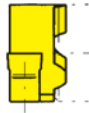
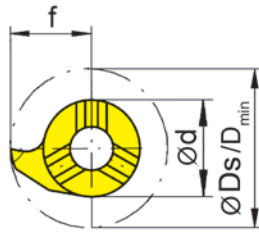
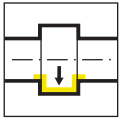
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	Nw	s	f	Ds	a	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R116.0110.00	1,19	1,1	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0130.00	1,39	1,3	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0160.00	1,69	1,6	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
L116.0110.00	1,19	1,1	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
L116.0130.00	1,39	1,3	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
L116.0160.00	1,69	1,6	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
Abmessungen für Seegerringnuten DIN 471/472 Widths for circlip grooves DIN 471/472												P	●	●
												M	○	●
												K	○	●
												N	-	●
												S	-	●
												H	-	-



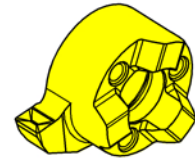
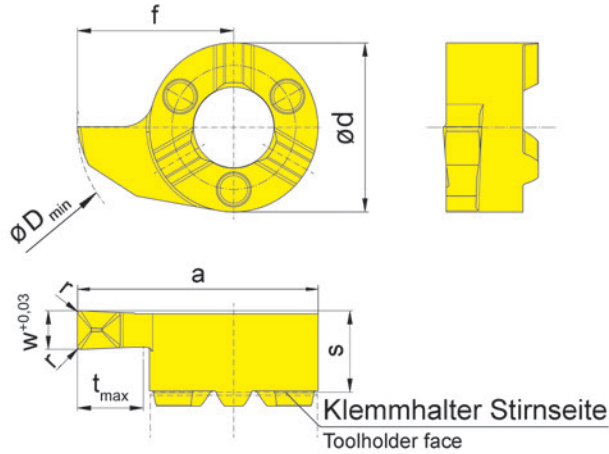
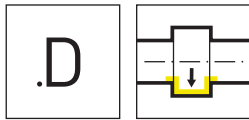
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	Ds	a	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R116.0200.00	2	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0250.00	2,5	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0300.00	3	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0350.00	3,5	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
R116.0400.00	4	5,3	10,2	20,4	15,7	11	4,3	16	1	116110R	▲	▲	▲
L116.0200.00	2	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L	▲	▲	▲
L116.0250.00	2,5	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
L116.0300.00	3	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L	▲	▲	▲
L116.0350.00	3,5	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
L116.0400.00	4	5,3	10,2	20,4	15,7	11	4,3	16	1	116110L		▲	▲
P	●	●	●										
M	o	●	●										
K	o	●	●										
N	-	●	●										
S	-	●	●										
H	-	-	-										



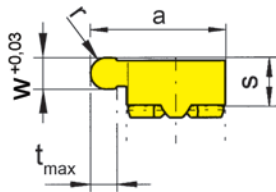
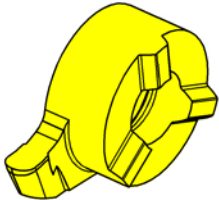
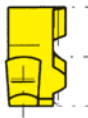
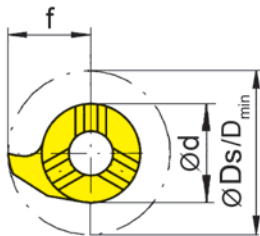
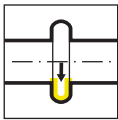
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
RS116.0200.D2	2	5,3	10,2	15,7	0,2	11	4,3	16	116110R	▲	▲	▲
RS116.0250.D2	2,5	5,3	10,2	15,7	0,2	11	4,3	16	116110R	▲	▲	▲
RS116.0300.D2	3	5,3	10,2	15,7	0,2	11	4,3	16	116110R	▲	▲	▲
LS116.0200.D2	2	5,3	10,2	15,7	0,2	11	4,3	16	116110L			▲
LS116.0250.D2	2,5	5,3	10,2	15,7	0,2	11	4,3	16	116110L			▲
LS116.0300.D2	3	5,3	10,2	15,7	0,2	11	4,3	16	116110L	Δ		▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



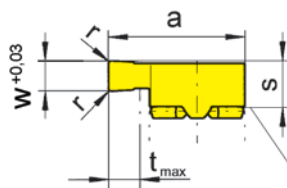
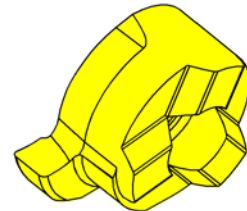
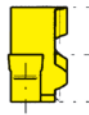
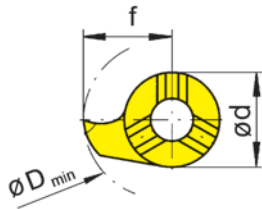
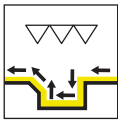
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	Ds	a	r	d	t _{max}	D _{min}	Z	HIS	EG55	TH35	TN35
R116.0009.18	1,8	5,3	10,2	20,4	15,7	0,9	11	4,3	16	1	116110R	▲	▲	▲
R116.0011.22	2,2	5,3	10,2	20,4	15,7	1,1	11	4,3	16	1	116110R	▲	▲	▲
R116.0015.30	3	5,3	10,2	20,4	15,7	1,5	11	4,3	16	1	116110R	▲	▲	▲
R116.0020.40	4	5,3	10,2	20,4	15,7	2	11	4,3	16	1	116110R	▲	▲	▲
L116.0009.18	1,8	5,3	10,2	20,4	15,7	0,9	11	4,3	16	1	116110L	▲	▲	▲
L116.0011.22	2,2	5,3	10,2	20,4	15,7	1,1	11	4,3	16	1	116110L	▲	▲	▲
L116.0015.30	3	5,3	10,2	20,4	15,7	1,5	11	4,3	16	1	116110L	▲	▲	▲
L116.0020.40	4	5,3	10,2	20,4	15,7	2	11	4,3	16	1	116110L	▲	▲	▲
P	●	●	●											
M	○	●	●											
K	○	●	●											
N	-	●	●											
S	-	●	●											
H	-	-	-											



Klemmhalter Stirnseite
Toolholder face

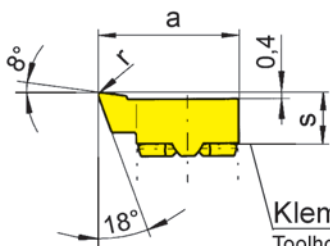
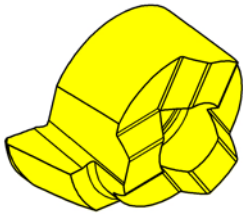
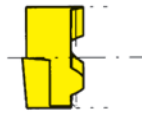
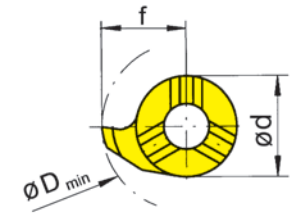
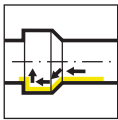
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R116.0200.02	2	5,3	10,2	15,7	0,2	11	4,3	16	116110R	▲	▲	▲
L116.0200.02	2	5,3	10,2	15,7	0,2	11	4,3	16	116110L	▲	▲	▲
P	●	●	●									
M	o	●	●									
K	o	●	●									
N	-	●	●									
S	-	●	●									
H	-	-	-									



Klemmhalter Stirnseite
Toolholder face

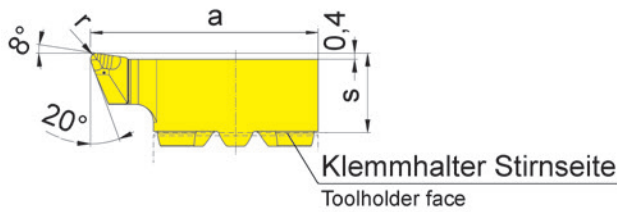
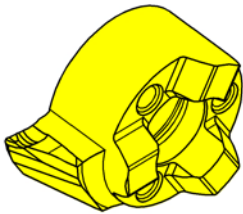
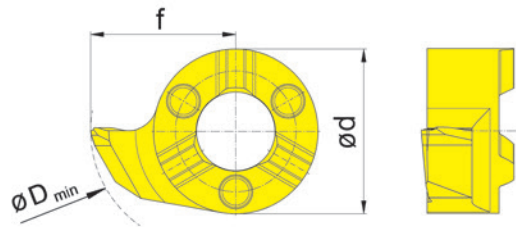
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35	TN35
R116.1897.02	5,3	9,7	15,2	0,2	11	15,5	116110R	▲	▲	▲
L116.1897.02	5,3	9,7	15,2	0,2	11	15,5	116110L	▲	▲	▲
P	●	●	●							
M	o	●	●							
K	o	●	●							
N	-	●	●							
S	-	●	●							
H	-	-	-							



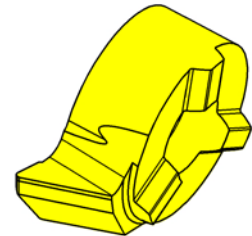
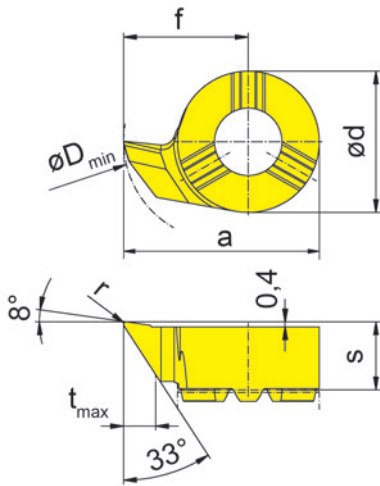
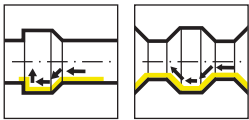
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS		EG55	TH35
RS116.1897.R2	5,3	9,7	15,2	0,2	11	15,5	116110R	▲	▲	▲
RS116.1897.R4	5,3	9,7	15,2	0,4	11	15,5	116110R	▲	▲	▲
LS116.1897.R2	5,3	9,7	15,2	0,2	11	15,5	116110L	▲	▲	▲
LS116.1897.R4	5,3	9,7	15,2	0,4	11	15,5	116110L	▲	▲	▲
								P	●	●
								M	○	●
								K	○	●
								N	-	●
								S	-	●
								H	-	-



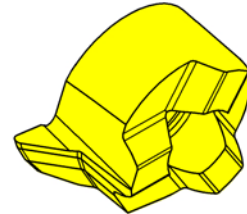
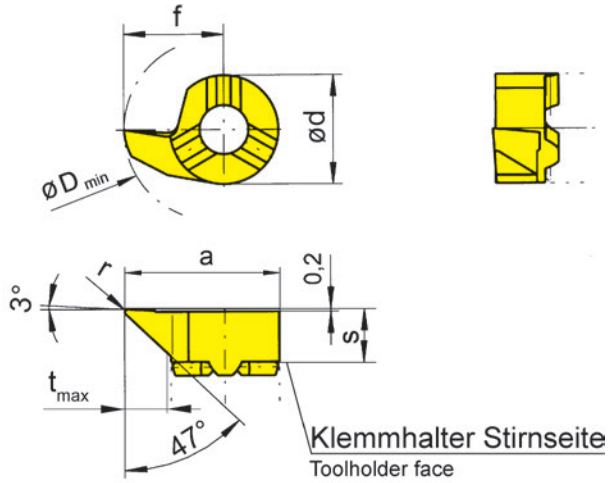
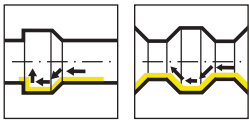
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R116.3302.02	5,3	9,7	15,2	0,2	11	2,5	15,5	116110R	▲
R116.3302.04	5,3	9,7	15,2	0,4	11	2,5	15,5	116110R	▲
L116.3302.02	5,3	9,7	15,2	0,2	11	2,5	15,5	116110L	Δ
L116.3302.04	5,3	9,7	15,2	0,4	11	2,5	15,5	116110L	Δ
									P ●
									M ○
									K ○
									N -
									S -
									H -



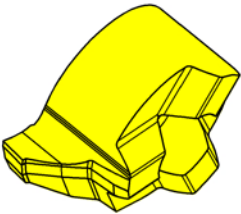
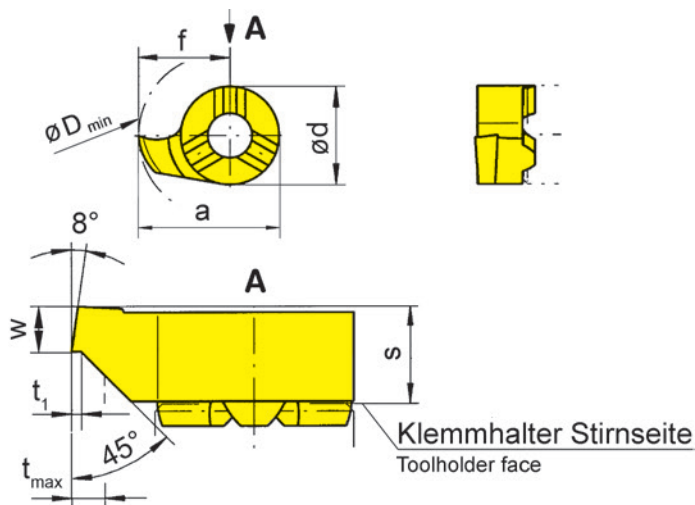
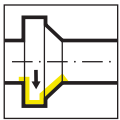
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35	TN35
R116.4702.02	5,3	10,2	15,7	0,2	11	4,3	16	116110R	▲	▲	▲
R116.4702.04	5,3	10,2	15,7	0,4	11	4,3	16	116110R	▲	▲	▲
L116.4702.02	5,3	10,2	15,7	0,2	11	4,3	16	116110L	▲	▲	▲
L116.4702.04	5,3	10,2	15,7	0,4	11	4,3	16	116110L	▲	▲	▲
									P	•	•
									M	o	•
									K	o	•
									N	-	•
									S	-	•
									H	-	-



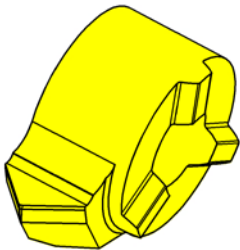
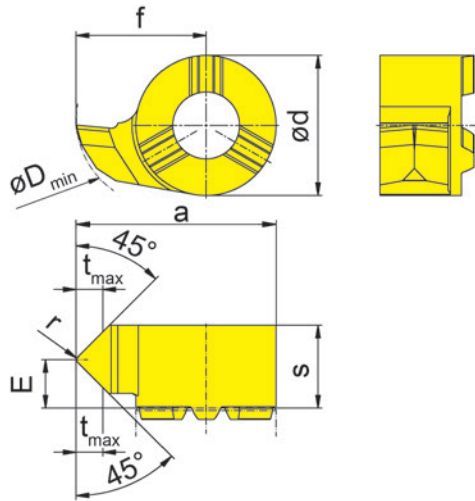
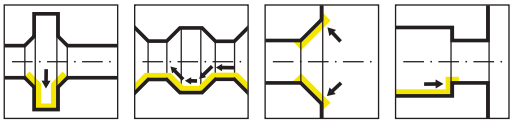
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	d	t _{max}	t ₁	D _{min}	HIS		EG55	TI25
R116.0815.45	1,5	5,3	10,2	15,7	11	1,5	0,2	16	116110R	▲	▲	▲
L116.0815.45	1,5	5,3	10,2	15,7	11	1,5	0,2	16	116110L	▲	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-

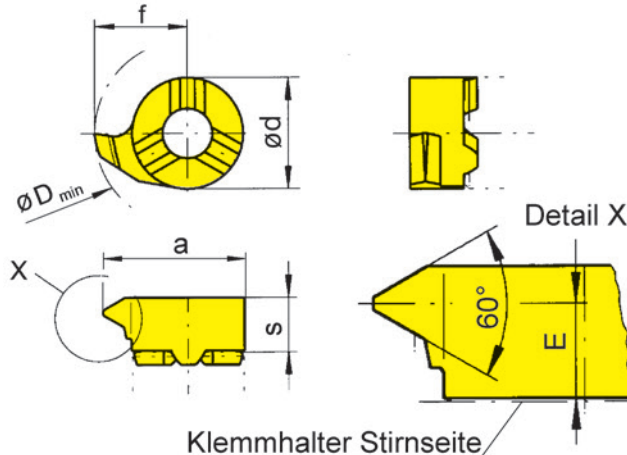


R = rechts wie gezeichnet
R = right hand version shown

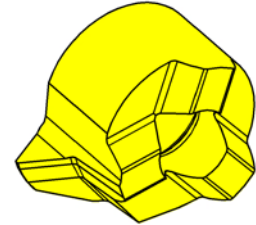
L = links spiegelbildlich
L = left hand version

HM-Sorten
Carbide grades
▲ ab Lager
on stock
Δ 4 Wochen
4 weeks

Bestellnummer Part number	E	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55
R116.4545.02	3,8	6,5	10,2	15,7	0,2	11	2,1	16	116110R	▲
L116.4545.02	3,8	6,5	10,2	15,7	0,2	11	2,1	16	116110L	Δ
									P ●	
									M o	
									K o	
									N -	
									S -	
									H -	



Klemmhalter Stirnseite
Toolholder face



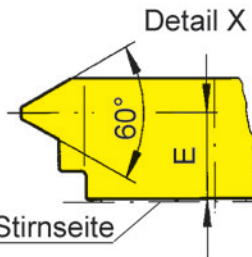
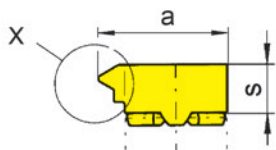
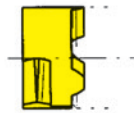
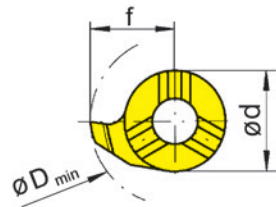
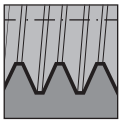
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

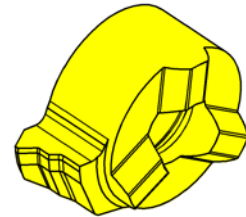
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55	TH35	TN35
R116.0510.01	1	1,25	4,7	10,2	15,7	11	5,5	16	116110R	▲	▲	▲
R116.0815.01	1,5	1,75	4,5	10,2	15,7	11	5,5	16	116110R	▲	▲	▲
R116.1020.01	2	2	4,3	10,2	15,7	11	5,5	16	116110R	▲	▲	▲
R116.1325.01	2,5	2,5	4,2	10,2	15,7	11	5,5	16	116110R	▲	▲	▲
L116.0510.01	1	1,25	4,7	10,2	15,7	11	5,5	16	116110L	Δ		Δ
L116.0815.01	1,5	1,75	4,5	10,2	15,7	11	5,5	16	116110L	Δ	Δ	▲
L116.1020.01	2	2	4,3	10,2	15,7	11	5,5	16	116110L	Δ	Δ	▲
L116.1325.01	2,5	2,5	4,2	10,2	15,7	11	5,5	16	116110L	Δ	▲	▲
P	●	●	●							●	●	●
M	○	●	●							●	●	●
K	○	●	●							●	●	●
N	-	●	●							●	●	●
S	-	●	●							●	●	●
H	-	-	-							-	-	-



Klemmhalter Stirnseite
Toolholder face



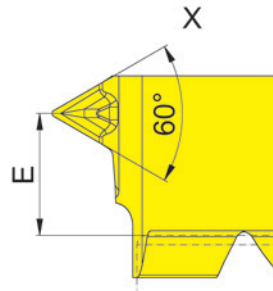
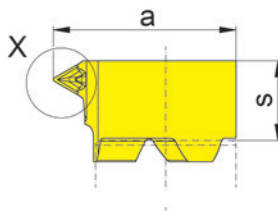
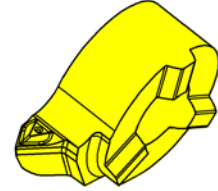
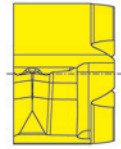
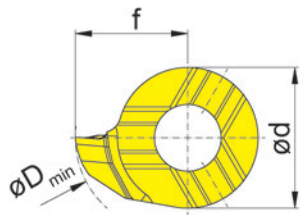
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55	TN35
R116.0510.02	1	4,7	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.0815.02	1,5	4,5	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.1020.02	2	4,3	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.1325.02	2,5	4,2	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.1630.02	3	4	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.1835.02	3,5	3,8	10,2	15,7	11	5,5	16	116110R	▲	▲
R116.2140.02	4	3,6	10,2	15,7	11	5,5	16	116110R	▲	▲
L116.0510.02	1	4,7	10,2	15,7	11	5,5	16	116110L	▲	Δ
L116.0815.02	1,5	4,5	10,2	15,7	11	5,5	16	116110L	Δ	▲
L116.1020.02	2	4,3	10,2	15,7	11	5,5	16	116110L	Δ	▲
L116.1325.02	2,5	4,2	10,2	15,7	11	5,5	16	116110L	Δ	▲
L116.1630.02	3	4	10,2	15,7	11	5,5	16	116110L	▲	▲
L116.1835.02	3,5	3,8	10,2	15,7	11	5,5	16	116110L	Δ	▲
L116.2140.02	4	3,6	10,2	15,7	11	5,5	16	116110L	Δ	Δ
P	●	●								
M	o	●								
K	o	●								
N	-	●								
S	-	●								
H	-	-								

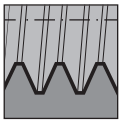


L = links wie gezeichnet
L = left hand version shown

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

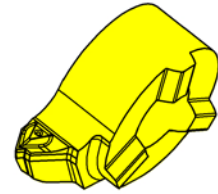
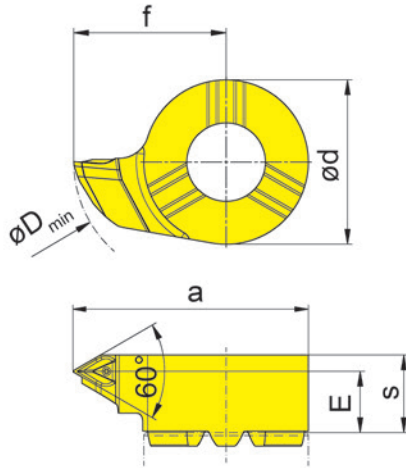
Bestellnummer Part number	P	P _{max}	E	f	a	d	s	D _{min}	HIS	EG55
RS116.0510.GM1	1	1,25	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.0815.GM1	1,5	1,75	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.1020.GM1	2	2	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.1325.GM1	2,5	2,5	4,1	10,2	15,7	11	5,2	16	116110R	▲
LS116.0510.GM1	1	1,25	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.0815.GM1	1,5	1,75	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.1020.GM1	2	2	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.1325.GM1	2,5	2,5	4,1	10,2	15,7	11	5,2	16	116110L	▲
										P ●
										M o
										K o
										N -
										S -
										H -



.GM



60°

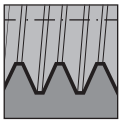


L = links wie gezeichnet
L = left hand version shown

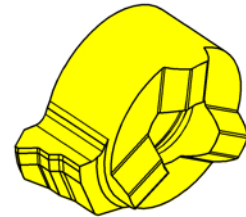
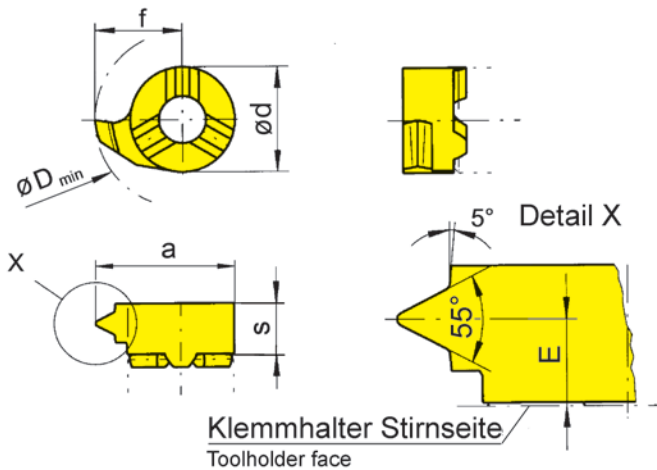
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	HIS	EG55
RS116.0510.GM2	1	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.0815.GM2	1,5	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.1020.GM2	2	4,1	10,2	15,7	11	5,2	16	116110R	▲
RS116.1325.GM2	2,5	4,1	10,2	15,7	11	5,2	16	116110R	▲
LS116.0510.GM2	1	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.0815.GM2	1,5	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.1020.GM2	2	4,1	10,2	15,7	11	5,2	16	116110L	▲
LS116.1325.GM2	2,5	4,1	10,2	15,7	11	5,2	16	116110L	▲
	P	●							
	M	o							
	K	o							
	N	-							
	S	-							
	H	-							



BSW
BSF



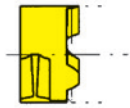
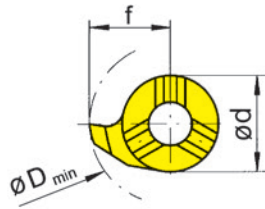
R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

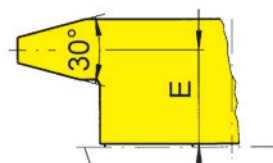
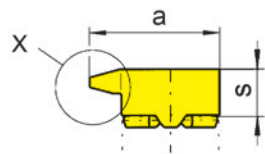
▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

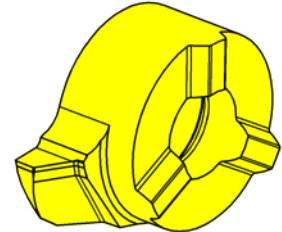
Bestellnummer Part number	TPI	E	f	d	s	D _{min}	HIS	EG55	TN35
R116.5511.02	11	3,5	10,2	11	5,5	16	116110R	▲	▲
R116.5514.02	14	3,9	10,2	11	5,5	16	116110R	▲	▲
L116.5511.02	11	3,5	10,2	11	5,5	16	116110L	Δ	Δ
L116.5514.02	14	3,9	10,2	11	5,5	16	116110L	Δ	▲
P	●	●							
M	○	●							
K	○	●							
N	-	●							
S	-	●							
H	-	-							



Detail X



Klemmhalter Stirnseite
Toolholder face



R = rechts wie gezeichnet
R = right hand version shown

L = links spiegelbildlich
L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	P	E	f	a	d	s	D _{min}	Gewinde Thread	HIS	EG55	TI25	TN35
R116.1220.01	2	4,5	9,7	15,2	11	5,5	16	Tr 20x2	116110R	▲		▲
R116.1730.01	3	4,3	9,7	15,2	11	5,5	16	Tr 22x3	116110R	▲		▲
R116.2240.01	4	4	9,7	15,2	11	5,5	16	Tr 22x4	116110R	▲		▲
R116.2750.01	5	3,55	10,2	15,7	11	5,5	16	Tr 24x5	116110R	▲		▲
R116.3560.01	6	3,3	10,2	15,7	11	5,5	16	Tr 30x6	116110R	▲	▲	
L116.1220.01	2	4,5	9,7	15,2	11	5,5	16	Tr 20x2	116110L	Δ		Δ
L116.1730.01	3	4,3	9,7	15,2	11	5,5	16	Tr 22x3	116110L	▲		▲
L116.2240.01	4	4	9,7	15,2	11	5,5	16	Tr 22x4	116110L	▲		▲
L116.2750.01	5	3,55	10,2	15,7	11	5,5	16	Tr 24x5	116110L	▲		▲
L116.3560.01	6	3,3	10,2	15,7	11	5,5	16	Tr 30x6	116110L	▲	▲	
P	●	●	●									
M	○	●	●									
K	○	●	●									
N	-	●	●									
S	-	●	●									
H	-	-	-									



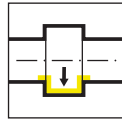
18P



**Klemmhalter und
Schneidplatten**

**Toolholder and
Inserts**

Klemmhalter
Toolholder
B18P

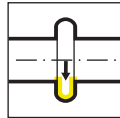


Seite/Page
358

Schneidplatte
Insert
S18P/18P



Seite/Page
359, 361

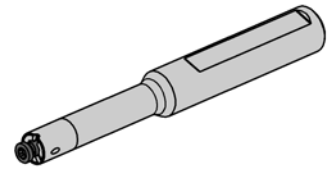
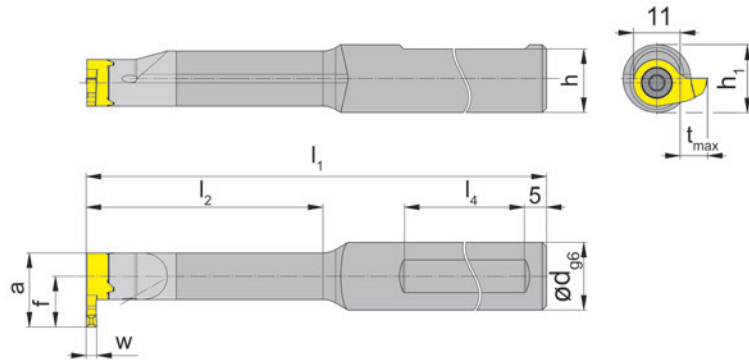
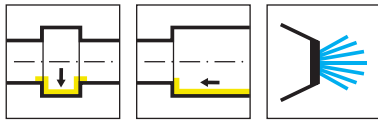


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Bohrungs-Ø Bore Ø	Artikelgruppen / Product line											
	105	109	110	106	107	108	10P	111	11P	114	116	18P
≥ 0,2	•											
≥ 0,5	•											
≥ 0,7	•											
≥ 1,0	•											
≥ 1,5	•											
≥ 2,0	•											
≥ 3,0	•											
≥ 4,0	•											
≥ 5,0	•											
≥ 6,0	•	•	•	•								
≥ 6,8		•	•	•								
≥ 7,0		•			•							
≥ 7,8			•		•	•						
≥ 8,0			•		•	•						
≥ 9,0			•		•	•	•					
≥ 10,0			•				•	•	•			
≥ 10,5									•			
≥ 11,0								•	•			
≥ 11,5									•			
≥ 13,8										•		
≥ 14,0										•	•	
≥ 16,0									•		•	
≥ 16,5										(•)		
≥ 18,0												•
Stechtiefe Depth of groove	2,5	2,5	4,0	0,8	2,0	1,0	3,0	2,3	3,5	4,0 (6,5)	4,3	8,0
Stechbreite Width of groove	0,5- 2,0	1,0- 2,0	1,0- 3,0	0,7- 1,5	1,0- 2,0	0,7- 2,0	1,0- 3,0	0,7- 3,0	1,0- 3,0	0,7- 3,0	0,7- 4,0	2,0- 3,0
Bearbeitung / Machining												
Einstechen Grooving	•	•	•	•	•	•	•	•	•	•	•	•
Ausdrehen Boring	•	•	•	•	•	•		•		•	•	
Gewindedrehen Threading	•	•			•	•		•		•	•	
Fasen Chamfering	•	•			•	•		•		•	•	
Axialeinstechen Face Grooving	•	•	•									
Bohrung-Drehen Boring and Profiling	•											



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L = left hand version

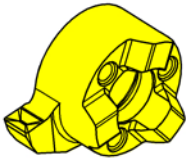
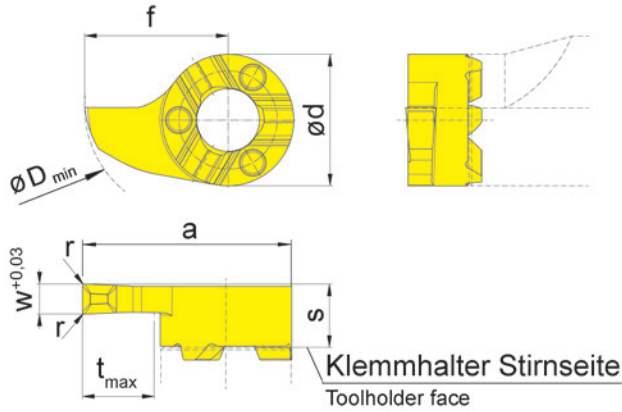
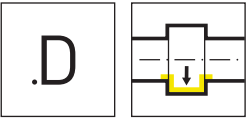
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RB18P.0012.00	12	100	25	11	50	12,5	18P110R
RB18P.0012.01	12	120	40	11	50	12,5	18P110R
RB18P.0016.00	16	100	25	15	50	13	18P110R
RB18P.0016.01	16	120	40	15	50	13	18P110R
RB18P.0016.02	16	130	56	15	50	13	18P110R
RB18P.0016.03	16	150	80	15	50	13	18P110R
LB18P.0012.00	12	100	25	11	50	12,5	18P110L
LB18P.0012.01	12	120	40	11	50	12,5	18P110L
LB18P.0016.00	16	100	25	15	50	13	18P110L
LB18P.0016.01	16	120	40	15	50	13	18P110L
LB18P.0016.02	16	130	56	15	50	13	18P110L
LB18P.0016.03	16	150	80	15	50	13	18P110L

w, a, tmax und f siehe Schneidplatten
w, a, tmax and f see inserts

Ersatzteile

Spare Parts

Klemmhalter Toolholder	Spannschraube Clamping Screw	TORX PLUS®-Schlüssel TORX PLUS® Wrench
R/LB18P...	5.13T20EP	T20PQ



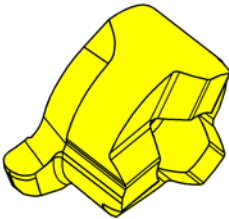
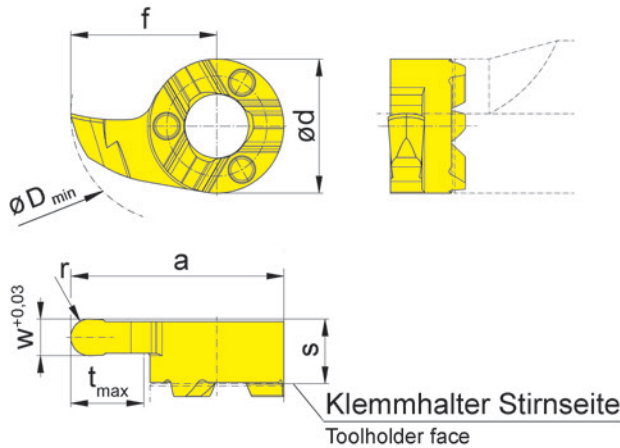
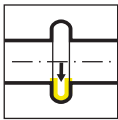
R = rechts wie gezeichnet
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L = left hand version

▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
RS18P.0200.1.D2	2	5,3	12	17,5	0,2	11	6	18	18P110R	▲	▲	▲
RS18P.0250.1.D2	2,5	5,3	12	17,5	0,2	11	6	18	18P110R	▲	▲	▲
RS18P.0300.1.D2	3	5,3	12	17,5	0,2	11	6	18	18P110R	▲	▲	▲
LS18P.0200.1.D2	2	5,3	12	17,5	0,2	11	6	18	18P110L	▲	▲	▲
LS18P.0250.1.D2	2,5	5,3	12	17,5	0,2	11	6	18	18P110L	▲	▲	▲
LS18P.0300.1.D2	3	5,3	12	17,5	0,2	11	6	18	18P110L	▲	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



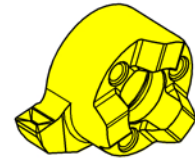
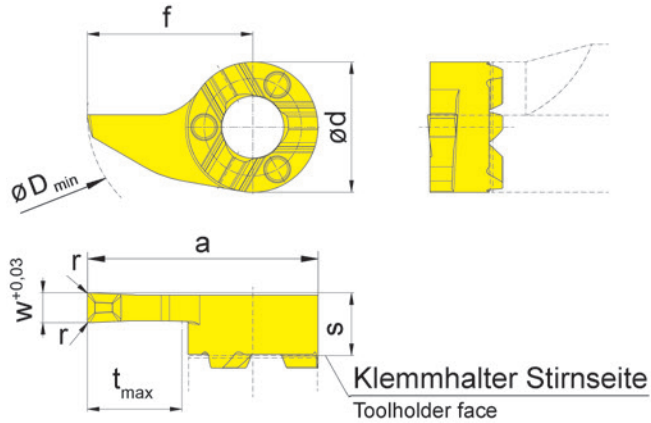
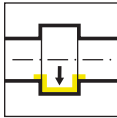
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on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS		EG55	TH35
R18P.0009.1.18	1,8	5,3	12	17,5	0,9	11	6	18	18P110R	▲	▲	▲
R18P.0011.1.22	2,2	5,3	12	17,5	1,1	11	6	18	18P110R	▲	▲	▲
R18P.0015.1.30	3	5,3	12	17,5	1,5	11	6	18	18P110R	▲	▲	▲
L18P.0009.1.18	1,8	5,3	12	17,5	0,9	11	6	18	18P110L	Δ	▲	▲
L18P.0011.1.22	2,2	5,3	12	17,5	1,1	11	6	18	18P110L	Δ	▲	▲
L18P.0015.1.30	3	5,3	12	17,5	1,5	11	6	18	18P110L	Δ	▲	▲
										P	●	●
										M	○	●
										K	○	●
										N	-	●
										S	-	●
										H	-	-



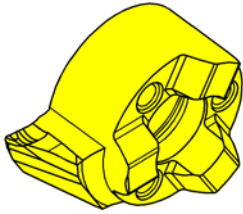
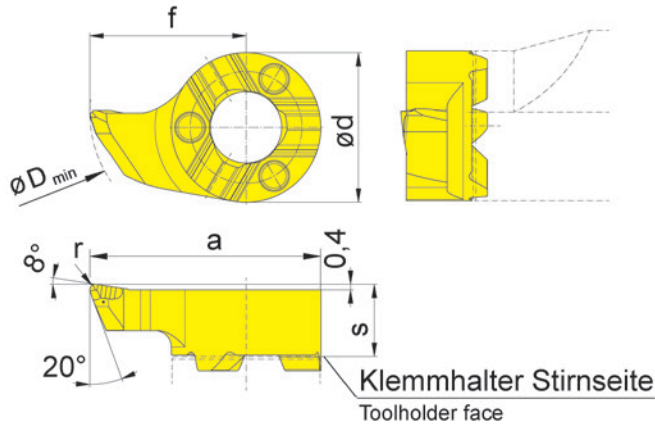
R = rechts wie gezeichnet
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▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	w	s	f	a	r	d	t _{max}	D _{min}	HIS	EG55	TH35
RS18P.0200.2.D2	2	5,3	14	19,5	0,2	11	8	20	18P110R	▲	▲
RS18P.0250.2.D2	2,5	5,3	14	19,5	0,2	11	8	20	18P110R	▲	▲
RS18P.0300.2.D2	3	5,3	14	19,5	0,2	11	8	20	18P110R	▲	▲
LS18P.0200.2.D2	2	5,3	14	19,5	0,2	11	8	20	18P110L	▲	▲
LS18P.0250.2.D2	2,5	5,3	14	19,5	0,2	11	8	20	18P110L	Δ	▲
LS18P.0300.2.D2	3	5,3	14	19,5	0,2	11	8	20	18P110L	▲	▲
									P	●	●
									M	○	●
									K	○	●
									N	-	●
									S	-	●
									H	-	-



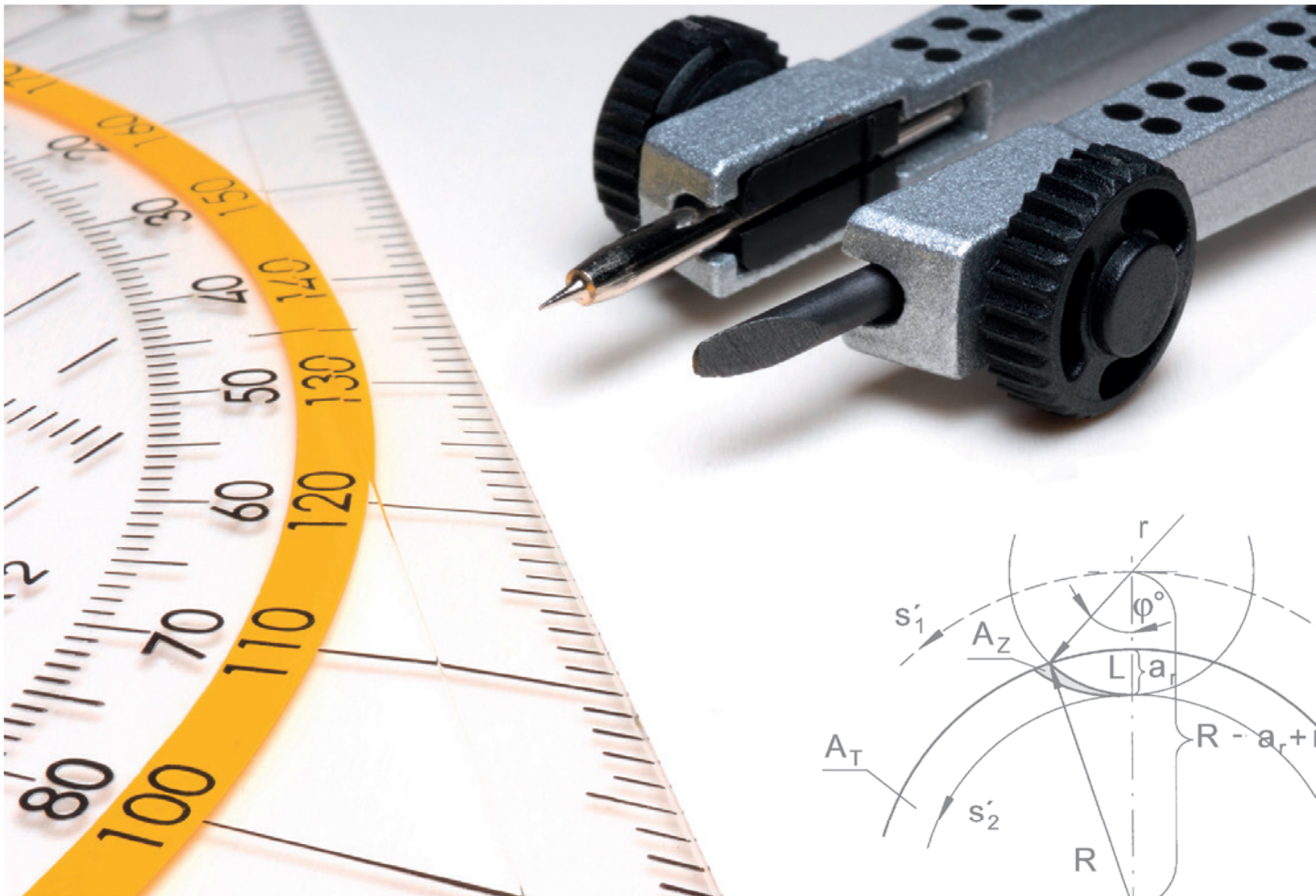
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▲ ab Lager
on stock

HM-Sorten
Carbide grades
Δ 4 Wochen
4 weeks

Bestellnummer Part number	s	f	a	r	d	D _{min}	HIS	EG55	TH35
RS18P.1815.R2	5,3	11,5	17	0,2	11	17,5	18P110R	Δ	▲
RS18P.1815.R4	5,3	11,5	17	0,4	11	17,5	18P110R	▲	▲
LS18P.1815.R2	5,3	11,5	17	0,2	11	17,5	18P110L	Δ	Δ
LS18P.1815.R4	5,3	11,5	17	0,4	11	17,5	18P110L	▲	▲
								P	●
								M	○
								K	○
								N	-
								S	-
								H	-



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Beschichtungsübersicht

Coating Overview



Schneidstoff Material group	Schichtaufbau Coating structure	Empfehlung Recommendation						Anwendung Application
TH3_	TiAlN	P05	M05	K05	N05	S05	H05	Für mittlere Vorschübe, auch geeignet bei Schnittunterbrechungen For medium feeds, also suitable for interrupted cuts
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
EG3_	AlTiN + TiN	P05	M05	K05	N05	S05	H05	Für kleine bis mittlere Vorschübe, zum Schlichten ohne Schnittunterbrechung For small to medium feeds, for finishing without any interruption of the cut
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
EG5_	AlTiN + TiN	P05	M05	K05	N05	S05	H05	Für mittlere Vorschübe, auch geeignet bei Schnittunterbrechungen For medium feeds, also suitable for interrupted cuts
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
ES1_	AlTiN	P05	M05	K05	N05	S05	H05	Für Feinstbearbeitungen und kleine Vorschübe, zum Schlichten ohne Schnittunterbrechung For superfinishing and small feeds, for finishing without interrupting the cut
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
IG3_	TiAlSiN	P05	M05	K05	N05	S05	H05	Für hohe Schnittgeschwindigkeiten ohne Schnittunterbrechung For high cutting speeds without any interruption of the cut
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					

Beschichtungsübersicht

Coating Overview



Schneidstoff Material group	Schichtaufbau Coating structure	Empfehlung Recommendation						Anwendung Application
SG3_	TiAlCrSiN	P05	M05	K05	N05	S05	H05	Für kleine bis mittlere Vorschübe, zum Schlichten ohne Schnittunterbrechung For small to medium feeds, for finishing without any interruption of the cut
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
TI2_	TiCN	P05	M05	K05	N05	S05	H05	Für kleine bis mittlere Vorschübe bei niedrigen Schnittgeschwindigkeiten, Reduzierung von Aufbauschneiden For small to medium feeds at low low cutting speeds, Reduction of built-up edges
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					
TN3_	TiN	P05	M05	K05	N05	S05	H05	Für niedrige Schnittgeschwindigkeiten, geeignet bei Schnittunterbrechungen For low cutting speeds, Suitable for cutting interruptions
		P10	M10	K10	N10	S10	H10	
		P20	M20	K20	N20	S20	H20	
		P30	M30	K30	N30	S30	H30	
		P40	M40	K40	N40			
		P50	M50					

ISO 513		P	M	K	N	S	H
+ Zähigkeit / Tenacity	- Verschleißfestigkeit / Wear resistance +	05	05	05	05	05	05
		10	10	10	10	10	10
		20	20	20	20	20	20
		30	30	30	30	30	30
		40	40	40	40		
		50	50				

Werkstoff Material			Materialgruppe Material group	Härte (HB) Hardness Brinell	Zugfestigkeit R_m [N/mm ²] Tensile Strength	Beispiel Werkstoff Example Material	
P	unlegierter Stahl Carbon steel	~ 0,2 % C	P1.1	125	430	CK15	
		~ 0,4% C geglüht annealed	P1.2	190	610	19Mn6	
		~ 0,4% C vergütet quenched	P1.3	210	640	36Mn5	
		~ 0,6% C geglüht annealed	P1.4	190	610	C55	
		~ 0,6% C vergütet quenched	P1.5	300	1000	CK60	
		Automatenstahl Free cutting steel	P1.6	220	750	9SMn28	
	niedrig legierter Stahl (<5%) Alloyed steel	geglüht annealed	P2.1	180	590	100Cr6	
		vergütet quenched	P2.2	280	960	14NiCr10	
		vergütet quenched	P2.3	350	1250	34CrMo4	
		vergütet quenched	P2.4	430	1450	55Cr3	
	hochlegierter Stahl (>5%) high alloyed steel	geglüht annealed	P3.1	200	680	X10CrAl18	
		gehärtet hardened	P3.2	350	1200	X210Cr2	
	Stahlguss Cast steel	unlegiert unalloyed	P4.1	180	590	GE200	
		legiert alloyed	P4.2	220	750	GX40CrSi28	
	Sinterstahl Sintered steel	weich soft	P5.1	220	570	Sint-D39	
M	Rostfreier Stahl Stainless steel	martensitisch ferritisch martensitic ferritic	M1.1	200	680	X16Cr13	
		austenitisch austenitic	M1.2	300	1000	X6CrNiMo-Ti17-12-2	
		austenitisch ferritisch austenitic ferritic	M1.3	230	780	X2CrNiMo-N17-13-3	

	Schnittgeschwindigkeit vc (m/min) / Startwerte Cutting speed vc (m/min) / Start values								
	MG12	TN3_	TI2_	TH3_ TF4_	AN2_ RC2_	EG3_ EG5_	IG3_	DD2_	SG3_
	120-16	180 - 16	180 - 16	210 - 16	210 - 16	200 - 16	230-16		230-16
	110-16	170-16	170-16	200-16	200-16	200-16	230-16		230-16
	110-16	160-16	160-16	190-16	190-16	190-16	220-16		220-16
	110-16	150-16	150-16	180-16	180-16	180-16	210-16		210-16
	100-16	120-16	140-16	170-16	170-16	170-16	200-16		200-16
	120-16	160-16	160-16	190-16	190-16	190-16	220-16		220-16
	90 - 16	150 - 16	150 - 16	180-16	180-16	180 - 16	210-16		210-160
	85-16	140-16	140-16	180-16	180-16	180 - 16	210-160		210-160
	80-16	140-16	140-16	180-16	180-16	180 - 16	210-16		210-16
	80-16	140-16	140-16	160-16	160-16	160-16	180-16		180-16
	90-16	90 - 16	90 - 16	140 - 16	140 - 16	120 - 16	140-16		140-16
									140-16
	110-16	180 - 16	180 - 16	180 - 16	180 - 16	160 - 16	180-16		180-16
	70-16	170-16		180 - 16	180 - 16	160 - 16	180-16		180-16
		90 - 16		90 - 19	90 - 16	90 - 16	100 - 15		100 - 16
		80 - 16		80 - 16	80 - 16	80 - 16	80 - 16		40 - 16
		60-16		60-16	60-16	60-16	70-16		80-16

Werkstoff Material			Materialgruppe Material group	Härte (HB) Hardness Brinell	Zugfestigkeit R_m [N/mm ²] Tensile Strength	Beispiel Werkstoff Example Material	
K	Grauguss Grey cast iron	niedrige Festigkeit low tensile strength	K1.1	180	250	GG-25	
		hohe Festigkeit high tensile strength	K1.2	250	350	GG-40	
	Kugelgraphitguss Spheroidal graphite cast iron	ferritisch ferritic	K2.1	160	400	GGG-40	
		perlitisches perlitic	K2.2	260	700	GGG-60	
	Temperguss Malleable cast iron	ferritisch ferritic	K3.1	200	400	GTW-45	
		perlitisches perlitic	K3.2	260	700	GTS-55-04	
	Ausferritisches Gusseisen/ADI Ausferritic spheroidal cast iron / ADI	vergütet quenched	K4.1	260	800		
		vergütet quenched	K4.2	350	1050		
		vergütet quenched	K4.3	450	1400		
N	Al-Legierungen Al-alloys	nicht vergütbar not heat treatable	N1.1	30		AlMg1	
		vergütbar heat treatable	N1.2	100	340	AlMgSi1	
	Al-Guss- Legierung Al-cast-alloy	< 6% Si	N2.1	80	300	AlMgSi6	
		6-10% Si	N2.2	100	320	AlSi7Mg	
		10-15 % Si	N2.3	130	450	AlSi12	
	Kupfer- Legierungen Copper-alloys	Reinkupfer Pure copper	N3.1	100	340	Cu	
		Messing, Bronze Brass	N3.2	90	310	CuZn40Pb	
		Messing bleifrei Lead-free brass	N3.3	110	430	CuZn40	
		hochfest high strength	N3.4	300	1000	CuZn25Al5- Mn4Fe3	
	Graphit Graphite		N4.1				

Cutting Data

[illegible]

Werkstoff Material			Materialgruppe Material group	Härte (HB) Hardness Brinell	Zugfestigkeit R_m [N/mm ²] Tensile Strength	Beispiel Werkstoff Example Material	
S	Warmfeste Legierung (Fe) Heat resistant alloy	geglüht annealed	S1.1	200	670		
		gehärtet hardened	S1.2	275	930		
	Warmfeste Legierung (Ni, Co) Heat resistant alloy	geglüht annealed	S2.1	250	840	Inconel 600	
		gehärtet hardened	S2.2	350	1200	Inconel 713	
	Titan	Titanlegierung α Titanium alloy α	S3.1	120	240	Ti99,7	
		Titanlegierung α - β Titanium alloy α - β	S3.2	360	1200	Ti6Al4V	
		Titanlegierung β Titanium alloy β	S3.3	410	1400	Ti-10V-2Fe-3Al	
H	Gehärtete Stähle Hardened steels	50-55 HRC	H1.1	-	-		
		55-60 HRC	H1.2	-	-		
		60-63 HRC	H1.3	-	-		
		> 63HRC	H1.4	-	-		
O	Thermoplaste Thermoplastics		O1.1				
	Duroplaste Duro plaste		O1.2				
	Kunststoffe glas- faserverstärkt Plastics glass fibre reinforced	GFK	O1.3				
	Kunststoffe kohle- faserverstärkt Plastics carbon fibre reinforced	CFK	O1.4				

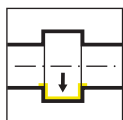
	Schnittgeschwindigkeit vc (m/min) / Startwerte Cutting speed vc (m/min) / Start values								
	MG12	TN3_	TI2_	TH3_ TF4_	AN2_ RC2_	EG3_ EG5_	IG3_	DD2_	SG3_
	50-16						75-16		75 - 16
	50-16								
	30-16						40 - 16		40 - 16
	30-16						40 - 16		40 - 16
	30-16						75 - 16		85-16
	30-16						75 - 16		85-16
	30-16						75-16		85-16
							50 - 16		60 - 16
							50 - 16		60 - 16
	150 - 16								
	150 - 16								
	150 - 16								
	300 - 16								

Geometrie Geometry	Werkstoff Material	Vorschubbereich f [mm/U] Feed rate f [mm/rev]	Bearbeitung Machining
	P M K N S H	← $f = 0,04-0,06$ $ap = 0,15-0,5 \text{ mm}$	
	P M K N S H	← $f = 0,05-0,1$ $ap = 0,15-0,5 \text{ mm}$	
	P M K N S H	↓ $f = 0,01-0,04$ $ap = 0,03-0,05 \text{ mm}$ ↔	
	P M K N S H	← $f = 0,003-0,04$ $ap = 0,005-0,1 \text{ mm}$	
	P M K N S H	← $f = 0,03-0,07$ $ap = 0,1-0,4 \text{ mm}$	

Vorschubbereich f [mm/U]

Feed rate f [mm/rev]

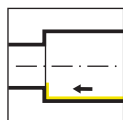
$f = 0,01-0,03$



Einstechen
Grooving

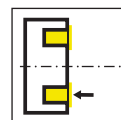
$f = 0,02-0,05$

$ap = 0,15-0,5 \text{ mm}$

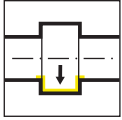
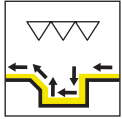
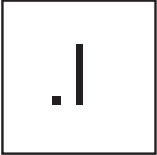
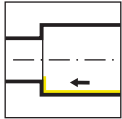
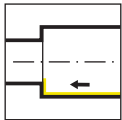


Bohrung Ausdrehen
Internal Boring

$f = 0,02-0,05$



Axialeinstechen
Face Grooving

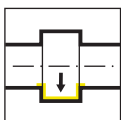
Geometrie Geometry	Werkstoff Material	Vorschubbereich f [mm/U] Feed rate f [mm/rev]	Bearbeitung Machining
	P M K N S H	↓ f = 0,03-0,08 ↔ ap = 0,2-1,5*	
	P M K N S H	↓ f = 0,015-0,05 ↔ ap = 0,03-0,07*	
	P M K N S H	← f = 0,05-0,15 ← ap = 0,05-0,6	
	P M K N S H	← f = 0,05-0,15 ← ap = 0,2-2,0*	

*Systemabhängig / System dependent

Vorschubbereich f [mm/U]

Feed rate f [mm/rev]

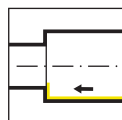
f = 0,01-0,05



Einstechen
Grooving

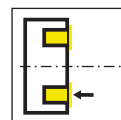
f = 0,03-0,1

ap = 0,1-0,5 mm



Bohrung Ausdrehen
Internal Boring

f = 0,02-0,08



Axialeinstechen
Face Grooving

Ausdrehen Stahl Boring Steel		Schnitttiefe ap (mm) Depth of cut ap (mm)					
		0,5	1	1,5	2	2,5	3
		Vorschub f [mm/U] Feed rate f [mm/rev]					
R/L105.B0.30.20.045.1	1,5*D	0,03-0,05	0,02-0,03				
R/L105.B0.30.20.075.1	2,5*D	0,03-0,05	0,02-0,03				
R/L105.B0.40.20.060.1	1,5*D	0,04-0,06	0,04-0,06	0,04-0,06			
R/L105.B0.40.20.100.1	2,5*D	0,04-0,06	0,04-0,06	0,04-0,06			
R/L105.B0.50.20.075.1	1,5*D	0,05-0,08	0,05-0,08	0,04-0,07	0,04-0,07		
R/L105.B0.50.20.125.1	2,5*D	0,05-0,08	0,05-0,08	0,04-0,07	0,04-0,07		
R/L105.B0.60.20.090.1	1,5*D	0,07-0,1	0,07-0,1	0,07-0,1	0,07-0,1	0,05-0,08	
R/L105.B0.60.20.150.1	2,5*D	0,07-0,1	0,07-0,1	0,07-0,1	0,07-0,1	0,05-0,08	
R/L105.B0.70.20.105.1	1,5*D	0,08-0,1	0,07-0,1	0,07-0,1	0,07-0,1	0,07-0,08	0,05-0,07
R/L105.B0.70.20.175.1	2,5*D	0,08-0,1	0,07-0,1	0,07-0,1	0,07-0,1	0,07-0,08	0,05-0,07

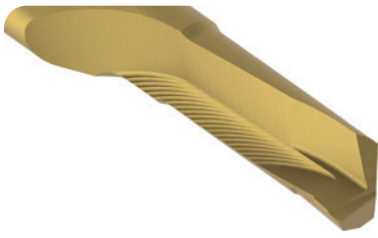
Vorschubwerte für rostfreie Materialien: Minimal-Werte wählen.

Feed rates for stainless materials: Select minimum values.

Bohren Stahl Drilling Steel		Vorschub f [mm/U] Feed rate f [mm/rev]
R/L105.B0.30.20.045.2	1,5*D	0,01-0,02
R/L105.B0.30.20.075.2	2,5*D	0,01-0,02
R/L105.B0.40.20.060.2	1,5*D	0,01-0,02
R/L105.B0.40.20.100.2	2,5*D	0,01-0,02
R/L105.B0.50.20.075.2	1,5*D	0,02-0,04
R/L105.B0.50.20.125.2	2,5*D	0,02-0,04
R/L105.B0.60.20.090.2	1,5*D	0,03-0,05
R/L105.B0.60.20.150.2	2,5*D	0,03-0,05
R/L105.B0.70.20.105.2	1,5*D	0,03-0,05
R/L105.B0.70.20.175.2	2,5*D	0,03-0,05

Zum Bohren empfehlen wir die Universalgeometrie

For drilling we recommend the universal geometry



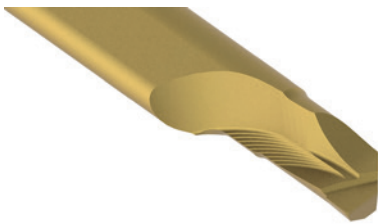
R/L105.B0...1

Geometrie mit Spantreppe für bessere Spankontrolle

- Ausdrehen mit großen Zustellungen
- Für allgemeine Stähle
- Mit Schleppschneide für höhere Vorschübe
- Bessere Spankontrolle
- Bohren in allgemeinen Stählen
- Bei problematischen Anwendungen mit dem Ziel Prozesssicherheit
- Auch bei langspanenden Werkstoffen

Geometry with chipbreaker for better chip control

- Turning with large infeeds
- For general steels
- With trailing cutting edge for higher feeds
- Better chip control
- Drilling in general steels
- For problematic applications with the aim of process reliability
- Also for long-chipping materials



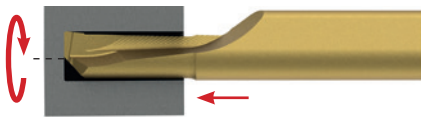
R/L105.B0...2

Universalgeometrie

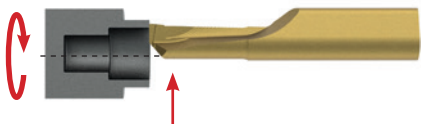
- Ausdrehen mit großen Zustellungen
- Leichtschneidende Universalgeometrie auch für rostfreie Stähle
- Mit Schleppschneide für höhere Vorschübe
- Weniger Schnittdruck, auch für dünnwandige Bauteile
- Zum Bohren in Stahl und NE-Metallen

Universal geometry

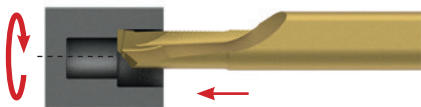
- Turning with large infeeds
- Easy cutting universal geometry also for stainless steels
- With trailing cutting edge for higher feeds
- Less cutting pressure, suitable even for thin-walled components
- For drilling in steel and non-ferrous metals



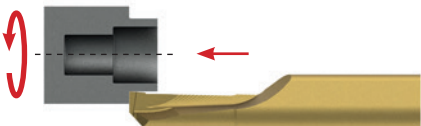
Bohren ins Volle mit ebenem Bohrungsgrund
Drilling into the solid and achieving a flat hole bottom



Drehen von Plankonturen
Turning of face profiles



Drehen von Innenkonturen
Turning of internal profiles



Drehen von Außenkonturen
Turning of external profiles

Gewindedrehen

Alle Gewinde bis Steigungswinkel 4,5° können mit HORN Standard-Gewindeschneidplatten gefertigt werden. Es sind keine besonderen Unterlagen oder Anstellwinkel erforderlich.

Plattensitze

Die Plattensitze der Mini- und Supermini®-Werkzeuge garantieren eine exakte Positionierung auf Spitzenhöhe. Trotzdem ist immer auf die Spitzenhöhe zu achten, denn Abweichungen können besonders bei Bearbeitung kleinster Durchmesser Probleme bereiten.

Späneabfuhr

Bitte wählen Sie schmale Schneidbreiten, damit der Span geschmeidig bleibt und am Werkzeug vorbei aus der Bohrung fließen kann. Um Spänestau zu vermeiden, ist stufenförmig oder mit Schnittunterbrechung zu stechen.

Kühlmittel

Verwenden Sie gefiltertes Kühlmittel, um die Späne auszuspülen und die Schneide zu kühlen. Ein Kühlmitteldruck von min. 10 bar wird empfohlen.

Threading

All threads up to 4,5 ° helix angle can be manufactured with HORN standard threading inserts. No special anvils will be necessary.

Seatings

Seatings of Mini as well as of Supermini® guarantee the accurate centre height of these tools. In spite of this please always check centre height because a difference may cause problems especially when machining small diameters.

Removal of chips

Please choose inserts with small cutting widths, which helps chips evacuation and chip flow out of the bore beside the tool. To avoid jam of chips use the technique to groove by steps.

Coolant

Use a filtered coolant for transporting the chips out and for cooling the insert itself. A coolant pressure of 10 bar min. is recommended.

V _{max} m/min	Stahl (Nmm ² Festigkeit) Steel (N/mm ² Tensile strength)					rostfr. Stahl Stainless steel	Grau- guss Grey cast iron	Al
	400-500	500-700	700-850	850-1150	> 1150			
	160	140	120	90	70	90	100	300

Steigung Pitch		Anzahl der Schnitte Number of passes							
mm	Gg/'' tpi	Stahl (Nmm² Festigkeit) Steel (N/mm² Tensile strength)					rostfr. Stahl	Grau- guss	Al
		400-500	500-700	700-850	850-1150	> 1150	Stainless steel	Grey cast iron	
0,8	32	10	10	12	12	14	14	12	10
1,0	24	13	13	15	15	18	18	15	13
1,25	20-19	16	16	19	19	22	22	19	16
1,5	16	20	20	23	23	27	27	23	20
1,75	14	23	23	27	27	31	31	27	23
2,0	12-11	27	27	30	30	36	36	30	27
2,5	10	33	33	38	38	45	45	38	33
3,0-3,5	8	40	40	46	46	54	54	46	40

Die Anzahl der Durchgänge für das Gewindedrehen in o.g. Tabelle sind nur Richtwerte.

Folgendes ist zu beachten:

- Beim 1. Durchgang darf die Zustellung nicht zu groß sein, um Ausbrüche an der Schneide zu vermeiden.
- Leerschnitte (ohne Zustellung) sind in der Tabelle nicht berücksichtigt.

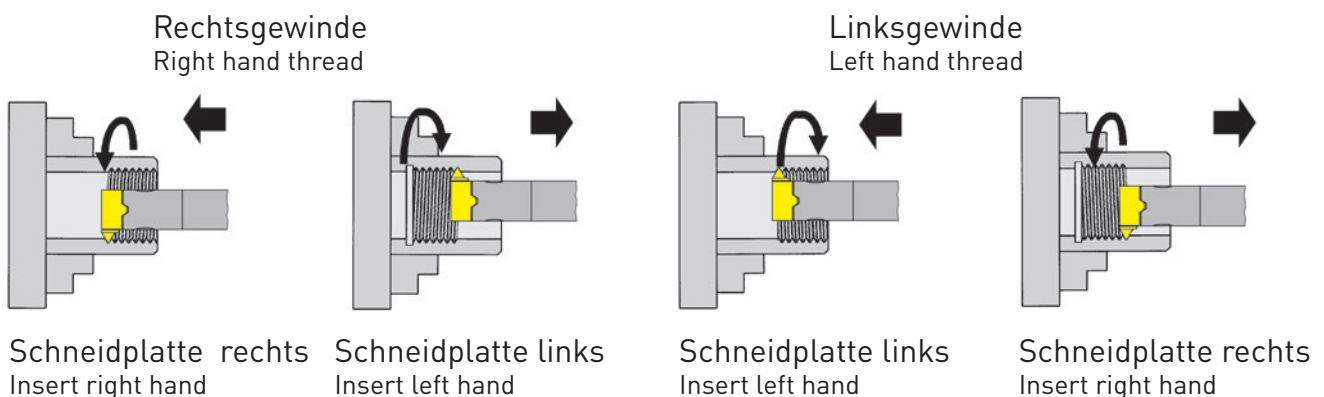
The recommended number of passes in the above table are approximate figures.

Please note:

- to avoid breakages at the cutting edge, the depth of cut at the first pass should not be too deep
- finishing passes (with zero depth of cut) are not considered in the table

Vorschubsrichtung Innengewindedrehen

Feed direction internal threading



Zustellung In-Feed

Radiale Zustellung

Die gebräuchlichste Methode Gewinde herzustellen. Beide Schneiden sind gleichzeitig im Eingriff.



Radial In-Feed

Metal removed on both sides of the insert simultaneously. The most commonly used method for thread production.

Modifizierte Flanken Zustellung

Weniger Verschleiß der Schleppschniede und eine bessere Oberflächengüte der entsprechenden Gewindeflanke.



Modified flank in-feed

Less wear of the trailing edge and better surface finish on corresponding flank.

Wechselnde Flanken zustellung

Beide Schneidflanken werden gleichmäßig benutzt, ergibt höhere Standzeiten.



Alternating flank in-feed

Both edges are being fully utilized which means longer tool life.

Einseitige Flanken zustellung

Geringerer Schnittdruck und bessere Wärmeabfuhr.



Flank in-feed

More easily formed chip and better heat dissipation.

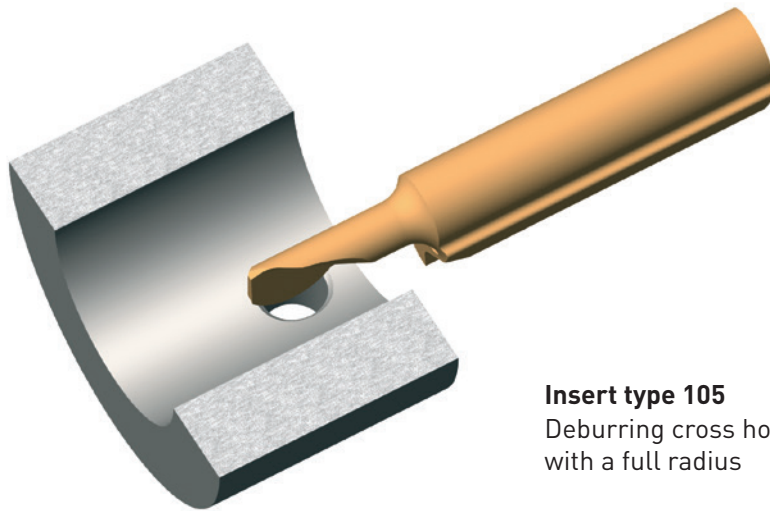
Nachstehende Drehmomente sind für die Spannschrauben zulässig. Wir empfehlen keine zusätzlichen Gleitmittel wie Kupferpaste oder ähnliches für die Schrauben zu verwenden.

Following torques are allowed for screws of inserts. We recommend to use no additional gliding means (such as copper paste) for screws.

Typ type	Schraube Screw	M_d Nm	Schlüssel Wrench	Klinge Blade
001	8.075.1835	5	SW4DIN911	DSW40K
AIH	030.3509.T15P	2,5	T10PL	DT10PK
	6.075T15P	5	T15PQ	DT15PK
B10P	2.6.5T8EP	1,2	T8PL	DT8PK
B11P	3.10T9P	1,8	T9PL	DT9PK
B18P	5.13T20EP	6	T20PQ	DT20PK / DT20PQ
B105	6.075T15P	5	T15PQ	DT15PK
B105.00...A...	030.00M8.1188	4	T25PQ	DT25PK / DT25PQ
B105.00...S...	030.0000.1157	2	T15PL	DT15PK
B106	1.8.4T6EP	0,9	T6PL	DT6PK
B107	2.2.5T7EP	1,1	T7PL	DT7PK
B108	2.6.5T8EP	1,2	T8PL	DT8PK
B109	6.075T15P	5	T15PQ	DT15PK
B110	6.075T15P	5	T15PQ	DT15PK
B111	3.512T10EP	3	T10PL	DT10PK
B114	4.12T15EP	5	T15PQ	DT15PK
B116	5.13T20EP	6,5	T20PQ	DT20PK / DT20PQ
BA114	4.12.T15P	5	T15PQ	DT15PK
BKT	6.075T15P	5	T15PQ	DT15PK
BKT105...S...	030.0000.1157	2	T15PL	DT15PK
BU105	6.075T15P	5	T15PQ	DT15PK
BU105.00...S...	030.0000.1157	2	T15PL	DT15PK
H105	6.075T15P	5	T15PQ	DT15PK
HC105	6.075T15P	5	T15PQ	DT15PK
HC114	4.12T15EP	5	T15PQ	DT15PK
HSKT	6.075T15P	5	T15PQ	DT15PK
IR105	6.075T15P	5	T15PQ	DT15PK
KC760	5.12.T20P	6	T15PQ	DT15PK
N	6.075T15P	5	T15PQ	DT15PK
VDI	6.075T15P	5	T15PQ	DT15PK
WFB...105	6.075T15P	5	T15PQ	DT15PK
WFB...110	6.075T15P	5	T15PQ	DT15PK
WFB...114	4.12T15EP	5	T15PQ	DT15PK

Schneidplatte Typ 105

Rotierender Einsatz einer Vollradiusplatte
zum Entgraten von Querbohrungen

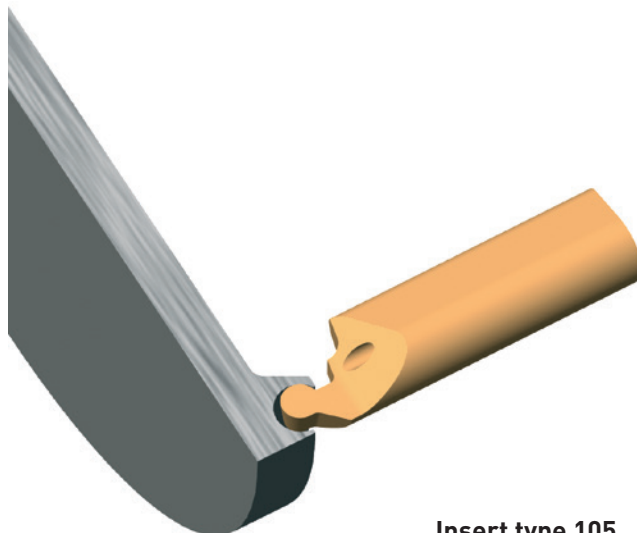


Insert type 105

Deburring cross holes using a rotating insert
with a full radius

Schneidplatte Typ 105

Einstechen einer axialen Formnut
(Vollradius)

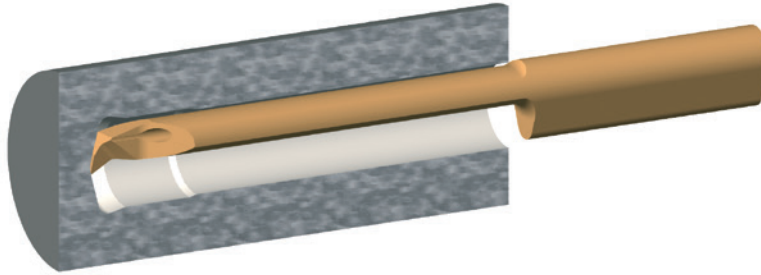


Insert type 105

Profiling a face groove
(full radius insert)

Schneidplatte Typ 105

Kopieren des Bohrungsbodens und
des Freistichs

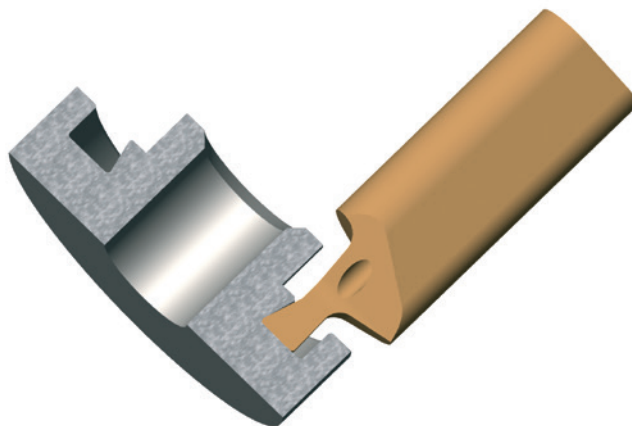


Insert type 105

Machining a flat bottom hole with
an undercut

Schneidplatte Typ 105

Fertigen einer axialen
Schwalbenschwanznut

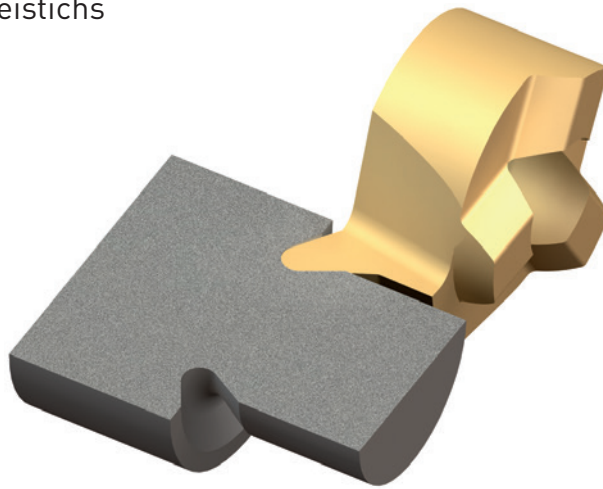


Insert type 105

Machining of a dovetail face groove

Schneidplatte Typ 108

Sonderform eines Eckenfreistichs

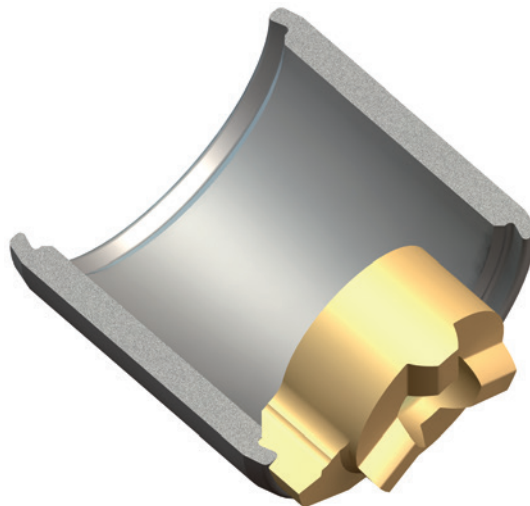


Insert type 108

Special angled under-cut relief

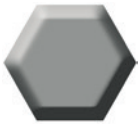
Schneidplatte Typ 111

Formstechen mit Endenbearbeitung einer Hülse

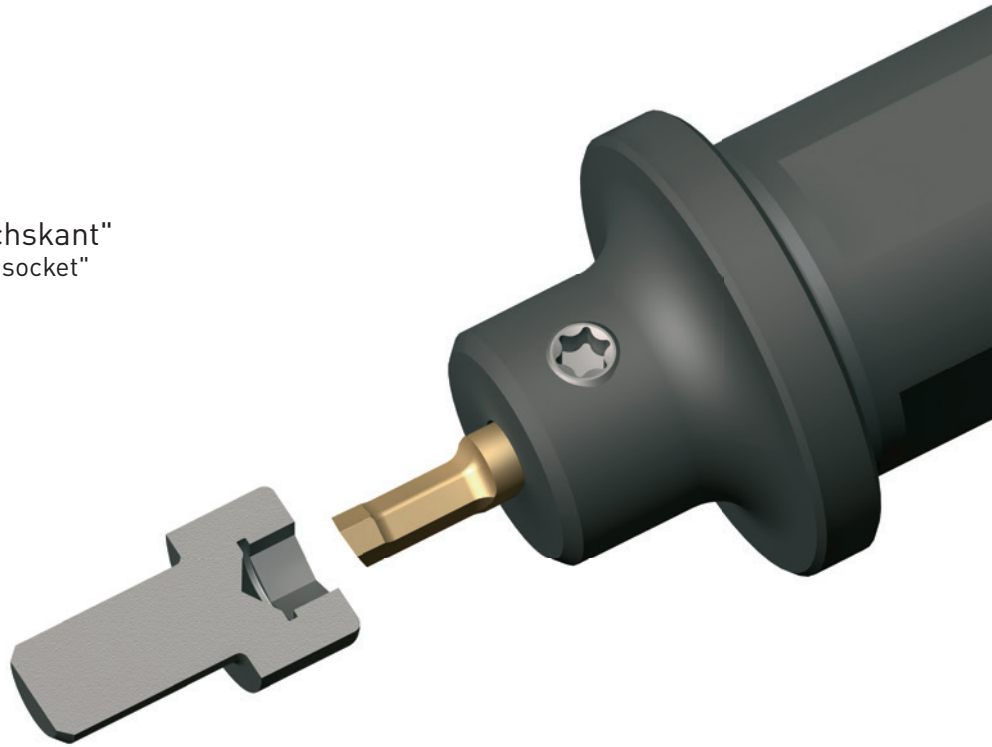


Insert type 111

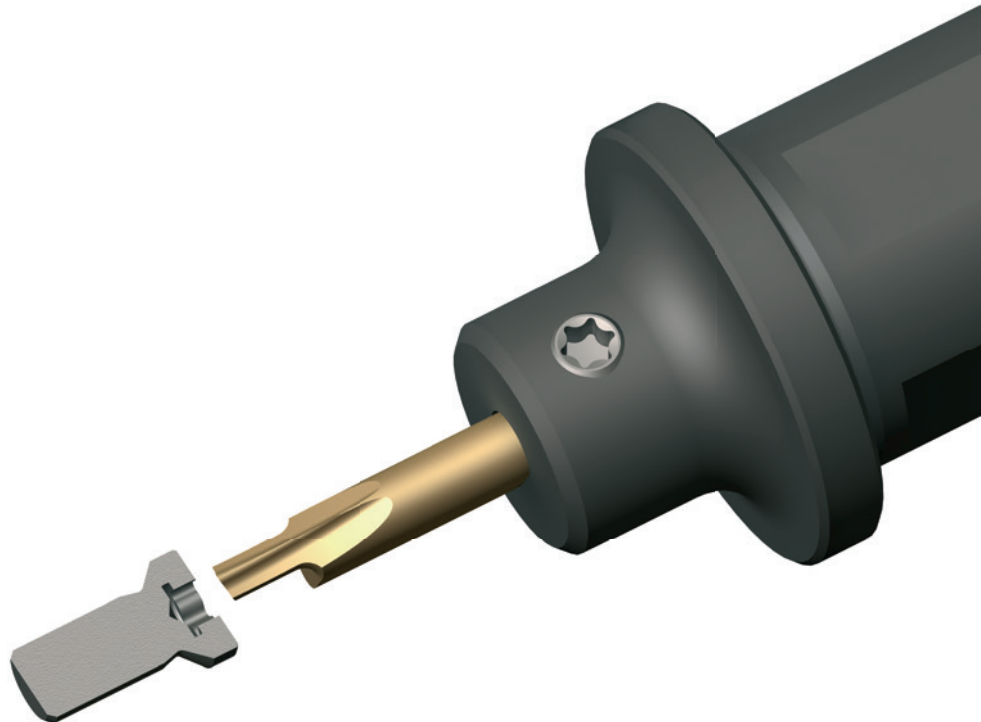
Special ID form groove and facing



Stoßen "Innensechskant"
Broaching "Hexagon socket"



Stoßen "Torx"
Broaching "Torx"



Weitere Informationen finden Sie in unserem HORN-Katalog
"STECHDREHEN UND NUTSTOSSEN"

For further information please see the HORN catalogue "GROOVING AND BROACHING"



D 041 VL
0,4-1 Nm

Drehmoment-Schraubendreher mit Skala
- mit variabler Einstellmöglichkeit
- numerische Drehmoment-Anzeige in Fensterskala

Drehmoment stufenlos einstellbar mit Einstellwerkzeug Torque-Setter (enthalten).
Griff: Ergonomischer Mehrkomponentengriff, extrem handlich durch leichte und kompakte Bauweise. Klicksignal beim Erreichen des eingestellten Drehmomentwertes.

Normen: EN ISO 6798, BS EN 26789, ASME B107.14.M.

Genauigkeit: $\pm 6 \%$, rückführbar auf nationale Normale



D 15 VL
1-5 Nm

Torque screw driver with scale
- variable torque setting
- adjusted torque is shown on display

The Torque can be adjusted with a special torque setter (included).

Handle: Ergonomical form gives perfect handling abilities. Audible signal when set torque is reached.

Standard: EN ISO 6798, BS EN 26789, ASME B 107.14.M.

Precision: $\pm 6 \%$



D 28 VL
2-7 Nm



ED 28 VL
für / for
D041VL / D15VL / D28VL

Einstellwerkzeug für Drehmoment-Schraubendreher

Griff: Celluloseacetat mit microfeiner Oberflächenstruktur

Klinge: Achtkantklinge, durchgehend gehärtet, verzinkt

Device for setting the required torque

Handle: Celluloseacetat with micro structured surface

Blade: Octagonal (8 flats) blade, hardened galvanized



D515QL
5-14 Nm

Drehmoment-Schraubendreher mit Skala
- mit variabler Einstellmöglichkeit
- numerische Drehmoment-Anzeige in Fensterskala

Drehmoment stufenlos einstellbar mit Einstellwerkzeug Torque-Setter (enthalten).

Griff: Ergonomischer Mehrkomponentengriff, extrem handlich durch leichte und kompakte Bauweise. Klicksignal beim Erreichen des eingestellten Drehmomentwertes.

Normen: EN ISO 6798, BS EN 26789, ASME B107.14.M.

Genauigkeit: $\pm 6 \%$, rückführbar auf nationale Normale

Torque screw driver with scale
- variable torque setting
- adjusted torque is shown on display

The Torque can be adjusted with a special torque setter (included).

Handle: Ergonomical form gives perfect handling abilities. Audible signal when set torque is reached.

Standard: EN ISO 6798, BS EN 26789, ASME B 107.14.M.

Precision: $\pm 6 \%$



ED515QL
für / for
D515QL

Einstellwerkzeug für Drehmoment-Schraubendreher

Griff: Celluloseacetat mit microfeiner Oberflächenstruktur

Klinge: Achtkantklinge, durchgehend gehärtet, verzinkt

Device for setting the required torque.

Handle: Celluloseacetat with micro structured surface

Blade: Octogonal (8 flats) blade, hardened galvanized



DT6PK
DT7PK
DT8PK
DT9PK
DT10PK
DT15PK
DT20PK
DT25PK

für / for
D041VL / D15VL / D28VL



Plus

Wechselklinge für TORX PLUS® Schrauben

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt Wiha Chrom Top-Klingenspitze garantiert höchste Maßhaltigkeit. Farbcodierung dunkelgrün

Anwendung: Kontrolliertes Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Wiha Drehmomentgriff.

Blade for TORX-Plus® screws

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated. Wiha Chrome Blade guarantees maximum precision. Colored code dark green

Utilization: Controlled screw setting with definite torque in combination with Wiha torque screw driver handle.



DT6K
DT8K
DT15K

für / for
D041VL / D15VL / D28VL



Wechselklinge für Torx Schrauben

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt Wiha Chrom Top-Klingenspitze garantiert höchste Maßhaltigkeit. Farbcodierung dunkelgrün

Anwendung: Kontrolliertes Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Wiha Drehmomentgriff.

Blade for Torx screws

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated. Wiha Chrome Blade guarantees maximum precision. Colored code dark green

Utilization: Controlled screw setting with definite torque in combination with Wiha torque screw driver handle.



DT15PQ
DT20PQ
DT25PQ
DT27PQ
DT30PQ

für / for
D515QL



Plus

Wechselklinge für TORX PLUS® Schrauben

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt Wiha Chrom Top-Klingenspitze garantiert höchste Maßhaltigkeit. Farbcodierung dunkelgrün

Anwendung: Kontrolliertes Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Wiha Drehmomentgriff.

Blade for TORX-Plus® screws

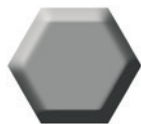
Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated. Wiha Chrome Blade guarantees maximum precision. Colored code dark green

Utilization: Controlled screw setting with definite torque in combination with Wiha torque screw driver handle.



DSW15K
DSW20K
DSW25K
DSW30K
DSW40K

für / for
D041VL / D15VL / D28VL



Wechselklinge für Innensechskant-Schrauben

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt Wiha Chrom Top-Klingenspitze garantiert höchste Maßhaltigkeit. Farbcodierung rot

Anwendung: Kontrolliertes Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Wiha Drehmomentgriff.

Blade for allen screws

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated. Wiha Chrome Blade guarantees maximum precision. Colored code red

Utilization: Controlled screw setting with definite torque in combination with Wiha torque screw driver handle

DSW50K
DSW60K

für / for
D15QL



D14ZBK

für / for
D041VL / D15VL / D28VL

Universal-Bithalter für C6,3 und E6,3 (1/4'') Bits

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt.

Hülse: Aus rostfreiem Stahl

Anwendung: Zum kontrollierten Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Drehmomentgriff.

Universal Bitholder for C6,3 and E6,3 (1/4'') Bits

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated.

Collar: Stainless steel

Utilization: For controlled screw setting with definite torque in combination with torque screw driver handle.



D14ZBQ

für / for
D515QL

Universal-Bithalter für C6,3 und E6,3 (1/4'') Bits

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt.

Hülse: Aus rostfreiem Stahl

Anwendung: Zum kontrollierten Verschrauben bei vorgegebenem Drehmoment, in Kombination mit einem Drehmomentgriff.

Universal Bitholder for C6,3 and E6,3 (1/4'') Bits

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated.

Collar: Stainless steel

Utilization: For controlled screw setting with definite torque in combination with torque screw driver handle.



14ZQK

Bithalter mit Quergriff für C6,3 und E6,3(1/4") Bits

Klinge: Hochwertiger Chrom-Vanadium-Molybdän Stahl, durchgehend gehärtet, mattverchromt

Hülse: Aus rostfreiem Stahl

Anwendung: Zum kontrollierten Öffnen

Universal Bitholder with T-handle for C6,3 and E6,3 (1/4") Bits

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated.

Collar: Stainless steel

Utilization: For controlled opening



**T6PW
T7PW
T8PW
T9PW
T10PW
T15PW
T20PW
T25PW
T30PW**



Plus

Stiftschlüssel für TORX PLUS® Schrauben

Anwendung: Für alle TORX PLUS® Schraubaufgaben

Achtung: TORX PLUS®-Schlüssel passen NICHT in Torx-Schrauben

Wrench for TORX PLUS® Screws

Utilization: For all kind of using TORX PLUS® Screws

Attention: TORX PLUS®-Wrench does NOT fit for Torx-Screws

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