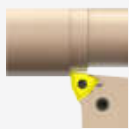




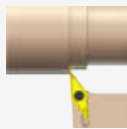
s w i s s
FLEX

2301

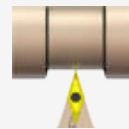
SWISS[®] TOOLS



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SVJB SVJC
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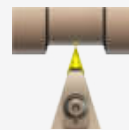
SVVB SVVC
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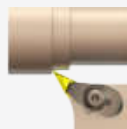
SVPB SVJC
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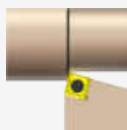
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Multitask tools
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SDUC
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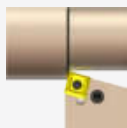
SSBC
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PDUN
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PSBN
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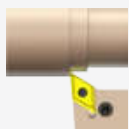
Innengewinde
Internal thread
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SSSC
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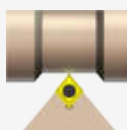
PDJN
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PSSN
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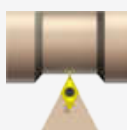
PDHN
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PCMN PWMN
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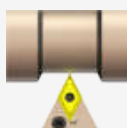
SVUB SVUC
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Modulare Bohrstangen
Modular boring bars
Barres d'alésage modulables
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Bohrstangenhalter
Boring bar holder
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Verlängerung
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Schwingungs. Bohrstangen
Damped boring bar shanks
Damped barres d'alésage
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Wendeplattenbohrerhalter
Holder index. drill
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Wechselschneidköpfe
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Têtes de coupe interchangeable.
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Cut-off block radial
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Blanking plug
Bouchon d'ébauche
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Abstechhalter axial
Cut-off block axial
Bloc de tronçonnage axial
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Extension
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Werkzeughalter radial
Tool holder radial
Porte-outil radial
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Schrumpffutter
Shrink chucks
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Werkzeughalter axial
Tool holder axial
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Kühlmittelrohr
Coolant tube
tube d'arrosage
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PDQN
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Werkzeughalter axial 2-fach
Tool holder axial double
Porte-outil axial double
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Quick change holder
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Werkzeughalter axial 3-fach
Tool holder axial triple
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Ersatzteile
Spare parts
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Werkzeughalter 45°
Tool holder 45°
Porte-outil 45°
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Bohrstangen mit Wechselschneidköpfen

- alle Wechselschneidköpfe sind mit Hochleistungskühlung ausgestattet.
- Werkzeugverschleiss tritt hauptsächlich am auswechselbaren Schneidkopf auf, der Adapter hält somit länger.
- In Kombination mit den SDT Bohrstangen ist das Konzept perfekt für Operationen mit langen Überhängen und bei Vibrationsneigung.

Boring bars with exchangeable cutting heads

- all exchangeable cutting heads are equipped with high performance coolant.
- Tool wear appears mainly at the changeable head, the life time of the tool adapter is therefore longer.
- In combination with SDT the tool concept is perfect for long cantilever extensions and while fighting with vibrations.

Barres d'alésage avec têtes de coupe interchangeables

- Toutes les têtes de coupe interchangeables sont équipées d'un arrosage haute performance.
- L'usure de l'outil apparaît principalement au niveau de la tête interchangeable, la durée de vie de l'adaptateur d'outil est donc plus longue.
- En combinaison avec SDT, le concept d'outil est parfait pour les longues extensions en porte-à-faux et tout en luttant contre les vibrations.



HP
inside

SWISS DAMPENING TECHNOLOGY

Schwingungsgedämpfte Bohrstangenschäfte

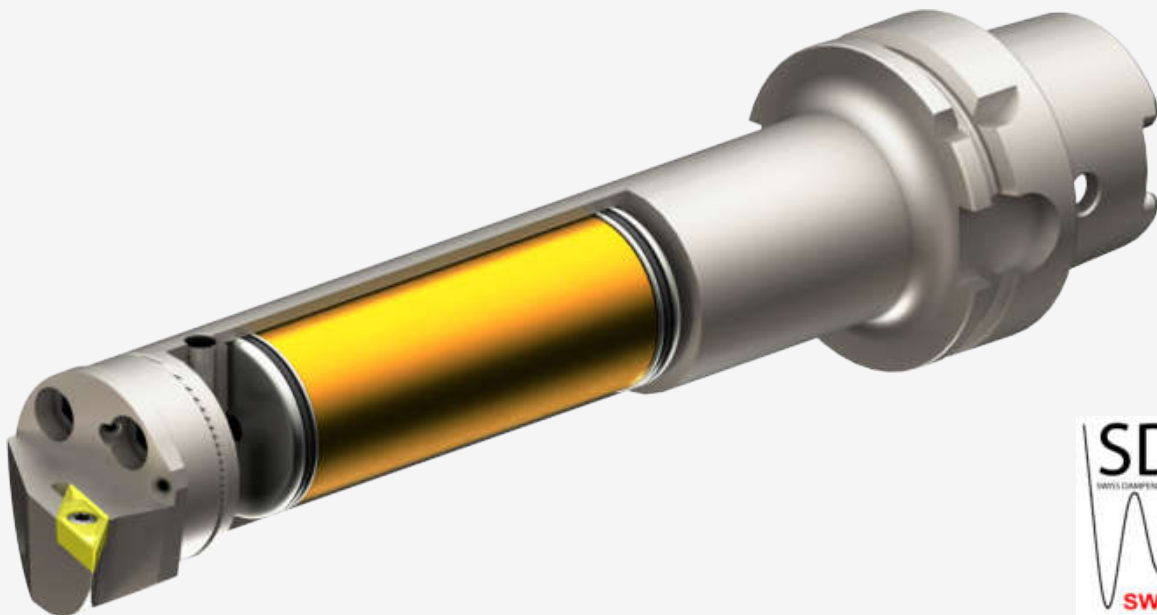
- Produktivitätsgewinn dank der unterdrückten Schwingungen können die Schnittdaten beträchtlich erhöht werden
- Verbesserte Oberflächengüte
- Verbesserte Prozesssicherheit
- Verbesserte Spanabfuhr
- Reduzierte Kosten pro Bauteil

Damped boring bar shanks

- Productivity improvement: thanks to reduced vibrations, the cutting conditions can be improved remarkable
- Better surface quality
- Improved process stability
- Better chip evacuation
- Reduced cost per part

Tiges de barres d'alésage anti-vibrations

- Amélioration de la productivité : grâce à la réduction des vibrations, les conditions de coupe peuvent être améliorées de façon remarquable.
- Meilleure qualité de surface
- Meilleure stabilité du processus
- Meilleure évacuation des copeaux
- Réduction du coût par pièce



Hochleistungskühlung

- für effiziente Drehbearbeitung
- optimale Kühlung durch fest ausgerichtete **High Pressure** Kühldüsen
- verbesserte Spankontrolle
- höhere Bearbeitungssicherheit
- mehr Zerspanvolumen
- kürzere Bearbeitungszeiten

High performance coolant

- to turn efficiently
- optimal cooling by fix orientated **High Pressure** coolant nozzles
- improved chip control
- higher manufacturing security
- higher chip removal rate
- shorter machining time

Arrosage haute performance

- pour des opérations de tournage efficaces
- arrosage optimal par des buses d'arrosage fixes High Pressure
- contrôle amélioré des copeaux
- plus grande sécurité d'usinage
- plus haut volume d'extraction de copeaux
- temps d'usinage plus courts

Klemmhalter

- alle Klemmhalter die mit dem **HP** Symbol markiert sind, können auf Hochleistungskühlung aufgerüstet werden.



Turning tool

- all turning tools which are marked with the **HP** symbol, can be set up with the high performance coolant.



Outil de tournage

- Tous les outils de tournage, qui sont marqués avec ce symbole **HP**, peuvent être équipés avec le arrosage haute performance.



Bestell-Nr. /
Order number/
Code

CHP.PCX.000.022

- Hochleistungskühlmittel Set beinhaltet:
 - HP Düse
 - O-Ring

- High performance coolant set included:
 - HP coolant nozzle
 - O-ring

- Kit d'arrosage haute performance comprend
 - Buse HP
 - O-Ring



- Spannsystem: Die Wendeplatte wird mittels Schraubenklemmung Typ S gespannt.
- Kühlsystem: Klemmhalter für positive Wendeplatten besitzen eine ausgerichtete Kühlmiteldüse.

- Clamping system: The insert is tightened via screw clamping Type S.
- Cooling system: Turning tools for positive inserts feature an adjusted coolant nozzle.

- Système de serrage : La plaquette est serrée par un serrage à vis de type S.
- Système d'arrosage : Les outils de tournage pour plaquettes positives sont équipés d'une buse d'arrosage dirigée.



- Spannsystem: Die Wendeplatte wird mittels Doppelklemmung Typ D gespannt.
- Kühlsystem: Klemmhalter mit Doppelklemmung verfügen über eine ausrichtbare Hochdruckkühldüse.

- Clamping system: The insert is tightened via double-clamping Type D.
- Cooling system: Turning tools with double-clamping feature an adjustable high-pressure coolant nozzle.

- Système de serrage : La plaquette est serrée par un double serrage à vis de type D.
- Système d'arrosage : Les outils de tournage avec double serrage sont équipés d'une buse d'arrosage dirigée.



- Spannsystem: Die Wendeplatte wird mittels Kniehebelspannung Typ P gespannt.
- Kühlsystem: Klemmhalter mit Kniehebelspannung besitzen eine ausgerichtete Kühlmitteldüse.

- Clamping system: The insert is tightened via knuckle joint Type P.
- Cooling system: Turning tools with knuckle joint-clamping feature an adjusted coolant nozzle.

- Système de serrage : La plaquette est serrée par un joint articulé Type P.
- Système d'arrosage : Les outils de tournage avec joint articulé sont équipés d'une buse d'arrosage dirigée.

Klemmhalter

- für effiziente Drehbearbeitung
- optimale Kühlung durch ausgerichtete Kühldüse und Hochdruckkühldüse
- Klemmhalter für Aussenbearbeitung können auch für die Innenbearbeitung verwendet werden unter Berücksichtigung des D1 min.

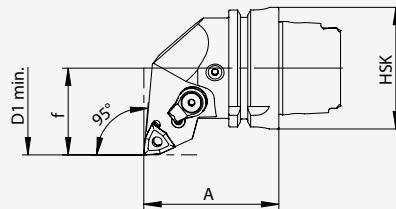
Turning tool

- to turn efficiently
- optimal cooling by adjusted cooling nozzle and high pressure cooling nozzle
- Turning tools for exterior machining may also be used for interior machining, in consideration of D1 min.

Outil de tournage

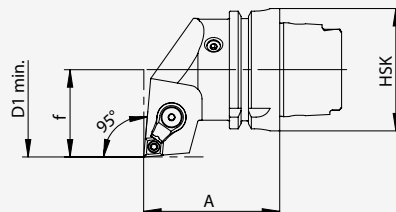
- pour des opérations de tournage efficaces
- arrosage optimal par buse d'arrosage dirigée et à haute pression
- Les outils de tournage destinés à l'usinage extérieur peuvent aussi être utilisés pour l'usinage intérieur, en tenant compte de D1 min.

PWLN R/L 95°/80°



Bestell-Nr. / Order number / Code	HSK	f	D1 min.	A	Wendeplatte / Insert / Plaquette	kg					
HA4.PWD.(R/L)LA.055-HP	T40	27	50	55	WN .. 06 04 ..	0.35	WWE.ER2.102.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000	CHPPCX.000.022
HA4.PWE.(R/L)LA.055-HP	T40	27	50	55	WN .. 08 04 ..	0.35	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PWE.(R/L)LA.070-HP	T63	45	80	70	WN .. 08 04 ..	1.15	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PWE.(R/L)LA.100-HP	T63	45	80	100	WN .. 08 04 ..	1.15	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PWE.(R/L)LA.100-HP	T100	63	120	100	WN .. 08 04 ..	4.22	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

SLC R/L 95°/80°



Bestell-Nr. / Order number / Code	HSK	f	D1 min.	A	Wendeplatte / Insert / Plaquette	kg			
HA4.KCB.(R/L)LA.055-HP	T40	27	50	55	CC .. 09 T3 ..	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA4.KCC.(R/L)LA.055-HP	T40	27	50	55	CC .. 12 04 ..	0.40	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
HA6.KCB.(R/L)LA.070-HP	T63	45	80	70	CC .. 09 T3 ..	1.15	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KCC.(R/L)LA.070-HP	T63	45	80	70	CC .. 12 04 ..	1.15	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
HA0.KCC.(R/L)LA.100-HP	T100	63	120	100	CC .. 12 04 ..	4.23	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022



Bestell-Nr. /
Order number /
Code

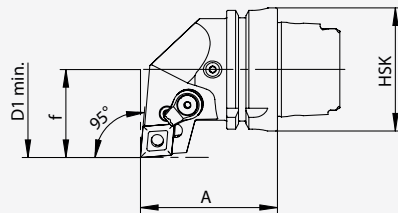
CHP.PCX.000.022

- Hochleistungskühlmittel Set beinhaltet:
 - HP Düse
 - O-Ring

- High performance coolant set included:
 - HP coolant nozzle
 - O-ring

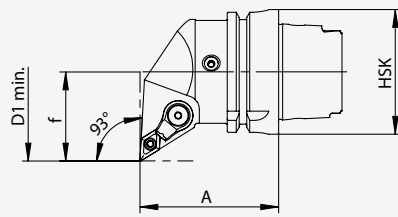
- Kit d'arrosage haute performance comprend
 - Buse HP
 - O-Ring

PCLN R/L 95°/80°



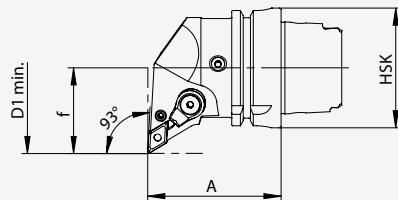
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PCD.(R/L)LA.055-HP	T40	27	50	55	CN...12 04...	0.40	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PCD.(R/L)LA.070-HP	T63	45	80	70	CN...12 04...	1.15	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PCE.(R/L)LA.070-HP	T63	45	80	70	CN...16 06...	1.10	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022
HA0.PCD.(R/L)LA.100-HP	T100	63	120	100	CN...12 04...	4.40	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PCE.(R/L)LA.100-HP	T100	63	120	100	CN...16 06...	4.40	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022
HA0.PCF.(R/L)LA.100-HP	T100	63	120	100	CN...19 06...	4.40	WCF.ER2.101.000	WCF.ER4.101.027 (8.0 Nm)	WCF.ER3.101.000	WCF.ER1.101.000	CHPPCX.000.022

SDUC R/L 93°/55°



Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg				
HA4.KDB.(R/L)UA.055-HP	T40	27	50	55	DC...11 T3...	0.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022	
HA6.KDB.(R/L)UA.070-HP	T63	45	80	70	DC...11 T3...	1.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022	
HA0.KDB.(R/L)UA.100-HP	T100	63	120	100	DC...11 T3...	4.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022	

PDUN R/L 93°/55°

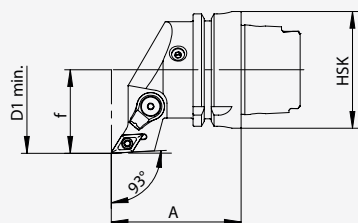


Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PDF.(R/L)UA.055-HP	T40	27	50	55	DN...15 06...*	0.35	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PDE.(R/L)UA.070-HP	T63	45	80	70	DN...11 04...	1.20	WDE.ER2.101.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000		CHPPCX.000.022
HA6.PDF.(R/L)UA.070-HP	T63	45	80	70	DN...15 06...*	1.20	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PDF.(R/L)UA.100-HP	T100	63	120	100	DN...15 06...*	1.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

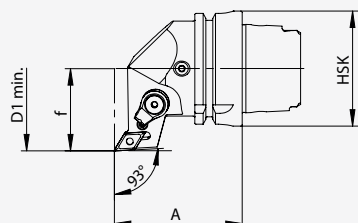
* DN...15 04... möglich mit Unterlegplatte
WDF.ER2.101.004

* DN...15 04... possible with tip pad
WDF.ER2.101.004

* DN...15 04... possible avec plateau de
support WDF.ER2.101.004



Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KDB.(R/L)JA.055-HP	T40	27	50	55	DC...11 T3...	0.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KDB.(R/L)JA.070-HP	T63	45	80	70	DC...11 T3...	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KDB.(R/L)JA.100	T100	63	120	100	DC...11 T3...	3.90	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

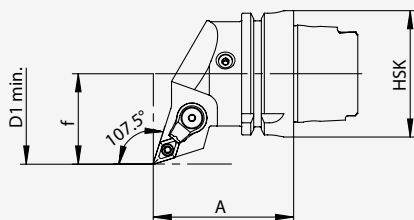


Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PDF.(R/L)JA.055-HP	T40	27	-	57	DN...15 06...*	0.35	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PDE.(R/L)JA.070-HP	T63	45	-	70	DN...11 04...	1.15	WDE.ER2.101.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000		CHPPCX.000.022
HA6.PDF.(R/L)JA.070-HP	T63	45	-	70	DN...15 06...*	1.15	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PDF.(R/L)JA.100-HP	T100	63	-	100	DN...15 06...*	4.00	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN...15 04... möglich mit Unterlegplatte
WDF.ER2.101.004

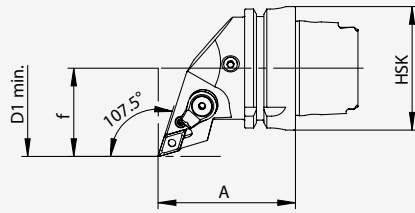
* DN...15 04... possible with tip pad
WDF.ER2.101.004

* DN...15 04... possible avec plateau de
support WDF.ER2.101.004



Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KDB.(R/L)HA.055-HP	T40	27	50	55	DC...11 T3...	0.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KDB.(R/L)HA.070-HP	T63	45	80	70	DC...11 T3...	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KDB.(R/L)HA.100	T100	63	120	100	DC...11 T3...	3.90	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

PDHN R/L 107.5°/55°



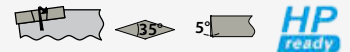
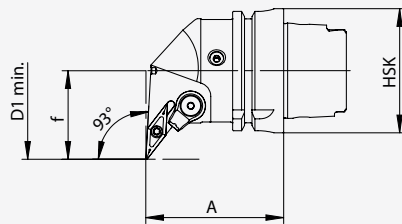
Bestell-Nr. / Order number / Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PDF.(R/L)HA.055-HP	T40	27	50	55	DN .. 15 06 .. *	0.35	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PDE.(R/L)HA.070-HP	T63	45	80	70	DN .. 11 04 ..	1.05	WDE.ER2.101.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000		CHPPCX.000.022
HA6.PDF.(R/L)HA.070-HP	T63	45	80	70	DN .. 15 06 .. *	1.05	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PDF.(R/L)HA.100-HP	T100	63	120	100	DN .. 15 06 .. *	4.10	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

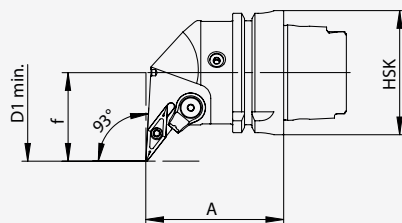
* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004

SVUB R/L 93°/35°

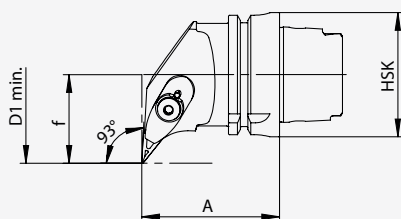


Bestell-Nr. / Order number / Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVE.(R/L)UA.055	T40	27	50	55	VB .. 11 03 ..	0.35	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	
HA4.KVF.(R/L)UA.055	T40	27	50	55	VB .. 16 04 ..	0.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA6.KVF.(R/L)UA.070-HP	T63	45	80	70	VB .. 16 04 ..	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA0.KVF.(R/L)UA.100	T100	63	120	100	VB .. 16 04 ..	4.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

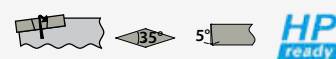
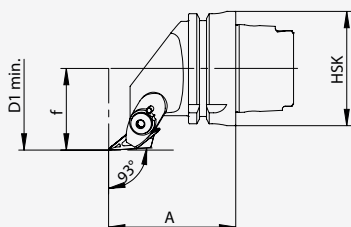
SVUC R/L 93°/35°



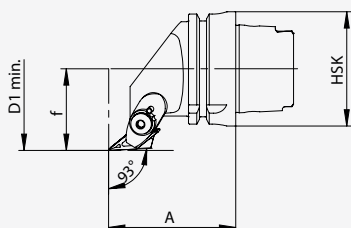
Bestell-Nr. / Order number / Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVA.(R/L)UA.055-HP	T40	27	50	55	VC .. 11 03 ..	0.35	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	CHPPCX.000.022
HA4.KVB.(R/L)UA.055-HP	T40	27	50	55	VC .. 16 04 ..	0.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA6.KVB.(R/L)UA.070	T63	45	80	70	VC .. 16 04 ..	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA0.KVB.(R/L)UA.100	T100	63	120	100	VC .. 16 04 ..	4.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	



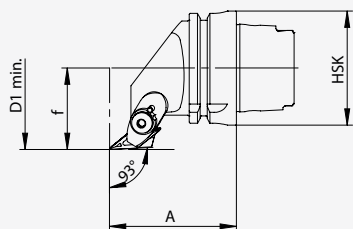
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.KVD.(R/L)UA.055	T40	27	-	55	VN..16 04..	0.35	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
HA6.KVD.(R/L)UA.070	T63	45	80	70	VN..16 04..	1.15	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
HA0.KVD.(R/L)UA.100	T100	63	120	100	VN..16 04..	4.20	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024



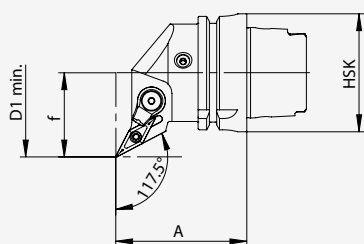
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVE.(R/L)JA.055	T40	27	50	55	VB..11 03..	0.40	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA4.KVF.(R/L)JA.060	T40	27	50	60	VB..16 04..	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA6.KVF.(R/L)JA.070	T63	45	80	71.5	VB..16 04..	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA0.KVF.(R/L)JA.100	T100	63	120	100	VB..16 04..	3.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)



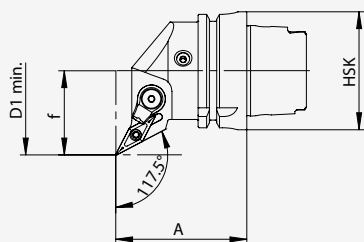
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVA.(R/L)JA.055	T40	27	50	55	VC..11 03..	0.40	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA4.KVB.(R/L)JA.060	T40	27	50	60	VC..16 04..	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA6.KVB.(R/L)JA.070	T63	45	80	71.5	VC..16 04..	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA0.KVB.(R/L)JA.100	T100	63	120	100	VC..16 04..	3.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	WCB.ER2.001.009 (3.0 Nm)

DVJN R/L 35°/93°


Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA6.KVD.(R/L)JA.070	T63	45	-	70	VN...16 04...	1.00	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
HA0.KVD.(R/L)JA.100	T100	63	-	100	VN...16 04...	3.80	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

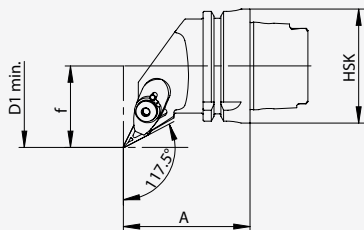
SVPB R/L 117.5°/35°


Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg				CHPPCX.000.022
HA4.KVF.(R/L)PA.055-HP	T40	27	50	55	VB...16 04...	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
HA6.KVF.(R/L)PA.070-HP	T63	45	80	70	VB...16 04...	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
HA0.KVF.(R/L)PA.100-HP	T100	63	120	100	VB...16 04...	4.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		

SVPC R/L 117.5°/35°


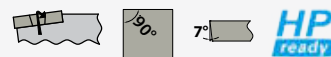
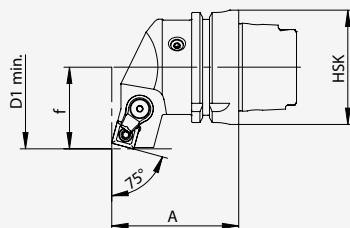
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg				CHPPCX.000.022
HA4.KVA.(R/L)PA.055	T40	27	50	55	VC...11 03...	0.40	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
HA4.KVB.(R/L)PA.055	T40	27	50	55	VC...16 04...	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
HA6.KVB.(R/L)PA.070-HP	T63	45	80	70	VC...16 04...	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
HA0.KVB.(R/L)PA.100-HP	T100	63	120	100	VC...16 04...	4.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		

DVPN R/L 117.5°/35°



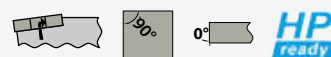
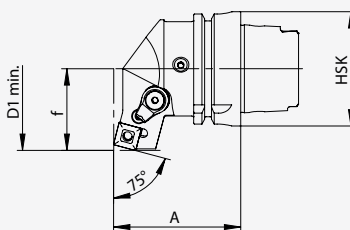
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.KVD.(R/L)PA.055-HP	T40	27	-	55	VN...16 04 ..	0.40	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
HA6.KVD.(R/L)PA.070	T63	45	80	70	VN...16 04 ..	1.00	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
HA0.KVD.(R/L)PA.100	T100	63	120	100	VN...16 04 ..	4.00	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

SSBC R/L 90°/75°



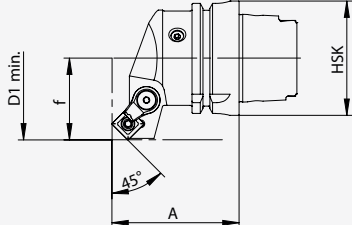
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KSB.(R/L)BA.055-HP	T40	27	-	55	SC...12 04 ..	0.35	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
HA6.KSB.(R/L)BA.070	T63	45	-	70	SC...12 04 ..	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA0.KSB.(R/L)BA.100	T100	63	-	100	SC...12 04 ..	4.15	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	

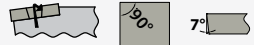
PSBN R/L 90°/75°



Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg				
HA4.PSD.(R/L)BA.055	T40	27	-	55	SN...12 04 ..	0.35	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA6.PSD.(R/L)BA.070	T63	45	-	70	SN...12 04 ..	1.00	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA0.PSD.(R/L)BA.100-HP	T100	63	-	100	SN...12 04 ..	4.15	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000

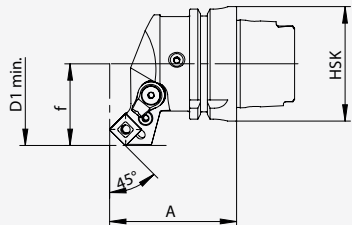
SSSC R/L 90°/45°

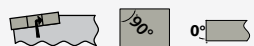




Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KSB.(R/L)SA.055	T40	27	-	55	SC...12 04...	0.40	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	
HA6.KSB.(R/L)SA.070	T63	45	-	70	SC...12 04...	1.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA0.KSB.(R/L)SA.100	T100	63	-	100	SC...12 04...	4.00	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	

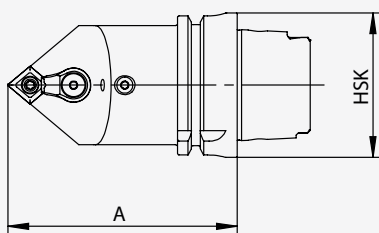
PSSN R/L 90°/45°





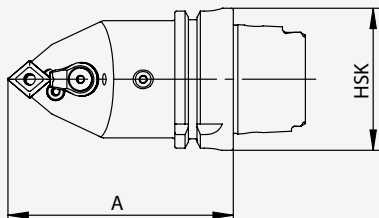
Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PSD.(R/L)SA.055	T40	27	-	55	SN...12 04...	0.40	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
HA6.PSD.(R/L)SA.070-HP	T63	45	-	70	SN...12 04...	1.00	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
HA0.PSD.(R/L)SA.100-HP	T100	63	-	100	SN...12 04...	4.00	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	

SCMC N 50°/80°/50°



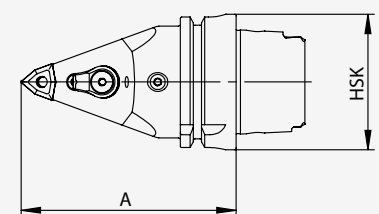
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KCB.NMA.080-HP	T40	80	CC...09 T3 ..	0.46	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA4.KCC.NMA.080-HP	T40	80	CC...12 04 ..	0.46	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
HA6.KCC.NMA.100-HP	T63	100	CC...12 04 ..	1.35	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
HA6.KCC.NMA.130-HP	T63	130	CC...12 04 ..	1.84	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
HA0.KCC.NMA.125-HP	T100	125	CC...12 04 ..	4.60	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022

PCMN N 50°/80°/50°



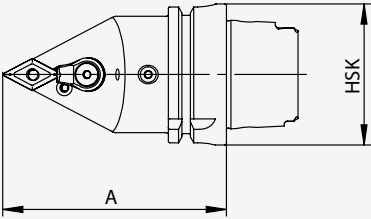
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PCD.NMA.080	T40	80	CN...12 04 ..	0.46	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
HA6.PCD.NMA.100-HP	T63	100	CN...12 04 ..	1.35	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PCD.NMA.130-HP	T63	130	CN...12 04 ..	1.84	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PCE.NMA.100-HP	T63	100	CN...16 06 ..	1.35	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022
HA6.PCE.NMA.130-HP	T63	130	CN...16 06 ..	1.84	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022
HA0.PCD.NMA.125-HP	T100	125	CN...12 04 ..	4.60	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PCE.NMA.125-HP	T100	125	CN...16 06 ..	4.60	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022

PWMC N 50°/80°/50°



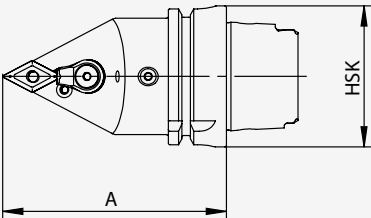
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg					
HA6.PWE.NMA.100-HP	T63	100	WN...08 04 ..	1.40	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PWE.NMA.130-HP	T63	130	WN...08 04 ..	1.80	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

SDNC N 62.5°/55°/62.5°



Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KDB.NNA.080-HP	T40	80	DC . . 11 T3 . .	0.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KDB.NNA.100-HP	T63	100	DC . . 11 T3 . .	1.40	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KDB.NNA.130-HP	T63	130	DC . . 11 T3 . .	1.80	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KDB.NNA.125-HP	T100	125	DC . . 11 T3 . .	4.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

PDNN N 62.5°/55°/62.5°



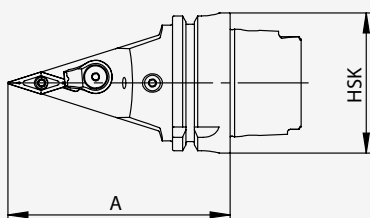
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.PDF.NNA.080-HP	T40	80	DN . . 15 06 . . *	0.40	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022
HA6.PDF.NNA.100-HP	T63	100	DN . . 15 06 . . *	1.40	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022
HA6.PDF.NNA.130-HP	T63	130	DN . . 15 06 . . *	1.80	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022
HA0.PDF.NNA.125-HP	T100	125	DN . . 15 06 . . *	4.30	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022

* DN . . 15 04 . . möglich mit Unterlegplatte
WDF.ER2.101.004

* DN . . 15 04 . . possible with tip pad
WDF.ER2.101.004

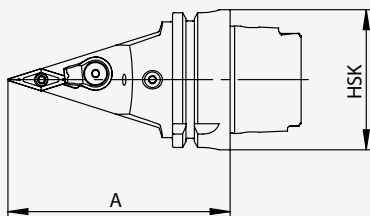
* DN . . 15 04 . . possible avec plateau de
support WDF.ER2.101.004

SVVB N 72.5°/35°/72.5°



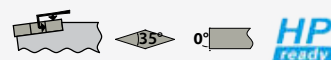
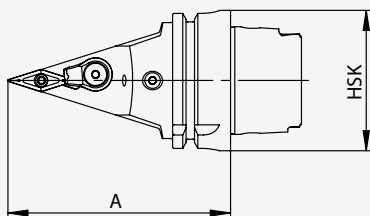
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVF.NVA.080-HP	T40	80	VB .. 16 04 ..	0.45	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA6.KVF.NVA.100-HP	T63	100	VB .. 16 04 ..	1.62	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
HA6.KVE.NVA.130-HP	T63	130	VB .. 11 03 ..	1.52	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	CHPPCX.000.022
HA6.KVF.NVA.130-HP	T63	130	VB .. 16 04 ..	1.52	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KVF.NVA.125-HP	T100	125	VB .. 16 04 ..	4.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

SVVC N 72.5°/35°/72.5°



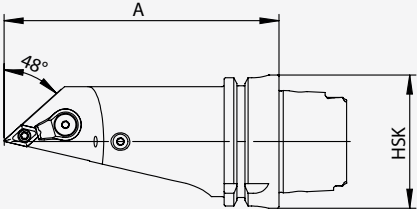
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA4.KVA.NVA.055	T40	55	VC .. 11 03 ..	0.40	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	CHPPCX.000.022
HA4.KVB.NVA.080-HP	T40	80	VC .. 16 04 ..	0.45	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KVA.NVA.100-HP	T63	100	VC .. 11 03 ..	1.24	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	CHPPCX.000.022
HA6.KVB.NVA.100-HP	T63	100	VC .. 16 04 ..	1.24	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA6.KVB.NVA.130-HP	T63	130	VC .. 16 04 ..	1.85	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KVB.NVA.125-HP	T100	125	VC .. 16 04 ..	4.00	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

DVVN N 72.5°/35°/72.5°



Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg					
HA4.KVD.NVA.080	T40	80	VN .. 16 04 ..	0.45	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024
HA6.KVD.NVA.100	T63	100	VN .. 16 04 ..	2.22	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024
HA6.KVD.NVA.130	T63	130	VN .. 16 04 ..	1.50	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024
HA0.KVD.NVA.125	T100	125	VN .. 16 04 ..	4.00	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024
HA0.KVD.NVA.180	T100	180	VN .. 16 04 ..	6.10	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

PDMN L 48° (93°)/55°



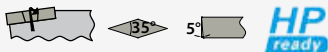
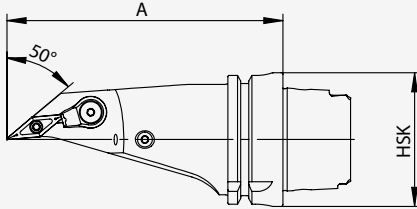
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg					
HA6.KDB.NXA.130	T63	130	DC . . 11 T3 . .	1.56	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022	WCD.ER1.101.000	CHPPCX.000.022
HA6.KDB.NXA.150	T63	150	DN . . 15 06 . . *	1.75	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA6.PDF.NXA.130-HP	T63	130	DN . . 15 06 . . *	1.56	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
HA0.PDF.NXA.125-HP	T100	125	DN . . 15 06 . . *	4.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN . . 15 04 . . möglich mit Unterlegplatte
WDF.ER2.101.004

* DN . . 15 04 . . possible with tip pad
WDF.ER2.101.004

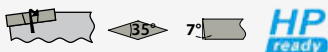
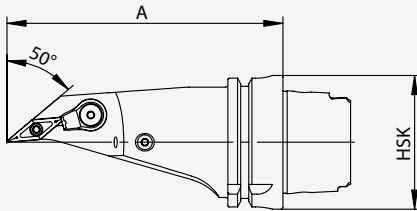
* DN . . 15 04 . . possible avec plateau de
support WDF.ER2.101.004

SVMB L 50° (95°)/35°



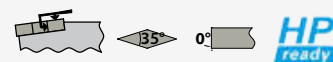
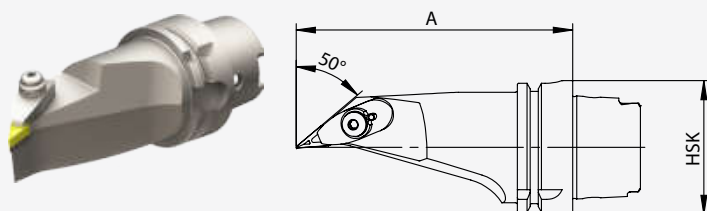
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA6.KVF.NMA.130-HP	T63	130	VB . . 16 04 . .	1.46	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
HA0.KVF.NMA.125	T100	125	VB . . 16 04 . .	3.77	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

SVMC L 50° (95°)/35°



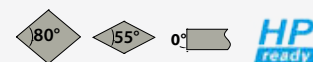
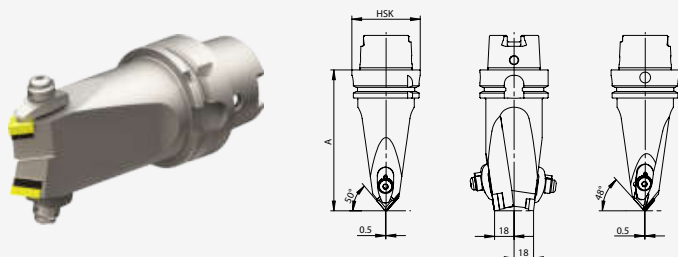
Bestell-Nr. / Order number/ Code	HSK	A	Wendeplatte/ Insert/ Plaquette	kg			
HA6.KVB.NMA.130-HP	T63	130	VC . . 16 04 . .	1.46	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

DVMN L 50° (95°)/35°



Bestell-Nr. / Order number / Code	HSK	A	Wendeplatte / Insert / Plaquette	kg					
HA6.KVD.NMA.130	T63	130	VN .. 16 04 ..	1.48	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

T DCM 50° (95°) / DDM 48° (93°)



Bestell-Nr. / Order number / Code	HSK	A	Wendeplatte / Insert / Plaquette	kg					
HA6.KCD.NXD.130	T63	130	DN .. 15 06 .. * CN .. 12 04 ..	1.75	WDF.ER2.101.003 WCD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024 WCC.ER3.102.024

* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

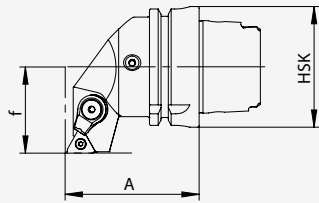
* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004

Aussengewinde radial

External thread radial

Filet extérieur radial

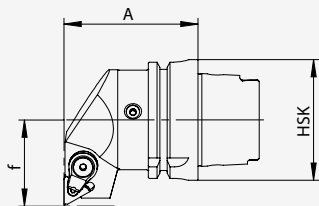


Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	R/L	Wendeplatte/ Insert/ Plaquette	kg				
HA4.KGB.RGR.055	T40	27	-	55	R	16 ER	0.34	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA4.KGB.LGR.055	T40	27	-	55	L	16 EL	0.34	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA6.KGB.RGR.070	T63	45	-	70	R	16 ER	1.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA6.KGB.LGR.070	T63	45	-	70	L	16 EL	1.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA0.KGB.RGR.100	T100	63	-	100	R	16 ER	4.29	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA0.KGB.LGR.100	T100	63	-	100	L	16 EL	4.29	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA0.KGC.RGR.100	T100	63	-	100	R	22 ER	4.29	WGC.ER1.001.000	WGC.ER2.001.015 (3.0 Nm)	WGC.ER2.102.004	WGC.ER3.001.009 (2.0 Nm)
HA0.KGC.LGR.100	T100	63	-	100	L	22 EL	4.29	WGC.ER1.001.000	WGC.ER2.001.015 (3.0 Nm)	WGC.ER2.102.004	WGC.ER3.001.009 (2.0 Nm)

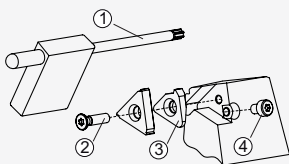
Aussengewinde axial

External thread axial

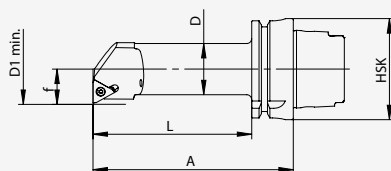
Filet extérieur axial



Bestell-Nr. / Order number/ Code	HSK	f	D1 min.	A	R/L	Wendeplatte/ Insert/ Plaquette	kg				
HA4.KGB.RGA.055	T40	27	-	55	R	16 EL	0.36	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA4.KGB.LGA.055	T40	27	-	55	L	16 ER	0.36	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA6.KGB.RGA.070	T63	45	-	70	R	16 EL	1.14	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA6.KGB.LGA.070	T63	45	-	70	L	16 ER	1.14	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA0.KGB.RGA.100	T100	63	-	100	R	16 EL	4.46	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA0.KGB.LGA.100	T100	63	-	100	L	16 ER	4.46	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)



Für Gewindehalter For thread tool	Typ/ Type	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
		Torx-Schlüssel/ Torx driver	Torx-Schraube Torx screw	Zwischenlage/ Tip pad	Schraube/ Screw
xxx.KGB.RGR.xxx	G01	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
xxx.KGB.LGR.xxx	G02	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
xxx.xGB.RGA.xxx	G03	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
xxx.xGB.LGA.xxx	G04	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)

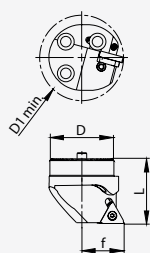


Bestell-Nr. / Order number/ Code	HSK	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
HA4.BGB.RGA.110	T40	17	25	32	110	90	16 IR	0.49	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA4.BGB.LGA.110	T40	17	25	32	110	90	16 IL	0.49	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA6.BGB.RGA.125	T63	22	32	40	125	99	16 IR	1.17	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA6.BGB.LGA.125	T63	22	32	40	125	99	16 IL	1.17	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA6.BGB.RGA.140	T63	27	40	50	140	114	16 IR	1.60	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA6.BGB.LGA.140	T63	27	40	50	140	114	16 IL	1.60	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
HA0.BGB.RGA.150	T100	27	40	50	150	121	16 IR	2.98	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
HA0.BGB.LGA.150	T100	27	40	50	150	121	16 IL	2.98	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)

Wechselschneidköpfe für Innengewinde

Exchangeable cutting heads for Internal thread

Têtes de coupe interchangeables pour le filetage interne



Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
WK5.BGB.RGY.020	16	22	12	20	16 IR	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
WK5.BGB.LGY.020	16	22	12	20	16 IL	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
WK4.BGB.RGZ.025	20	25	14	25	16 IR	0.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)		
WK4.BGB.LGZ.025	20	25	14	25	16 IL	0.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)		
WK3.BGB.RGA.035	25	32	17	35	16 IR	0.10	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK3.BGB.LGA.035	25	32	17	35	16 IL	0.10	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
WK2.BGB.RGB.035	32	40	22	40	16 IR	0.18	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK2.BGB.LGB.035	32	40	22	40	16 IL	0.18	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
WK1.BGB.RGC.040	40	50	27	40	16 IR	0.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK1.BGB.LGC.040	40	50	27	40	16 IL	0.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)

Bohrstangen mit Wechselschneidköpfen

- für effiziente Drehbearbeitung
- optimale Kühlung durch ausgerichtete Kühldüse und Hochdruckkühldüse

Boring bars with exchangeable cutting heads

- to turn efficiently
- optimal cooling by adjusted cooling nozzle and high pressure cooling nozzle

Barres d'alésage avec têtes de coupe interchangeables

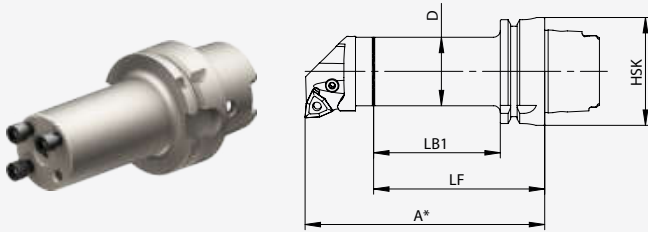
- pour des opérations de tournage efficaces
- arrosage optimal par des buses d'arrosage fixes High Pressure



Bohrstangenschäfte

Boring bar shanks

Barres d'alésage



Bestell-Nr. / Order number/ Code	HSK	D	A*	LF	LB1	kg	
HA4.WK3.025.090	T40	25	90	55	35	0.32	NI4.762.004.012
HA4.WK3.025.110	T40	25	110	75	55	0.39	NI4.762.004.012
HA4.WK2.032.115	T40	32	115	80	60	0.55	NI4.762.004.012
HA4.WK1.040.120	T40	40	120	80	-	0.71	NI4.762.005.014
HA6.WK5.016.076	T63	16	76	56	36	0.80	NI4.762.003.010
HA6.WK4.020.100	T63	20	100	80	60	0.80	NI4.762.035.012
HA6.WK3.025.105	T63	25	105	80	44	0.80	NI4.762.004.012
HA6.WK2.032.125	T63	32	125	100	64	1.05	NI4.762.005.014
HA6.WK2.032.160	T63	32	160	125	99	1.23	NI4.762.005.014
HA6.WK1.040.140	T63	40	140	100	74	1.34	NI4.762.006.016
HA6.WK1.040.180	T63	40	180	140	114	1.71	NI4.762.006.016
HA0.WK2.032.160	T100	32	160	125	95	2.55	NI4.762.005.014
HA0.WK1.040.110	T100	40	110	70	41	2.38	NI4.762.006.016
HA0.WK1.040.180	T100	40	180	140	111	3.05	NI4.762.006.016

Bohrstangenschäfte mit Zylinderschaft

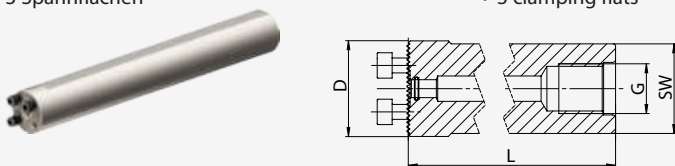
- Anschlussgewinde für Innenkühlung
- 3 Spannflächen

Boring bar shanks with cylindrical shank

- with thread for inner coolant supply
- 3 clamping flats

Barres d'alésage avec tige cylindrique

- Filet pour l'arrosage interne
- 3 surfaces de serrage

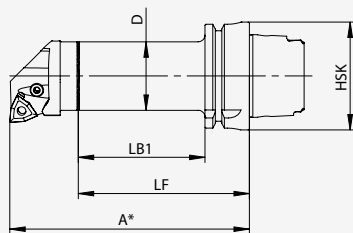


Bestell-Nr. / Order number/ Code	D	L	SW	G	kg	
U25.WK3.025.200	25	200	23	G1/4	0.65	NI4.762.004.012
U32.WK2.032.218	32	218	30	G3/8	1.22	NI4.762.005.014
U40.WK1.040.283	40	283	37	G1/2	2.46	NI4.762.006.016

**Schwingungsgedämpfte
Bohrstangenschäfte (HM-Kern)**

**Damped
boring bar shanks (carbide core)**

**Tiges de barres
d'alésage anti-vibrations**

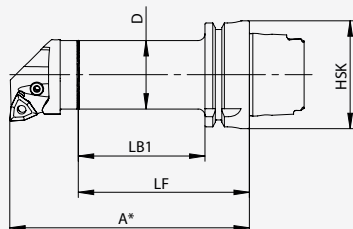


Bestell-Nr. / Order number/ Code	HSK		D	A*	LF	LB1	kg	
HA6.WK3.025.150	T63		25	150	115	89	0.98	NI4.762.004.012
HA6.WK2.032.185	T63		32	185	150	124	1.76	NI4.762.005.014
HA6.WK1.040.225	T63		40	225	185	159	2.20	NI4.762.006.016

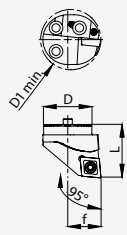
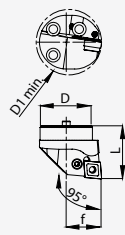
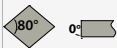
**Schwingungsgedämpfte
Bohrstangenschäfte
Tilgersystem / Massendämpfer**

**Damped
boring bar shanks
Tilger system / Mass damper**

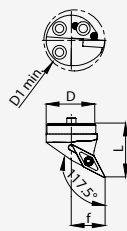
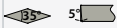
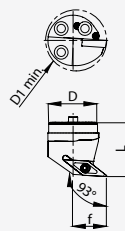
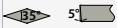
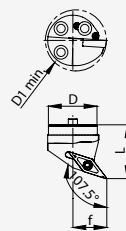
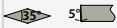
**Tiges de barres
d'alésage anti-vibrations
Système Tilger / Amortisseur masse**



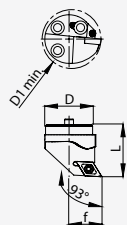
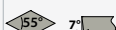
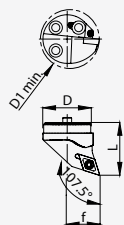
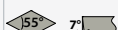
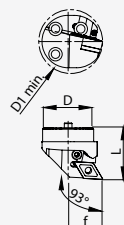
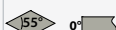
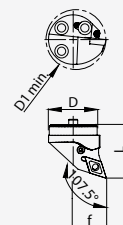
Bestell-Nr. / Order number/ Code	HSK		D	A*	LF	LB1	kg	
HA6.WK5.WD0.110	T63		16	110	90	64	1.01	NI4.762.003.010
HA6.WK4.WD1.126	T63		20	126	106	80	1.00	NI4.762.035.012
HA6.WK3.WD2.161	T63		25	161	126	100	1.50	NI4.762.004.012
HA6.WK3.WD2.186	T63		25	186	151	125	1.60	NI4.762.004.012
HA6.WK2.WD3.189	T63		32	189	154	128	1.80	NI4.762.005.014
HA6.WK2.WD3.221	T63		32	221	186	160	2.22	NI4.762.005.014
HA6.WK1.WD4.226	T63		40	226	186	160	2.60	NI4.762.006.016
HA6.WK1.WD4.266	T63		40	266	226	200	3.95	NI4.762.006.016

SCLC R/L $K_r 95^\circ (-5^\circ)$ **PCLN R/L** $K_r 95^\circ (-5^\circ)$ 

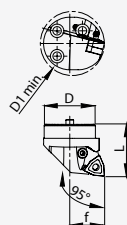
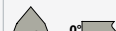
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
SCLCR/L	WK5.BCA.(R/L)LY.020	16	20	11	20	CC...06 02..	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
SCLCR/L	WK4.BCB.(R/L)LZ.020	20	25	13	20	CC...09 T3..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SCLCR/L	WK3.BCB.(R/L)LA.035	25	32	17	35	CC...09 T3..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SCLCR/L	WK3.BCC.(R/L)LA.035	25	32	17	35	CC...12 04..	0.10	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
SCLCR/L	WK2.BCC.(R/L)LB.035	32	40	22	35	CC...12 04..	0.20	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
SCLCR/L	WK1.BCC.(R/L)LC.040	40	50	27	40	CC...12 04..	0.30	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
											
PCLN R/L	WK3.PCD.(R/L)LA.035	25	32	17	35	CN...12 04..	0.10	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PCLN R/L	WK2.PCD.(R/L)LB.035	32	40	22	35	CN...12 04..	0.20	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PCLN R/L	WK1.PCD.(R/L)LC.040	40	50	27	40	CN...12 04..	0.30	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000

SVPB R/L $K_r 117.5^\circ (-27.5^\circ)$ **SVUB R/L** $K_r 93^\circ (-3^\circ)$ **SVQB R/L** $K_r 107.5^\circ (-17.5^\circ)$ 

Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg		
SVPB R/L	WK3.BVE.(R/L)PA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVPB R/L	WK2.BVF.(R/L)PB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVPB R/L	WK1.BVF.(R/L)PC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK4.BVE.(R/L)UZ.020	20	27	16	20	VB...11 03..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK3.BVE.(R/L)UA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK2.BVF.(R/L)UB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK1.BVF.(R/L)UC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK4.BVE.(R/L)QZ.020	20	27	15	20	VB...11 03..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK3.BVE.(R/L)QA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK2.BVF.(R/L)QB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK1.BVF.(R/L)QC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)

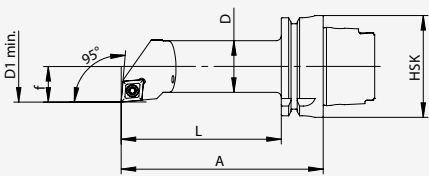
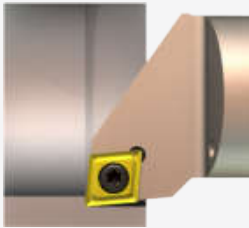
SDUC R/L $K_r 93^\circ (-3^\circ)$ **SDQC R/L** $K_r 107.5^\circ (-17.5^\circ)$ **PDUN R/L** $K_r 93^\circ (-3^\circ)$ **PDQN R/L** $K_r 107.5^\circ (-17.5^\circ)$ 

Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
SDUC R/L	WK5.BDA.(R/L)UY.020	16	20	11	20	DC...07 02...	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
SDUC R/L	WK4.BDB.(R/L)UZ.020	20	25	13	20	DC...11 T3...	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK3.BDB.(R/L)UA.035	25	32	17	35	DC...11 T3...	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK2.BDB.(R/L)UB.035	32	40	22	35	DC...11 T3...	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK1.BDB.(R/L)UC.040	40	50	27	40	DC...11 T3...	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK4.BDB.(R/L)QZ.020	20	25	13	20	DC...11 T3...	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK3.BDB.(R/L)QA.035	25	32	17	35	DC...11 T3...	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK2.BDB.(R/L)QB.035	32	40	22	35	DC...11 T3...	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK1.BDB.(R/L)QC.040	40	50	27	40	DC...11 T3...	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
											
PDUN R/L	WK3.PDE.(R/L)UA.035	25	32	17	35	DN...11 04...	0.10	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK2.PDE.(R/L)UB.035	32	40	22	35	DN...11 04...	0.20	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK1.PDE.(R/L)UC.040	40	50	27	40	DN...11 04...	0.30	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK2.PDF.(R/L)UB.035	32	40	22	35	DN...15 06...	0.20	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PDUN R/L	WK1.PDF.(R/L)UC.040	40	50	27	40	DN...15 06...	0.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PDQN R/L	WK3.PDE.(R/L)QA.035	25	32	17	35	DN...11 04...	0.10	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDQN R/L	WK2.PDE.(R/L)QB.035	32	40	22	35	DN...11 04...	0.20	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDQN R/L	WK1.PDE.(R/L)QC.040	40	50	27	40	DN...11 04...	0.30	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000

PWLN R/L $K_r 95^\circ (-5^\circ)$ 

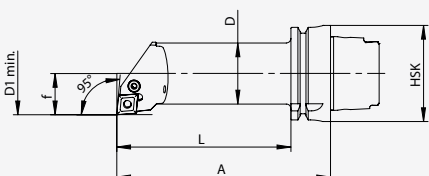
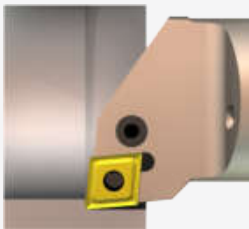
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
PWLN R/L	WK2.PWE.(R/L)LB.035	32	40	22	35	WN...08 04...	0.20	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PWLN R/L	WK1.PWE.(R/L)LC.040	40	50	27	40	WN...08 04...	0.30	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000

SCLC R/L 95°/80°



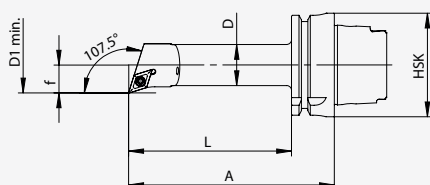
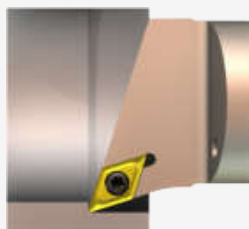
Bestell-Nr. / Order number/ Code	HSK	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg		
HA4.BCC.(R/L)LA.110	T40	17	25	32	110	90	CC...12 04...	0.45	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
HA4.BCC.(R/L)LA.140	T40	17	25	32	140	120	CC...12 04...	1.54	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
HA6.BCC.(R/L)LB.125	T63	22	32	40	125	99	CC...12 04...	1.12	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
HA6.BCC.(R/L)LB.160	T63	22	32	40	160	134	CC...12 04...	1.33	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
HA6.BCC.(R/L)LC.140	T63	27	40	50	140	114	CC...12 04...	1.54	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
HA6.BCC.(R/L)LC.180	T63	27	40	50	180	154	CC...12 04...	1.90	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)

PCLN R/L 95°/80°



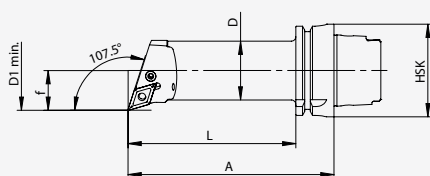
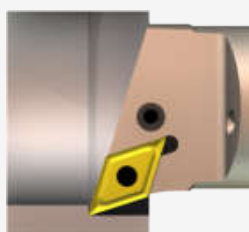
Bestell-Nr. / Order number/ Code	HSK	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
HA6.PCD.(R/L)LC.140	T63	27	40	50	140	114	CN...12 04...	1.56	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA6.PCD.(R/L)LC.180	T63	27	40	50	180	154	CN...12 04...	1.94	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA0.PCD.(R/L)LC.150	T100	27	40	50	150	121	CN...12 04...	2.94	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA0.PCD.(R/L)LC.200	T100	27	40	50	200	171	CN...12 04...	3.39	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA0.PCD.(R/L)LD.150	T100	35	50	63	150	121	CN...12 04...	3.52	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
HA0.PCD.(R/L)LD.200	T100	35	50	63	200	171	CN...12 04...	4.24	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000

SDQC R/L 107.5°/55°



Bestell-Nr. / Order number/ Code	HSK	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg		
HA4.BDB.(R/L)LA.110	T40	17	25	32	110	90	DC...11 T3...	0.46	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
HA4.BDB.(R/L)LA.140	T40	17	25	32	140	120	DC...11 T3...	0.48	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
HA6.BDB.(R/L)QB.125	T63	22	32	40	125	99	DC...11 T3...	1.12	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
HA6.BDB.(R/L)QB.160	T63	22	32	40	160	134	DC...11 T3...	1.32	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
HA6.BDB.(R/L)QC.140	T63	27	40	50	140	114	DC...11 T3...	1.54	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
HA6.BDB.(R/L)QC.180	T63	27	40	50	180	154	DC...11 T3...	1.92	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)

PDQN R/L 107.5°/55°

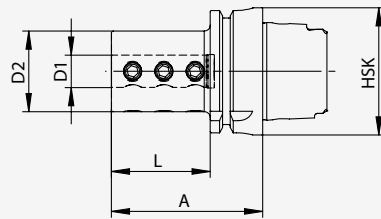


Bestell-Nr. / Order number/ Code	HSK	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
HA6.PDF.(R/L)QC.140	T63	27	40	50	140	114	DN...15 06...*	1.56	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
HA6.PDF.(R/L)QC.180	T63	27	40	50	180	154	DN...15 06...*	1.94	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
HA0.PDF.(R/L)QC.150	T100	27	40	50	150	121	DN...15 06...*	2.94	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
HA0.PDF.(R/L)QC.200	T100	27	40	50	200	171	DN...15 06...*	3.40	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
HA0.PDF.(R/L)QD.150	T100	35	50	63	150	121	DN...15 06...*	3.50	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
HA0.PDF.(R/L)QD.200	T100	35	50	63	200	171	DN...15 06...*	4.23	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000

* DN...15 04... möglich mit Unterlegplatte
WDF.ER2.101.004

* DN...15 04... possible with tip pad
WDF.ER2.101.004

* DN...15 04... possible avec plateau de
support WDF.ER2.101.004

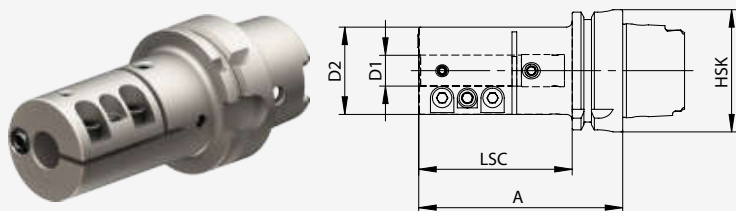


Bestell-Nr. / Order number/ Code	HSK	D1	D2	A	L	kg		
HA4.B06.K01.055	T40	6	34	55	35	0.4	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
HA4.B08.K01.055	T40	8	34	55	35	0.38	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA4.B10.K01.055	T40	10	34	55	35	0.37	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA4.B12.K01.055	T40	12	36	55	35	0.36	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA4.B16.K01.070	T40	16	40	70	50	0.4	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA4.B20.K01.085	T40	20	44	85	65	0.71	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA4.B25.So1.070	T40	25	50	85	-	0.60	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA6.B06.K01.060	T63	6	34	60	34	0.86	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
HA6.B08.K01.060	T63	8	34	60	34	0.86	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA6.B10.K01.060	T63	10	34	60	34	0.86	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA6.B12.K01.060	T63	12	36	60	34	0.85	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA6.B16.K01.075	T63	16	40	75	49	0.99	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA6.B20.K01.075	T63	20	44	75	49	1.05	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA6.B25.K01.075	T63	25	50	75	49	1.2	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA6.B32.K01.090	T63	32	56	90	64	1.36	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA6.B40.K01.090	T63	40	63	90	64	1.37	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA0.B06.K01.070	T100	6	34	70	41	2.26	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
HA0.B08.K01.070	T100	8	34	70	41	2.24	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA0.B10.K01.070	T100	10	34	70	41	2.36	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA0.B12.K01.070	T100	12	36	70	41	2.38	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
HA0.B16.K01.085	T100	16	40	85	56	2.41	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA0.B20.K01.085	T100	20	44	85	56	2.49	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA0.B25.K01.085	T100	25	50	85	56	2.6	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA0.B32.K01.100	T100	32	56	100	71	2.89	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
HA0.B40.K01.100	T100	40	63	100	71	3.02	ERU.GS6.001.012 (15.0 Nm)	M10 x 12

Schwingungsgedämpfte Bohrstangenhalter

Damped Boring bar holder

Tiges de porte-outils d'alésage anti-vibrations



Bestell-Nr. / Order number/ Code	HSK	D1	D2	A	LSC	kg					
HA6.B10.K21.105	T63	10	45	105	65	1.48	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010
HA6.B12.K21.105	T63	12	45	105	65	1.46	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010
HA6.B16.K21.105	T63	16	45	105	75	1.41	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010
HA6.B20.K21.105	T63	20	55	105	80	1.76	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010
HA6.B25.K21.105	T63	25	55	105	80	1.66	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010
HA6.B32.K21.105	T63	32	65	105	80	1.66	NI4.027.006.016	NI4.028.008.016	NI4.028.010.016	NI4.762.006.016	KU1.U12.002.010

- mehr Stabilität und schwingungsdämpfende Wirkung durch Umschlingung der Bohrstange

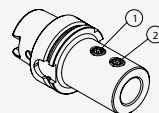
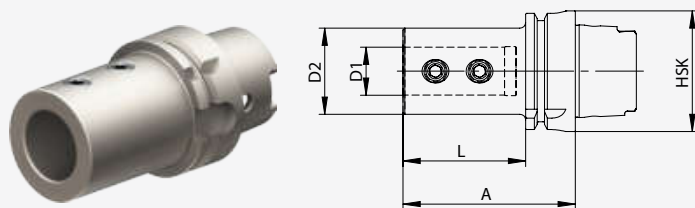
- more stability and vibration dampening effect by wrapping around the boring bar

- * plus de stabilité et un effet d'amortissement des vibrations en s'enroulant autour de la barre d'alésage

Werkzeughalter für Wendeplattenbohrer

Toolholder for indexable insert drills

Porte-outils pour fraises à plaquettes indexables



Bestell-Nr. / Order number / Code	HSK	D1	D2	A	L	kg	①	②
HA6.K20.K01.080	T63	20	40	80	48	1.03	K20.ER1.010.012	K20.ER2.010.014
HA6.K25.K01.090	T63	25	45	90	50	1.2	K20.ER1.010.012	K20.ER2.010.014
HA6.K32.K01.090	T63	32	52	90	53	1.3	K32.ER1.012.012	K32.ER2.012.014
HA6.K40.K01.105	T63	40	60	105	-	1.54	K40.ER1.016.012	K40.ER2.016.014
HA0.K20.K01.090	T100	20	40	90	48	2.60	K20.ER1.010.012	K20.ER2.010.014
HA0.K25.K01.095	T100	25	45	95	50	2.70	K20.ER1.010.012	K20.ER2.010.014
HA0.K32.K01.100	T100	32	52	100	53	2.80	K32.ER1.012.012	K32.ER2.012.014
HA0.K40.K01.110	T100	40	60	110	-	3.00	K40.ER1.016.012	K40.ER2.016.014

- zum Spannen von Zylinderschäften nach DIN 6595-1 / ISO 9766

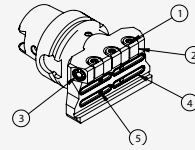
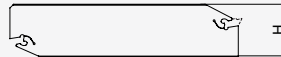
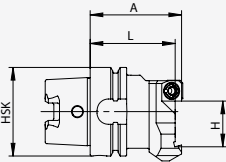
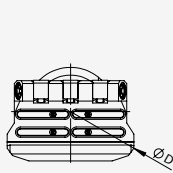
- to clamp cylindrical shanks DIN 6595-1 / ISO 9766

- * pour le serrage de tiges cylindriques selon DIN 6595-1 / ISO 9766

Abstechhalter radial mit ECO / Direct Coolant

Cut-off block radial with ECO / direct coolant

Bloc de tronçonnage radial ECO / direct coolant



Bestell-Nr. / Order number/ Code	HSK	A	H	L	ØD	rechts/links right/left droite/gauche	kg	1	2	3	4	5
HA4.AE2.N11.065-HP	T40	65	26	60.5	90	R/L	0.95	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
HA6.AE3.N11.065-HP	T63	65	32	60.5	100	R/L	1.50	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

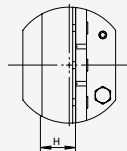
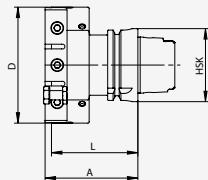
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

Abstechhalter radial

Cut-off block radial

Bloc de tronçonnage radial



Bestell-Nr. / Order number/ Code	HSK	A	H	L	ØD	rechts/links right/left droite/gauche	kg	
HA4.AM2.K11.075	T40	75	26	70	100	R/L	1.33	NI4.762.006.016
HA6.AM3.K11.080	T63	80	32	75	100	R/L	3.25	NI4.762.006.016
HA0.AM3.K11.085	T100	85	32	80	100	R/L	4.50	NI4.762.006.016

- zur Aufnahme von Stechschwertern
- mit Innenkühlung

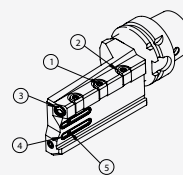
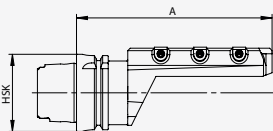
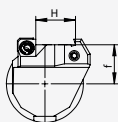
- to hold cut-off blades
- with inner coolant supply t

- pour tenir les lames de coupe
- avec arrosage interne

Abstechhalter axial mit ECO / Direct Coolant

Cut-off block axial with ECO / direct coolant

Bloc de tronçonnage axial ECO / direct coolant



Bestell-Nr. / Order number / Code	HSK	f	A	H	ØD	rechts/links right/left droite/gauche	kg	1	2	3	4	5
HA4.AE2.R11.122-HP	T40	21	122	26	80	R	0.95	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
HA4.AE2.L11.122-HP	T40	21	122	26	80	L	0.95	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
HA6.AE3.R11.160-HP	T63	22	160	32	105	R	2.10	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004
HA6.AE3.L11.160-HP	T63	22	160	32	105	L	2.1	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

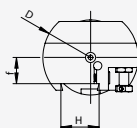
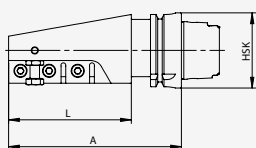
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

Abstechhalter axial mit ECO / Direct Coolant

Cut-off block axial with ECO / direct coolant

Bloc de tronçonnage axial ECO / direct coolant



Bestell-Nr. / Order number / Code	HSK	f	A	H	L	ØD	rechts/links right/left droite/gauche	kg	
HA6.AM3.K11.145	T63	22	145	32	105	80	R	3.30	NI4.762.006.016
HA6.AM3.K12.145	T63	22	145	32	105	80	L	3.30	NI4.762.006.016
HA0.AM3.K11.150	T100	30	150	32	105	90	R	6.90	NI4.762.006.016
HA0.AM3.K12.150	T100	30	150	32	105	90	L	6.90	NI4.762.006.016

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

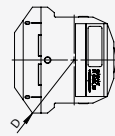
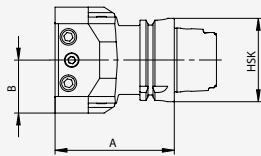
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

**Werkzeughalter radial
mit ECO / Direct Coolant**

**Tool holder radial
with ECO / direct coolant**

**Porte-outil radial
ECO / direct coolant**



Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	D	kg					
HA6.V2X.N11.090-HP	T63	40	25x25 20x20*	90	102	2.60	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.055	V2X.ER1.025.080	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

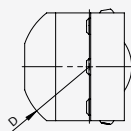
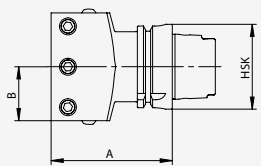
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter radial

Tool holder radial

Porte-outil radial

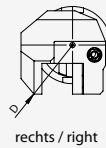
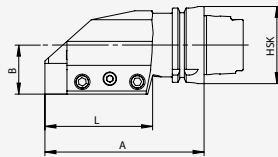


Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	D	kg		
HA4.V20.N11.075	T40	30	20x20	75	80	0.87	NI4.026.010.020	KU1.U12.001.010
HA6.V20.N11.090	T63	30	20x20	90	80	1.16	NI4.026.010.020	KU1.U12.001.010
HA6.V25.N11.090	T63	40	25x25	90	102	1.16	NI4.026.012.020	KU1.U12.001.010
HA0.V25.N11.100	T100	50	25x25	100	122	1.55	NI4.026.010.020	KU1.U12.001.010
HA0.V32.N11.100	T100	50	32x32	100	122	2.31	NI4.026.012.025	KU1.U12.001.010

**Werkzeughalter axial
mit ECO / Direct Coolant**

**Tool holder axial
with ECO / direct coolant**

**Porte-outil axial
ECO / direct coolant**



Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	L	ØD	kg					
HA6.V2X.(R/L)11.130-HP	T63	40	25x25 20x20*	130	88	100	2.60	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.066	V2X.ER2.025.082(R) V2X.ER1.025.082(L)	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

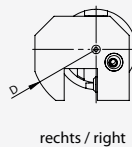
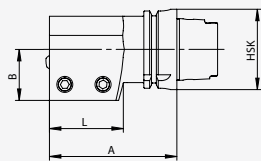
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter axial

Tool holder axial

Porte-outil axial

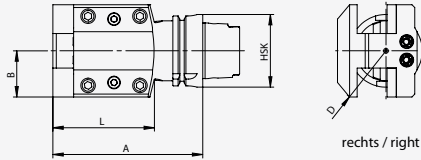


Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	L	ØD	kg		
HA4.V16.(R/L)11.080	T40	30	16x16	80	40	80	1.04	NI4.026.010.020	KU1.U12.001.010
HA4.V20.(R/L)11.080	T40	30	20x20	80	45	80	1.04	NI4.026.012.025	KU1.U12.001.010
HA6.V20.(R/L)11.090	T63	30	20x20	90	45	80	1.68	NI4.026.010.020	KU1.U12.001.010
HA6.V25.(R/L)11.100	T63	40	25x25	100	58	102	1.68	NI4.026.010.020	KU1.U12.001.010
HA0.V25.(R/L)11.125	T100	50	25x25	125	80	122	2.20	NI4.026.010.020	KU1.U12.001.010
HA0.V32.(R/L)11.125	T100	50	32x32	125	80	122	3.47	NI4.026.012.030	KU1.U12.001.010

**Werkzeughalter axial doppelt
mit ECO / Direct Coolant**

**Tool holder axial double
with ECO / direct coolant**

**Porte-outil axial double
ECO / direct coolant**



Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	L	ØD	kg					
HA6.V2X.R21.130-HP	T63	40	25x25 20x20*	130	88	100	2.90	CU1.U12.002.010	V2X.ER1.025.066	V2X.ER2.025.082(R) V2X.ER1.025.082(L)	NI4.762.006.016	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

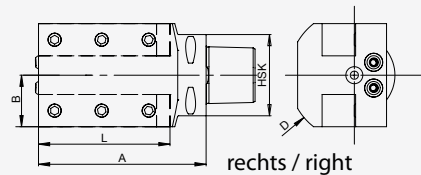
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter axial doppelt

Tool holder axial double

Porte-outil axial double

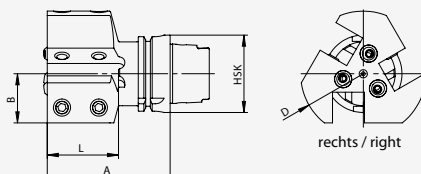


Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	L	ØD	kg		
HA4.V20.R21.080	T40	30	20x20	80	45	80	1.14	NI4.026.010.020	KU1.U12.001.010
HA6.V20.R21.090	T63	30	20x20	90	45	80	1.95	NI4.026.010.020	KU1.U12.001.010
HA6.V25.R21.100	T63	40	25x25	100	58	102	3.22	NI4.026.010.025	KU1.U12.001.010
HA0.V25.R21.125	T100	50	25x25	125	80	122	6.78	NI4.026.012.025	KU1.U12.001.010
HA0.V32.R21.125	T100	50	32x32	125	80	122	6.45	NI4.026.012.025	KU1.U12.001.010

Werkzeughalter axial dreifach

Tool holder axial triple

Porte-outil axial triple

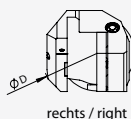
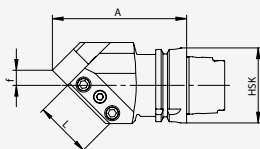


Bestell-Nr. / Order number/ Code	HSK	B	Vier- kant Square	A	L	ØD	kg		
HA6.V20.R31.090	T63	30	20x20	90	45	90	1.90	NI4.026.010.025	KU1.U12.001.010
HA6.V25.R31.100	T63	40	25x25	100	58	102	2.85	NI4.026.012.020	KU1.U12.001.010
HA0.V25.R31.125	T100	50	25x25	125	80	122	7.30	NI4.026.012.020	KU1.U12.001.010

**Werkzeughalter diagonal 45°
mit ECO / Direct Coolant**

**Tool holder diagonal 45°
with ECO / direct coolant**

**Porte-outil diagonal 45°
ECO / direct coolant**



Bestell-Nr. / Order number / Code	HSK	f	Vier- kant Square	A	ØD	R/L	kg					
HA6.V2X.R12.110-HP	T63	15	25x25 20x20*	110	94	R	1.87	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.061	V2X.ER2.025.079	NI4.762.006.016
HA6.V2X.L12.110-HP	T63	15	25x25 20x20*	110	94	L	1.87	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.061	V2X.ER2.025.079	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

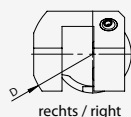
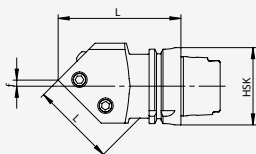
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter diagonal 45°

Tool holder diagonal 45°

Porte-outil diagonal 45°

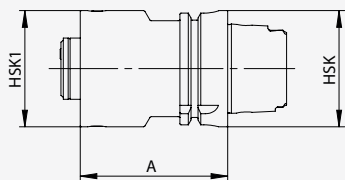


Bestell-Nr. / Order number / Code	HSK	f	Vier- kant Square	A	ØD	R/L	kg		
HA4.V20.R12.080	T40	5	20x20	80	80	R	0.84	NI4.026.010.025	KU1.U12.001.010
HA4.V20.L12.080	T40	5	20x20	80	80	L	0.84	NI4.026.010.025	KU1.U12.001.010
HA6.V20.R12.100	T63	5	20x20	100	80	R	1.80	NI4.026.010.025	KU1.U12.001.010
HA6.V20.L12.100	T63	5	20x20	100	80	L	1.80	NI4.026.010.025	KU1.U12.001.010
HA6.V25.R12.100	T63	5	25x25	100	102	R	2.10	NI4.026.010.025	KU1.U12.001.010
HA6.V25.L12.100	T63	5	25x25	100	102	L	2.10	NI4.026.010.025	KU1.U12.001.010
HA0.V25.R12.125	T100	5	25x25	125	122	R	5.60	NI4.026.010.025	KU1.U12.001.010
HA0.V25.L12.125	T100	5	25x25	125	122	L	5.60	NI4.026.010.025	KU1.U12.001.010

Verlängerung

Extension

Extension

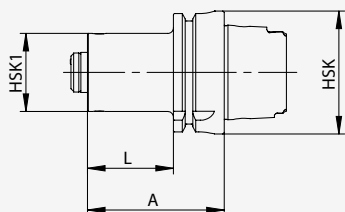


Bestell-Nr. / Order number/ Code	HSK	HSK 1	A	kg	Dichtring / Sealing ring	Spannpatrone / Clamping cartridge	Verschlusschraube / Drive bolt
HA4.HA4.K01.060	T40	T40	60	0.50	HA4.ER4.004.006	HA4.ER1.001.000	HA4.ER2.001.005
HA4.HA4.K01.080	T40	T40	80	0.70	HA4.ER4.004.006	HA4.ER1.001.000	HA4.ER2.001.005
HA6.HA6.K01.080	T63	T63	80	1.70	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA6.HA6.K01.120	T63	T63	120	2.65	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA6.HA6.K01.240	T63	T63	240	5.20	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA6.HA6.K01.280	T63	T63	280	6.20	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA6.HA6.K01.350	T63	T63	350	7.80	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA0.HA0.K01.125	T100	T100	125	6.90	HA0.ER4.004.010	HA0.ER1.001.000	HA0.ER2.001.000
HA0.HA0.K01.160	T100	T100	160	9.00	HA0.ER4.004.010	HA0.ER1.001.000	HA0.ER2.001.000
HA0.HA0.K01.200	T100	T100	200	10.30	HA0.ER4.004.010	HA0.ER1.001.000	HA0.ER2.001.000

Reduktion

Reduction

Réduction

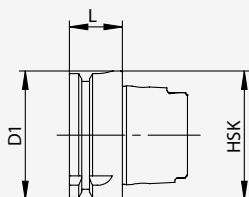


Bestell-Nr. / Order number/ Code	HSK	HSK 1	L	A	kg	Dichtring / Sealing ring	Spannpatrone / Clamping cartridge	Verschlusschraube / Drive bolt
HA6.HA4.K01.070	T63	T40	44	70	1.20	HA4.ER4.004.006	HA4.ER1.001.000	HA4.ER2.001.005
HA0.HA4.K01.080	T100	T40	51	80	2.60	HA4.ER4.004.006	HA4.ER1.001.000	HA4.ER2.001.005
HA0.HA6.K01.100	T100	T63	71	100	3.60	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
HA0.HA6.K01.150	T100	T63	121	150	4.30	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007

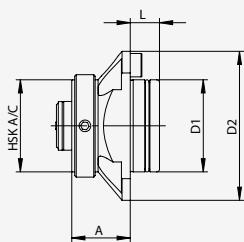
Trennstellenverschluss

Blanking plug

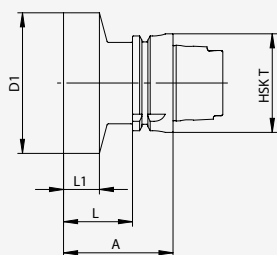
Bouchon d'ébauche



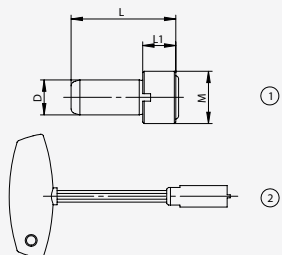
Bestell-Nr. / Order number/ Code	HSK	D1	L	kg
HA4.000.001.020	T40	40	20	0.19
HA6.000.001.026	T63	63	26	0.64
HA0.000.001.029	T100	100	29	2.04



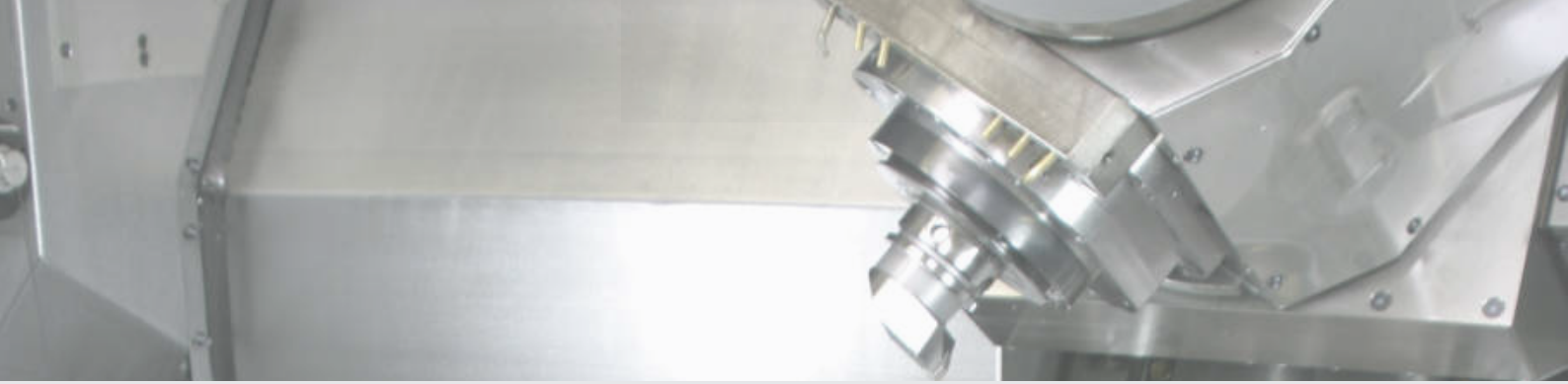
Bestell-Nr. / Order number / Code	HSK-8	D1	D2	A	L	kg	Dichtring / Sealing ring	Spannpatrone / Clamping cartridge	Verschlusschraube / Drive bolt
U40.HA4.001.025	40	40	68	25	17	0.50	HA4.ER4.004.006	HA4.ER1.001.000	HA4.ER2.001.005
U63.HA6.001.040	63	63	102	40	20	1.75	HA6.ER4.004.008	HA6.ER1.001.000	HA6.ER2.001.007
U10.HA0.001.060	100	100	165	60	30	4.65	HA0.ER4.004.010	HA0.ER1.001.000	HA0.ER2.001.000



Bestell-Nr. / Order number / Code	HSK	D1	A	L	L1	kg
HA4.Ro4.001.055	T40	54	55	35	20	0.70
HA6.Ro5.001.100	T63	52	100	–	58	4.75
HA6.Ro9.001.070	T63	90	70	44	28	0.53
HA6.Ro6.001.200	T63	63	200	174	158	4.93
HA0.Ro8.001.125	T100	87	125	–	80	6.47
HA0.Ro0.001.090	T100	130	90	61	45	7.25
HA0.Ro0.001.250	T100	100	250	221	205	15.5



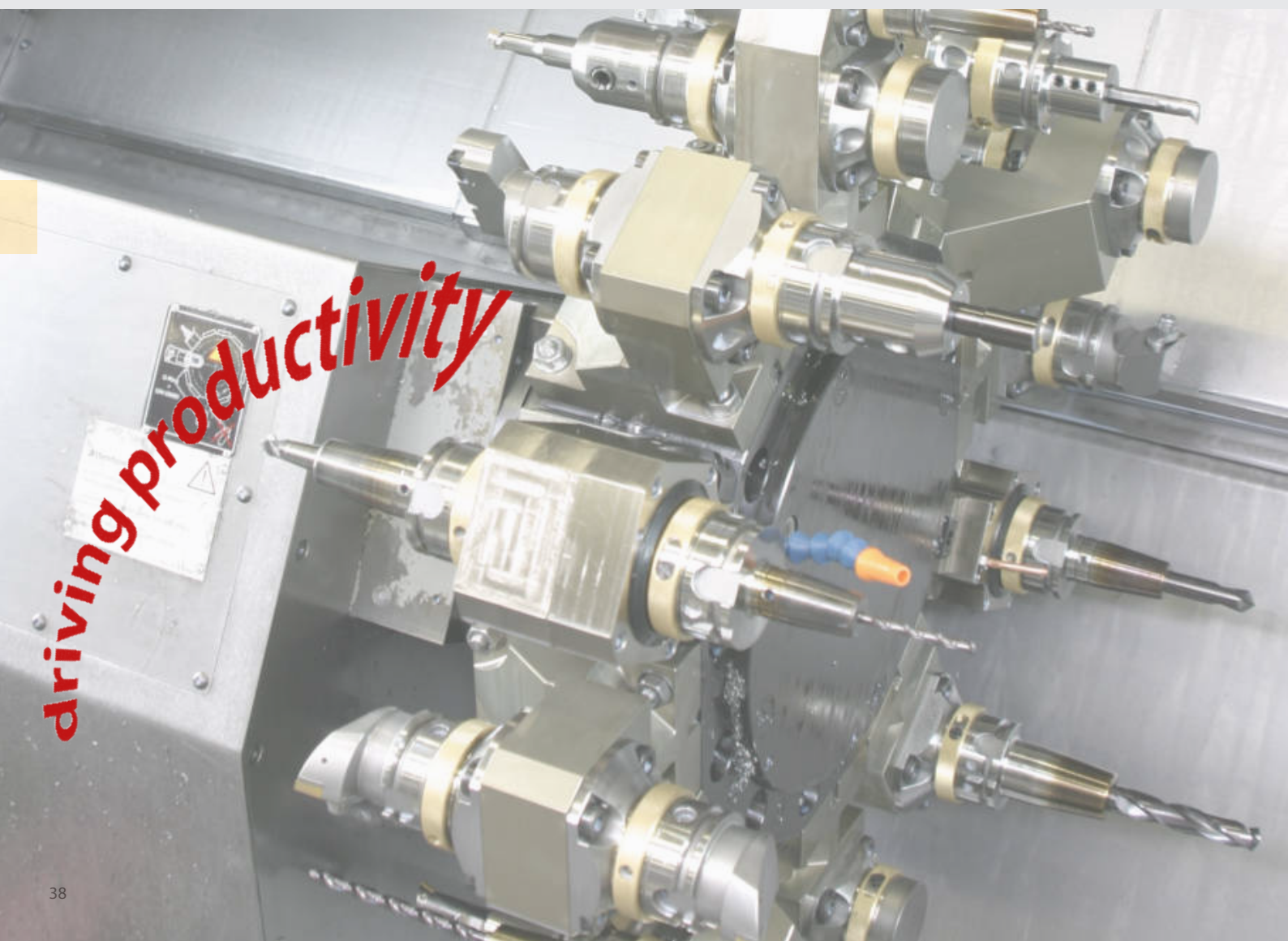
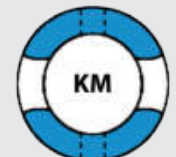
Bestell-Nr. / Order number / Code	HSK	M	Typ
HA4.ER4.001.030	40	12x1	1
HA4.ER4.002.115	40		2
HA6.ER4.001.036	63	18x1	1
HA6.ER4.002.136	63		2
HA0.ER4.001.044	100	24x1.5	1
HA0.ER4.002.136	100		2



**QUICK-CHANGE Werkzeugsysteme
für Multi-Task und Drehmaschinen**

**QUICK-CHANGE tool system for
multi-tasking and turning lathes**

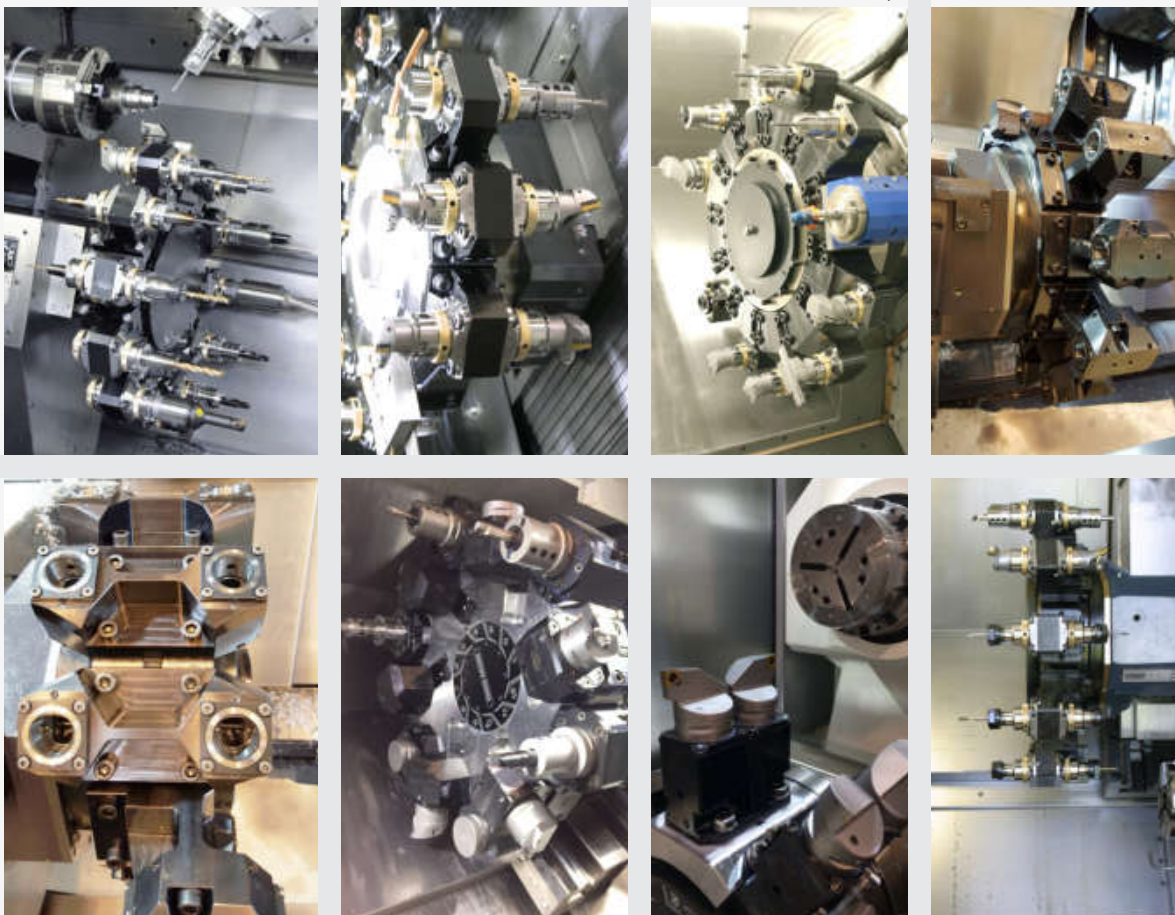
**QUICK-CHANGE système pour tours
et pour centre de tournage/fraisage**



driving productivity

Systemlösungen / System solution / Solution de système

- Produktivitätssteigerung durch Reduktion der Nebenzeiten.
 - Werkzeugwechsel in kürzester Zeit
 - Beste Wiederholgenauigkeit mit definierten, gleichbleibenden Werkzeugkonturen
 - Für alle Maschinentypen geeignet.
 - Flexibel für HSK, PSC und KM Werkzeuge
 - Kosteneffizient System
- Increase productivity by reducing non-productive time
 - Very quick tool changing time
 - Perfect repeatability with fixed tool geometry
 - Useable for all machine brands
 - Flexible with HSK, PSC and KM tools
 - Cost efficient
- Augmenter la productivité en réduisant le temps de non-production.
 - Temps de changement d'outil très rapide
 - Répétabilité parfaite avec une géométrie d'outil fixe
 - Convient à tous les types de machines
 - Flexible avec les outils HSK, PSC et KM
 - Système rentable



- Online Konfigurator
 - Angetriebene- und statische Werkzeuge für Drehmaschinen
 - www.swisstools.org
- Online configurator
 - for static and rotating tools
 - www.swisstools.org
- Configurateur online
 - pour les outils statiques et tournants
 - www.swisstools.org

Adaptionsmöglichkeiten Drehrevolverscheiben / Adaptation to turrets / Adaptation à la tourelle

Werkzeughalter mit Schnellwechselsystem

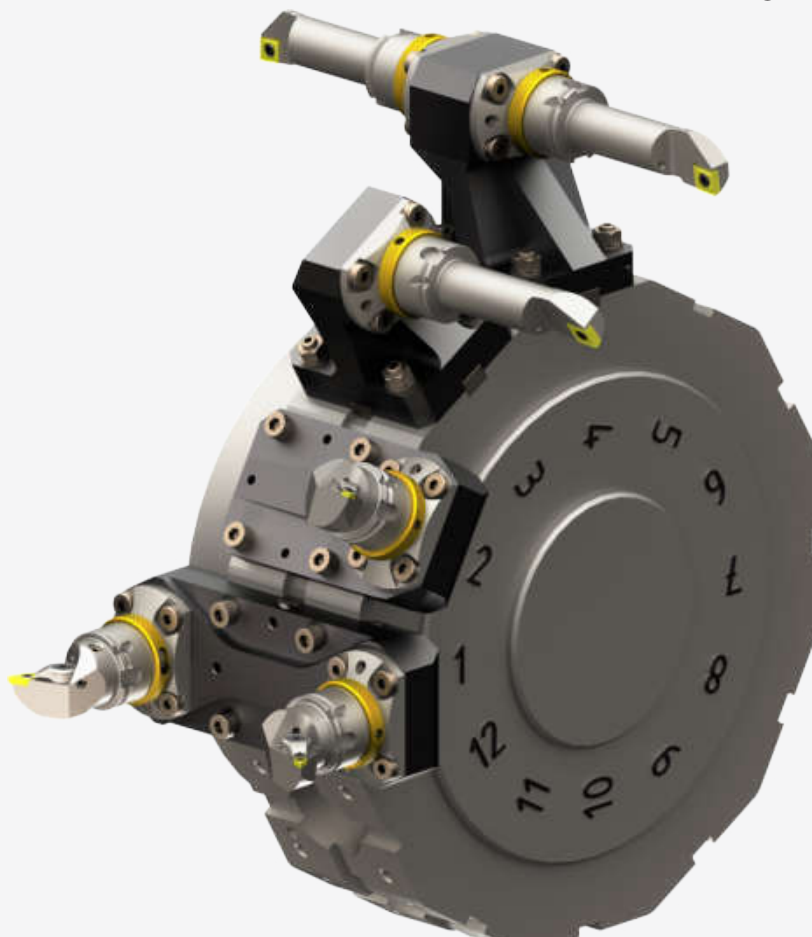
Das Werkzeughalterprogramm umfasst innovative und technisch ausgereifte Lösungen für alle gängigen CNC-Drehzentren. Wir bieten Ihnen Lösungen, die optimal auf das Maschinenfabrikat abgestimmt sind, ob mit BMT/ VDI oder anderen Anbindungen. Die Schnittstelle des Schnellwechselsystems ist DIN/ISO normiert, und für die Größen HSK 40/63/100, PSC40/50/63 und KM 40/50/63 vorhanden. Der Werkzeugwechsel ist einfach und schnell durchführbar. Die Nebenzeiten werden minimiert und damit die Produktivität gesteigert.

Tool holder with QUICK-CHANGE system

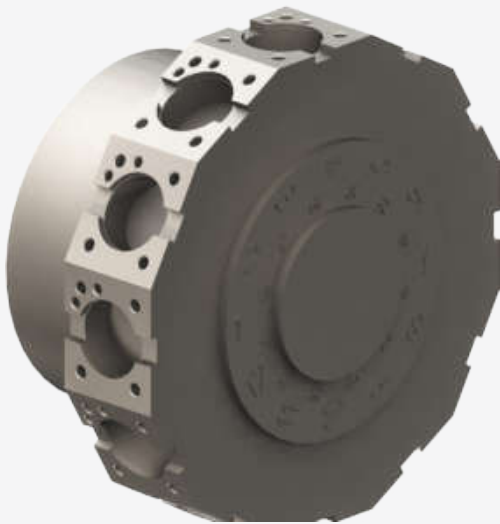
The whole range of the system contains solutions for the most CNC lathes centres. Complementary on the machine tool with BMT / VDI or other connections. The tool connection is based on DIN/ ISO standards with HSK 40/63/100, PSC40/50/63 and KM 40/50/63. The tool change is very simple and quick. Non-productive times are minimized and the productivity will increase.

Porte-outil avec système de changement rapide

Le programme de porte-outils comprend des solutions innovantes et techniquement sophistiquées pour tous les centres de tournage CNC courants. Nous vous proposons des solutions, adaptées de manière optimale à la marque de la machine, que ce soit avec des connexions BMT/ VDI ou autres. L'interface du système de changement rapide est normalisée DIN/ISO et disponible pour les tailles HSK 40/63/100, PSC40/50/63 et KM 40/50/63. Le changement d'outil peut être effectué facilement et rapidement. Le temps de non-productivité sera minimisé et la productivité est ainsi augmentée.



Werkzeughalter / Tool holders / Porte-outils



Revolverscheibe /
Turret/ Tourelle
BMT/VDI/...



Werkzeughalter
einfach gerade

Tool holder
single straight

Porte-outils
single droit



Werkzeughalter
doppelt gerade

Tool holder
double straight

Porte-outils
double droit



Werkzeughalter
einfach abgewinkelt

Tool holder
single angular

Porte-outils
single angulaire



Werkzeughalter
doppelt abgewinkelt

Tool holder
double angular

Porte-outils
double angulaire

HSK / PSC / KM Spanneinheiten / HSK / PSC / KM clamping unit / HSK / PSC / KM unités de serrage

Die Werkzeughalter werden entweder mit einer HSK oder einer PSC Spanneinheit ausgerüstet.

Die Werkzeughalter sind somit flexibel auf die Kundenbedürfnisse anpassbar.

Spanneinheiten sind in den Größen HSK 40/63/100, PSC40/50/63 und KM 40/50/63 erhältlich

Tool holders are equipped with HSK or PSC clamping units.

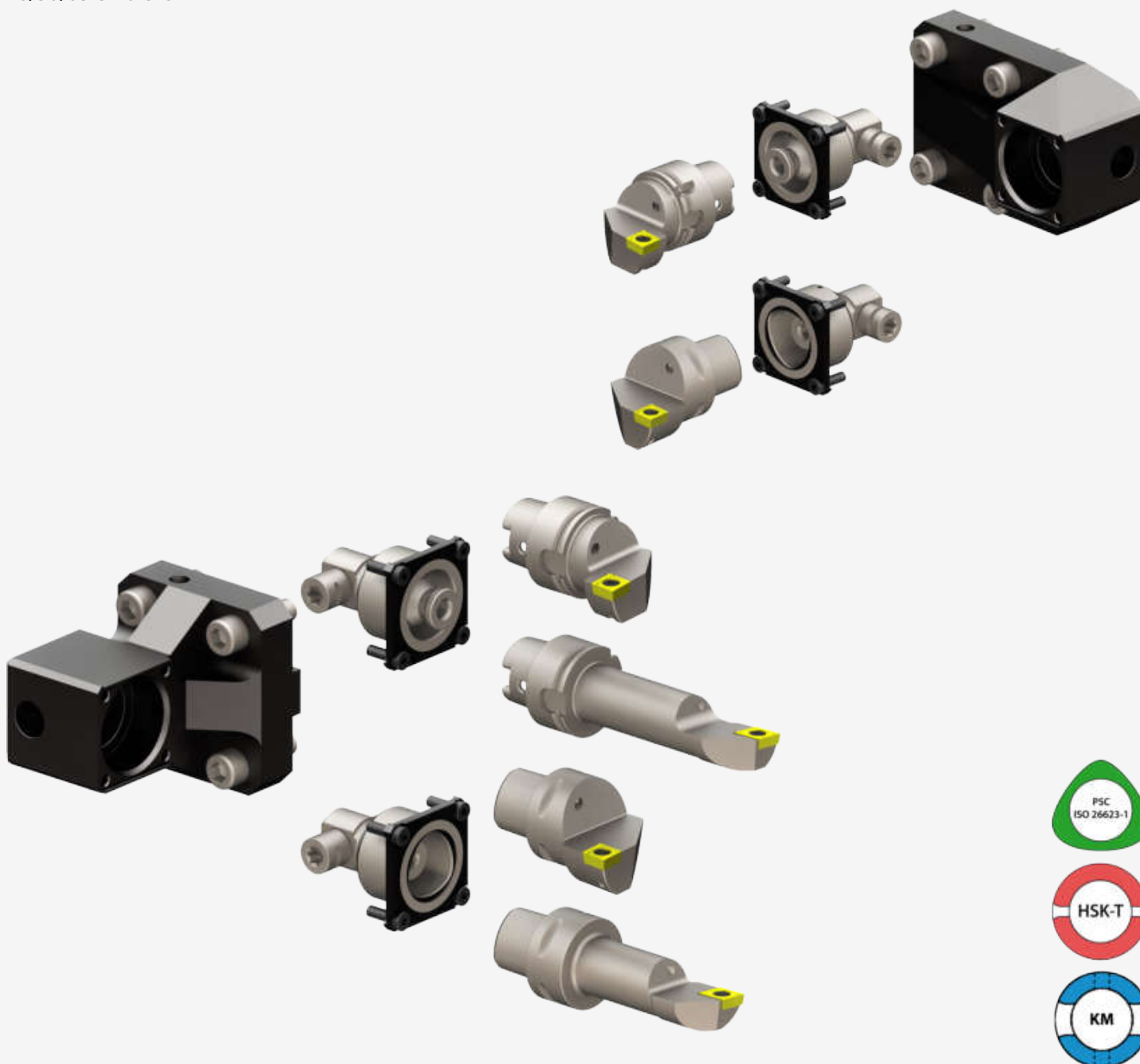
Very flexible for customer needs.

Clamping units are available in HSK 40/63/100, PSC40/50/63 and KM 40/50/63.

Les porte-outils sont soit équipés d'unités de serrage HSK ou PSC.

Les porte-outils sont par conséquent très flexible pour le besoin du client.

Les unités de serrage sont disponibles en HSK 40/63/100, PSC40/50/63 et KM 40/50/63.



Quick-Change Werkzeughalter und Spanneinheiten

Quick-Change Toolholders and clamping units

Porte-outils et unités de serrage à changement rapide

Werkzeughalter mit VDI Schaft abgewinkelt / DIN 69880

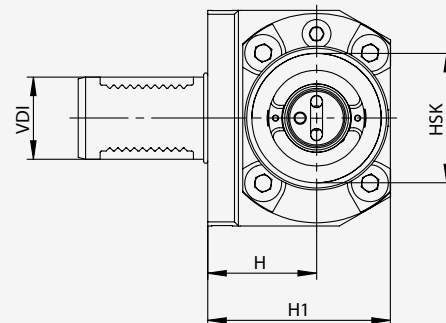
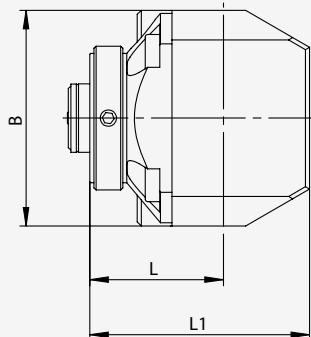
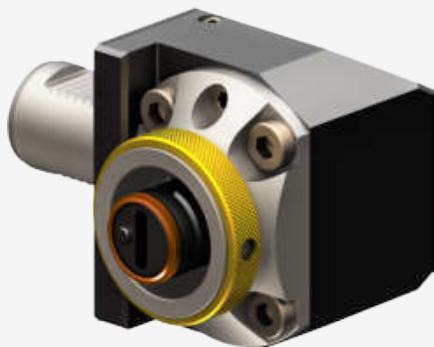
Toolholder with VDI shank angular / DIN 69880

Porte-outils avec tige VDI angulaire / DIN 69880

- Schaft mit Doppelverzahnung R/L Einsatz möglich
- für Innenkühlung

- shank with double seration profile R/L usage possible
- for inner coolant supply

- tige avec double denture, utilisation G/D possible
- pour le arrosage interne



Bestell-Nr. / Order number/ Code	HSK	H	H1	VDI	L	L1	B	kg
REA.HA4.VD3.041-11	T40	41	63	30	32	62	68	
REA.HA4.VD4.051	T40	51	75	40	34	90	75	
REA.HA6.VD4.053	T63	53	95	40	45	85	105	
REA.HA6.VD5.055	T63	55	97	50	45	85	105	

Werkzeughalter mit VDI Schaft gerade / DIN 69880

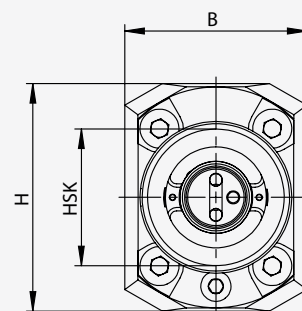
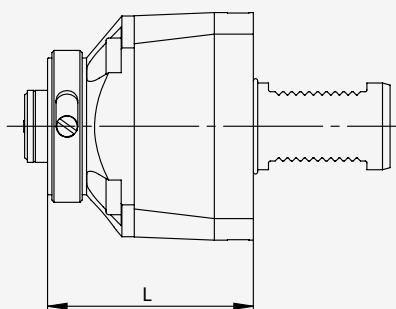
Toolholder with VDI shank straight / DIN 69880

Porte-outils avec tige VDI droite / DIN 69880

- Schaft mit Doppelverzahnung R/L Einsatz möglich
- für Innenkühlung

- shank with double seration profile R/L usage possible
- for inner coolant supply

- tige avec double denture, utilisation G/D possible
- pour le arrosage interne



Bestell-Nr. / Order number/ Code	HSK	L	H	VDI	B	kg
RER.HA4.VD3.065-11	T40	65	68	30	52	
RER.HA4.VD3.074	T40	74	60	30	52	
RER.HA4.VD4.079	T40	79	75	40	75	
RER.HA6.VD4.095-11	T63	95	105	40	84	
RER.HA6.VD5.105-11	T63	105	105	50	84	
RER.HA6.VD6.105-11	T63	105	105	60	84	

Quadratischer Schaft

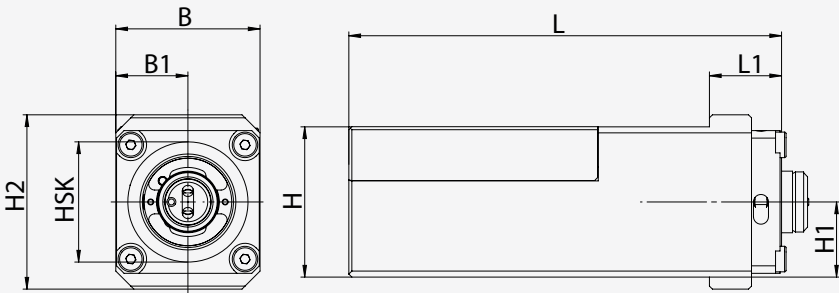
- Anschluss für Innenkühlung

Rectangular shank

- Coupling for inner coolant supply

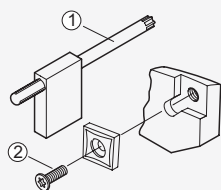
Porte-outils rectangulaire

- Raccordement pour l'arrosage interne



Bestell-Nr. / Order number/ Code	HSK	B	B1	H	H1	H2	L	L1	kg
RER.HA4.V20.144	T40	48	24	40	20	58	144	54	
RER.HA4.V25.144	T40	48	24	50	25	58	144	61	
RER.HA4.V32.139	T40	48	24	64	32	64	139	56	





Für Klemmhalter/
Bohrstange
For turning tool/
boring bar

Typ/
Type

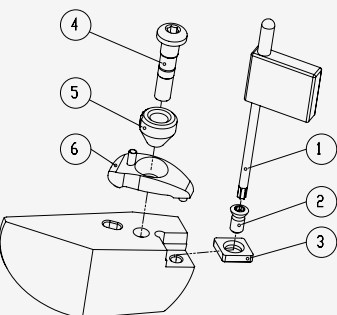
Bestell-Nr. / ^①
Order number

Bestell-Nr. / ^②
Order number

Torx-Schlüssel/
Torx driver

Torx-Schraube
Torx screw (Nm)

xxx.xCC.xxx.xxx	S01	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xCD.xxx.xxx	S02	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xCE.xxx.xxx	S03	WCE.ER1.001.000	WCE.ER2.001.012 (5.0 Nm)
xxx.xWE.xxx.xxx	S04	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xDB.xxx.xxx	S05	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xDF.xxx.xxx	S06	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xVF/VB.xxx.xxx	S07	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xVD.xxx.xxx	S08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xSB.xxx.xxx	S09	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xVE/VA.xxx.xxx	S10	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)



Für Klemmhalter/
Bohrstange
For turning tool/
boring bar

Typ/
Type

Bestell-Nr. / ^③
Order number

Bestell-Nr. / ^④
Order number

Bestell-Nr. / ^⑤
Order number

Bestell-Nr. / ^⑥
Order number

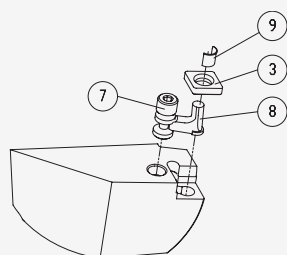
Zwischenlage/
Tip pad

Spannschraube/
Clamping screw (Nm)

Düsenring/
Nozzle ring

Spannpratze/
Clamping short

xxx.xCD.xxx.xxx	D01	WCD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xCE.R/Lxx.xxx	D02	WCE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xCE.Nxx.xxx	D03	WCE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.xWE.R/Lxx.xxx	D04	WWE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xDF.R/Lxx.xxx	D05	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xDF.Nxx.xxx	D06	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.xVD.R/Lxx.xxx	D07	WVD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xVD.Nxx.xxx	D08	WVD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.xSD.R/Lxx.xxx	D09	WSD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024



Für Klemmhalter/
Bohrstange
For turning tool/
boring bar

Typ/
Type

Bestell-Nr. / ^③
Order number

Bestell-Nr. / ^⑦
Order number (Nm)

Bestell-Nr. / ^⑧
Order number

Bestell-Nr. / ^⑨
Order number

Zwischenlage/
Tip pad

Spannschraube/
Clamping screw

Kniehebel/
Lever

Rohrstift/
Hollow pin

xxx.PCD.xxx.xxx	P01	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
xxx.PCE.R/Lxx.xxx	P02	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000
xxx.PCE.Nxx.xxx	P03	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000
xxx.PWE.R/Lxx.xxx	P04	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PDF.R/Lxx.xxx	P05	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PDF.Nxx.xxx	P06	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PSD.R/Lxx.xxx	P07	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
xxx.PDE.xxx.xxx.xxx	P08	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
xxx.PCF.xxx.xxx	P09	WCF.ER2.101.000	WCF.ER4.101.027 (9.0 Nm)	WCF.ER3.101.000	WCF.ER1.101.000
xxx.PSE.xxx.xxx	P10	WSE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000

Für Werkzeughalter/
Für Bohrstangenhalter
For tool holder/
For boring bar holder

Bestell-Nr. /
Order number

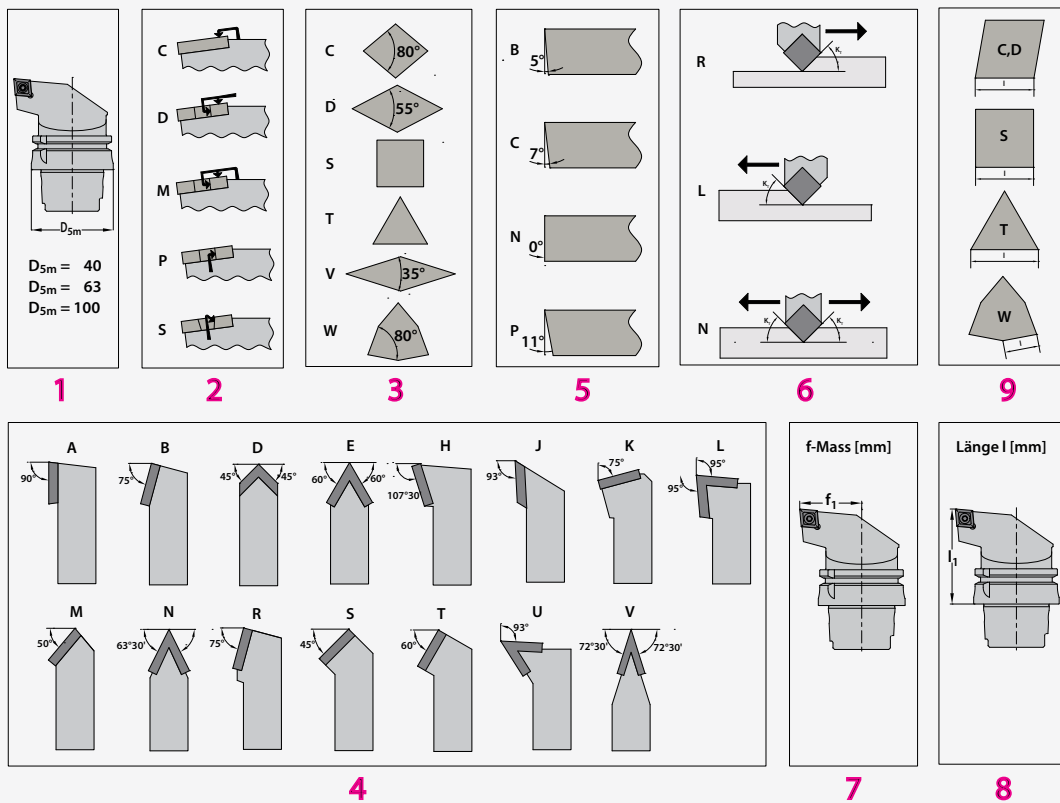
Klemmschraube/
Clamping screw (Nm)

Dimension

xxx.V20.xxx.xxx	ERU.GS6.001.018 (15.0 Nm)	M10 x 18
xxx.V25.xxx.xxx	ERU.GS7.001.025 (20.0 Nm)	M12 x 25
xxx.B06.xxx.xxx	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
xxx.B08...B12.xxx.xxx	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
xxx.B16...B40.xxx.xxx	ERU.GS6.001.012 (15.0 Nm)	M10 x 12

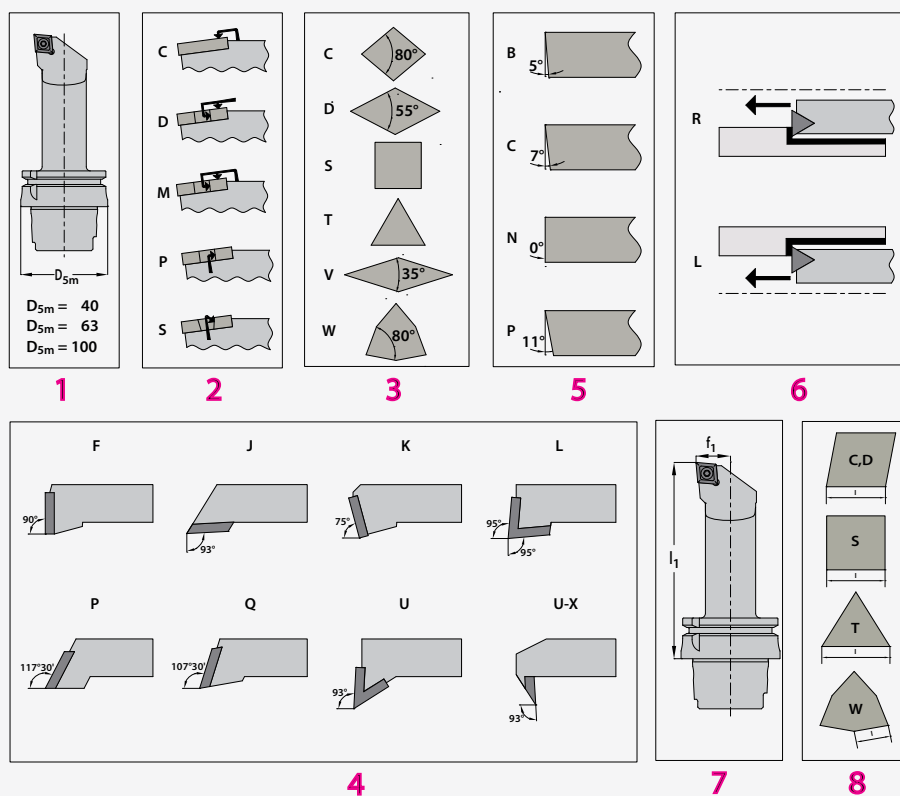
Bezeichnung von HSK Klemmhalter für Aussenbearbeitung Identification of external HSK turning tool holder

HSK-T63 D C L N R 45 070 12

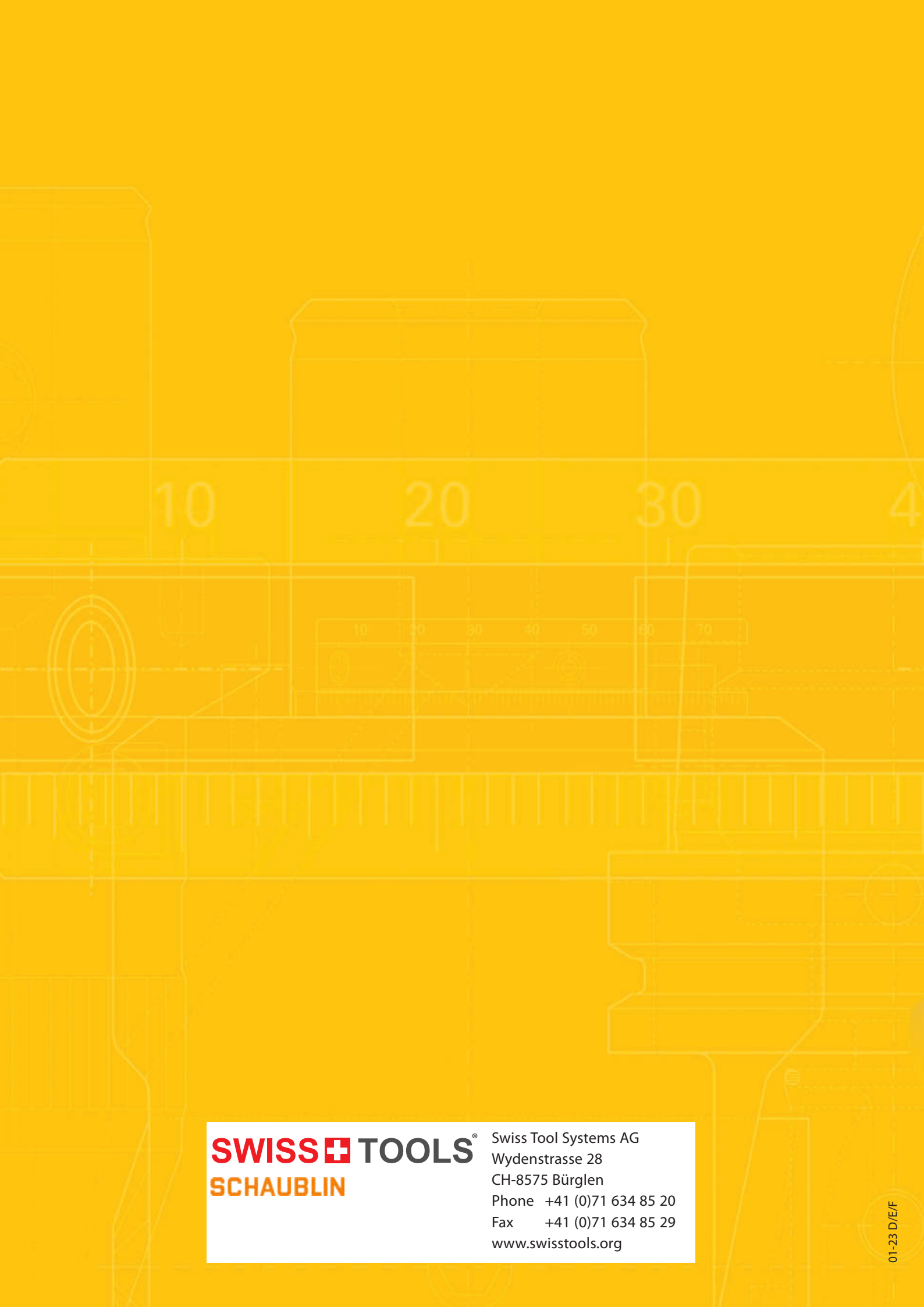


Bezeichnung von HSK Klemmhalter für Innenbearbeitung Identification of external HSK turning tool holder

HSK-T63 S C L C R - 27180 - 09







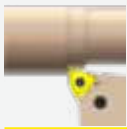
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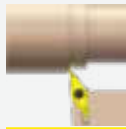


SWISS[®] TOOLS

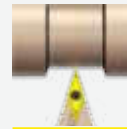
S w i s s
P S C
2206



PWLN
Seite/page 7



SVJB SVJC
Seite/page 11



SVVB SVVC
Seite/page 17



SCLC
Seite/page 7



SVPB SVJC
Seite/page 12



DVVN
Seite/page 17



PCLN
Seite/page 8



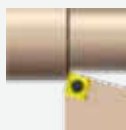
DVPN
Seite/page 13



Multitask Werkzeuge
Multitask tools
Outils multitâches
Seite/page 18-19



SDUC
Seite/page 8



SSBC
Seite/page 13



Aussengewinde
External thread
Filet extérieur
Seite/page 20



PDUN
Seite/page 8



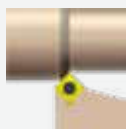
PSBN
Seite/page 13



Innengewinde
Internal thread
Filet intérieur
Seite/page 21



SDJC
Seite/page 9



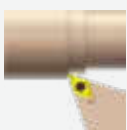
SSSC
Seite/page 14



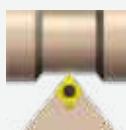
PDJN
Seite/page 9



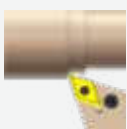
PSSN
Seite/page 14



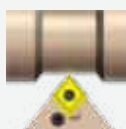
SDHC
Seite/page 9



SCMC
Seite/page 15



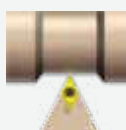
PDHN
Seite/page 10



PCMN PWMN
Seite/page 15



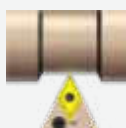
SVUB SVUC
Seite/page 10



SDNC
Seite/page 16



DVUN
Seite/page 11



PDNN
Seite/page 16



Modulare Bohrstangen
Modular boring bars
Barres d'alésage modulables
Seite/page 22



Bohrstangenhalter
Boring bar holder
Porte-outils d'alésage
Seite/page 28+29



Verlängerung
Extension
Extension
Seite/page 36



Schwingungs. Bohrstangen
Damped boring bar shanks
Damped barres d'alésage
Seite/page 23



Wendeplattenbohrerhalter
Holder index. drill
Porte-outils à plaq index.
Seite/page 29



Reduktion
Reduction
Reduction
Seite/page 36



Wechselschneidköpfe
Exchangeable cutting heads
Têtes de coupe interchange.
Seite/page 24+25



Abstechhalter radial
Cut-off block radial
Bloc de tronçonnage radial
Seite/page 30



Verlängerung
Extension
Extension
Seite/page 37



SCLC
Seite/page 26



Abstechhalter axial
Cut-off block axial
Bloc de tronçonnage axial
Seite/page 31



Trennstellenverschluss
Blanking plug
Bouchon d'ébauche
Seite/page 37



PCLN
Seite/page 26



Werkzeughalter radial
Tool holder radial
Porte-outil radial
Seite/page 32



Kühlmittelrohr
Coolant tube
tube d'arrosage
Seite/page 37



SDQC
Seite/page 27



Werkzeughalter axial
Tool holder axial
Porte-outil axial
Seite/page 33



Quick change Halter
Quick change holder
Porte-outils à quick change
Seite/page 43+44



PDQN
Seite/page 27



Werkzeughalter axial 2-fach
Tool holder axial double
Porte-outil axial double
Seite/page 34



Schrumpffutter
Shrink chucks
Porte outils à frettage
Seite/page 45



Werkzeughalter axial 3-fach
Tool holder axial triple
Porte-outil axial triple
Seite/page 34



Ersatzteile
Spare parts
Pièces de rechange
Seite/page 46



Werkzeughalter 45°
Tool holder 45°
Porte-outil 45°
Seite/page 35

Bohrstangen mit Wechselschneidköpfen

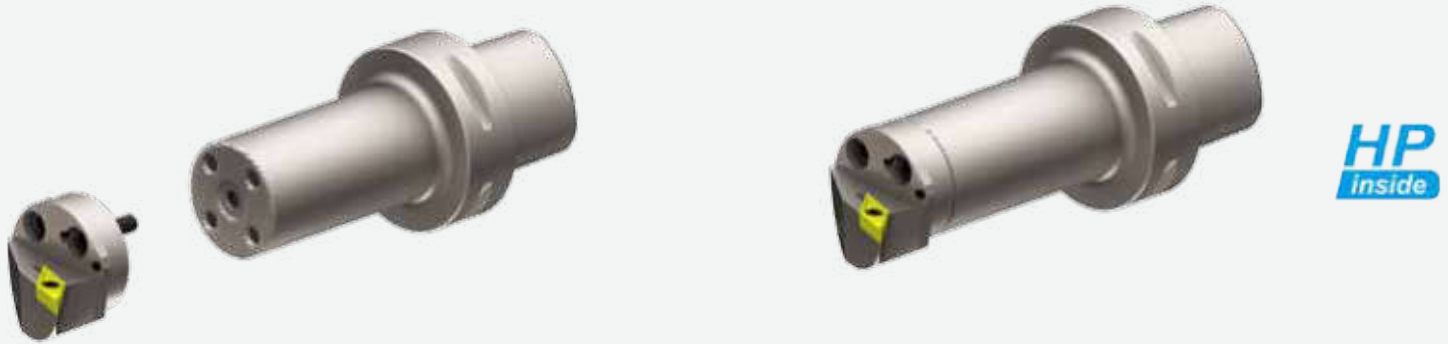
- alle Wechselschneidköpfe sind mit Hochleistungskühlung ausgestattet.
- Werkzeugverschleiss tritt hauptsächlich am auswechselbaren Schneidkopf auf, der Adapter hält somit länger.
- In Kombination mit den SDT Bohrstangen ist das Konzept perfekt für Operationen mit langen Überhängen und bei Vibrationsneigung.

Boring bars with exchangeable cutting heads

- all exchangeable cutting heads are equipped with high performance coolant.
- Tool wear appears mainly at the changeable head, the life time of the tool adapter is therefore longer.
- In combination with SDT the tool concept is perfect for long cantilever extensions and while fighting with vibrations.

Barres d'alésage avec têtes de coupe interchangeables

- Toutes les têtes de coupe interchangeables sont équipées d'un arrosage haute performance.
- L'usure de l'outil apparaît principalement au niveau de la tête interchangeable, la durée de vie de l'adaptateur d'outil est donc plus longue.
- En combinaison avec SDT, le concept d'outil est parfait pour les longues extensions en porte-à-faux et tout en luttant contre les vibrations.



SWISS DAMPENING TECHNOLOGY

Schwingungsgedämpfte Bohrstangenschäfte

- Produktivitätsgewinn dank der unterdrückten Schwingungen können die Schnittdaten beträchtlich erhöht werden
- Verbesserte Oberflächengüte
- Verbesserte Prozesssicherheit
- Verbesserte Spanabfuhr
- Reduzierte Kosten pro Bauteil

Damped boring bar shanks

- Productivity improvement: thanks to reduced vibrations, the cutting conditions can be improved remarkable
- Better surface quality
- Improved process stability
- Better chip evacuation
- Reduced cost per part

Tiges de barres d'alésage anti-vibrations

- Amélioration de la productivité : grâce à la réduction des vibrations, les conditions de coupe peuvent être améliorées de façon remarquable.
- Meilleure qualité de surface
- Meilleure stabilité du processus
- Meilleure évacuation des copeaux
- Réduction du coût par pièce



Hochleistungskühlung

- für effiziente Drehbearbeitung
- optimale Kühlung durch fest ausgerichtete **High Pressure** Kühldüsen
- verbesserte Spankontrolle
- höhere Bearbeitungssicherheit
- mehr Zerspanvolumen
- kürzere Bearbeitungszeiten

High performance coolant

- to turn efficiently
- optimal cooling by fix orientated **High Pressure** coolant nozzles
- improved chip control
- higher manufacturing security
- higher chip removal rate
- shorter machining time

Arrosage haute performance

- pour des opérations de tournage efficaces
- arrosage optimal par des buses d'arrosage fixes High Pressure
- contrôle amélioré des copeaux
- plus grande sécurité d'usinage
- plus haut volume d'extraction de copeaux
- temps d'usinage plus courts

Klemmhalter

- alle Klemmhalter die mit dem **HP** Symbol markiert sind, können auf Hochleistungskühlung aufgerüstet werden.



Turning tool

- all turning tools which are marked with the **HP** symbol, can be set up with the high performance coolant.



Outil de tournage

- Tous les outils de tournage, qui sont marqués avec ce symbole **HP**, peuvent être équipés avec le arrosage haute performance.



Bestell-Nr. /
Order number/
Code

CHP.PCX.000.022

- Hochleistungskühlmittel Set beinhaltet:
 - HP Düse
 - O-Ring

- High performance coolant set included:
 - HP coolant nozzle
 - O-ring

- Kit d'arrosage haute performance comprend
 - Buse HP
 - O-Ring



- Spannsystem: Die Wendeplatte wird mittels Schraubenklemmung Typ S gespannt.
- Kühlsystem: Klemmhalter für positive Wendeplatten besitzen eine ausgerichtete Kühlmiteldüse.

- Clamping system: The insert is tightened via screw clamping Type S.
- Cooling system: Turning tools for positive inserts feature an adjusted coolant nozzle.

- Système de serrage : La plaquette est serrée par un serrage à vis de type S.
- Système d'arrosage : Les outils de tournage pour plaquettes positives sont équipés d'une buse d'arrosage dirigée.



- Spannsystem: Die Wendeplatte wird mittels Doppelklemmung Typ D gespannt.
- Kühlsystem: Klemmhalter mit Doppelklemmung verfügen über eine ausrichtbare Hochdruckkühlhdüse.

- Clamping system: The insert is tightened via double-clamping Type D.
- Cooling system: Turning tools with double-clamping feature an adjustable high-pressure coolant nozzle.

- Système de serrage : La plaquette est serrée par un double serrage à vis de type D.
- Système d'arrosage : Les outils de tournage avec double serrage sont équipés d'une buse d'arrosage dirigée.



- Spannsystem: Die Wendeplatte wird mittels Kniehebelspannung Typ P gespannt.
- Kühlsystem: Klemmhalter mit Kniehebelspannung besitzen eine ausgerichtete Kühlmitteldüse.

- Clamping system: The insert is tightened via knuckle joint Type P.
- Cooling system: Turning tools with knuckle joint-clamping feature an adjusted coolant nozzle.

- Système de serrage : La plaquette est serrée par un joint articulé Type P.
- Système d'arrosage : Les outils de tournage avec joint articulé sont équipés d'une buse d'arrosage dirigée.

Klemhalter

- für effiziente Drehbearbeitung
- optimale Kühlung durch ausgerichtete Kühldüse und Hochdruckkühldüse
- Klemhalter für Aussenbearbeitung können auch für die Innenbearbeitung verwendet werden unter Berücksichtigung des D1 min.

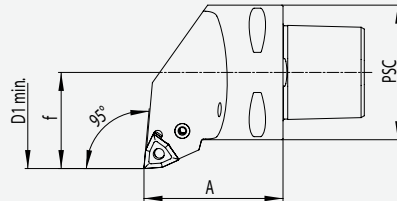
Turning tool

- to turn efficiently
- optimal cooling by adjusted cooling nozzle and high pressure cooling nozzle
- Turning tools for exterior machining may also be used for interior machining, in consideration of D1 min.

Outil de tournage

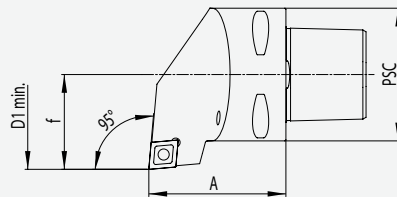
- pour des opérations de tournage efficaces
- arrosage optimal par buse d'arrosage dirigée et à haute pression
- Les outils de tournage destinés à l'usinage extérieur peuvent aussi être utilisés pour l'usinage intérieur, en tenant compte de D1 min.

PWLN R/L 95°/80°



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PWE.(R/L)LA.050-HP	40	27	50	50	WN .. 08 04 ..	0.42	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PWE.(R/L)LA.060-HP	50	35	65	60	WN .. 08 04 ..	0.76	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PWE.(R/L)LA.065-HP	63	45	80	65	WN .. 08 04 ..	1.37	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

SCLC R/L 95°/80°



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KCC.(R/L)LA.050-HP	40	27	50	50	CC .. 12 04 ..	0.37	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
PS5.KCB.(R/L)LA.060-HP	50	35	65	60	CC .. 09 T3 ..	0.80	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS5.KCC.(R/L)LA.060-HP	50	35	65	60	CC .. 12 04 ..	0.73	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
PS6.KCB.(R/L)LA.065	63	45	80	65	CC .. 09 T3 ..	1.24	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KCC.(R/L)LA.065-HP	63	45	80	65	CC .. 12 04 ..	1.40	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022



Bestell-Nr. /
Order number/
Code

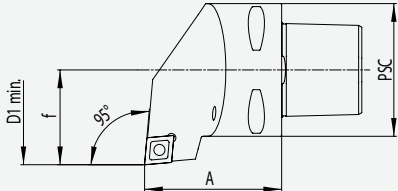
CHPPCX.000.022

- Hochleistungskühlmittel Set beinhaltet:
 - HP Düse
 - O-Ring

- High performance coolant set included:
 - HP coolant nozzle
 - O-ring

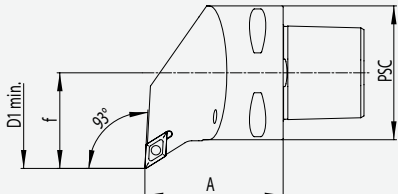
- Kit d'arrosage haute performance comprend
 - Buse HP
 - O-Ring

PCLN R/L 95°/80°



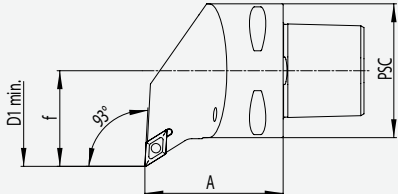
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PCD.(R/L)LA.050-HP	40	27	50	50	CN .. 12 04 ..	0.39	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PCD.(R/L)LA.060-HP	50	35	65	60	CN .. 12 04 ..	0.70	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PCE.(R/L)LA.060	50	35	65	60	CN .. 16 06 ..	0.70	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	
PS6.PCD.(R/L)LA.065-HP	63	45	80	65	CN .. 12 04 ..	1.30	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PCE.(R/L)LA.065-HP	63	45	80	65	CN .. 16 06 ..	1.30	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022

SDUC R/L 93°/55°



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KDB.(R/L)UA.050-HP	40	27	50	50	DC .. 11 T3 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		CHPPCX.000.022	
PS5.KDB.(R/L)UA.060-HP	50	35	65	60	DC .. 11 T3 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		CHPPCX.000.022	
PS6.KDA.(R/L)UA.065	63	45	80	65	DC .. 07 02 ..	1.30	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)			
PS6.KDB.(R/L)UA.065-HP	63	45	80	65	DC .. 11 T3 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		CHPPCX.000.022	

PDUN R/L 93°/55°

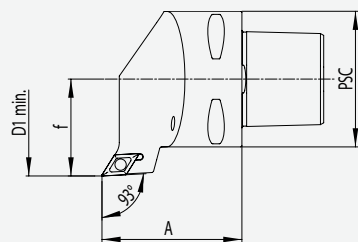


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PDE.(R/L)UA.050-HP	40	27	50	50	DN .. 11 04 ..	0.39	WDE.ER2.101.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000		CHPPCX.000.022
PS4.PDF.(R/L)UA.050-HP	40	27	50	50	DN .. 15 06 .. *	0.39	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PDF.(R/L)UA.060-HP	50	35	65	60	DN .. 15 06 .. *	0.70	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PDF.(R/L)UA.065-HP	63	45	80	65	DN .. 15 06 .. *	1.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

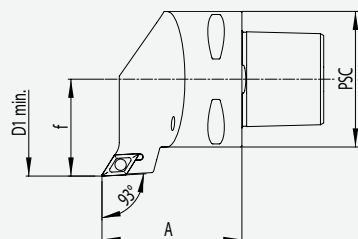
* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004



Bestell-Nr. / Order number / Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KDB.(R/L)JA.050-HP	40	27	50	50	DC...11 T3...	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS5.KDB.(R/L)JA.060-HP	50	35	60	60	DC...11 T3...	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS6.KDB.(R/L)JA.065-HP	63	45	80	65	DC...11 T3...	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

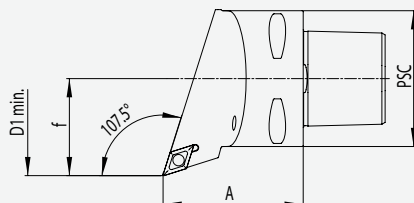


Bestell-Nr. / Order number / Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PDE.(R/L)JA.050-HP	40	27	-	50	DN...11 04...	0.39	WDE.ER2.101.003	WDE.ER4.101.017 (3.0 Nm)	WDE.ER3.101.000		CHPPCX.000.022
PS4.PDF.(R/L)JA.050-HP	40	27	-	50	DN...15 06...*	0.39	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PDF.(R/L)JA.060-HP	50	35	-	60	DN...15 06...*	0.70	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PDF.(R/L)JA.065-HP	63	45	-	65	DN...15 06...*	1.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN...15 04... möglich mit Unterlegplatte
WDF.ER2.101.004

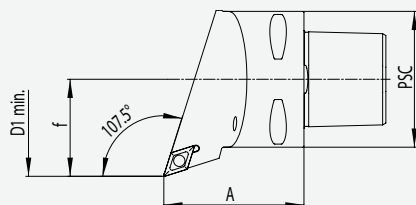
* DN...15 04... possible with tip pad
WDF.ER2.101.004

* DN...15 04... possible avec plateau de
support WDF.ER2.101.004



Bestell-Nr. / Order number / Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KDB.(R/L)HA.050-HP	40	27	50	50	DC...11 T3...	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS5.KDB.(R/L)HA.060-HP	50	35	60	60	DC...11 T3...	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS6.KDB.(R/L)HA.065-HP	63	45	80	65	DC...11 T3...	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

PDHN R/L 107.5°/55°



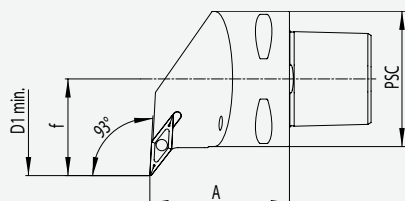
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PDF.(R/L)HA.050-HP	40	27	50	50	DN .. 15 06 .. *	0.39	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PDF.(R/L)HA.060-HP	50	35	60	60	DN .. 15 06 .. *	0.70	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PDF.(R/L)HA.065-HP	63	45	80	65	DN .. 15 06 .. *	1.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

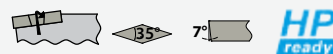
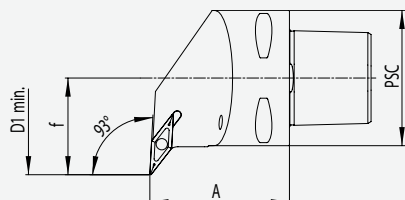
* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004

SVUB R/L 93°/35°

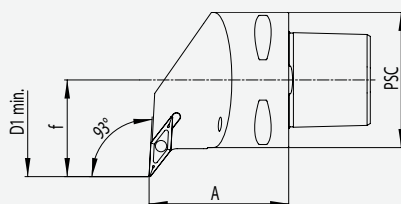


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KVF.(R/L) UA.050	40	27	50	50	VB .. 16 04 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS5.KVF.(R/L) UA.060	50	35	65	60	VB .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KVF.(R/L) UA.065	63	45	80	65	VB .. 16 04 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

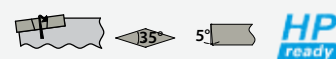
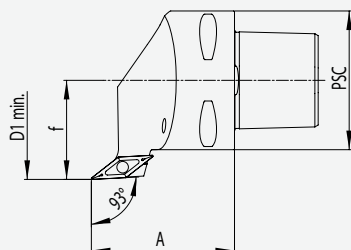
SVUC R/L 93°/35°



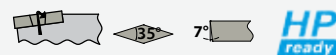
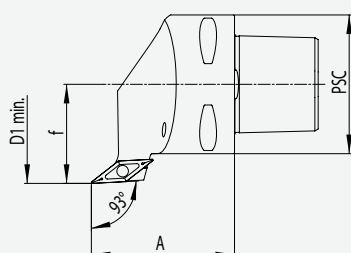
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KVB.(R/L) UA.050	40	27	50	50	VC .. 16 04 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS5.KVA.(R/L) UA.060	50	35	65	60	VC .. 11 03 ..	0.70	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	
PS5.KVB.(R/L) UA.060	50	35	65	60	VC .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KVB.(R/L) UA.065	63	45	80	65	VC .. 16 04 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KVD.(R/L) UA.050	40	27	50	50	VN .. 16 04 ..	0.39	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS5.KVD.(R/L) UA.060	50	35	65	60	VN .. 16 04 ..	0.70	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS6.KVD.(R/L) UA.065	63	45	80	65	VN .. 16 04 ..	1.30	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

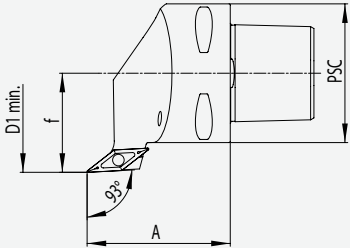


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KVF.(R/L) JA.050	40	27	50	50	VB .. 16 04 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS5.KVF.(R/L) JA.060	50	35	65	60	VB .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KVF.(R/L) JA.065	63	45		65	VB .. 16 04 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

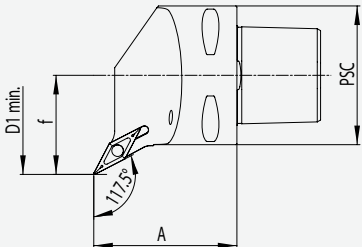
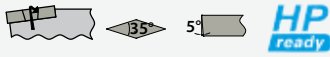


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KVA.(R/L) JA.050	40	27	50	50	VC .. 11 03 ..	0.39	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)	
PS5.KVB.(R/L) JA.060	50	35	65	60	VC .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KVB.(R/L) JA.065	63	45	80	65	VC .. 16 04 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	

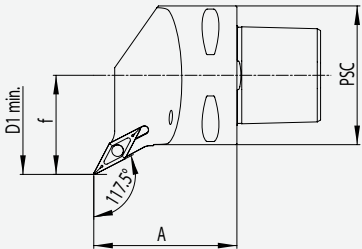
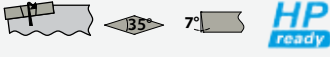
DVJN R/L 35°/93°

											
											
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KVD.(R/L) JA.050	40	27	50	50	VN .. 16 04 ..	0.39	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS5.KVD.(R/L) JA.060	50	35	65	60	VN .. 16 04 ..	0.70	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS6.KVD.(R/L) JA.065	63	45	80	65	VN .. 16 04 ..	1.30	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

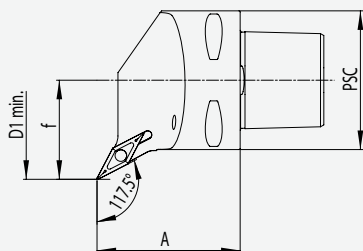
SVPB R/L 117.5°/35°

											
											
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KVF.(R/L) PA.050	40	27	50	50	VB .. 16 04 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)			
PS5.KVF.(R/L) PA.060	50	35	65	60	VB .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)			
PS6.KVF.(R/L) PA.065	63	45	80	65	VB .. 16 04 ..	1.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)			

SVPC R/L 117.5°/35°

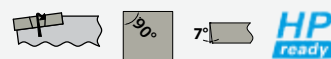
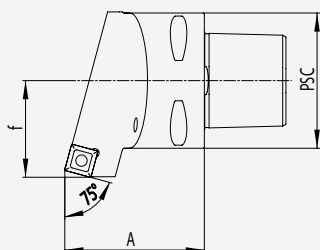
											
											
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KVA.(R/L) PA.050	40	27	50	50	VC .. 11 03 ..	0.39	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)			
PS4.KVB.(R/L) PA.050	40	27	50	50	VC .. 16 04 ..	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)			
PS5.KVB.(R/L) PA.060-HP	50	35	65	60	VC .. 16 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022		
PS6.KVB.(R/L) PA.065-HP	63	45	80	65	VC .. 16 04 ..	1.32	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022		

DVPN R/L 117.5°/35°



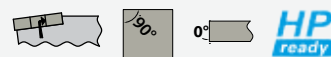
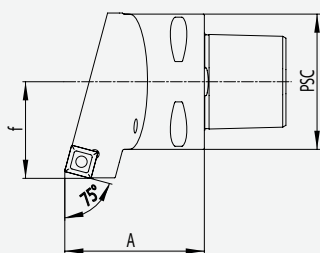
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.KVD.(R/L)PA.050	40	27	50	50	VN .. 16 04 ..	0.39	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS5.KVD.(R/L)PA.060	50	35	65	60	VN .. 16 04 ..	0.70	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
PS6.KVD.(R/L)PA.065	63	45	80	65	VN .. 16 04 ..	1.30	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

SSBC R/L 90°/75°

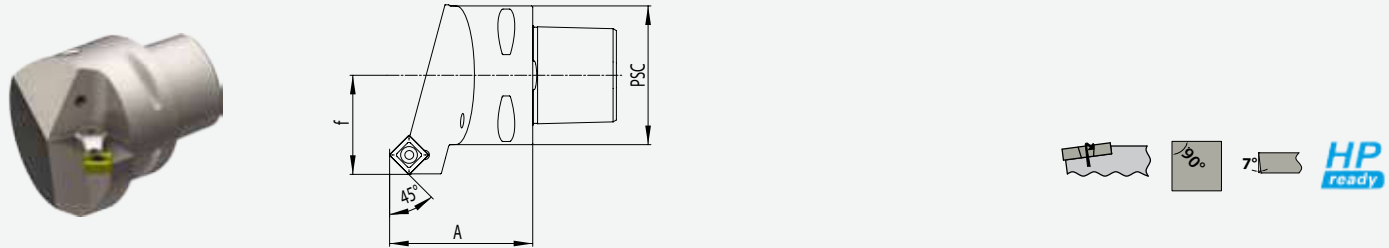


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KSB.(R/L)BA.050	40	27	-	50	SC .. 12 04 ..	0.39	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	WCB.ER2.001.009 (3.0 Nm)
PS5.KSB.(R/L)BA.060	50	35	-	60	SC .. 12 04 ..	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KSB.(R/L)BA.065	63	45	-	65	SC .. 12 04 ..	1.32	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	

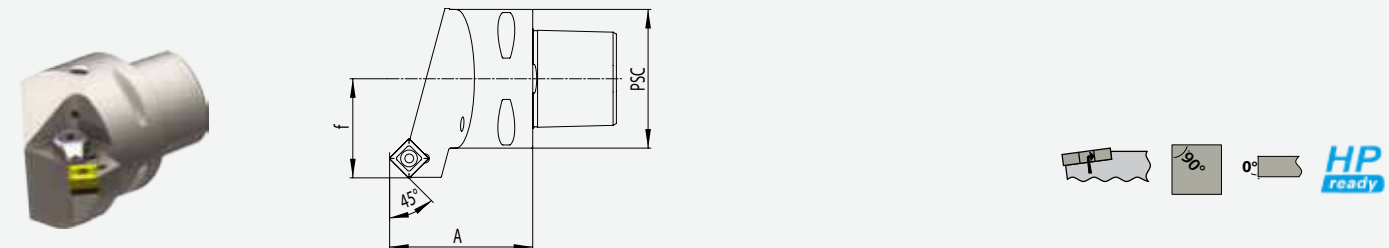
PSBN R/L 90°/75°



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PSD.(R/L)BA.050	40	27	-	50	SN .. 12 04 ..	0.39	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
PS5.PSD.(R/L)BA.060	50	35	-	60	SN .. 12 04 ..	0.70	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
PS6.PSD.(R/L)BA.065	63	45	-	65	SN .. 12 04 ..	1.32	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	

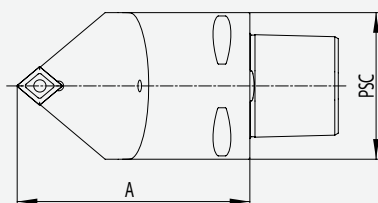


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KSA.(R/L)SA.050	40	27	-	50	SC...09 T3...	0.39	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS4.KSB.(R/L)SA.050	40	27	-	50	SC...12 04...	0.39	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	
PS5.KSB.(R/L)SA.060	50	35	-	60	SC...12 04...	0.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KSB.(R/L)SA.065	63	45	-	65	SC...12 04...	1.32	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	



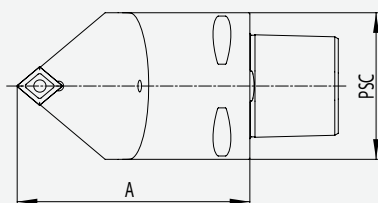
Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	Wendeplatte/ Insert/ Plaquette	kg					
PS4.PSD.(R/L)SA.050	40	27	-	50	SN...12 04...	0.39	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
PS5.PSD.(R/L)SA.060	50	35	-	60	SN...12 04...	0.70	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	
PS6.PSD.(R/L)SA.065	63	45	-	65	SN...12 04...	1.22	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	

SCMC N 50°/80°/50°



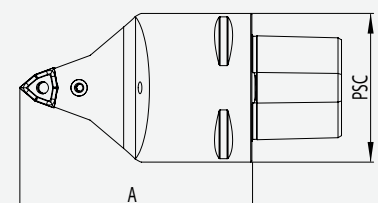
Bestell-Nr. / Order number / Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS5.KCC.NMA.100	50	100	CC .. 12 04 ..	1.28	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	
PS6.KCC.NMA.100-HP	63	100	CC .. 12 04 ..	1.75	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022
PS6.KCC.NMA.130-HP	63	130	CC .. 12 04 ..	2.48	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)	CHPPCX.000.022

PCMN N 50°/80°/50°



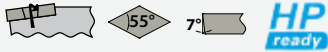
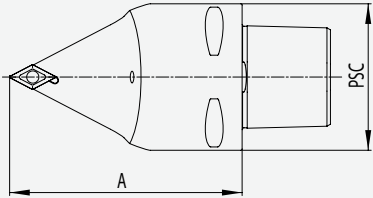
Bestell-Nr. / Order number / Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS5.PCD.NMA.060-HP	50	60	CN .. 12 04 ..	0.80	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS5.PCD.NMA.100-HP	50	100	CN .. 12 04 ..	0.80	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PCD.NMA.100-HP	63	100	CN .. 12 04 ..	1.84	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PCD.NMA.130-HP	63	130	CN .. 12 04 ..	2.51	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PCE.NMA.100-HP	63	100	CN .. 16 06 ..	1.83	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022
PS6.PCE.NMA.130-HP	63	130	CN .. 16 06 ..	2.56	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000	CHPPCX.000.022

PWMC N 50°/80°/50°



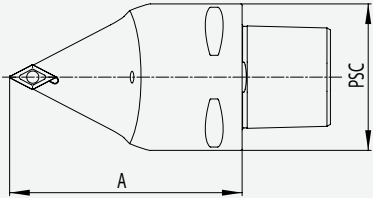
Bestell-Nr. / Order number / Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.PWE.NMA.100-HP	63	100	WN .. 08 04 ..	1.58	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022
PS6.PWE.NMA.130-HP	63	130	WN .. 08 04 ..	2.30	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

SDNC N 62.5°/55°/62.5°



Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS5.KDB.NNA.100	50	60	DC .. 11 T3 ..	0.81	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KDB.NNA.100-HP	63	100	DC .. 11 T3 ..	1.63	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS6.KDB.NNA.130-HP	63	130	DC .. 11 T3 ..	2.35	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

PDNN N 62.5°/55°/62.5°



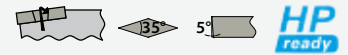
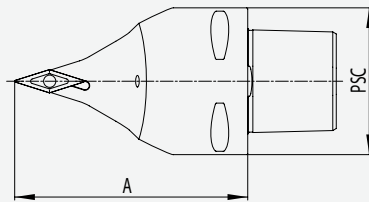
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.PDF.NNA.100-HP	63	100	DN .. 15 06 .. *	1.74	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022
PS6.PDF.NNA.130-HP	63	130	DN .. 15 06 .. *	2.43	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024	CHPPCX.000.022

* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

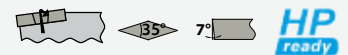
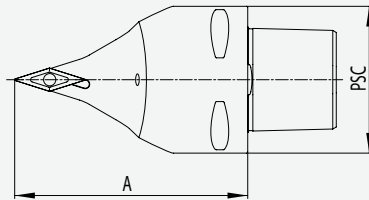
* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004

SVVB N 72.5°/35°/72.5°



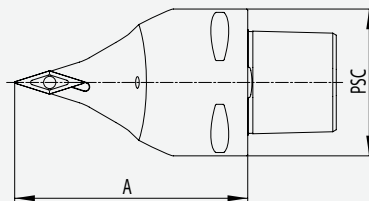
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS4.KVF.NVA.080	40	80	VB .. 16 04 ..	0.50	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS5.KVF.NVA.060	50	60	VB .. 16 04 ..	1.62	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	
PS6.KVF.NVA.100-HP	63	100	VB .. 16 04 ..	1.52	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS6.KVF.NVA.130-HP	63	130	VB .. 16 04 ..	2.24	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

SVVC N 72.5°/35°/72.5°



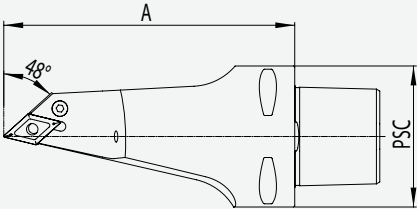
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS6.KVB.NVA.100-HP	63	100	VC .. 16 04 ..	1.50	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022
PS6.KVB.NVA.130-HP	63	130	VC .. 16 04 ..	2.22	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

DVVN N 72.5°/35°/72.5°



Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KVD.NVA.100	63	100	VN .. 16 04 ..	1.50	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024
PS6.KVD.NVA.130	63	130	VN .. 16 04 ..	2.22	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

PDMN L 48° (93°)/55°



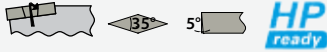
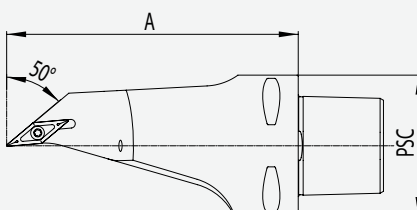
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.PDF.NXA.130-HP	63	130	DN .. 15 06 ..*	2.43	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000	CHPPCX.000.022

* DN .. 15 04 .. möglich mit Unterlegplatte
WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad
WDF.ER2.101.004

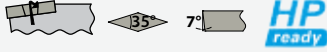
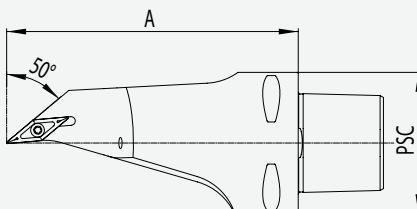
* DN .. 15 04 .. possible avec plateau de
support WDF.ER2.101.004

SVMB L 50° (95°)/35°



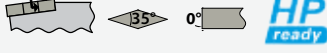
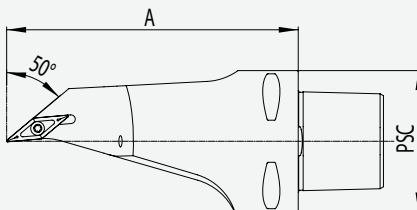
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS6.KVF.NMA.130-HP	63	130	VB .. 16 04 ..	1.95	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

SVMC L 50° (95°)/35°



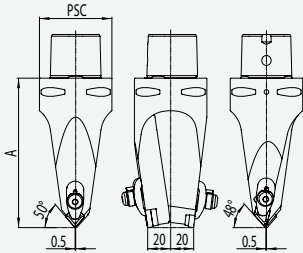
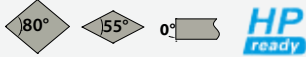
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg			
PS6.KVB.NMA.130-HP	63	130	VC .. 16 04 ..	1.93	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)	CHPPCX.000.022

DVMN L 50° (95°)/35°



Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KVD.NMA.130	63	100	VN .. 16 04 ..	1.89	WVD.ER2.101.003	WCB.ER2.001.009 (3.0 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

T DCM 50° (95°) / DDM 48° (93°)

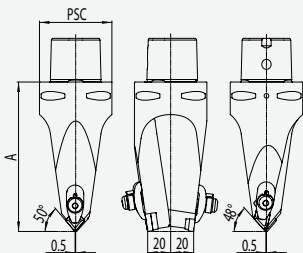
Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KCD.NXD.130	63	100	DN .. 15 06 .. * CN .. 12 04 ..	2.14	WDF.ER2.101.003 WCD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024 WCC.ER3.102.024

* DN .. 15 04 .. möglich mit Unterlegplatte WDF.ER2.101.004

* DN .. 15 04 .. possible with tip pad WDF.ER2.101.004

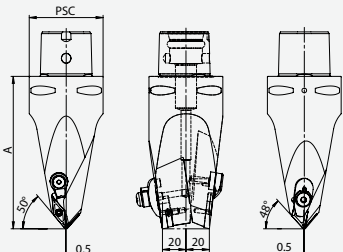
* DN .. 15 04 .. possible avec plateau de support WDF.ER2.101.004

T DCM 50° (95°) / SDM 48° (93°)

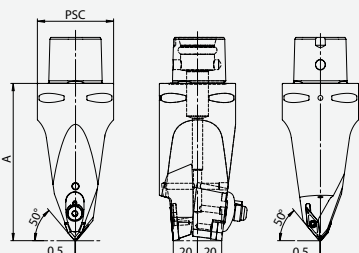

Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KCD.NYD.130	63	100	DC .. 11 T3 .. CN .. 12 04 ..	2.14	WCD.ER2.101.003	WCB.ER2.001.009 WCC.ER4.103.032	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

T DDM 48° (93°) / SVM 50° (95°)


Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KDF.NXD.130	63	100	DN .. 15 06 .. * VB .. 16 04 ..	2.14	WDF.ER2.101.003	WCC.ER4.103.032 WCB.ER2.001.009	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

T SVM 50° (95°) / DWM 50° (95°)

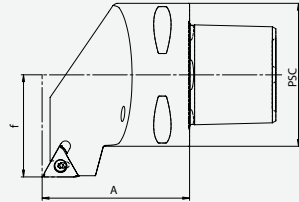




Bestell-Nr. / Order number/ Code	PSC	A	Wendeplatte/ Insert/ Plaquette	kg					
PS6.KWE.NXD.130	63	100	WN .. 08 04 .. VB .. 16 04 ..	2.14	WDF.ER2.101.003	WCC.ER4.103.032 WCB.ER2.001.009	WCC.ER5.102.012	WCC.ER3.102.029	WCC.ER3.102.024

Aussengewinde radial

External thread radial

Filet extérieur radial

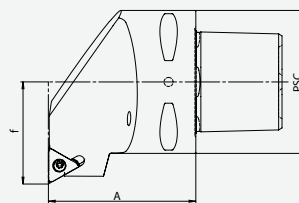


Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	R/L	Wendeplatte/ Insert/ Plaquette	kg				
PS4.KGB.RGR.050	40	27	-	50	R	16 ER	0.42	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS4.KGB.LGR.050	40	27	-	50	L	16 EL	0.42	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
PS5.KGB.RGR.060	50	35	-	60	R	16 ER	0.74	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS5.KGB.LGR.060	50	35	-	60	L	16 EL	0.74	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
PS6.KGB.RGR.065	63	45	-	65	R	16 ER	1.28	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS6.KGB.LGR.065	63	45	-	65	L	16 EL	1.28	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)

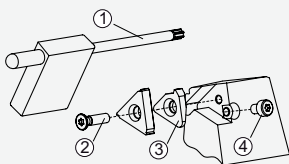
Aussengewinde axial

External thread axial

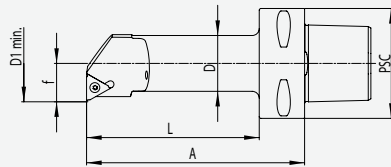
Filet extérieur axial



Bestell-Nr. / Order number/ Code	PSC	f	D1 min.	A	R/L	Wendeplatte/ Insert/ Plaquette	kg				
PS4.KGB.RGA.050	40	27	-	50	R	16 EL	0.42	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS4.KGB.LGA.050	40	27	-	50	L	16 ER	0.42	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
PS5.KGB.RGA.060	50	35	-	60	R	16 EL	0.74	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS5.KGB.LGA.060	50	35	-	60	L	16 ER	0.74	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
PS6.KGB.RGA.065	63	45	-	65	R	16 EL	1.36	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS6.KGB.LGA.065	63	45	-	65	L	16 ER	1.36	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)



Für Gewindehalter For thread tool	Typ/ Type	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
		Torx-Schlüssel/ Torx driver	Torx-Schraube Torx screw	Zwischenlage/ Tip pad	Schraube/ Screw
xxx.KGB.RGR.xxx	G01	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
xxx.KGB.LGR.xxx	G02	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
xxx.xGB.RGA.xxx	G03	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
xxx.xGB.LGA.xxx	G04	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)

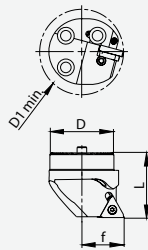


Bestell-Nr. / Order number / Code	PSC	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
PS6.BGB.RGA.125	63	22	32	40	125	103	16 IR	1.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS6.BGB.LGA.125	63	22	32	40	125	103	16 IL	1.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
PS6.BGB.RGA.140	63	27	40	50	140	138	16 IR	1.75	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
PS6.BGB.LGA.140	63	27	40	50	140	138	16 IL	1.75	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)

Wechselschneidköpfe für Innengewinde

Exchangeable cutting heads for Internal thread

Têtes de coupe interchangeables pour le filetage interne



Bestell-Nr. / Order number / Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
WK5.BGB.RGY.020	16	22	12	20	16 IR	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
WK5.BGB.LGY.020	16	22	12	20	16 IL	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
WK4.BGB.RGZ.025	20	25	14	25	16 IR	0.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)		
WK4.BGB.LGZ.025	20	25	14	25	16 IL	0.08	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)		
WK3.BGB.RGA.035	25	32	17	35	16 IR	0.10	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK3.BGB.LGA.035	25	32	17	35	16 IL	0.10	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
WK2.BGB.RGB.035	32	40	22	40	16 IR	0.18	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK2.BGB.LGB.035	32	40	22	40	16 IL	0.18	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)
WK1.BGB.RGC.040	40	50	27	40	16 IR	0.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.102.003	WGB.ER3.001.007 (2.0 Nm)
WK1.BGB.LGC.040	40	50	27	40	16 IL	0.30	WGB.ER1.001.000	WGB.ER2.001.012 (2.0 Nm)	WGB.ER2.101.003	WGB.ER3.001.007 (2.0 Nm)

Bohrstangen mit Wechselschneidköpfen

- für effiziente Drehbearbeitung
- optimale Kühlung durch ausgerichtete Kühldüse und Hochdruckkühldüse

Boring bars with exchangeable cutting heads

- to turn efficiently
- optimal cooling by adjusted cooling nozzle and high pressure cooling nozzle

Barres d'alésage avec têtes de coupe interchangeables

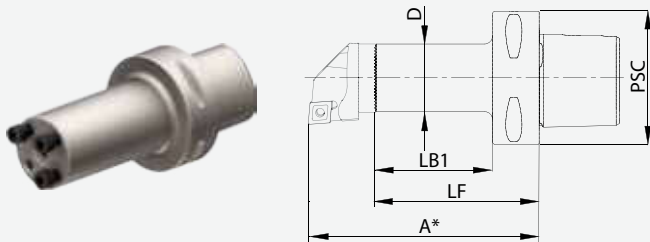
- pour des opérations de tournage efficaces
- arrosage optimal par des buses d'arrosage fixes High Pressure



Bohrstangenschäfte

Boring bar shanks

Barres d'alésage



Bestell-Nr. / Order number/ Code	PSC	D	A*	LF	LB1	kg	
PS4.WK5.016.062	40	16	62	42	22	0.30	NI4.762.003.010
PS4.WK4.020.072	40	20	72	52	32	0.43	NI4.762.035.012
PS4.WK3.025.090	40	25	90	55	35	0.82	NI4.762.004.012
PS4.WK2.032.065	40	32	65	30	15	0.90	NI4.762.005.014
PS4.WK2.032.110	40	32	110	75	55	0.58	NI4.762.005.014
PS4.WK1.040.120	40	40	120	80	-	0.82	NI4.762.006.016
PS5.WK5.016.062	50	16	62	42	22	0.40	NI4.762.003.010
PS5.WK4.020.072	50	20	72	52	32	0.52	NI4.762.035.012
PS5.WK3.025.090	50	25	90	55	35	0.54	NI4.762.004.012
PS5.WK2.032.110	50	32	110	90	55	0.75	NI4.762.005.014
PS5.WK1.040.140	50	40	140	100	80	1.18	NI4.762.006.016
PS6.WK5.016.062	63	16	62	42	20	0.45	NI4.762.003.010
PS6.WK4.020.072	63	20	72	52	32	0.60	NI4.762.035.012
PS6.WK3.025.100	63	25	100	65	43	0.90	NI4.762.004.012
PS6.WK2.032.125	63	32	125	90	68	1.15	NI4.762.005.014
PS6.WK2.032.160	63	32	160	125	103	1.36	NI4.762.005.014
PS6.WK1.040.140	63	40	140	100	78	1.48	NI4.762.006.016
PS6.WK1.040.180	63	40	180	140	118	1.87	NI4.762.006.016

Bohrstangenschäfte mit Zylinderschaft

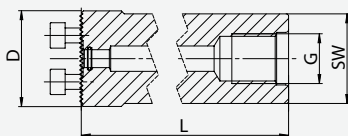
- Anschlussgewinde für Innenkühlung
- 3 Spannflächen

Boring bar shanks with cylindrical shank

- with thread for inner coolant supply
- 3 clamping flats

Barres d'alésage avec tige cylindrique

- Filet pour l'arrosage interne
- 3 surfaces de serrage

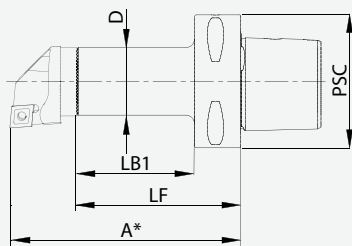


Bestell-Nr. / Order number/ Code	D	L	SW	G	kg	
U25.WK3.025.200	25	200	23	G1/4	0.65	NI4.762.004.012
U32.WK2.032.218	32	218	30	G3/8	1.22	NI4.762.005.014
U40.WK1.040.283	40	283	37	G1/2	2.46	NI4.762.006.016

**Schwingungsgedämpfte
Bohrstangenschäfte (HM-Kern)**

**Damped
boring bar shanks (carbide core)**

**Tiges de barres
d'alésage anti-vibrations**

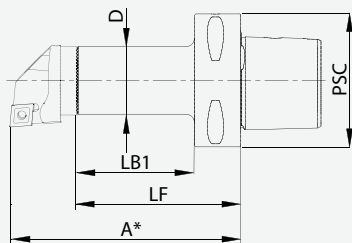


Bestell-Nr. / Order number/ Code	PSC	D	A*	LF	LB1	kg	
PS6.WK3.025.150	63	25	150	115	93	0.98	Ni4.762.004.012
PS6.WK2.032.185	63	32	185	150	128	1.76	Ni4.762.005.014
PS6.WK1.040.225	63	40	225	185	163	2.20	Ni4.762.006.016

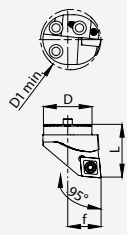
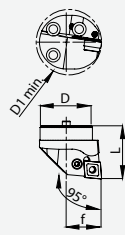
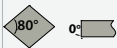
**Schwingungsgedämpfte
Bohrstangenschäfte
Tilgersystem / Massendämpfer**

**Damped
boring bar shanks
Tilger system / Mass damper**

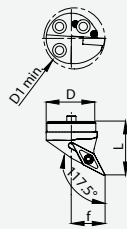
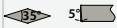
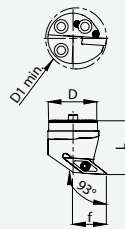
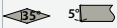
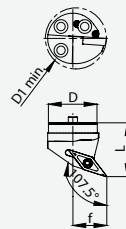
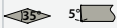
**Tiges de barres
d'alésage anti-vibrations
Système Tilger / Amortisseur masse**



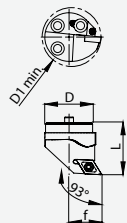
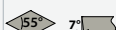
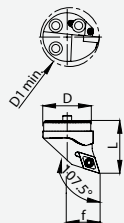
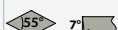
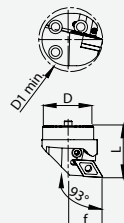
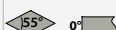
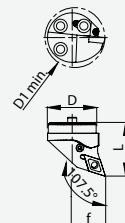
Bestell-Nr. / Order number/ Code	PSC	D	A*	LF	LB1	kg	
PS4.WK5.WD0.108	40	16	108	88	63	0.40	Ni4.762.003.010
PS4.WK4.WD1.127	40	20	127	107	83	0.54	Ni4.762.035.012
PS4.WK3.WD2.167	40	25	167	132	108	0.80	Ni4.762.004.012
PS4.WK2.WD3.189	40	32	189	154	131	1.22	Ni4.762.005.014
PS4.WK1.WD4.213	40	40	213	173	-	1.74	Ni4.762.006.016
PS5.WK5.WD0.105	50	16	105	85	58	0.57	Ni4.762.003.010
PS5.WK4.WD1.129	50	20	129	109	83	0.75	Ni4.762.035.012
PS5.WK3.WD2.168	50	25	168	133	107	1.00	Ni4.762.004.012
PS5.WK3.WD2.215	50	25	215	180	154	1.23	Ni4.762.004.012
PS5.WK2.WD3.189	50	32	189	154	129	1.40	Ni4.762.005.014
PS5.WK2.WD3.259	50	32	259	224	199	1.88	Ni4.762.005.014
PS5.WK1.WD4.234	50	40	234	194	170	2.24	Ni4.762.006.016
PS5.WK1.WD4.328	50	40	328	288	263	3.62	Ni4.762.006.016
PS6.WK5.WD0.110	63	16	110	88	58	1.01	Ni4.762.003.010
PS6.WK4.WD1.130	63	20	130	108	78	1.00	Ni4.762.035.012
PS6.WK3.WD2.167	63	25	167	132	103	1.50	Ni4.762.004.012
PS6.WK3.WD2.215	63	25	215	180	146	1.60	Ni4.762.004.012
PS6.WK3.WD2.265	63	25	265	230	197	1.70	Ni4.762.004.012
PS6.WK2.WD3.194	63	32	194	159	130	1.80	Ni4.762.005.014
PS6.WK2.WD3.259	63	32	259	224	191	2.22	Ni4.762.005.014
PS6.WK2.WD3.323	63	32	323	288	258	2.70	Ni4.762.005.014
PS6.WK1.WD4.238	63	40	238	198	169	2.60	Ni4.762.006.016
PS6.WK1.WD4.328	63	40	328	288	257	3.95	Ni4.762.006.016
PS6.WK1.WD4.408	63	40	408	368	339	4.20	Ni4.762.006.016

SCLC R/L**K_r 95° (-5°)****PCLN R/L****K_r 95° (-5°)**

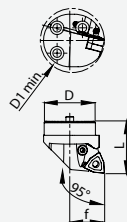
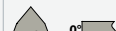
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
SCLCR/L	WK5.BCA.(R/L)LY.020	16	20	11	20	CC...06 02..	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
SCLCR/L	WK4.BCB.(R/L)LZ.020	20	25	13	20	CC...09 T3..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SCLCR/L	WK3.BCB.(R/L)LA.035	25	32	17	35	CC...09 T3..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SCLCR/L	WK3.BCC.(R/L)LA.035	25	32	17	35	CC...12 04..	0.10	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
SCLCR/L	WK2.BCC.(R/L)LB.035	32	40	22	35	CC...12 04..	0.20	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
SCLCR/L	WK1.BCC.(R/L)LC.040	40	50	27	40	CC...12 04..	0.30	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)		
											
PCLN R/L	WK3.PCD.(R/L)LA.035	25	32	17	35	CN...12 04..	0.10	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PCLN R/L	WK2.PCD.(R/L)LB.035	32	40	22	35	CN...12 04..	0.20	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PCLN R/L	WK1.PCD.(R/L)LC.040	40	50	27	40	CN...12 04..	0.30	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000

SVPB R/L**K_r 117.5° (-27.5°)****SVUB R/L****K_r 93° (-3°)****SVQB R/L****K_r 107.5° (-17.5°)**

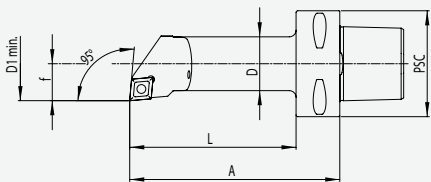
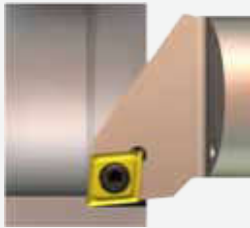
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg		
SVPB R/L	WK3.BVE.(R/L)PA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVPB R/L	WK2.BVF.(R/L)PB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVPB R/L	WK1.BVF.(R/L)PC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK4.BVE.(R/L)UZ.020	20	27	16	20	VB...11 03..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK3.BVE.(R/L)UA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK2.BVF.(R/L)UB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVUB R/L	WK1.BVF.(R/L)UC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK4.BVE.(R/L)QZ.020	20	27	15	20	VB...11 03..	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK3.BVE.(R/L)QA.035	25	32	17	35	VB...11 03..	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK2.BVF.(R/L)QB.035	32	40	22	35	VB...16 04..	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
SVQB R/L	WK1.BVF.(R/L)QC.040	40	50	27	40	VB...16 04..	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)

SDUC R/L**K_r 93° (-3°)****SDQC R/L****K_r 107.5° (-17.5°)****PDUN R/L****K_r 93° (-3°)****PDQN R/L****K_r 107.5° (-17.5°)**

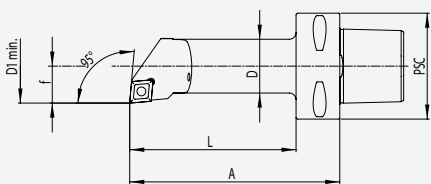
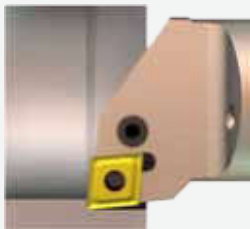
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
SDUC R/L	WK5.BDA.(R/L)UY.020	16	20	11	20	DC...07 02...	0.05	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)		
SDUC R/L	WK4.BDB.(R/L)UZ.020	20	25	13	20	DC...11 T3...	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK3.BDB.(R/L)UA.035	25	32	17	35	DC...11 T3...	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK2.BDB.(R/L)UB.035	32	40	22	35	DC...11 T3...	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDUC R/L	WK1.BDB.(R/L)UC.040	40	50	27	40	DC...11 T3...	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK4.BDB.(R/L)QZ.020	20	25	13	20	DC...11 T3...	0.08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK3.BDB.(R/L)QA.035	25	32	17	35	DC...11 T3...	0.10	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK2.BDB.(R/L)QB.035	32	40	22	35	DC...11 T3...	0.20	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
SDQC R/L	WK1.BDB.(R/L)QC.040	40	50	27	40	DC...11 T3...	0.30	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)		
											
PDUN R/L	WK3.PDE.(R/L)UA.035	25	32	17	35	DN...11 04...	0.10	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK2.PDE.(R/L)UB.035	32	40	22	35	DN...11 04...	0.20	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK1.PDE.(R/L)UC.040	40	50	27	40	DN...11 04...	0.30	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDUN R/L	WK2.PDF.(R/L)UB.035	32	40	22	35	DN...15 06...	0.20	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PDUN R/L	WK1.PDF.(R/L)UC.040	40	50	27	40	DN...15 06...	0.30	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PDQN R/L	WK3.PDE.(R/L)QA.035	25	32	17	35	DN...11 04...	0.10	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDQN R/L	WK2.PDE.(R/L)QB.035	32	40	22	35	DN...11 04...	0.20	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
PDQN R/L	WK1.PDE.(R/L)QC.040	40	50	27	40	DN...11 04...	0.30	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000

PWLN R/L**K_r 95° (-5°)**

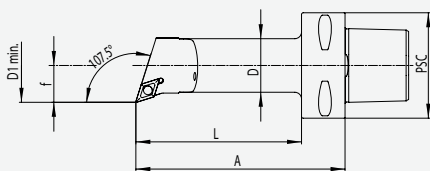
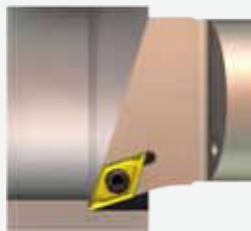
Typ/ Type/ Type	Bestell-Nr. / Order number/ Code	D	D1 min.	f	L	Wendeplatte/ Insert/ Plaquette	kg				
PWLN R/L	WK2.PWE.(R/L)LB.035	32	40	22	35	WN...08 04...	0.20	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PWLN R/L	WK1.PWE.(R/L)LC.040	40	50	27	40	WN...08 04...	0.30	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000



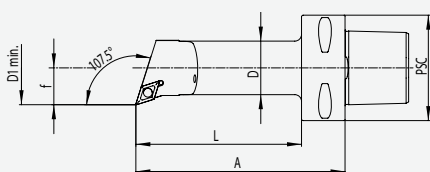
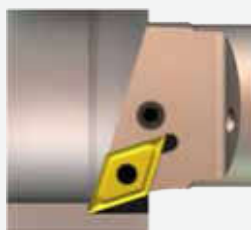
Bestell-Nr. / Order number/ Code	PSC	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg		
PS4.BCC.(R/L)LA.090	40	17	25	32	90	69	CC...12 04...	0.45	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS4.BCC.(R/L)LB.110	40	22	32	40	110	89	CC...12 04...	0.68	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS5.BCC.(R/L)LA.090	50	17	25	32	90	67	CC...12 04...	0.62	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS5.BCC.(R/L)LB.110	50	22	32	40	110	88	CC...12 04...	0.85	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS6.BCC.(R/L)LB.125	63	22	32	40	125	103	CC...12 04...	1.26	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS6.BCC.(R/L)LB.160	63	22	32	40	160	138	CC...12 04...	1.47	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS6.BCC.(R/L)LC.140	63	27	40	50	140	118	CC...12 04...	1.70	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
PS6.BCC.(R/L)LC.180	63	27	40	50	180	158	CC...12 04...	2.07	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)



Bestell-Nr. / Order number/ Code	PSC	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
PS4.PCD.(R/L)LB.110	40	22	32	40	110	89	CN...12 04...	0.70	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PS5.PCD.(R/L)LB.110	50	22	32	40	110	88	CN...12 04...	0.87	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PS6.PCD.(R/L)LC.140	63	27	40	50	140	118	CN...12 04...	1.71	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
PS6.PCD.(R/L)LC.180	63	27	40	50	180	158	CN...12 04...	2.08	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000



Bestell-Nr. / Order number/ Code	PSC	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg		
PS4.BDB.(R/L)QA.090	40	17	25	32	90	69	DC...11 T3...	0.45	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS4.BDB.(R/L)QB.110	40	22	32	40	110	89	DC...11 T3...	0.68	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS5.BDB.(R/L)QA.090	50	17	25	32	90	67	DC...11 T3...	0.62	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS5.BDB.(R/L)QB.110	50	22	32	40	110	88	DC...11 T3...	0.85	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS6.BDB.(R/L)QB.125	63	22	32	40	125	103	DC...11 T3...	1.26	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS6.BDB.(R/L)QB.160	63	22	32	40	160	138	DC...11 T3...	1.47	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS6.BDB.(R/L)QC.140	63	27	40	50	140	118	DC...11 T3...	1.70	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
PS6.BDB.(R/L)QC.180	63	27	40	50	180	158	DC...11 T3...	2.07	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)

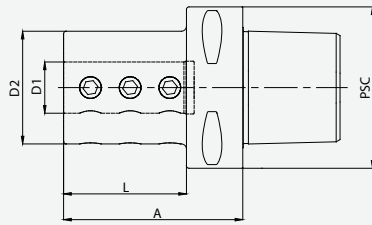


Bestell-Nr. / Order number/ Code	PSC	f	D	D1 min.	A	L	Wendeplatte/ Insert/ Plaquette	kg				
PS4.PDF.(R/L)QB.110	40	22	32	40	110	89	DN...15 06...*	0.68	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PS5.PDF.(R/L)QB.110	50	22	32	40	110	88	DN...15 06...*	0.86	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PS6.PDF.(R/L)QC.140	63	27	40	50	140	118	DN...15 06...*	1.70	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
PS6.PDF.(R/L)QC.180	63	27	40	50	180	158	DN...15 06...*	2.08	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000

* DN...15 04... möglich mit Unterlegplatte
WDF.ER2.101.004

* DN...15 04... possible with tip pad
WDF.ER2.101.004

* DN...15 04... possible avec plateau de
support WDF.ER2.101.004



Bestell-Nr. / Order number/ Code	PSC	D1	D2	A	L	kg		
PS4.B06.K01.065	40	6	34	65	43	0.54	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
PS4.B08.K01.065	40	8	34	65	43	0.51	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS4.B10.K01.065	40	10	34	65	43	0.50	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS4.B12.K01.065	40	12	36	65	43	0.00	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS4.B16.K01.065	40	16	40	65	43	0.56	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS4.B20.K01.065	40	20	44	65	-	0.59	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS4.B25.K01.065	40	25	44	65	-	0.52	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B06.K01.035*	50	6	34	35	15	0.52	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
PS5.B06.K01.070	50	6	34	70	48	0.74	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
PS5.B08.K01.035*	50	8	34	35	15	0.49	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B08.K01.070	50	8	34	70	48	0.72	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B10.K01.035*	50	10	34	35	15	0.49	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B10.K01.070	50	10	34	70	48	0.71	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B12.K01.035*	50	12	36	35	15	0.50	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B12.K01.070	50	12	36	70	48	0.73	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS5.B16.K01.035*	50	16	40	35	15	0.50	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B16.K01.070	50	16	40	70	48	0.77	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B20.K01.035*	50	20	44	35	15	0.50	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B20.K01.070	50	20	44	70	48	0.82	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B25.K01.035*	50	25	50	35	-	0.48	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B25.K01.070	50	25	50	70	-	0.91	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS5.B32.K01.070	50	32	56	70	-	0.94	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B06.K01.080	63	6	34	80	58	1.13	ERU.GS4.001.010 (5.0 Nm)	M 6 x 10
PS6.B08.K01.080	63	8	34	80	58	1.10	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS6.B10.K01.080	63	10	34	80	58	1.09	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS6.B12.K01.080	63	12	36	80	58	1.12	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS6.B14.K01.080	63	14	38	80	58	0.00	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS6.B16.K01.080	63	16	40	80	58	1.17	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B18.K01.080	63	18	42	80	58	0.00	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B20.K01.080	63	20	44	80	58	1.26	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B25.K01.100	63	25	50	100	78	1.62	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B32.K01.100	63	32	56	100	78	1.75	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS6.B40.K01.105	63	40	63	105	83	1.98	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B10.K01.098	80	10	34	98	68	2.08	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS8.B12.K01.098	80	12	36	98	68	2.12	ERU.GS5.001.010 (10.0 Nm)	M 8 x 10
PS8.B16.K01.098	80	16	40	98	68	2.20	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B20.K01.098	80	20	44	98	68	2.30	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B25.K01.098	80	25	50	98	68	2.46	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B32.K01.112	80	32	56	112	82	2.78	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B40.K01.112	80	40	63	112	82	2.97	ERU.GS6.001.012 (15.0 Nm)	M10 x 12
PS8.B50.K01.112	80	50	82	112	-	3.65	ERU.GS6.001.012 (15.0 Nm)	M10 x 12

* ohne Gewinde für Kühlmittelrohr

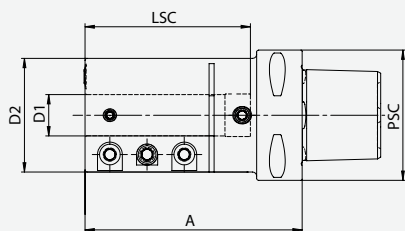
* without thread for coolant pipe

* sans filetage pour tuyau de liquide de refroidissement

Schwingungsgedämpfte Bohrstangenhalter

Damped Boring bar holder

Tiges de porte-outils d'alésage anti-vibrations



Bestell-Nr. / Order number/ Code	PSC	D1	D2	A	LSC	kg					
PS6.B10.K21.105	63	10	45	105	-	1.53	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B12.K21.105	63	12	45	105	-	1.61	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B16.K21.105	63	16	45	105	-	1.54	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B20.K21.105	63	20	55	105	80	1.97	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B25.K21.105	63	25	55	105	80	1.86	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B32.K21.105	63	32	65	105	85	2.19	Ni4.027.006.016	Ni4.028.008.016	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010
PS6.B40.K21.105	63	40	75	105	85	2.44	Ni4.027.006.016	Ni4.028.008.012	Ni4.028.010.016	Ni4.762.006.016	KU1.U12.002.010

- mehr Stabilität und schwingungsdämpfende Wirkung durch Umschlingung der Bohrstan-ge

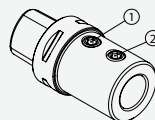
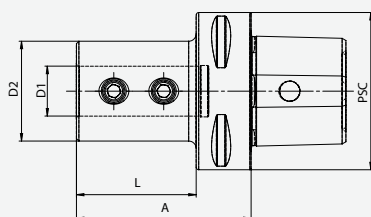
- more stability and vibration dampening effect by wrapping around the boring bar

- * plus de stabilité et un effet d'amortissement des vibrations en s'enroulant autour de la barre d'alésage

Werkzeughalter für Wendeplattenbohrer

Toolholder for indexable insert drills

Porte-outils pour fraises à plaquettes indexables



Bestell-Nr. / Order number/ Code	PSC	D1	D2	A	L	kg	① 	② 
PS4.K16.K01.056	40	16	36	56	36	1.22	K16.ER1.010.010	
PS4.K20.K01.060	40	20	40	60	-	1.22	K20.ER1.010.012	K20.ER2.010.014
PS4.K25.K01.077	40	25	45	77	-	1.22	K32.ER1.012.012	K32.ER2.012.014
PS5.K16.K01.065	50	16	36	65	45	1.22	K16.ER1.010.010	
PS5.K20.K01.060	50	20	40	60	40	1.22	K20.ER1.010.012	K20.ER2.010.014
PS5.K25.K01.071	50	25	45	71	51	1.22	K20.ER1.010.012	K20.ER2.010.014
PS5.K32.K01.075	50	32	52	75	-	1.22	K32.ER1.012.012	K32.ER2.012.014
PS6.K16.K01.070	63	16	36	70	48	1.22	K16.ER1.010.010	
PS6.K20.K01.070	63	20	40	70	48	1.09	K20.ER1.010.012	K20.ER2.010.014
PS6.K25.K01.072	63	25	45	72	50	1.14	K20.ER1.010.012	K20.ER2.010.014
PS6.K32.K01.075	63	32	52	75	53	1.23	K32.ER1.012.012	K32.ER2.012.014
PS6.K40.K01.085	63	40	63	85	-	1.55	K40.ER1.016.012	K40.ER2.016.014

- zum Spannen von Zylinderschäften nach DIN 6595-1 / ISO 9766

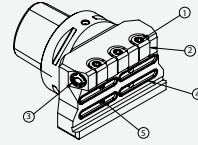
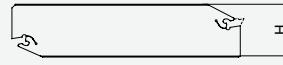
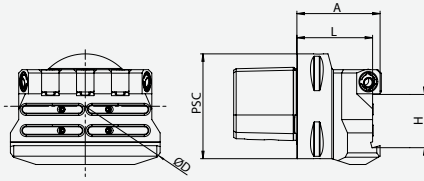
- to clamp cylindrical shanks DIN 6595-1 / ISO 9766

- * pour le serrage de tiges cylindriques selon DIN 6595-1 / ISO 9766

Abstechhalter radial mit ECO / Direct Coolant

Cut-off block radial with ECO / direct coolant

Bloc de tronçonnage radial ECO / direct coolant



Bestell-Nr. / Order number/ Code	PSC	A	H	L	ØD	rechts/links right/left droite/gauche	kg	1	2	3	4	5
PS4.AE2.N11.045-ECO	40	45	26	40.5	90	R/L	0.77	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS5.AE2.N11.045-ECO	50	45	26	40.5	90	R/L	0.98	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS6.AE3.N11.050-ECO	63	50	32	45.5	100	R/L	1.53	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

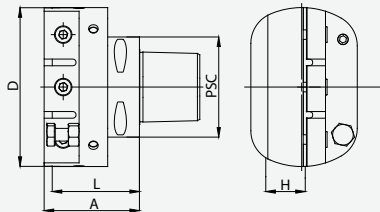
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

Abstechhalter radial

Cut-off block radial

Bloc de tronçonnage radial



Bestell-Nr. / Order number/ Code	PSC	A	H	L	ØD	rechts/links right/left droite/gauche	kg	
PS4.AM2.K11.055	40	55	26	50.5	80	R/L	1.18	NI4.762.006.016
PS5.AM3.K11.058	50	58	26	53	80	R/L	1.48	NI4.762.006.016
PS6.AM3.K11.060	63	60	32	54.5	100	R/L	2.35	NI4.762.006.016

- zur Aufnahme von Stechschwertern
- mit Innenkühlung

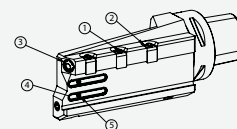
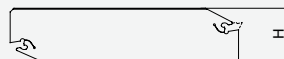
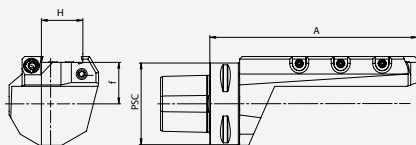
- to hold cut-off blades
- with inner coolant supply

- pour tenir les lames de coupe
- avec arrosage interne

**Abstechhalter axial
mit ECO / Direct Coolant**

**Cut-off block axial
with ECO / direct coolant**

**Bloc de tronçonnage axial
ECO / direct coolant**



Bestell-Nr. / Order number / Code	PSC	f	A	H	ØD	rechts/links right/left droite/gauche	kg	1	2	3	4	5
PS4.AE2.R11.122-ECO	40	21	122	26	80	R	1.05	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS4.AE2.L11.122-ECO	40	21	122	26	80	L	1.05	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS5.AE2.R11.122-ECO	50	26	122	26	90	R	1.28	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS5.AE2.L11.122-ECO	50	26	122	26	90	L	1.28	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.023.001	NI4.026.004.004
PS6.AE3.R11.160-ECO	63	22	160	32	105	R	3.33	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004
PS6.AE3.L11.160-ECO	63	22	160	32	105	L	3.33	AE3.ER1.006.028	AE3.ER1.011.014	KU1.U12.002.010	ND3.771.025.001	NI4.026.004.004

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

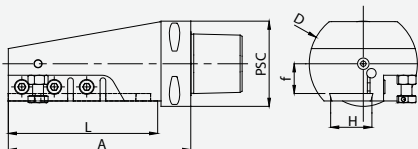
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

**Abstechhalter axial
mit ECO / Direct Coolant**

**Cut-off block axial
with ECO / direct coolant**

**Bloc de tronçonnage axial
ECO / direct coolant**



Bestell-Nr. / Order number / Code	PSC	f	A	H	L	ØD	rechts/links right/left droite/gauche	kg	
PS5.AM3.K11.095	50	22	95	26	75	80	R	2.05	NI4.762.006.016
PS5.AM3.K12.095	50	22	95	26	75	80	L	2.05	NI4.762.006.016
PS6.AM3.K11.145	63	22	145	32	110	80	R	3.73	NI4.762.006.016
PS6.AM3.K12.145	63	22	145	32	110	80	L	3.73	NI4.762.006.016

- zur Aufnahme von Stechschwertern
- mit Innenkühlung
- mit ECO / direct coolant

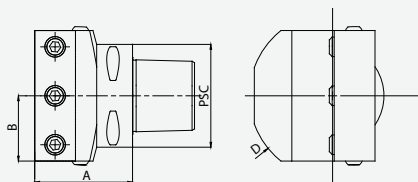
- to hold cut-off blades
- with inner coolant supply
- with ECO / direct coolant

- pour tenir les lames de coupe
- avec arrosage interne
- ECO / direct coolant

Werkzeughalter radial mit ECO / Direct Coolant

Tool holder radial with ECO / direct coolant

Porte-outil radial ECO / direct coolant



Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	D	kg					
PS4.V20.N11.055-HP	40	30	20x20	55	80	0.87	NI4.026.010.020	KU1.U12.002.010			
PS6.V2X.N11.071-HP	63	40	25x25 20x20*	71	102	1.94	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.055	V2X.ER1.025.080	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

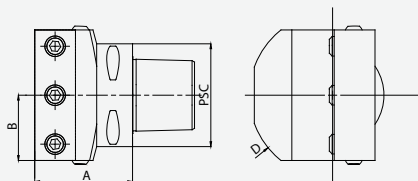
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter radial

Tool holder radial

Porte-outil radial

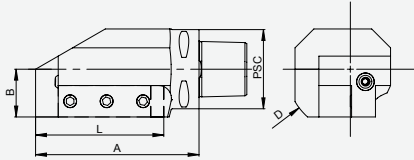


Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	D	kg		
PS4.V20.N11.055	40	30	20x20	55	80	0.87	NI4.026.010.020	KU1.U12.001.010
PS5.V20.N11.058	50	30	20x20	58	80	1.16	NI4.026.010.020	KU1.U12.001.010
PS5.V25.N11.058	50	30	25x25	58	80	1.16	NI4.026.012.020	KU1.U12.001.010
PS6.V20.N11.060	63	30	20x20	60	80	1.55	NI4.026.010.020	KU1.U12.001.010
PS6.V25.N11.071	63	40	25x25	71	102	2.31	NI4.026.012.020	KU1.U12.001.010
PS8.V32.N11.085	80	55	32x32	85	132	4.75	NI4.026.012.025	KU1.U12.001.010

**Werkzeughalter axial
mit ECO / Direct Coolant**

**Tool holder axial
with ECO / direct coolant**

**Porte-outil axial
ECO / direct coolant**



Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	L	ØD	kg					
PS6.V2X.(R/L)11.130-HP	63	38	25x25 20x20*	130	102	100	3.34	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.066	V2X.ER2.025.082(R) V2X.ER1.025.082(L)	NI4.762.006.016
PS8.V25.(R/L)11.130-HP	80	40	25x25	130	102	110	5.43	NI4.026.012.016	KU1.U12.002.010			

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

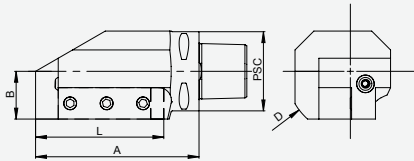
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter axial

Tool holder axial

Porte-outil axial

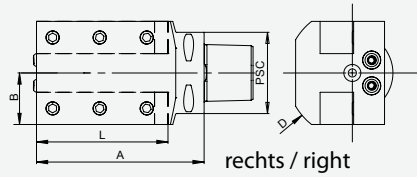


Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	L	ØD	kg		
PS4.V20.(R/L)11.080	40	30	20x20	80	60	80	1.04	NI4.026.010.020	KU1.U12.001.010
PS4.V25.(R/L)11.080	40	31	25x25	80	56	80	1.04	NI4.026.012.025	KU1.U12.001.010
PS5.V20.(R/L)11.098	50	30	20x20	98	75	80	1.68	NI4.026.010.020	KU1.U12.001.010
PS5.V25.(R/L)11.098	50	35	25x25	98	75	95	1.68	NI4.026.010.020	KU1.U12.001.010
PS6.V20.(R/L)11.100	63	30	20x20	100	75	80	2.20	NI4.026.010.020	KU1.U12.001.010
PS6.V25.(R/L)11.130	63	38	25x25	130	102	102	3.47	NI4.026.012.020	KU1.U12.001.010
PS8.V32.(R/L)11.140	80	40	32x32	140	98	110	5.43	NI4.026.012.030	KU1.U12.001.010

Werkzeughalter axial doppelt mit ECO / Direct Coolant

Tool holder axial double with ECO / direct coolant

Porte-outil axial double ECO / direct coolant



Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	L	ØD	kg					
PS6.V2X.R21.130-HP	63	40	25x25 20x20*	130	102	100	3.42	KU1.U12.002.010	V2X.ER1.025.066	V2X.ER2.025.082(R) V2X.ER1.025.082(L)	NI4.762.006.016	NI4.762.006.016
PS8.V25.R21.130-HP	80	40	25x25	130	102	110	6.10	KU1.U12.002.010	V2X.ER1.025.066			

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

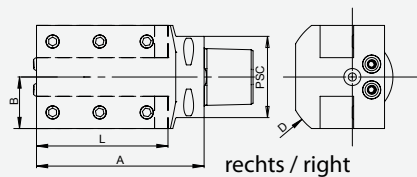
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter axial doppelt

Tool holder axial double

Porte-outil axial double

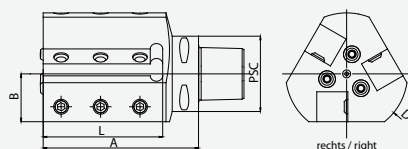


Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	L	ØD	kg		
PS4.V20.(R/L)21.080	40	30	20x20	80	60	80	2.10	NI4.026.010.020	KU1.U12.001.010
PS5.V20.(R/L)21.098	50	30	20x20	98	75	80	2.40	NI4.026.010.025	KU1.U12.001.010
PS6.V20.(R/L)21.100	63	30	20x20	100	75	80	2.60	NI4.026.010.025	KU1.U12.001.010
PS6.V25.(R/L)21.130	63	40	25x25	130	102	102	4.20	NI4.026.012.025	KU1.U12.001.010

Werkzeughalter axial dreifach

Tool holder axial triple

Porte-outil axial triple

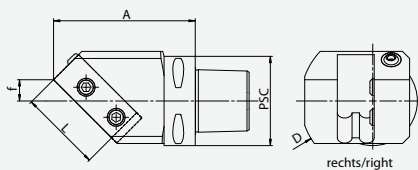


Bestell-Nr. / Order number/ Code	PSC	B	Vier- kant Square	A	L	ØD	kg		
PS5.V16.R31.098	50	30	16x16	98	75	70	1.85	NI4.026.010.020	KU1.U12.001.010
PS5.V20.(R/L)31.123	50	36	20x20	123	97	90	3.47	NI4.026.010.025	KU1.U12.001.010
PS6.V20.(R/L)31.125	63	36	20x20	125	97	90	3.84	NI4.026.010.025	KU1.U12.001.010
PS6.V25.(R/L)31.130	63	40	25x25	130	102	102	4.40	NI4.026.012.020	KU1.U12.001.010

**Werkzeughalter diagonal 45°
mit ECO / Direct Coolant**

**Tool holder diagonal 45°
with ECO / direct coolant**

**Porte-outil diagonal 45°
ECO / direct coolant**



Bestell-Nr. / Order number / Code	PSC	f	Vier- kant Square	A	ØD	R/L	kg					
PS5.V20.R12.085-HP	50	15	20x20	85	80	R	2.65	NI4.026.012.016	KU1.U12.002.010			
PS5.V20.L12.085-HP	50	15	20x20	85	80	L	2.65	NI4.026.012.016	KU1.U12.002.010			
PS6.V2X.R12.110-HP	63	15	25x25 20x20*	110	94	R	2.80	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.061	V2X.ER2.025.079	NI4.762.006.016
PS6.V2X.L12.110-HP	63	15	25x25 20x20*	110	94	L	2.80	NI4.026.012.016	KU1.U12.002.010	V2X.ER1.025.061	V2X.ER2.025.079	NI4.762.006.016

- für effiziente Drehbearbeitung
- optimale Kühlung durch einstellbare Hochdruck Kugelspritzdüsen
- mit ECO / direct coolant
- Kühlmittelübergabe zum Werkzeugschaft
- * Unterlegplatte für Schaft 20x20 nicht im Lieferumfang enthalten

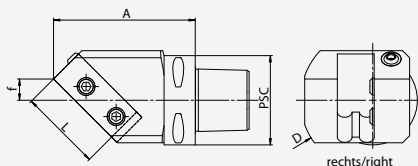
- to turn efficiently
- optimal cooling through adjustable high pressure ball spray nozzles
- with ECO / direct coolant
- coolant transfer into tool shank
- * shim for shaft 20x20 not included in delivery

- pour un tournage efficace
- refroidissement optimal grâce à des buses de pulvérisation à bille haute pression réglables
- avec ECO / direct coolant
- Transfert de liquide de refroidissement vers la queue de l'outil
- * Plaque de rondelle pour arbre 20x20 non comprise dans la livraison

Werkzeughalter diagonal 45°

Tool holder diagonal 45°

Porte-outil diagonal 45°

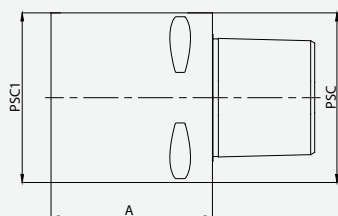


Bestell-Nr. / Order number / Code	PSC	f	Vier- kant Square	A	ØD	R/L	kg		
PS5.V20.R12.098	50	15	20x20	98	80	R	2.03	NI4.026.010.025	KU1.U12.001.010
PS5.V20.L12.098	50	15	20x20	98	80	L	2.03	NI4.026.010.025	KU1.U12.001.010
PS6.V20.R12.100	63	15	20x20	100	80	R	2.43	NI4.026.010.025	KU1.U12.001.010
PS6.V20.L12.100	63	15	20x20	100	80	L	2.43	NI4.026.010.025	KU1.U12.001.010
PS6.V25.R12.110	63	15	25x25	110	102	R	3.37	NI4.026.012.025	KU1.U12.001.010
PS6.V25.L12.110	63	15	25x25	110	102	L	3.37	NI4.026.012.025	KU1.U12.001.010

Verlängerung

Extension

Extension

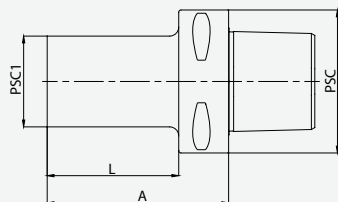


Bestell-Nr. / Order number/ Code	PSC	PSC 1	A	kg
PS4.PS4.K01.060	40	40	60	0.60
PS4.PS4.K01.080	40	40	80	0.70
PS5.PS5.K01.080	50	50	80	1.10
PS5.PS5.K01.100	50	50	100	1.20
PS5.PS5.K01.150	50	50	150	1.60
PS6.PS6.K01.060	63	63	60	1.35
PS6.PS6.K01.100	63	63	100	2.26
PS6.PS6.K01.140	63	63	140	2.65

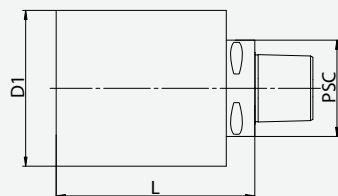
Reduktion

Reduction

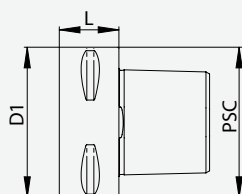
Réduction



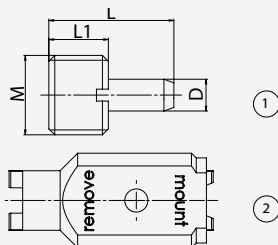
Bestell-Nr. / Order number/ Code	PSC	PSC 1	L	A	kg
PS5.PS4.K01.065	50	40	40	65	0.80
PS6.PS3.K01.070	63	32	48	70	1.15
PS6.PS4.K01.080	63	40	58	80	1.31
PS6.PS5.K01.080	63	50	51	80	1.52
PS8.PS6.K01.080	80	63	50	80	1.35



Bestell-Nr. / Order number/ Code	PSC	D1	L	kg
PS4.Ro5.001.050	40	54	50	0.70
PS4.Ro8.001.080	40	80	80	1.10
PS5.Ro7.001.060	50	70	60	1.40
PS5.Ro8.001.098	50	80	98	3.46
PS5.Ro9.001.123	50	90	123	5.47
PS6.Ro6.001.100	63	63	100	2.73
PS6.Ro0.001.130	63	102	130	7.68



Bestell-Nr. / Order number/ Code	PSC	D1	L	kg
PS4.000.001.020	40	40	20	0.25
PS5.000.001.020	50	50	20	0.42
PS6.000.001.025	63	63	25	0.83



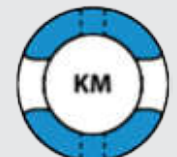
Bestell-Nr. / Order number/ Code	PSC	M	L	L1	D	Typ	kg
PS4.ER1.014.026	40	14x1.5	26	12	6	1	0.01
PS4.ER4.002.090	40					2	0.10
PS5.ER1.016.029	50	16x1.5	29	14	7	1	0.02
PS5.ER4.002.090	50					2	0.10
PS6.ER4.001.087	63	20x2	31.5	15	8	1	0.02
PS6.ER4.002.090	63					2	0.10



**QUICK-CHANGE Werkzeugsysteme
für Multi-Task und Drehmaschinen**

**QUICK-CHANGE tool system for
multi-tasking and turning lathes**

**QUICK-CHANGE système pour tours
et pour centre de tournage/fraisage**

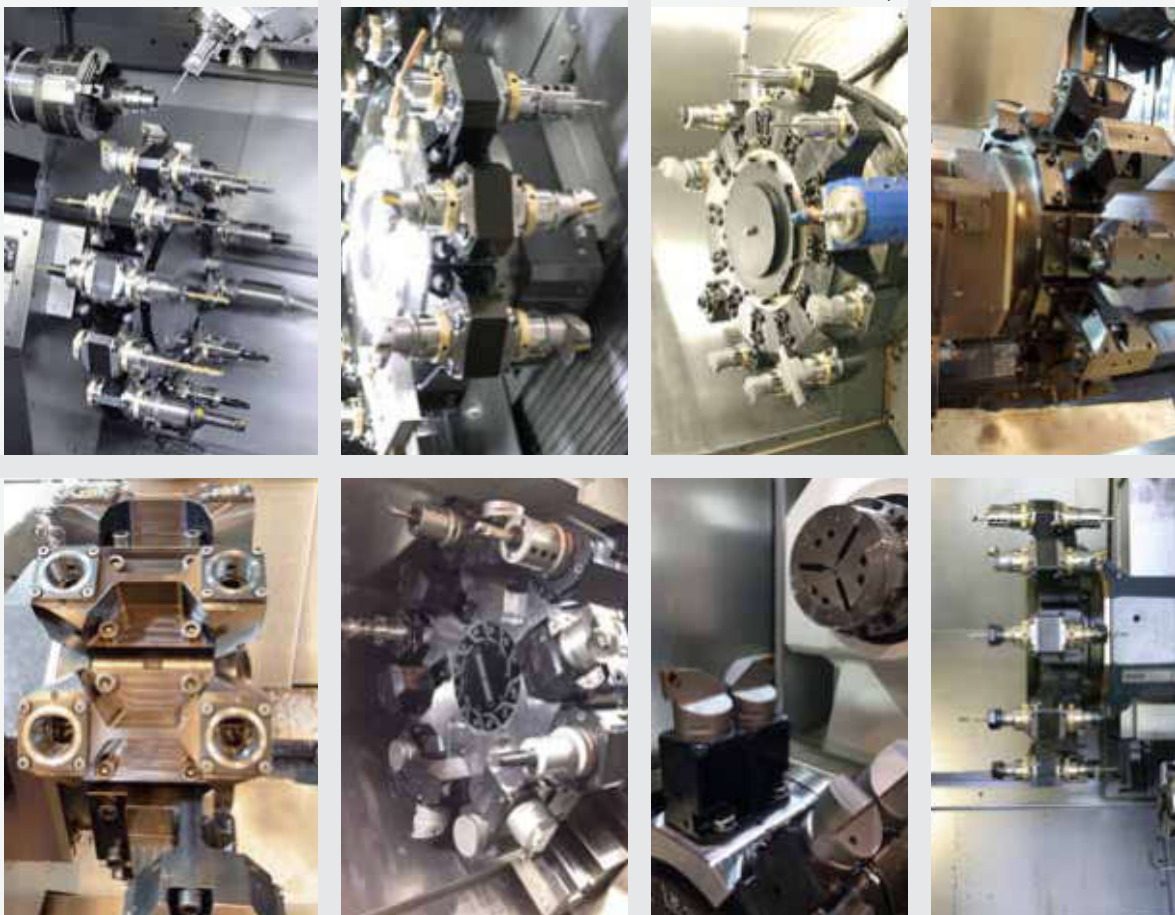


Systemlösungen / System solution / Solution de système

- Produktivitätssteigerung durch Reduktion der Nebenzeiten.
- Werkzeugwechsel in kürzester Zeit
- Beste Wiederholgenauigkeit mit definierten, gleichbleibenden Werkzeugkonturen
- Für alle Maschinentypen geeignet.
- Flexibel für HSK, PSC und KM Werkzeuge
- Kosteneffizient System

- Increase productivity by reducing non-productive time
- Very quick tool changing time
- Perfect repeatability with fixed tool geometry
- Useable for all machine brands
- Flexible with HSK, PSC and KM tools
- Cost efficient

- Augmenter la productivité en réduisant le temps de non-production.
- Temps de changement d'outil très rapide
- Répétabilité parfaite avec une géométrie d'outil fixe
- Convient à tous les types de machines
- Flexible avec les outils HSK, PSC et KM
- Système rentable



- Online Konfigurator
- Angetriebene- und statische Werkzeuge für Drehmaschinen
- www.swisstools.org

- Online configurator
- for static and rotating tools
- www.swisstools.org

- Configurateur online
- pour les outils statiques et tournants
- www.swisstools.org

Adaptionsmöglichkeiten Drehrevolverscheiben / Adaptation to turrets / Adaptation à la tourelle

Werkzeughalter mit Schnellwechselsystem

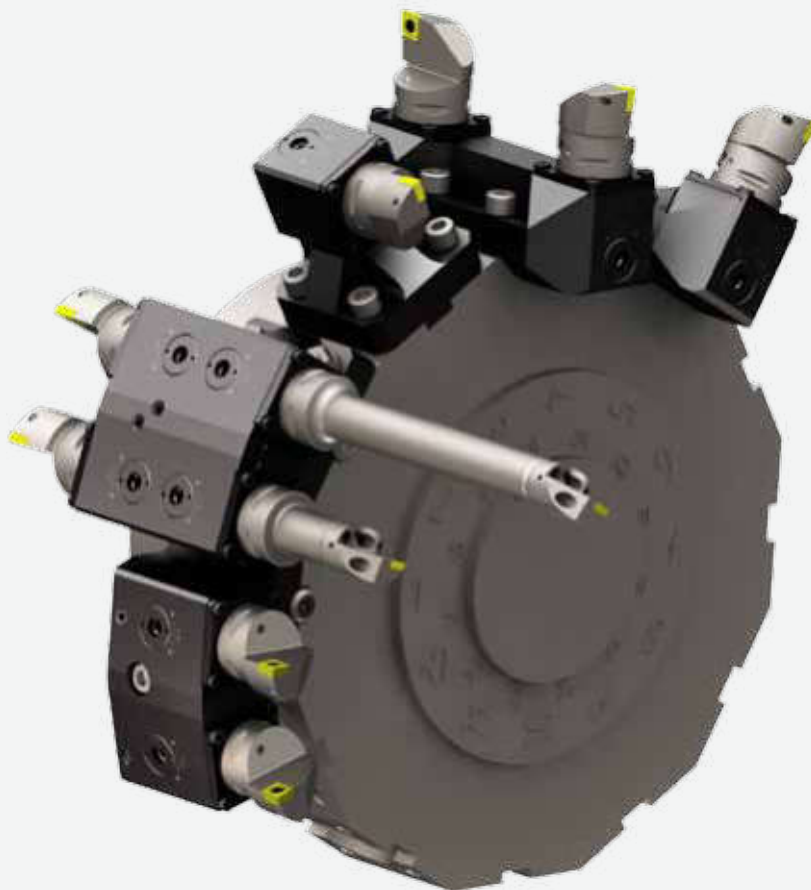
Das Werkzeughalterprogramm umfasst innovative und technisch ausgereifte Lösungen für alle gängigen CNC-Drehzentren. Wir bieten Ihnen Lösungen, die optimal auf das Maschinenfabrikat abgestimmt sind, ob mit BMT/ VDI oder anderen Anbindungen. Die Schnittstelle des Schnellwechselsystems ist DIN/ISO normiert, und für die Größen HSK 40/63/100, PSC40/50/63 und KM 40/50/63 vorhanden. Der Werkzeugwechsel ist einfach und schnell durchführbar. Die Nebenzeiten werden minimiert und damit die Produktivität gesteigert.

Tool holder with QUICK-CHANGE system

The whole range of the system contains solutions for the most CNC lathes centres. Complementary on the machine tool with BMT / VDI or other connections. The tool connection is based on DIN/ISO standards with HSK 40/63/100, PSC40/50/63 and KM 40/50/63. The tool change is very simple and quick. Non-productive times are minimized and the productivity will increase.

Porte-outil avec système de changement rapide

Le programme de porte-outils comprend des solutions innovantes et techniquement sophistiquées pour tous les centres de tournage CNC courants. Nous vous proposons des solutions, adaptées de manière optimale à la marque de la machine, que ce soit avec des connexions BMT/ VDI ou autres. L'interface du système de changement rapide est normalisée DIN/ISO et disponible pour les tailles HSK 40/63/100, PSC40/50/63 et KM 40/50/63. Le changement d'outil peut être effectué facilement et rapidement. Le temps de non-productivité sera minimisé et la productivité est ainsi augmentée.



Werkzeughalter / Tool holders / Porte-outils



Revolverscheibe /
Turret/ Tourelle
BMT/VDI/...



Werkzeughalter
einfach gerade

Tool holder
single straight

Porte-outils
single droit



Werkzeughalter
doppelt gerade

Tool holder
double straight

Porte-outils
double droit



Werkzeughalter
einfach abgewinkelt

Tool holder
single angular

Porte-outils
single angulaire



Werkzeughalter
doppelt abgewinkelt

Tool holder
double angular

Porte-outils
double angulaire

HSK / PSC / KM Spanneinheiten / HSK / PSC / KM clamping unit / HSK / PSC / KM unités de serrage

Die Werkzeughalter werden entweder mit einer HSK oder einer PSC Spanneinheit ausgerüstet.

Die Werkzeughalter sind somit flexibel auf die Kundenbedürfnisse anpassbar.

Spanneinheiten sind in den Größen HSK 40/63/100, PSC40/50/63 und KM 40/50/63 erhältlich

Tool holders are equipped with HSK or PSC clamping units.

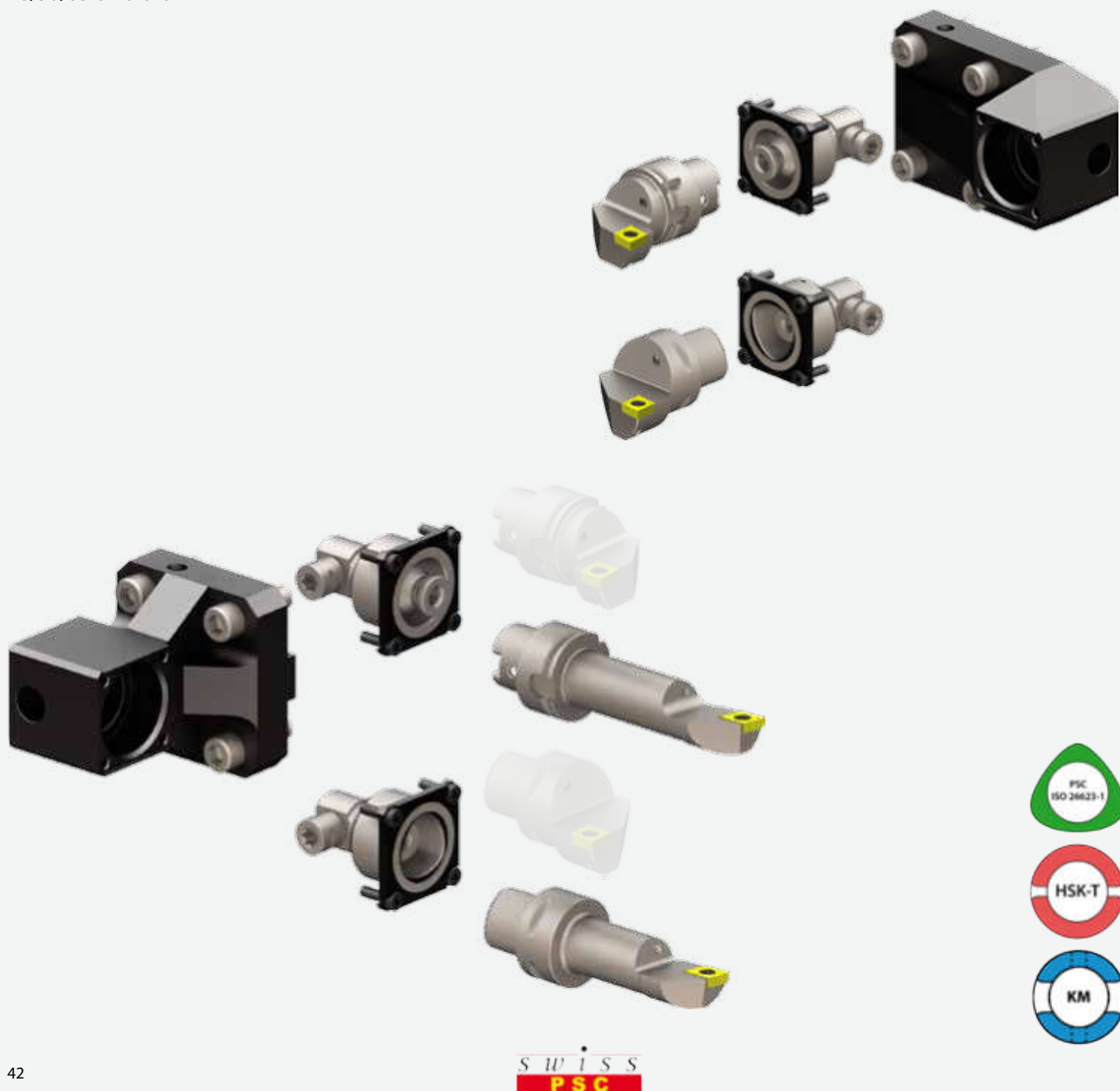
Very flexible for customer needs.

Clamping units are available in HSK 40/63/100, PSC40/50/63 and KM 40/50/63.

Les porte-outils sont soit équipés d'unités de serrage HSK ou PSC.

Les porte-outils sont par conséquent très flexible pour le besoin du client.

Les unités de serrage sont disponibles en HSK 40/63/100, PSC40/50/63 et KM 40/50/63.



Quick-Change Werkzeughalter und Spanneinheiten

Werkzeughalter mit VDI Schaft abgewinkelt / DIN 69880

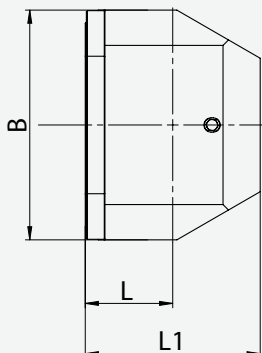
- Schaft mit Doppelverzahnung R/L Einsatz möglich
- für Innenkühlung



Quick-Change Toolholders and clamping units

Toolholder with VDI shank angular / DIN 69880

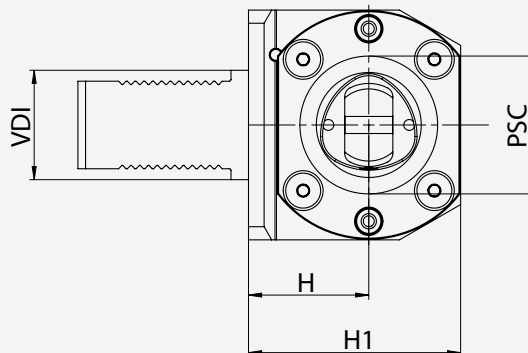
- shank with double seration profile R/L usage possible
- for inner coolant supply



Porte-outils et unités de serrage à changement rapide

Porte-outils avec tige VDI angulaire / DIN 69880

- tige avec double denture, utilisation G/D possible
- pour le arrosage interne



Bestell-Nr. / Order number/ Code	PSC	H	H1	VDI	L	L1	B	kg
REA.PS4.VD3.041	40	41	65	30	21	56	60	2.80
REA.PS4.VD4.051	40	51	75	40	30	86	75	3.00
REA.PS5.VD4.053	50	53	85	40	40	80	86	3.26
REA.PS5.VD5.053	50	53	85	50	40	80	86	3.50
REA.PS6.VD4.053	63	53	95	40	40	80	105	4.80
REA.PS6.VD5.055	63	55	97	50	40	80	105	5.20

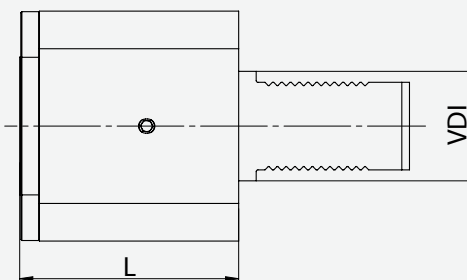
Werkzeughalter mit VDI Schaft gerade / DIN 69880

- Schaft mit Doppelverzahnung R/L Einsatz möglich
- für Innenkühlung



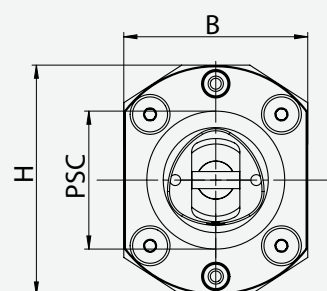
Toolholder with VDI shank straight / DIN 69880

- shank with double seration profile R/L usage possible
- for inner coolant supply



Porte-outils avec tige VDI droite / DIN 69880

- tige avec double denture, utilisation G/D possible
- pour le arrosage interne



Bestell-Nr. / Order number/ Code	PSC	L	H	VDI	B	kg
RER.PS4.VD3.070	40	70	60	30	52	0.87
RER.PS4.VD4.075	40	75	75	40	75	1.70
RER.PS5.VD4.085	50	85	82	40	75	2.02
RER.PS5.VD5.085	50	85	91	50	83	2.30
RER.PS6.VD4.090	63	90	105	40	84	3.50
RER.PS6.VD5.100	63	100	105	50	84	3.80

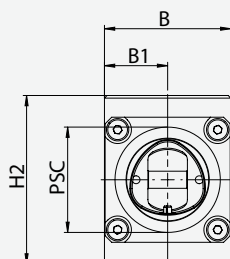
Quadratischer Schaft

- Anschluss für Innenkühlung



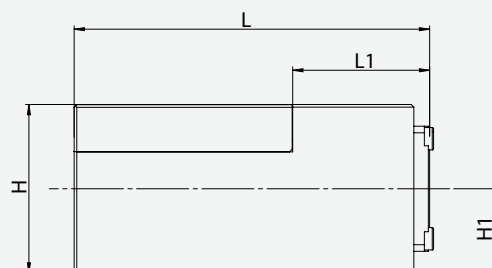
Rectangular shank

- Coupling for inner coolant supply



Porte-outils rectangulaire

- Raccordement pour l'arrosage interne



Bestell-Nr. / Order number/ Code	PSC	B	B1	H	H1	H2	L	L1	kg
RER.PS4.V20.140	40	48	24	40	20	58	140	50	
RER.PS4.V25.140	40	48	24	50	25	58	140	57	1.71
RER.PS4.V32.135	40	48	24	64	32	64	135	52	

PSC

DIGITALE FEINBOHRWERKZEUGE / DIGITAL FINE BORING HEADS / TÊTES D'ALÉSAGE FIN DIGITALES

- ein Display für alle Feinbohrköpfe
Ø 0.3 mm - 2205.0 mm
- Anzeige umkehrbar (Links-/ Rechtshänder)
- mm/inch umschaltbar
- Standard AAA Batterie zur Stromversorgung
- Display wird über Magnetkraft am Werkzeug gehalten
- Einstellgenauigkeit 0.001mm im Durchmesser
- direktes Wegmeßsystem (kein Umkehrspiel)
- keine Batterie und Auswerteelektronik im Werkzeug verbaut
- sehr einfache Bedienung
- digital und analog einsetzbar

- one display for all fine boring heads diameter
0.3 mm – 2205 mm
- display reversible (LH/RH)
- mm/inch switchable
- standard AAA battery required
- display unit will docked with magnetic forces at the tool
- 0.001 accuracy in diameter
- direct measurement system (no backlash)
- no battery and electronic evaluation unit inside the tool
- very easy operation
- for digital and analog use

- un seul display pour toutes les têtes d'alésage fin Ø 0.3 mm - 2205.0 mm
- display réversible (gaucher/droitier)
- mm/pouce commutable
- Pile AAA standard pour l'alimentation
- Le display est maintenu sur l'outil par force magnétique
- Précision de réglage de 0,001 mm sur le diamètre
- système de mesure directe (sans jeu)
- pas de batterie ni de dispositif électronique d'évaluation installé dans l'outil
- fonctionnement très simple
- pour une utilisation numérique et analogique



Schrumpffutter Typ L

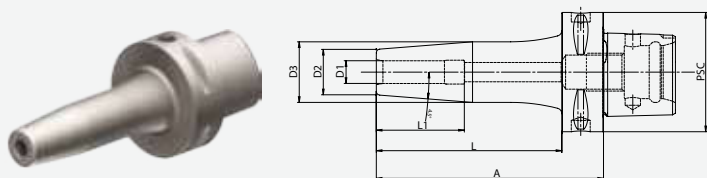
- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

Heat shrink chuck type L

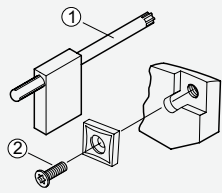
- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

Porte-outils de frettage type L

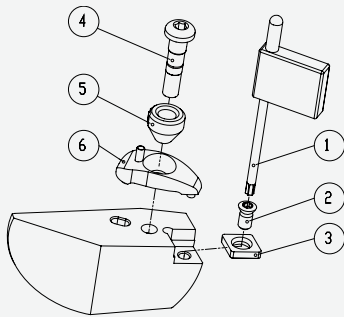
- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



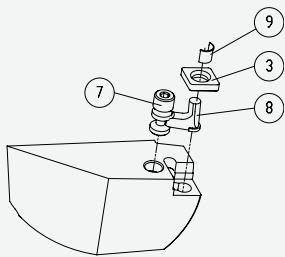
Bestell-Nr. / Order number/ Code	PSC	D1	D2	D3	A	L	L1	kg
PS6.S03.K01.080	63	3	15	20	80	58	-	0.85
PS6.S03.K01.120	63	3	15	20	120	98	-	0.95
PS6.S03.K01.160	63	3	15	20	160	138	-	1.03
PS6.S04.K01.080	63	4	15	20	80	58	-	0.85
PS6.S04.K01.120	63	4	15	20	120	98	-	0.95
PS6.S04.K01.160	63	4	15	20	160	138	-	1.03
PS6.S05.K01.080	63	5	15	20	80	58	-	0.95
PS6.S05.K01.120	63	5	15	20	120	98	-	1.15
PS6.S05.K01.160	63	5	15	20	160	138	-	1.30
PS6.S06.K01.080	63	6	21	26	80	58	36	0.95
PS6.S06.K01.120	63	6	21	26	120	98	36	1.12
PS6.S06.K01.160	63	6	21	26	160	138	36	1.30
PS6.S08.K01.080	63	8	21	26	80	58	36	0.95
PS6.S08.K01.120	63	8	21	26	120	98	36	1.13
PS6.S08.K01.160	63	8	21	26	160	138	36	1.29
PS6.S10.K01.080	63	10	24	30	80	58	41	1.00
PS6.S10.K01.120	63	10	24	30	120	98	41	1.26
PS6.S10.K01.160	63	10	24	30	160	138	41	1.50
PS6.S12.K01.080	63	12	24	30	80	58	46	0.98
PS6.S12.K01.120	63	12	24	30	120	98	46	1.25
PS6.S12.K01.160	63	12	24	30	160	138	46	1.48
PS6.S16.K01.085	63	16	27	34	85	63	49	1.04
PS6.S16.K01.120	63	16	27	34	120	98	49	1.30
PS6.S16.K01.160	63	16	27	34	160	138	49	1.56
PS6.S20.K01.085	63	20	33	41	85	63	51	1.10
PS6.S20.K01.120	63	20	33	41	120	98	51	1.55
PS6.S20.K01.160	63	20	33	41	160	138	51	1.93



	Typ/ Type	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code
xxx.xCC.xxx.xxx	S01	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xCD.xxx.xxx	S02	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xCE.xxx.xxx	S03	WCE.ER1.001.000	WCE.ER2.001.012 (5.0 Nm)
xxx.xWE.xxx.xxx	S04	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xDB.xxx.xxx	S05	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xDF.xxx.xxx	S06	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xVF/VB.xxx.xxx	S07	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xVD.xxx.xxx	S08	WCB.ER1.001.000	WCB.ER2.001.009 (3.0 Nm)
xxx.xSB.xxx.xxx	S09	WCC.ER1.001.000	WCC.ER2.001.010 (5.0 Nm)
xxx.xVE/VA.xxx.xxx	S10	WCA.ER1.001.000	WCA.ER2.001.006 (0.9 Nm)

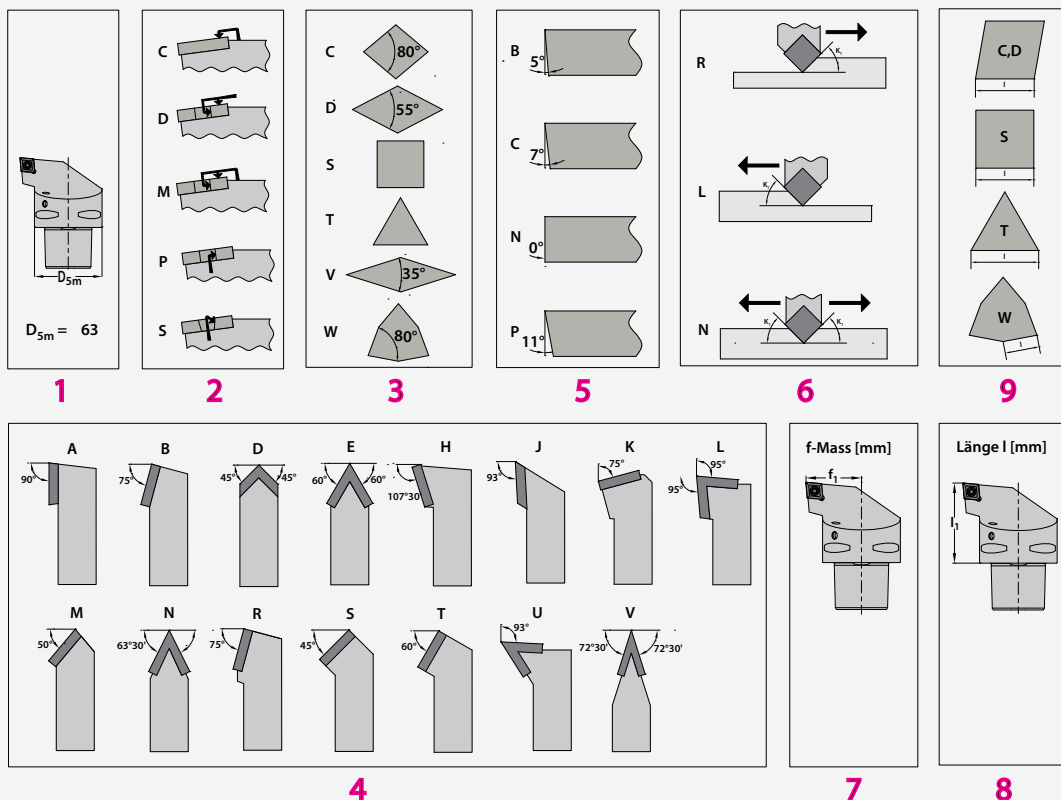


	Typ/ Type	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code
xxx.xCD.xxx.xxx	D01	WCD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.KCE.R/Lxx.xxx	D02	WCE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.KCE.Nxx.xxx	D03	WCE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.KWE.R/Lxx.xxx	D04	WWE.ER2.101.004	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.xDF.R/Lxx.xxx	D05	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.KDF.R/Lxx.xxx	D06	WDF.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.xVD.R/Lxx.xxx	D07	WVD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024
xxx.KVD.Nxx.xxx	D08	WVD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.029
xxx.KSD.R/Lxx.xxx	D09	WSD.ER2.101.003	WCC.ER4.103.032 (10 Nm)	WCC.ER5.102.012	WCC.ER3.102.024

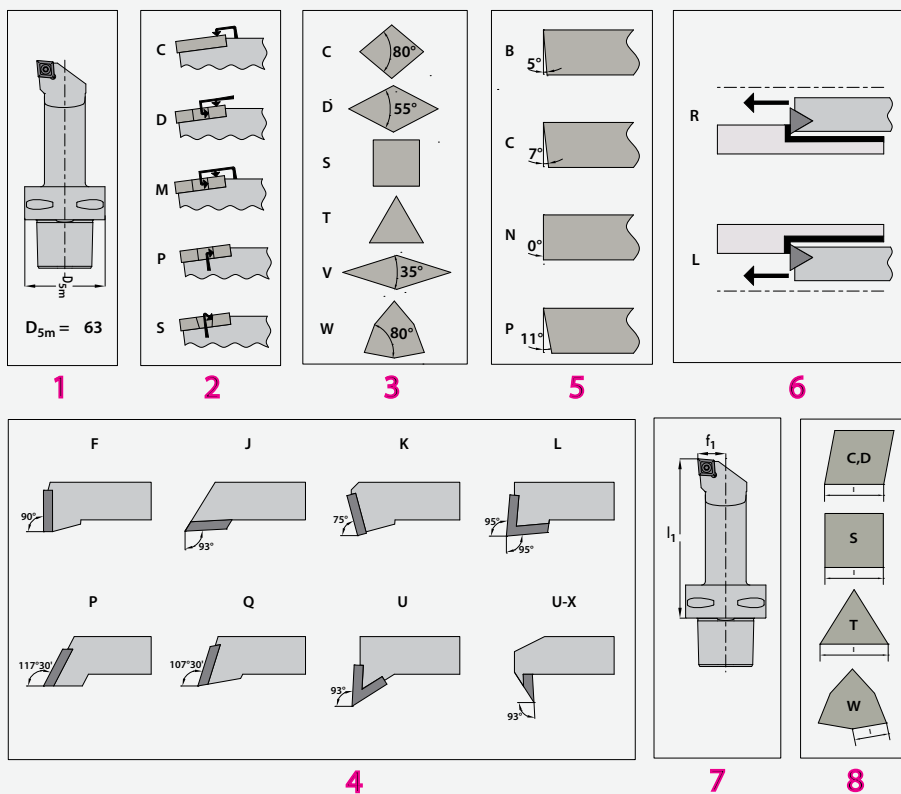


	Typ/ Type	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code	Bestell-Nr. / Order number/ Code
xxx.PCD.xxx.xxx	P01	WCD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
xxx.PCE.R/Lxx.xxx	P02	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000
xxx.PCE.Nxx.xxx	P03	WCE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000
xxx.PWE.R/Lxx.xxx	P04	WWE.ER2.101.004	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PDF.R/Lxx.xxx	P05	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PSD.R/Lxx.xxx	P06	WDF.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WDF.ER3.101.000	WCD.ER1.101.000
xxx.PSD.R/Lxx.xxx	P07	WSD.ER2.101.003	WCD.ER4.101.017 (5.0 Nm)	WCD.ER3.101.000	WCD.ER1.101.000
xxx.PDE.xxx.xxx.xxx	P08	WDE.ER2.101.003	WDE.ER4.101.017 (5.0 Nm)	WDE.ER3.101.000	WDE.ER1.101.000
xxx.PCF.xxx.xxx	P09	WCF.ER2.101.000	WCF.ER4.101.027 (9.0 Nm)	WCF.ER3.101.000	WCF.ER1.101.000
xxx.PSE.xxx.xxx	P10	WSE.ER2.101.004	WCE.ER4.101.004 (5.0 Nm)	WCE.ER3.101.000	WCE.ER1.101.000

PSC 63 D C L N R 45 065 12
1 2 3 4 5 6 7 8 9



PSC 63 S C L C R - 27180 - 09
1 2 3 4 5 6 7 8



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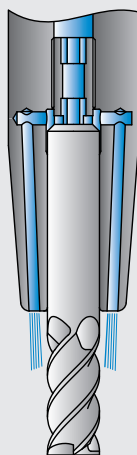
Swiss Tool Systems AG / Wydenstrasse 28 / CH - 8575 Bürglen
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Cool-Jet für Schrumpf- und Weldonfutter

Das Cool-Jet Kühlsystem besteht aus zwei Aussenkühlbohrungen. Die Bohrungen sind leicht zum Werkzeugzentrum geneigt damit der Kühlmittelstrahl nicht von der Fliehkraft abgelenkt wird. Die Bohrungen können mit Gewindestiften verschlossen werden.

(Alle Schrumpf- und Weldonfutter mit Cool-Jet werden verschlossen geliefert)

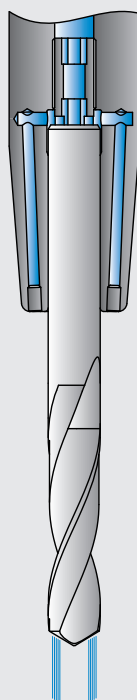
HIT



Cool-Jet for heat shrink chuck and weldon adapter

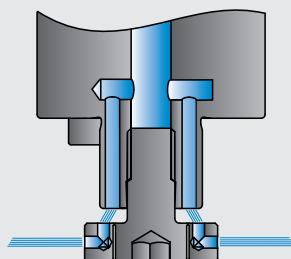
The key feature of the Cool-Jet system are two exterior cooling holes. The holes are directed to the tool center to avoid the deflection of the coolant jet by centrifugal force. The holes are lockable by using set screws.

(All heat shrink chucks and weldon adapters with cool-jet are locked when delivered)



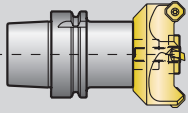
Fräsdorne mit Differentialschraube und Cool-Jet

Messerköpfe, gespannt auf unseren Fräsdornen mit Cool-Jet, werden effizient mit Kühlmittel versorgt. Zum Einen über die Innenkühlung des Messerkopfes und zum Anderen über unsere Differentialschraube.



Milling arbors with differential screw and cool-jet

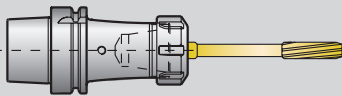
Milling cutters clamped on our milling arbors with cool-jet are cooled efficiently. On the one hand by the interior cooling through the milling cutter and on the other hand by our differential screw.



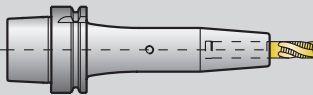
**Fräsdorn /
Milling arbor
Seite/page 22**



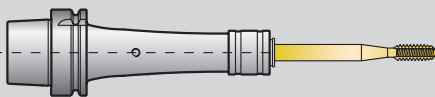
**Flächenspannfutter /
End mill holder Weldon
Seite/page 16 - 19**



**Spannzangenfutter /
Collet chuck
Seite/page 20 - 21**



**Schrumpffutter /
Heat shrink chuck
Seite/page 4 - 15**



**Gewindeschneidfutter /
Tapping chuck
Seite/page 23 - 24**

DIN ISO 7388-1 (SK DIN 69871)
Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

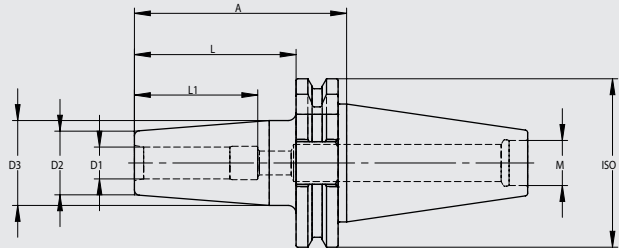


DIN ISO 7388-1 (SK DIN 69871)
Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

DIN ISO 7388-1 (SK DIN 69871)
Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	ISO	D1	D2	D3	A	L	L1	M
SK4.S03.K01.080	ISO40 AD	3	12	17	80	61	-	16
SK4.S03.K01.120	ISO40 AD	3	12	17	120	101	-	16
SK4.S04.K01.080	ISO40 AD	4	15	20	80	61	-	16
SK4.S04.K01.120	ISO40 AD	4	15	20	120	101	-	16
SK4.S06.K01.080	ISO40 AD	6	21	27	80	61	36	16
SK4.S06.K01.120	ISO40 AD	6	21	27	120	101	36	16
SK4.S08.K01.080	ISO40 AD	8	21	27	80	61	36	16
SK4.S08.K01.120	ISO40 AD	8	21	27	120	101	36	16
SK4.S10.K01.080	ISO40 AD	10	24	32	80	61	41	16
SK4.S10.K01.120	ISO40 AD	10	24	32	120	101	41	16
SK4.S12.K01.080	ISO40 AD	12	24	32	80	61	46	16
SK4.S12.K01.120	ISO40 AD	12	24	32	120	101	46	16
SK4.S16.K01.080	ISO40 AD	16	27	34	80	61	49	16
SK4.S16.K01.120	ISO40 AD	16	27	34	120	101	49	16
SK4.S20.K01.080	ISO40 AD	20	33	41	80	61	51	16
SK4.S20.K01.120	ISO40 AD	20	33	41	120	101	51	16
SK4.S25.K01.100	ISO40 AD	25	44	53	100	81	57	16
SK4.S25.K01.120	ISO40 AD	25	44	53	120	101	57	16
SK4.S32.K01.100	ISO40 AD	32	44	53	100	81	61	16
SK4.S32.K01.120	ISO40 AD	32	44	53	120	101	61	16

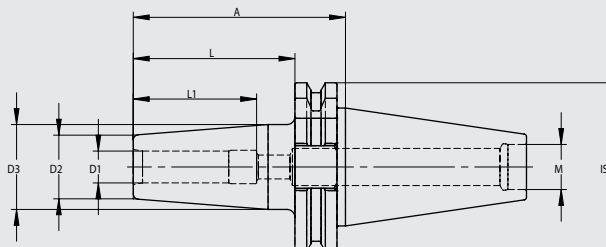
DIN ISO 7388-1 (SK DIN 69871)
Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung



DIN ISO 7388-1 (SK DIN 69871)
Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment



DIN ISO 7388-1 (SK DIN 69871)
Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial

Bestell-Nr. / Order number	ISO	D1	D2	D3	A	L	L1	M
SK5.S04.K01.100	ISO50 AD	4	15	20	100	81	-	24
SK5.S04.K01.160	ISO50 AD	4	15	20	160	141	-	24
SK5.S04.K01.200	ISO50 AD	4	15	20	200	181	-	24
SK5.S06.K01.100	ISO50 AD	6	21	27	100	81	36	24
SK5.S06.K01.160	ISO50 AD	6	21	27	160	141	36	24
SK5.S06.K01.200	ISO50 AD	6	21	27	200	181	36	24
SK5.S08.K01.100	ISO50 AD	8	21	27	100	81	36	24
SK5.S08.K01.160	ISO50 AD	8	21	27	160	141	36	24
SK5.S08.K01.200	ISO50 AD	8	21	27	200	181	36	24
SK5.S10.K01.100	ISO50 AD	10	24	32	100	81	41	24
SK5.S10.K01.160	ISO50 AD	10	24	32	160	141	41	24
SK5.S10.K01.200	ISO50 AD	10	24	32	200	181	41	24
SK5.S12.K01.100	ISO50 AD	12	24	32	100	81	46	24
SK5.S12.K01.160	ISO50 AD	12	24	32	160	141	46	24
SK5.S12.K01.200	ISO50 AD	12	24	32	200	181	46	24
SK5.S14.K01.100	ISO50 AD	12	24	32	100	81	46	24
SK5.S14.K01.160	ISO50 AD	12	24	32	160	141	46	24
SK5.S14.K01.200	ISO50 AD	12	24	32	200	181	46	24
SK5.S16.K01.100	ISO50 AD	16	27	34	100	81	49	24
SK5.S16.K01.160	ISO50 AD	16	27	34	160	141	49	24
SK5.S16.K01.200	ISO50 AD	16	27	34	200	181	49	24
SK5.S18.K01.100	ISO50 AD	18	33	41	100	81	49	24
SK5.S18.K01.160	ISO50 AD	18	33	41	160	141	49	24
SK5.S18.K01.200	ISO50 AD	18	33	41	200	181	49	24
SK5.S20.K01.100	ISO50 AD	20	33	41	100	81	51	24
SK5.S20.K01.160	ISO50 AD	20	33	41	160	141	51	24
SK5.S20.K01.200	ISO50 AD	20	33	41	200	181	51	24
SK5.S25.K01.100	ISO50 AD	25	44	53	100	81	57	24
SK5.S25.K01.160	ISO50 AD	25	44	53	160	141	57	24
SK5.S25.K01.200	ISO50 AD	25	44	53	200	181	57	24
SK5.S32.K01.100	ISO50 AD	32	44	53	100	81	61	24
SK5.S32.K01.160	ISO50 AD	32	44	53	160	141	61	24
SK5.S32.K01.200	ISO50 AD	32	44	53	200	181	61	24

JIS B 6339 (MAS 403 BT)
Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

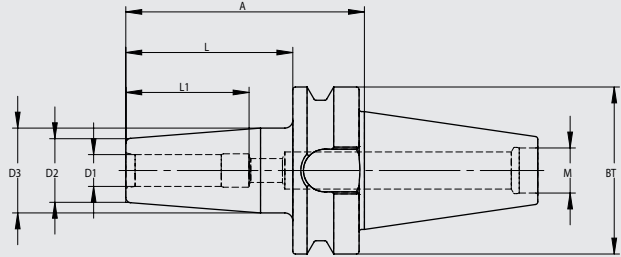


JIS B 6339 (MAS 403 BT)
Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

JIS B 6339 (MAS 403 BT)
Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	BT	D1	D2	D3	A	L	L1	M
BT3.S03.K01.080	BT30 AD	3	12	17	80	58	-	12
BT3.S04.K01.080	BT30 AD	4	15	20	80	58	-	12
BT3.S06.K01.080	BT30 AD	6	21	27	80	58	36	12
BT3.S08.K01.080	BT30 AD	8	21	27	80	58	36	12
BT3.S10.K01.080	BT30 AD	10	24	32	80	58	41	12
BT3.S12.K01.080	BT30 AD	12	24	32	80	58	46	12
BT3.S16.K01.080	BT30 AD	16	27	34	80	58	49	12
BT3.S20.K01.090	BT30 AD	20	33	41	90	68	51	12
BT4.S03.K01.090	BT40 AD	3	12	17	90	63	-	16
BT4.S03.K01.120	BT40 AD	3	12	17	120	93	-	16
BT4.S03.K01.160	BT40 AD	3	12	17	160	133	-	16
BT4.S04.K01.090	BT40 AD	4	15	20	90	63	-	16
BT4.S04.K01.120	BT40 AD	4	15	20	120	93	-	16
BT4.S04.K01.160	BT40 AD	4	15	20	160	133	-	16
BT4.S06.K01.090	BT40 AD	6	21	27	90	63	36	16
BT4.S06.K01.120	BT40 AD	6	21	27	120	93	36	16
BT4.S06.K01.160	BT40 AD	6	21	27	160	133	36	16
BT4.S08.K01.090	BT40 AD	8	21	27	90	63	36	16
BT4.S08.K01.120	BT40 AD	8	21	27	120	93	36	16
BT4.S08.K01.160	BT40 AD	8	21	27	160	133	36	16
BT4.S10.K01.090	BT40 AD	10	24	32	90	63	41	16
BT4.S10.K01.120	BT40 AD	10	24	32	120	93	41	16
BT4.S10.K01.160	BT40 AD	10	24	32	160	133	41	16
BT4.S12.K01.090	BT40 AD	12	24	32	90	63	46	16
BT4.S12.K01.120	BT40 AD	12	24	32	120	93	46	16
BT4.S12.K01.160	BT40 AD	12	24	32	160	133	46	16
BT4.S16.K01.090	BT40 AD	16	27	34	90	63	49	16
BT4.S16.K01.120	BT40 AD	16	27	34	120	93	49	16
BT4.S16.K01.160	BT40 AD	16	27	34	160	133	49	16
BT4.S20.K01.090	BT40 AD	20	33	41	90	63	51	16
BT4.S20.K01.120	BT40 AD	20	33	41	120	93	51	16
BT4.S20.K01.160	BT40 AD	20	33	41	160	133	51	16
BT4.S25.K01.100	BT40 AD	25	44	53	100	73	57	16
BT4.S25.K01.120	BT40 AD	25	44	53	120	93	57	16
BT4.S25.K01.160	BT40 AD	25	44	53	160	133	57	16
BT4.S32.K01.100	BT40 AD	32	44	53	100	73	61	16
BT4.S32.K01.120	BT40 AD	32	44	53	120	93	61	16
BT4.S32.K01.160	BT40 AD	32	44	53	160	133	61	16

JIS B 6339 (MAS 403 BT) Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

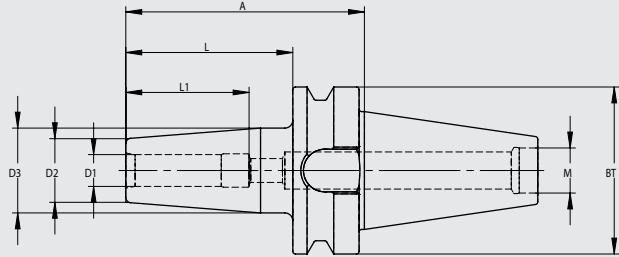


JIS B 6339 (MAS 403 BT) Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

JIS B 6339 (MAS 403 BT) Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	BT	D1	D2	D3	A	L	L1	M
BT5.S04.K01.105	BT50 AD	4	15	20	105	67	-	24
BT5.S04.K01.165	BT50 AD	4	15	20	165	127	-	24
BT5.S04.K01.210	BT50 AD	4	15	20	210	172	-	24
BT5.S06.K01.105	BT50 AD	6	21	27	105	67	36	24
BT5.S06.K01.130	BT50 AD	6	21	27	130	92	36	24
BT5.S06.K01.165	BT50 AD	6	21	27	165	127	36	24
BT5.S06.K01.210	BT50 AD	6	21	27	210	172	36	24
BT5.S08.K01.105	BT50 AD	8	21	27	105	67	36	24
BT5.S08.K01.130	BT50 AD	8	21	27	130	92	36	24
BT5.S08.K01.165	BT50 AD	8	21	27	165	127	36	24
BT5.S08.K01.210	BT50 AD	8	21	27	210	172	36	24
BT5.S10.K01.105	BT50 AD	10	24	32	105	67	41	24
BT5.S10.K01.130	BT50 AD	10	24	32	130	92	41	24
BT5.S10.K01.165	BT50 AD	10	24	32	165	127	41	24
BT5.S10.K01.210	BT50 AD	10	24	32	210	172	41	24
BT5.S12.K01.105	BT50 AD	12	24	32	105	67	46	24
BT5.S12.K01.130	BT50 AD	12	24	32	130	92	46	24
BT5.S12.K01.165	BT50 AD	12	24	32	165	127	46	24
BT5.S12.K01.210	BT50 AD	12	24	32	210	172	46	24
BT5.S14.K01.105	BT50 AD	14	27	34	105	67	46	24
BT5.S14.K01.130	BT50 AD	14	27	34	130	92	46	24
BT5.S14.K01.165	BT50 AD	14	27	34	165	127	46	24
BT5.S14.K01.210	BT50 AD	14	27	34	210	172	46	24
BT5.S16.K01.105	BT50 AD	16	27	34	105	67	49	24
BT5.S16.K01.130	BT50 AD	16	27	34	130	92	49	24
BT5.S16.K01.165	BT50 AD	16	27	34	165	127	49	24
BT5.S16.K01.210	BT50 AD	16	27	34	210	172	49	24
BT5.S18.K01.105	BT50 AD	18	33	41	105	67	49	24
BT5.S18.K01.130	BT50 AD	18	33	41	130	92	49	24
BT5.S18.K01.165	BT50 AD	18	33	41	165	127	49	24
BT5.S18.K01.210	BT50 AD	18	33	41	201	163	49	24
BT5.S20.K01.105	BT50 AD	20	33	41	105	67	51	24
BT5.S20.K01.130	BT50 AD	20	33	41	130	92	51	24
BT5.S20.K01.165	BT50 AD	20	33	41	165	127	51	24
BT5.S20.K01.210	BT50 AD	20	33	41	201	163	51	24
BT5.S25.K01.105	BT50 AD	25	44	53	105	67	57	24
BT5.S25.K01.130	BT50 AD	25	44	53	130	92	57	24
BT5.S25.K01.165	BT50 AD	25	44	53	165	127	57	24
BT5.S25.K01.210	BT50 AD	25	44	53	210	172	57	24
BT5.S32.K01.105	BT50 AD	32	44	53	105	67	61	24
BT5.S32.K01.130	BT50 AD	32	44	53	130	92	61	24
BT5.S32.K01.165	BT50 AD	32	44	53	165	127	61	24
BT5.S32.K01.210	BT50 AD	32	44	53	210	172	61	24

ISO 26623-1 PSC Schrumpffutter Typ L

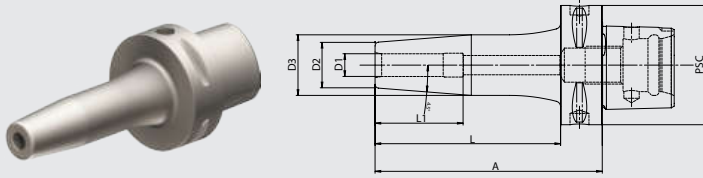
- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

ISO 26623-1 PSC Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

ISO 26623-1 PSC Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number/ Code	PSC	D1	D2	D3	A	L	L1	kg
PS6.S03.K01.080	63	3	15	20	80	58	-	0.85
PS6.S03.K01.120	63	3	15	20	120	98	-	0.95
PS6.S03.K01.160	63	3	15	20	160	138	-	1.03
PS6.S04.K01.080	63	4	15	20	80	58	-	0.85
PS6.S04.K01.120	63	4	15	20	120	98	-	0.95
PS6.S04.K01.160	63	4	15	20	160	138	-	1.03
PS6.S05.K01.080	63	5	15	20	80	58	-	0.95
PS6.S05.K01.120	63	5	15	20	120	98	-	1.15
PS6.S05.K01.160	63	5	15	20	160	138	-	1.30
PS6.S06.K01.080	63	6	21	26	80	58	36	0.95
PS6.S06.K01.120	63	6	21	26	120	98	36	1.12
PS6.S06.K01.160	63	6	21	26	160	138	36	1.30
PS6.S08.K01.080	63	8	21	26	80	58	36	0.95
PS6.S08.K01.120	63	8	21	26	120	98	36	1.13
PS6.S08.K01.160	63	8	21	26	160	138	36	1.29
PS6.S10.K01.080	63	10	24	30	80	58	41	1.00
PS6.S10.K01.120	63	10	24	30	120	98	41	1.26
PS6.S10.K01.160	63	10	24	30	160	138	41	1.50
PS6.S12.K01.080	63	12	24	30	80	58	46	0.98
PS6.S12.K01.120	63	12	24	30	120	98	46	1.25
PS6.S12.K01.160	63	12	24	30	160	138	46	1.48
PS6.S16.K01.085	63	16	27	34	85	63	49	1.04
PS6.S16.K01.120	63	16	27	34	120	98	49	1.30
PS6.S16.K01.160	63	16	27	34	160	138	49	1.56
PS6.S20.K01.085	63	20	33	41	85	63	51	1.10
PS6.S20.K01.120	63	20	33	41	120	98	51	1.55
PS6.S20.K01.160	63	20	33	41	160	138	51	1.93

HSK ISO 12164-1 (DIN 69893) Schrumpffutter Typ L

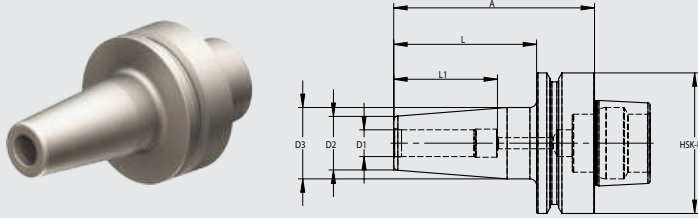
- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

HSK ISO 12164-1 (DIN 69893) Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

HSK ISO 12164-1 (DIN 69893) Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial

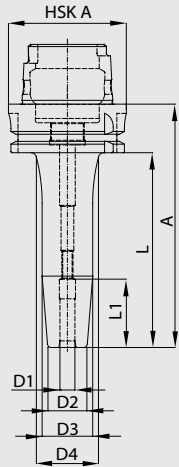
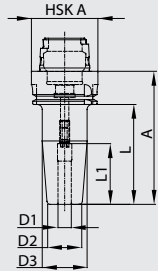


Bestell-Nr. / Order number/ Code	HSK	D1	D2	D3	A	L	L1	kg
HF6.S04.K01.080	F63	4	15	20	80	54	-	0.75
HF6.S06.K01.080	F63	6	21	27	80	54	36	0.84
HF6.S08.K01.080	F63	8	21	27	80	54	36	0.83
HF6.S10.K01.085	F63	10	24	32	85	59	41	0.91
HF6.S12.K01.085	F63	12	24	32	85	59	46	0.98

HSK ISO 12164-1 (DIN 69893)

Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung



HSK ISO 12164-1 (DIN 69893)

Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

HSK ISO 12164-1 (DIN 69893)

Porte-outils de frettage type L

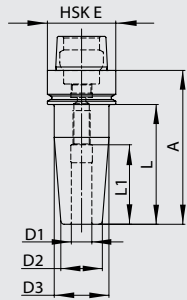
- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	HSK	D1	D2	D3	A	L	L1
HA4.S06.K01.080	A40	6	21	26	80	60	36
HA4.S08.K01.080	A40	8	21	26	80	60	36
HA4.S10.K01.080	A40	10	24	30	80	60	41
HA4.S12.K01.090	A40	12	24	30	90	70	46
HA4.S14.K01.090	A40	14	27	34	90	70	46
HA4.S16.K01.090	A40	16	27	34	90	70	49
HA5.S04.K01.070	A50	4	12	18	70	44	-
HA5.S06.K01.080	A50	6	21	26	80	54	36
HA5.S08.K01.080	A50	8	21	26	80	54	36
HA5.S10.K01.085	A50	10	24	30	85	59	41
HA5.S12.K01.090	A50	12	24	30	90	64	46
HA5.S16.K01.095	A50	16	27	34	95	69	49
HA6.S04.K01.080	A63	4	15	20	80	54	36
HA6.S04.K01.130	A63	4	15	20	130	104	36
HA6.S04.K01.160	A63	4	15	20	160	134	36
HA6.S04.K01.200	A63	4	15	20	200	174	36
HA6.S06.K01.080	A63	6	21	26	80	54	36
HA6.S06.K01.130	A63	6	21	26	130	104	36
HA6.S06.K01.160	A63	6	21	26	160	134	36
HA6.S06.K01.200	A63	6	21	26	200	174	36
HA6.S08.K01.080	A63	8	21	26	80	54	36
HA6.S08.K01.130	A63	8	21	26	130	104	36
HA6.S08.K01.160	A63	8	21	26	160	134	36
HA6.S08.K01.200	A63	8	21	26	200	174	36
HA6.S10.K01.085	A63	10	24	30	85	59	41
HA6.S10.K01.130	A63	10	24	30	130	104	41
HA6.S10.K01.160	A63	10	24	30	160	134	41
HA6.S10.K01.200	A63	10	24	30	200	174	41
HA6.S12.K01.090	A63	12	24	30	90	64	46
HA6.S12.K01.130	A63	12	24	30	130	104	46
HA6.S12.K01.160	A63	12	24	30	160	134	46
HA6.S12.K01.200	A63	12	24	30	200	174	46
HA6.S14.K01.090	A63	14	27	34	90	64	46
HA6.S14.K01.130	A63	14	27	34	130	104	46
HA6.S14.K01.160	A63	14	27	34	160	134	46
HA6.S14.K01.200	A63	14	27	34	200	174	46
HA6.S16.K01.095	A63	16	27	34	95	69	49
HA6.S16.K01.130	A63	16	27	34	130	104	49
HA6.S16.K01.160	A63	16	27	34	160	134	49
HA6.S16.K01.200	A63	16	27	34	200	174	49
HA6.S18.K01.095	A63	18	33	41	95	69	49
HA6.S18.K01.130	A63	18	33	41	130	104	49
HA6.S18.K01.160	A63	18	33	41	160	134	49
HA6.S18.K01.200	A63	18	33	41	200	174	49
HA6.S20.K01.100	A63	20	33	41	100	74	51
HA6.S20.K01.130	A63	20	33	41	130	104	51
HA6.S20.K01.160	A63	20	33	41	160	134	51
HA6.S20.K01.200	A63	20	33	41	200	174	51
HA6.S25.K01.115	A63	25	44	52	115	89	57
HA6.S25.K01.160	A63	25	44	52	160	134	57
HA6.S25.K01.200	A63	25	44	52	200	174	57
HA6.S32.K01.120	A63	32	44	52	120	94	61
HA6.S32.K01.160	A63	32	44	52	160	134	61
HA6.S32.K01.200	A63	32	44	52	200	174	61

HSK ISO 12164-1 (DIN 69893) Schrumpffutter Typ L

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung



HSK ISO 12164-1 (DIN 69893) Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

HSK ISO 12164-1 (DIN 69893) Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	HSK	D1	D2	D3	A	L	L1
HE3.S03.K01.060	E32	3	12	17	60	40	9
HE3.S04.K01.060	E32	4	15	20	60	40	12
HE3.S06.K01.070	E32	6	21	26	70	50	36
HE3.S08.K01.070	E32	8	21	26	70	50	36
HE3.S10.K01.080	E32	10	24	26	80	60	41
HE4.S04.K01.060	E40	4	12	18	60	40	12
HE4.S06.K01.080	E40	6	21	26	80	60	36
HE4.S08.K01.080	E40	8	21	26	80	60	36
HE4.S10.K01.080	E40	10	24	30	80	60	41
HE4.S12.K01.090	E40	12	24	30	90	70	46
HE4.S14.K01.090	E40	14	27	34	90	70	46
HE4.S16.K01.090	E40	16	27	34	90	70	49
HE5.S04.K01.070	E50	4	12	18	70	44	12
HE5.S06.K01.080	E50	6	21	26	80	54	36
HE5.S08.K01.080	E50	8	21	26	80	54	36
HE5.S10.K01.085	E50	10	24	30	85	59	41
HE5.S12.K01.090	E50	12	24	30	90	64	46
HE5.S14.K01.090	E50	14	27	34	90	64	46
HE5.S16.K01.095	E50	16	27	34	95	69	49

HSK ISO 12164-1 (DIN 69893) Schrumpffutter Typ L

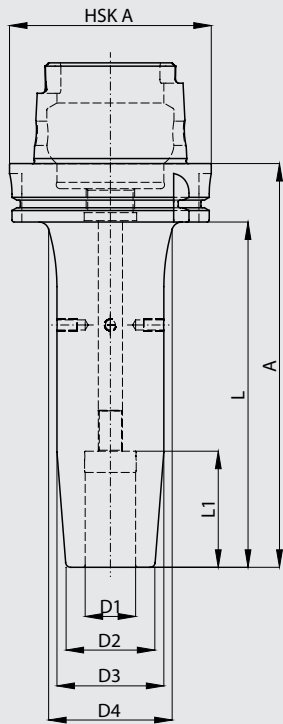
- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- axiale Längenverstellung

HSK ISO 12164-1 (DIN 69893) Heat shrink chuck type L

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- axial adjustment

HSK ISO 12164-1 (DIN 69893) Porte-outils de frettage type L

- design standard pour une plus grande force de serrage
- pour outils en carbure et en acier High-Speed
- tolérance de tige h6
- runout 3 µm
- porte-outils finement équilibrés G 2.5/25000 t/min
- réglage axial



Bestell-Nr. / Order number	HSK	D1	D2	D3	A	L	L1
HA0.S06.K01.085	A100	6	21	26	85	56	36
HA0.S06.K01.130	A100	6	21	30	130	101	36
HA0.S06.K01.160	A100	6	21	30	160	131	36
HA0.S06.K01.200	A100	6	21	30	200	171	36
HA0.S08.K01.085	A100	8	21	26	85	56	36
HA0.S08.K01.130	A100	8	21	30	130	101	36
HA0.S08.K01.160	A100	8	21	30	160	131	36
HA0.S08.K01.200	A100	8	21	30	200	171	36
HA0.S10.K01.090	A100	10	24	30	90	61	41
HA0.S10.K01.130	A100	10	24	34	130	101	41
HA0.S10.K01.160	A100	10	24	34	160	131	41
HA0.S10.K01.200	A100	10	24	34	200	171	41
HA0.S12.K01.095	A100	12	24	30	95	66	46
HA0.S12.K01.130	A100	12	24	34	130	101	46
HA0.S12.K01.160	A100	12	24	34	160	131	46
HA0.S12.K01.200	A100	12	24	34	200	171	46
HA0.S16.K01.100	A100	16	27	34	100	71	49
HA0.S16.K01.160	A100	16	27	37	160	131	49
HA0.S16.K01.200	A100	16	27	37	200	171	49
HA0.S20.K01.105	A100	20	33	41	105	76	51
HA0.S20.K01.160	A100	20	33	44	160	131	51
HA0.S20.K01.200	A100	20	33	44	200	171	51
HA0.S25.K01.115	A100	25	44	53	115	86	57
HA0.S25.K01.160	A100	25	44	56	160	131	57
HA0.S25.K01.200	A100	25	44	56	200	171	57
HA0.S32.K01.120	A100	32	44	53	120	91	61
HA0.S32.K01.160	A100	32	44	56	160	131	61
HA0.S32.K01.200	A100	32	44	56	200	171	61

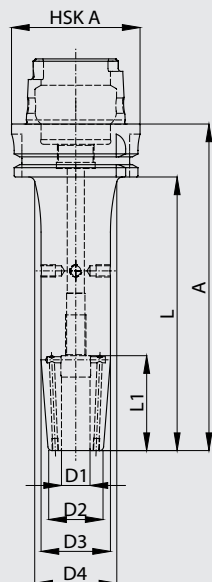


Schrumpffutter Typ S

Heat shrink chuck type S

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- 2 Cool-Jet Bohrungen (verschlussbar)
- axiale Längenverstellung

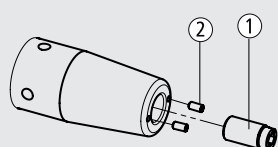
- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- 2 Cool-Jet holes (lockable)
- axial adjustment



Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HA6.S06.K21.080	A63	6	21	26	-	80	54	36
HA6.S06.K21.130	A63	6	21	27	34	130	104	36
HA6.S06.K21.160	A63	6	21	27	34	160	134	36
HA6.S08.K21.080	A63	8	21	26	-	80	54	36
HA6.S08.K21.130	A63	8	21	27	34	130	104	36
HA6.S08.K21.160	A63	8	21	27	34	160	134	36
HA6.S10.K21.085	A63	10	24	30	-	85	59	41
HA6.S10.K21.130	A63	10	24	32	39	130	104	41
HA6.S10.K21.160	A63	10	24	32	39	160	134	41
HA6.S12.K21.090	A63	12	24	30	-	90	64	46
HA6.S12.K21.130	A63	12	24	32	39	130	104	46
HA6.S12.K21.160	A63	12	24	32	39	160	134	46
HA6.S14.K21.090	A63	14	27	34	-	90	64	46
HA6.S14.K21.130	A63	14	27	34	41	130	104	46
HA6.S14.K21.160	A63	14	27	34	41	160	134	46
HA6.S16.K21.095	A63	16	27	34	-	95	69	49
HA6.S16.K21.130	A63	16	27	34	41	130	104	49
HA6.S16.K21.160	A63	16	27	34	41	160	134	49
HA6.S18.K21.095	A63	18	33	41	-	95	69	49
HA6.S18.K21.130	A63	18	33	41	48	130	104	49
HA6.S18.K21.160	A63	18	33	41	48	160	134	49
HA6.S20.K21.100	A63	20	33	41	-	100	74	51
HA6.S20.K21.130	A63	20	33	41	48	130	104	51
HA6.S20.K21.160	A63	20	33	41	48	160	134	51
HA6.S25.K21.115	A63	25	44	52	-	115	89	57
HA6.S25.K21.160	A63	25	44	52	-	160	134	57
HA6.S32.K21.120	A63	32	44	52	-	120	94	61
HA6.S32.K21.160	A63	32	44	52	-	160	134	61

Ersatzteile / Zubehör

Spare parts / Accessories



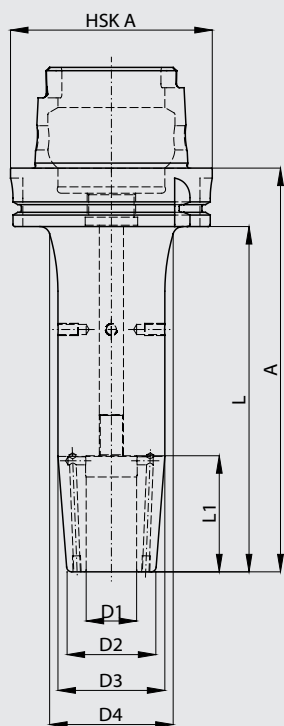
Für Schrumpffutter / For heat shrink chuck	Bestell-Nr. / Order number	Dimension	Bestell-Nr. / Order number	Dimension
	Anschlagschraube / Stop screw	①	Cool-Jet Verschlusschraube/ Screw plug	②
xxx.S06.xxx.xxx	ERU.AN1.K01.014	M 5 x 14	ERU.CJ2.001.006	M 3 x 6
xxx.S08.xxx.xxx	ERU.AN2.K01.016	M 6 x 16	ERU.CJ2.001.006	M 3 x 6
xxx.S10.xxx.xxx	ERU.AN3.K01.020	M 8 x 1 x 16	ERU.CJ2.001.006	M 3 x 6
xxx.S12 ... S14.xxx.xxx	ERU.AN4.K01.020	M10 x 1 x 20	ERU.CJ2.001.006	M 3 x 6
xxx.S16 ... S20.xxx.xxx	ERU.AN5.K01.020	M12 x 1 x 20	ERU.CJ2.001.006	M 3 x 6
xxx.S25 ... S50.xxx.xxx	ERU.AN5.K01.020	M12 x 1 x 20	ERU.CJ3.001.008	M 4 x 8

Schrumpffutter Typ S

- Standardausführung für hohe Klemmkraft
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min
- 2 Cool-Jet Bohrungen (verschlussbar)
- axiale Längenverstellung

Heat shrink chuck type S

- standard design for a better clamping force
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min
- 2 Cool-Jet holes (lockable)
- axial adjustment



Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HA0.S06.K21.085	A100	6	21	26	-	85	56	36
HA0.S06.K21.130	A100	6	21	30	-	130	101	36
HA0.S06.K21.160	A100	6	21	30	39	160	131	36
HA0.S06.K21.200	A100	6	21	27	39	200	171	36
HA0.S08.K21.085	A100	8	21	26	-	85	56	36
HA0.S08.K21.130	A100	8	21	30	-	130	101	36
HA0.S08.K21.160	A100	8	21	30	39	160	131	36
HA0.S08.K21.200	A100	8	21	27	39	200	171	36
HA0.S10.K21.090	A100	10	24	30	-	90	61	41
HA0.S10.K21.130	A100	10	24	34	-	130	101	41
HA0.S10.K21.160	A100	10	24	34	43	160	131	41
HA0.S10.K21.200	A100	10	24	32	43	200	171	41
HA0.S12.K21.095	A100	12	24	30	-	95	66	46
HA0.S12.K21.130	A100	12	24	34	-	130	101	46
HA0.S12.K21.160	A100	12	24	34	43	160	131	46
HA0.S12.K21.200	A100	12	24	32	43	200	171	46
HA0.S14.K21.095	A100	14	27	34	-	95	66	46
HA0.S14.K21.130	A100	14	27	37	--	130	101	46
HA0.S14.K21.160	A100	14	27	37	46	160	131	46
HA0.S14.K21.200	A100	14	27	34	46	200	171	46
HA0.S16.K21.100	A100	16	27	34	-	100	71	49
HA0.S16.K21.130	A100	16	27	37	-	130	101	49
HA0.S16.K21.160	A100	16	27	37	46	160	131	49
HA0.S16.K21.200	A100	16	27	34	46	200	171	49
HA0.S18.K21.100	A100	18	33	41	-	100	71	49
HA0.S18.K21.130	A100	18	33	44	-	130	101	49
HA0.S18.K21.160	A100	18	33	44	53	160	131	49
HA0.S18.K21.200	A100	18	33	41	53	200	171	49
HA0.S20.K21.105	A100	20	33	41	-	105	76	51
HA0.S20.K21.130	A100	20	33	44	-	130	101	51
HA0.S20.K21.160	A100	20	33	44	53	160	131	51
HA0.S20.K21.200	A100	20	33	41	53	200	171	51
HA0.S25.K21.115	A100	25	44	53	-	115	86	57
HA0.S25.K21.160	A100	25	44	56	65	160	131	57
HA0.S25.K21.200	A100	25	44	53	65	200	171	57
HA0.S32.K21.120	A100	32	44	53	-	120	91	61
HA0.S32.K21.160	A100	32	44	56	65	160	131	61
HA0.S32.K21.200	A100	32	44	53	65	200	171	61
HA0.S40.K21.125	A100	40	60	70	-	125	96	71
HA0.S50.K21.130	A100	50	69	79	-	130	101	82

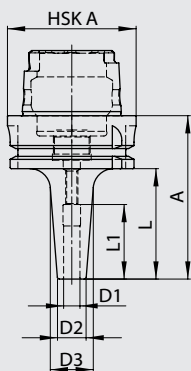


Schrumpffutter Typ M

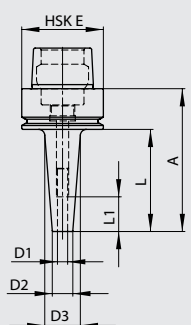
Heat shrink chuck type M

- extrem schlanke Ausführung
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet
G 2.5/25000 U/min

- extreme slim design
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- fine balanced toolholders
G 2.5/25000 r/min



Bestell-Nr. / Order number	HSK	D1	D2	D3	A	L	L1
HA6.S03.K05.080	A63	3	12	17	80	54	9
HA6.S04.K05.080	A63	4	12	17	80	54	12
HA6.S05.K05.080	A63	5	12	17	80	54	15
HA6.S06.K05.080	A63	6	14	21	80	54	36
HA6.S08.K05.080	A63	8	14	21	80	54	36
HA6.S10.K05.080	A63	10	20	28	80	54	41
HA6.S12.K05.080	A63	12	20	28	80	54	46



Bestell-Nr. / Order number	HSK E	D1	D2	D3	A	L	L1
HE3.S03.K05.060	E32	3	9	13	60	40	9
HE3.S04.K05.060	E32	4	12	16	60	40	12
HE3.S06.K05.070	E32	6	14	19	70	50	36
HE3.S08.K05.070	E32	8	14	19	70	50	36
HE3.S10.K05.080	E32	10	16	22	80	60	41
HE4.S03.K05.070	E40	3	10	17.5	70	50	9
HE4.S04.K05.070	E40	4	10	17.5	70	50	12
HE4.S05.K05.070	E40	5	10	17.5	70	50	15
HE4.S06.K05.080	E40	6	14	19	80	60	36
HE4.S08.K05.080	E40	8	14	19	80	60	36
HE4.S10.K05.080	E40	10	16	22	80	60	41
HE4.S12.K05.090	E40	12	20	25	90	70	46
HE4.S14.K05.090	E40	14	22	27	90	70	46
HE4.S16.K05.090	E40	16	24	29	90	70	49
HE5.S03.K05.070	E50	3	10	16.5	70	44	9
HE5.S04.K05.070	E50	4	10	16.5	70	44	12
HE5.S05.K05.070	E50	5	10	16.5	70	44	15
HE5.S06.K05.080	E50	6	14	19	80	54	36
HE5.S08.K05.080	E50	8	14	19	80	54	36
HE5.S10.K05.085	E50	10	16	22	85	59	41
HE5.S12.K05.090	E50	12	20	25	90	64	46
HE5.S14.K05.090	E50	14	22	27	90	64	46
HE5.S16.K05.095	E50	16	24	29	95	69	49

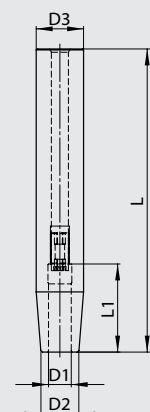


Schrumpfverlängerungen

Shrinking extensions

- extrem schlanke Ausführung
- für HM- und HSS-Werkzeuge
- Schafttoleranz h6
- Rundlaufgenauigkeit 3 µm
- axiale Längenverstellung

- extreme slim design
- for solid carbide and high speed steel tools
- shank tolerance h6
- true running 3 µm
- axial adjustment



Bestell-Nr. / Order number	D1	D2	D3	L	L1
U16.S03.K01.160*	3	10	16	160	9
U16.S04.K01.160*	4	10	16	160	12
U16.S05.K01.160*	5	10	16	160	15
U20.S06.K01.160	6	14	20	160	36
U20.S08.K01.160	8	14	20	160	36
U25.S10.K01.160	10	20	25	160	41
U25.S12.K01.160	12	20	25	160	46
U25.S14.K01.160	14	20	25	160	46
U32.S16.K01.160	16	27	32	160	49
U32.S20.K01.160	20	27	32	160	51

* Ohne axiale Längenverstellung

* without axial adjustment

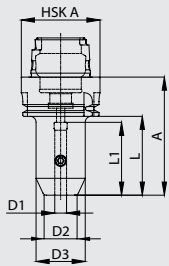


Flächenspannfutter Weldon Typ L

End mill adapter Weldon type L

- zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 B
- Aufnahme feingewuchtet
G 2.5/25 000 U/min

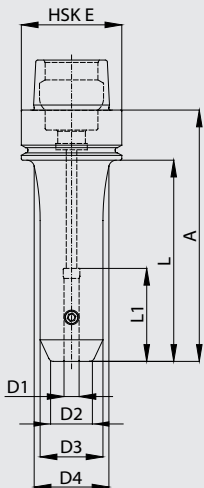
- to clamp tools with cylindrical shank according to DIN 1835 B
- fine balanced toolholders
G 2.5/25 000 r/min



Bestell-Nr. / Order number	HSK	D1	D2	D3	A	L	L1
HA4.W06.K01.060	A40	6	17	25	60	40	37
HA4.W08.K01.060	A40	8	20	28	60	40	37
HA4.W10.K01.060	A40	10	25	35	60	40	41
HA4.W12.K01.070	A40	12	30	42	70	50	46
HA4.W14.K01.075	A40	14	32	45	75	55	46
HA4.W16.K01.075	A40	16	36	48	75	55	49



Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HE4.W06.K01.060	E40	6	17	25	-	60	40	37
HE4.W06.K01.100	E40	6	17	25	30	100	80	37
HE4.W08.K01.060	E40	8	20	28	-	60	40	37
HE4.W08.K01.100	E40	8	20	28	30	100	80	37
HE4.W10.K01.060	E40	10	25	35	-	60	40	41
HE4.W10.K01.100	E40	10	25	35	-	100	80	41
HE4.W12.K01.070	E40	12	30	42	-	70	50	46
HE4.W12.K01.100	E40	12	30	42	-	100	80	46
HE4.W14.K01.075	E40	14	32	45	-	75	55	46
HE4.W14.K01.100	E40	14	32	45	-	100	80	46
HE4.W16.K01.075	E40	16	36	48	-	75	55	49
HE4.W16.K01.100	E40	16	36	48	-	100	80	49

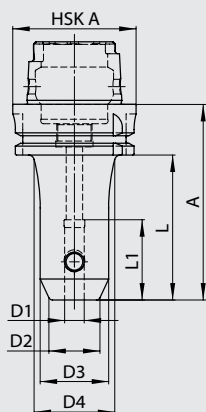


Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HE5.W06.K01.065	E50	6	17	25	-	65	39	37
HE5.W06.K01.100	E50	6	17	25	31	100	74	37
HE5.W08.K01.065	E50	8	20	28	-	65	39	37
HE5.W08.K01.100	E50	8	20	28	30	100	74	37
HE5.W10.K01.065	E50	10	25	35	-	65	39	41
HE5.W10.K01.100	E50	10	25	35	38	100	74	41
HE5.W12.K01.080	E50	12	30	42	-	80	54	46
HE5.W14.K01.080	E50	14	32	45	-	80	54	46
HE5.W16.K01.080	E50	16	36	48	-	80	54	49
HE5.W18.K01.080	E50	18	38	48	-	80	54	49
HE5.W20.K01.080	E50	20	40	52	-	80	54	51



Flächenspannfutter Weldon Typ L End mill adapter Weldon type L

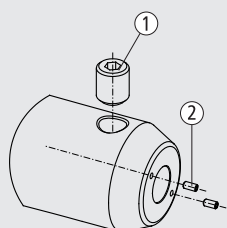
- zur Aufnahme von Werkzeugen mit Zylinder-schaft nach DIN 1835 B
- Aufnahme feingewuchtet
G 2.5/25 000 U/min
- to clamp tools with cylindrical shank according to DIN 1835 B
- fine balanced toolholders
G 2.5/25 000 r/min



Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HA6.W06.K01.065	A63	6	17	30	-	65	39	37
HA6.W06.K01.100	A63	6	17	30	36	100	74	37
HA6.W06.K01.130	A63	6	17	30	36	130	104	37
HA6.W08.K01.065	A63	8	20	32	-	65	39	37
HA6.W08.K01.100	A63	8	20	32	38	100	74	37
HA6.W08.K01.130	A63	8	20	32	38	130	104	37
HA6.W10.K01.065	A63	10	25	35	-	65	39	41
HA6.W10.K01.100	A63	10	25	35	41	100	74	41
HA6.W10.K01.130	A63	10	25	35	41	130	104	41
HA6.W12.K01.080	A63	12	30	42	-	80	54	46
HA6.W12.K01.100	A63	12	30	42	-	100	74	46
HA6.W12.K01.130	A63	12	30	42	48	130	104	46
HA6.W14.K01.080	A63	14	32	45	-	80	54	46
HA6.W14.K01.100	A63	14	32	45	-	100	74	46
HA6.W14.K01.130	A63	14	32	45	50	130	104	46
HA6.W16.K01.080	A63	16	36	48	-	80	54	49
HA6.W16.K01.100	A63	16	36	48	-	100	74	49
HA6.W16.K01.130	A63	16	36	48	50	130	104	49
HA6.W18.K01.080	A63	18	38	48	-	80	54	49
HA6.W18.K01.100	A63	18	38	48	-	100	74	49
HA6.W18.K01.130	A63	18	38	48	50	130	104	49
HA6.W20.K01.080	A63	20	40	52	-	80	54	51
HA6.W20.K01.100	A63	20	40	52	-	100	74	51
HA6.W20.K01.130	A63	20	40	52	-	130	104	51
HA6.W25.K01.110	A63	25	45	63	-	110	84	59
HA6.W32.K01.110	A63	32	52	72	-	110	84	63

Ersatzteile / Zubehör

Spare parts / Accessories



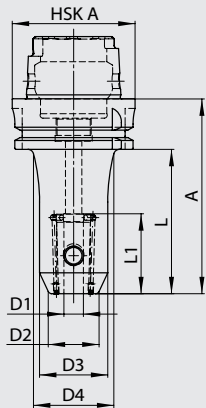
Für Flächenspannfutter	Bestell-Nr. / Order number	Dimension	Bestell-Nr. / Order number	Dimension
For end mill adapter	Klemmscharube / Clamping screw	①	Cool-Jet Verschlusschraube / Screw plug	②
xxx.W06.xxx.xxx	W06.ER1.001.010	M 6 x 10	ERU.CJ2.001.006	M 3 x 6
xxx.W08.xxx.xxx	W08.ER1.001.010	M 8 x 10	ERU.CJ2.001.006	M 3 x 6
xxx.W10.xxx.xxx	W10.ER1.001.012	M10 x 12	ERU.CJ2.001.006	M 3 x 6
xxx.W12 ... W14.xxx.xxx	W12.ER1.001.016	M12 x 16	ERU.CJ2.001.006	M 3 x 6
xxx.W16 ... W18.xxx.xxx	W16.ER1.001.016	M14 x 16	ERU.CJ2.001.006	M 3 x 6
xxx.W20.xxx.xxx	W20.ER1.001.016	M16 x 16	ERU.CJ2.001.006	M 3 x 6
xxx.W25.xxx.xxx	W25.ER1.001.020	M18 x 2 x 20	ERU.CJ3.001.008	M 4 x 8
xxx.W32 ... W40.xxx.xxx	W32.ER1.001.020	M20 x 2 x 20	ERU.CJ3.001.008	M 4 x 8

Flächenspannfutter Weldon Typ S

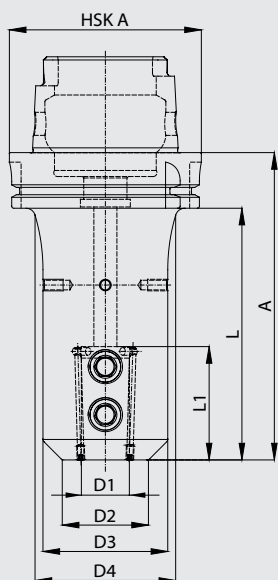
End mill adapter Weldon type S

- zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 B
- Aufnahme feingewuchtet
G 2.5/25 000 U/min
- 2 Cool-Jet Bohrungen (verschlussbar)

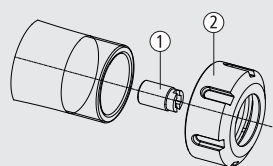
- to clamp tools with cylindrical shank according to DIN 1835 B
- fine balanced toolholders
G 2.5/25 000 r/min
- 2 Cool-Jet holes (lockable)



Bestell-Nr. / Ordernumber	HSK	D1	D2	D3	D4	A	L	L1
HA6.W06.K21.065	A63	6	17	30	-	65	39	37
HA6.W06.K21.100	A63	6	17	30	36	100	74	37
HA6.W06.K21.130	A63	6	17	30	36	130	104	37
HA6.W06.K21.160	A63	6	17	30	36	160	134	37
HA6.W08.K21.065	A63	8	20	32	-	65	39	37
HA6.W08.K21.100	A63	8	20	32	38	100	74	37
HA6.W08.K21.100	A63	8	20	32	38	100	74	37
HA6.W08.K21.160	A63	8	20	32	38	160	134	37
HA6.W10.K21.065	A63	10	25	35	-	65	39	41
HA6.W10.K21.100	A63	10	25	35	41	100	74	41
HA6.W10.K21.130	A63	10	25	35	41	130	104	41
HA6.W10.K21.160	A63	10	25	35	41	160	134	41
HA6.W12.K21.080	A63	12	30	42	-	80	54	46
HA6.W12.K21.100	A63	12	30	42	-	100	74	46
HA6.W12.K21.130	A63	12	30	42	48	130	104	46
HA6.W12.K21.160	A63	12	30	42	48	160	134	46
HA6.W14.K21.080	A63	14	32	45	-	80	54	46
HA6.W14.K21.100	A63	14	32	45	-	100	74	46
HA6.W14.K21.130	A63	14	32	45	50	130	104	46
HA6.W14.K21.160	A63	14	32	45	51	160	134	46
HA6.W16.K21.080	A63	16	36	48	-	80	54	49
HA6.W16.K21.100	A63	16	36	48	-	100	74	49
HA6.W16.K21.130	A63	16	36	48	50	130	104	49
HA6.W16.K21.160	A63	16	36	48	50	160	134	49
HA6.W18.K21.080	A63	18	38	48	-	80	54	49
HA6.W18.K21.100	A63	18	38	48	-	100	74	49
HA6.W18.K21.130	A63	18	38	48	50	130	104	49
HA6.W18.K21.160	A63	18	38	48	50	160	134	49
HA6.W20.K21.080	A63	20	40	52	-	80	54	51
HA6.W20.K21.100	A63	20	40	52	-	100	74	51
HA6.W20.K21.130	A63	20	40	52	-	130	104	51
HA6.W20.K21.160	A63	20	40	52	-	160	134	51
HA6.W25.K21.110	A63	25	45	63	-	110	84	59
HA6.W25.K21.160	A63	25	45	63	-	160	134	59
HA6.W32.K21.110	A63	32	52	72	-	110	84	63



Bestell-Nr. / Order number	HSK	D1	D2	D3	D4	A	L	L1
HA0.W06.K21.080	A100	6	17	30	-	80	51	37
HA0.W06.K21.160	A100	6	17	30	38	160	131	37
HA0.W08.K21.080	A100	8	20	32	-	80	51	37
HA0.W08.K21.160	A100	8	20	32	40	160	131	37
HA0.W10.K21.080	A100	10	25	35	-	80	51	41
HA0.W10.K21.160	A100	10	25	35	43	160	131	41
HA0.W12.K21.080	A100	12	30	42	-	80	51	46
HA0.W12.K21.160	A100	12	30	42	50	160	131	46
HA0.W14.K21.080	A100	14	32	45	-	80	51	46
HA0.W14.K21.160	A100	14	32	45	53	160	131	46
HA0.W16.K21.100	A100	16	36	48	-	100	71	49
HA0.W16.K21.160	A100	16	36	48	56	160	131	49
HA0.W18.K21.100	A100	18	38	48	-	100	71	49
HA0.W18.K21.160	A100	18	38	48	56	160	131	49
HA0.W20.K21.100	A100	20	40	52	-	100	71	51
HA0.W20.K21.160	A100	20	40	52	60	160	131	51
HA0.W25.K21.100	A100	25	45	65	-	100	71	59
HA0.W25.K21.160	A100	25	45	65	73	160	131	59
HA0.W32.K21.100	A100	32	52	72	-	100	71	63
HA0.W32.K21.160	A100	32	52	72	80	160	131	63
HA0.W40.K21.110	A100	40	60	80	-	110	81	73



Ersatzteile / Zubehör

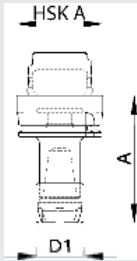
Spare parts / Accessories

Für Spannzangenfutter	Bestell-Nr. / Order number	Dimension	Bestell-Nr. / Order number	Dimension
For collet chuck	Anschlagschraube / Stop screw	①	Spannmutter / Clamping nut	②
xxx.E17.xxx.xxx	ERU.AN2.K01.016	M 6 x 16	E17.ER1.001.018	M19 x 1
xxx.E25.xxx.xxx	ERU.AN5.K01.020	M12 x 1 x 20	E25.ER1.001.020	M32 x 1.5
xxx.E32.xxx.xxx	ERU.AN5.K01.020	M12 x 1 x 20	E32.ER1.001.023	M40 x 1.5
xxx.E40.xxx.xxx	ERU.AN5.K01.020	M12 x 1 x 20	E40.ER1.001.025	M50 x 1.5

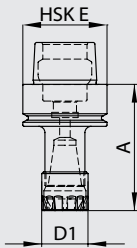
Spannzangenfutter ER Typ L

Collet chuck ER type L

- für Spannzangen nach DIN 6499
 - zur Aufnahme von Werkzeugen mit Zylinder-schaft
 - axiale Längenverstellung
 - Grundkörper feingewuchtet
G 2.5/25000 U/min
- for collets according to DIN 6499
 - to clamp tools with cylindrical shank
 - axial adjustment
 - fine balanced base tool
G 2.5/25000 r/min



Bestell-Nr./ Order number	HSK	Spannzange / Collet	Spannbereich / Clamping range	D1	A
HA4.E17.K01.060*	A40	ER 16	0.5–10	22	60
HA4.E17.K01.100	A40	ER 16	0.5–10	22	100
HA4.E25.K01.070*	A40	ER 25	0.5–16	42	70
HA4.E25.K01.100	A40	ER 25	0.5–16	42	100
HA4.E32.K01.100	A40	ER 32	1 –20	50	100



Bestell-Nr./ Order number	HSK	Spannzange / Collet	Spannbereich / Clamping range	D1	A
HE4.E17.K01.060*	E40	ER 16	0.5–10	22	60
HE4.E17.K01.100	E40	ER 16	0.5–10	22	100
HE4.E25.K01.070*	E40	ER 25	0.5–16	42	70
HE4.E25.K01.100	E40	ER 25	0.5–16	42	100
HE4.E32.K01.100	E40	ER 32	1 –20	50	100



Bestell-Nr./ Order number	HSK	Spannzange / Collet	Spannbereich / Clamping range	D1	A
HE5.E17.K01.060*	E50	ER 16	0.5– 10	22	60
HE5.E17.K01.120	E50	ER 16	0.5– 10	22	120
HE5.E25.K01.070*	E50	ER 25	0.5– 16	42	70
HE5.E25.K01.120	E50	ER 25	0.5– 16	42	120
HE5.E32.K01.100	E50	ER 32	1 – 20	50	100
HE5.E40.K01.120	E50	ER 40	2 – 30	63	120

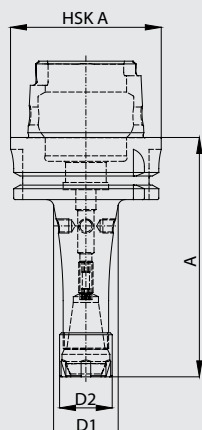
* Ohne axiale Längenverstellung

* without axial adjustment

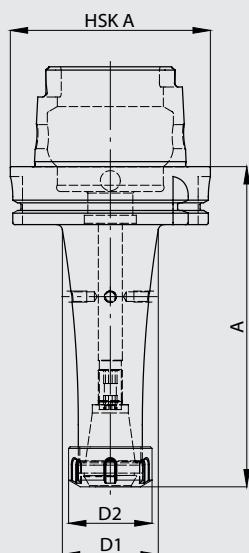
Spannzangenfutter ER Typ S

Collet chuck ER type S

- für Spannzangen nach DIN 6499
- zur Aufnahme von Werkzeugen mit Zylinder-schaft
- axiale Längenverstellung
- Grundkörper feingewuchtet
G 2.5/25000 U/min
- for collets according to DIN 6499
- to clamp tools with cylindrical shank
- axial adjustment
- fine balanced base tool
G 2.5/25000 r/min



Bestell-Nr./ Order number	HSK	D1	Spannzange / Collet	Spannbereich / Clamping range	D2	A
HA6.E17.K01.100	A63	27	ER 16	0.5–10	22	100
HA6.E17.K01.160	A63	33	ER 16	0.5–10	22	160
HA6.E25.K01.100	A63	37	ER 25	0.5–16	42	100
HA6.E25.K01.160	A63	43	ER 25	0.5–16	42	160
HA6.E32.K01.100	A63	45	ER 32	1 –20	50	100
HA6.E32.K01.160	A63	50	ER 32	1 –20	50	160
HA6.E40.K01.100	A63	52	ER 40	2 –30	63	100
HA6.E40.K01.160	A63	52	ER 40	2 –30	63	160



Bestell-Nr./ Order number	HSK	D1	Spannzange / Collet	Spannbereich / Clamping range	D2	A
HA0.E17.K01.100	A100	27	ER 16	0.5–10	22	100
HA0.E17.K01.160	A100	33	ER 16	0.5–10	22	160
HA0.E17.K01.200	A100	33	ER 16	0.5–10	22	200
HA0.E25.K01.100	A100	37	ER 25	0.5–16	42	100
HA0.E25.K01.160	A100	37	ER 25	0.5–16	42	160
HA0.E25.K01.200	A100	43	ER 25	0.5–16	42	200
HA0.E32.K01.100	A100	45	ER 32	1 –20	50	100
HA0.E32.K01.160	A100	51	ER 32	1 –20	50	160
HA0.E32.K01.200	A100	51	ER 32	1 –20	50	200
HA0.E40.K01.100*	A100	56	ER 40	2 –30	63	100
HA0.E40.K01.160	A100	63	ER 40	2 –30	63	160
HA0.E40.K01.200	A100	63	ER 40	2 –30	63	200

* Ohne axiale Längenverstellung

* without axial adjustment



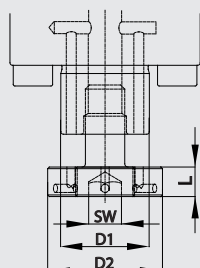
Differentialschraube

ersetzt Fräseranzugschraube

Differential screw

substitutes clamping screw

- für extrem hohe Anzugsmomente
- Kühlmittelfluss siehe Seite 4
- for extremely high clamping torque
- coolant see page 4



Bestell-Nr. / Order number	M	D1	D2	SW	L	ΔP
D16.ER1.K61.012	8	16	20	6	7	0.25
D22.ER1.K61.016	10	22	28	8	8	0.5
D27.ER1.K61.018	12	27	35	10	9	0.75
D32.ER1.K61.024	16	32	42	12	10	1
D40.ER1.K61.030	20	40	52	14	11	1.5

• Delta P entspricht der Steigungsdifferenz

• delta P consists with the pitch difference

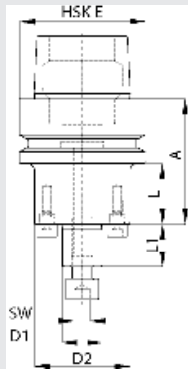


Fräsdorn Typ L

Milling arbor type L

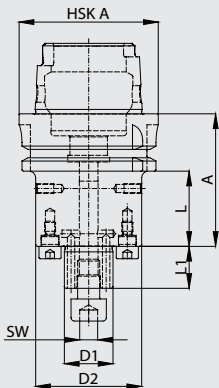
- zur Aufnahme von Fräsern mit Quernut
- eingeschraubte Mitnehmerbolzen
- Aufnahmen feingewuchtet
G 2.5/18000 U/min

- to clamp milling cutters with cross drive
- screwed drive bolt
- fine balanced toolholders
G 2.5/18000 r/min

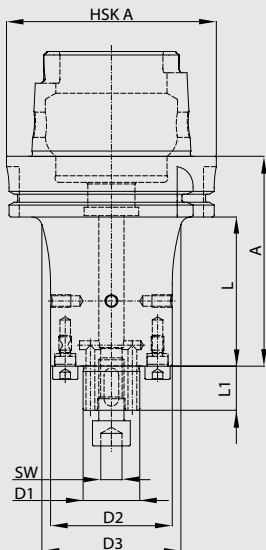


Bestell-Nr. / Order number	HSK	D1	D2	SW	A	L	L1
HE4.D16.001.050	E40	16	38	6	50	30	17
HE4.D22.001.050	E40	22	48	8	50	30	19
HE4.D27.001.065	E40	27	58	10	65	45	21

Bestell-Nr. / Order number	HSK	D1	D2	SW	A	L	L1
HE5.D16.001.050	E50	16	38	6	50	24	17
HE5.D22.001.050	E50	22	48	8	50	24	19
HE5.D27.001.065	E50	27	58	10	65	39	21
HE5.D32.001.065	E50	32	72	12	65	39	24



Bestell-Nr. / Order number	HSK	D1	D2	SW	A	L	L1
HA6.D16.K01.060	A63	16	38	6	60	34	17
HA6.D16.K01.100	A63	16	38	6	100	74	17
HA6.D16.K01.160	A63	16	38	6	160	134	17
HA6.D22.K01.060	A63	22	48	8	60	34	19
HA6.D22.K01.100	A63	22	48	8	100	74	19
HA6.D22.K01.160	A63	22	48	8	160	134	19
HA6.D27.K01.060	A63	27	58	10	60	34	21
HA6.D27.K01.100	A63	27	58	10	100	74	21
HA6.D27.K01.160	A63	27	58	10	160	134	21
HA6.D32.K01.060	A63	32	72	12	60	34	24
HA6.D32.K01.100	A63	32	72	12	100	74	24
HA6.D32.K01.160	A63	32	72	12	160	134	24
HA6.D40.K01.070	A63	40	80	14	70	44	27
HA6.D40.K01.100	A63	40	80	14	100	74	27
HA6.D40.K01.160	A63	40	80	14	160	134	27



Bestell-Nr. / Order number	HSK	D1	D2	D3	SW	A	L	L1
HA0.D16.K01.060	A100	16	38	-	6	60	31	17
HA0.D16.K01.100	A100	16	38	46	6	100	71	17
HA0.D16.K01.160	A100	16	38	46	6	160	131	17
HA0.D22.K01.060	A100	22	48	-	8	60	31	19
HA0.D22.K01.100	A100	22	48	56	8	100	71	19
HA0.D22.K01.160	A100	22	48	56	8	160	131	19
HA0.D27.K01.060	A100	27	58	-	10	60	31	21
HA0.D27.K01.100	A100	27	58	66	10	100	71	21
HA0.D27.K01.160	A100	27	58	66	10	160	131	21
HA0.D32.K01.060	A100	32	72	-	12	60	31	24
HA0.D32.K01.100	A100	32	72	80	12	100	71	24
HA0.D32.K01.160	A100	32	72	80	12	160	131	24
HA0.D40.K01.070	A100	40	80	-	14	70	41	27
HA0.D40.K01.100	A100	40	80	-	14	100	71	27
HA0.D40.K01.160	A100	40	80	-	14	160	131	27

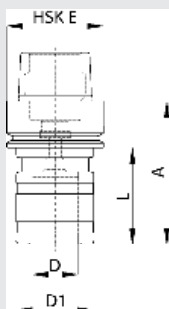


Gewindeschneidfutter Typ S

Tapping chuck type S

- für Schnellwechseleinsätze «System Bilz»
- ohne Längenausgleich für Maschinen mit synchronisiertem Gewindeschneiden
- mit Innenkühlung

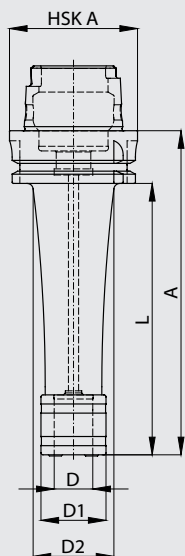
- for quick change adapter «System Bilz»
- without length-compensation for machines with synchronized tapping
- with inner coolant supply



Bestell-Nr. / Order number	HSK	M	D	D1	D2	A	L
HA4.Go1.K01.060	A40	M3-M14	19	32	32	60	40
HA4.Go2.K01.100	A40	M6-M24	31	50	50	100	80

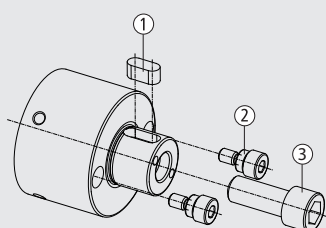
Bestell-Nr. / Order number	HSK	M	D	D1	D2	A	L
HE4.Go1.K01.060	E40	M3-M14	19	32	32	60	40
HE4.Go2.K01.100	E40	M6-M24	31	50	50	100	80

Bestell-Nr. / Order number	HSK	M	D	D1	D2	A	L
HE5.Go1.K01.065	E50	M3-M14	19	32	32	65	39
HE5.Go2.K01.105	E50	M6-M24	31	50	50	105	79



Bestell-Nr. / Order number	HSK	M	D	D1	D2	A	L
HA6.Go1.K01.080	A63	M3-M14	19	32	34	80	54
HA6.Go1.K01.160	A63	M3-M14	19	32	40	160	134
HA6.Go2.K01.100	A63	M6-M24	31	50	52	100	74
HA6.Go2.K01.160	A63	M6-M24	31	50	52	160	134
HA6.Go3.K01.120	A63	M14-M36	48	72	72	120	94

Bestell-Nr. / Order number	HSK	M	D	D1	D2	A	L
HA0.Go1.K01.090	A100	M3-M14	19	32	34	90	61
HA0.Go1.K01.160	A100	M3-M14	19	32	40	160	131
HA0.Go2.K01.110	A100	M6-M24	31	50	52	110	81
HA0.Go2.K01.160	A100	M6-M24	31	50	60	160	131
HA0.Go3.K01.130	A100	M14-M36	48	72	72	130	101



Ersatzteile / Zubehör

Spare parts / Accessories

Für Fräsdorn For milling arbors	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Dimension
	Passfeder / Fitting key ^①	Mitnehmerbolzen / Drive bolt ^②	Fräseranzugschraube / Clamping screw ^③	
xxx.D16.xxx.xxx	D16.ER3.001.014	D16.ER2.001.015	D16.ER1.002.025	M 8 x 25
xxx.D22.xxx.xxx	D22.ER3.001.014	D22.ER2.001.017	D22.ER1.002.025	M10 x 25
xxx.D27.xxx.xxx	D27.ER3.001.018	D27.ER2.001.021	D27.ER1.002.030	M12 x 30
xxx.D32.xxx.xxx	D32.ER3.001.020	D32.ER2.001.022	D32.ER1.002.035	M16 x 35
xxx.D40.xxx.xxx	D40.ER3.001.022	D40.ER2.001.023	D40.ER1.002.040	M20 x 40

Schnellwechseleinsätze

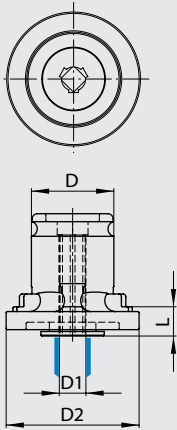
Quick-change adapters

- zur Aufnahme von Gewindebohrern nach DIN 371 und DIN 376
- für Gewindeschneidfutter «System Bilz»

- to clamp taps according to DIN 371 and DIN 376
- for tapping chuck «System Bilz»

- mit drei Aussenkühlbohrungen

- with three exterior cooling holes



Bestell-Nr. / Order number	D	D1 Ø / □	D2	L
Go1.U03.K31.007	19	3.5 / 2.7	32	7
Go1.U04.K31.007	19	4.0 / 3.0	32	7
Go1.U05.K31.007	19	4.5 / 3.4	32	7
Go1.U06.K31.007	19	6.0 / 4.9	32	7
Go1.U07.K31.007	19	7.0 / 5.5	32	7
Go1.U08.K31.007	19	8.0 / 6.2	32	7
Go1.U09.K31.007	19	9.0 / 7.0	32	7
Go1.U10.K31.007	19	10.0 / 8.0	32	7
Go1.U11.K31.007	19	11.0 / 9.0	32	7
Go2.U06.K31.011	31	6.0 / 4.9	50	11
Go2.U07.K31.011	31	7.0 / 5.5	50	11
Go2.U08.K31.011	31	8.0 / 6.2	50	11
Go2.U09.K31.011	31	9.0 / 7.0	50	11
Go2.U10.K31.011	31	10.0 / 8.0	50	11
Go2.U11.K31.011	31	11.0 / 9.0	50	11
Go2.U12.K31.011	31	12.0 / 9.0	50	11
Go2.U14.K31.011	31	14.0 / 11.0	50	11
Go2.U16.K31.011	31	16.0 / 12.0	50	11
Go2.U18.K31.011	31	18.0 / 14.5	50	11



Kühlmittelrohr

- Verhindert Verschmutzung der Spindel
- Zwei O-Ringe für leichte Beweglichkeit des Rohres
- Spezialbeschichtung mit extrem glatter Oberfläche
- Schont das Dichtsystem der Spindel
- Passend für alle Fabrikate

Coolant tube

- Prevents spindle from being spoiled
- Dual o-ring design makes tube slightly movable
- Special coating with extremely smooth surface
- No damaging of the sealing system
- Suitable for all brands

Bestell-Nr. / Order number	Typ/ Type
HA4.ER4.001.030	HSK 40
HA5.ER4.001.033	HSK 50
HA6.ER4.001.036	HSK 63
HA0.ER4.001.044	HSK 100

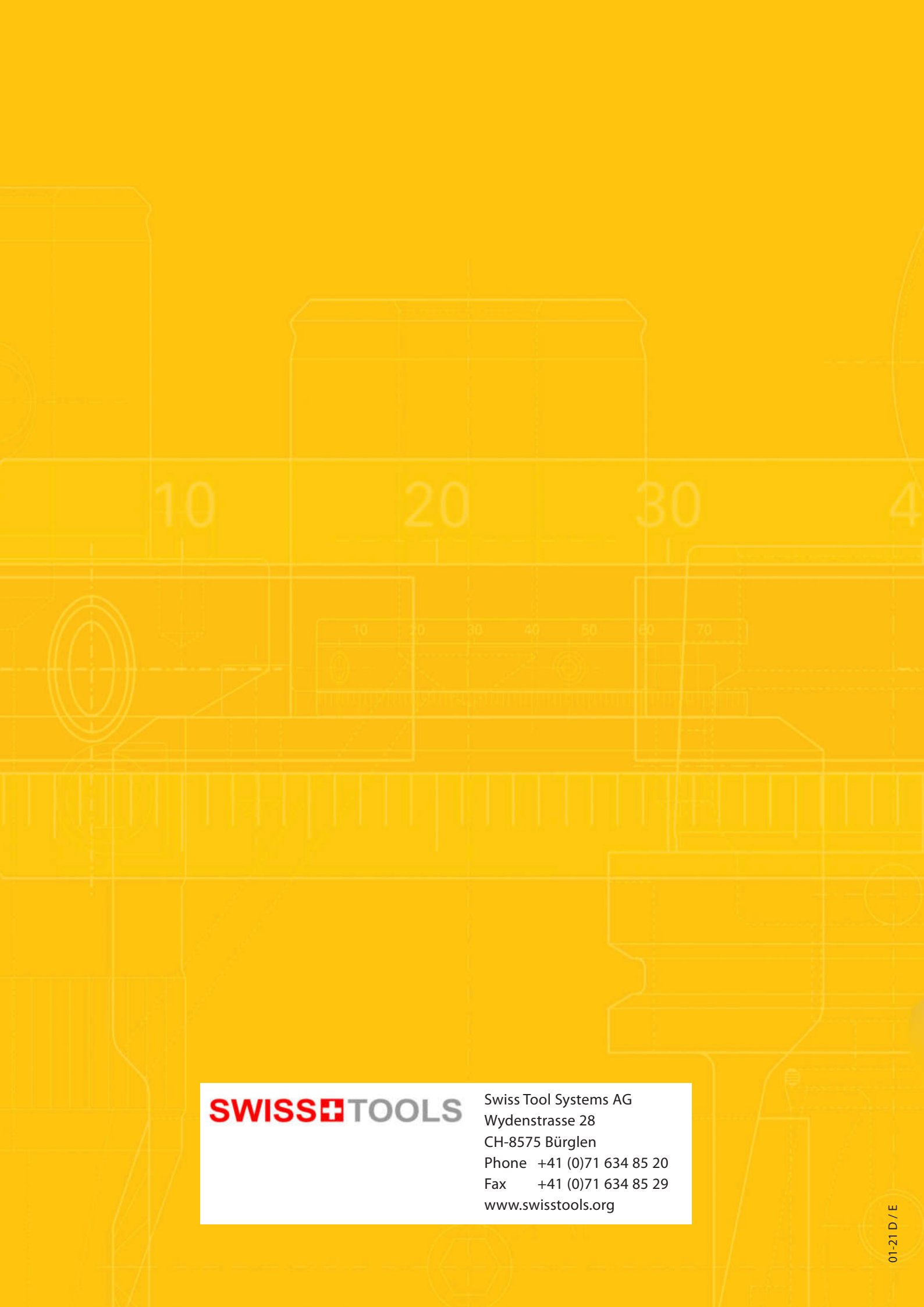


Schlüssel für Kühlmittelrohr

Wrench for coolant tube

Bestell-Nr. / Order number	Typ/ Type
HA4.ER4.002.115	HSK 40
HA5.ER4.002.115	HSK 50
HA6.ER4.002.136	HSK 63
HA0.ER4.002.136	HSK 100





SWISS  **TOOLS**

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starrag   **bumotec**

*Programme des porte-outils
Werkzeughalterprogramm
Tool holders program*



SCHAUBLIN **SWISS** **TOOLS**[®]

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INHALT

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• Ecrou pour porte-outils Spannzangenmutter Nuts for toolholder	16		



Schaublin / Swisstools

- SKI Porte-pince / Spannzangenfutter / collet chuck
- F35 Pince / Spannzange / collet



Schaublin / Swisstools

- HSK-A40 – HSK-E40 Porte-pince / Werkzeughalter / toolholder
- Pince F / Spannzange Typ F / F type collets



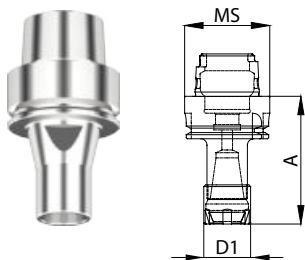
Schaublin / Swisstools

- HSK-T40 – HSK-E40 Porte-pince / Werkzeughalter / toolholders
- HSK-E32 Porte-pince / Werkzeughalter / toolholders
- Pince F / Spannzangen Typ F / F type collets



Schaublin / Swisstools

- HSK-E25 Porte-pince / Werkzeughalter / toolholders
- - Pince D / Spannzangen Typ D / D type collets



Porte-pinces

- pour pince DIN 6499 EX / ESX and ETS / ETA
- outil équilibré G 2.5/42.000 r/min

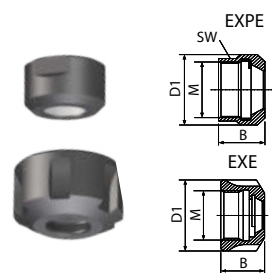
Spannzangenfutter

- für Spannzangen nach DIN 6499 EX od. ESX, sowie ETS und ETA
- Grundkörper feingewuchtet G 2.5/40.000 U/min

Collet chuck

- for collets according to DIN 6499 EX / ESX and ETS / ETA
- fine balanced base tool G 2.5/42000 r/min

Code/ Bestell-Nr./ Order number	MS	pour pince/ für Spannzange / for collet	plage de serrage/ Spannbereich / Clamping range	M	A
T-20-00054 / HA4.E18.So1.060	HSK A40	EXPE 16 / ETS 16.3	0.5–10	M20x1	60
T-20-00055 / HA4.E21.So1.060	HSK A40	EXPE 20 / ETS 20.1	0.5–13	M24x1	60
T-20-00056 / HA4.E25.So1.055	HSK A40	EXE 25 / ETS 25	0.5–16	M32x1.5	55
T-20-00062 / HE4.E18.So1.060	HSK E 40	EXPE 16 / ETS 16.3	0.5–10	M20x1	60
T-20-00067 / HE4.E21.So1.060	HSK E 40	EXPE 20 / ETS 20.1	0.5–13	M24x1	60
T-20-00063 / HE4.E25.So1.055	HSK E 40	EXE 25 / ETS 25	0.5–16	M32x1.5	55
PS4.E18.So1.060	PSC 40	EXPE 16 / ETS 16.3	0.5–10	M20x1	60
PS4.E21.So1.060	PSC 40	EXPE 20 / ETS 20.1	0.5–13	M24x1	60
PS4.E25.So1.055	PSC 40	EXE 25 / ETS 25	0.5–16	M32x1.5	55



Ecrous

- équilibrés

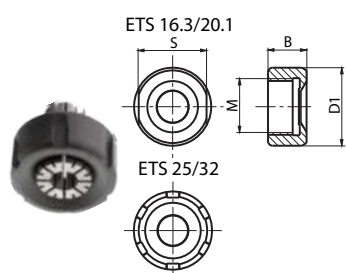
Spannzangenmutter

- gewuchtet

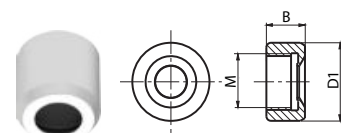
Clamping nut

- balanced

Code/ Bestell-Nr./ Order number	Typ / Type	pour pince/ für Spannzange / for collet	D1	M	L1
E18.ER1.001.018	EXPE 16	EX/ESX	25	M20x1	18
E21.ER1.001.019	EXPE 20	EX/ESX	30.5	M24x1	18.5
T-54-00035 / E25.ER1.001.021	EXE 25	EX/ESX	42	M32x1.5	20.5



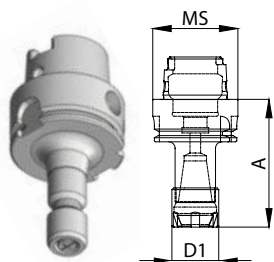
Code/ Bestell-Nr./ Order number	Typ / Type	pour pince/ für Spannzange / for collet	D1	M	B
T-54-00007 / E18.ER1.001.015	ETS 16.3	ETS/ETA	26.7	M20x1	15
T-54-00008 / E21.ER1.001.017	ETS 20.1	ETS/ETA	32	M24x1	16.5
T-54-00009 / E25.ER1.001.019	ETS 25	ETS/ETA	42	M32x1.5	18.5



Code/ Bestell-Nr./ Order number	Typ / Type	pour pince/ für Spannzange / for collet	D1	M	B
T-54-00036 / E18.ER1.002.015	ETS 16.3	ETS/ETA	24.0	M20x1	15



Code/ Bestell-Nr./ Order number	Ø
T-51-00012 / Ro24	24



Porte-pinces High precision line

- pour pinces type D
- outil équilibré G 2.5/40.000 r/min

Spannzangenfutter High precision line

- für Spannzangen typ D
- Grundkörper feingewuchtet G 2.5/40.000 U/min

Collet chuck High precision line

- for D type collets
- fine balanced base tool G 2.5/40.000 r/min

Code/ Bestell-Nr./ Order number	HSK	Ø écrou/ Ø Spannmutter / Ø nut	pour pinces/ für Spannzangen/ for collet	plage de serrage/ Spannbe- reich / Clam- ping range	A
87-40155	A 40	14	D8	0.5 - 5.0	60
87-40156	A 40	14	D8	0.5 - 5.0	75
87-40158	A 40	14	D8	0.5 - 5.0	90
87-40154	A 40	14 / 16	D10	0.5 - 6.0	60
87-40159	A 40	14 / 16	D10	0.5 - 6.0	75
87-40160	A 40	14 / 16	D10	0.5 - 6.0	90
87-40153	A 40	25.3	D16	0.5 - 10.0	60
87-40161	A 40	25.3	D16	0.5 - 10.0	75
87-40162	A 40	30.3	D20	0.5 - 12.7	60

Ecrous

- équilibrés

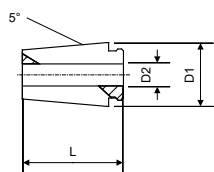
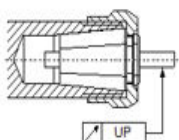
Spannzangenmutter

- gewuchtet

Clamping nut

- balanced

Code/ Bestell-Nr./ Order number	Typ / Type	pour pince/ für Spannzange / for collet	D	M
68-8706	DL8	D8	14	M10X0.75
68-10706	DL10	D10	14	M12X0.75
68-10708	DL10	D10	16	M12X0.75
68-16706	DL16	D16	25.3	M20X1
68-20XXX	DL20	D20	30.3	M24X1



Pinces

- Qualité UP

Spannzangen

- Qualität UP

Collets

- UP Quality

Code/ Bestell-Nr./ Order number	Typ / Type	D2	D1	L1
74-8000	D8	0.5 - 5.0	8.13	16.5
74-10000	D10	0.5 - 6.0	10.14	20
74-16000	D16	0.5 - 10.0	16.65	28.5
74-20000	D20	0.5 - 12.7	20.18	32



Extracteur

Zangenaustreiber

Extractor

Code/ Bestell-Nr./ Order number	Typ / Type
74-8902	D8
74-10902	D10
74-16902	D16
74-20902	D20

**Porte-fraises
Weldon**

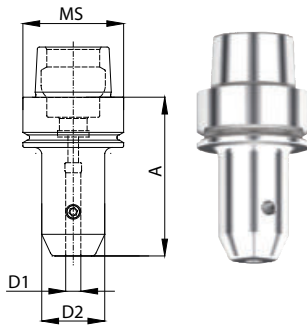
- DIN 1835 B
- outil équilibré G 2.5/25000 r/min

**Flächenspannfutter
Weldon**

- DIN 1835 B
- Aufnahme feingewuchtet
G 2.5/25 000 U/min

**End mill adapter
Weldon**

- DIN 1835 B
- fine balanced toolholders
G 2.5/25 000 r/min



Code / Bestell-Nr. / Order number	MS	D1	D2	A	
T-20-00023 / HA4.W06.K01.060	HSK A40	6	25	60	
T-20-00059 / HA4.W08.K01.060	HSK A40	8	28	60	
T-20-00060 / HA4.W10.K01.060	HSK A40	10	35	60	
T-20-00030 / HA4.W12.K01.070	HSK A40	12	42	70	
T-20-00032 / HA4.W14.K01.075	HSK A40	14	45	75	
T-20-00031 / HA4.W16.K01.075	HSK A40	16	48	75	
T-20-00061 / HA4.W20.K01.075	HSK A40	20	52	75	
T-20-00076 / HE4.W06.K01.060	HSK E 40	6	25	60	
T-20-00079 / HE4.W08.K01.060	HSK E 40	8	28	60	
T-20-00044 / HE4.W10.K01.060	HSK E 40	10	35	60	
T-20-00074 / HE4.W12.K01.070	HSK E 40	12	42	70	
T-20-00107 / HE4.W14.K01.075	HSK E 40	14	45	75	
T-20-00108 / HE4.W16.K01.075	HSK E 40	16	48	75	
PS4.W06.K01.050	PSC 40	6	25	50	
PS4.W08.K01.050	PSC 40	8	28	50	
PS4.W10.K01.051	PSC 40	10	35	51	
PS4.W12.K01.056	PSC 40	12	42	56	
PS4.W14.K01.055	PSC 40	14	45	55	
PS4.W16.K01.055	PSC 40	16	48	55	

Porte-outils de frettage

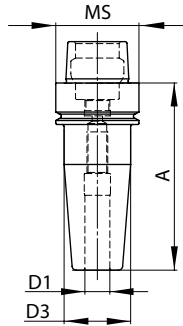
Schrumpffutter

Heat shrink chuck

- Concentricité 3 µm
- outil équilibré G 2.5/40000 r/min

- Rundlaufgenauigkeit 3 µm
- Aufnahmen feingewuchtet G 2.5/40000 U/min

- true running 3 µm
- fine balanced toolholders G 2.5/40000 r/min



Code/ Bestell-Nr./ Order number	MS	D1	D2	A	
HA4.S03.K01.060	HSK A40	3	16	60	
HA4.S04.K01.080	HSK A40	4	16	80	
HA4.S04.K01.080	HSK A40	5	16	80	
T-20-00114 / HA4.S06.K01.080	HSK A40	6	27	80	
T-20-00086 / HA4.S08.K01.080	HSK A40	8	27	80	
T-20-00115 / HA4.S10.K01.080	HSK A40	10	32	80	
T-20-00116 / HA4.S12.K01.090	HSK A40	12	32	90	
T-20-00117 / HA4.S14.K01.090	HSK A40	14	34	90	
T-20-00118 / HA4.S16.K01.090	HSK A40	16	34	90	
HE4.S03.K01.060	HSK E 40	3	16	60	
HE4.S04.K01.070	HSK E 40	4	16	70	
HE4.S05.K01.070	HSK E 40	5	16	70	
T-20-00109 / HE4.S06.K01.080	HSK E 40	6	27	80	
T-20-00085 / HE4.S08.K01.080	HSK E 40	8	27	80	
T-20-00110 / HE4.S10.K01.080	HSK E 40	10	32	80	
T-20-00111 / HE4.S12.K01.090	HSK E 40	12	32	90	
T-20-00112 / HE4.S14.K01.090	HSK E 40	14	34	90	
T-20-00113 / HE4.S16.K01.090	HSK E 40	16	34	90	
PS4.S03.K01.060	PSC 40	3	16	60	
PS4.S04.K01.060	PSC 40	4	16	60	
PS4.S05.K01.060	PSC 40	5	16	60	
PS4.S06.K01.075	PSC 40	6	27	75	
PS4.S08.K01.075	PSC 40	8	27	75	
PS4.S10.K01.075	PSC 40	10	31	75	
PS4.S12.K01.075	PSC 40	12	31	75	
PS4.S14.K01.080	PSC 40	14	34	80	
PS4.S16.K01.080	PSC 40	16	34	80	

Mandrin de taraudage

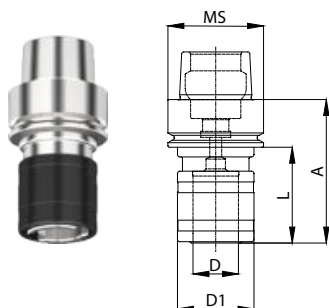
- pour les inserts à changement rapide «Système Bilz»
- sans compensation de longueur pour les machines à filetage synchronisé
- avec refroidissement interne

Gewindeschneidfutter

- für Schnellwechseleinsätze «System Bilz»
- ohne Längenausgleich für Maschinen mit synchronisiertem Gewindeschneiden
- mit Innenkühlung

Tapping chuck

- for quick change adapter «System Bilz»
- without length-compensation for machines with synchronized tapping
- with inner coolant supply

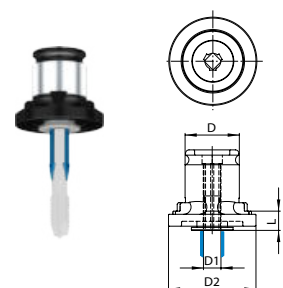


Code/ Bestell-Nr. / Order number	MS	M	D	D1	D2	A	L
HA4.Go1.K01.060	HSK E 40	M3-M14	19	32	32	60	40
HA4.Go2.K01.100	HSK E 40	M6-M24	31	50	50	100	80
	HSK E 40						
HE4.Go1.K01.060	HSK E 40	M3-M14	19	32	32	60	40
HE4.Go2.K01.100	HSK E 40	M6-M24	31	50	50	100	80
PS4.Go1.K01.060	PSC 40	M3-M14	19	32	32	60	40

Adaptateur de taraudage

Schnellwechseleinsätze

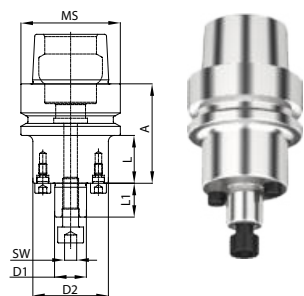
Quick-change adapters



Code/ Bestell-Nr. / Order number	D	D1 Ø / □	D2	L
Go1.U03.K31.007	19	3.5 / 2.7	32	7
Go1.U04.K31.007	19	4.0 / 3.0	32	7
Go1.U05.K31.007	19	4.5 / 3.4	32	7
Go1.U06.K31.007	19	6.0 / 4.9	32	7
Go1.U07.K31.007	19	7.0 / 5.5	32	7
Go1.U08.K31.007	19	8.0 / 6.2	32	7
Go1.U09.K31.007	19	9.0 / 7.0	32	7
Go1.U10.K31.007	19	10.0 / 8.0	32	7
Go1.U11.K31.007	19	11.0 / 9.0	32	7
Go2.U06.K31.011	31	6.0 / 4.9	50	11
Go2.U07.K31.011	31	7.0 / 5.5	50	11
Go2.U08.K31.011	31	8.0 / 6.2	50	11
Go2.U09.K31.011	31	9.0 / 7.0	50	11
Go2.U10.K31.011	31	10.0 / 8.0	50	11
Go2.U11.K31.011	31	11.0 / 9.0	50	11
Go2.U12.K31.011	31	12.0 / 9.0	50	11
Go2.U14.K31.011	31	14.0 / 11.0	50	11
Go2.U16.K31.011	31	16.0 / 12.0	50	11
Go2.U18.K31.011	31	18.0 / 14.5	50	11

Porte-fraise

- pour maintenir des fraises avec une rainure transversale
- vissé dans la broche d'entraînement
- Les coups sont bien équilibrés
- G 2,5 / 18000 tr / min



Fräsdorn

- zur Aufnahme von Fräsern mit Quernut
- eingeschraubte Mitnehmerbolzen
- Aufnahmen feingewuchtet
- G 2.5/18000 U/min

Milling arbor

- to clamp milling cutters with cross drive
- screwed drive bolt
- fine balanced toolholders
- G 2.5/18000 r/min

Code/ Bestell-Nr. / Order number	MS	D1	D2	SW	A	L	L1
HE4.D16.001.050	HSK E 40	16	38	6	50	30	17
HE4.D22.001.050	HSK E 40	22	48	8	50	30	19
HE4.D27.001.065	HSK E 40	27	58	10	65	45	21
PS4.D16.001.035	PSC 40	16	38	6	35		17
PS4.D22.001.040	PSC 40	22	48	8	40		19

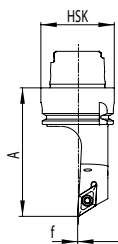
Tasseau scie circulaire avec douille

Sägeblattaufnahme mit Hülse

Sitting saw toolholder with clamping cyl.



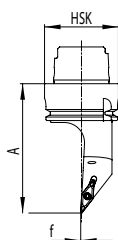
Code/ Bestell-Nr./ Order number	MS	D	A	L	SW	Remark
T-20-00321 / HA4.10S.018.070	HSK A40	10	70	50	13	inner coolant supply
T-20-00320 / HA4.13S.022.070	HSK A40	13	70	50	18	inner coolant supply
T-20-00319 / HA4.16S.026.070	HSK A40	16	70	50	18	inner coolant supply
T-20-00318 / HA4.20S.035.070	HSK A40	20	70	50	22	inner coolant supply
T-20-00316 / HA4.22S.035.082	HSK A40	22	82	62	22	inner coolant supply
T-20-00317 / HA4.22S.035.105	HSK A40	22	105	85	22	inner coolant supply
T-20-00103 / HA4.So1.035.082	HSK A40	22	82	62	22	
T-20-00219 / HA4.So1.034.105	HSK A40	22	105	85	22	
T-20-00122 / HA4.So2.035.082	HSK A40	20	82	62	22	
T-20-00104 / HE4.So1.035.082	HSK E 40	22	82	62	22	
T-20-00243 / HE4.So1.034.105	HSK E 40	22	105	85	22	
T-20-00357 / PS4.22S.035.082	PSC 40	22	82	62	22	inner coolant supply
T-20-00358 / PS4.22S.035.105	PSC 40	22	105	85	22	inner coolant supply
T-20-00197 / PS4.So2.035.070	PSC 40	20	70	50	22	



SDJC L 55°/93°



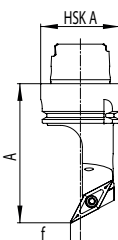
Code/ Bestell-Nr./ Order number	MS	f	A	R/L	Plaquette/ Wendeplatte/ Insert	Accessoires/ Ersatzteile/ Spareparts
T-20-00329 / HA4.KDB.LJA.070-F0	HSK A40	0	70	L	DC .. 11 T3 ..	S05
T-20-00065 / HA4.KDB.LJA.070	HSK A40	5	70	L	DC .. 11 T3 ..	S05
T-20-00245 / HT4.KDB.LJA.070	HSK T40	0	70	L	DC .. 11 T3 ..	S05
PS4.KDB.LJA.070-F0	PSC40	0	70	L	DC .. 11 T3 ..	S05
PSB.LJA.070	PSC40	5	70	L	DC .. 11 T3 ..	S05



SVJC L 35°/93°



Code/ Bestell-Nr./ Order number	MS	f	A	R/L	Plaquette/ Wendeplatte/ Insert	Accessoires/ Ersatzteile/ Spareparts
T-20-00330 / HA4.KVA.LJA.070-F0	HSK A40	0	70	L	VC .. 11 T3 ..	S10
T-20-00331 / HA4.KVE.LJA.070-F0	HSK A40	0	70	L	VB .. 11 03 ..	S10
T-20-00098 / HA4.KVA.LJA.070	HSK A40	5	70	L	VC .. 11 T3 ..	S10
T-20-00246 / HT4.KVA.LJA.070	HSK T40	0	70	L	VC .. 11 T3 ..	S10
PS4.KVA.LJA.070-F0	PSC40	0	70	L	VC .. 11 T3 ..	S10
PS4.KVE.LJA.070-F0	PSC40	0	70	L	VB .. 11 03 ..	S10

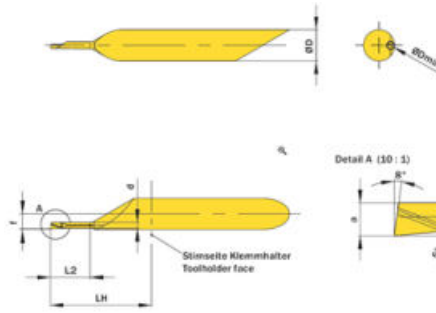


SVPC L 117.5°/35°

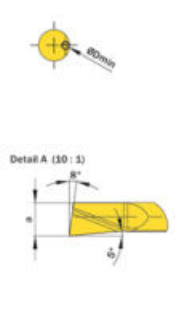


Code/ Bestell-Nr./ Order number	MS	f	A	R/L	Plaquette/ Wendeplatte/ Insert	Accessoires/ Ersatzteile/ Spareparts
HA4.KVE.LPA.070-F0	HSK A40	0	70	L	VB .. 11 03 ..	S10
T-20-00119 / HA4.KVB.LPA.070	HSK A40	5	70	L	VC .. 16 04 ..	S07
PS4.KVE.LPA.070-F0	PSC40	0	70	L	VB .. 11 03 ..	S10

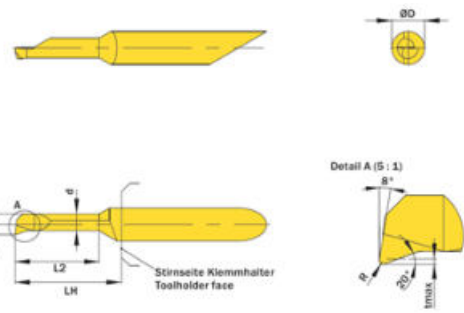
Center Line
Barres d'alésage



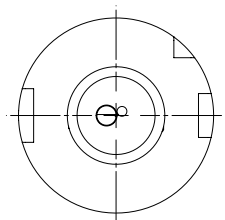
Center Line
Schneideinsätze



Center Line
Boring bars



Code/ Bestell-Nr./ Order number	ØD	L2	Ød min	R	a	d	f	LH	tmax
255.C04.003.013	4.0	1.2	0.3	-	0.25	0.19	1.95	13.0	-
255.C04.006.013	4.0	2.5	0.6	-	0.55	0.46	1.95	13.0	-
255.C04.010.013	4.0	4.0	1.0	0.05	0.95	0.65	1.95	13.0	0.1
255.C04.017.013	4.0	6.0	1.7	0.05	1.45	1.05	1.95	13.0	0.15
255.C04.022.013	4.0	6.0	2.2	0.05	2.45	2.05	1.95	13.0	0.2
255.C04.027.013	4.0	10.2	2.7	0.05	2.95	2.55	1.95	13.0	0.2
255.C04.032.013	4.0	10.2	3.2	0.05	2.95	2.55	1.95	13.0	0.2
255.C04.037.013	4.0	10.2	3.7	0.15	3.45	3.05	1.95	13.0	0.2
255.C04.042.013	4.0	10.2	4.2	0.05	3.95	3.45	1.95	13.0	0.3

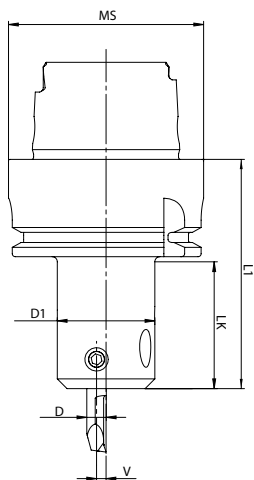


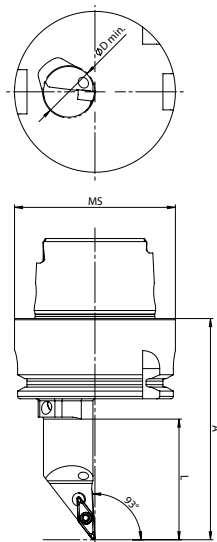
Center Line
Porte-outils indexé

Center Line
Bohrstangenhalter

Center Line
Boring bar holder

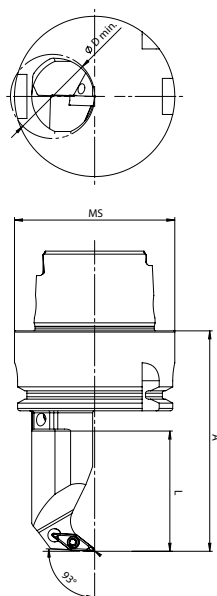
Code/ Bestell-Nr./ Order number	MS	D1	D	L1	LK	V
HA4.C04.K01.047-F0	HSK A40	20	4	47	26	1.95
PS4.C04.K01.047-F0	PSC 40	20	4	47	26	1.95





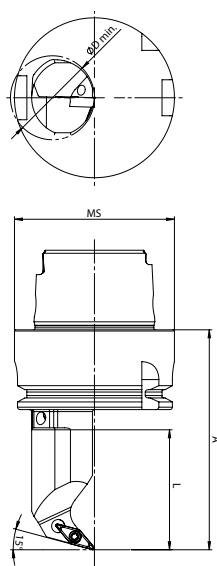
SVJC R 35°/93°

Code/ Bestell-Nr./ Order number	MS	f	A	ØDmin	L	R/L	Plaquette/ Wendeplatte/ Insert
HA4.KVI.RJA.055-F0	HSK A40	0	55	13	30	R	VC .. 07 02 ..
HA4.KVI.RJB.055-F0	HSK A40	0	55	21	30	R	VC .. 07 02 ..
PS4.KVI.RJA.050-F0	PSC 40	0	50	13	30	R	VC .. 07 02 ..
PS4.KVI.RJB.050-F0	PSC 40	0	50	22	30	R	VC .. 07 02 ..



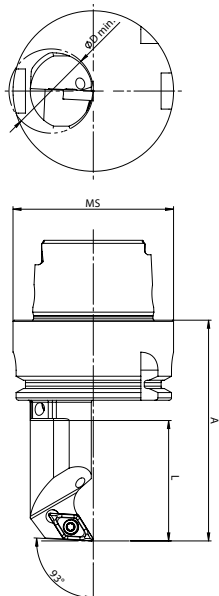
SVUC R 35°/93°

Code/ Bestell-Nr./ Order number	MS	f	A	ØDmin	L	R/L	Plaquette/ Wendeplatte/ Insert
HA4.KVI.RUB.055-F0	HSK A40	0	55	21	30	R	VC .. 07 02 ..
PS4.KVI.RUB.050-F0	PSC 40	0	50	21	30	R	VC .. 07 02 ..



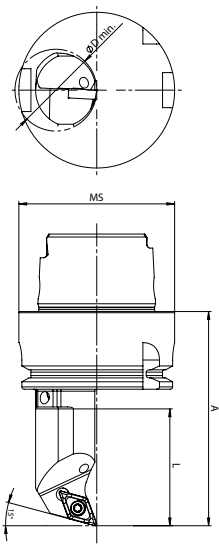
SVQC R 35°/105°

Code/ Bestell-Nr./ Order number	MS	f	A	ØDmin	L	R/L	Plaquette/ Wendeplatte/ Insert
HA4.KVI.RQB.055-F0	HSK A40	0	55	21	30	R	VC .. 07 02 ..
PS4.KVI.RQB.050-F0	PSC 40	0	50	21	30	R	VC .. 07 02 ..



SDUC R 55°/93°

Code/ Bestell-Nr./ Order number	MS	f	A	ØDmin	L	R/L	Plaquette/ Wendeplatte/ Insert
HA4.KDA.RUB.055-F0	HSK A40	0	55	21	30	R	DC . . 07 02 . .
PS4.KDA.RUB.050-F0	PSC 40	0	50	21	30	R	DC . . 07 02 . .



SDQC R 55°/105°

Code/ Bestell-Nr./ Order number	MS	f	A	ØDmin	L	R/L	Plaquette/ Wendeplatte/ Insert
HA4.KDA.RQB.055-F0	HSK A40	0	55	21	30	R	DC . . 07 02 . .
PS4.KDA.RQB.050-F0	PSC 40	0	50	21	30	R	DC . . 07 02 . .

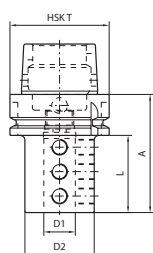


Porte-outils axial

Werkzeughalter axial

Tool holder axial

Code/ Bestell-Nr./ Order number	MS	Carré/ Vier- kant/ Square	A	L	SW
T-20-00135 / HA4.V1X.N40.070	HSK A40	10 / 12	70	50	10/12
T-20-00151 / HA4.V1X.N4T.070	HSK T40	10 / 12	60	40	10/12
T-20-00136 / PS4.V1X.N40.060	PSC40	10/12	70	50	10/12

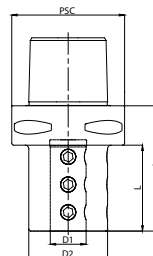


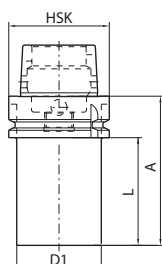
Porte-outils indexé

Bohrstangenhalter

Boring bar holder

Code/ Bestell-Nr./ Order number	MS	D1	D2	A	L
HA4.B06.K01.055-Bum	HSK A40	6	34	55	35
HA4.B08.K01.055-Bum	HSK A40	8	34	55	35
HA4.B10.K01.055-Bum	HSK A40	10	34	55	35
HA4.B12.K01.055-Bum	HSK A40	12	36	55	35
HA4.B16.K01.070-Bum	HSK A40	16	40	70	50
HA4.B20.K01.085-Bum	HSK A40	20	44	85	65
HA4.B06.K01.055	HSK T40	6	34	55	35
HA4.B08.K01.055	HSK T40	8	34	55	35
HA4.B10.K01.055	HSK T40	10	34	55	35
HA4.B12.K01.055	HSK T40	12	36	55	35
HA4.B16.K01.070	HSK T40	16	40	70	50
HA4.B20.K01.085	HSK T40	20	44	85	65
PS4.B06.K01.065	PSC40	6	34	65	43
PS4.B08.K01.065	PSC40	8	34	65	43
PS4.B10.K01.065	PSC40	10	34	65	43
PS4.B12.K01.065	PSC40	12	36	65	43
PS4.B16.K01.065	PSC40	16	40	65	43
PS4.B20.K01.065	PSC40	20	44	65	-
PS4.B25.K01.065	PSC40	25	44	65	-





Ebauches

Rohling

Blank

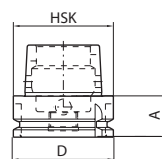
• trempé 48HRC / 0.8mm profond

• einsatzgehärtet 48HRC / 0.8mm tief

• case-hardened 48HRC depth 0.8

Code/ Bestell-Nr./ Order number	HSK A	D1	A	L
T-20-00064 / HA4.Ro4.001.100	A 40	33	100	80

Code/ Bestell-Nr./ Order number	HSK T	D1	A	L
HA4.Ro4.001.055	T 40	54	55	35
HA4.Ro4.002.065	T 40	64	65	45
HA4.Ro5.001.080	T 40	33	80	60
T-20-00127 / HA4.Ro4.002.100	T 40	33	100	80



Porte outil de protection

Trennstellenverschluss

Blanking plug

Code/ Bestell-Nr./ Order number	HSK A	D	A
HA4.000.001.020	A 40	40	20

Raccord d'arrosage HSK 40

Kühlmittelübergaberohr HSK 40

Coolant tube HSK 40



Code/ Bestell-Nr./ Order number
T-23-00004 / HA4.ER4.001.030

Clé Raccord d'arrosage

Schlüssel Kühlmitelrohr

Wrench coolant tube



Code/ Bestell-Nr./ Order number	Typ / Type
HA4.ER4.002.115	HSK 40



Porte-pinces High precision line

- pour pincres type D
- outil équilibré G 2.5/40.000 r/min

Spannzangenfutter High precision line

- für Spannzangen typ D
- Grundkörper feingewuchtet G 2.5/40.000 U/min

Collet chuck High precision line

- for D type collets
- fine balanced base tool G 2.5/40.000 r/min

Code/ Bestell-Nr./ Order number	HSK	Ø écrou/ Ø Spannmutter / Ø nut	pour pincres/ für Spannzangen/ for collet	plage de serrage/ Spannbe- reich / Clam- ping range	A
87-25016	E 25	14.	D8	0.5 - 5.0 mm	33
87-25017	E 25	20	D12	0.5 - 7.0 mm	38.5
87-25018	E 25	25	D16	0.5 - 10.0 mm	55.5

Ecrous

- équilibrés

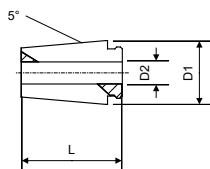
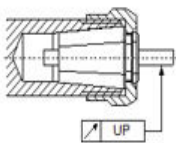
Spannzangenmutter

- gewuchtet

Clamping nut

- balanced

Code/ Bestell-Nr./ Order number	Typ / Type	pour pince/ für Spannzange / for collet	D	M
68-8705	DL8	D8	14.	M10X0.75
68-10706	DL12	D12	20	M12X0.75
68-16704	DL16	D16	25	M12X0.75



Pincres

- Qualité UP

Spannzangen

- Qualität UP

Collets

- UP Quality

Code/ Bestell-Nr./ Order number	Typ / Type	D2	D1	L1
74-8000	D8	0.5 - 5.0	8.13	16.5
74-12000	D12	0.5 - 7.0	12.65	24
74-16000	D16	0.5 - 10.0	16.65	28.5

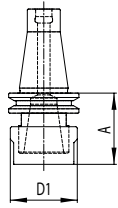


Extracteur

Zangenaustreiber

Extractor

Code/ Bestell-Nr./ Order number	Typ / Type
74-8902	D8
74-12902	D12
74-16902	D16



Porte-pinces S-128

- pour pinces DIN 6499 EX / ESX and ETS / ETA
- outil équilibré G 2.5/50.000 r/min

Spannzangenfutter S-128

- für Spannzangen nach DIN 6499 EX od. ESX, sowie ETS und ETA
- Grundkörper feingewuchtet G 2.5/50.000 U/min

Collet chuck S-128

- for collets according to DIN 6499 EX / ESX and ETS / ETA
- fine balanced base tool G 2.5/50.000 r/min

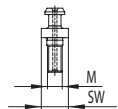
Code/ Bestell-Nr./ Order number	SKI	pour pince/ für Spannzange / for collet	plage de serrage/ Spannbereich / clamping range	M	A
T-20-00072 / SK2.E18.002.024	20	EXPE 16 / ETS 16.3	0.5–10	M20x1	24

Tirant

Anzugsbolzen

Pull stud

Code/ Bestell-Nr./ Order number	M	SW
T-55-00004 / SK2.ER1.001.026	6	11



Porte-pinces SK20

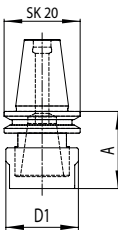
- pour pinces DIN 6499 EX / ESX and ETS / ETA
- outil équilibré G 2.5/50.000 r/min

Spannzangenfutter SK20

- für Spannzangen nach DIN 6499 EX od. ESX, sowie ETS und ETA
- Grundkörper feingewuchtet G 2.5/50.000 U/min

Collet chuck SK20

- for collets according to DIN 6499 EX / ESX and ETS / ETA
- fine balanced base tool G 2.5/50.000 r/min



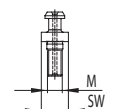
Code/ Bestell-Nr./ Order number	SK	pour pince/ für Spannzange / for collet	plage de serrage/ Spannbereich / clamping range	M	A
T-20-00100 / SK2.E18.001.024	20	EXPE 16 / ETS 16.3	0.5–10	M20x1	24
T-20-00101 / SK2.E21.001.030	20	EXPE 20 / ETS 20.1	0.5–13	M24x1	30

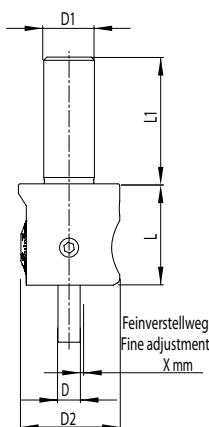
Tirant

Anzugsbolzen

Pull stud

Code/ Bestell-Nr./ Order number	M	SW
T-55-00013 / SK2.ER2.001.026	8	10





Tête à aléser Ø 0.3-19.1

- Ajustement du diamètre avec un jeu minimum
- Précision de livraison de 0.002mm sur vernier de diamètre
- avec refroidissement interne

Micro Ausdrehkopf Ø 0.3-19.1

- DurchmesserEinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.002mm über Nonius im Durchmesser
- mit Innenkühlung

Micro fine boring head Ø 0.3-19.1

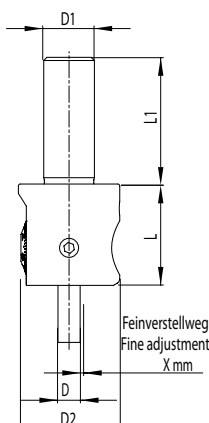
- diametrical adjustment with maximal reduced reversal backlash
- 0.002mm diametrical adjustment by nonius
- with inner coolant supply

Code/ Bestell-Nr. / Order number	D	D1	D2	X	L	L1
<i>ANALOG</i>						
SHX.A25.K01.025	4	8	25	1.5	25	20
SH1.A25.K01.025	4	10	25	1.5	25	25
SH1.A32.K01.032	7	10	32	2.5	32	40
SH2.A32.K01.032	7	16	32	2.5	32	40

Tête à aléser DIGITAL Ø 0.3-19.1

Micro Ausdrehkopf DIGITAL Ø 0.3-19.1

Micro fine boring head DIGITAL Ø 0.3-19.1



- Réglage de la précision 0,001 mm diamètre
- système de mesure de position directe (non pas de jeu)
- pas de batterie et sélecteur d'évaluation installé dans l'outil
- opération très facile
- utilisation numérique et analogique

- Einstellgenauigkeit 0.001mm im Durchmesser
- direktes Wegmeßsystem (kein Umkehrspiel)
- keine Batterie und Auswertelektronik im Werkzeug verbaut
- sehr einfache Bedienung
- digital und analog einsetzbar

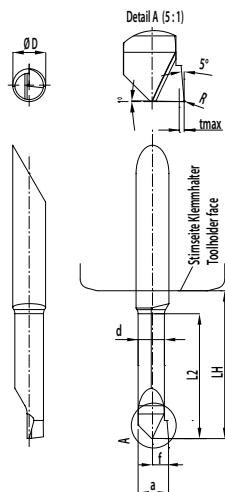
- 0.001 accuracy in diameter
- direct measurement system (no backlash)
- no battery and electronic evaluation unit inside the tool
- very easy operation
- for digital and analog use

Code/ Bestell-Nr. / Order number	D	D1	D2	X	L	L1
<i>DIGITAL</i>						
SH1.A25.DA2.025	4	10	25	1.5	25	25
SH2.A32.DA2.032	7	16	32	2.5	32	40

- L'unité d'affichage doit être commandée séparément (GH1.DA2.BG0.077).

- Anzeigeeinheit muss separat bestellt werden (GH1.DA2.BG0.077).

- Display unit must be ordered separately (GH1.DA2.BG0.077).

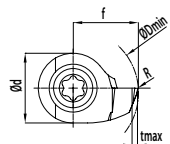


Barres d'alésage

Schneideinsätze

Boring bars

Code/ Bestell-Nr. / Order number	ØD	L2	Ød min	Ød max	R	a	d	f	LH	t max
255.004.003.013	4.0	1.2	0.3	0.7	-	0.25	0.15	0.15	11.0	0.03
255.004.006.013	4.0	2.5	0.6	1.1	-	0.55	0.46	0.30	11.0	0.05
255.004.010.013	4.0	4.0	1.0	2.3	0.05	0.95	0.65	0.50	11.0	0.1
255.004.022.013	4.0	6.0	2.2	3.3	0.05	2.00	1.55	1.10	11.0	0.2
255.004.032.013	4.0	10.2	3.2	4.3	0.05	3.00	2.55	1.60	11.0	0.2
255.004.039.018	4.0	15.2	3.9	(7.1)	0.05	3.70	3.45	1.95	16.0	0.3
255.007.052.023	7.0	20.3	5.2	6.3	0.05	5.00	4.25	2.60	21.0	0.5
255.007.062.023	7.0	20.3	6.2	7.3	0.05	6.00	5.25	3.10	21.0	0.5
255.007.069.028	7.0	25.4	6.9	12.1	0.20	6.70	6.25	3.45	26.0	0.5

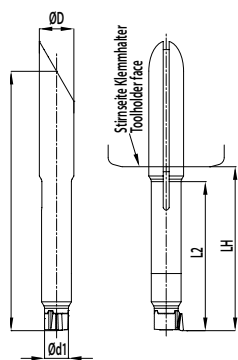


Inserts

Schneidplatten

Inserts

Code/ Bestell-Nr. / Order number	Ød min	Ød max	R	f	Ød	tmax	Code
283.007.069.004	6.9	8.1	0.2	3.45	4.8	1.0	D07
283.007.079.004	7.9	9.1	0.2	3.95	4.8	1.0	D07
283.007.089.004	8.9	10.1	0.2	4.45	4.8	1.0	D07
283.010.099.004	9.9	12.1	0.2	4.95	7	1.0	D10
283.010.119.004	11.9	14.1	0.2	5.95	7	1.0	D10
283.010.139.004	13.9	19.1	0.2	6.95	7	1.0	D10

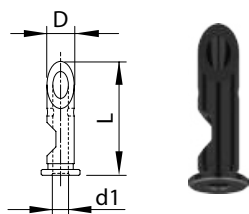
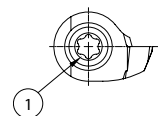


Adapter pour les inserts

Adapter für Schneidplatten

Adapter for inserts

Code/ Bestell-Nr. / Order number	ØD h6	L2	Ø d1	L1	LH	Schraube/ screw	①	Torx	Code
282.007.007.033	7.0	30	4.8	56	31	M2x7.5 (900.254.020.007)		T7	D07
282.007.010.038	7.0	35	7.0	61	36	M3x9.0 (900.254.030.009)		T9	D10



Réductions

Reduktionshülsen

Reduction sleeves

Code/ Bestell-Nr. / Order number	D	d1	L
224.007.004.030	7	4	(30)

Pinces

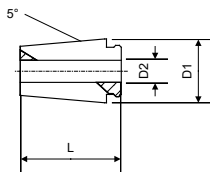
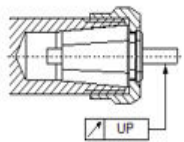
Spannzangen

Collets

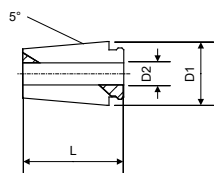
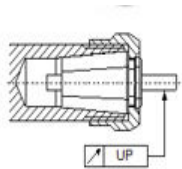
• Qualité UP

• Qualität UP

• UP Quality



Code/ Bestell-Nr./ Order number	Typ / Type	D
74-08000D00.5U	Pince D8 UP	d0.5
74-08000D01.0U	Pince D8 UP	d1
74-08000D01.5U	Pince D8 UP	d1.5
74-08000D02.0U	Pince D8 UP	d2
74-08000D02.5U	Pince D8 UP	d2.5
74-08000D03.0U	Pince D8 UP	d3
74-08000D03.17U	Pince D8 UP	d3.17 (1/8")
74-08000D03.5U	Pince D8 UP	d3.5
74-08000D04.0U	Pince D8 UP	d4
74-08000D04.5U	Pince D8 UP	d4.5
74-08000D05.0U	Pince D8 UP	d5
74-10000D00.5U	Pince D10 UP	d0.5
74-10000D01.0U	Pince D10 UP	d1
74-10000D01.5U	Pince D10 UP	d1.5
74-10000D02.0U	Pince D10 UP	d2
74-10000D02.5U	Pince D10 UP	d2.5
74-10000D03.0U	Pince D10 UP	d3
74-10000D03.17U	Pince D10 UP	d3.17 (1/8")
74-10000D03.5U	Pince D10 UP	d3.5
74-10000D04.0U	Pince D10 UP	d4
74-10000D04.5U	Pince D10 UP	d4.5
74-10000D05.0U	Pince D10 UP	d5
74-10000D05.5U	Pince D10 UP	d5.5
74-10000D06.0U	Pince D10 UP	d6
74-12000D01.0U	Pince D12 UP	d1
74-12000D01.5U	Pince D12 UP	d1.5
74-12000D02.0U	Pince D12 UP	d2
74-12000D02.5U	Pince D12 UP	d2.5
74-12000D03.0U	Pince D12 UP	d3
74-12000D03.17U	Pince D12 UP	d3.17 (1/8")
74-12000D03.5U	Pince D12 UP	d3.5
74-12000D04.0U	Pince D12 UP	d4
74-12000D04.5U	Pince D12 UP	d4.5
74-12000D05.0U	Pince D12 UP	d5
74-12000D05.5U	Pince D12 UP	d5.5
74-12000D06.0U	Pince D12 UP	d6
74-12000D06.35U	Pince D12 UP	d6.35 (1/4")
74-12000D07.0U	Pince D12 UP	d7
74-14000D00.5U	Pince D14 UP	d0.5
74-14000D01.0U	Pince D14 UP	d1
74-14000D01.5U	Pince D14 UP	d1.5
74-14000D02.0U	Pince D14 UP	d2
74-14000D02.5U	Pince D14 UP	d2.5
74-14000D03.0U	Pince D14 UP	d3
74-14000D03.17U	Pince D14 UP	d3.17 (1/8")
74-14000D03.5U	Pince D14 UP	d3.5
74-14000D04.0U	Pince D14 UP	d4
74-14000D04.5U	Pince D14 UP	d4.5
74-14000D05.0U	Pince D14 UP	d5
74-14000D05.5U	Pince D14 UP	d5.5
74-14000D06.0U	Pince D14 UP	d6
74-14000D06.35U	Pince D14 UP	d6.35 (1/4")
74-14000D06.5U	Pince D14 UP	d6.5
74-14000D07.0U	Pince D14 UP	d7
74-14000D08.0U	Pince D14 UP	d8
74-14000D09.0U	Pince D14 UP	d9



Code/ Bestell-Nr./ Order number	Typ / Type	D
74-16000D00.5U	Pince D16 UP	d0.5
74-16000D01.0U	Pince D16 UP	d1
74-16000D01.5U	Pince D16 UP	d1.5
74-16000D02.0U	Pince D16 UP	d2
74-16000D02.5U	Pince D16 UP	d2.5
74-16000D03.0U	Pince D16 UP	d3
74-16000D03.17U	Pince D16 UP	d3.17 (1/8")
74-16000D03.5U	Pince D16 UP	d3.5
74-16000D04.0U	Pince D16 UP	d4
74-16000D04.5U	Pince D16 UP	d4.5
74-16000D05.0U	Pince D16 UP	d5
74-16000D05.5U	Pince D16 UP	d5.5
74-16000D06.0U	Pince D16 UP	d6
74-16000D06.35U	Pince D16 UP	d6.35 (1/4")
74-16000D06.5U	Pince D16 UP	d6.5
74-16000D07.0U	Pince D16 UP	d7
74-16000D07.5U	Pince D16 UP	d7.5
74-16000D08.0U	Pince D16 UP	d8
74-16000D08.5U	Pince D16 UP	d8.5
74-16000D09.0U	Pince D16 UP	d9
74-16000D09.5U	Pince D16 UP	d9.5
74-16000D09.52U	Pince D16 UP	d9.52 (3/8")
74-16000D10.0U	Pince D16 UP	d10



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