

SA-Stecksystem

SA-Grooving system

SA-Sistema di troncatura

Ein- und Abstechsystem

Grooving and parting system

Sistema di troncatura e scanalatura

• Systemvorstellung	• Introduction	• Caratteristiche del sistema	44 – 46
• Monoblockhalter	• Monoblock holders	• Utensili monoblocco	47 – 59
– Bezeichnungssystem	– Designation system	– Sistema di identificazione	47
– Werkzeugauswahl	– Tool shank options	– Tipologie di corpo utensile	48
– Monoblockhalter	– Monoblock holders	– Utensili monoblocco	49 – 59
• Stechklingen	• Blades	• Lame da taglio	60 – 68
– Bezeichnungssystem	– Designation system	– Sistema di identificazione	60
– Werkzeugauswahl	– Tool shank options	– Tipologie di corpo utensile	61
– Stechklingen	– Blades	– Lame da taglio	62 – 68
• Module	• Modules	• Moduli	70 – 76
– Bezeichnungssystem	– Designation system	– Sistema di identificazione	70
– Werkzeugauswahl	– Tool shank options	– Tipologie di corpo utensile	71
– Module	– Modules	– Moduli	72 – 76
• Schneideinsätze	• Inserts	• Inserti	77 – 85
– Geometrie	– Geometry	– Geometria	77
– Sortenbeschreibung	– Grade description	– Descrizione delle Qualità	78
– Schneideinsätze	– Inserts	– Inserti	79 – 85
• Ersatzteile und Zubehör	• Spare parts and accessories	• Ricambi e accessori	86
• Schnittwerte	• Cutting data	• Parametri di taglio	87 – 89
• Anwendungshinweise	• Application reference	• Suggestimenti tecnici	90 – 91



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Lösungen für das Einstechen und Abstechen bis Ø 140 mm vereint in verschiedenen Werkzeugausführungen

Solutions for part-off and grooving up-to 140 mm diameter, with a number of different tooling designs

Soluzioni di troncatura e scanalatura fino a Ø 140 mm in diverse combinazioni di utensili

Monoblockhalter 8 × 8 bis 40 × 40 mm

*Monoblock holders
8 × 8 to 40 × 40 mm*

Utensili monoblocco
da 8 × 8 a 40 × 40 mm



Stechklingen in den Größen 26 und 32

*Blades
in sizes 26 and 32*

Lame da taglio
nei formati 26 e 32



Module

*Modules
Moduli*



Systemvorstellung

Monoblockhalter

- Schäfte von 8 x 8 bis 40 x 40 mm
- Stechbreiten 1,5 bis 10 mm

Stechklingen

- In Größen 26 und 32
- Stechbreiten 1,5 bis 4 mm

Module

- Einstechtiefe ET_{max} 10,0 – 70,0 mm
- Stechbreiten 1,5 bis 4 mm
- ACS-Modul mit Innenkühlung

Fakten

- **Monoblockausführung**
– Anwendungssicher, einfaches Handling – nur ein Ersatzteil
- **Aktive Schneidplattenklemmung mit Fixanschlag**
– Genaue Schneidenpositionierung. Kein Herausziehen des Schneideinsatzes möglich
- **Zweischneidige Schneideinsätze**
– Hohe Wirtschaftlichkeit
- **Direkt gepresste Schneideinsätze mit speziellen Geometrien**
– Kostengünstige und optimale Lösung für sichere Stechprozesse

1

Introduction

Monoblock holders

- Shank sizes from 8 x 8 to 40 x 40 mm
- Groove widths from 1.5 to 10 mm

Blades

- Sizes 26 and 32 mm
- Groove widths from 1.5 to 4 mm

Modules

- Grooving depth ET_{max} 10.0 – 70.0 mm
- Groove widths from 1.5 to 4 mm
- ACS-Module with through tool coolant

Features

- **Monoblock design**
– Reliable and user friendly – only one spare part
- **Active insert clamping with fixed stop**
– Accurate insert positioning. Pulling out the insert is not possible
- **Double edged inserts**
– High productivity
- **Directly pressed inserts with dedicated geometries**
– Cost efficient and optimum solution for reliable groove production

Descrizione

Utensili monoblocco

- Steli da 8 x 8 fino a 40 x 40 mm
- Larghezza di taglio da 1,5 a 10 mm

Lame da taglio

- In dimensioni 26 e 32 mm
- Larghezze di taglio da 1,5 a 4 mm

Moduli

- Profondità di taglio ET_{max} 10,0 – 70,0 mm
- Larghezze di taglio da 1,5 a 4 mm
- ACS-Modulo con adduzione interna

Caratteristiche

- **Monoblocco**
– Sicuro e di semplice utilizzo – senza ricambi
- **Bloccaggio assiale con fermo**
– Posizionamento preciso e sicuro dell' inserto impossibile lo spostamento in sede
- **Bi-tagliente**
– Economico
- **Inserti con geometrie specifiche**
– Forme specifiche per materiali e per una lavorazione affidabile

ACS – ARNO-Cooling-System / ARNO-Cooling-System / ARNO-Cooling-System

Die neuen SA-Module verfügen über eine patentierte, neue Technik der Kühlmittelzufuhr. Dabei erfolgt die Kühlung durch den Plattensitz und trifft direkt auf die Schnittzone. Der Kühlungsstrahl verursacht so eine Unterspülung des Spanes.

The new SA-Modules introduce a patented new system for coolant. The coolant flows through the blade to the insert seating and therefore goes straight to the cutting area. From the coolant hole the pressure flows under the swarf and thereby offering the best machining conditions.

L'innovativo sistema di troncatura brevettato ACS ARNO-Cooling-System permette al refrigerante di raggiungere il punto di taglio direttamente lungo la superficie dell'inserto oppure anche dalla parte inferiore alla zona di taglio raggiungendo il punto di massimo sviluppo di calore.

Vorteile der Unterspülung:

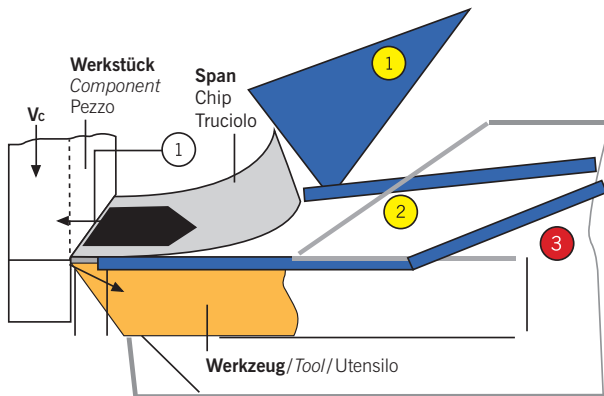
- Geführter Kühlmittelstrahl
- Sehr gute Kühl- und Spülwirkung
- Reduzierung von Aufbauschneidenbildung
- Kontrollierter Spanbruch
- Bessere Oberflächenqualität
- Höhere V_c und Vorschübe möglich
- Erhöhung der Produktivität

Key benefits of blasting up the swarf:

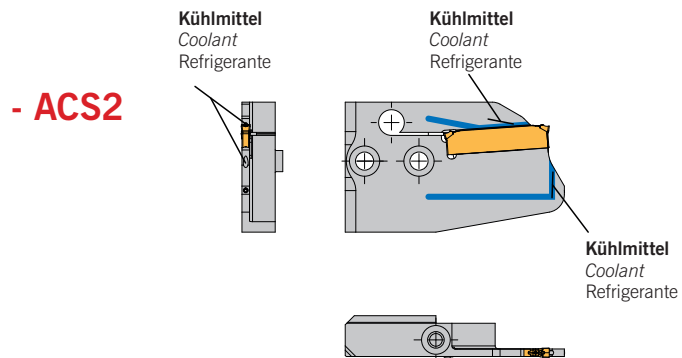
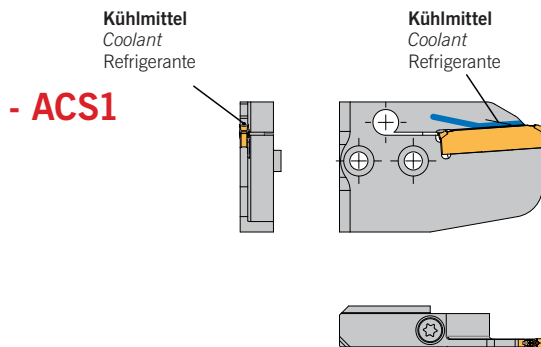
- Controlled coolant stream
- Best cooling and drilling fluid circulation
- Reduced building-up edge and cutting edge breakages
- Controlled chip breaking
- Better surface quality
- Higher V_c and feed rates possible
- Higher productivity

Vantaggi del sistema:

- Liquido di raffreddamento a getto direzionato
- Ottimo raffreddamento del punto di taglio
- Riduzione del tagliante di riporto
- Miglior rottura del truciolo
- Migliore qualità superficiale
- Maggiore velocità di avanzamento e di taglio
- Aumento della produttività



- 1 „Externe Kühlung“ über Spritzdüse/External coolant from coolant jet/ Refrigerazione “estesa” dei sistemi tradizionali (su truciolo)
- 2 „Interne Kühlung“ über Halter oder Spannpratze/Through tool coolant/ Refrigerazione direzionata tramite adduzioni interne classiche (su truciolo)
- 3 Neue „ACS-Kühlung“ direkt durch den Plattensitz/New ACS-coolant through the insert seat/Nuovo ACS ARNO-Cooling-System direttamente sul filo tagliante



Linke Ausführung abgebildet
Left-hand execution shown
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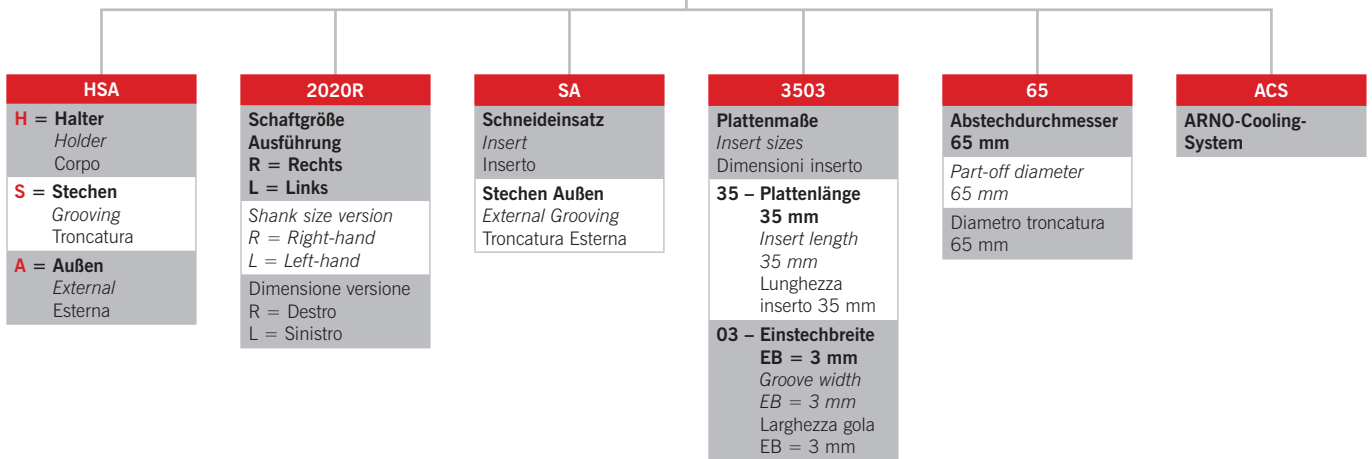


Weitere Details für die Abstechhalter finden Sie im Kapitel 8 ab Seite 289.
For further information on the part-off holders please go to chapter 8 page 289.
Maggiori informazioni relative alla troncatura si trovano al capitolo 8 pagina 289.

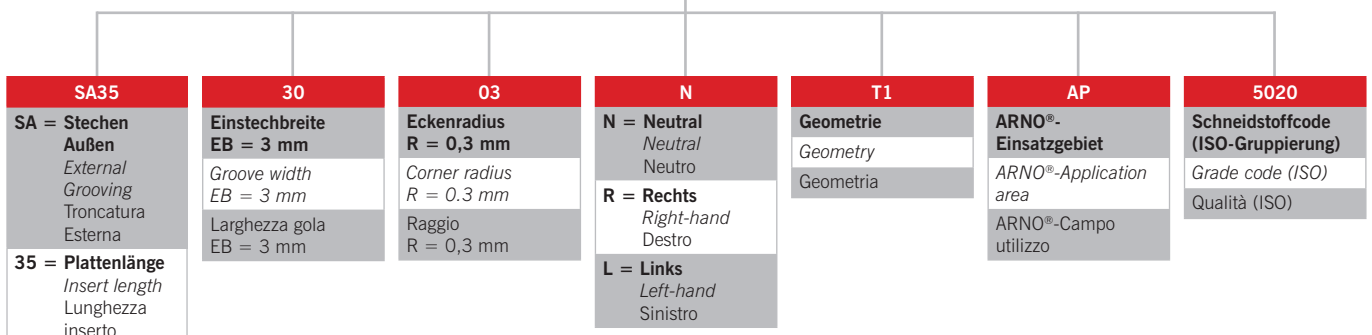
Monoblockhalter / Monoblock holders / Utensili monoblocco



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Schneideinsätze / Inserts / Inserti



1



Monoblockhalter / Monoblock holders / Utensili monoblocco

Seite/Page/Pagina 49 – 59



Halter für SA-Module (MSA) / Tool holders for SA-Modules (MSA) / Steli per moduli SA (MSA)

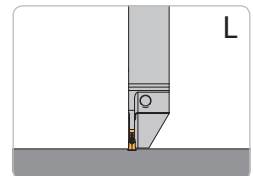
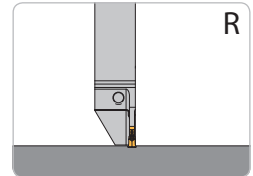
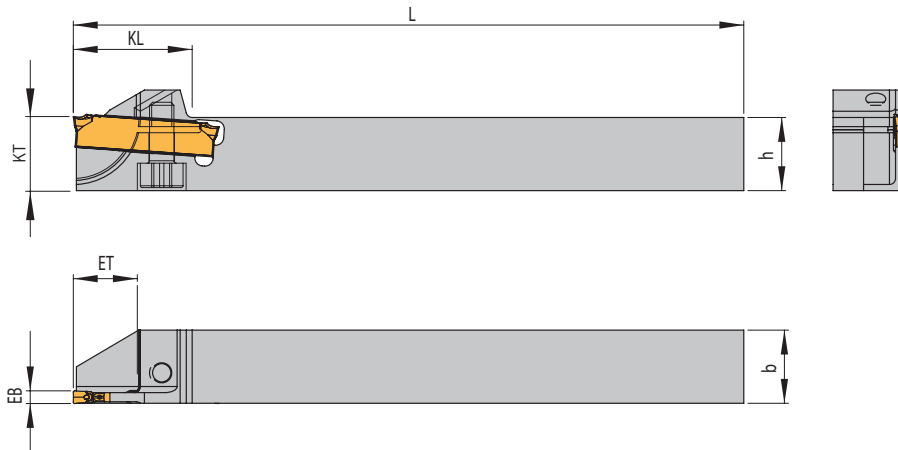
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Schneideinsätze / Inserts / Inserti

Seite/Page/Pagina 77 – 85

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Right-hand execution shown
Versione destra in figura

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Für Langdrehautomaten (mit Klemmung von unten)
For sliding head auto lathes (with clamping from below)
Per fantina mobile (con bloccaggio da sotto)

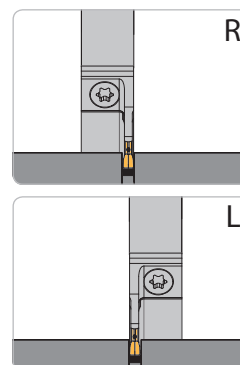
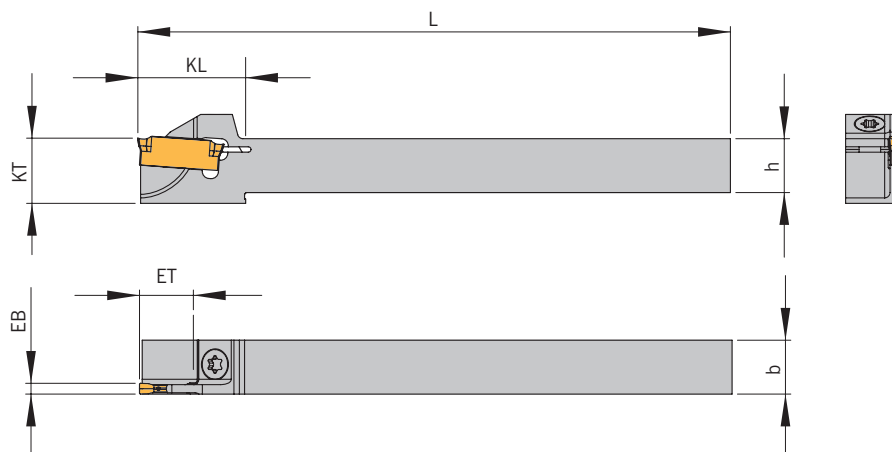
Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 1212U-L-SA24015-20	1,5	10,0	20	–	12	12	110	19,5	12	SA 24-15...
HSA 1212U-R-SA24015-20	1,5	10,0	20	–	12	12	110	19,5	12	SA 24-15...
HSA 1212U-R-SA2402-06	2,0	3,0	6	–	12	12	110	19,5	12	SA 24-20...
HSA 1212U-L-SA2402-12	2,0	6,0	12	–	12	12	110	19,5	12	SA 24-20...
HSA 1212U-R-SA2402-12	2,0	6,0	12	–	12	12	110	19,5	12	SA 24-20...
HSA 1212U-L-SA2402-20	2,0	10,0	20	–	12	12	110	19,5	12	SA 24-20...
HSA 1212U-R-SA2402-20	2,0	10,0	20	–	12	12	110	19,5	12	SA 24-20...
HSA 1616U-L-SA2402-32	2,0	16,0	32	–	16	16	110	25,5	16	SA 24-20...
HSA 1616U-R-SA2402-32	2,0	16,0	32	–	16	16	110	25,5	16	SA 24-20...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

Ersatzteile / Spare parts / Ricambi

Halter Holder Stelo	Schraube Screw Vite	Schlüssel Key Chiave
HSA 0808... – HSA 2020...	AS0022	KS8000

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Right-hand execution shown
Versione destra in figura

Für Langdrehautomaten / For sliding head auto lathes / Per fantina mobile

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 0808L-SA24015-12	1,5	6,0	12	-	8	8	110	16	10	SA 24-15...
HSA 0808R-SA24015-12	1,5	6,0	12	-	8	8	110	16	10	SA 24-15...
HSA 0808L-SA24015-16	1,5	8,0	16	-	8	8	110	18	10	SA 24-15...
HSA 0808R-SA24015-16	1,5	8,0	16	-	8	8	110	18	10	SA 24-15...
HSA 1010L-SA1602-20	2,0	10,0	20	-	10	10	110	20	12	SA 16-20...
HSA 1010R-SA1602-20	2,0	10,0	20	-	10	10	110	20	12	SA 16-20...
HSA 1010L-SA24015-20	1,5	10,0	20	-	10	10	110	20	12	SA 24-15...
HSA 1010R-SA24015-20	1,5	10,0	20	-	10	10	110	20	12	SA 24-15...
HSA 1010L-SA2402-20	2,0	10,0	20	-	10	10	110	20	12	SA 24-20...
HSA 1010R-SA2402-20	2,0	10,0	20	-	10	10	110	20	12	SA 24-20...
HSA 1212L-SA1602-20	2,0	10,0	20	-	12	12	110	-	-	SA 16-20...
HSA 1212R-SA1602-20	2,0	10,0	20	-	12	12	110	-	-	SA 16-20...
HSA 1212L-SA1603-26	3,0	13,0	26	-	12	12	110	-	-	SA 16-30...
HSA 1212R-SA1603-26	3,0	13,0	26	-	12	12	110	-	-	SA 16-30...
HSA 1212L-SA24015-20	1,5	10,0	20	-	12	12	110	-	-	SA 24-15...
HSA 1212R-SA24015-20	1,5	10,0	20	-	12	12	110	-	-	SA 24-15...
HSA 1212L-SA24015-32	1,5	16,0	32	-	12	12	110	26	16	SA 24-15...
HSA 1212R-SA24015-32	1,5	16,0	32	-	12	12	110	26	16	SA 24-15...
HSA 1212L-SA2402-20	2,0	10,0	20	-	12	12	110	-	-	SA 24-20...
HSA 1212R-SA2402-20	2,0	10,0	20	-	12	12	110	-	-	SA 24-20...
HSA 1212L-SA2402-26	2,0	13,0	26	-	12	12	110	-	-	SA 24-20...
HSA 1212R-SA2402-26	2,0	13,0	26	-	12	12	110	-	-	SA 24-20...
HSA 1212L-SA2402-32	2,0	16,0	32	-	12	12	110	26	16	SA 24-20...
HSA 1212R-SA2402-32	2,0	16,0	32	-	12	12	110	26	16	SA 24-20...
HSA 1616L-SA1602-20	2,0	10,0	20	-	16	16	110	-	-	SA 16-20...
HSA 1616R-SA1602-20	2,0	10,0	20	-	16	16	110	-	-	SA 16-20...
HSA 1616L-SA1602-26	2,0	13,0	26	-	16	16	110	-	-	SA 16-20...
HSA 1616R-SA1602-26	2,0	13,0	26	-	16	16	110	-	-	SA 16-20...
HSA 1616L-SA1603-26	3,0	13,0	26	-	16	16	110	-	-	SA 16-30...
HSA 1616R-SA1603-26	3,0	13,0	26	-	16	16	110	-	-	SA 16-30...
HSA 1616L-SA24015-32	1,5	16,0	32	-	16	16	110	-	-	SA 24-15...
HSA 1616R-SA24015-32	1,5	16,0	32	-	16	16	110	-	-	SA 24-15...
HSA 1616L-SA2402-26	2,0	13,0	26	-	16	16	110	-	-	SA 24-20...
HSA 1616R-SA2402-26	2,0	13,0	26	-	16	16	110	-	-	SA 24-20...
HSA 1616L-SA2402-32	2,0	16,0	32	-	16	16	110	-	-	SA 24-20...
HSA 1616R-SA2402-32	2,0	16,0	32	-	16	16	110	-	-	SA 24-20...
HSA 1616L-SA24025-32	2,5	16,0	32	-	16	16	110	-	-	SA 24-25...
HSA 1616R-SA24025-32	2,5	16,0	32	-	16	16	110	-	-	SA 24-25...

Für Langdrehautomaten / For sliding head auto lathes / Per fantina mobile

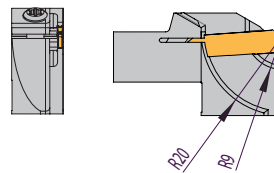
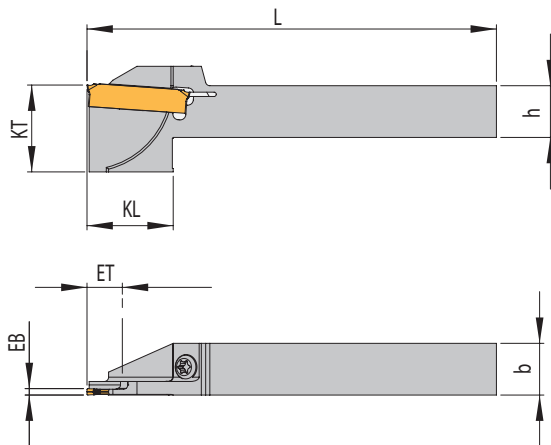
Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 1616L-SA2403-20	3,0	10,0	20	-	16	16	110	-	-	SA 24-30...
HSA 1616R-SA2403-20	3,0	10,0	20	-	16	16	110	-	-	SA 24-30...
HSA 1616L-SA2403-26	3,0	13,0	26	-	16	16	110	-	-	SA 24-30...
HSA 1616R-SA2403-26	3,0	13,0	26	-	16	16	110	-	-	SA 24-30...
HSA 1616L-SA2403-32	3,0	16,0	32	-	16	16	110	-	-	SA 24-30...
HSA 1616R-SA2403-32	3,0	16,0	32	-	16	16	110	-	-	SA 24-30...
HSA 2020L-SA2402-20	2,0	10,0	20	-	20	20	110	-	-	SA 24-20...
HSA 2020R-SA2402-20	2,0	10,0	20	-	20	20	110	-	-	SA 24-20...
HSA 2020L-SA2402-32	2,0	16,0	32	-	20	20	110	25,5	20	SA 24-20...
HSA 2020R-SA2402-32	2,0	16,0	32	-	20	20	110	25,5	20	SA 24-20...
HSA 2020L-SA2403-32	3,0	16,0	32	-	20	20	110	-	-	SA 24-30...
HSA 2020R-SA2403-32	3,0	16,0	32	-	20	20	110	-	-	SA 24-30...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

Ersatzteile / Spare parts / Ricambi

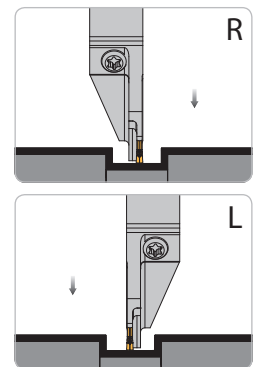
Halter Holder Stelo	Schraube Screw Vite	Schlüssel Key Chiave
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87-90



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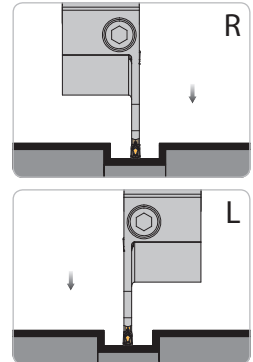
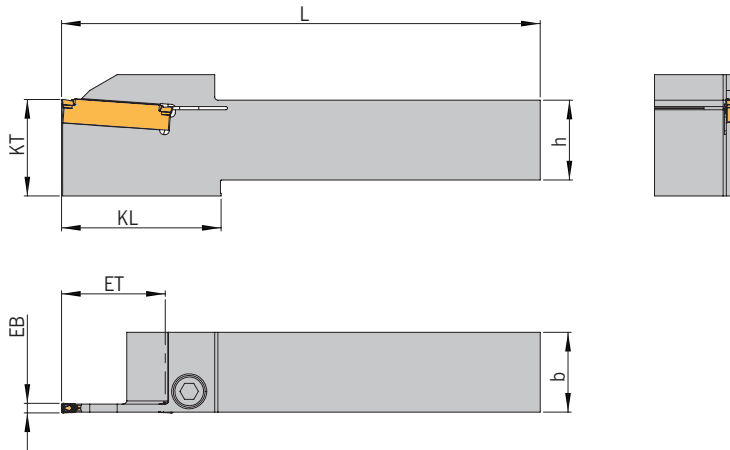
Für Traub TNL12 / For Traub TNL12 / Per Traub TNL12

Bezeichnung Designation Articolo	EB	ET	D _{max}	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 1212R-SA24015-S1-16	1,5	8,0	16	12	12	95	20	12	SA 24-15...

Ersatzteile / Spare parts / Ricambi

Halter Holder Stelo	Schraube Screw Vite	Schlüssel Key Chiave
HSA 1212... - HSA 24015...	AS0022	KS8000

HSA



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Right-hand execution shown
Versione destra in figura

Monoblockhalter / Monoblock holder / Utensile monoblocco

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 1616L-SA24015-44	1,5	22,0	44	61	16	16	125	40	20	SA 24-15...
HSA 1616R-SA24015-44	1,5	22,0	44	61	16	16	125	40	20	SA 24-15...
HSA 1616L-SA2402-44	2,0	22,0	44	61	16	16	125	40	20	SA 24-20...
HSA 1616R-SA2402-44	2,0	22,0	44	61	16	16	125	40	20	SA 24-20...
HSA 1616L-SA2403-44	3,0	22,0	44	61	16	16	125	40	20	SA 24-30...
HSA 1616R-SA2403-44	3,0	22,0	44	61	16	16	125	40	20	SA 24-30...
HSA 2020L-SA24015-44	1,5	22,0	44	61	20	20	125	-	-	SA 24-15...
HSA 2020R-SA24015-44	1,5	22,0	44	61	20	20	125	-	-	SA 24-15...
HSA 2020L-SA2402-44	2,0	22,0	44	61	20	20	125	-	-	SA 24-20...
HSA 2020R-SA2402-44	2,0	22,0	44	61	20	20	125	-	-	SA 24-20...
HSA 2020L-SA24025-44	2,5	22,0	44	61	20	20	125	-	-	SA 24-25...
HSA 2020R-SA24025-44	2,5	22,0	44	61	20	20	125	-	-	SA 24-25...
HSA 2020L-SA2403-44	3,0	22,0	44	61	20	20	125	-	-	SA 24-30...
HSA 2020R-SA2403-44	3,0	22,0	44	61	20	20	125	-	-	SA 24-30...
HSA 2020L-SA2404-44	4,0	22,0	44	61	20	20	125	-	-	SA 24-40...
HSA 2020R-SA2404-44	4,0	22,0	44	61	20	20	125	-	-	SA 24-40...
HSA 2020L-SA3502-52	2,0	26,0	52	68	20	20	150	44	30	SA 35-20...
HSA 2020R-SA3502-52	2,0	26,0	52	68	20	20	150	44	30	SA 35-20...
HSA 2020L-SA3502-65	2,0	32,5	65	80	20	20	150	50	30	SA 35-20...
HSA 2020R-SA3502-65	2,0	32,5	65	80	20	20	150	50	30	SA 35-20...
HSA 2020L-SA3503-52	3,0	26,0	52	68	20	20	150	44	30	SA 35-30...
HSA 2020R-SA3503-52	3,0	26,0	52	68	20	20	150	44	30	SA 35-30...
HSA 2020L-SA3503-65	3,0	32,5	65	80	20	20	150	50	30	SA 35-30...
HSA 2020R-SA3503-65	3,0	32,5	65	80	20	20	150	50	30	SA 35-30...
HSA 2020L-SA3504-52	4,0	26,0	52	68	20	20	150	44	30	SA 35-40...
HSA 2020R-SA3504-52	4,0	26,0	52	68	20	20	150	44	30	SA 35-40...
HSA 2020L-SA3504-65	4,0	32,5	65	80	20	20	150	50	30	SA 35-40...
HSA 2020R-SA3504-65	4,0	32,5	65	80	20	20	150	50	30	SA 35-40...
HSA 2020L-SA3506-65	6,0	32,5	65	80	20	20	150	50	30	SA 35-60...
HSA 2020R-SA3506-65	6,0	32,5	65	80	20	20	150	50	30	SA 35-60...
HSA 2525L-SA2402-44	2,0	22,0	44	61	25	25	150	-	-	SA 24-20...
HSA 2525R-SA2402-44	2,0	22,0	44	61	25	25	150	-	-	SA 24-20...
HSA 2525L-SA2403-44	3,0	22,0	44	61	25	25	150	-	-	SA 24-30...
HSA 2525R-SA2403-44	3,0	22,0	44	61	25	25	150	-	-	SA 24-30...
HSA 2525L-SA2404-44	4,0	22,0	44	61	25	25	150	-	-	SA 24-40...
HSA 2525R-SA2404-44	4,0	22,0	44	61	25	25	150	-	-	SA 24-40...
HSA 2525L-SA3502-52	2,0	26,0	52	68	25	25	150	44	30	SA 35-20...
HSA 2525R-SA3502-52	2,0	26,0	52	68	25	25	150	44	30	SA 35-20...

Monoblockhalter / Monoblock holder / Utensile monoblocco

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	KL	KT	Schneideinsatz Insert Inserto
HSA 2525L-SA3502-65	2,0	32,5	65	80	25	25	150	50	30	SA 35-20...
HSA 2525R-SA3502-65	2,0	32,5	65	80	25	25	150	50	30	SA 35-20...
HSA 2525L-SA3503-52	3,0	26,0	52	68	25	25	150	44	30	SA 35-30...
HSA 2525R-SA3503-52	3,0	26,0	52	68	25	25	150	44	30	SA 35-30...
HSA 2525L-SA3503-65	3,0	32,5	65	80	25	25	150	50	30	SA 35-30...
HSA 2525R-SA3503-65	3,0	32,5	65	80	25	25	150	50	30	SA 35-30...
HSA 2525L-SA3504-52	4,0	26,0	52	68	25	25	150	44	30	SA 35-40...
HSA 2525R-SA3504-52	4,0	26,0	52	68	25	25	150	44	30	SA 35-40...
HSA 2525L-SA3504-65	4,0	32,5	65	80	25	25	150	50	30	SA 35-40...
HSA 2525R-SA3504-65	4,0	32,5	65	80	25	25	150	50	30	SA 35-40...
HSA 2525L-SA3506-65	6,0	32,5	65	80	25	25	150	50	30	SA 35-60...
HSA 2525R-SA3506-65	6,0	32,5	65	80	25	25	150	50	30	SA 35-60...
HSA 2525R-SA3508-65	8,0	32,5	65	80	25	25	170	50	30	SA 35-80...
HSA 2525L-SA3508-65	8,0	32,5	65	80	25	25	170	50	30	SA 35-80...
HSA 3225L-SA2403-44	3,0	22,0	44	61	32	25	170	-	-	SA 24-30...
HSA 3225R-SA2403-44	3,0	22,0	44	61	32	25	170	-	-	SA 24-30...
HSA 3225L-SA2404-44	4,0	22,0	44	61	32	25	170	-	-	SA 24-40...
HSA 3225R-SA2404-44	4,0	22,0	44	61	32	25	170	-	-	SA 24-40...
HSA 3225L-SA3503-65	3,0	32,5	65	80	32	25	170	50	32	SA 35-30...
HSA 3225R-SA3503-65	3,0	32,5	65	80	32	25	170	50	32	SA 35-30...
HSA 3225L-SA3504-65	4,0	32,5	65	80	32	25	170	-	-	SA 35-40...
HSA 3225R-SA3504-65	4,0	32,5	65	80	32	25	170	-	-	SA 35-40...
HSA 3232L-SA3506-65	6,0	32,5	65	80	32	32	170	-	-	SA 35-60...
HSA 3232L-SA3508-65	8,0	32,5	65	80	32	32	170	-	-	SA 35-80...
HSA 3232L-SA4010-75	10,0	37,5	75	90	32	32	170	-	-	SA 40-100...
HSA 3232R-SA3506-65	6,0	32,5	65	80	32	32	170	-	-	SA 35-60...
HSA 3232R-SA3508-65	8,0	32,5	65	80	32	32	170	-	-	SA 35-80...
HSA 3232R-SA4010-75	10,0	37,5	75	90	32	32	170	-	-	SA 40-100...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

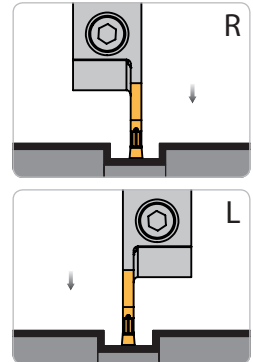
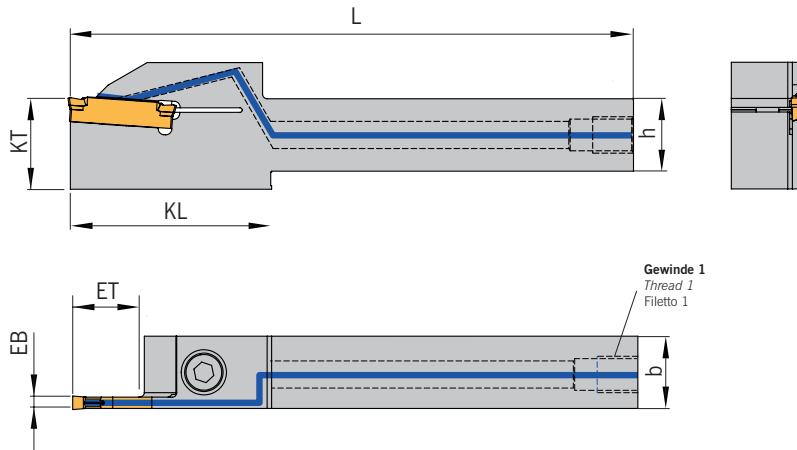
D_R = Maximaler Stechdurchmesser bei Rohren
D_R = Maximum diameter for tube material
D_R = Diametro massimo da tubo

Ersatzteile / Spare parts / Ricambi

Halter Holder Stelo	Schraube Screw Vite
HSA 1616... - HSA 3225...-SA24... D _{min} 44	DIN 912 - M5x16 -12.9
HSA 12020... - HSA 3225...-SA35... D _{min} 52/65	DIN 912 - M6x20 -12.9



HSA-ACS1-H



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Monoblockhalter mit Innenkühlung ACS1 von hinten

Monoblock holder with through tool coolant access from the back

Utensile monoblocco con adduzione interna ACS1 posteriore

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	L ₄	KL	KT	Gewinde 1 Thread 1 Filetto 1	Gewinde 2 Thread 2 Filetto 2	Schneideinsatz Insert Inserto
HSA 1616L-SA2403-32-ACS1-H1	3,0	16,0	32,0	-	16	16	110	-	-	-	M8x1	-	SA 24-30...
HSA 1616R-SA2403-32-ACS1-H1	3,0	16,0	32,0	-	16	16	110	-	-	-	M8x1	-	SA 24-30...
HSA 1616L-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	16	16	125	-	40	20	M8x1	-	SA 24-30...
HSA 1616R-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	16	16	125	-	40	20	M8x1	-	SA 24-30...
HSA 2020L-SA2403-32-ACS1-H1	3,0	22,0	32,0	-	20	20	125	-	-	-	M8x1	-	SA 24-30...
HSA 2020R-SA2403-32-ACS1-H1	3,0	22,0	32,0	-	20	20	125	-	-	-	M8x1	-	SA 24-30...
HSA 2020L-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	20	20	125	-	-	-	M8x1	-	SA 24-30...
HSA 2020R-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	20	20	125	-	-	-	M8x1	-	SA 24-30...
HSA 2525L-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	25	25	150	-	-	-	M8x1	-	SA 24-30...
HSA 2525R-SA2403-44-ACS1-H1	3,0	22,0	44,0	61	25	25	150	-	-	-	M8x1	-	SA 24-30...
HSA 2020L-SA3503-52-ACS1-H1	3,0	26,0	52,0	68	20	20	150	-	44	44	M8x1	-	SA 35-30...
HSA 2020R-SA3503-52-ACS1-H1	3,0	26,0	52,0	68	20	20	150	-	44	44	M8x1	-	SA 35-30...
HSA 2020L-SA3503-65-ACS1-H1	3,0	32,5	65,0	80	20	20	150	-	50	50	M8x1	-	SA 35-30...
HSA 2020R-SA3503-65-ACS1-H1	3,0	32,5	65,0	80	20	20	150	-	50	50	M8x1	-	SA 35-30...
HSA 2525L-SA3503-52-ACS1-H1	3,0	26,0	52,0	68	25	25	150	-	44	44	M8x1	-	SA 35-30...
HSA 2525R-SA3503-52-ACS1-H1	3,0	26,0	52,0	68	25	25	150	-	44	44	M8x1	-	SA 35-30...
HSA 2525L-SA3503-65-ACS1-H1	3,0	32,5	65,0	80	25	25	150	-	50	50	M8x1	-	SA 35-30...
HSA 2525R-SA3503-65-ACS1-H1	3,0	32,5	65,0	80	25	25	150	-	50	50	M8x1	-	SA 35-30...
HSA 1616L-SA2403-32-ACS1-H2	3,0	16,0	32	-	16	16	110	-	-	-	G 1/8"	-	SA 24-30...
HSA 1616R-SA2403-32-ACS1-H2	3,0	16,0	32	-	16	16	110	-	-	-	G 1/8"	-	SA 24-30...
HSA 1616L-SA2403-44-ACS1-H2	3,0	22,0	44	61	16	16	125	-	40	20	G 1/8"	-	SA 24-30...
HSA 1616R-SA2403-44-ACS1-H2	3,0	22,0	44	61	16	16	125	-	40	20	G 1/8"	-	SA 24-30...
HSA 2020L-SA2403-32-ACS1-H2	3,0	22,0	32	-	20	20	125	-	-	-	G 1/8"	-	SA 24-30...
HSA 2020R-SA2403-32-ACS1-H2	3,0	22,0	32	-	20	20	125	-	-	-	G 1/8"	-	SA 24-30...
HSA 2020L-SA2403-44-ACS1-H2	3,0	22,0	44	61	20	20	125	-	-	-	G 1/8"	-	SA 24-30...
HSA 2020R-SA2403-44-ACS1-H2	3,0	22,0	44	61	20	20	125	-	-	-	G 1/8"	-	SA 24-30...
HSA 2525L-SA2403-44-ACS1-H2	3,0	22,0	44	61	25	25	150	-	-	-	G 1/8"	-	SA 24-30...
HSA 2525R-SA2403-44-ACS1-H2	3,0	22,0	44	61	25	25	150	-	-	-	G 1/8"	-	SA 24-30...
HSA 2020L-SA3503-52-ACS1-H2	3,0	26,0	52	68	20	20	150	-	44	30	G 1/8"	-	SA 35-30...
HSA 2020R-SA3503-52-ACS1-H2	3,0	26,0	52	68	20	20	150	-	44	30	G 1/8"	-	SA 35-30...
HSA 2020L-SA3503-65-ACS1-H2	3,0	33,0	65	80	20	20	150	-	50	30	G 1/8"	-	SA 35-30...
HSA 2020R-SA3503-65-ACS1-H2	3,0	33,0	65	80	20	20	150	-	50	30	G 1/8"	-	SA 35-30...
HSA 2525L-SA3503-52-ACS1-H2	3,0	26,0	52	68	25	25	150	-	44	30	G 1/8"	-	SA 35-30...

Monoblockhalter mit Innenkühlung ACS1 von hinten

Monoblock holder with through tool coolant access from the back

Utensile monoblocco con adduzione interna ACS1 posteriore

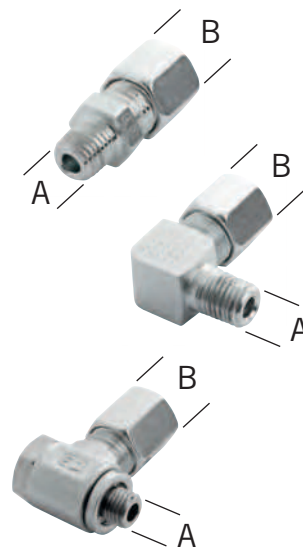
Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	L ₄	KL	KT	Gewinde 1 Thread 1 Filetto 1	Gewinde 2 Thread 2 Filetto 2	Schneideinsatz Insert Inserto
HSA 2525R-SA3503-52-ACS1-H2	3,0	26,0	52	68	25	25	150	-	44	30	G 1/8"	-	SA 35-30...
HSA 2525L-SA3503-65-ACS1-H2	3,0	33,0	65	80	25	25	150	-	50	30	G 1/8"	-	SA 35-30...
HSA 2525R-SA3503-65-ACS1-H2	3,0	33,0	65	80	25	25	150	-	50	30	G 1/8"	-	SA 35-30...
HSA 1616L-SA2403-32-ACS1-H3	3,0	16,0	32	-	16	16	110	-	-	-	G 1/4"	-	SA 24-30...
HSA 1616R-SA2403-32-ACS1-H3	3,0	16,0	32	-	16	16	110	-	-	-	G 1/4"	-	SA 24-30...
HSA 1616L-SA2403-44-ACS1-H3	3,0	22,0	44	61	16	16	125	-	40	20	G 1/4"	-	SA 24-30...
HSA 1616R-SA2403-44-ACS1-H3	3,0	22,0	44	61	16	16	125	-	40	20	G 1/4"	-	SA 24-30...
HSA 2020L-SA2403-32-ACS1-H3	3,0	22,0	32	-	20	20	125	-	-	-	G 1/4"	-	SA 24-30...
HSA 2020R-SA2403-32-ACS1-H3	3,0	22,0	32	-	20	20	125	-	-	-	G 1/4"	-	SA 24-30...
HSA 2020L-SA2403-44-ACS1-H3	3,0	22,0	44	61	20	20	125	-	-	-	G 1/4"	-	SA 24-30...
HSA 2020R-SA2403-44-ACS1-H3	3,0	22,0	44	61	20	20	125	-	-	-	G 1/4"	-	SA 24-30...
HSA 2525L-SA2403-44-ACS1-H3	3,0	22,0	44	61	25	25	150	-	-	-	G 1/4"	-	SA 24-30...
HSA 2525R-SA2403-44-ACS1-H3	3,0	22,0	44	61	25	25	150	-	-	-	G 1/4"	-	SA 24-30...
HSA 2020L-SA3503-52-ACS1-H3	3,0	26,0	52	68	20	20	150	-	44	30	G 1/4"	-	SA 35-30...
HSA 2020R-SA3503-52-ACS1-H3	3,0	26,0	52	68	20	20	150	-	44	30	G 1/4"	-	SA 35-30...
HSA 2020L-SA3503-65-ACS1-H3	3,0	33,0	65	80	20	20	150	-	50	30	G 1/4"	-	SA 35-30...
HSA 2020R-SA3503-65-ACS1-H3	3,0	33,0	65	80	20	20	150	-	50	30	G 1/4"	-	SA 35-30...
HSA 2525L-SA3503-52-ACS1-H3	3,0	26,0	52	68	25	25	150	-	44	30	G 1/4"	-	SA 35-30...
HSA 2525R-SA3503-52-ACS1-H3	3,0	26,0	52	68	25	25	150	-	44	30	G 1/4"	-	SA 35-30...
HSA 2525L-SA3503-65-ACS1-H3	3,0	33,0	65	80	25	25	150	-	50	30	G 1/4"	-	SA 35-30...
HSA 2525R-SA3503-65-ACS1-H3	3,0	33,0	65	80	25	25	150	-	50	30	G 1/4"	-	SA 35-30...

Hinweis: Zubehör muss separat bestellt werden.
Remark: Accessories must be ordered separately.
Nota: Gli accessori devono essere ordinati separatamente.

Hinweis: Diese Halter bekommen Sie mit Ihren spezifischen Kühlschlüssen. Ein Anfrageblatt hierzu finden Sie auf Seite 58 oder im Internet unter: www.arno.de/download / Remark: The coolant inlet is supplied to your specification, please complete enquiry sheet on page 58 or download this from: www.arno.de/download / Nota: Questi corpi utensile sono fornibili con specifiche connessioni del refrigerante, Vedere modulo richiesta a Pag. 58 o download del modulo da: www.arno.de/download

Zubehör / Accessories / Accessori

Bezeichnung Designation Articolo		A	B
KA 001	Kühlmittelanschluss – gerade Coolant supply – straight Raccordo – dritto	M8x1	Ø 6 mm
KA 002		1/8"	Ø 6 mm
KA 003		1/4"	Ø 10 mm
KA 004	Kühlmittelanschluss – winklig, fest Coolant supply – angled and fixed Raccordo – angolato	M8x1	Ø 6 mm
KA 005		1/8"	Ø 6 mm
KA 006	Schwenkverschraubung Swivelling screw-fitting Raccordo – orientabile	M8x1	Ø 6 mm
KA 007		1/8"	Ø 6 mm
KA 008		1/4"	Ø 10 mm

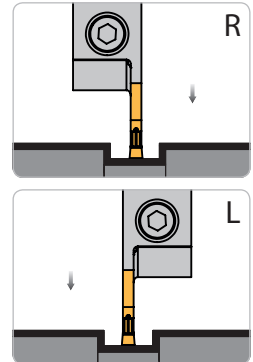
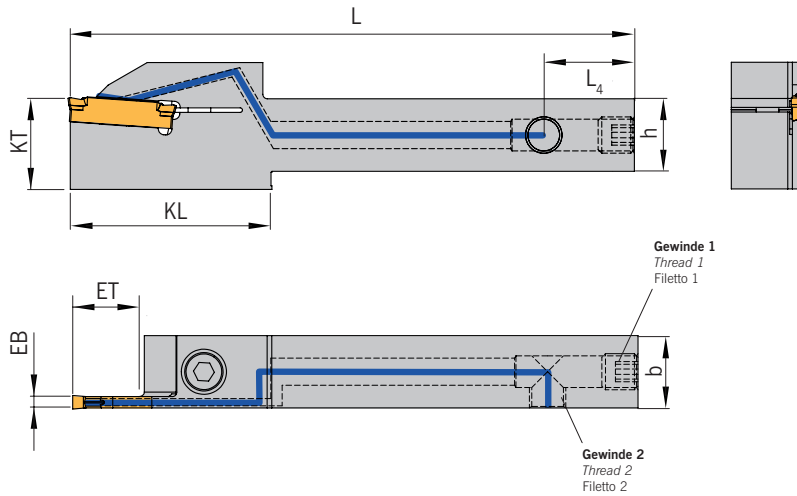


Ersatzteile / Spare parts / Ricambi

Halter Holder Stelo	Schraube Screw Vite	Schlüssel Key Chiave
HSA 1616... - HSA 2020...-SA24...-32-ACS1...	AS0022	KS8000
HSA 1616... - HSA 2525...-SA24...-44-ACS1...	DIN912-M5x16-12.9	Inbus* 4 mm
HSA 2020... - HSA 2525...-SA35...-52-ACS1...	DIN912-M6x20-12.9	Inbus* 5 mm
HSA 2020... - HSA 2525...-SA35...-65-ACS1...	DIN912-M6x20-12.9	Inbus* 5 mm

*Inbus Schlüssel / Allen key / Chiave a brugola

HSA-ACS1-S



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Monoblockhalter mit Innenkühlung ACS1 von der Seite
Monoblock holder with through tool coolant access from the side
Utensile monoblocco con adduzione interna ACS1 laterale

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	L ₄	KL	KT	Gewinde 1 Thread 1 Filetto 1	Gewinde 2 Thread 2 Filetto 2	Schneideinsatz Insert Inserto
HSA 1616L-SA2403-32-ACS1-S1	3,0	16,0	32	-	16	16	110	20	-	-	M8x1	M8x1	SA 24-30...
HSA 1616R-SA2403-32-ACS1-S1	3,0	16,0	32	-	16	16	110	20	-	-	M8x1	M8x1	SA 24-30...
HSA 1616L-SA2403-44-ACS1-S1	3,0	22,0	44	61	16	16	125	20	40	20	M8x1	M8x1	SA 24-30...
HSA 1616R-SA2403-44-ACS1-S1	3,0	22,0	44	61	16	16	125	20	40	20	M8x1	M8x1	SA 24-30...
HSA 2020L-SA2403-32-ACS1-S1	3,0	22,0	32	-	20	20	125	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2020R-SA2403-32-ACS1-S1	3,0	22,0	32	-	20	20	125	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2020L-SA2403-44-ACS1-S1	3,0	22,0	44	61	20	20	125	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2020R-SA2403-44-ACS1-S1	3,0	22,0	44	61	20	20	125	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2525L-SA2403-44-ACS1-S1	3,0	22,0	44	61	25	25	150	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2525R-SA2403-44-ACS1-S1	3,0	22,0	44	61	25	25	150	20	-	-	M8x1	M8x1	SA 24-30...
HSA 2020L-SA3503-52-ACS1-S1	3,0	26,0	52	68	20	20	150	20	44	30	M8x1	M8x1	SA 35-30...
HSA 2020R-SA3503-52-ACS1-S1	3,0	26,0	52	68	20	20	150	20	44	30	M8x1	M8x1	SA 35-30...
HSA 2020L-SA3503-65-ACS1-S1	3,0	33,0	65	80	20	20	150	20	50	30	M8x1	M8x1	SA 35-30...
HSA 2020R-SA3503-65-ACS1-S1	3,0	33,0	65	80	20	20	150	20	50	30	M8x1	M8x1	SA 35-30...
HSA 2525L-SA3503-52-ACS1-S1	3,0	26,0	52	68	25	25	150	20	44	30	M8x1	M8x1	SA 35-30...
HSA 2525R-SA3503-52-ACS1-S1	3,0	26,0	52	68	25	25	150	20	44	30	M8x1	M8x1	SA 35-30...
HSA 2525L-SA3503-65-ACS1-S1	3,0	33,0	65	80	25	25	150	20	50	30	M8x1	M8x1	SA 35-30...
HSA 2525R-SA3503-65-ACS1-S1	3,0	33,0	65	80	25	25	150	20	50	30	M8x1	M8x1	SA 35-30...
HSA 1616L-SA2403-32-ACS1-S2	3,0	16,0	32	-	16	16	110	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 1616R-SA2403-32-ACS1-S2	3,0	16,0	32	-	16	16	110	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 1616L-SA2403-44-ACS1-S2	3,0	22,0	44	61	16	16	125	20	40	20	M8x1	G 1/8"	SA 24-30...
HSA 1616R-SA2403-44-ACS1-S2	3,0	22,0	44	61	16	16	125	20	40	20	M8x1	G 1/8"	SA 24-30...
HSA 2020L-SA2403-32-ACS1-S2	3,0	22,0	32	-	20	20	125	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2020R-SA2403-32-ACS1-S2	3,0	22,0	32	-	20	20	125	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2020L-SA2403-44-ACS1-S2	3,0	22,0	44	61	20	20	125	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2020R-SA2403-44-ACS1-S2	3,0	22,0	44	61	20	20	125	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2525L-SA2403-44-ACS1-S2	3,0	22,0	44	61	25	25	150	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2525R-SA2403-44-ACS1-S2	3,0	22,0	44	61	25	25	150	20	-	-	M8x1	G 1/8"	SA 24-30...
HSA 2020L-SA3503-52-ACS1-S2	3,0	26,0	52	68	20	20	150	20	44	30	M8x1	G 1/8"	SA 35-30...
HSA 2020R-SA3503-52-ACS1-S2	3,0	26,0	52	68	20	20	150	20	44	30	M8x1	G 1/8"	SA 35-30...
HSA 2020L-SA3503-65-ACS1-S2	3,0	33,0	65	80	20	20	150	20	50	30	M8x1	G 1/8"	SA 35-30...
HSA 2020R-SA3503-65-ACS1-S2	3,0	33,0	65	80	20	20	150	20	50	30	M8x1	G 1/8"	SA 35-30...
HSA 2525L-SA3503-52-ACS1-S2	3,0	26,0	52	68	25	25	150	20	44	30	M8x1	G 1/8"	SA 35-30...

Monoblockhalter mit Innenkühlung ACS1 von der Seite
Monoblock holder with through tool coolant access from the side
Utensile monoblocco con adduzione interna ACS1 laterale

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h	b	L	L ₄	KL	KT	Gewinde 1 Thread 1 Filetto 1	Gewinde 2 Thread 2 Filetto 2	Schneideinsatz Insert Inserto
HSA 2525R-SA3503-52-ACS1-S2	3,0	26,0	52	68	25	25	150	20	44	30	M8x1	G 1/8"	SA 35-30...
HSA 2525L-SA3503-65-ACS1-S2	3,0	33,0	65	80	25	25	150	20	50	30	M8x1	G 1/8"	SA 35-30...
HSA 2525R-SA3503-65-ACS1-S2	3,0	33,0	65	80	25	25	150	20	50	30	M8x1	G 1/8"	SA 35-30...

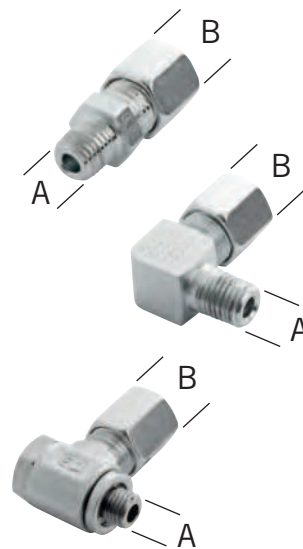
Hinweis: Diese Halter bekommen Sie mit Ihren spezifischen Kühlschlüssen. Ein Anfrageblatt hierzu finden Sie auf Seite 58 oder im Internet unter: www.arno.de/download
Remark: The coolant inlet is supplied to your specification, please complete enquiry sheet on page 58 or download this from: www.arno.de/download
Nota: Questi corpi utensile sono fornibili con specifiche connessioni del refrigerante, Vedere modulo richiesta a Pag. 58 o download del modulo da: www.arno.de/download

Hinweis: Zubehör muss separat bestellt werden.
Remark: Accessories must be ordered separately.
Nota: Gli accessori devono essere ordinati separatamente.



Zubehör / Accessories / Accessori

Bezeichnung Designation Articolo	A	B
KA 001	M8x1	Ø 6 mm
KA 002	1/8"	Ø 6 mm
KA 003	1/4"	Ø 10 mm
KA 004	M8x1	Ø 6 mm
KA 005	1/8"	Ø 6 mm
KA 006	M8x1	Ø 6 mm
KA 007	1/8"	Ø 6 mm
KA 008	1/4"	Ø 10 mm



Ersatzteile / Spare parts / Ricambi

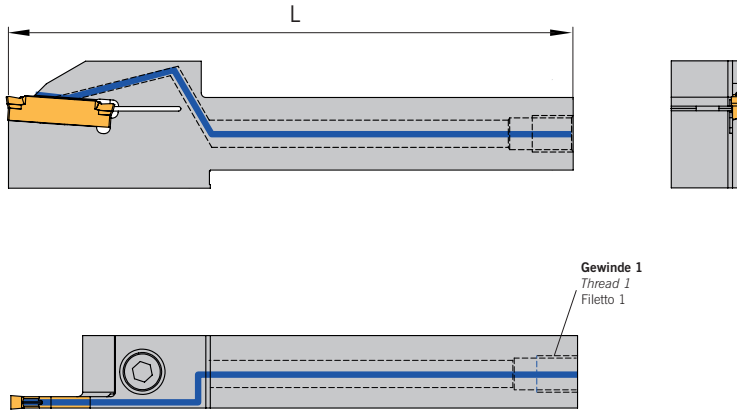
Halter Holder Stelo	Schraube Screw Vite	Schlüssel Key Chiave
HSA 1616... - HSA 2020...-SA24...-32-ACS1...	AS0022	KS8000
HSA 1616... - HSA 2525...-SA24...-44-ACS1...	DIN912-M5x16-12.9	Inbus* 4 mm
HSA 2020... - HSA 2525...-SA35...-52-ACS1...	DIN912-M6x20-12.9	Inbus* 5 mm
HSA 2020... - HSA 2525...-SA35...-65-ACS1...	DIN912-M6x20-12.9	Inbus* 5 mm

*Inbus Schlüssel / Allen key / Chiave a brugola

Monoblockhalter mit Innenkühlung ACS1 von hinten

Monoblock holder with through tool coolant access from the back

Utensile monoblocco con adduzione interna ACS1 posteriore



Diese Halter fertigen wir Ihnen zum Preis des Standardwerkzeuges.

This tool we produce to the price of the standard tool.

Questi utensili vengono realizzati al prezzo dello standard.

Aus Halter / From holder / Da utensile

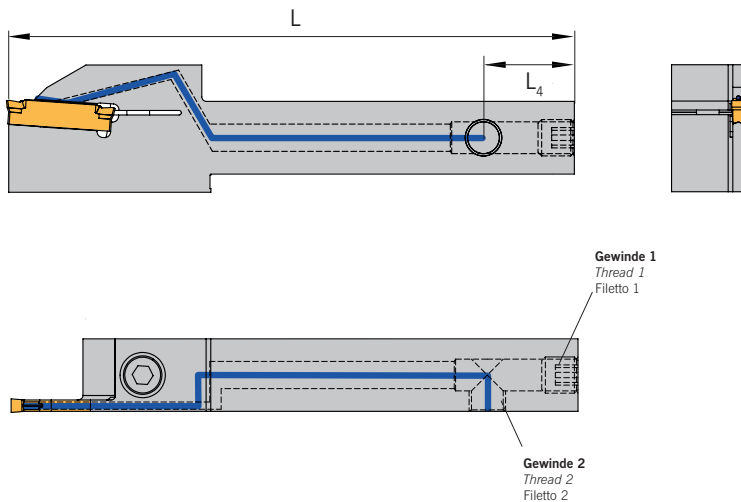
L

Gewinde 1 / Thread 1 / Filetto 1

Monoblockhalter mit Innenkühlung ACS1 von der Seite

Monoblock holder with through tool coolant access from the side

Utensile monoblocco con adduzione interna ACS1 laterale



Diese Halter fertigen wir Ihnen zum Preis des Standardwerkzeuges.

This tool we produce to the price of the standard tool.

Questi utensili vengono realizzati al prezzo dello standard.

Aus Halter / From holder / Da utensile

L

L₄

Gewinde 1 / Thread 1 / Filetto 1

Gewinde 2 / Thread 2 / Filetto 2

Zubehör finden Sie auf Seite 57
Accessories can be found on page 57
Accessori vedere pagina 57

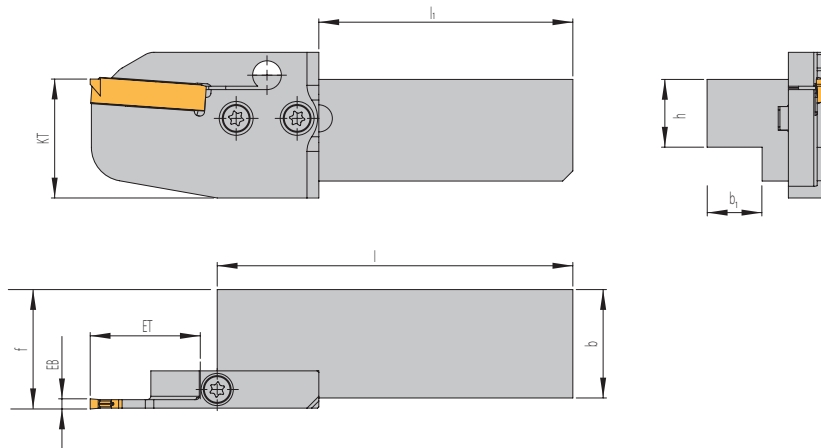
Download dieses Formulares unter: www.arno.de/download / Download this form from: www.arno.de/download / Download del modulo da: www.arno.de/download

Monoblock holders with module
Utensili monoblocco con modulo

Halter für SA-Module (MSA)

Tool holder for SA-Modules (MSA)

Stelo per moduli SA (MSA)



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

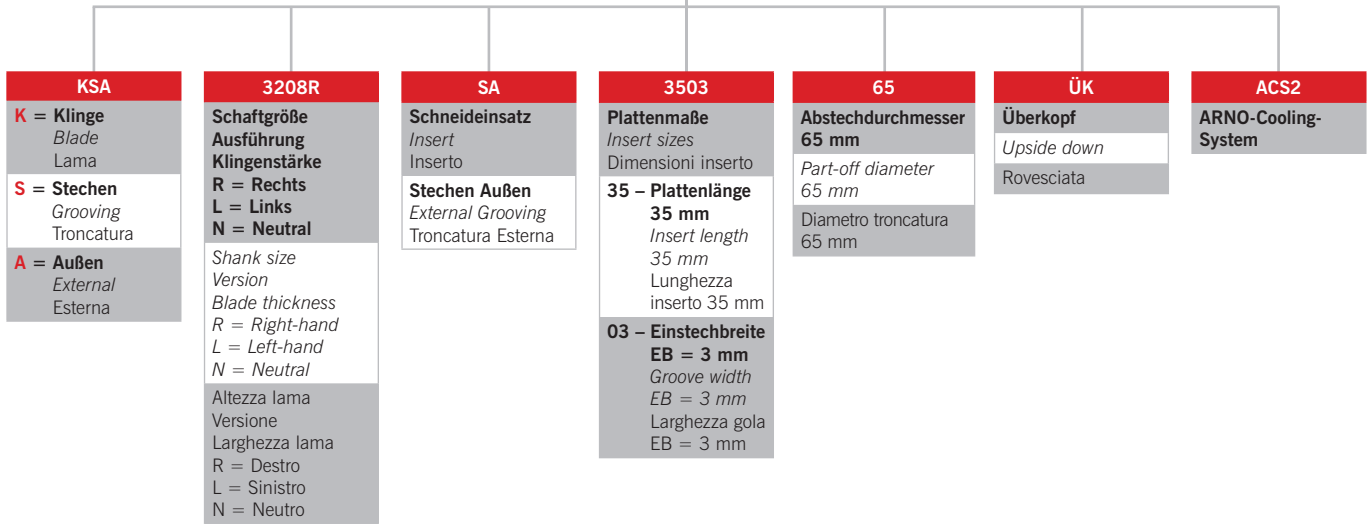
1

Bezeichnung Designation Articolo	h	b	b ₁	l	l ₁	f
HSA 72032L	20	32	16	105	75	20
HSA 72032R	20	32	16	105	75	20
HSA 72536L	25	36	20	120	90	25
HSA 72536R	25	36	20	120	90	25

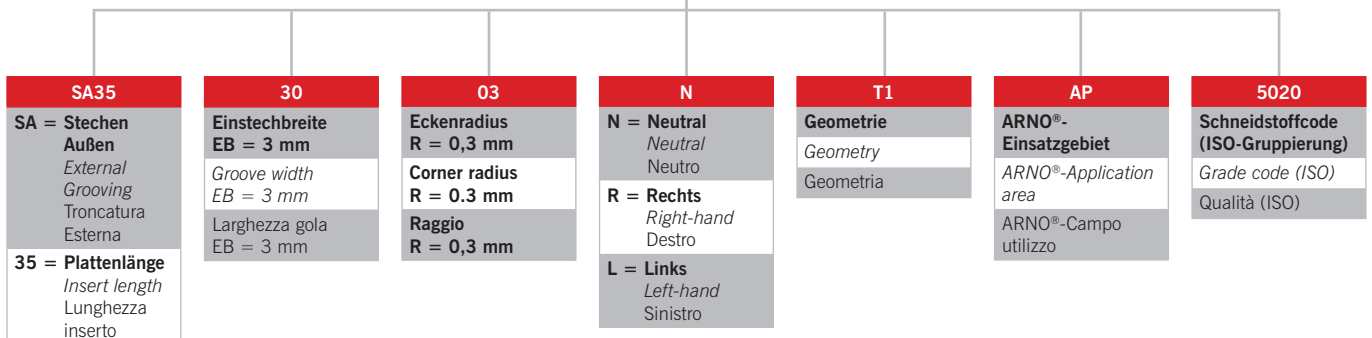
Hinweis: Einsteckbreite EB und Einstecktiefe ET sind abhängig vom Modul. Passende Module finden Sie auf den Seiten 72 bis 73.
Remark: Groove width (EB) and groove depth (ET) is depending on module. Suitable modules can be found from page 72 to 73.
Nota: Larghezza di taglio (EB) e profondità di taglio (ET) sono vincolate al modulo scelto. Per i moduli abbinabili vedere pagine da 72 a 73.

Stechklingen / Blades / Lame da taglio

1



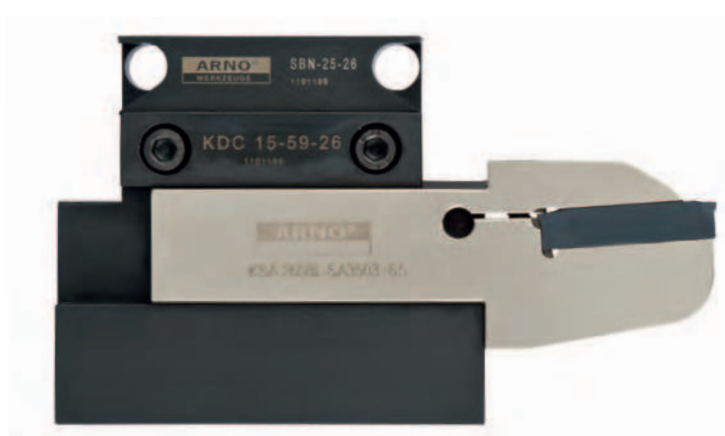
Schneideinsätze / Inserts / Inserti





Stechklingen / Part-off blades / Lame da taglio

Seite/Page/Pagina **62 – 68**



Spannblöcke / Clamping blocks / Blocchi portalama

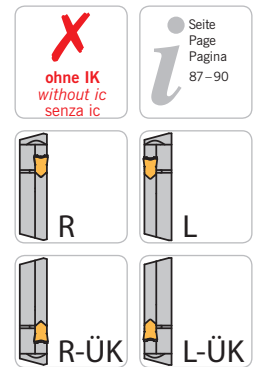
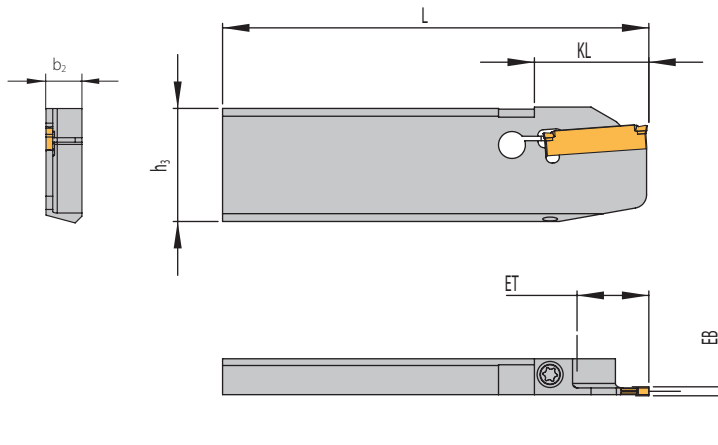
Seite/Page/Pagina **69**



Schneideinsätze / Inserts / Inserti

Seite/Page/Pagina **77 – 85**

KSA



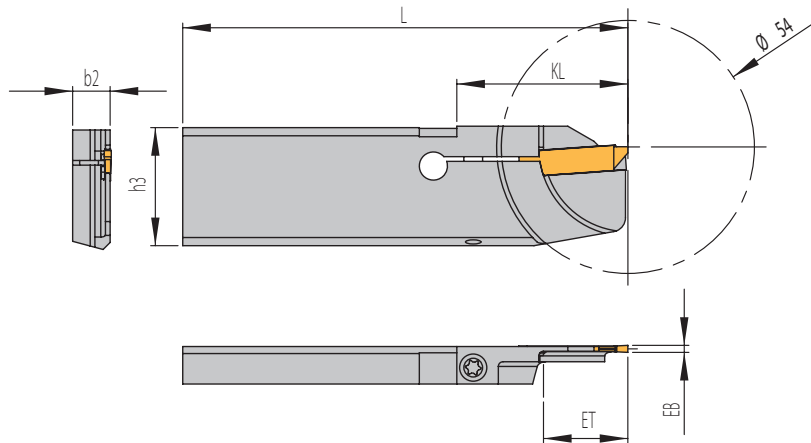
Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura

Für Emco-/Index-/Traub-Maschinen For Emco-/Index-/Traub-Machines Per macchine utensili tipo Emco/Index/Traub

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 260895L-SA1602-20	2,0	10,0	20	–	26	8,0	95	–	–	SA 16-20...
KSA 260895R-SA1602-20	2,0	10,0	20	–	26	8,0	95	–	–	SA 16-20...
KSA 260895L-SA24015-20	1,5	10,0	20	–	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-20	1,5	10,0	20	–	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA24015-20-ÜK	1,5	10,0	20	–	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-20-ÜK	1,5	10,0	20	–	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA24015-32	1,5	16,0	32	–	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-32	1,5	16,0	32	–	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA24015-32-ÜK	1,5	16,0	32	–	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-32-ÜK	1,5	16,0	32	–	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA24015-44	1,5	22,0	44	61	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-44	1,5	22,0	44	61	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA24015-44-ÜK	1,5	22,0	44	61	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA24015-44-ÜK	1,5	22,0	44	61	26	8,0	95	–	–	SA 24-15...
KSA 260895L-SA2402-32	2,0	16,0	32	–	26	8,0	95	–	–	SA 24-20...
KSA 260895R-SA2402-32	2,0	16,0	32	–	26	8,0	95	–	–	SA 24-20...
KSA 260895L-SA2403-32	3,0	16,0	32	–	26	8,0	95	–	–	SA 24-30...
KSA 260895R-SA2403-32	3,0	16,0	32	–	26	8,0	95	–	–	SA 24-30...
KSA 260895L-SA2403-32-ÜK	3,0	16,0	32	–	26	8,0	95	–	–	SA 24-30...
KSA 260895R-SA2403-32-ÜK	3,0	16,0	32	–	26	8,0	95	–	–	SA 24-30...
KSA 260895L-SA2403-44	3,0	22,0	44	61	26	8,0	95	–	–	SA 24-30...
KSA 260895R-SA2403-44	3,0	22,0	44	61	26	8,0	95	–	–	SA 24-30...
KSA 260895L-SA2403-44-ÜK	3,0	22,0	44	61	26	8,0	95	–	–	SA 24-30...
KSA 260895R-SA2403-44-ÜK	3,0	22,0	44	61	26	8,0	95	–	–	SA 24-30...
KSA 320895L-SA2402-44	2,0	22,0	44	61	32	8,0	95	–	–	SA 24-20...
KSA 320895R-SA2402-44	2,0	22,0	44	61	32	8,0	95	–	–	SA 24-20...
KSA 320895L-SA2402-44-ÜK	2,0	22,0	44	61	32	8,0	95	–	–	SA 24-20...
KSA 320895R-SA2402-44-ÜK	2,0	22,0	44	61	32	8,0	95	–	–	SA 24-20...
KSA 320895L-SA2403-44	3,0	22,0	44	61	32	8,0	95	–	–	SA 24-30...
KSA 320895R-SA2403-44	3,0	22,0	44	61	32	8,0	95	–	–	SA 24-30...
KSA 320895L-SA2403-44-ÜK	3,0	22,0	44	61	32	8,0	95	–	–	SA 24-30...
KSA 320895R-SA2403-44-ÜK	3,0	22,0	44	61	32	8,0	95	–	–	SA 24-30...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno
D_R = Maximaler Stechdurchmesser bei Röhren
D_R = Maximum diameter for tube material
D_R = Diametro massimo da tubo

KSA



Stechklingen in verstärkter Ausführung – Einsetzbar auf Traub TNK36/TNL36/TNL26K und Index MS 18C

Reinforced blade design –

Suitable for Traub TNK36/TNL36/TNL26K and Index MS 18C

Lama rinforzata da taglio –

Per macchine Traub TNK36/TNL36/TNL26K e Index MS 18C

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 260895R-SA24015-S1-36	1,5	18,0	36	–	26	8,0	95	–	–	SA 24-15...
KSA 260895R-SA2402-S1-36	2,0	18,0	36	–	26	8,0	95	–	–	SA 24-20...

D_{max} = Maximaler Durchmesser bei Vollmaterial

D_{max} = Maximum diameter in solid

D_{max} = Diametro massimo lavorazione dal pieno

D_R = Maximaler Stechdurchmesser bei Rohren

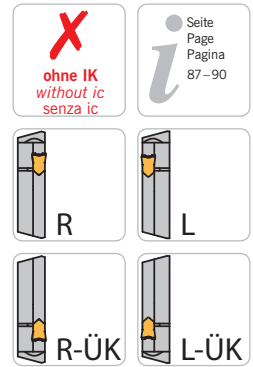
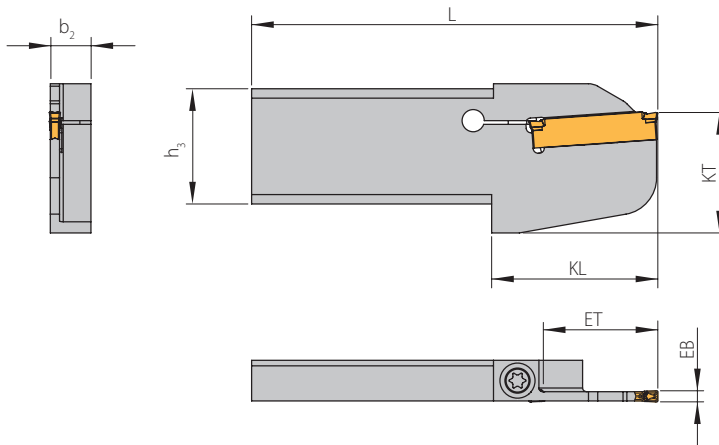
D_R = Maximum diameter for tube material

D_R = Diametro massimo da tubo

Ersatzteile / Spare parts / Ricambi

Klinge Blade Lama	Schraube Screw Vite	Schlüssel Key Chiave
KSA 260895...	AS0022	T5215-IP

KSA



Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura

Klinge / Blade / Lama

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 2608L-SA24015-20	1,5	10,0	20	–	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-20	1,5	10,0	20	–	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA24015-20-ÜK	1,5	10,0	20	–	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-20-ÜK	1,5	10,0	20	–	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA24015-32	1,5	16,0	32	–	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-32	1,5	16,0	32	–	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA24015-32-ÜK	1,5	16,0	32	–	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-32-ÜK	1,5	16,0	32	–	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA24015-44	1,5	22,0	44	61	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-44	1,5	22,0	44	61	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA24015-44-ÜK	1,5	22,0	44	61	26	8,0	110	–	–	SA 24-15...
KSA 2608R-SA24015-44-ÜK	1,5	22,0	44	61	26	8,0	110	–	–	SA 24-15...
KSA 2608L-SA2402-32	2,0	16,0	32	–	26	8,0	110	–	–	SA 24-20...
KSA 2608R-SA2402-32	2,0	16,0	32	–	26	8,0	110	–	–	SA 24-20...
KSA 2608L-SA2402-32-ÜK	2,0	16,0	32	–	26	8,0	110	–	–	SA 24-20...
KSA 2608R-SA2402-32-ÜK	2,0	16,0	32	–	26	8,0	110	–	–	SA 24-20...
KSA 2608L-SA2402-44	2,0	22,0	44	61	26	8,0	110	–	–	SA 24-20...
KSA 2608R-SA2402-44	2,0	22,0	44	61	26	8,0	110	–	–	SA 24-20...
KSA 2608L-SA2402-44-ÜK	2,0	22,0	44	61	26	8,0	110	–	–	SA 24-20...
KSA 2608R-SA2402-44-ÜK	2,0	22,0	44	61	26	8,0	110	–	–	SA 24-20...
KSA 2608L-SA2403-26	3,0	13,0	26	–	26	8,0	110	–	–	SA 24-30...
KSA 2608R-SA2403-26	3,0	13,0	26	–	26	8,0	110	–	–	SA 24-30...
KSA 2608L-SA3502-65	2,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-20...
KSA 2608R-SA3502-65	2,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-20...
KSA 2608L-SA3502-65-ÜK	2,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-20...
KSA 2608R-SA3502-65-ÜK	2,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-20...
KSA 2608L-SA3503-65	3,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-30...
KSA 2608R-SA3503-65	3,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-30...
KSA 2608L-SA3503-65-ÜK	3,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-30...
KSA 2608R-SA3503-65-ÜK	3,0	32,5	65	80	26	8,0	110	45	29,0	SA 35-30...
KSA 2611L-SA3503-65	3,0	32,5	65	80	26	11,0	110	45	29,0	SA 35-30...
KSA 2611R-SA3503-65	3,0	32,5	65	80	26	11,0	110	45	29,0	SA 35-30...
KSA 2611L-SA3503-65-ÜK	3,0	32,5	65	80	26	11,0	110	45	29,0	SA 35-30...
KSA 2611R-SA3503-65-ÜK	3,0	32,5	65	80	26	11,0	110	45	29,0	SA 35-30...
KSA 3208L-SA2402-44	2,0	22,0	44	61	32	8,0	110	–	–	SA 24-20...
KSA 3208R-SA2402-44	2,0	22,0	44	61	32	8,0	110	–	–	SA 24-20...
KSA 3208L-SA2402-44-ÜK	2,0	22,0	44	61	32	8,0	110	–	–	SA 24-20...
KSA 3208R-SA2402-44-ÜK	2,0	22,0	44	61	32	8,0	110	–	–	SA 24-20...
KSA 3208L-SA3502-65	2,0	32,5	65	80	32	8,0	110	45	32,5	SA 24-20...

Weitere Klingen auf der nächsten Seite
More blades next page
Altri lame nella pagina seguente

Klinge / Blade / Lama

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 3208R-SA3502-65	2,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-20...
KSA 3208L-SA3502-65-ÜK	2,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-20...
KSA 3208R-SA3502-65-ÜK	2,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-20...
KSA 3208L-SA3503-65	3,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-30...
KSA 3208R-SA3503-65	3,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-30...
KSA 3208L-SA3503-65-ÜK	3,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-30...
KSA 3208R-SA3503-65-ÜK	3,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-30...
KSA 3208L-SA3504-65	4,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-40...
KSA 3208R-SA3504-65	4,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-40...
KSA 3208L-SA3504-65-ÜK	4,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-40...
KSA 3208R-SA3504-65-ÜK	4,0	32,5	65	80	32	8,0	110	45	32,5	SA 35-40...
KSA 3211L-SA3503-65	3,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-30...
KSA 3211R-SA3503-65	3,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-30...
KSA 3211L-SA3503-65-ÜK	3,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-30...
KSA 3211R-SA3503-65-ÜK	3,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-30...
KSA 3211L-SA3504-65	4,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-40...
KSA 3211R-SA3504-65	4,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-40...
KSA 3211L-SA3504-65-ÜK	4,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-40...
KSA 3211R-SA3504-65-ÜK	4,0	32,5	65	80	32	11,0	110	45	32,5	SA 35-40...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

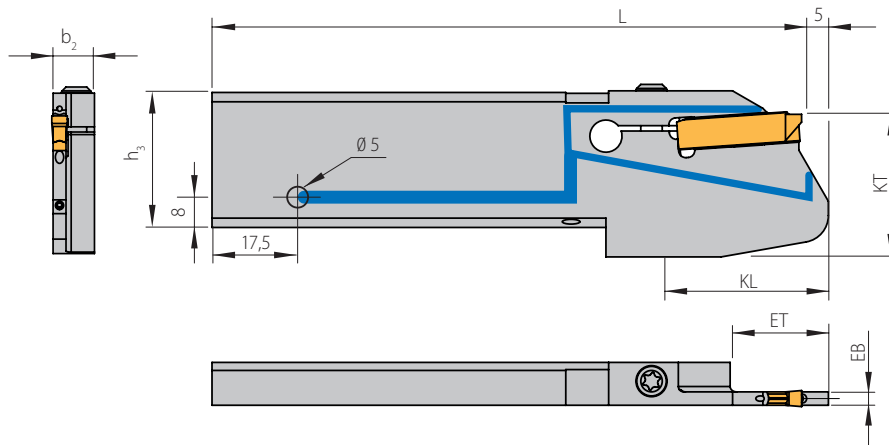
D_R = Maximaler Stechdurchmesser bei Rohren
D_R = Maximum diameter for tube material
D_R = Diametro massimo da tubo

1

Ersatzteile / Spare parts / Ricambi

Klinge Blade Lama	Schraube Screw Vite	Schlüssel Key Chiave
KSA 260895 R/L-SA35...	AS0022	T5215-IP
KSA ...08 R/L-SA24...	AS0022	T5215-IP
KSA ...08 R/L-SA35...	AS0045	T5220-IP
KSA ...11 R/L-SA35...	SA5T	T5220-IP

KSA – ACS2



Stechklinge mit ACS

Part-off blade with ACS
Lama da taglio con ACS

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 2608L-SA2403-44-ACS2	3,0	22,0	44	61	26	8,0	110	36,5	–	SA 24-30...

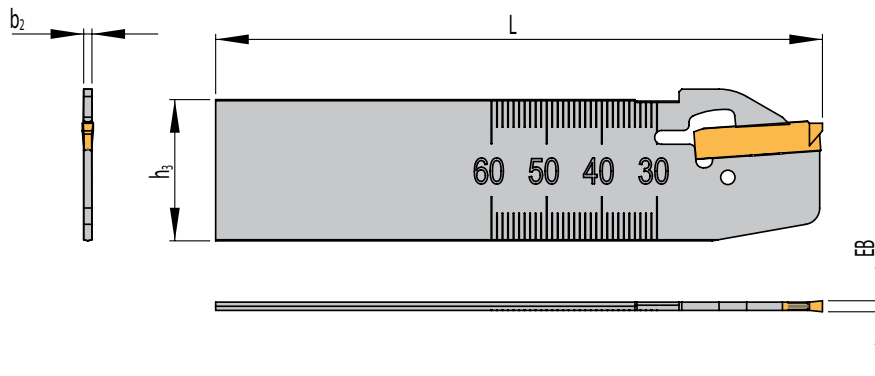
D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

D_R = Maximaler Stechdurchmesser bei Rohren
D_R = Maximum diameter for tube material
D_R = Diametro massimo da tubo

Ersatzteile / Spare parts / Ricambi

Klinge Blade Lama	Schraube Screw Vite	Schlüssel Key Chiave
KSA...08...-SA24...	AS0022	T5215-IP

KSA-N



Selbstklemmende Stechklinge

Self-clamping blade

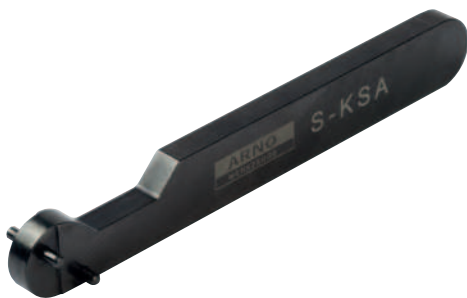
Lama a bloccaggio elastico

Bezeichnung Designation Articolo	EB	h ₃	b ₂	L	Schneideinsatz Insert Inserto
KSA 2602N	2,0	26	1,5	110	SA24E-2002... / SA24-20...
KSA 2603N	3,0	26	2,5	110	SA24E-3003... / SA24-30...
KSA 3202N	2,0	32	1,5	110	SA24E-2002... / SA24-20...
KSA 3203N	3,0	32	2,5	110	SA24E-3003... / SA24-30...
KSA 3203N-SA35	3,0	32	2,5	110	SA35-30...
KSA 3204N-SA35	4,0	32	3,5	110	SA35-40...

Schlüssel ist hier NICHT im Lieferumfang enthalten.
Key is NOT included.
La chiave NON è inclusa.

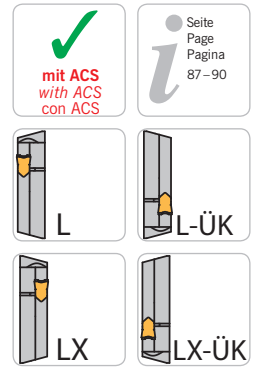
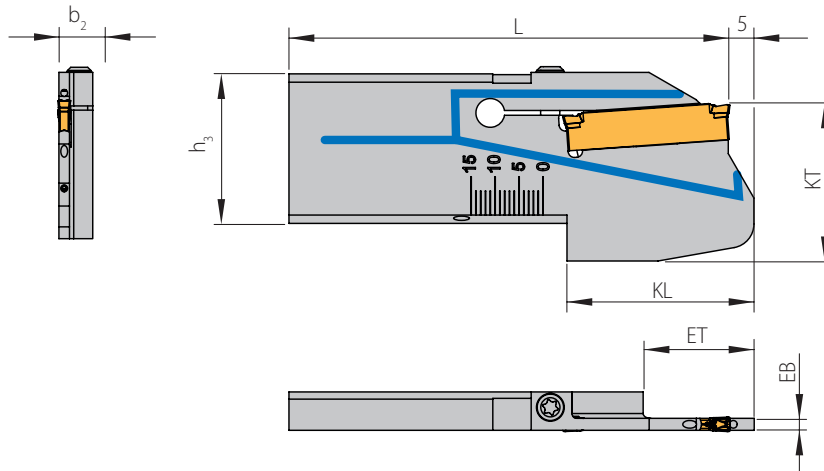
Ersatzteile / Spare parts / Ricambi

Klinge Blade Lama	Schlüssel Key Chiave
KSA ...N	S-KSA



Hinweis: Montageanleitung siehe Seite 91.
Remark: For assembly instructions please see page 91.
Nota: Istruzioni di montaggio a pagina 91.

KSA-ACS2



Stechklinge mit ACS für VDI-Direktaufnahmen

Part-off blade with ACS for VDI flange mounted holders

Lama da taglio con ACS per attacchi base VDI

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	Schneideinsatz Insert Inserto
KSA 3208L-SA2403-44-ACS2*	3,0	22,0	44	–	32	8,0	81,5	23,5	32,5	SA 24-30...
KSA 3208LX-SA2403-44-ACS2**	3,0	22,0	44	–	32	8,0	81,5	23,5	32,5	SA 24-30...
KSA 3208L-SA3503-65-ACS2*	3,0	32,5	65	–	32	8,0	92,0	34,0	32,5	SA 35-30...
KSA 3208LX-SA3503-65-ACS2**	3,0	32,5	65	–	32	8,0	92,0	34,0	32,5	SA 35-30...

D_{max} = Maximaler Durchmesser bei Vollmaterial
D_{max} = Maximum diameter in solid
D_{max} = Diametro massimo lavorazione dal pieno

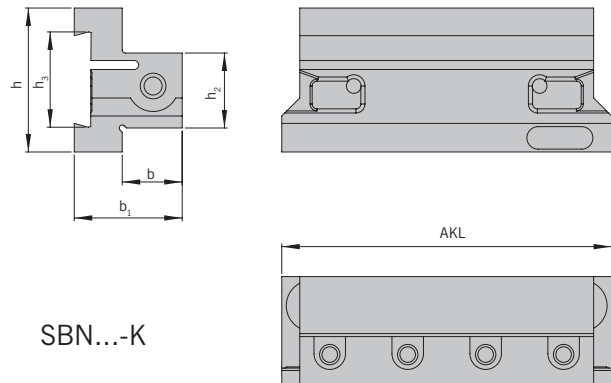
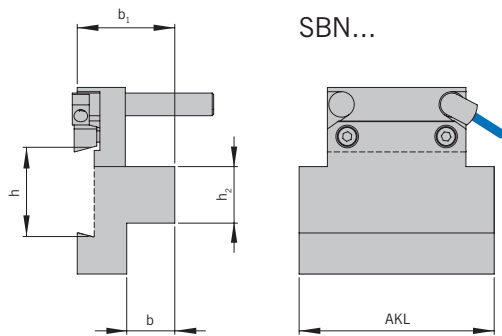
**Klingen passen auf die Direktaufnahmen HVDI-30R-7-38-KSA-32L und HVDI-30L-7-60-KSA-32L Seite 304.
The part-off blades suit to the flange mounted holders HVDI-30R-7-38-KSA-32L and HVDI-30L-7-60-KSA-32L page 304.
Queste lame sono predisposte per montaggio su attacchi base HVDI-30R-7-38-KSA-32L e HVDI-30L-7-60-KSA-32L pagina 304.

**Die Klingen passen auf die Direktaufnahmen HVDI-30L-7-38-KSA-32LX und HVDI-30R-7-60-KSA-32LX Seite 304.
The part-off blades suit to the flange mounted holders HVDI-30L-7-38-KSA-32LX and HVDI-30R-7-60-KSA-32LX page 304.
Queste lame sono predisposte per montaggio su attacchi base HVDI-30L-7-38-KSA-32LX e HVDI-30R-7-60-KSA-32LX pagina 304.

Ersatzteile / Spare parts / Ricambi

Klinge Blade Lama	Schraube Screw Vite	Schlüssel Key Chiave
KSA 3208...-ACS2	AS0022	T5215-IP

SBN



Spannblock

Clamping block
Blocco portalama

Bezeichnung Designation Articolo	h ₂	b	h ₃	AKL	b ₁	h	Schneideinsatz Insert Inserto
SBN 2020-26 K	20	20,0	26	90	33,0	39	KSA 26...
SBN 2520-32 K	25	20,0	32	110	36,0	48	KSA 32...
SBN 3229-32 K	32	29,0	32	120	44,5	48	KSA 32...
SBN-16-26*	16	13,0	26	54	30,5	55	KSA 26...
SBN-16-32*	16	13,0	32	54	30,5	61	KSA 32...
SBN-20-26*	20	17,0	26	69	64,5	66	KSA 26...
SBN-20-32*	20	17,0	32	69	34,5	66	KSA 32...
SBN-25-26*	25	21,0	26	84	41,5	76	KSA 26...
SBN-25-32*	25	21,0	32	84	41,5	76	KSA 32...
SBN-32-32*	32	23,5	32	99	44,0	80	KSA 32...

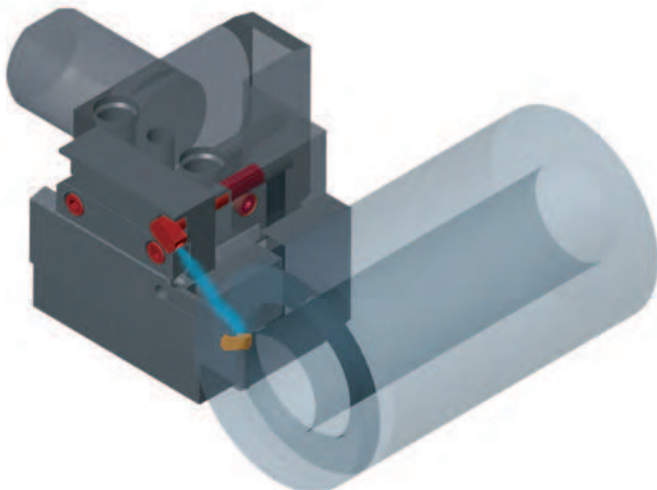
*Spannblock mit Kühlmitteldüse

*Clamping block with coolant jet
*Blocco di serraggio con ugello refrigeranteHinweis: In der Spitzenhöhe muss das Werkzeug auf $0/\pm 0,1$ mm eingestellt werden.Remark: The tool should be setup in centre high to $0/\pm 0,1$ mm.Nota: l'utensile deve essere regolato a $0/\pm 0,1$ mm in rapporto all'altezza del centro.

SBN Spannblock mit radial und axial verstellbarer Kühlmitteldüse

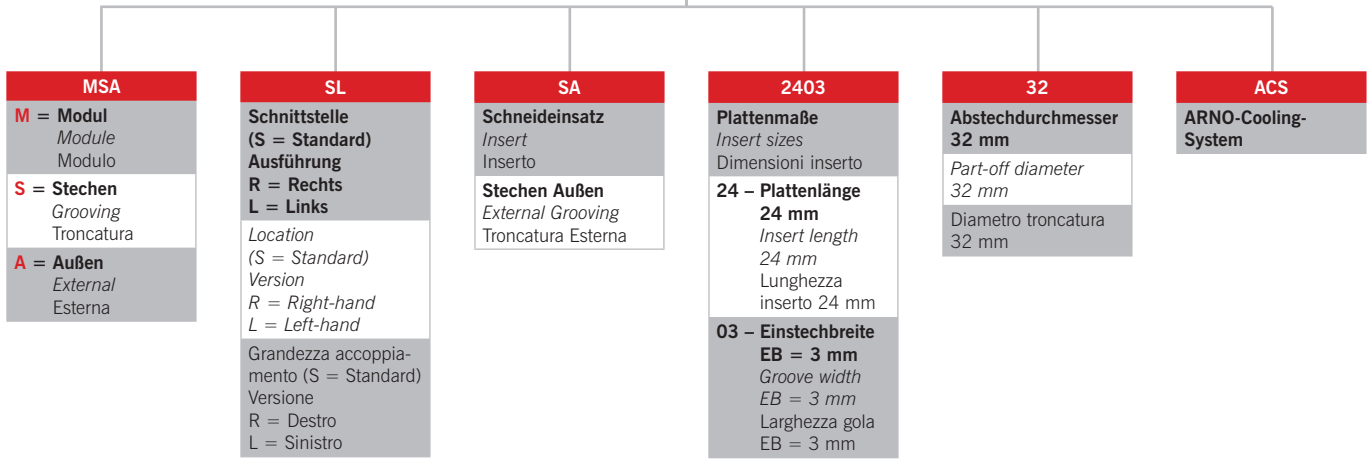
SBN clamping block with radial and axial adjustable coolant jet

SBN blocco portalama con getto regolabile radiale e assiale

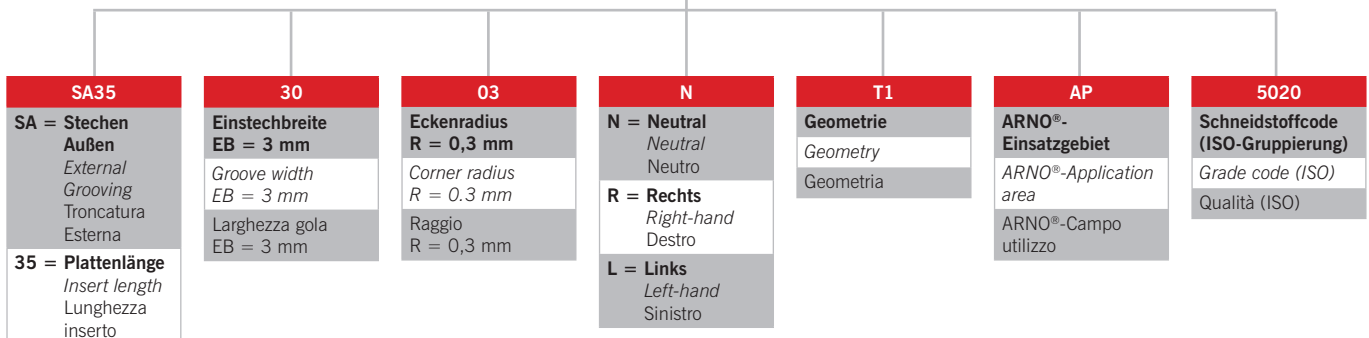


Module / Modules / Moduli

1



Schneideinsätze / Inserts / Inserti





Module / Modules / Moduli

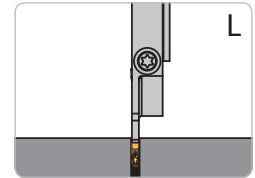
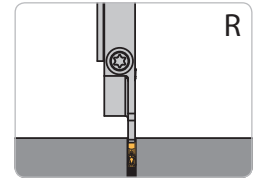
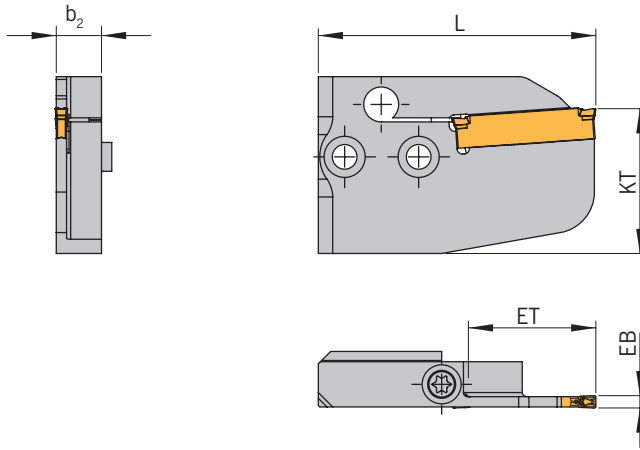
Seite/Page/Pagina **72 – 76**



Schneideinsätze / Inserts / Inserti

Seite/Page/Pagina **77 – 85**

MSA



Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura

Modul für zweiseitige Schneideinsätze

Module for double-sided inserts

Modulo per inserti bilaterale

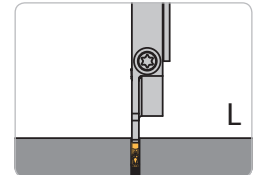
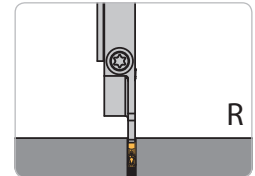
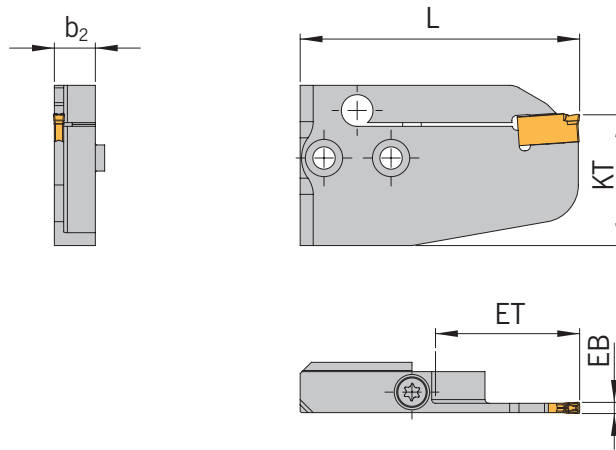
Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	b ₂	L	KT	Schneideinsatz Insert Inserto
MSA-SL-SA24015-32	1,5	16,0	32	48	11,0	52,0	35,0	SA 24-15...
MSA-SR-SA24015-32	1,5	16,0	32	48	11,0	52,0	35,0	SA 24-15...
MSA-SL-SA24015-44	1,5	22,0	44	61	11,0	57,0	35,0	SA 24-15...
MSA-SR-SA24015-44	1,5	22,0	44	61	11,0	57,0	35,0	SA 24-15...
MSA-SL-SA2402-32	2,0	16,0	32	48	11,0	52,0	35,0	SA 24-20...
MSA-SR-SA2402-32	2,0	16,0	32	48	11,0	52,0	35,0	SA 24-20...
MSA-SL-SA2402-44	2,0	22,0	44	61	11,0	57,0	35,0	SA 24-20...
MSA-SR-SA2402-44	2,0	22,0	44	61	11,0	57,0	35,0	SA 24-20...
MSA-SL-SA2403-32	3,0	16,0	32	48	11,0	52,0	35,0	SA 24-30...
MSA-SR-SA2403-32	3,0	16,0	32	48	11,0	52,0	35,0	SA 24-30...
MSA-SL-SA2403-44	3,0	22,0	44	61	11,0	57,0	35,0	SA 24-30...
MSA-SR-SA2403-44	3,0	22,0	44	61	11,0	57,0	35,0	SA 24-30...
MSA-SL-SA2404-44	4,0	22,0	44	61	11,0	57,0	35,0	SA 24-40...
MSA-SR-SA2404-44	4,0	22,0	44	61	11,0	57,0	35,0	SA 24-40...
MSA-SL-SA3502-52	2,0	26,0	52	68	11,0	67,5	35,0	SA 35-20...
MSA-SR-SA3502-52	2,0	26,0	52	68	11,0	67,5	35,0	SA 35-20...
MSA-SL-SA3502-65	2,0	32,5	65	80	11,0	67,5	35,0	SA 35-20...
MSA-SR-SA3502-65	2,0	32,5	65	80	11,0	67,5	35,0	SA 35-20...
MSA-SL-SA3502-105	2,0	52,5	105	105	11,0	88,0	35,0	SA 35-20...
MSA-SR-SA3502-105	2,0	52,5	105	105	11,0	88,0	35,0	SA 35-20...
MSA-SL-SA3503-52	3,0	26,0	52	68	11,0	67,5	35,0	SA 35-30...
MSA-SR-SA3503-52	3,0	26,0	52	68	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-65	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...
MSA-SR-SA3503-65	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-105	3,0	52,5	105	105	11,0	88,0	35,0	SA 35-30...
MSA-SR-SA3503-105	3,0	52,5	105	105	11,0	88,0	35,0	SA 35-30...
MSA-SL-SA3503-125	3,0	62,5	125	125	11,0	97,5	48,5	SA 35-30...
MSA-SR-SA3503-125	3,0	62,5	125	125	11,0	97,5	48,5	SA 35-30...
MSA-SR-SA3503-140	3,0	70,0	140	140	11,0	105,5	48,5	SA 35-30...
MSA-SL-SA3504-52	4,0	26,0	52	68	11,0	67,5	35,0	SA 35-40...
MSA-SR-SA3504-52	4,0	26,0	52	68	11,0	67,5	35,0	SA 35-40...
MSA-SL-SA3504-65	4,0	32,5	65	80	11,0	67,5	35,0	SA 35-40...
MSA-SR-SA3504-65	4,0	32,5	65	80	11,0	67,5	35,0	SA 35-40...
MSA-SL-SA3504-105	4,0	52,5	105	80	11,0	88,0	35,0	SA 35-40...
MSA-SR-SA3504-105	4,0	52,5	105	105	11,0	88,0	35,0	SA 35-40...

D_{max} = Maximaler Durchmesser bei Vollmaterial, D_R = Maximaler Stechdurchmesser bei Rohren
 D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
 D_{max} = Diametro massimo lavorazione dal pieno, D_R = Diametro massimo taglio da tubo

Bei Modulen für Abstech-Ø ab 105 mm muss ein Drehmomentschlüssel verwendet werden. Anzugsmoment 3 Nm.
 When using part-off modules from 105 mm diameter we recommend using a torque at torque setting of 3 Nm.
 Con l'utilizzo di moduli di troncatura fino a 105 mm, è necessario l'utilizzo di chiave dinamometrica tarata a 3 Nm.

Die Module passen auf alle Grundhalter in Standardausführung, auf die eine Unterstützplatte montiert werden kann.
 The modules suit all the NC-Holders in the standard design where a NC-Module can be located.
 I moduli sono associabili a tutti gli steli standard NC di scanalatura modulare ARNO (Capitolo 2) e attacchi diretti torretta.

MSA



Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura



Modul für einseitige Schneideinsätze

Module for single-sided inserts

Modulo per inserti monolaterali

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	b ₂	L	KT	Schneideinsatz Insert Inserto
MSA-SL-SA1703-80	3,0	40,0	80	80	11,0	75,0	35,0	SA 17-30...
MSA-SR-SA1703-80	3,0	40,0	80	80	11,0	75,0	35,0	SA 17-30...
MSA-SL-SA1704-80	4,0	40,0	80	80	11,0	75,0	35,0	SA 17-40...
MSA-SR-SA1704-80	4,0	40,0	80	80	11,0	75,0	35,0	SA 17-40...
MSA-SL-SA1704-105	4,0	52,5	105	105	11,0	88,0	35,0	SA 17-40...
MSA-SR-SA1704-105	4,0	52,5	105	105	11,0	88,0	35,0	SA 17-40...

D_{max} = Maximaler Durchmesser bei Vollmaterial, D_R = Maximaler Stechdurchmesser bei Rohren
 D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
 D_{max} = Diametro massimo lavorazione dal pieno, D_R = Diametro massimo taglio da tubo

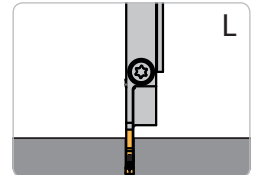
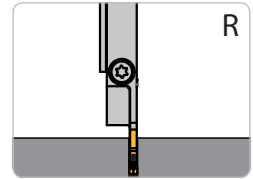
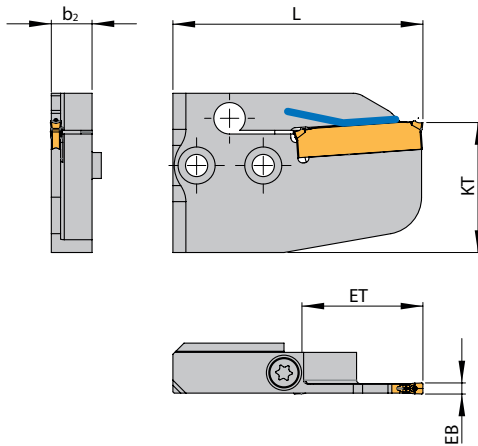
Bei Modulen für Abstech-Ø ab 105 mm muss ein Drehmomentschlüssel verwendet werden. Anzugsmoment 3 Nm.
 When using part-off modules from 105 mm diameter we recommend using a torque at torque setting of 3 Nm.
 Con l'utilizzo di moduli di troncatura fino a 105 mm, è necessario l'utilizzo di chiavi dinamometrica tarata a 3 Nm.

Die Module passen auf alle Grundhalter in Standardausführung, auf die eine Unterstützplatte montiert werden kann.
 The modules suit all the NC-Holders in the standard design where a NC-Module can be located.
 I moduli sono associabili a tutti gli steli standard NC di scanalatura modulare ARNO (Capitolo 2).

Ersatzteile / Spare parts / Ricambi

Modul Module Modulo	Schraube Screw Vite	Schlüssel Key Chiave
MSA-S R/L...	SA5T	T5220-IP

MSA-ACS1



Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura

Modul mit Innenkühlung – ACS1

Module with through tool coolant – ACS1

Modulo con adduzione interna – ACS1

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	b ₂	L	KT	Schneideinsatz Insert Inserto
MSA-SR-SA3503-65-ACS1	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-65-ACS1	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...

D_{max} = Maximaler Durchmesser bei Vollmaterial, D_R = Maximaler Stechdurchmesser bei Rohren
 D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
 D_{max} = Diametro massimo lavorazione dal pieno, D_R = Diametro massimo taglio da tubo

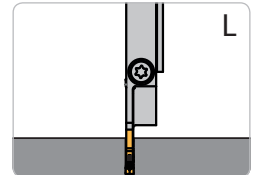
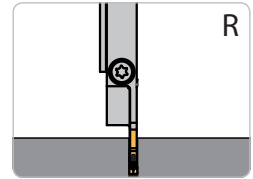
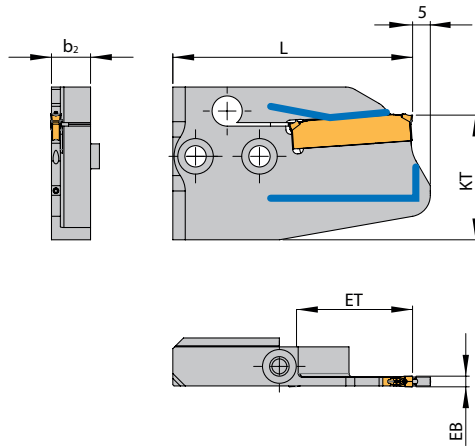
Bei Modulen für Abstech-Ø ab 105 mm muss ein Drehmomentschlüssel verwendet werden. Anzugsmoment 3 Nm.
 When using part-off modules from 105 mm diameter we recommend using a torque at torque setting of 3 Nm.
 Con l'utilizzo di moduli di troncatura fino a 105 mm, è necessario l'utilizzo di chiave dinamometrica tarata a 3 Nm.

Hinweis: Passende Direktaufnahmen finden Sie im Kapitel 8.
 Remark: Suitable flange mounted holders with VDI can be found in chapter 8.
 Nota: Per combinazioni attacco VDI, vedere Capitolo 8.

Ersatzteile / Spare parts / Ricambi

Modul Module Modulo	Schraube Screw Vite	Schlüssel Key Chiave
MSA-S R/L...	SA5T	T5220-IP

MSA-ACS2



Linke Ausführung abgebildet
Left-hand execution shown
Versione sinistra in figura



Modul mit Innenkühlung – ACS2

Module with through tool coolant – ACS2

Modulo con adduzione interna doppia – ACS2

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	b ₂	L	KT	Schneideinsatz Insert Inserto
MSA-SR-SA2403-44-ACS2	3,0	22,0	44	61	11,0	57,0	35,0	SA 24-30...
MSA-SL-SA2403-44-ACS2	3,0	22,0	44	61	11,0	57,0	35,0	SA 24-30...
MSA-SL-SA3503-105-ACS2	3,0	52,5	105	105	11,0	88,0	35,0	SA 35-30...
MSA-SR-SA3503-105-ACS2	3,0	52,5	105	105	11,0	88,0	35,0	SA 35-30...
MSA-SR-SA3503-52-ACS2	3,0	26,0	52	68	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-52-ACS2	3,0	26,0	52	68	11,0	67,5	35,0	SA 35-30...
MSA-SR-SA3503-65-ACS2	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-65-ACS2	3,0	32,5	65	80	11,0	67,5	35,0	SA 35-30...
MSA-SL-SA3503-69-ACS2	3,0	34,5	69	80	11,0	69,5	35,0	SA 35-30...
MSA-SR-SA3503-80-ACS2	3,0	40,0	80	80	11,0	75,0	35,0	SA 35-30...
MSA-SL-SA3503-80-ACS2	3,0	40,0	80	80	11,0	75,0	35,0	SA 35-30...
MSA-SL-SA3504-65-ACS2	4,0	32,5	65	80	11,0	67,5	35,0	SA 35-40...
MSA-SR-SA3504-65-ACS2	4,0	32,5	65	80	11,0	67,5	35,0	SA 35-40...

D_{max} = Maximaler Durchmesser bei Vollmaterial, D_R = Maximaler Stechdurchmesser bei Rohren
 D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
 D_{max} = Diametro massimo lavorazione dal pieno, D_R = Diametro massimo taglio da tubo

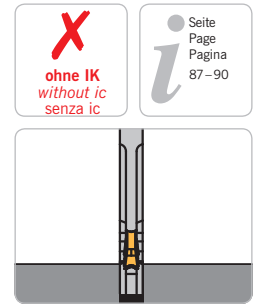
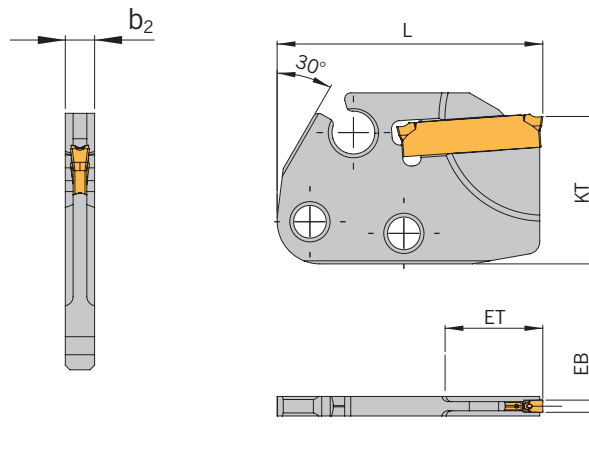
Bei Modulen für Abstech-Ø ab 105 mm muss ein Drehmomentschlüssel verwendet werden. Anzugsmoment 3 Nm.
 When using part-off modules from 105 mm diameter we recommend using a torque at torque setting of 3 Nm.
 Con l'utilizzo di moduli di troncatura fino a 105 mm, è necessario l'utilizzo di chiave dinamometrica tarata a 3 Nm.

Hinweis: Passende Direktaufnahmen finden Sie im Kapitel 8.
 Remark: Suitable flange mounted holders with VDI can be found in chapter 8.
 Nota: Per combinazioni attacco VDI, vedere Capitolo 8.

Ersatzteile / Spare parts / Ricambi

Modul Module Modulo	Schraube Screw Vite	Schlüssel Key Chiave
MSA-S R/L...	SA5T	T5220-IP

MSA-IN



1

Modul in neutraler Ausführung

Module in neutral design

Modulo neutro di taglio

Bezeichnung Designation Articolo	EB	ET	D _{max}	D _R	b ₂	L	KT	Schneideinsatz Insert Inserto
MSA-IN-SA1602-20	2,0	10,0	20	–	3,2	35,5	24,0	SA 16-20...
MSA-IN-SA1602-26	2,0	13,0	26	–	3,2	43,5	24,0	SA 16-20...
MSA-IN-SA24015-20	1,5	10,0	20	–	3,2	43,5	24,0	SA 24-15...
MSA-IN-SA24015-32	1,5	16,0	32	–	3,2	43,5	24,0	SA 24-15...
MSA-IN-SA2402-20	2,0	10,0	20	–	3,2	43,5	24,0	SA 24-20...
MSA-IN-SA2402-26	2,0	13,0	26	–	3,2	43,5	24,0	SA 24-20...
MSA-IN-SA2402-32	2,0	16,0	32	–	3,2	43,5	24,0	SA 24-20...
MSA-IN-SA2402-L54-26	2,0	13,0	26	–	3,2	54,0	24,0	SA 24-20...
MSA-IN-SA2403-32	3,0	16,0	32	–	3,2	43,5	24,0	SA 24-30...
MSA-IN-SA3503-52	3,0	26,0	52	–	3,2	54,5	24,0	SA 24-30...

D_{max} = Maximaler Durchmesser bei Vollmaterial, D_R = Maximaler Stechdurchmesser bei Rohren
 D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
 D_{max} = Diametro massimo lavorazione dal pieno, D_R = Diametro massimo taglio da tubo

Neutrale Module können beidseitig montiert werden.
 Neutral modules can be mounted both sides.
 Moduli con montaggio neutro possono essere montati su entrambe i lati.

Module werden ohne Schrauben ausgeliefert.
 Modules are not supplied with screws.
 Moduli sono forniti senza viti di montaggio.

	<p>F1 Sehr schneidfreudige Geometrie mit geringen Schnittkräften</p> <ul style="list-style-type: none"> • Für alle Werkstoffe im niedrigen bis mittleren Festigkeitsbereich • Geringe Aufbauschneidbildung • Geeignet für dünnwandige Werkstücke 	<p><i>F1</i> <i>Very soft cutting geometry</i></p> <ul style="list-style-type: none"> • <i>For low to medium strength materials with low built-up edge tendency</i> • <i>Suitable for thin-walled components</i> 	<p>F1 La geometria per basse forze di taglio</p> <ul style="list-style-type: none"> • Per tutti materiali con durezza medio bassa • Poca formazione di bava • Adatto per pezzi sottili
	<p>T1 Sehr gute Spankontrolle und Einschnürung</p> <ul style="list-style-type: none"> • Für Stahl und Rostfreibearbeitung • Universell einsetzbar – auch bei dünnwandigen Bauteilen 	<p><i>T1</i> <i>Very good swarf control and formation</i></p> <ul style="list-style-type: none"> • <i>For steel and stainless steel</i> • <i>Universal geometry machining, for thin-walled components</i> 	<p>T1 La geometria dall'ottimo controllo truciolo</p> <ul style="list-style-type: none"> • Per acciaio e materiali inossidabili • Utilizzo universale, anche per pezzi sottili
	<p>S1 Weichschneidende Geometrie</p> <ul style="list-style-type: none"> • Spezielle Geometrie für rostfreie Stähle • „Problemlöser“ bei der Stahlzerspanung 	<p><i>S1</i> <i>Soft cutting geometry</i></p> <ul style="list-style-type: none"> • <i>Especially for stainless steel</i> • <i>Problem solver for steel machining</i> 	<p>S1 Geometria di taglio dolce</p> <ul style="list-style-type: none"> • Geometria specifica per acciai inossidabili • Il risolutore dei problemi nella lavorazione di acciaio
	<p>M1 Geometrie mit schmaler Negativfase</p> <ul style="list-style-type: none"> • Für Werkstoffe mit mittlerer bis hoher Festigkeit • Universell einsetzbar bei Stahl (Rostfrei und Guss) • Erste Wahl bei stabilen Verhältnissen 	<p><i>M1</i> <i>Geometry with small negative chamfer</i></p> <ul style="list-style-type: none"> • <i>For medium to high strength materials</i> • <i>Suitable for all steels (stainless and cast)</i> • <i>First choice where cutting conditions are solid</i> 	<p>M1 La geometria robusta</p> <ul style="list-style-type: none"> • Per materiali con durezza medio alta • Utilizzo universale per acciaio (anche inossidabile e ghisa) • Prima scelta per condizioni stabili
	<p>ALU Geometrie mit scharfer Schneide</p> <ul style="list-style-type: none"> • Erste Wahl für Aluminium und NE-Metalle • Umseitig geschliffener Schneideinsatz • Hochpositive Geometrie • Polierte Spanflächen 	<p><i>ALU</i> <i>Geometry with a sharp edge</i></p> <ul style="list-style-type: none"> • <i>First choice for aluminium and non-ferrous materials</i> • <i>Periphery ground insert</i> • <i>High positive design</i> • <i>Polished chip breakers</i> 	<p>ALU Geometria super positiva rettificata</p> <ul style="list-style-type: none"> • Prima scelta per Alluminio e materiali non ferrosi • Inserto rettificato • Spoglia di taglio molto positiva • Vano truciolo lappato

Beschichtet / Coated / Rivestito**AM5040****PVD-beschichtete Hartmetallsorte**

Eine zähe, universell einsetzbare Sorte für niedrige und mittlere Schnittgeschwindigkeiten. Hauptanwendungsbereich für rostfreie Stähle sowie für die Stahlbearbeitung. Gute Prozesssicherheit sowie beständig gegen Schneidkantenabrüche.

PVD coated carbide

A tough but universal grade for low to medium cutting speeds. The main application area being stainless steel and steel.

Metallo duro rivestito PVD

Qualità universale per velocità medio basse. Campo di applicazione principale acciai inossidabili, superleghe, acciai legati. Notevole robustezza e resistenza alla scheggiatura.

AP2220**CVD-Mehrlagenbeschichtung**

Sorte mit ausgezeichneter Kombination von hoher Verschleißfestigkeit und guter Schneidkantenstabilität. Hauptanwendung für legierte Stahlwerkstoffe und Gusswerkstoffe. Neben-anwendung für rostfreien Stahl. Unter stabilen Bearbeitungsbedingungen bei mittleren bis hohen Schnittgeschwindigkeiten.

CVD-multilayer coating

Grade with excellent combination of wear resistance and cutting edge stability. Main application area is alloy steel and cast materials. But under stable conditions also suitable for stainless steel at medium to high cutting speeds.

Rivestimento multistrato CVD

Ottima resistenza all'usura e stabilità dei taglienti. Adatto per leghe d'acciaio e ghisa. Utilizzo secondario per acciaio inossidabile. Ideale in condizioni di lavoro stabili e elevate velocità di taglio.

AP5020**PVD-beschichtete Hartmetallsorte**

Eine sehr universell einsetzbare Sorte für niedrige und mittlere Schnittgeschwindigkeiten. Hauptanwendungsbereich für Stahl. Als Neben-anwendung geeignet für die Bearbeitung rostfreier Stähle und für das Ein- und Abstechen hochwärmfester Werkstoffe und NE-Metalle.

PVD coated carbide

A universal grade for low to medium cutting speed. Main application areas are steel and stainless steel, but also suitable for part-off and grooving of high temperature alloys and non-ferrous materials.

Metallo duro rivestito PVD

Qualità universale per velocità di taglio medie. Adatto principalmente per acciaio e secondariamente per acciaio inossidabile. Utilizzo secondario anche per metalli non ferrosi e refrattari.

AP5030**PVD-beschichtete Hartmetallsorte**

Eine universell einsetzbare Sorte im Bereich P30-P35 für die Einstech- und Abstechbearbeitungen. Hauptanwendungsbereich für die Stahlbearbeitung, Nebenanwendung für rostfreie Stähle.

PVD coated carbide

A universal grade mainly for steel applications. The slightly tougher substrate (ISO P30-P35) makes it suitable also for stainless steel.

Metallo duro rivestito PVD

Qualità molto versatile su campo ISO P30-P35 per lavorazioni in sicurezza. Ottima per la lavorazione di acciai in condizioni non perfette di lavoro. Secondaria scelta per acciai inossidabili.

Unbeschichtet / Uncoated / Non rivestito**AN1015**

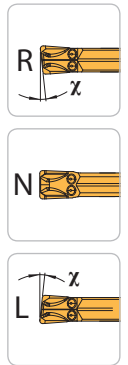
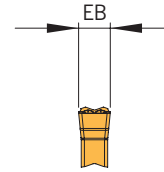
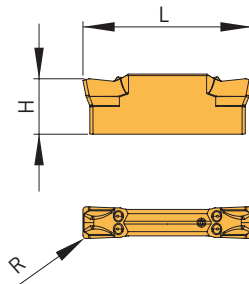
Unbeschichtete Hartmetallsorte zum Schlichten und Schruppen von Aluminiumlegierungen und bei NE-Metallen in Verbindung mit geschliffenen Schneidkanten. Zur Reduzierung der Aufbauschneidenbildung ist die Spanfläche hochglanzpoliert.

Uncoated carbide grade which in connection with a ground cutting edge is for finishing and roughing of aluminium alloys and non-ferrous materials. In order to reduce build up edge problems the insert is also highly polished.

Grado di metallo duro micrograna per tutte le lavorazioni di materiali non ferrosi e Alluminio. Tagliente rettificato super positivo e spoglia lappata per ridurre tagliente di riporto.

Inserts
Inserti

SA16



1

Bezeichnung Designation Articolo	Sorten / Grades / Gradi					beschichtet/ coated/rivestito				unbeschichtet uncoated non rivestito
	EB	H	L	R	χ	AM5040	AP2220	AP5020	AP5030	AN1015
SA16-2001L-S1-12**	2,0	5,5	16,00	0,1	12°	●				
SA16-2001R-S1-12**	2,0	5,5	16,00	0,1	12°	●				
SA16-2001L-T1-15**	2,0	5,5	16,00	0,1	15°			●		
SA16-2001R-T1-15**	2,0	5,5	16,00	0,1	15°			●		
SA16-2002N-F1	2,0	5,5	16,00	0,2	0°		●	●		
SA16-2002N-S1	2,0	5,5	16,00	0,2	0°	●		●		
SA16-2002N-T1	2,0	5,5	16,00	0,2	0°		●	●		
SA16-3002L-S1-12**	3,0	5,5	16,00	0,2	12°	●				
SA16-3002R-S1-12**	3,0	5,5	16,00	0,2	12°	●				
SA16-3003L-M1	3,0	5,5	16,00	0,3	6°		●	●		
SA16-3003R-M1	3,0	5,5	16,00	0,3	6°		●	●		
SA16-3003L-S1	3,0	5,5	16,00	0,3	6°	●				
SA16-3003R-S1	3,0	5,5	16,00	0,3	6°	●				
SA16-3003L-T1	3,0	5,5	16,00	0,3	6°		●	●		
SA16-3003R-T1	3,0	5,5	16,00	0,3	6°		●	●		
SA16-3003N-M1	3,0	5,5	16,00	0,3	0°		●	●		
SA16-3003N-S1	3,0	5,5	16,00	0,3	0°	●		●		
SA16-3003N-T1	3,0	5,5	16,00	0,3	0°		●	●		

Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
Remark: When using left- or right-handed inserts the holder may be needing modification.
Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

**geschliffene Ausführung
Ground version
Versione rettificata

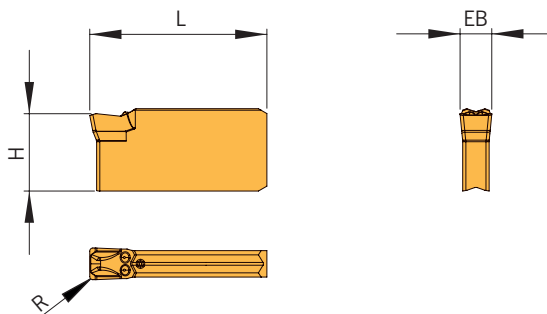
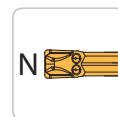
● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

	P	M	K	N	S	H
AM5040	○	●	●			
AP2220	●	○	○			
AP5020		●				
AP5030				○	○	
AN1015						

Inserts
Inserti

SA17



1

Bezeichnung Designation Articolo	EB	H	L	R	Sorten / Grades / Gradi				unbeschichtet uncoated non rivestito
					AM5040	beschichtet/ coated/rivestito		AN1015	
SA17-3003N-M1	3,0	7,5	16,75	0,3		●	●		
SA17-3003N-T1	3,0	7,5	16,75	0,3				●	
SA17-4004N-M1	4,0	7,5	16,75	0,4		●	●		
SA17-4004N-S1	4,0	7,5	16,75	0,4	●				

Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
 Remark: When using left- or right-handed inserts the holder may be needing modification.
 Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

Einseitige Schneideinsätze
 Single-sided inserts
 Inserti monolaterale

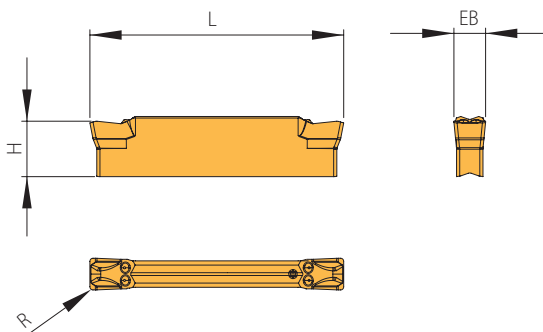
● **Hauptanwendung**
 Main application
 Applicazione principale

○ **Nebenanwendung**
 Secondary application
 Applicazione secondaria

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

Inserts
Inserti

SA24



1

Bezeichnung Designation Articolo	EB	H	L	R	χ	Sorten / Grades / Gradi				unbeschichtet uncoated non rivestito
						AM5040	AP2220	AP5020	AP5030	
SA24-1502N-S1	1,5	5,5	24,00	0,2	0°			●		
SA24-1502N-T1	1,5	5,5	24,00	0,2	0°			●		
SA24-2000R-T1-15**	2,0	5,5	24,00	0,0	15°			●		
SA24-2001L-S1-12**	2,0	5,5	24,00	0,1	12°	●				
SA24-2001R-S1-12**	2,0	5,5	24,00	0,1	12°	●				
SA24-2001L-S1-15**	2,0	5,5	24,00	0,1	15°			●		
SA24-2001R-S1-15**	2,0	5,5	24,00	0,1	15°			●		
SA24-2001L-T1-15**	2,0	5,5	24,00	0,1	15°			●		
SA24-2001R-T1-15**	2,0	5,5	24,00	0,1	15°			●		
SA24-2002L-S1-8**	2,0	5,5	24,00	0,2	8°			●		
SA24-2002R-S1-8**	2,0	5,5	24,00	0,2	8°			●		
SA24-2002N-F1	2,0	5,5	24,00	0,2	0°		●	●		
SA24-2002N-M1	2,0	5,5	24,00	0,2	0°		●	●		
SA24-2002N-S1	2,0	5,5	24,00	0,2	0°	●	●	●	●	
SA24-2002N-T1	2,0	5,5	24,00	0,2	0°		●	●		
SA24-2503N-S1	2,5	5,5	24,00	0,3	0°	●		●		
SA24-2503N-T1	2,5	5,5	24,00	0,3	0°			●		
SA24-3002L-S1-12**	3,0	5,5	24,00	0,2	12°	●				
SA24-3002R-S1-12**	3,0	5,5	24,00	0,2	12°	●				
SA24-3003L-M1	3,0	5,5	24,00	0,3	6°		●	●		
SA24-3003R-M1	3,0	5,5	24,00	0,3	6°		●	●		
SA24-3003L-S1	3,0	5,5	24,00	0,3	6°	●				
SA24-3003R-S1	3,0	5,5	24,00	0,3	6°	●				
SA24-3003L-T1	3,0	5,5	24,00	0,3	6°		●	●		
SA24-3003R-T1	3,0	5,5	24,00	0,3	6°		●	●		
SA24-3003N-M1	3,0	5,5	24,00	0,3	0°		●	●		
SA24-3003N-S1	3,0	5,5	24,00	0,3	0°	●		●		
SA24-3003N-T1	3,0	5,5	24,00	0,3	0°		●	●		
SA24-4004N-M1	4,0	5,5	24,00	0,4	0°		●	●		
SA24-4004N-S1	4,0	5,5	24,00	0,4	0°	●		●		

Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
Remark: When using left- or right-handed inserts the holder may be needing modification.
Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

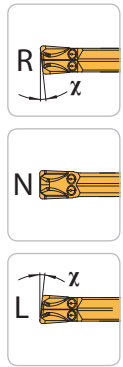
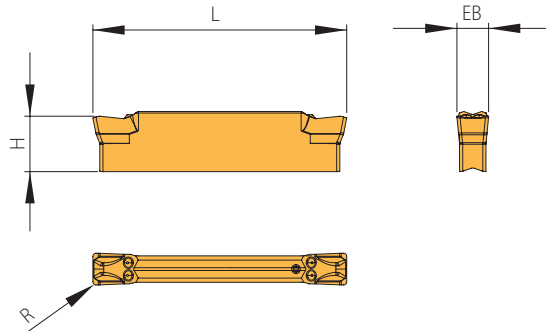
**geschliffene Ausführung
Grind version
Versione rettificata

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria

	P	M	K	N	S	H
AM5040	○	●	●	●	●	●
AP2220	●	○	○	○	○	○
AP5020			●			
AP5030				○	○	
AN1015						

Inserts
Inserti

SA24



1

Bezeichnung Designation Articolo	EB	H	L	R	χ	Sorten / Grades / Gradi				unbeschichtet uncoated non rivestito
						AM5040	AP2220	AP5020	AP5030	
SA24-4004N-T1	4,0	5,5	24,00	0,4	0°			●		
SA24-5005N-M1	5,0	7,5	24,00	0,5	0°			●		
SA24-5005N-S1	5,0	7,5	24,00	0,5	0°			●		
SA24-5005N-T1	5,0	7,5	24,00	0,5	0°			●		
SA24-2001L-ALU-15**	2,0	5,5	24,00	0,1	15°					●
SA24-2001R-ALU-15**	2,0	5,5	24,00	0,1	15°					●
SA24-2002N-ALU**	2,0	5,5	24,00	0,2	0°					●
SA24-3002L-ALU-15**	3,0	5,5	24,00	0,2	15°					●
SA24-3002R-ALU-15**	3,0	5,5	24,00	0,2	15°					●
SA24-3003N-ALU**	3,0	5,5	24,00	0,3	0°					●

Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
 Remark: When using left- or right-handed inserts the holder may be needing modification.
 Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

****geschliffene Ausführung**
 Ground version
 Versione rettificata

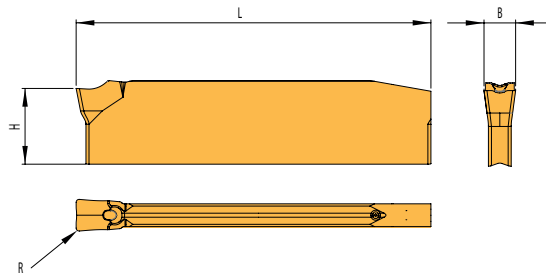
● **Hauptanwendung**
 Main application
 Applicazione principale

○ **Nebenanwendung**
 Secondary application
 Applicazione secondaria

	P	M	K	N	S	H
AM5040	○	●	●			
AP2220	●	○	○			
AP5020			●			
AP5030				○		
AN1015					○	
				●		
					○	

Inserts
Inserti

SA24E



1

Bezeichnung Designation Articolo	EB	H	L	R	Sorten / Grades / Gradi				unbeschichtet uncoated non rivestito
					AM5040	AP2220	AP5020	AP5030	
SA24E-2002N-S1*	2,0	5,5	24,00	0,2			●		
SA24E-3003N-S1*	3,0	5,5	24,00	0,3			●		

Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
Remark: When using left- or right-handed inserts the holder may be needing modification.
Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

***Schneideinsätze für selbstklemmende Klingen**
Inserts for self-clamping blades
Inserti per lame a fissaggio elastico

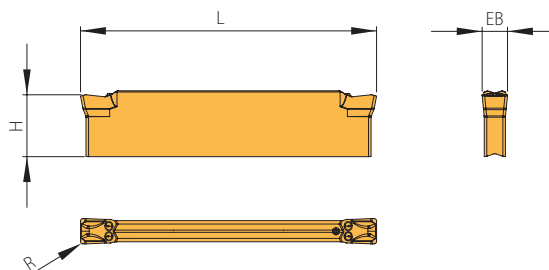
- **Hauptanwendung**
Main application
Applicazione principale
- **Nebenanwendung**
Secondary application
Applicazione secondaria

P		●	
M		○	
K			
N		○	
S		○	
H			

Inserts
Inserti

SA35

1



Bezeichnung Designation Articolo	Sorten / Grades / Gradi									
	EB	H	L	R	χ	beschichtet/ coated/rivestito				unbeschichtet uncoated non rivestito
						AM5040	AP2220	AP5020	AP5030	AN1015
SA35-2001L-S1-12**	2,0	7,5	35,00	0,1	12°	●				
SA35-2001R-S1-12**	2,0	7,5	35,00	0,1	12°	●				
SA35-2002L-M1	2,0	7,5	35,00	0,2	6°			●		
SA35-2002R-M1	2,0	7,5	35,00	0,2	6°			●		
SA35-2002N-F1	2,0	7,5	35,00	0,2	0°		●	●		
SA35-2002N-M1	2,0	7,5	35,00	0,2	0°			●		
SA35-2002N-S1	2,0	7,5	35,00	0,2	0°	●		●		
SA35-2002N-T1	2,0	7,5	35,00	0,2	0°		●	●		
SA35-3002L-S1-12**	3,0	7,5	35,00	0,2	12°	●				
SA35-3002R-S1-12**	3,0	7,5	35,00	0,2	12°	●				
SA35-3003L-M1	3,0	7,5	35,00	0,3	6°		●	●		
SA35-3003R-M1	3,0	7,5	35,00	0,3	6°		●	●		
SA35-3003L-S1	3,0	7,5	35,00	0,3	6°			●		
SA35-3003R-S1	3,0	7,5	35,00	0,3	6°			●		
SA35-3003L-T1	3,0	7,5	35,00	0,3	6°		●	●		
SA35-3003R-T1	3,0	7,5	35,00	0,3	6°		●	●		
SA35-3003N-M1	3,0	7,5	35,00	0,3	0°	●	●	●		
SA35-3003N-S1	3,0	7,5	35,00	0,3	0°	●		●	●	
SA35-3003N-T1	3,0	7,5	35,00	0,3	0°		●	●		
SA35-4004N-M1	4,0	7,5	35,00	0,4	0°		●	●		
SA35-4004N-M1	4,0	7,5	35,00	0,4	0°			●		
SA35-4004N-S1	4,0	7,5	35,00	0,4	0°	●				
SA35-4004N-T1	4,0	7,5	35,00	0,4	0°			●		
SA35-6006N-M1	6,0	7,5	35,00	0,6	0°			●		
SA35-2001L-ALU-15**	2,0	7,5	35,00	0,1	15°					●
SA35-2001R-ALU-15**	2,0	7,5	35,00	0,1	15°					●
SA35-2002N-ALU**	2,0	7,5	35,00	0,2	0°					●
SA35-3002L-ALU-15**	3,0	7,5	35,00	0,2	15°					●
SA35-3002R-ALU-15**	3,0	7,5	35,00	0,2	15°					●
SA35-3003N-ALU**	3,0	7,5	35,00	0,3	0°					●
SA35-4004N-ALU**	4,0	7,5	35,00	0,4	0°					●

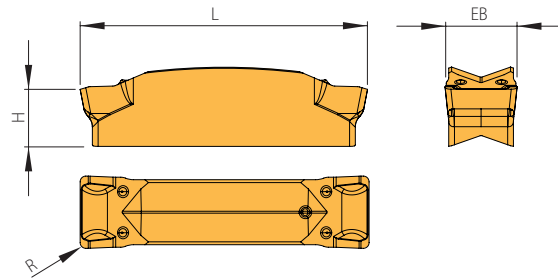
Hinweis: Bei linken und rechten Stechplatten muss ggf. das Trägerwerkzeug stirnseitig modifiziert werden.
Remark: When using left- or right-handed inserts the holder may be needing modification.
Nota: Con l'utilizzo di inserti sinistri o destri può essere necessario modificare la lama.

**geschliffene Ausführung
Ground version
Versione rettificata

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria

	P	M	K	N	S	H
AM5040	○	●	●	●		
AP2220	●	○	○	○		
AP5020			●			
AP5030				○		
AN1015						○

SA35/SA40



1

Bezeichnung Designation Articolo	EB	H	L	R	Sorten / Grades / Gradi				unbeschichtet uncoated non rivestito
					AM5040	AP2220	AP5020	AP5030	
SA35-8008N-M1	8,0	8,0	35,00	0,8			●		
SA40-10008N-M1	10,0	8,5	40,00	0,8			●		

- **Hauptanwendung**
Main application
Applicazione principale
- **Nebenanwendung**
Secondary application
Applicazione secondaria

P		●		
M		○		
K				
N		○		
S		○		
H				

Artikel / Item / Articolo
Schraube / Screw / Vite
AS0022
AS0045
DIN912-M5x16-12.9
DIN912-M6x20-12.9
SA5T
Schlüssel / Key / Chiave
Inbus* 4 mm
Inbus* 5 mm
KS8000
S-KSA
T5215-IP
T5220-IP
Kühlmittelschluss – gerade / Coolant supply – straight / Raccordo – dritto
KA001
KA002
KA003
Kühlmittelschluss – winklig, fest / Coolant supply – angled and fixed / Raccordo – angolato
KA004
KA005
Schwenkverschraubung / Swivelling screw-fitting / Raccordo – orientabile
KA006
KA007
KA008

*Inbus Schlüssel / Allen key / Chiave a brugola

1

Stechen

ISO	Werkstoff	Zugfestigkeit (N/mm ²)	Schnittgeschwindigkeit V _c (m/min)					
			beschichtet				unbeschichtet	
			AM5040	AP2220	AP5020	AP5030		
P	Unlegierter Stahl und Stahlguss	< 0,15 % C/vergütet	350	120-200	130-250	120-220	120-200	-
		0,15 – 0,45 % C/vergütet	650	80-150	110-180	80-150	80-150	-
		> 0,45 % C/vergütet	1000	60-140	70-150	60-140	60-140	-
	Niedrig legierter Stahl und Stahlguss	geglüht	600	80-160	120-190	80-170	80-170	-
		vergütet	900	60-130	110-150	60-130	60-130	-
			1200	60-120	70-130	60-120	60-120	-
	Hochlegierter Stahl	geglüht	700	80-140	90-140	80-140	80-140	-
Hochlegierter Werkzeugstahl und Stahlguss	gehärtet und angelassen	1100	50-120	70-130	50-120	50-120	-	
Nichtrostender Stahl	ferritisch, geglüht	700	60-160	110-200	60-170	60-170	-	
Stahlguss	martensitisch, vergütet	1000	50-100	60-130	50-100	50-100	-	
M	Nichtrostender Stahl	austenitisch und austenitisch/ ferritisch, abgeschreckt	450-600	60-160	100-200	60-180	60-170	-
		600-900	50-90	120-150	50-90	50-90	-	
K	Grauguss	perlitisch/ferritisch	500-700	-	100-160	-	-	120-160
		perlitisch/martensitisch	700-850	-	110-180	-	-	100-150
			800-1100	-	130-200	-	-	90-140
	Gusseisen mit Kugelgraphit	ferritisch	550	-	100-160	-	-	130-170
		perlitisch	800	-	120-220	-	-	90-130
Temperguss	ferritisch	450	-	90-180	-	-	140-200	
	perlitisch	750	-	-	-	-	120-160	
N	Aluminium-Knetlegierungen	nicht aushärtbar	200	-	-	100-500	-	300-500
		aushärtbar, ausgehärtet	350	-	-	100-300	-	200-300
	Aluminium-Gusslegierungen	≤ 12 % Si, ausgehärtet	250	-	-	100-500	-	100-500
		≤ 12 % Si, aushärtbar, ausgehärtet	300	-	-	100-300	-	100-300
		≤ 12 % Si, nicht aushärtbar	450	-	-	100-200	-	100-200
	Kupfer und Kupferlegierungen (Bronze/Messing)	Automatenlegierung, Pb > 1 %	400	-	-	100-500	-	250-500
		Messing, Rotguss	300	-	-	100-500	-	200-500
Aluminiumbronze		500	-	-	100-300	-	150-300	
Kupfer und Elektrolytkupfer		200	-	-	100-300	-	150-300	
Nichtmetallische Werkstoffe	Duroplaste	-	-	-	80-180	-	80-180	
	Faserverstärkte Kunststoffe	-	-	-	60-150	-	60-150	
	Hartgummi	-	-	-	100-220	-	100-200	
S	Warmfeste Legierungen	Fe-Basis, geglüht	700	-	-	20-50	-	30-45
		Fe-Basis, ausgehärtet	950	-	-	20-40	-	20-35
		Ni- oder Co-Basis, geglüht	800	-	-	15-25	-	15-25
		Ni- oder Co-Basis, gegossen	1100	-	-	10-20	-	10-20
		Ni- oder Co-Basis, ausgehärtet	1200	-	-	10-20	-	10-20
	Titanlegierungen	Rein-Titan	500-700	-	-	50-120	-	60-120
Alpha+ Beta-Legierungen	ausgehärtet	700-1000	-	-	30-50	-	30-50	
H	Gehärteter Stahl	gehärtet und angelassen	55 HRC	-	-	-	-	-
			60 HRC	-	-	-	-	-
	Hartguss	gegossen	41 HRC	-	-	-	-	-
	Gehärtetes Gusseisen	gehärtet und angelassen	55 HRC	-	-	-	-	-

Die Tabellenwerte sind Richtwerte.
Es kann notwendig sein, die Werte den jeweiligen Bearbeitungsumständen anzupassen.



Grooving

1

ISO	Material	Tensile strength (N/mm ²)	Cutting speed V _c (m/min)					
			coated				uncoated	
			AM5040	AP2220	AP5020	AP5030	AN1015	
P	Unalloyed steel and cast steel	< 0.15% C/hardened and tempered	350	120-200	130-250	120-220	120-200	-
		0.15-0.45% C/hardened and tempered	650	80-150	110-180	80-150	80-150	-
		> 0.45% C/hardened and tempered	1000	60-140	70-150	60-140	60-140	-
	Low alloyed steel and cast steel	annealed	600	80-160	120-190	80-170	80-170	-
		hardened and tempered	900	60-130	110-150	60-130	60-130	-
			1200	60-120	70-130	60-120	60-120	-
	High alloyed steel	annealed	700	80-140	90-140	80-140	80-140	-
	High alloyed tool steel and cast steel	hardened	1100	50-120	70-130	50-120	50-120	-
Stainless steel	ferritic, annealed	700	60-160	110-200	60-170	60-170	-	
Cast steel	martensitic, hardened and tempered	1000	50-100	60-130	50-100	50-100	-	
M	Stainless steel	austenitic and austenitic/	450-600	60-160	100-200	60-180	60-170	-
		ferritic, chilled	600-900	50-90	120-150	50-90	50-90	-
K	Cast iron	pearlitic/ferritic	500-700	-	100-160	-	-	120-160
		pearlitic/martensitic	700-850	-	110-180	-	-	100-150
			800-1100	-	130-200	-	-	90-140
	Cast iron with nodular graphite	ferritic	550	-	100-160	-	-	130-170
		pearlitic	800	-	120-220	-	-	90-130
	Malleable cast iron	ferritic	450	-	90-180	-	-	140-200
N	Aluminium alloys long chipping	not heat treatable	200	-	-	100-500	-	300-500
		heat treatable, heat treated	350	-	-	100-300	-	200-300
	Casted aluminium alloys	≤ 12% Si, heat treated	250	-	-	100-500	-	100-500
		≤ 12% Si, heat treatable, heat treated	300	-	-	100-300	-	100-300
		≤ 12% Si, not heat treatable	450	-	-	100-200	-	100-200
	Copper and copper alloys (Brass/Bronze)	Lead alloys, Pb > 1%	400	-	-	100-500	-	250-500
		Brass, Bronze	300	-	-	100-500	-	200-500
		Aluminium bronze	500	-	-	100-300	-	150-300
		Copper and elektrolyte copper	200	-	-	100-300	-	150-300
	Non-ferrous materials	Duroplastic	-	-	-	80-180	-	80-180
Re-inforced plastics		-	-	-	60-150	-	60-150	
Hard rubber		-	-	-	100-220	-	100-200	
S	High temperature resistant alloys	Fe-alloyed, annealed	700	-	-	20-50	-	30-45
		Fe-alloyed, heat treated	950	-	-	20-40	-	20-35
		Ni- or Co-alloyed, annealed	800	-	-	15-25	-	15-25
		Ni- or Co-alloyed, casting	1100	-	-	10-20	-	10-20
		Ni- or Co-alloyed, heat treated	1200	-	-	10-20	-	10-20
	Titanium alloys	Pure titan	500-700	-	-	50-120	-	60-120
Alpha- and Beta-alloys	heat treated	700-1000	-	-	30-50	-	30-50	
H	Hardened steel	hardened	55 HRC	-	-	-	-	-
			60 HRC	-	-	-	-	-
	Hard cast iron	casting	41 HRC	-	-	-	-	-
	Hardened cast iron	hardened	55 HRC	-	-	-	-	-

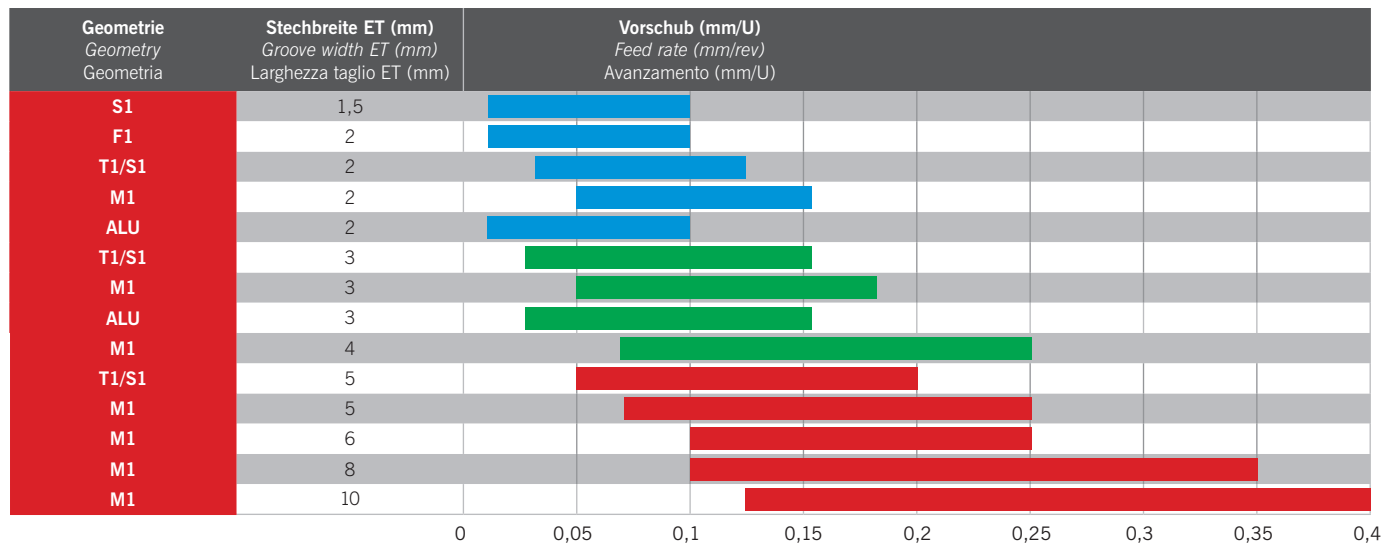
The recommended cutting data are only approximate values. It may be necessary to adjust them to each individual machining application.

Troncatura

ISO	Materiale	Resistenza (N/mm ²)	Velocità di taglio Vc (m/min)				non rivestito AN1015	
			AM5040	AP2220	AP5020	AP5030		
P	Acciai non legati	< 0,15 % C/bonificato	350	120-200	130-250	120-220	120-200	-
		0,15 - 0,45 % C/bonificato	650	80-150	110-180	80-150	80-150	-
		> 0,45 % C/bonificato	1000	60-140	70-150	60-140	60-140	-
	Acciai debolmente legati e Ghise acciaiose	ricotto	600	80-160	120-190	80-170	80-170	-
		bonificato	900	60-130	110-150	60-130	60-130	-
			1200	60-120	70-130	60-120	60-120	-
	Acciai fortemente legati	ricotto	700	80-140	90-140	80-140	80-140	-
	Acciai da utensili e fusioni	temprato e rinvenuto	1100	50-120	70-130	50-120	50-120	-
Acciai inossidabili	ferritico, ricotto	700	60-160	110-200	60-170	60-170	-	
Ghisa acciaiosa	martensitico, bonificato	1000	50-100	60-130	50-100	50-100	-	
M	Acciai inossidabili	austenitico e autenitico/	450-600	60-160	100-200	60-180	60-170	-
		ferritico, trattato o temperato	600-900	50-90	120-150	50-90	50-90	-
K	Ghisa grigia	perlitica/ferritico	500-700	-	100-160	-	-	120-160
		perlitica/martensitico	700-850	-	110-180	-	-	100-150
			800-1100	-	130-200	-	-	90-140
	Ghisa sferoidale	ferritico	550	-	100-160	-	-	130-170
		perlitica	800	-	120-220	-	-	90-130
	Ghisa temprata	ferritico	450	-	90-180	-	-	140-200
perlitica		750	-	-	-	-	120-160	
N	Leghe di Alluminio stampato	non invecchiato	200	-	-	100-500	-	300-500
		invecchiato	350	-	-	100-300	-	200-300
	Leghe di Alluminio da fusione	≤ 12 % Si, invecchiato	250	-	-	100-500	-	100-500
		≤ 12 % Si, rinvenuto, invecchiato	300	-	-	100-300	-	100-300
		≤ 12 % Si, non invecchiato	450	-	-	100-200	-	100-200
	Rame e Leghe di Rame (Bronzo/Ottone)	Automatici, Pb > 1 %	400	-	-	100-500	-	250-500
		Ottone, Bronzo	300	-	-	100-500	-	200-500
Bronzoalluminio		500	-	-	100-300	-	150-300	
Rame e Rame Elettrolitico		200	-	-	100-300	-	150-300	
Materiali non metallici	Duroplastiche	-	-	-	80-180	-	80-180	
	Plastiche rinforzate	-	-	-	60-150	-	60-150	
	Gomme dure	-	-	-	100-220	-	100-200	
S	Leghe resistenti al calore	Base-Fe, ricotto	700	-	-	20-50	-	30-45
		Base-Fe, invecchiato	950	-	-	20-40	-	20-35
		Base Ni o Co, ricotto	800	-	-	15-25	-	15-25
		Base Ni o Co, da fusione	1100	-	-	10-20	-	10-20
		Base Ni o Co, invecchiato	1200	-	-	10-20	-	10-20
	Leghe di Titanio	Titanio puro	500-700	-	-	50-120	-	60-120
Leghe Alpha+Beta	invecchiato	700-1000	-	-	30-50	-	30-50	
H	Acciaio Temprato	temprato e rinvenuto	55 HRC	-	-	-	-	-
			60 HRC	-	-	-	-	-
	Getti Temprati	da fusione	41 HRC	-	-	-	-	-
	Ghisa Temprata	temprato e rinvenuto	55 HRC	-	-	-	-	-

I dati indicati in tabella sono valori approssimati.
Può essere necessario adattarli alle singole applicazioni di lavorazione.

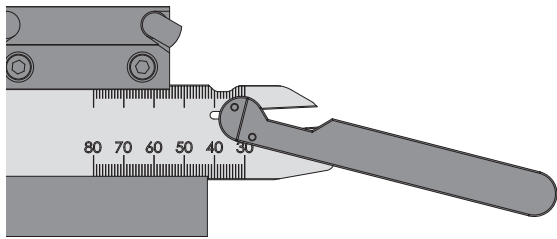
Einsatzempfehlung / Application recommendations / Consigli di utilizzo



1

Montagehinweis KSA...-N / KSA mounting instructions ...-N /

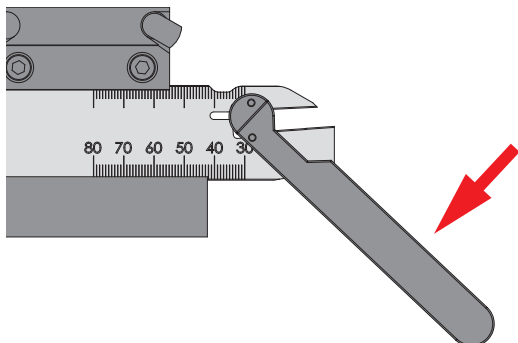
Schema di montaggio KSA ...-N



**Montageschlüssel in die 2 Ausnehmungen stecken.
(von beiden Seiten möglich)**

*Place the mounting wrench in the 2 recesses.
(possible from both sides)*

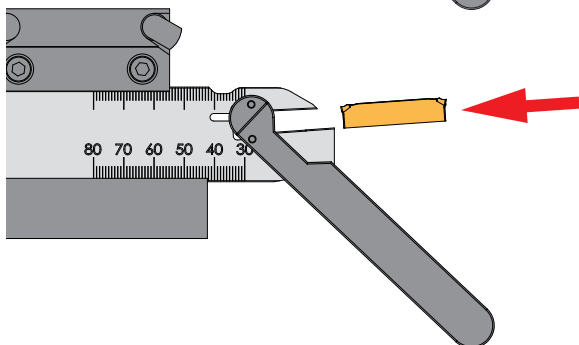
Inserire la chiave di apertura nei due fori.
(possibile da entrambi i lati)



**Durch Bewegung des Montageschlüssels in Pfeilrichtung
wird der Plattensitz geöffnet.**

*The insert seat is opened by moving the mounting wrench
in the direction of the arrow.*

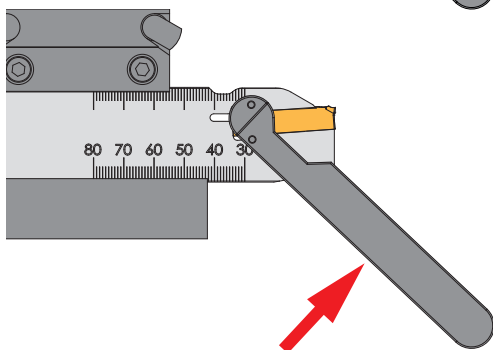
La sede inserto viene aperta ruotando la chiave nella direzione
della freccia.



**Schneideinsatz einlegen und durch Andrücken
gegen den Anschlag positionieren.**

*Engage the cutting insert and position against
the stop by pressing in.*

Inserire l'inserto da taglio fino al fermo.



**Montageschlüssel nach vorne bewegen. Plattensitz schließt
sich wieder und der Schneideinsatz wird gespannt.**

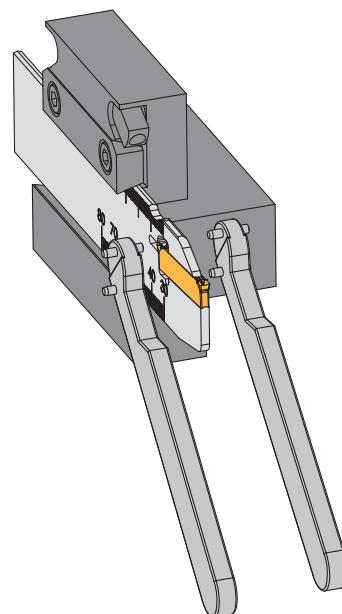
*Move the mounting wrench forwards. The plate seat closes
again and the cutting insert is tightened.*

Ruotare in senso opposto la chiave. La sede si chiude e
l'inserto viene bloccato.

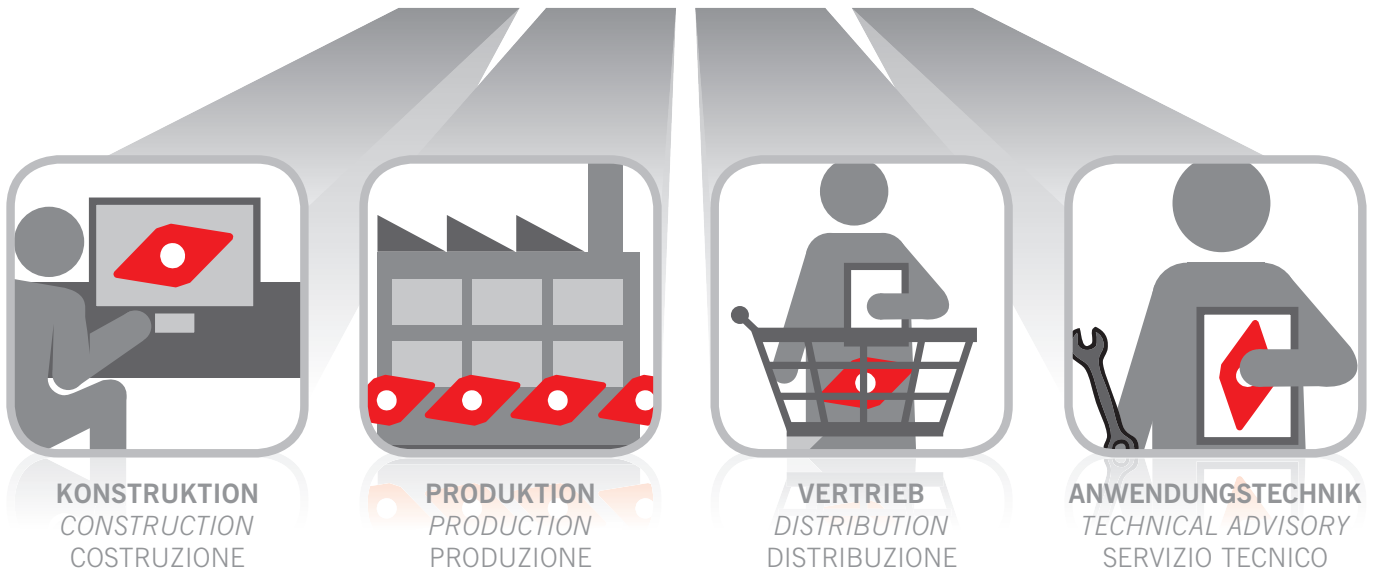
**Die Klemmung ist so konzipiert, dass der Montageschlüssel entsprechend
der Zugängigkeit von beiden Seiten in die Klinge gesteckt werden kann.**

The clamping is designed so that the mounting wrench can be pushed
into the blade from both sides depending on accessibility.

Il bloccaggio prevede che la chiave si possa utilizzare da entrambe i
lati in base alla accessibilità.



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