



**NT**  
**NT TOOL**  
MADE BY INNOVATION

hochleistungs-werkzeugspannsysteme  
high performance tooling systems





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# NT Unternehmensgruppe - Übersicht

## Overview of NT Group



**NT TOOL, NT Seimitsu, NT Techno und NT Engineering sind vier Unternehmen, die gemeinsam die NT Unternehmensgruppe bilden. Jedes dieser Unternehmen ist in seinem Markt führend in Qualität und technologischem Anspruch.**

NT TOOL, NT Seimitsu, NT Techno and NT Engineering are the four companies that make up the NT Group. Each of them possesses advanced core technologies brimming with originality and contributes to the world's manufacturing industry in a full range of fields.



NT Techno Co.Ltd., Japan

### **NT TECHNO CO., LTD**

**NT TECHNO ist ein Zulieferer der Automobilindustrie. Mit 375 Mitarbeitern werden Teile für Motoren, Bremssysteme und Getriebe hergestellt.**

NT TECHNO is an automotive parts manufacturer. 375 employees producing parts for automatic transmission, engines and brakes.



NT Techno USA Corporation, North Carolina

### **NT TECHNO USA CORP.**



NT Seimitsu Co. Ltd., Japan

### **NT SEIMITSU CO., LTD**

**NT SEIMITSU ist ein führender Hersteller von ABS Bremssystemteilen und Fahrwerkskomponenten.**

NT SEIMITSU is a leading manufacturer of parts for ABS Brake Systems and hydraulic suspension components.



NT Seimitsu Co. Ltd., Thailand

### **NT SEIMITSU (Thailand) CO., LTD**



NT Engineering Corporation, Japan

### **NT ENGINEERING CORP.**

**NT ENGINEERING fertigt hochpräzise Werkzeugkorrektursysteme.**

NT ENGINEERING is producing automatic tool correction systems.

# NT TOOL's Global Network

## Available all around the world



**45.000 Standard items**  
**250.000 Special items**

**◆ NT Niederlassung / NT Office**  
**● Handelspartner / Distributor**

Nach Gründung der NT Unternehmensgruppe im Jahr 1926, begann mit der Ausgliederung der NT TOOL Corporation 1976 die Spezialisierung auf die Herstellung hochpräziser Werkzeugspannsysteme. Innovation und Qualität im Standard und als Sonderausführung sind seitdem Leitgedanke des Unternehmens. Bereits 1983 erfolgte der Bau einer weiteren Produktionsstätte in Japan und ab 1996 begann man als erster japanischer Hersteller mit der Fertigung von HSK-Aufnahmen; mit der kurz darauf beginnenden Internationalisierung mit Niederlassungen in allen wichtigen Weltmärkten wurde NT TOOL zum Global Player. Heute ist NT TOOL mit 250 Mitarbeitern weltweit führender Hersteller leistungsfähiger Werkzeugspannlösungen.

After Foundation of NT Corporation in 1926, began with the spin-off of NT TOOL Corporation in 1976 specialization in manufacturing of high precision tooling systems. Innovation and quality in standard and custom-made have since been the guiding principle of the company. Already in 1983 a second plant was built in Japan and in 1996 started the production of HSK-Toolholders as the first Japanese company; shortly thereafter the internationalization began with branch offices in all major world markets and thus NT TOOL became a global player. Today NT TOOL is a worldwide leading manufacturer of high efficient clamping solutions with 250 employees.

ISO 9001



JQA-1372



A-5090



00379681

ISO 14001



JQA-EM4855



EMS Accreditation  
RE006



091-C



# NT TOOL

INDONESIA OFFICE & FACTORY



MEXICO OFFICE



EUROPE OFFICE



HEAD OFFICE & FACTORY



THAILAND OFFICE & FACTORY



CHINA OFFICE



USA OFFICE



IIDA FACTORY



Innovations since

1920

# Spannkompetenz aus einer Hand

## Clamping expertise from a single source



**Hochleistungs-Kraftspannfutter**  
High Performance Milling Chuck



**Power Dehnspannfutter**  
Power Hydro Chuck



**Dehnspannfutter superschlank**  
Slim Hydro Chuck



**Hochgenauigkeits-Spannzangenfutter**  
High Precision Collet Chuck



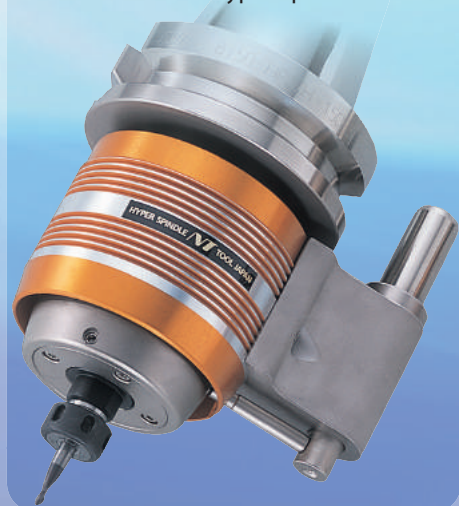
**Spannsysteme mit Rundlauf "0"**  
R-Zero Tooling



**Schrumpfspannsysteme**  
Shrink Fit Systems



**Präzisions-Schnellaufspindel**  
Precision Hyper Spindle



**HSK-T | Polygon**  
Aufnahmen für  
Dreh-/ Fräszentren  
Millturn Tooling Systems



**Synchro-Gewindeschneidfutter**  
Synchro Tapping Holder





## Besser spannen...

ob mechanisch, hydraulisch oder induktiv – **NT TOOL** bietet Spannkompetenz aus einer Hand als Katalogwerkzeug oder individuell nach Ihren Wünschen gefertigt mit einzigartigen Leistungsmerkmalen. Mit innovativen Werkzeugspannlösungen von **NT TOOL** können Anwender aus den verschiedensten Industriebranchen besser spannen:

- Hochleistungs-Kraftspannfutter für die Schwerzerspannung
- Power-Dehnspannfutter mit optimaler Vibrationsdämpfung
- Hochgenauigkeits-Spannzangensystem für universelle Anwendung
- R-ZERO Spannsysteme mit ultimativer Präzision beim Bohren und Reiben
- Leistungsstarke Schrumpfspannsysteme und
- Synchro-Gewindeschneidfutter mit einzigartigem Schnittdruckausgleich

**NT TOOL: Für jede Zerspannungsaufgabe die optimale Spannlösung.**

## Better clamping...

Mechanical, hydraulic or inductive – **NT TOOL** offers clamping technology from a single source as a standard tool or custom-made according to customer request with unique features. Innovative tool clamping solutions of **NT TOOL** helps users from various industries for better clamping:

- High Performance Milling Chucks for heavy duty milling
- Power Hydro Chucks with perfect vibration damping
- High Precision Collet Chucks for universal use
- R-ZERO Tooling with ultimate precision in drilling and reaming
- Powerful Shrink Fit Systems and
- Synchro-Tapping Holders with unique cutting force compensation

**NT TOOL offers superior clamping solutions for all applications.**

# Für jede Anwendung die optimale Spannlösung

The best tooling system for all applications

Ob für die Kleinserie, Massenproduktion, im Werkzeug- und Formenbau oder Mikrozerspanung, NT Tool bietet immer die optimale Spannlösung für Ihre Anwendung.

Werkzeugbau



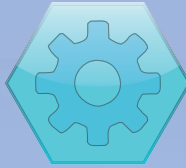
Die & Mould

Automobil



Automotive

Maschinenbau



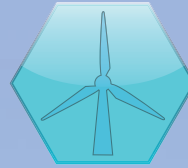
Mechanical Engineering

Luftfahrt



Aerospace

Windkraft



Wind Energy

Feinmechanik



Micro Machining

Whether for Job Shops, Mass-Production, for Die- and Mould or Micro Machining, NT Tool offers the best tooling system for your application.

## Meilensteine innovativer Werkzeugspannsysteme

Milestones of innovative Tooling Systems



**Hochleistungs  
Kraftspannfutter**

High Performance  
Milling Chucks



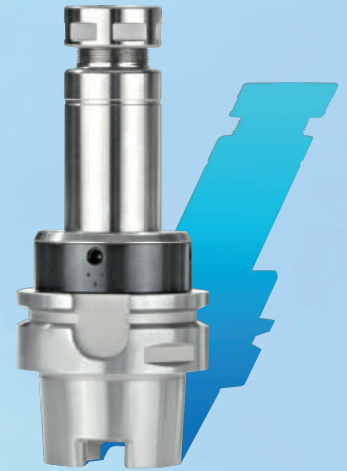
**SynchroFit  
Gewindeschneidfutter**

SynchroFit  
Tapping Holders



**Dehnspannfutter  
Superschlank**

Slim Hydro Chucks



**Rundlauf "0"  
Ultimative Präzision**

Run out "0"  
Ultimate precision

## Spezieller Oberflächenschutz

Rustproof Tool Holders

**Spezieller Oberflächenschutz**

- Verhindert Korrosion
- Lange Gebrauchsdauer
- Schont Maschinenspindel



Wettbewerber

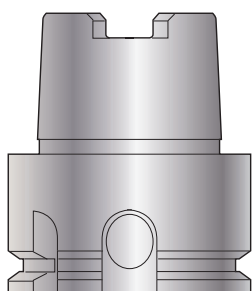


Competitor

Special rust proofment

- Prevents rust
- Long tool life
- Spindle protection

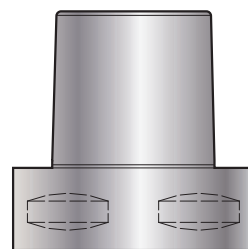
Ausgenommen: HSK-Schäfte, Schrumpfaufnahmen • Except: HSK shanks, Shrink Fit Chucks



## HSK

DIN 69893

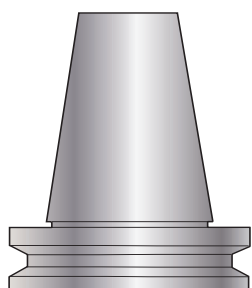
- HSK-A S.|P. 42-89
- HSK-E S.|P. 90-105
- HSK-F S.|P. 105-106
- HSK-T S.|P. 200-207



## POLYGON

ISO 26623-1

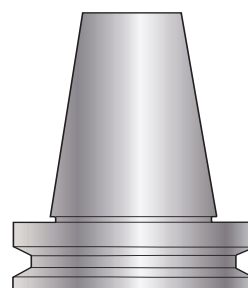
S.|P. 107-112



## SK

DIN 69871

- SK30 S.|P. 114-115
- SK40 S.|P. 116-133
- SK50 S.|P. 134-144



## BT

JIS B6339

- BT30 S.|P. 146-150
  - BT40 S.|P. 151-165
  - BT50 S.|P. 166-176
  - AHO S.|P. 216
- Plananlage | 2Face-Contact



**Verlängerungen**  
Extensions

S.|P. 184-187

**Werkzeugspannsysteme für Brother**  
Tooling System for Brother's **SPEEDIO**

## M140X2

S.|P. 178-182

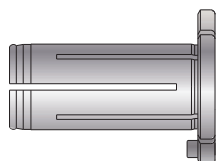
## Zubehör | Accessories

### Spannhülsen|Collets



**MC**

S.|P. 188-189



**PHS**

S.|P. 192

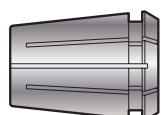
**PHS-H**

S.|P. 192

**HS**

S.|P. 193

### Spannzangen|Collets



**FDC**

S.|P. 195

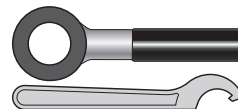
**FSC**

S.|P. 197

**ER-GB**

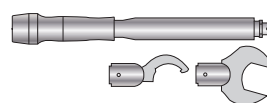
S.|P. 199

### Spannschlüssel|Spanner



**HS|RS**

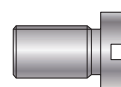
S.|P. 190



**CL**

S.|P. 194+196+198

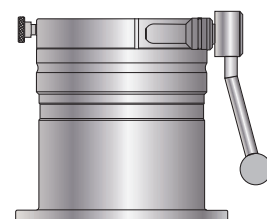
**Drehmomentschlüssel**  
Torque Wrench



**BL**

S.|P. 190

**Einstellschrauben**  
Back-up screws



**HCL**



















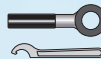





















S.|P. 191

**Kompaktspanner**  
Clamper

# Schnellauswahl Werkzeugspannsystem

## Quickfinder Tooling Systems



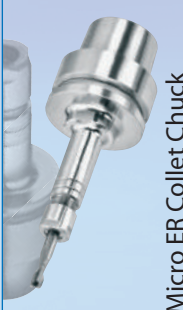






































Die optimale Spannlösung für Ihre Anwendungen  Comprehensive tooling solutions for your applications	Kraftspannfutter		Dehnspannfutter			Gebo-Futter
	CT-S <sup>Series</sup>	CTS-P	PHC-A	PHC-H	PHC-SA	SFH
	 Milling Chuck	 Milling Chuck	 Power Hydro Chuck	 High Pressure Hydro Chuck	 Slim Hydro Chuck	 SynchroFit Tapping Holder
<b>Spannbereich</b> Clamping range	ø 3.0 - 42.0	ø 3.0 - 32.0	ø 3.0 - 32.0	ø 6.0 - 32.0	ø 1.0 - 25.0	M1 - M30
<b>Rundlauf (mm)</b> Run out accuracy	0.005	0.005	0.003	0.003	0.003	-
<b>Spannkraft</b> Clamping force	>1000 Nm	>1700 Nm	350 Nm	>800 Nm	-	-
<b>Kühlmittelzufuhr</b> Coolant supply	 	 	 	 	 	 
<b>max. Drehzahl *</b> max. spindle speed *	20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	-
<b>Spannung</b> Clamping						
<b>Flexibilität</b> Flexibility	MC 	MC 	PHS 	PHS-H 	HS 	ER-GB FSC 
<b>Anwendernutzen</b> User benefits	<b>Sehr hohe Spannkraft und Stabilität; Flexibilität durch Spannhülsen</b>  Very high clamping forces and stability; flexible through collets	<b>Die Spannlösung für schwer zerspannbare Werkstoffe; trochoidale Fräsbearbeitung</b>  Clamping solution for difficult-to-machine materials; trochoidal milling	<b>Erhöhte Spannkraft, Flexibilität in 1mm-Schritten; vibrationsdämpfend</b>  Enhanced clamping force, flexibility like a collet chuck; vibration absorbing	<b>Mit verstärkter Bauform für schwere Fräsanwendungen; trochoidales Fräsen</b>  With reinforced design for heavy duty milling; trochoidal milling	<b>Superschlanke Störkontur, flexibel durch Spannhülsen; präziser, schneller und stabiler als Schrumpffutter</b>  Superslim design; flexible through collets; more precise, faster and more stable than Shrink Fit Chucks	<b>Neue, einzigartige Schnittdruckkompensation für mehr Standzeit, mehr Gewindequalität, mehr Prozesssicherheit; schlanke Bauform mit integrierter Längeneinstellung</b>  New, innovative radial compensation provides longer tool life, better thread quality and high process reliability; slim design with integrated length adjustment
<b>Bohren, reiben, schlichten</b> Drilling, reaming, finishing						Synchron- gewindeschneiden  Synchronized tapping
<b>Fräsen, schrappen</b> Milling, heavy roughing						
<b>HSC-Bearbeitung</b> High Speed machining						
<b>Schnittstellen</b> Interfaces	HSK-A 40   100 HSK-E 40 50 63 HSK-F 63 HSK-T 63 Polygon C5 C6 SK 30 40 50 BT 30 40 50	HSK-A 63 100 125 SK 40 50 BT 40 50	HSK-A 40 50 63 100 HSK-E 40 50 Polygon C5 C6 SK 40 50 BT 30 40 50	HSK-A 63 100 SK 40 50 BT 40 50	HSK-A 63 100 HSK-E 40 50 SK 40 50 BT 40 50	HSK-A 40 50 63 100 SK 40 50 BT 40 50 ST 20 25

\* Für Schnittstelle HSK63A | SK40

\* For interface HSK63A | SK40

Spannsysteme mit Rundlauf "0"  
Tooling systems with run out "0"

Spannzangensysteme			Kraftspannfutter	Spannzangensyst.	Dehnspannfutter	
HDC-A	GDC-A	ERC-S	CTZ-SA	HDZ   ERZ	PHC-Z	PHZ-SA
 High Precision Collet Chuck	 Highspeed Collet Chuck	 Micro ER Collet Chuck	 R"0" Milling Chuck	 R"0" Collet Chuck	 R"0" Hydro Chuck	 Slim R"0" Hydro Chuck
ø 1.0 - 22.0	ø 1.0 - 22.0	ø 1.0 - 7.0	ø 4.0 - 42.0	ø 1.0 - 22.0	ø 3.0 - 20.0	ø 6.0 - 12.0
0.005	0.005	0.005	0 - 0.002 einstellbar   adjustable			
350 Nm	350 Nm	-	1000Nm	350Nm	350Nm	-
						
20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	30.000 min <sup>-1</sup>	15.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	20.000 min <sup>-1</sup>	15.000 min <sup>-1</sup>
						
FDC 	FDC 	ER 	MC 	FDC ER 	PHS 	HS 
<b>Sehr flexibles, hochpräzises Spannsystem für universelle Anwendung</b>  Very flexible and high precision collet chuck for universal use	<b>Feingewichtet, hohe Stabilität durch geführte Spannmutter und verstärktem Grundkörper</b>  Fine-balanced, high stability due to reinforced body and guided cap nut	<b>Superschlanke Bauform; flexibel und hochpräzise; optimal für die Mikrozerspannung</b>  Superslim design; flexible and high precision; ideal for micro-machining	<b>Höchste Rundlaufgenauigkeit und stabile Werkzeugspannung; flexibel durch Spannhülsen</b>  Ultimate precision and stable tool clamping; flexible through collets	<b>Sehr flexibles Spannzangensystem mit höchster Rundlaufgenauigkeit einfache &amp; schnelle Werkzeugspannung</b>  Very flexible tooling system with ultimate precision; easy & quick clamping	<b>Dehnspannfutter mit Rundlauf "0"; flexibel durch Spannhülsen; vibrationsdämpfend</b>  Hydro Chuck with run out "0"; flexible through collets; vibration absorbing	<b>Superschlankes Dehnspannfutter mit Rundlauf "0"; perfekt für die Feinbearbeitung in engen Werkstückstellen</b>  Superslim Hydro Chuck with run out "0"; perfect for fine-machining in tight work piece areas
						
						
HSK-A 40 50 63 100 Polygon C3 C4 C5 C6 SK 40 50 BT 30 40 50 ST 20 32	HSK-A 40 50 63 100 HSK-E 40 50 HSK-F 63 SK 40 BT 40	HSK-A 40 50 63 HSK-E 25 32 40 50 SK 30 40 BT 30 40 ST 12 16	HSK-A 63 100 SK 40 50 BT 40 50	HSK-A 63 100 SK 40 50 BT 40 50 ST 20 32	HSK-A 63 100	HSK-A 63 100 SK 40 BT 40



Zentrale Kühlmittelzufuhr  
Center through coolant supply



Periphere Kühlmittelzufuhr  
Side-through coolant supply



Sehr gut  
Very good



Gut  
Well

# CT-SA Hochleistungs-Kraftspannfutter High Performance Milling Chuck

SUPER-

## Kraftvolle Zerspanung mit hoher Rundlaufgenauigkeit

Die CT-SA Hochleistungs-Kraftspannfutter verbinden in idealer Weise höchste Spannkraften und Radialsteifigkeit, Flexibilität im Spannungsbereich sowie hohe Rundlaufgenauigkeit.

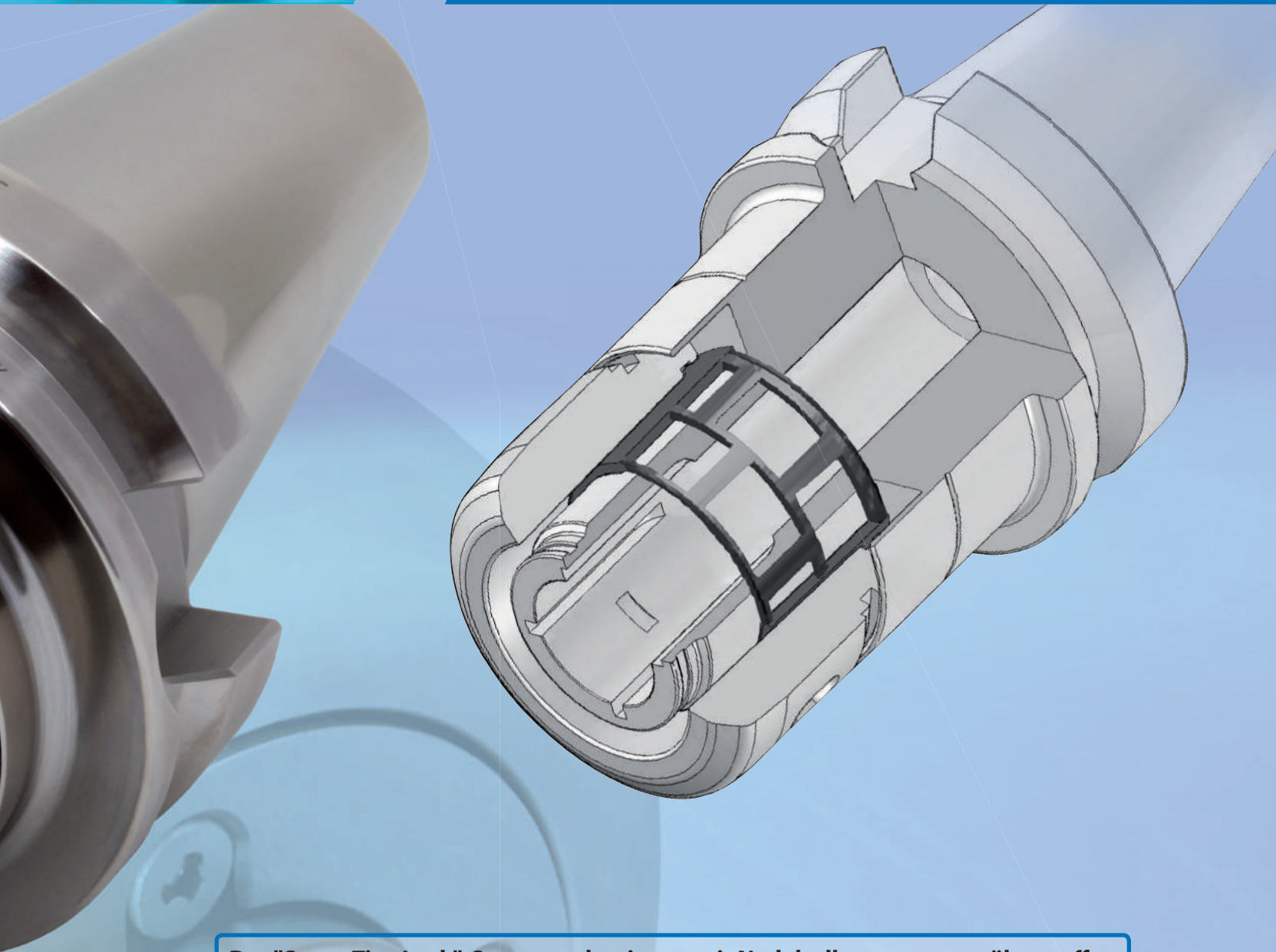
**Mehr Produktivität • Mehr Effizienz**



Powerful machining  
with high run out accuracy

CT-SA High Performance Milling Chucks combines unsurpassed clamping forces and high rigidity, flexible clamping range and high run out accuracy.

**more productivity • more efficiency**



**Der "Super Tite-Lock"-Spannmechanismus mit Nadelrollen erzeugt unübertroffen hohe Spannkräfte durch die symmetrische, elastische Verformung der Spannbohrung bei einfachster Bedienung.**

**Das Schneidwerkzeug wird hierdurch gleichmäßig zentrisch gespannt, so dass beste Rundlaufeigenschaften erreicht werden. Durch die verstärkte Spannmutter ergibt sich eine hohe Stabilität, die selbst extremen Radialbelastungen gewachsen ist und so hohe Zustellungen und damit Spanvolumen prozesssicher ermöglicht.**

The "Super Tite-Lock" clamping mechanism with needle rollers generates unsurpassed high clamping forces by symmetrical, elastical deformation and is easy to operate.

A cutting tool is clamped concentric to the centre axis thus good run out accuracy is achieved. The reinforced thickness of the clamping nut ensures no distortion even at heavy milling. Thus smooth milling operation is achieved without vibrations or slippage of the end mill.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

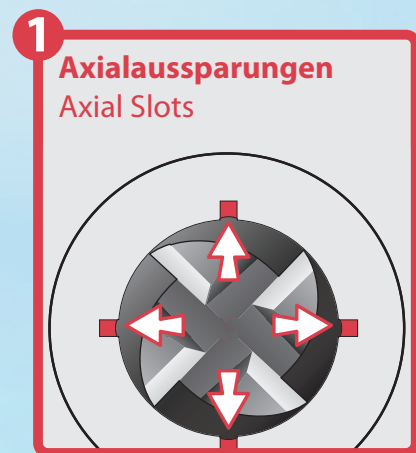
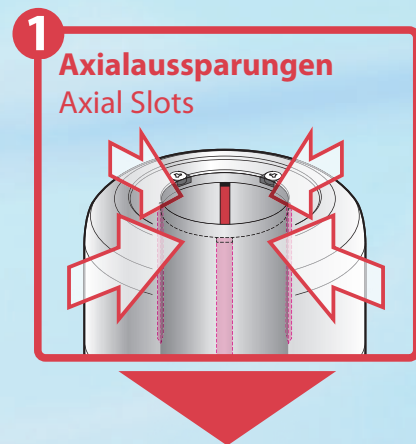
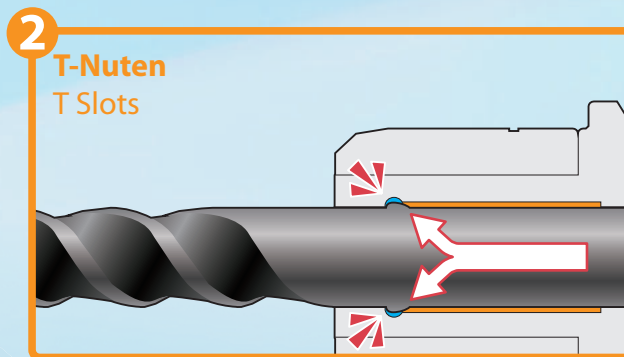
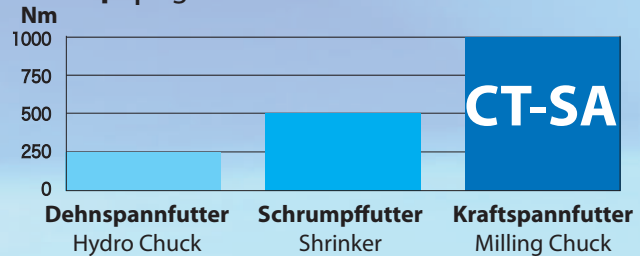
SUPER-

Die Leistung eines Werkzeughalters ist wesentlich davon abhängig wie fest der Werkzeugschaft gespannt ist. Hohe Spannkraften ergeben eine hohe Drehmomentübertragung und sorgen somit für eine prozesssichere Zerspanung. CT-SA Super Tite-Lock Kraftspannfutter übertragen kraftschlüssig extrem hohe Spannkraften kombiniert mit sehr guten Rundlaufeigenschaften. Dadurch sind höchste Zerspanleistungen auch in schwierigen Werkstoffen möglich. Im Vergleich zu Schrumpf- oder Hydro-Dehnspannfuttern werden deutlich höhere Drehmomente übertragen (s. Tabelle).

Performance of a toolholder depends largely on how tightly a cutting tool's shank is clamped. High clamping forces results in high transmissible torques and thus providing a reliable machining process.

CT-SA Super Tite-Lock Milling Chucks transfer friction fit extremely high clamping forces combined with very good run out accuracy. This allows for highest cutting performances even in difficult-to-machine materials. Compared to Shrink fit Chucks or Hydraulic Chucks considerably higher clamping forces may be transmitted (see table).

Bsp. | e.g. CT20SA



**1** Axialausparungen erhöhen die Spannkraft und verhindern das 'Durchrutschen' des Schneidwerkzeuges.  
Axial Slots increases the clamping forces and prevents tool rotation.

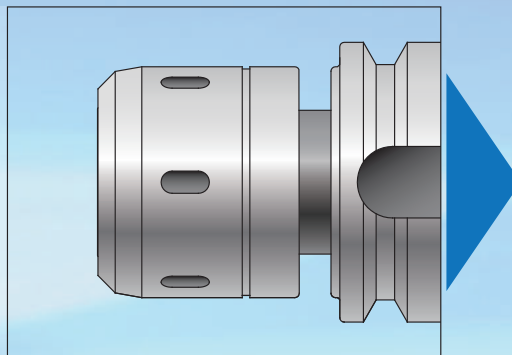
**2** T-Nuten reduzieren die Gefahr des Fräserauszugs und halten die Spannflächen trocken.  
T Slots minimize risk of milling cutter being pulled out and keep clamping area dry.

**3** CT-SA Kraftspannfutter sind für die innere Kühlmittelzufuhr komplett durchbohrt.  
CT-SA Milling Chucks are completely through bored for inner coolant supply.

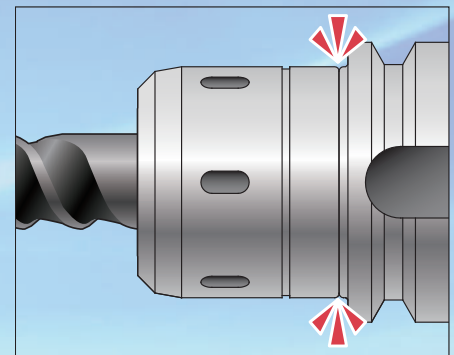


**Hohe Radialsteifigkeit durch wiederholgenaue Spannung gegen eine Plananlage verhindert die Auslenkung und sichert eine hohe Bearbeitungsgenauigkeit sowie lange Werkzeugstandzeiten.**

High radial rigidity due to the face contact prevents lateral breaking away and ensures high machining accuracy as well as long tool life.



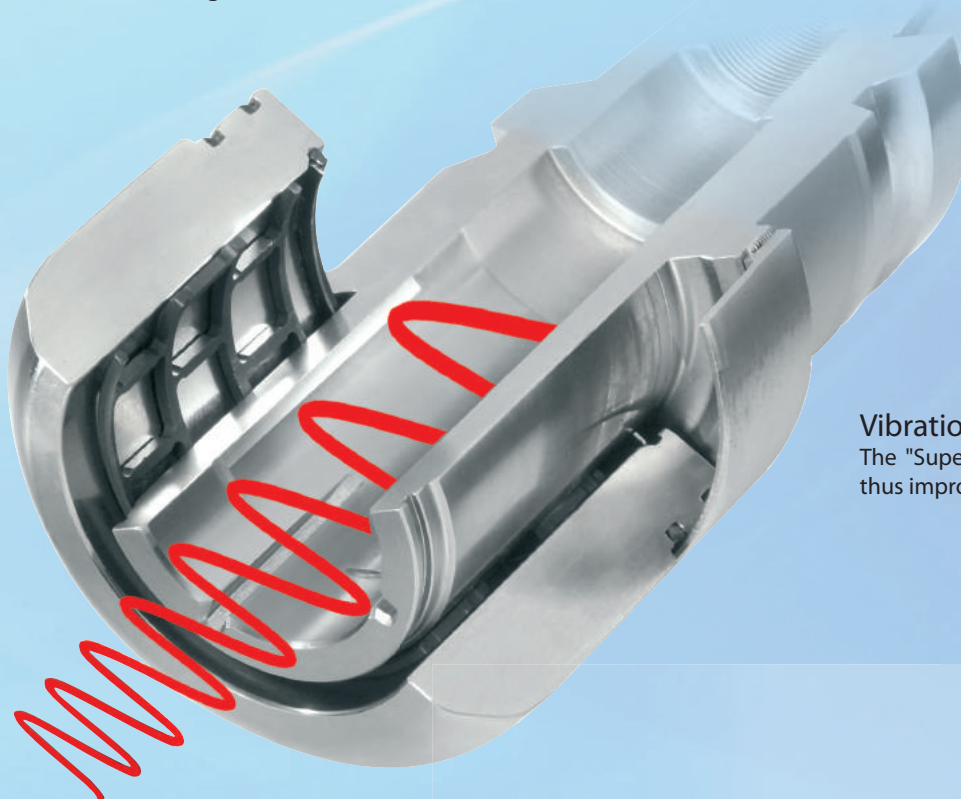
**Vor dem Spannen**  
Before Clamping



**Nach dem Spannen**  
After Clamping

### Schwingungsdämpfung

Der "Super Tite-Lock" Mechanismus absorbiert Schwingungen und ermöglicht somit beste Bearbeitungsergebnisse und lange Werkzeugstandzeiten.



### Vibration damping

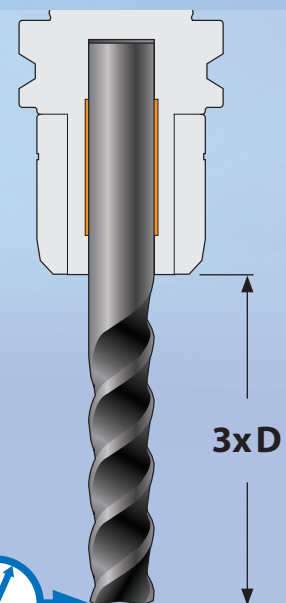
The "Super Tite-Lock" mechanism absorbs vibrations thus improving machining quality and longer tool life.

### Präzise

Der Rundlauf entscheidet maßgeblich über Präzision der Werkstücke sowie der Werkzeugstandzeit. Erst ein guter Rundlauf ermöglicht den gleichmäßigen Schneideneingriff und damit eine schwingungsarme Zerspanung und lange Werkzeugstandzeiten. Nicht zuletzt schützt ein guter Rundlauf die Maschinenspindel und vermeidet so vorzeitigen Verschleiß oder unnötigen Maschinenstillstand.

### Precise

Run out accuracy of a toolholder is the most decisive criteria to influence tool life and precision of a work piece. Only a good run out ensures uniform cutting action and thus a smooth machining process and long tool life. Finally, a good run out protects machine spindle and prevents premature wear or unnecessary machine downtimes.



### Rundlaufgenauigkeit:

Run out accuracy:

**0.005 mm/3xD**

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

SUPER-

### Hohe Flexibilität

Direktspannung, Durchmesser-Reduzierung mittels Spannhülsen oder mit zylindrischen Verlängerungen.

**Alles ist möglich !**

Das bedeutet:

- Hohe Flexibilität
- Kostenersparnis

High flexibility

Direct clamping, use of MC Collets or tool extensions.

**Everything is possible !**

This means:

- High flexibility
- Cost savings



### EM-Verlängerung-Flex Chuck

EM-Verlängerungen sind die optimale Erweiterung, wenn es um Bearbeitungen in engen Werkstückstellen geht. Bohren, Reiben oder Schlichten.

### EM-Extensions-Flex Chuck

EM-Extensions are the optimal solution, when it comes to machining in tight work piece areas. Drilling, Reaming or Finishing.

### Flexibilität im Spannbereich

#### Großer Spannbereich

Mittels Spannhülsen können mit einer Aufnahme verschiedene Schaftdurchmesser gespannt werden.

Dadurch hohe Flexibilität und Kostenersparnis.

#### Flexible clamping range

#### Large clamping range

By using Straight Collets several shank diameter can be clamped in one single milling chuck.

This makes CT-SA a flexible and cost saving solution.



MC



MC-OH



MC-C

### Innenkühlung leicht gemacht

Kühlmittelzufuhr durch die Spindel oder mittels Spannhülsen:

Typ MC-OH für die zentrale Kühlmittelzufuhr oder

Typ MC-C für die seitliche Kühlmittelzufuhr.

Es sind KEINE zusätzlichen Dichtmaterialien notwendig.

### Easy coolant supply

Inner coolant supply through machine spindle or by using MC-Collets:

Type MC-OH for inner coolant supply or type MC-C for side-through coolant.

NO additional sealing are necessary.

Quick and reliable  
tool clamping with  
telescopic roller spanner

**Schnelle und sichere  
Werkzeugspannung mit  
Teleskop-Rollenspannschlüssel**



## SUPER TITE-LOCK CTS-P Power Series

**Die Spannlösung für schwer zerspanbare  
Werkstoffe und trochoides Fräsen.**

### Merkmale

- Extrem hohe Spannkraft  
[Ø20: 1700 Nm]
- Hohe Rundlaufgenauigkeit
- Große Spannflexibilität

### Vorteile

- keine aufwändige  
Auszugsicherung notwendig
- Hohe Prozesssicherheit
- Lange Werkzeugstandzeiten
- Eine Aufnahme für alle Schaft-Ø

The expert for difficult-to-machine  
materials and trochoidal milling.

### Features

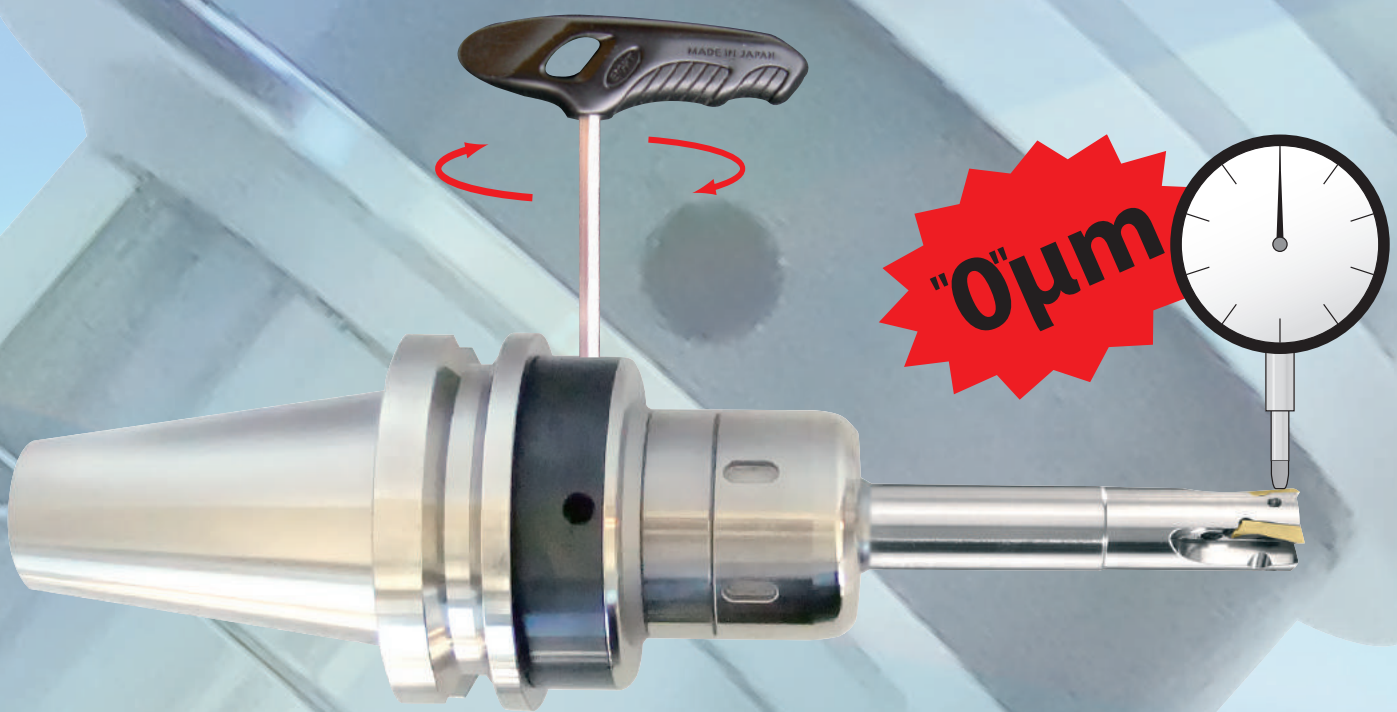
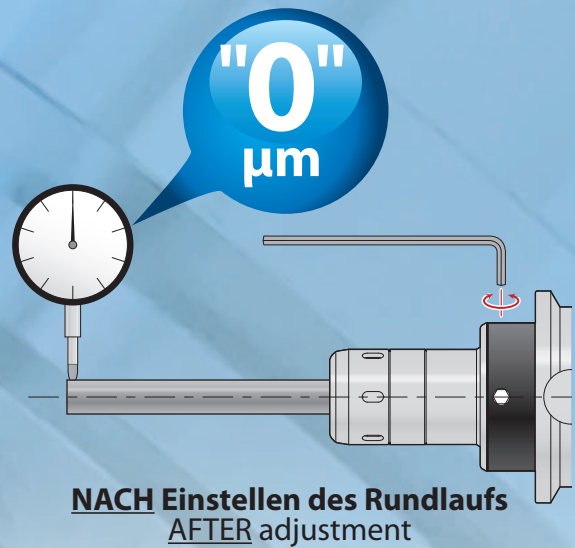
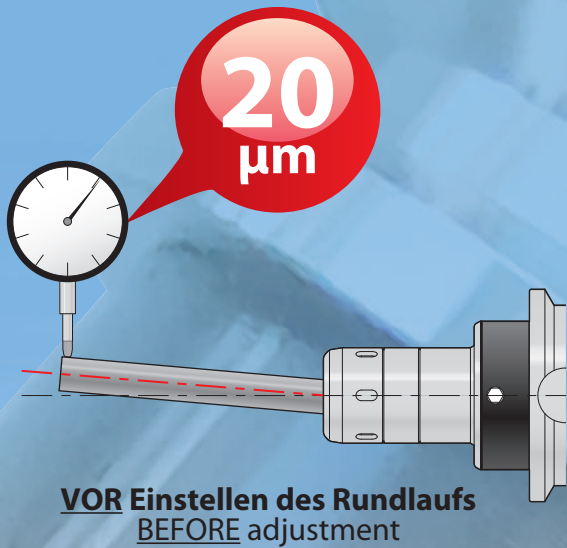
- Extremely high torques  
[Ø20: 1700 Nm]
- High run out accuracy
- Large clamping range

### Advantages

- No expensive pull out  
protection necessary
- High process reliability
- Long tool life
- One chuck for all shank-Ø

# CTZ-SA Hochleistungs-Kraftspannfutter R"0" SUPER-

## High Performance Milling Chuck



**Perfekter Rundlauf**  
von der Spindel bis zur Schneide

**Einfache und schnelle Bedienung**  
Minimale Rüstkosten

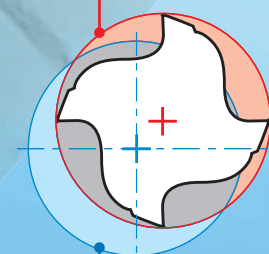
**Bohren, reiben, fräsen**  
in höchster Präzision

Run out "0"  
at the tool tip within seconds

Easy and quick to use  
Minimal set-up costs

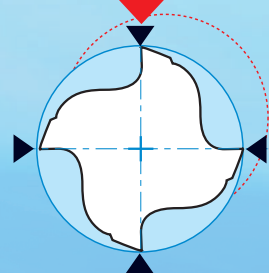
Drilling, reaming, milling  
with ultimate precision

**Max. Rundlaufabweichung**  
Max. run out



**Rundlauf "0"**  
Run out "0"

**Einstellvorgang**  
Adjustment



**Einstellvorgang**  
Adjustment

### CT-SA

(Ø 3.0-42.0)



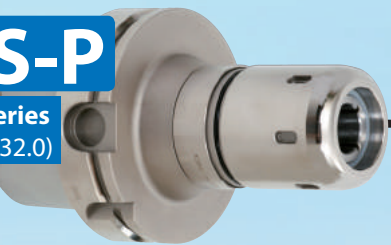
### CT-SA-C

Coolant Jet  
(Ø 4.0-20.0)



### CTS-P

Power Series  
(Ø 3.0-32.0)



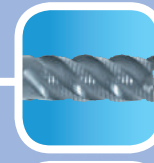
### CTS-SL

Side-Lock Series auf Anfrage lieferbar  
available on request  
(Ø 6.0-20.0)



### CTZ-SA

R"O" Series  
(Ø 4.0-42.0)



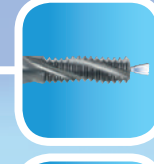
#### Fräsen universal Schruppfräsen

General Milling  
Heavy milling



#### Einschraubfräser

Screw-in Milling Cutters



#### Gewindefräser

Thread Milling Cutters



#### Bohren

Drilling



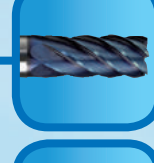
#### Schwerzerspannung mit max. Prozesssicherheit

Heavy milling with  
max. process reliability



#### Trochoidal Schruppfräsen

Trochoidal  
Heavy milling



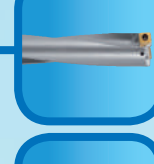
#### Schlichtfräsen

Light Milling



#### Reiben

Reaming



#### WP-Vollbohrer

Indexable drill



#### Gewindefräser

Thread Milling Cutters

INDEX	HSK-A						HSK-E			HSK-F	HSK-T	C	SK			BT		
	40	50	63	80	100	125	40	50	63	63	63	5+6	30	40	50	30	40	50
CT-SA	Seite 42	Seite 48	Seite 54	Seite 73	Seite 74		Seite 94	Seite 100	Seite 105	Seite 105	Seite 207	Seite 107	Seite 114	Seite 116	Seite 134	Seite 146	Seite 151	Seite 166-167
CT-SA-C			Seite 55											Seite 117			★	
CTS-P			Seite 56		Seite 75	Seite 88								Seite 118	Seite 135			
CTZ-SA			Seite 57		Seite 76									Seite 119	Seite 136		Seite 152	Seite 168

★ auf Anfrage lieferbar

★ available on request

# PHC Power Dehnspannfutter Power Hydro Chuck

## Power Dehnspannfutter PHC

die Allrounder zum Bohren, Reiben, Fräsen mit hoher Drehmomentübertragung und großer Spannflexibilität

### PHC-H Hochdruck-Dehnspannfutter High Pressure Hydro Chuck

Power Series

Verstärkte Bauform

Reinforced design



### Hydro-Dehnspannfutter PHC-A Hydro Chuck Power Series

Mehr Präzision  
mehr Flexibilität

More precision  
more flexibility



### Hydro-Dehnspannfutter PHC-Z Hydro Chuck R"0" Series

Bohren, reiben und schlichten  
in Ultrapräzision

Drilling, reaming and finishing  
in ultimate precision



## Power Hydro Chuck PHC

the clamping solution for drilling, reaming, milling  
with high transmission torque and flexibility of a collet holder



### Hydro- Dehnspannfutter **PHC-SA** Hydro Chuck **PHC-SA** Super slim Series

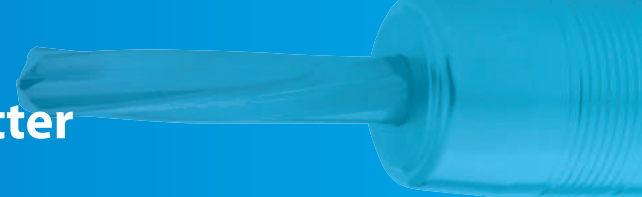
**Superschlank für  
schwer zu erreichende  
Werkstückstellen**

Super slim for tight  
work space areas

### **PHZ-SA** R"0" Series Hydro- Dehnspannfutter Hydro Chuck

**Superschlank  
mit Rundlauf "0"**

Slim Hydro Chuck  
with run out "0"

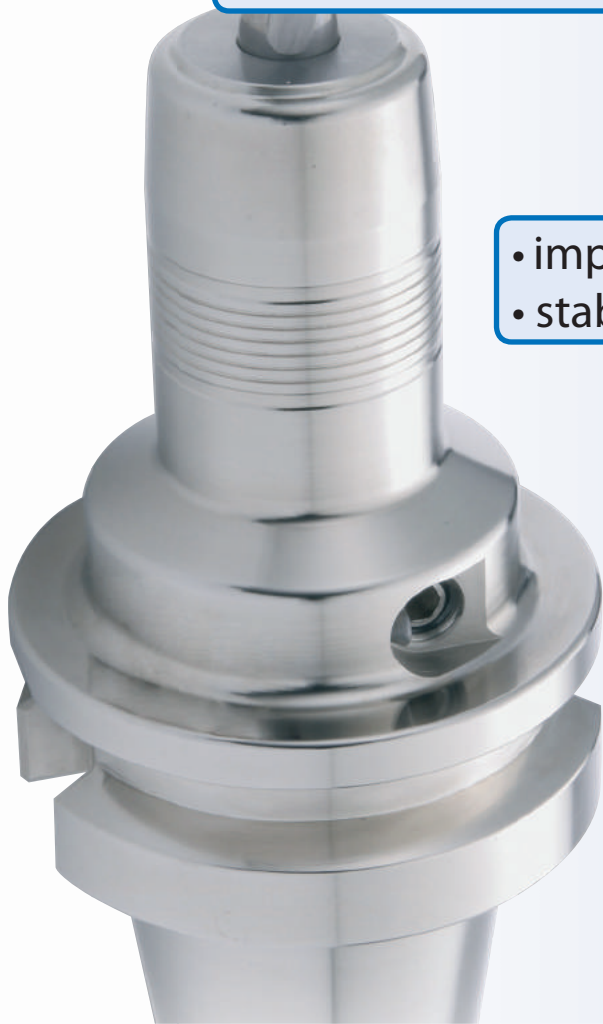


### Hydro-Dehnspannfutter mit der Flexibilität einer Spannzangen-Aufnahme

- bietet höchste Rundlaufgenauigkeit durch neuartiges Öldruckkammernsystem
- hohe Flexibilität durch den Einsatz von Reduzierhülsen

Hydro Chuck with collet holder flexibility

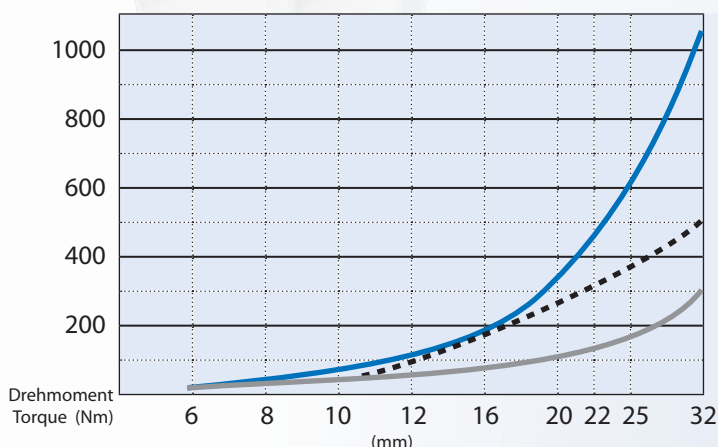
- improved clamping system for high precision
- stable clamping force with collet versatility



Die Mindesteinspanntiefe ist auf der Futter Nase vermerkt. Weitere Infos im Tech. Teil S.209

Min. clamping length is shown on Hydro Chuck. More informations see Tech.Info page 209

**30% mehr Spannkraft als herkömmliche Dehnspannfutter!**  
30% more clamping force than a conventional Hydro Chuck!



- Power Hydro Chuck PHC**
- Herkömmliche Hydro-Dehnspannfutter**  
Conventional Hydro Chuck
- Spannzangenfutter**  
Collet Chuck



**2Punkt-Spannsystem**  
Dual clamping Points

**Öldruckkammern**  
Oil chambers

**Hohe Rundlaufgenauigkeit**  
High precision

Spann-Ø Holder I.D.	Auskragung (L) Projection length	Rundlaufgenauigkeit Accuracy
Ø6.0 - Ø14.0	50mm	<b>0.003mm</b>
Ø15.0 - Ø32.0	100mm	

**Querschnitt des Druckkammerensystems**  
Cross section (A-A')

**Stabiler Rundlauf auch mit Spannhülse**  
Stable run out even by using a straight collet

**Stabiler Rundlauf**  
Die Ausrichtung der Spannhülse auf die Spannbohrung (s. Markierung) gewährleistet hohe Rundlaufgenauigkeit. Eine zusätzliche Verdrehsicherung erhöht die Prozesssicherheit.

**Stable run out**  
Alignment of a straight collet to the clamping bore (marking) ensures a stable run out. An additional stopper pin improves process reliability.

**PHS-OH**  
für Innenkühlung  
for inner coolant supply

**PHS-C**  
für Peripheriekühlung  
for side-through coolant

**Flexibilität**  
Mittels Spannhülsen können unterschiedliche Schaftdurchmesser in einer Aufnahme gespannt werden.

**Flexibility**  
By using Straight Collets various shank diameters can be clamped in one chuck.

# PHC-Z Power Dehnspannfutter mit R "0"

## Power Hydro Chuck with run out "0"

R"0" Series

**Werkzeugspannung mit Rundlauf "0"**  
**bohren, reiben, fräsen in höchster Präzision**

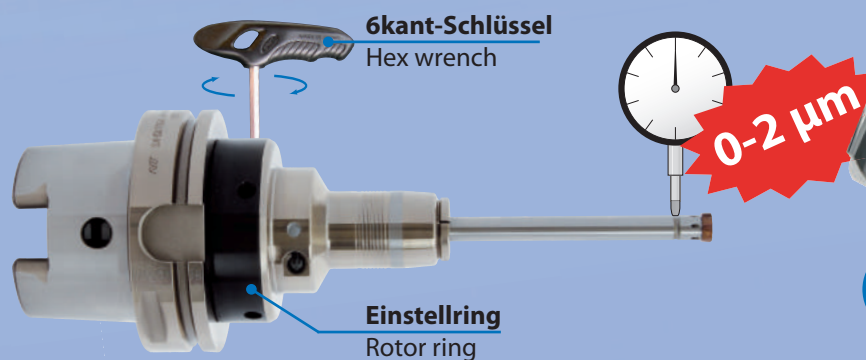
**Präzisionsbearbeitung mit einzigartigen Vorteilen**

- Konstante Bohrungsdurchmesser
- Bohren, reiben in Passungstoleranzen
- Beste Oberflächengüten
- Bohren, fräsen mit Diamantwerkzeugen
- Lange Werkzeugstandzeiten
- Hochleistungsbohren in Bohrtiefen > 5xD

**Tool clamping with run out "0"**  
**drilling, reaming, milling with ultimate precision**

**Precision machining with unique advantages**

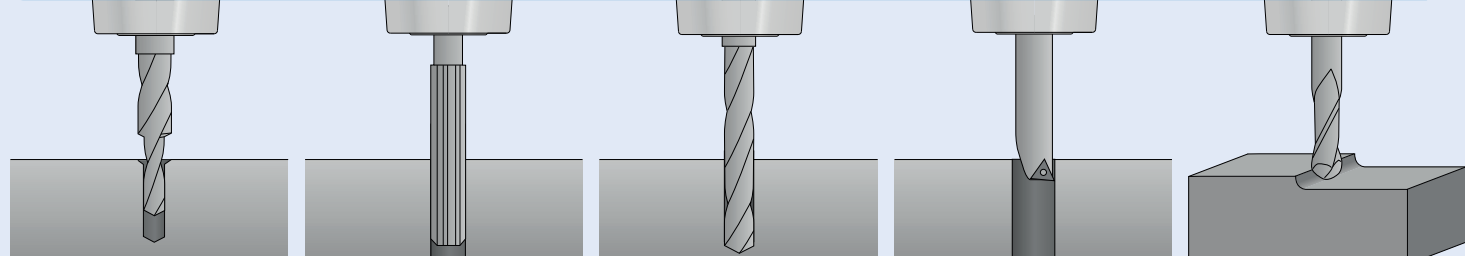
- Invariant hole diameter
- Drilling, reaming with tight tolerances
- Perfect surface roughness
- Drilling, milling with PCD tools
- Long tool life
- High performance drilling in drilling depths > 5xD



**! Tech.Info: Seite 214-215**  
 Page

**Vielfältig einsetzbar** | Various cutting applications

<b>Stufen-Bohren</b> Step drilling	<b>Reiben</b> Reaming	<b>Bohren</b> Drilling	<b>Feinbearbeitung</b> Fine boring	<b>Schichtfräsen</b> Finish end-milling
---------------------------------------	--------------------------	---------------------------	---------------------------------------	--



# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series

### Anwendungen

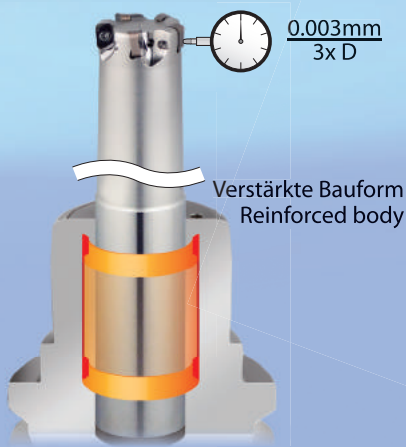
- Schruppfräsen
- Hartbearbeitung
- Trochoidales Fräsen
- HPC-Fräsen

### Applications

- Heavy milling
- Hard machining
- Trochoidal milling
- HPC milling

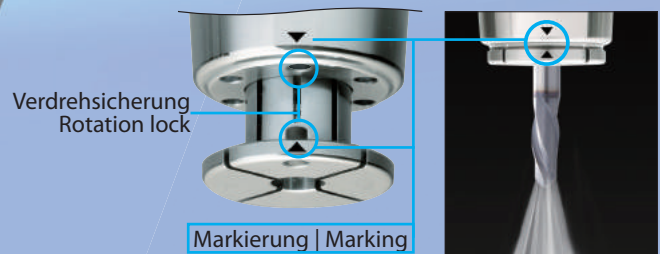
### Perfekter Rundlauf

High precision



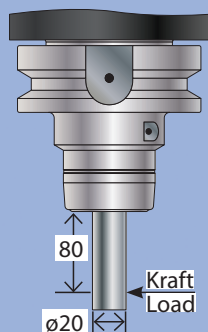
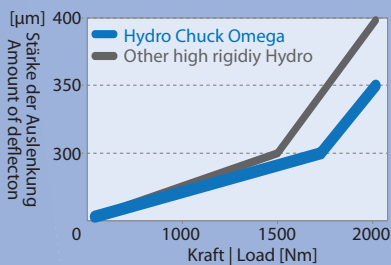
### Große Spannflexibilität

Large clamping range



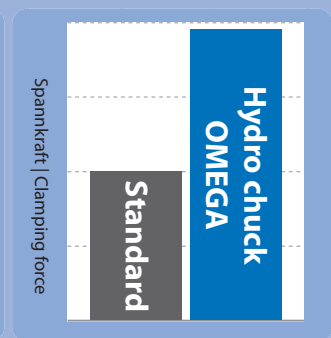
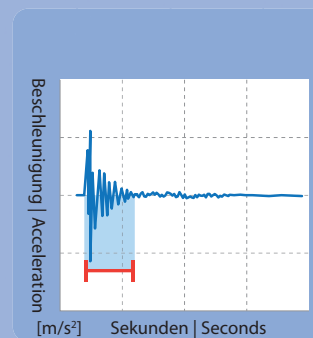
### Maximale Stabilität

High rigidity



### Extreme Spannpower & vibrationsdämpfend

Highest clamping forces & vibrationdampen



Auswahltabelle		HSK-A				HSK-E		C		SK		BT		
INDEX		40	50	63	100	40	50	5	6	40	50	30	40	50
PHC-A	Seite Page	43	49	58	77	95	101	108	109	120	137	147	153	169
PHC-H	Seite Page			59	78					121	138		156	170
PHC-Z	Seite Page			60	80									

# PHC-SA Hydro-Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series

Superschlanke Störkontur für Zerspanungsaufgaben an schwer zugänglichen Werkstückstellen

Präziser, schneller und stabiler als Schrumpffutter

Super slim design for tight space applications

More precise, faster and more stable than Shrink Fit Chucks

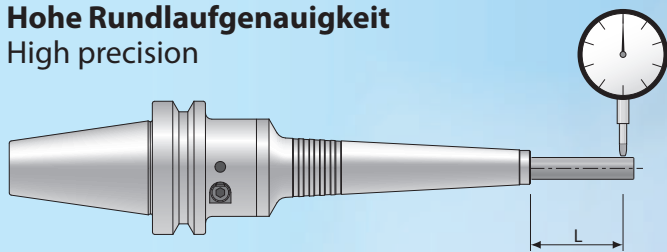


Auswahltable	HSK-A				HSK-E	SK		BT		
INDEX	30	40	63	100	40	40	50	30	40	50
PHC-SA <small>Seite Page</small>	★	★	62-63	79	96	122-123	139		154-155	171
PHC-SC <small>Seite Page</small>			62-63			122-123			154-155	
PHZ-SA <small>Seite Page</small>	★	★	61	81		124		★	157	★
PHZ-SC <small>Seite Page</small>			61							

★ auf Anfrage lieferbar

★ available on request

## Hohe Rundlaufgenauigkeit High precision

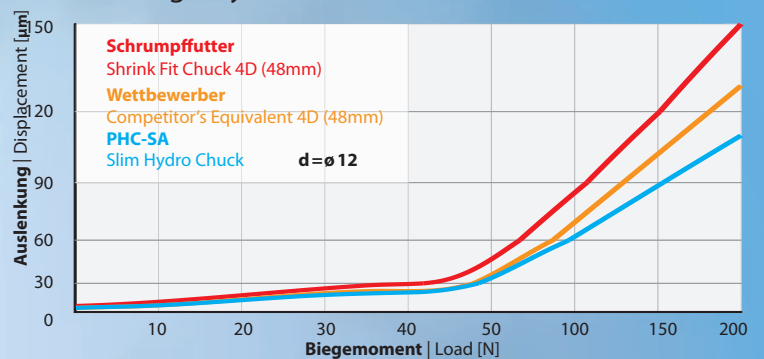


Spann-Ø Holder I.D.	Auskragung (L) Projection length	Rundlaufgenauigkeit Accuracy
Ø3.0 - Ø25.0	3xD	<b>3µm</b>

Die hohe Rundlaufgenauigkeit garantiert gleichmäßigen Schneideneingriff und damit lange Standzeiten und beste Oberflächen.

High run out accuracy allows uniform cutting action and thus providing long tool life and good surface qualities.

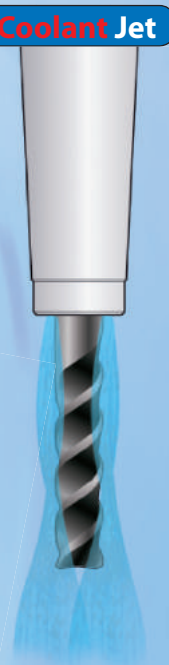
## Radialsteifigkeit Static rigidity



Deutlich reduzierte Auslenkung im Vergleich zu Schumpffuttern.  
Displacement is significantly reduced compared to Shrink Fit Chucks.

## PHC-SC Coolant Jet

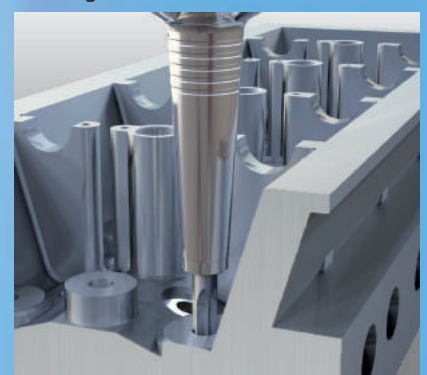
Mit innenliegenden Kühlmittelnuten für optimale Spanabfuhr. **Coolant Jet**  
With coolant nozzles for optimum chip removal.



Schlichten mit Kugelfräser  
in engen Werkstückstellen  
Finishing with ball endmill in tight space



5-Achsbearbeitung mit Kugelfräser  
Finishing with ball endmill on 5-axis machine



Reiben in engen Bearbeitungsräumen  
Reaming in tight space



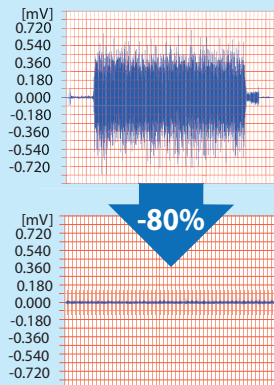
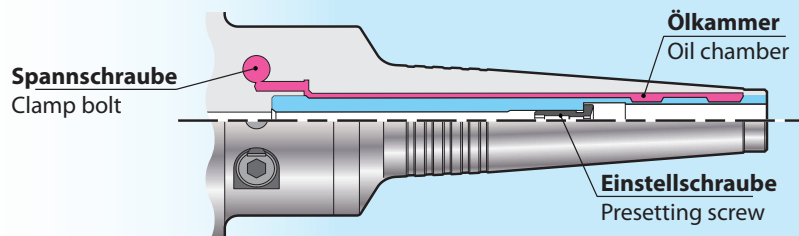
# PHZ-SA Dehnspannfutter R"0" superschlank

## Slim Hydro Chuck with run out "0"

Slim R"0" Series

### Vergleichsstudie: PHC-SA Dehnspannfutter vs. Schrumpffutter

Auftretende Vibrationen können um bis zu 80% reduziert werden!



Analysis: PHC-SA Hydro Chucks vs. Shrink Fit Chucks

Reducing vibrations up to 80%!



### PHZ-SC Coolant Jet

Mit innenliegenden Kühlmittelnuten für optimale Spanabfuhr. **Coolant Jet**

With coolant nozzles for optimum chip removal.

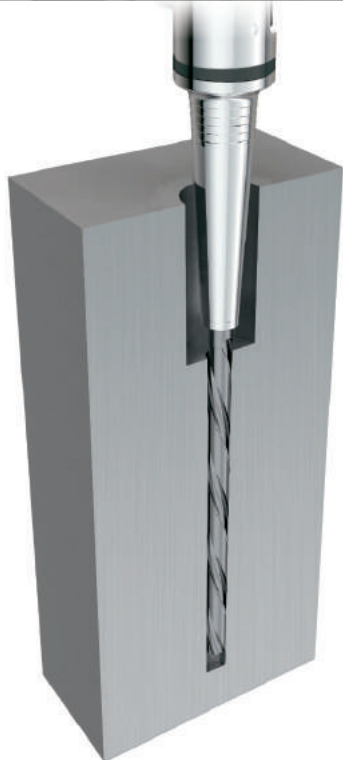


**!** Tech.Info: Seite 214-215

0-2  $\mu\text{m}$

Perfekter Rundlauf  
von der Schneide bis zur Spindel!

Ultimate precision  
from the cutting edge to the machine spindle!

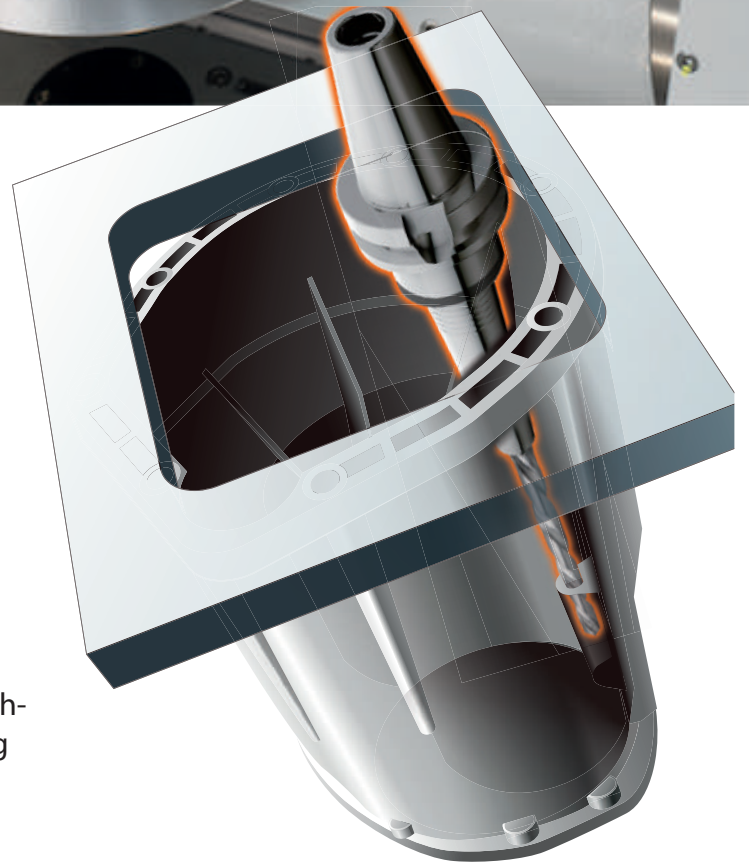


## ANWENDUNG

- Tieflochbearbeitung
- Schlanke Außenkontur als Problemlöser

## Application

- High precision cutting in a deep | narrow hole
- High precision cutting without interferences with a jig



**Hochgenauigkeits  
 Spannzangenfutter** **HDC-A**  
 High Precision Collet Chuck

für präzise Bohr- und Fräsanwendungen  
 for precise drilling- and milling applications

**HSC-Spannzangenfutter** **GDC-A**  
 High Speed Collet Chuck

- für höchste Zerspanungsleistung
- mit verstärktem Grundkörper
- for highest machining capacity
- with reinforced body

**Spannzangenfutter R"0"** **HDZ-A**  
 Collet Chuck R"0"

**Bohren, Reiben, Schlichten  
 mit Rundlauf "0"**

Drilling, Reaming, Finishing  
 with run out "0"

[Typ ERZ für ER-Spannzangen]  
 [Type ERZ for ER-Collets]

**R"0" mit zylindrischem Schaft** **ST-HDZ**  
 R"0" with straight shank

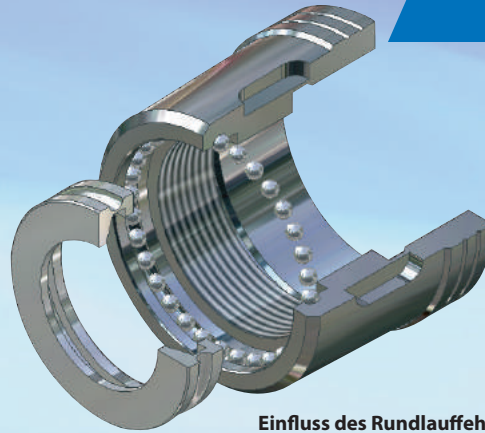
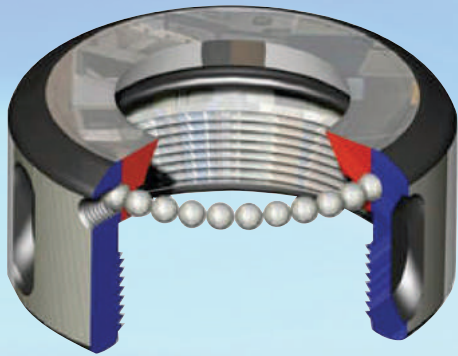
Das einstellbare Spannzangenfutter mit zylindrischem  
 Schaft ist die ideale Ergänzung zu Kraftspannfuttern.

The adjustable collet chuck with straight shank  
 is the perfect completion for milling chucks.

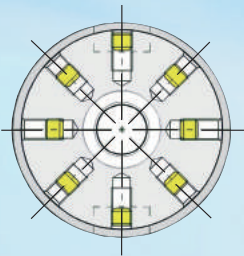
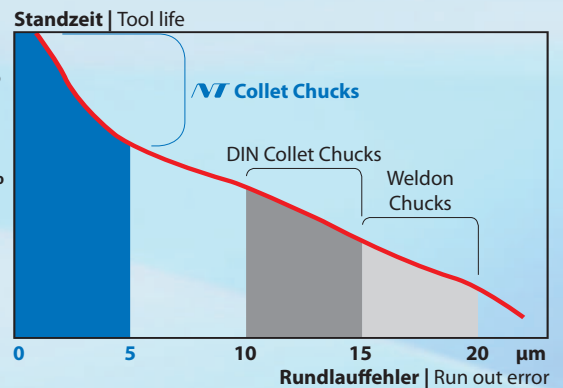


**Rundlauf "0"**  
 Run out





**Einfluss des Rundlauffehlers auf die Standzeit**  
Influence of run out error on tool life



**Wuchtgüte**

GDC Spannzangenfutter sind serienmäßig feingewuchtet und für die HSC-|HPC-Bearbeitung geeignet. Die max. Einsatzdrehzahl beträgt 40.000 min<sup>-1</sup>.

**Balancing quality**

High balancing quality is a standard for GDC Collet Chucks. They are suitable for HSC-|HPC-machining. The max. rotation speed is 40.000 min<sup>-1</sup>.

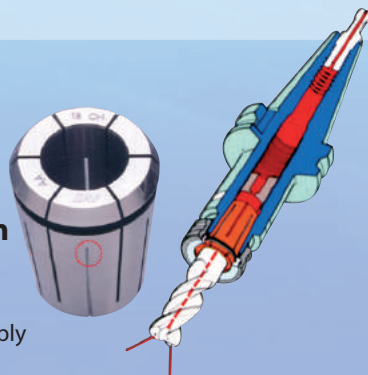


Das Präzisions-Spannzangenfutter HDZ besitzt einen einfachen mechanischen Einstellmechanismus, um den Rundlauf eines eingespannten Werkzeugs an der Schneide auf 0-2µm einzustellen. Damit können alle Rundlauffehler von der Schneide bis zur Spindel kompensiert werden.

The HDZ Precision Collet Chuck has a simple mechanical adjustment mechanism to adjust the run out at the tip of a clamped cutting tool to 0-2µm. Thus all run out errors can be compensated from the tool tip to the spindle.

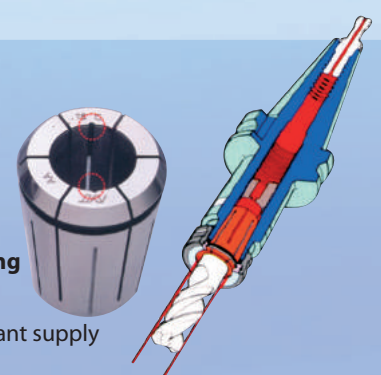
**FDC-OH Spannzangen für IKZ**

FDC-OH Collets for inner coolant supply



**FDC-C Spannzangen für Peripheriekühlung**

FDC-C Collets for side through-coolant supply



Auswahltabelle	HSK-A				HSK-E		HSK-F	C		SK		BT		ST		
INDEX	40	50	63	100	40	50	63	3+4	5+6	40	50	30	40	50	20	32
HDC-A <small>Seite Page</small>	44	50	64	82				110	110-111	125	140	148	158	172	184	184
GDC-A <small>Seite Page</small>	45	51	65	83	97	102	106			126		149	159			
HDZ-A <small>Seite Page</small>	★	★	70	84						127	141		160	173	185	185
ERZ <small>Seite Page</small>			66							128						

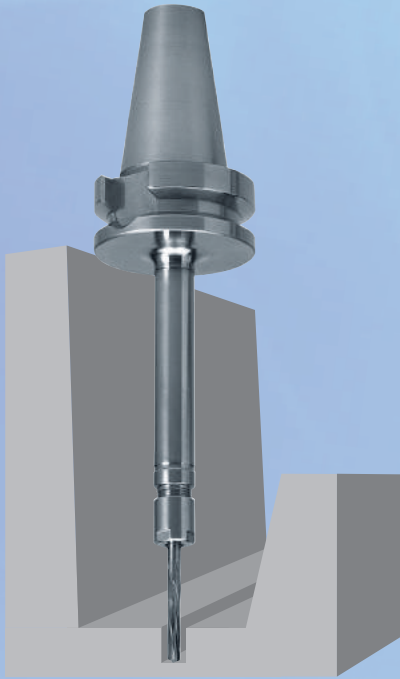
★ auf Anfrage lieferbar

★ available on request

# ERC Mikro-Spannzangenfutter Micro-Collet Chuck

**Highspeed-Bearbeitung  
bis 42.000 min<sup>-1</sup>  
Bohren, reiben, schlichten  
in engen Formen  
und Werkstücken**

Highspeed-machining  
up to 42.000 min<sup>-1</sup>  
Drilling, reaming, milling  
in tight work piece areas



**Superschlanke Bauform**  
Super slim design



ø12mm  
ERC8

ø16mm  
ERC11

**Form T mit konischem  
Spannschaft für mehr  
Stabilität im Fräsprozess.**

Type T with tapered shank  
providing greater stability  
during milling operations.

Auswahltabelle		HSK-A			HSK-E				SK		BT		ST	
INDEX		40	50	63	25	32	40	50	30	40	30	40	12	16
ERC	Seite Page	46	52	67	90	92	98	103	115	129	150	161	186	186
ERC-T	Seite Page			67			98		115	129	150	161		

## Schrumpffutter **SRE**

- Schlanke Bauform
- Ultrakurz bis superlang

## Shrink Fit Chuck **SRE**

- Slim design
- Ultra short - extra long

## Schrumpffutter mit superschlanker Bauform **SRS**

- Lange, schlanke Bauform
- Geringe Störkontur (3° Kegelwinkel)
- Verschiedene Längen verfügbar
- Spannungsbereich: 6 - 20 mm

## Shrink Fit Chuck with super slim design **SRS**

- Long, slim design
- Less interference (3° taper angle)
- Different lengths available
- Clamping range: 6 - 20 mm



Auswahltable	HSK-A			HSK-E				SK	BT
INDEX	63	100	25	32	40	50	40	40	
<b>SRE</b>	Seite 68		91	93	99	104	130	162	
<b>SRS</b>	Seite 69	★					131	163	

# SFH SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder

### SynchroFit SFH Gewindeschneidfutter

- Mehr Standzeit
- Mehr Gewindequalität
- Mehr Prozesssicherheit

Moderne CNC-Bearbeitungsmaschinen können Spindel-drehzahl und Vorschub synchronisieren. Bei starrer Werkzeugspannung treten jedoch sehr hohe axiale Kräfte auf, die von den Flanken des Gewindewerkzeugs aufgenommen werden müssen. Der daraus resultierende erhöhte Flankenabrieb reduziert die Standzeit des Werkzeugs sowie die Oberflächenqualität und Lehrenhaltigkeit des Gewindes. Die Folge: erheblich verringerte Prozesssicherheit bis hin zum Werkzeugbruch. Das SFH SynchroFit-Gewindeschneidfutter mit neuer, verschleißfreier, radialer Schnittdruckkompensation reduziert den Schnittdruck auf die Gewindeflanken deutlich.



### SynchroFit SFH Tapping Holder

- More tool life
- More thread quality
- More process reliability

Modern CNC machine tapping centers are designed to synchronize spindle rotation with the feed axis. In rigid tapping high axial forces have to be absorbed by the tap's thread flanks. This increased abrasive flank wear reduces the tool life of the tap as well as the surface quality and accuracy to gauge of the thread resulting in a significant decrease of process reliability, this may result in breakage of the tap. SFH SynchroFit Tap Holder with it's new wearfree radial cutting force compensation reduces the tap flank wear significantly.

### Der Gewindeschneidprozess

Schritt 1 und 2:

Gewindeanschnitt: Drehmoment steigt sehr stark an.

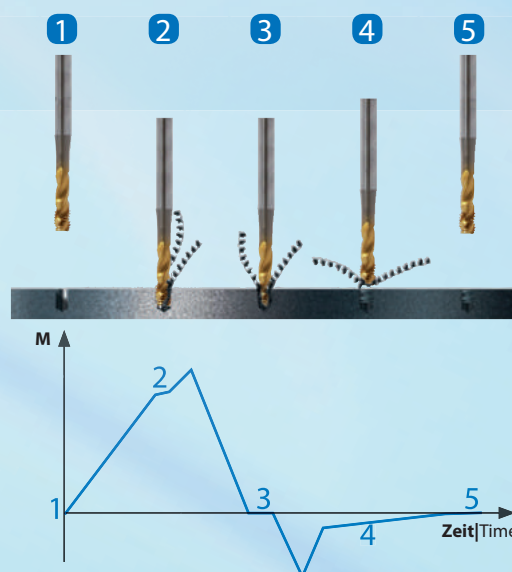
Schritt 3:

beim Erreichen der Gewindetiefe (Spindelstopp) liegt das Drehmoment bei gleich 0.

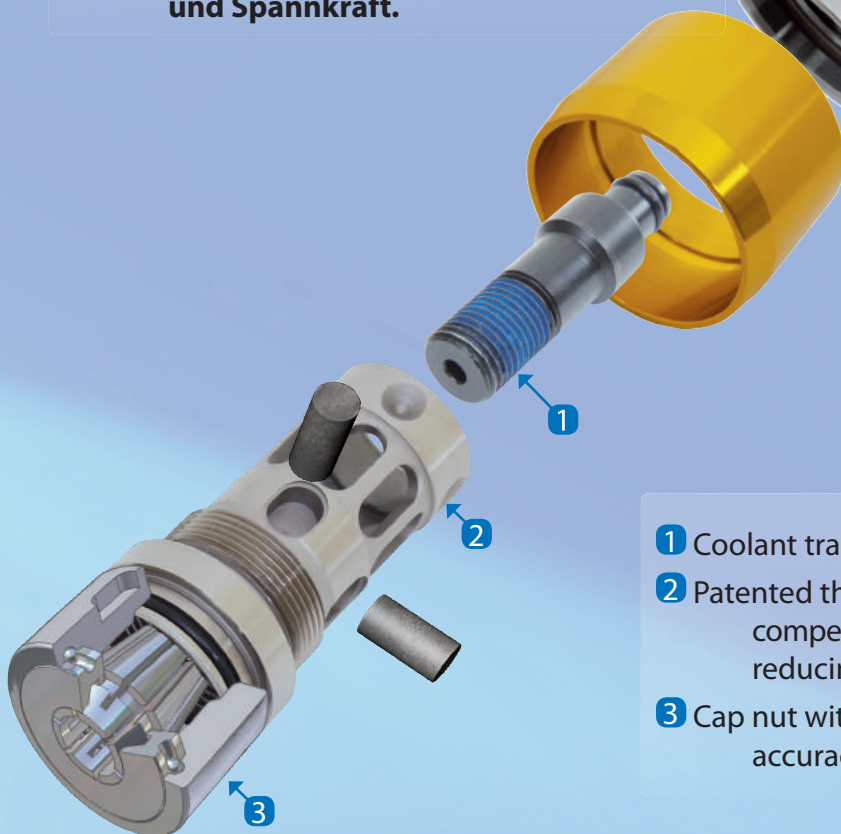
Schritt 4 und 5:

Reversiervorgang, erneut Ansteigen des Drehmomentes durch Abscheren der Spanwurzel.

Drehmomentverlauf reduziert sich in Abhängigkeit von der Gewindetiefe bis auf null.



- 1 Kühlmittelübergabeelement
- 2 Patenterter Schnittdruckkompensator: gleicht Lageabweichungen radial wie axial aus, reduziert den Flankendruck und das erforderliche Drehmoment.
- 3 Spannmutter mit integriertem Druckring für höchste Rundlaufgenauigkeit und Spannkraft.



- 1 Coolant transfer unit
- 2 Patented thrust force compensator: compensates for deviations radially and axially, reducing flank wear and cutting torque.
- 3 Cap nut with ball-bearing for high run out accuracy and clamping force.

## Tapping process

Step 1 and 2:

when cutting process starts, torque is increasing strongly.

Step 3:

when the spindle stops the torque is zero.

Step 4:

again torque is increasing due to cutting of the residual chip at the end of the thread.

Step 5:

torque is decreasing steadily down to zero

# SFH SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder

### Die Auswahl | The Selection

**Typ SFH für die Serienfertigung mit höchsten Ansprüchen an Standzeit und Prozesssicherheit. Die Schnittdruckkompensation wird individuell an die Gewindesteigung angepasst.**

Type SFH for large series production with highest demands on tool life and process reliability. Cutting force compensation will be adapted according to tap pitch.

**Typ SFH-S: Definierte Schnittdruckkompensation für großen Schneidbereich, einsetzbar mit ER-Gewindebohrzangen**

Type SFH-S: Cutting force compensation for large cutting range, suitable with ER Tap Collets.

#### HTP-Spannmutter mit integriertem Druckring

HTP-Cap nut with integrated ball bearing

#### Verwendung von FSC-Spannzangen mit separatem 4kant-Mitnehmer.

Use of FSC-Collets with separate square driver.

#### Easy-Längeneinstellung durch Drehen des Einstellringes.

Easy presetting by rotating the guide ring.



#### ERP-Spannmutter mit integriertem Druckring

ERP-Cap nut with integrated ball bearing

#### Verwendung von ER-Gewindebohrspannzangen

Use of ER Tap Collets

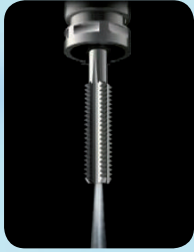


#### Spannbereich | Clamping range

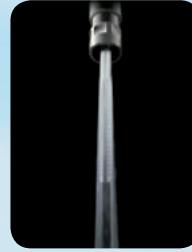
SFH12	FSC-09	M3 - M8
SFH18	FSC-16	M5 - M20
SFH30	FSC-22	M20 - M30

#### Spannbereich | Clamping range

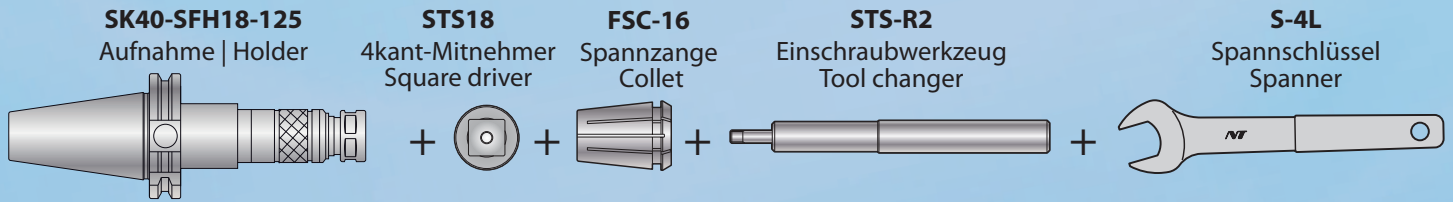
SFH8S	ER11-GB	M1 - M8
SFH12S	ER16-GB	M3 - M12
SFH18S	ER25-GB	M3 - M20
SFH30S	ER32-GB	M5 - M27



**FSC-OH Spannzange**  
Kühlmitteldicht für  
innere Kühlmittelzufuhr  
  
FSC-OH Collet  
Sealed for  
inner coolant supply

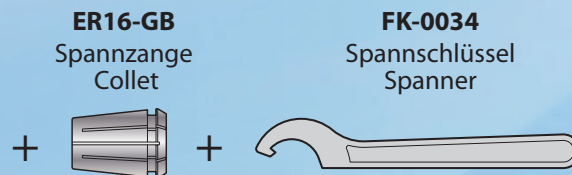
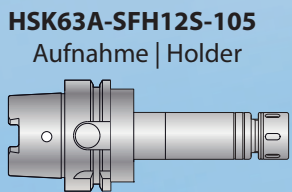


**FSC-C Spannzange**  
Für effektive  
Peripheriekühlung  
  
FSC-C Collet  
For effective  
side-through coolant



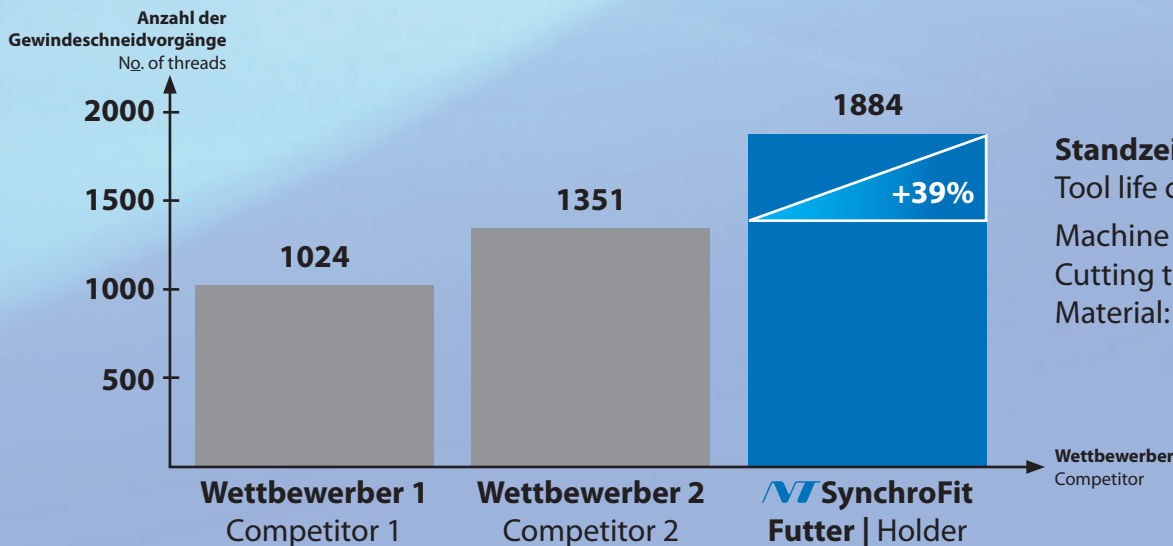
**Bestellbeispiel für SFH SynchroFit**  
Gewindeschneidfutter mit FSC-Spannzangen

Order example for SFH SynchroFit  
Tapping Holder with FSC Tap Collet



**Bestellbeispiel für SFH-S SynchroFit**  
Gewindeschneidfutter mit ER-Gewindebohrzangen

Order example for SFH-S SynchroFit  
Tapping Holder with ER Tap Collets



Auswahltabelle		HSK-A				SK		BT		ST	
INDEX		40	50	63	100	40	50	40	50	20	25
SFH	Seite Page			71	85	132	142	164	174	★	★
SFH-S	Seite Page	47	53	71	85	132	142	164	174	186	186

★ auf Anfrage lieferbar

★ available on request

# HPH Präzisions-Schnellaufspindel

## Precision Hyper Spindle

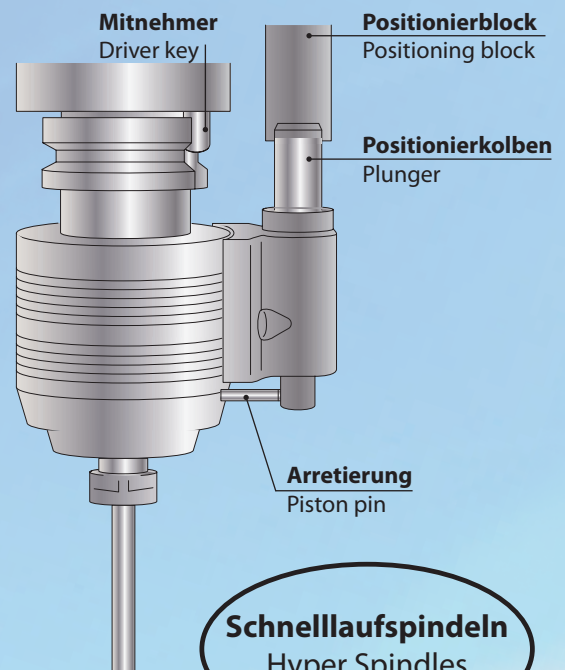
### Präzisions-Schnellaufspindel zur Erhöhung der Maschinendrehzahl HPH

max.30.000 min<sup>-1</sup>

Max. Ausnutzung der Maschinen- und Werkzeugpotentiale für Bohr- und Fräsarbeiten

NT Schnellaufspindeln dienen zur Vervielfachung der Drehzahlen von Bearbeitungszentren und Fräsmaschinen. Durch ein Planetengetriebe können die Maschinendrehzahlen auf das 5 fache übersetzt werden und ermöglichen daher eine wirtschaftliche Bearbeitung, wo dies sonst nicht möglich wäre.

- Stabile, robuste Bauart für hohe Belastungen und Genauigkeiten
- Gehärtete, geschliffene Präzisionszahnräder für geringe Lärmentwicklung und Vibrationen
- Eine Lüfterkühlung ermöglicht Dauereinsatz
- Wartungsfreier Einsatz durch Lebensdauer-Fettschmierung
- Übersetzungsverhältnis: 1:5
- Automatische Einwechslung möglich
- BAZ oder Fräsmaschinen



### Precision Speed Increaser multiply your machines RPM HPH

max.30.000 min<sup>-1</sup>

Maximum use of machine and cutting tool potentials for drilling and milling operations

NT Hyper Spindles multiply rotation speed of machining centres and milling machines. Thus machines output can be increased by means of precision gears and ensures an economical machining process where available machining speeds and cutting rates are not sufficient.

- Stable compact design for high loads and accuracy
- Hardened, ground steel gears generates low noise and vibrations
- Permanent use due to a turbo-fan
- Maintenance-free operating by lifetime grease lubrication
- Gear ratio: 1:5
- ATC possible
- For machining centres and milling machines

Schnellaufspindeln  
Hyper Spindles

+

Vorhandene Maschinen  
Your Current Machines

Spindel-Drehzahl  
um das 5fache erhöht  
RPM  
increased to 5 times  
faster

Auswahltabelle	HSK-A		SK		BT	
INDEX	63	100	40	50	40	50
HPH	★	★	133	144	165	176

★ auf Anfrage lieferbar

★ available on request



# HSK

## DIN 69893 | ISO 12164

Spannsystem		Tooling System	HSK-A					
			40	50	63	80	100	125
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	42	48	54	73	74	-
CT-SA-C	Kraftspannfutter Coolant Jet	Milling Chuck Coolant Jet	-	-	55	-	-	-
CTS-P	Power-Kraftspannfutter	Power Milling Chuck	-	-	56	-	75	88
CTZ-SA	Kraftspannfutter Rundlauf "0"	Milling Chuck R-Zero	-	-	57	-	76	-
PHC-A	Power-Dehnspannfutter	Power Hydro Chuck	43	49	58	-	77	-
PHC-H	Hochdruck-Dehnspannfutter	High Pressure Hydro Chuck	-	-	59	-	78	-
PHC-Z	Dehnspannfutter Rundlauf "0"	Hydro Chuck R-Zero	-	-	60	-	80	-
PHC-SA	Dehnspannfutter superschlank	Slim Hydro Chuck	-	-	62-63	-	79	-
PHC-SC	Dehnspannfutter schlank Coolant Jet	Slim Hydro Chuck Coolant Jet	-	-	62-63	-	-	-
PHZ-SA	Dehnspannfutter Rundlauf "0"	Slim Hydro Chuck R-Zero	-	-	61	-	81	-
PHZ-SC	Dehnspannfutter R "0" Coolant Jet	Slim Hydro Chuck R "0" Coolant Jet	-	-	61	-	-	-
HDC-A	Hochgenauigkeits-Spannzangenfutter	High Precision Collet Chuck	44	50	64	-	82	-
GDC-A	Highspeed-Spannzangenfutter	Highspeed Collet Chuck	45	51	65	-	83	-
HDZ-A	Spannzangenfutter Rundlauf "0"	Collet Chuck R-Zero	-	-	70	-	84	-
ERZ	ER-Spannzangenfutter Rundlauf "0"	ER-Collet Chuck R-Zero	-	-	66	-	-	-
ERC	Mikro-Spannzangenfutter	Micro Collet Chuck	46	52	67	-	-	-
SRE	Schrumpffutter	Shrink Fit Chuck	-	-	68	-	-	-
SRS	Schrumpffutter superschlank	Slim Shrink Fit Chuck	-	-	69	-	-	-
SFH	SynchroFit-Gewindescheidfutter	SynchroFit Tapping Holder	-	-	71	-	85	-
SFH-S	SynchroFit-Gewindescheidfutter	SynchroFit Tapping Holder	47	53	71	-	85	-
FMC	Aufsteck-Fräsdorn extra lang	Face Mill Arbor extra long	-	-	-	-	86	-
FMH	Aufsteck-Fräsdorn Coolant Jet	Face Mill Arbor Coolant Jet	-	-	72	-	87	89

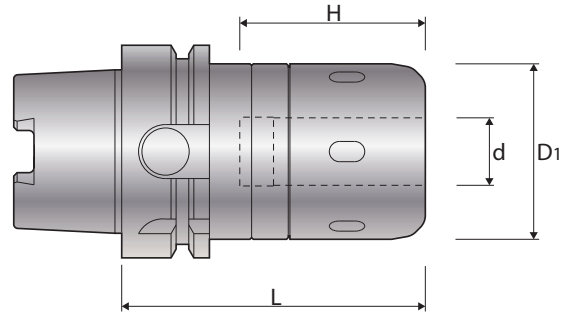
Spannsystem		Tooling System	HSK-E				
			25	32	40	50	63
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	-	-	94	100	105
PHC-A	Power Dehnspannfutter	Power Hydro Chuck	-	-	95	101	-
PHC-SA	Dehnspannfutter superschlank	Slim Hydro Chuck	-	-	96	-	-
GDC-A	Highspeed-Spannzangenfutter	High Speed Collet Chuck	-	-	97	102	-
ERC	Mikro-Spannzangenfutter	Micro Collet Chuck	90	92	98	103	-
SRE	Mini-Schrumpffutter IQ	Mini Shrink Fit Chuck IQ	91	93	99	104	-

Spannsystem		Tooling System	HSK-F
			63
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	105
GDC-A	Highspeed-Spannzangenfutter	High Speed Collet Chuck	106

Spannsystem		Tooling System	C			
			3	4	5	6
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	-	-	107	107
PHC-A	Power-Dehnspannfutter	Power Hydro Chuck	-	-	108	109
HDC-A	Hochgenauigkeits-Spannzangenfutter	High Precision Collet Chuck	110	110	110-111	111

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK40A



DIN 69893 | ISO 12164

3.0  
25.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	H		
HSK40A	-CT16SA -75 <sup>1,4</sup>	16	45	75	50	MC16-d	HS-1-16
	-90 <sup>1</sup>	16	45	90	60	MC16-d	HS-1-16
	-CT20SA -90	20	52	90	60	MC20-d	HS-2-20
	-105	20	52	105	60	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	60	MC25-d	HS-2.5-25

HSK-Kühlmitelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.  
<sup>4</sup> Nicht einsetzbar auf bestimmten BAZ.


HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> MC-A Collets cannot be used.  
<sup>4</sup> Not suitable for certain M/C.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw




S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

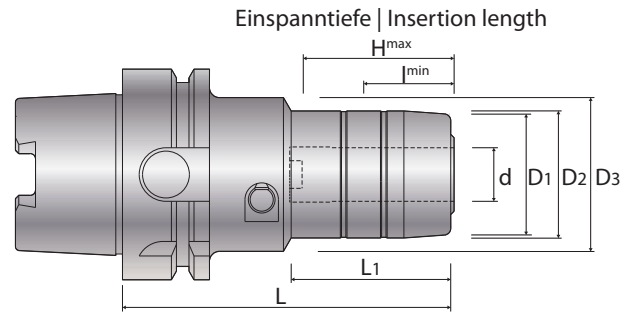
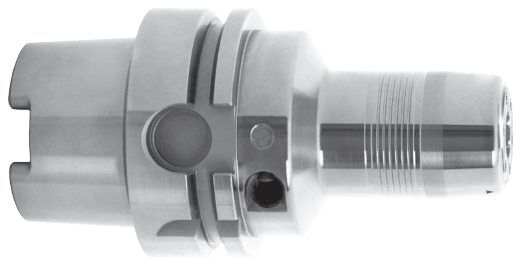


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK40A

DIN 69893 | ISO 12164

3.0  
25.0



0.003  
50

max  
15.000  
min<sup>-1</sup>



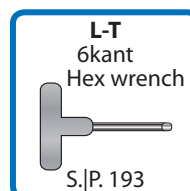
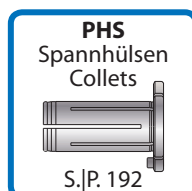
Tol.  
h6



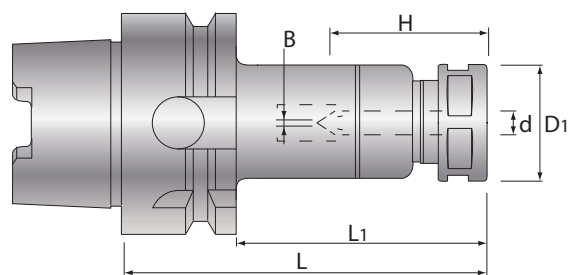
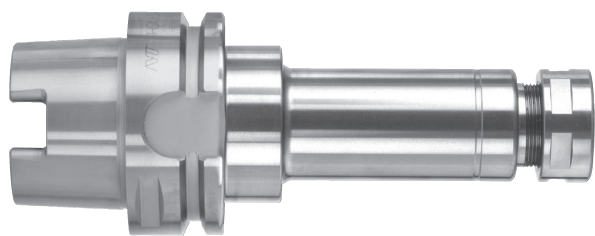
Halter   Holder	d	D1	D2	D3	L	L1	l <sub>min</sub>	H <sub>max</sub>		
-PHC03A -75	3	-	24	46	75	19.8	18	27	-	L-4T
-PHC04A -80	4	-	25	46	80	25.1	24	29	-	L-4T
-PHC06A -90	6	24	26	46	90	30	29	34	-	L-4T
-PHC08A -90	8	26	28	46	90	30	29	34	-	L-4T
-PHC10A -105	10	28	30	52	105	44	40	50	-	L-4T
-PHC12A -105	12	30	32	52	105	45	40	50	PHS12-d	L-4T
-PHC14A -105	14	34	36	52	105	46	40	50	-	L-4T
-PHC16A -105	16	36	38	52	105	46	40	50	-	L-4T
-PHC20A -105	20	40	42	46	105	49	40	50	PHS20-d	L-4T
-PHC25A -120	25	50	52	59	120	59	50	60	-	L-6T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## HSK40A



DIN 69893 | ISO 12164

1.0  
16.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

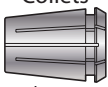


Halter   Holder		d	D1	L	L1	H	B		
-HDC07A	-60	1.0-7.0	23	60	40	38	-	FDC-07	S-0
	-75	1.0-7.0	23	75	55	22-35	0-4	FDC-07	S-0
	-90	1.0-7.0	23	90	70	22-46	0-4	FDC-07	S-0
	-120	1.0-7.0	23	120	100	22-46	0-4	FDC-07	S-0
	-150	1.0-7.0	23	150	130	22-46	0-4	FDC-07	S-0
-HDC09A	-60	3.0-9.0	26	60	40	37	-	FDC-09	S-1L
	-75	3.0-9.0	26	75	55	27-32	0-4	FDC-09	S-1L
	-90	3.0-9.0	26	90	70	27-43	0-4	FDC-09	S-1L
	-120	3.0-9.0	26	120	100	27-58	0-4	FDC-09	S-1L
	-150	3.0-9.0	26	150	130	27-58	0-4	FDC-09	S-1L
-HDC12A	-75	3.0-12.0	32	75	55	51	-	FDC-12	S-3L
	-90	3.0-12.0	32	90	70	38-48	0-5	FDC-12	S-3L
	-120	3.0-12.0	32	120	100	33-71	0-5	FDC-12	S-3L
	-150	3.0-12.0	32	150	130	33-71	0-5	FDC-12	S-3L
-HDC16A	-75	4.0-16.0	36	75	55	50	-	FDC-16	S-4L
	-90	4.0-16.0	36	90	70	38-51	0-6	FDC-16	S-4L

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.


Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets



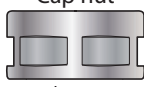
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw




S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

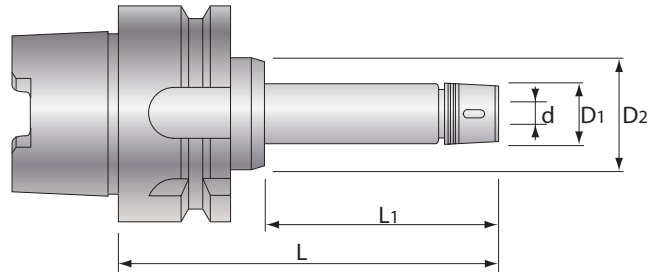
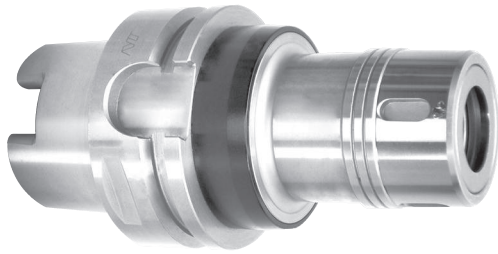
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK40A



DIN 69893 | ISO 12164

1.0  
12.0

0.005  
4x D

G2.5  
20.000  
min<sup>-1</sup>

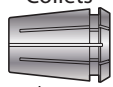


Halter   Holder		d	D1	D2	L	L1		
-GDC07A	-75	1.0-7.0	23	34	75	40	FDC-07	S-0
	-90	1.0-7.0	23	34	90	55	FDC-07	S-0
	-120	1.0-7.0	23	34	120	85	FDC-07	S-0
HSK40A	-75	3.0-9.0	29	34	75	40	FDC-09	S-0
	-90	3.0-9.0	29	34	90	55	FDC-09	S-0
	-120	3.0-9.0	29	34	120	85	FDC-09	S-0
-GDC12A	-90	3.0-12.0	34	39	90	-	FDC-12	FK-0034

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.

Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



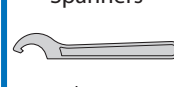
S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

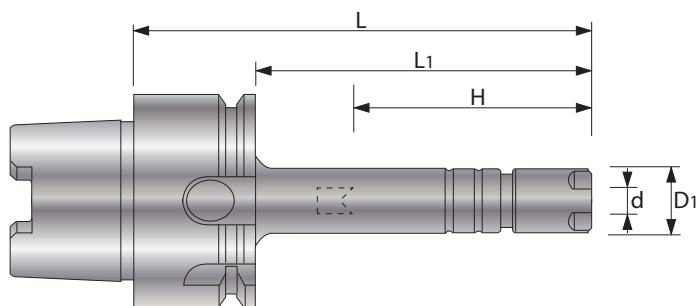
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK40A



DIN 69893 | ISO 12164

1.0  
-  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

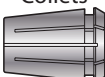
Super-  
schlank  
Super slim

Halter   Holder		d	D1	L	L1	H		
HSK40A	-60	1.0-7.0	16	60	40	22-34	ER11	S-11E
	-75	1.0-7.0	16	75	55	22-38	ER11	S-11E
	-90	1.0-7.0	16	90	70	22-45	ER11	S-11E

Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**ER**  
Spannzangen  
Collets




S.|P. 196

**ES**  
Einstellschraube  
Preset screw




S.|P. 196

**Mini ERP**  
Spannmutter  
Cap nut



S.|P. 196

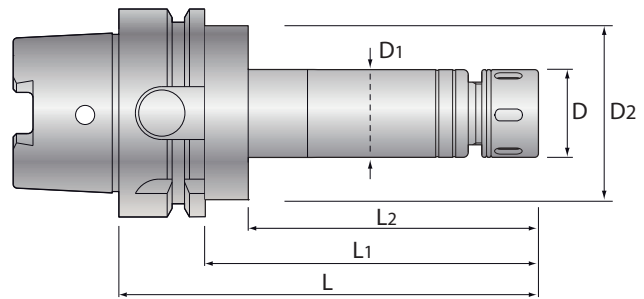
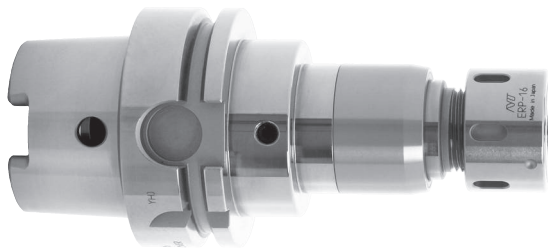
**S-E**  
Spannschlüssel  
Spanners



S.|P. 196

# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder





**HSK40A**

DIN 69893 | ISO 12164

**M1  
M12**

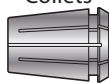


Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2		
<b>HSK40A</b>	-SFH8S -110	M1-M8	16	32	44	110	90	65	ER11-GB	S-11E
	-SFH12S -110	M2-M12	32	34	44	110	90	64	ER16-GB	FK-0034

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

**ER-GB**  
Spannzangen  
Collets



S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

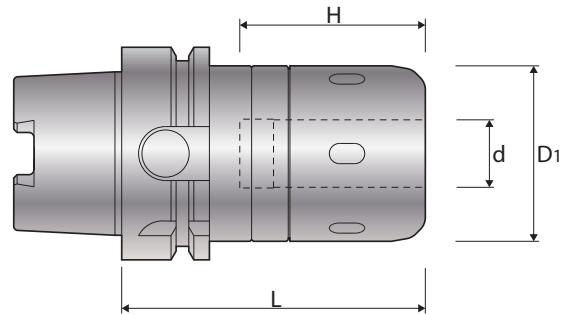
**S-E|FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK50A

DIN 69893 | ISO 12164



3.0  
25.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>




MMS  
MQL

Halter   Holder		d	D1	L	H		
HSK50A	-CT16SA -90	16	45	90	60	MC16-d	HS-1-16
	-CT20SA -90	20	52	90	60	MC20-d	HS-2-20
	-CT20SA -105	20	52	105	60	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	75	MC25-d	HS-2.5-25

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.


HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



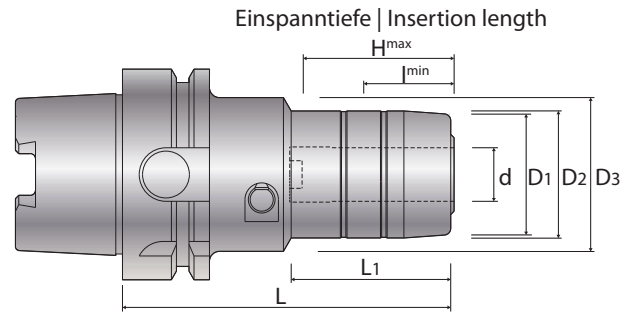
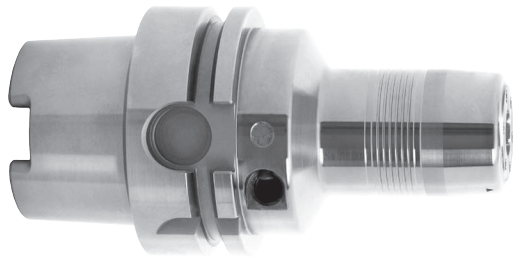
S.|P. 187



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK50A

DIN 69893 | ISO 12164

3.0  
25.0

0.003  
50



max  
20.000  
min<sup>-1</sup>



MMS  
MQL

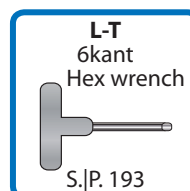
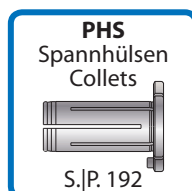
Tol.  
h6



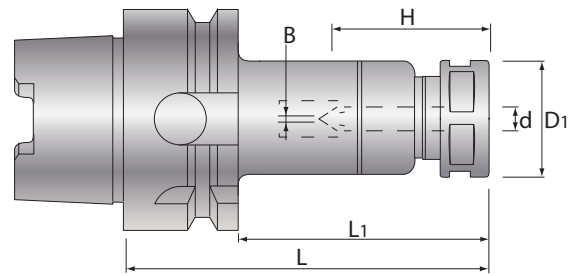
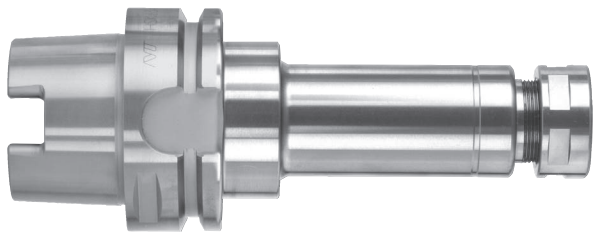
Halter   Holder		d	D1	D2	D3	L	L1	l <sub>min</sub>	H <sub>max</sub>		
HSK50A	-PHC03A -80	3	19.8	24	46	80	19.8	18	27	-	L-4T
	-PHC04A -85	4	25.1	25	46	85	25.1	24	29	-	L-4T
	-PHC06A -90	6	24	26	46	90	30	29	34	-	L-4T
	-PHC08A -90	8	26	28	46	90	30	29	34	-	L-4T
	-PHC10A -105	10	28	30	52	105	44	40	50	-	L-4T
	-PHC12A -105	12	30	32	52	105	45	40	50	PHS12-d	L-4T
	-PHC14A -105	14	34	36	52	105	46	40	50	-	L-4T
	-PHC16A -105	16	36	38	52	105	46	40	50	-	L-4T
	-PHC20A -105	20	40	42	46	105	49	40	50	PHS20-d	L-4T
	-PHC25A -135	25	50	52	59	135	59	50	60	-	L-6T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## HSK50A



DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

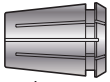


Halter   Holder		d	D1	L	L1	H	B		
-HDC07A	-75	1.0-7.0	23	75	49	22-29	0-4	FDC-07	S-0
	-90	1.0-7.0	23	90	64	22-42	0-4	FDC-07	S-0
	-120	1.0-7.0	23	120	94	22-42	0-4	FDC-07	S-0
-HDC09A	-75	3.0-9.0	26	75	49	27-28	0-4	FDC-09	S-1L
	-90	3.0-9.0	26	90	64	27-44	0-4	FDC-09	S-1L
	-120	3.0-9.0	26	120	94	27-58	0-4	FDC-09	S-1L
-HDC12A	-90	3.0-12.0	32	90	64	33-39	0-5	FDC-12	S-3L
	-120	3.0-12.0	32	120	94	33-68	0-5	FDC-12	S-3L
	-150	3.0-12.0	32	150	124	33-71	0-5	FDC-12	S-3L
-HDC16A	-90	4.0-16.0	36	90	64	38-47	0-6	FDC-16	S-4L
	-120	4.0-16.0	36	120	94	38-62	0-6	FDC-16	S-4L
	-150	4.0-16.0	36	150	124	38-83	0-6	FDC-16	S-4L
-HDC22A	-90	4.0-22.0	46	90	64	57	-	FDC-22	S-5L

Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.


Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw




S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

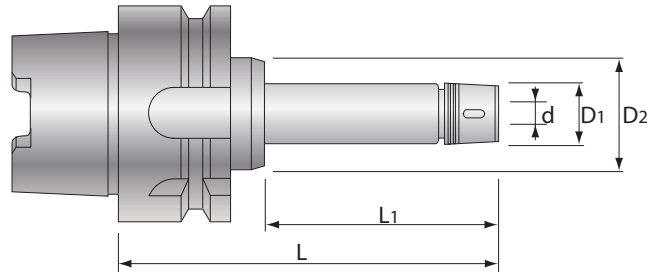
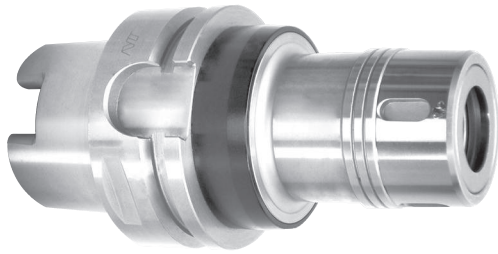
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK50A



DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

G2.5  
20.000  
min<sup>-2</sup>



Halter   Holder		d	D1	D2	L	L1		
HSK50A	-75	1.0-7.0	23	42	75	34	FDC-07	S-0
	-GDC07A	-90	1.0-7.0	23	42	90	FDC-07	S-0
	-120	1.0-7.0	23	42	120	79	FDC-07	S-0
	-75	3.0-9.0	29	42	75	34	FDC-09	S-0
	-GDC09A	-90	3.0-9.0	29	42	90	FDC-09	S-0
	-120	3.0-9.0	29	42	120	79	FDC-09	S-0
	-90	3.0-12.0	34	42	90	49	FDC-12	FK-0034
	-GDC12A	-120	3.0-12.0	34	42	120	FDC-12	FK-0034
	-150	3.0-12.0	34	42	150	109	FDC-12	FK-0034
	-GDC16A	-90	4.0-16.0	38	42	90	FDC-16	FK-0034

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.


Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

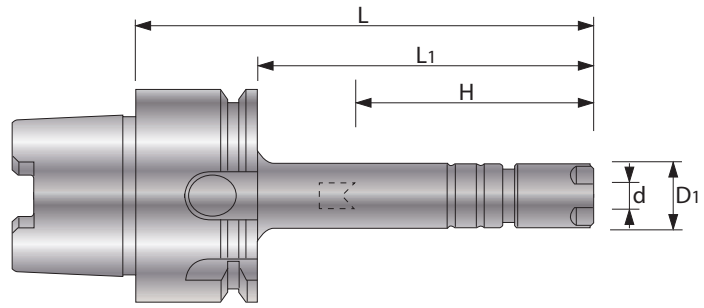
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK50A



DIN 69893 | ISO 12164

1.0  
7.0

0.005  
3x D

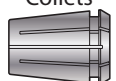



max  
30.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

Halter   Holder			d	D1	L	L1	H		
HSK50A	-ERC11S	-75	1.0-7.0	16	75	49	22-32	ER11	S-11E
		-90	1.0-7.0	16	90	64	22-45	ER11	S-11E

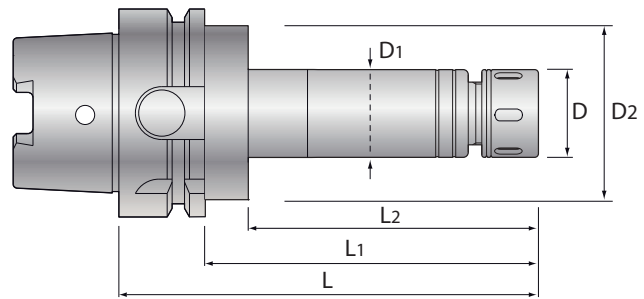
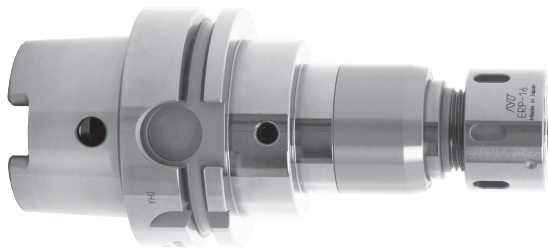
Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

<p><b>ER</b> Spannzangen Collets</p>  <p>S. P. 196</p>	<p><b>ES</b> Einstellschraube Preset screw</p>  <p>S. P. 196</p>	<p><b>Mini ERP</b> Spannmutter Cap nut</p>  <p>S. P. 196</p>	<p><b>S-E</b> Spannschlüssel Spanners</p>  <p>S. P. 196</p>
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# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder





**HSK50A**

DIN 69893 | ISO 12164

**M1  
M12**

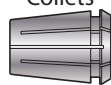


Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2		
<b>HSK50A</b>	-SFH8S -110	M1-M8	16	32	42	110	84	65	ER11-GB	S-11E
	-SFH12S -110	M2-M12	32	34	42	110	84	64	ER16-GB	FK-0034

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

**ER-GB**  
Spannzangen  
Collets



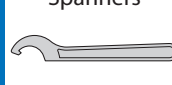
S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

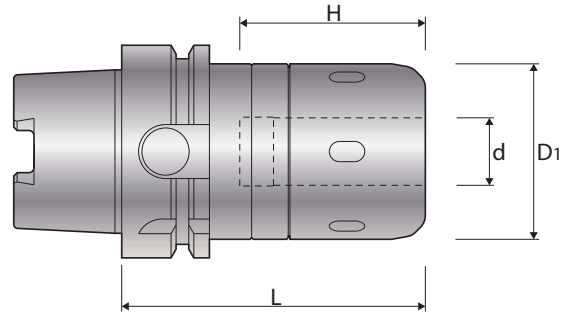
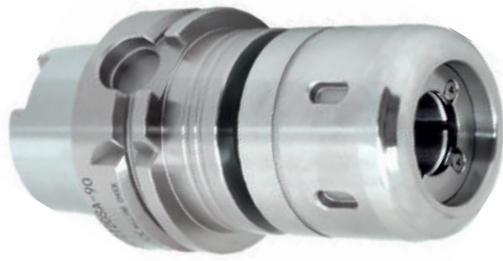
**S-E|FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK63A

DIN 69893 | ISO 12164



3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

Halter   Holder		d	D1	L	L1	H		
-CT16SA	-75 <sup>1</sup>	16	45	75	49	47	MC16-d	HS-1-16
	-90	16	45	90	64	60	MC16-d	HS-1-16
-CT20SA	-75 <sup>1,2</sup>	20	52	75	49	49	MC20-d-SL	HS-2-20
	-90 <sup>1</sup>	20	52	90	64	60	MC20-d	HS-2-20
	-105 <sup>1</sup>	20	52	105	79	75	MC20-d	HS-2-20
	-135 <sup>1</sup>	20	52	135	109	80	MC20-d	HS-2-20
-CT25SA	-105 <sup>1</sup>	25	61	105	-	75	MC25-d	HS-2.5-25
	-120 <sup>1</sup>	25	61	120	-	75	MC25-d	HS-2.5-25
	-135 <sup>1</sup>	25	61	135	-	80	MC25-d	HS-2.5-25
-CT32SA	-105 <sup>1</sup>	32	73	105	-	75	MC32-d	HS-3-32
	-120 <sup>1</sup>	32	73	120	-	90	MC32-d	HS-3-32
	-150 <sup>1</sup>	32	73	150	-	120	MC32-d	HS-3-32

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

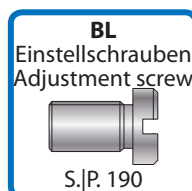
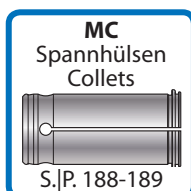
<sup>2</sup> MC20-d-SL Spannhülsen: Seite ...

HSK-Coolant pipe included in delivery.

HSK without holes for manual clamping.

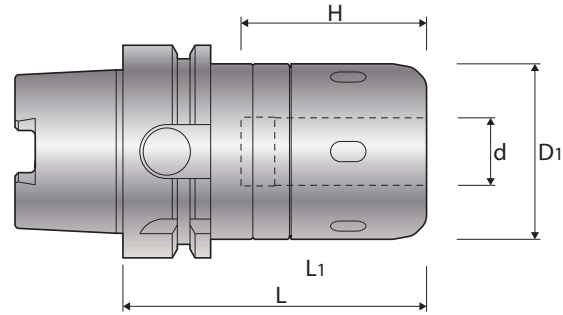
<sup>1</sup> MC-A Collets cannot be used.

<sup>2</sup> MC20-d-SL Straight Collets: Page ...



# CT-SA-C Hochleistungs-Kraftspannfutter High Performance Milling Chuck

Coolant Jet Series



## HSK63A



DIN 69893 | ISO 12164

4.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

 **mit Peripheriekühlung**  
with side-through coolant

Halter   Holder			d	D1	L	L1	H		
<b>HSK63A</b>	-CT20SA	-90C	20	52	90	64	60	MC20-d	HS-2-20


HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.  
Mit ID-Chip Bohrung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.  
With ID-Chip hole.




**IKZ und Coolant Jet-Peripheriekühlung** für effektive Spanabfuhr  
Inner coolant and side-through coolant for efficient chip removal

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

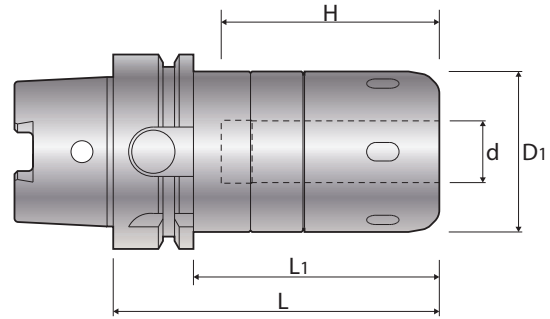
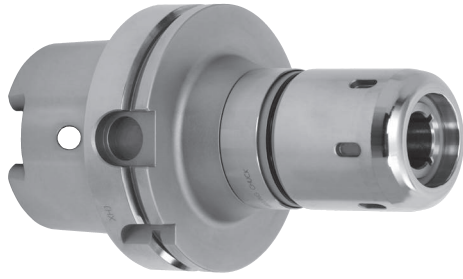


S.|P. 187

# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



### HSK63A

DIN 69893 | ISO 12164

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder			d	D1	L	L1	H		
<b>HSK63A</b>	-CT20S	-115P	20	52	115	89	75	MC20-d	RS-20

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.  
Mit ID-Chip Bohrung.

HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.  
With ID-Chip hole.

**MC**  
Spannhülsen  
Collets

S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw

S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners

S.|P. 190

**EM**  
Verlängerungen  
Extensions

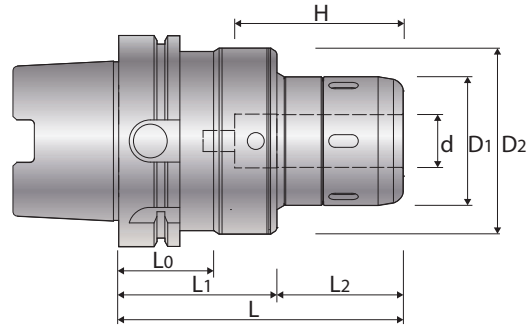
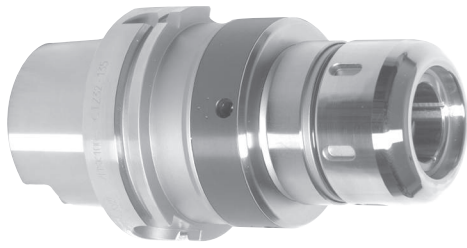
S.|P. 187



# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### HSK63A




DIN 69893 | ISO 12164

4.0  
32.0

0-2  
µm

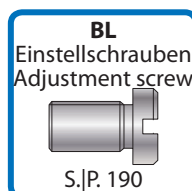
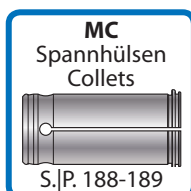
max  
15.000  
min<sup>-1</sup>



Halter   Holder		d	D1	D2	L	L1	L2	L0	H			
HSK63A	-135 <sup>1</sup>	25	61	74	135	71	64	42	80	MC25-d	HS-2.5-25	L-6L
	-150 <sup>1</sup>	25	61	74	150	71	79	42	80	MC25-d	HS-2.5-25	L-6L
	-135 <sup>1</sup>	32	68	80	135	71	64	42	105	MC32-d	HS-3-32	L-6L
	-150 <sup>1</sup>	32	68	80	150	71	79	42	120	MC32-d	HS-3-32	L-6L

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.

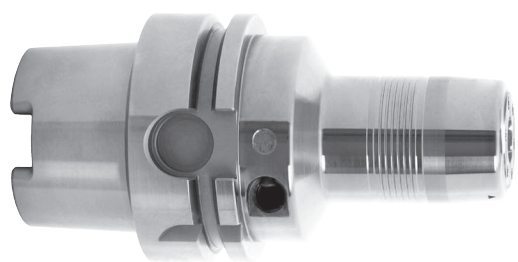
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.



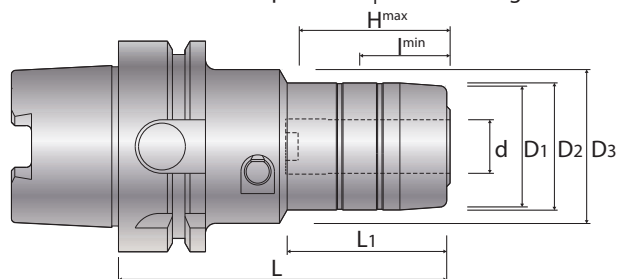
# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



Einspanntiefe | Insertion length



### HSK63A

DIN 69893 | ISO 12164

3.0  
32.0

0.003  
50



max  
20.000  
min<sup>-1</sup>



MMS  
MQL

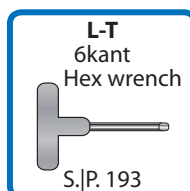
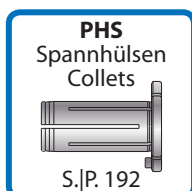
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
HSK63A	-PHC03A -65	3	-	24	46	65	20	18	27	-	L-4T	
	-PHC04A -70	4	-	25	46	70	25	24	29	-	L-4T	
	-PHC06A	-75	6	24	26	46	75	30	29	34	-	L-4T
		-120	6	24	26	46	120	41	29	45	-	L-4T
	-PHC08A	-75	8	26	28	46	75	30	29	34	-	L-4T
		-120	8	26	28	46	120	41	29	45	-	L-4T
	-PHC10A	-90	10	28	30	52	90	44	40	50	-	L-4T
		-120	10	28	30	52	120	64	40	70	-	L-4T
	-PHC12A	-90	12	30	32	52	90	45	40	50	PHS12-d	L-4T
		-120	12	30	32	52	120	65	40	70	PHS12-d	L-4T
	-PHC14A	-90	14	34	36	52	90	46	40	50	-	L-4T
		-120	14	34	36	52	120	66	40	70	-	L-4T
	-PHC16A	-90	16	36	38	52	90	46	40	50	-	L-4T
		-120	16	36	38	52	120	66	40	70	-	L-4T
	-PHC20A	-90	20	40	42	46	90	49	40	50	PHS20-d	L-4T
		-120	20	40	42	46	120	69	40	70	PHS20-d	L-4T
	-PHC25A	-135	25	50	52	59	135	59	50	60	-	L-6T
		-150	25	50	52	59	150	79	50	80	-	L-6T
	-PHC32A	-135	32	60	62	85	135	42	65	80	-	L-6T
		-150	32	60	62	85	150	108	65t	80	-	L-6T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

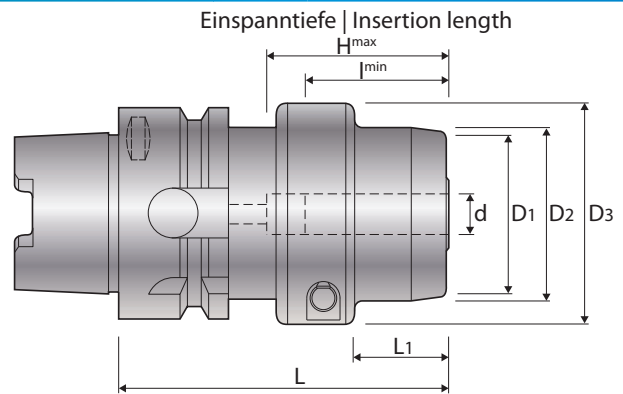
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.



# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### HSK63A

DIN 69893 | ISO 12164

6.0  
32.0

0.003  
50



max  
20.000  
min<sup>-1</sup>



Tol.  
h6



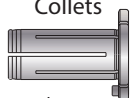
**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder	d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
-PHC16H -75	16	-	44	56	75	21	45	51	-	L-4T
-PHC20H -105	20	48	50	60	105	32	50	75	PHS20H-d	L-4T
<b>HSK63A</b> -PHC25H -105	25	58	60	69	105	35	55	75	-	L-5T
-PHC32H -105	32	63	65	75	105	37	65	78	PHS32H-d	L-5T
-135	32	63	65	75	135	47	65	105	PHS32H-d	L-5T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

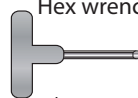
HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.

**PHS**  
Spannhülsen  
Collets



S.|P. 192

**L-T**  
6kant  
Hex wrench

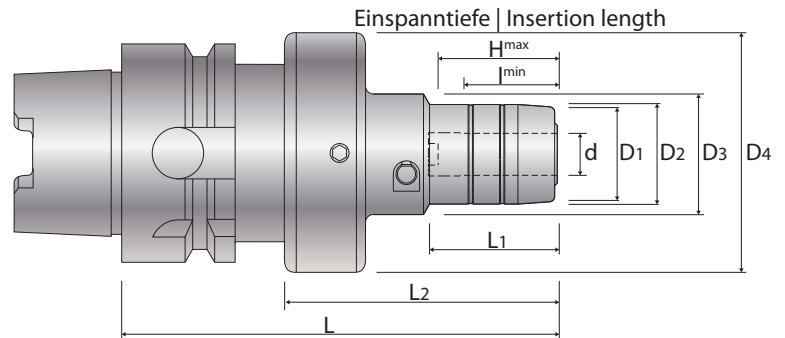
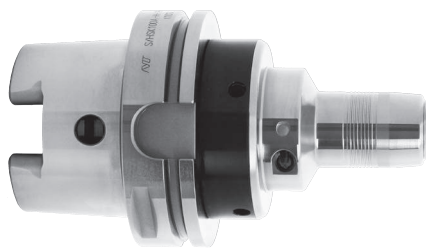


S.|P. 193

# PHC-Z Dehnspannfutter mit Rundlauf "0"

## Hydro Chuck with run out "0"

R"0" Series



### HSK63A

DIN 69893 | ISO 12164

3.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

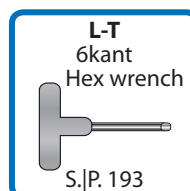
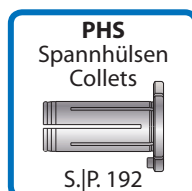
Tol.  
h6



Halter   Holder		d	D1	D2	D3	D4	L	L1	L2	I <sub>min</sub>	H <sub>max</sub>			
HSK63A	-PHC-Z12 -135	12	30	32	52	76	135	45	93	40	50	PHS12-d	L-4T	L-5T
	-PHC-Z20 -135	20	40	42	46	69	135	50	93	40	50	PHS20-d	L-4T	L-5T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.  
 Mit ID-Chip Bohrung.  
 \* 6kant-Schlüssel für Einstellring.

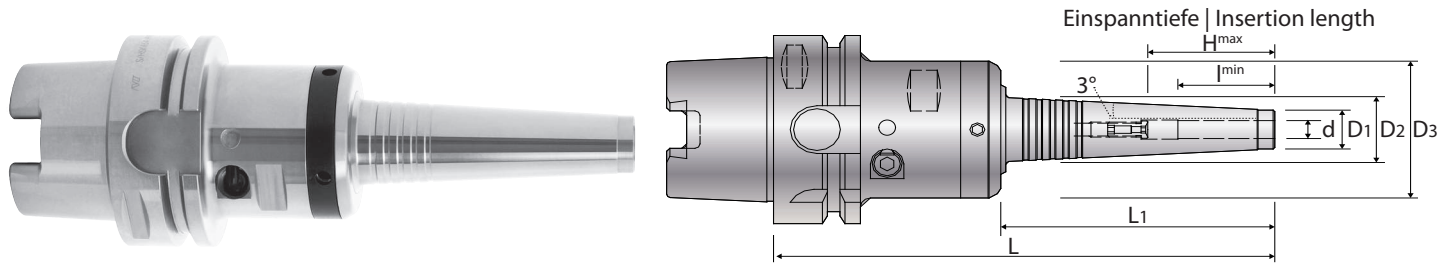
HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With axial length adjustment.  
 With ID-Chip hole.  
 \* Hex wrench for Rotor ring.



# PHZ-SA

R"0" Series

## Dehnspannfutter R"0" superschlank Slim Hydro Chuck with run out "0"



**HSK63A**

DIN 69893 | ISO 12164

6.0  
12.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



Tol.  
h6



mit Coolant Jet: PHZ-SC  
with Coolant Jet: PHZ-SC

Halter   Holder	d	PHZ-SA		PHZ-SC		D <sub>3</sub>	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>			*	
		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>									
-PHZ06SA	-150	6	13	21.5	14	22.5	46	150	82	29	37	-	L-4T	L-3T
	-180	6	13	24.6	14	25.6	46	180	112	29	37	-	L-4T	L-3T
-PHZ08SA	-150	8	15	23.5	16	24.5	46	150	82	29	50	-	L-4T	L-3T
	-180	8	15	26.6	16	25.6	46	180	112	29	50	-	L-4T	L-3T
-PHZ10SA	-150	10	17	25.5	18	24.5	46	150	82	40	50	-	L-4T	L-3T
	-180	10	17	28.2	18	29.2	46	180	112	40	50	-	L-4T	L-3T
-PHZ12SA	-150	12	19	27.4	20	28.4	46	150	82	40	70	HS12-d	L-4T	L-3T
	-180	12	19	28.2	20	29.2	46	180	112	40	70	HS12-d	L-4T	L-3T

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

Mit axialer Längeneinstellung

\* 6kant-Schlüssel für Einstellring

HSK-Coolant pipe included in delivery.

HSK without holes for manual clamping.

With axial length adjustment

\* Hex wrench for Rotor ring



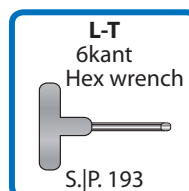
## PHZ-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**

With internal coolant nozzles.

**Bestellbeispiel | Order example**

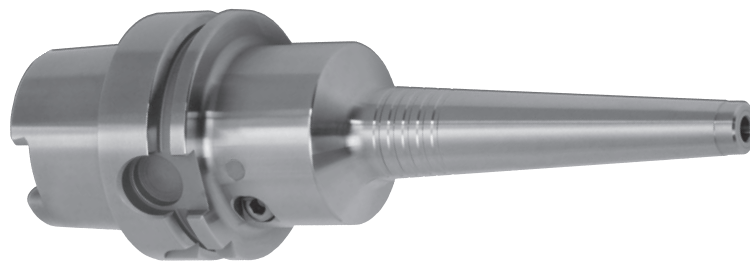
HSK63A-PHZ06SC-150



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### HSK63A

DIN 69893 | ISO 12164

3.0  
25.0

0.003  
3x D

G2.5  
25,000  
min<sup>-1</sup>

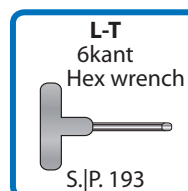


Tol.  
h6



mit Coolant Jet: PHC-SC  
with Coolant Jet: PHC-SC

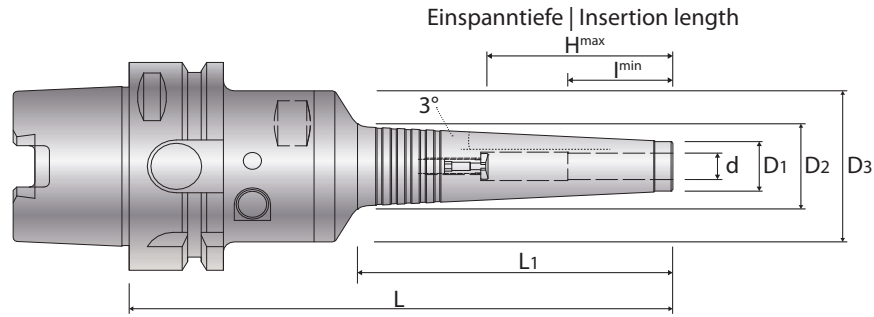
Halter   Holder		d	PHC-S		PHC-SC		D <sub>3</sub>	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>		
			D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>							
-PHC03SA	-75	3	11	13.0	-	-	46	75	19	18	30	-	L-4T
	-90	3	11	14.2	-	-	46	90	30	18	30	-	L-4T
	-135	3	11	18.2	11.6	19.1	46	135	71	18	30	-	L-4T
-PHC04SA	-75	4	11	13.0	-	-	46	75	19	24	36	-	L-4T
	-90	4	11	14.2	-	-	46	90	30	24	36	-	L-4T
	-135	4	11	18.2	11.6	19.1	46	135	71	24	36	-	L-4T
-PHC06SA	-90	6	13	15.8	-	-	46	90	26	29	59	-	L-4T
	-115	6	13	18.3	-	-	46	115	51	29	37	-	L-4T
	-135	6	13	20.5	14	21.5	46	135	71	29	59	-	L-4T
	-150	6	13	22.2	-	-	46	150	87	29	59	-	L-4T
	-165	6	13	23.7	-	-	46	165	102	29	59	-	L-4T
	-180	6	13	25.4	-	-	46	180	118	29	59	-	L-4T
-PHC08SA	-90	8	15	17.9	-	-	46	90	27	29	59	-	L-4T
	-115	8	15	20.3	-	-	46	115	51	29	50	-	L-4T
	-135	8	15	22.6	16	23.6	46	135	72	29	59	-	L-4T
	-150	8	15	24.2	-	-	46	150	87	29	59	-	L-4T
	-165	8	15	25.8	-	-	46	165	103	29	59	-	L-4T
	-180	8	15	27.4	-	-	46	180	118	29	59	-	L-4T
-PHC10SA	-105	10	17	21.5	-	-	46	105	42	40	70	-	L-4T
	-115	10	17	22.5	-	-	46	115	52	40	50	-	L-4T
	-135	10	17	24.6	18	25.6	46	135	72	40	69	-	L-4T
	-150	10	17	26.3	-	-	46	150	88	40	69	-	L-4T
	-165	10	17	27.8	-	-	46	165	103	40	69	-	L-4T
	-180	10	17	29.5	-	-	46	180	119	40	61	-	L-4T





# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



Halter   Holder	d	PHC-S		PHC-SC		D3	L	L1	l <sub>min</sub>	H <sub>max</sub>			
		D1	D2	D1	D2								
-PHC12SA	-105	12	19	23.6	-	-	46	105	43	40	64	HS12-d	L-4T
	-115	12	19	24.5	-	-	46	115	52	40	60	HS12-d	L-4T
	-135	12	19	26.7	20	27.7	46	135	73	40	69	HS12-d	L-4T
	-150	12	19	28.3	-	-	46	150	88	40	69	HS12-d	L-4T
	-165	12	19	30.0	-	-	46	165	104	40	69	HS12-d	L-4T
	-180	12	19	31.5	20	32.5	46	180	119	40	61	HS12-d	L-4T
HSK63A -PHC16SA	-135	16	23	30.6	24	31.6	52.5	135	72	40	85	-	L-4T
	-165	16	23	33.8	-	-	52.5	165	103	40	80	-	L-4T
	-180	16	23	35.5	24	36.5	52.5	180	119	40	80	-	L-4T
-PHC20SA	-150	20	28	34.7	29	35.7	62	150	63	40	80	HS20-d	L-6T
	-180	20	28	37.8	-	-	62	180	93	40	80	HS20-d	L-6T
	-195	20	28	39.5	29	40.5	62	195	109	40	80	HS20-d	L-6T
-PHC25SA	-150	25	37	43.9	38	44.9	62	150	65	50	80	-	L-6T
	-180	25	37	47.1	-	-	62	180	96	50	90	-	L-6T
	-195	25	37	48.8	38	49.8	62	195	112	50	90	-	L-6T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.

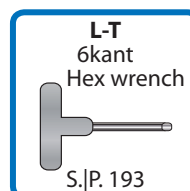
HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
 With axial length adjustment.



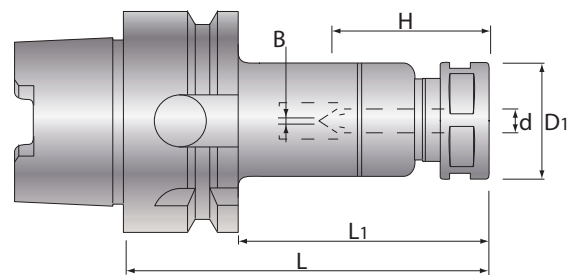
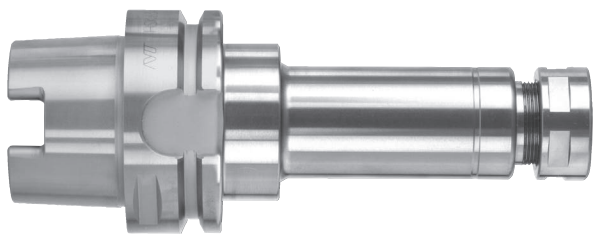
## PHC-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**  
 With internal coolant nozzles.

**Bestellbeispiel | Order example**  
[HSK63A-PHC06SC-135](#)



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## HSK63A

DIN 69893 | ISO 12164



1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>



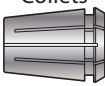
MMS  
MQL

Halter   Holder		d	D1	L	L1	H	B		
-HDC07A	-75	1.0-7.0	23	75	49	22-32	0-4	FDC-07	S-0
	-90	1.0-7.0	23	90	64	22-42	0-4	FDC-07	S-0
	-120	1.0-7.0	23	120	94	22-42	0-4	FDC-07	S-0
	-150	1.0-7.0	23	150	124	22-42	0-4	FDC-07	S-0
	-180	1.0-7.0	23	180	154	22-42	0-4	FDC-07	S-0
-HDC09A	-75	3.0-9.0	26	75	49	27-31	0-4	FDC-09	S-1L
	-90	3.0-9.0	26	90	64	27-39	0-4	FDC-09	S-1L
	-120	3.0-9.0	26	120	94	27-54	0-4	FDC-09	S-1L
	-150	3.0-9.0	26	150	124	27-54	0-4	FDC-09	S-1L
	-180	3.0-9.0	26	180	154	27-54	0-4	FDC-09	S-1L
-HDC12A	-75	3.0-12.0	32	75	49	46	-	FDC-12	S-3L
	-90	3.0-12.0	32	90	64	33-45	0-5	FDC-12	S-3L
	-120	3.0-12.0	32	120	94	33-66	0-5	FDC-12	S-3L
	-150	3.0-12.0	32	150	124	33-66	0-5	FDC-12	S-3L
	-180	3.0-12.0	32	180	154	33-66	0-5	FDC-12	S-3L
	-210	3.0-12.0	32	210	184	33-66	0-5	FDC-12	S-3L
-HDC16A	-75	4.0-16.0	36	75	49	45	-	FDC-16	S-4L
	-90	4.0-16.0	36	90	64	38-45	0-6	FDC-16	S-4L
	-120	4.0-16.0	36	120	94	38-59	0-6	FDC-16	S-4L
	-150	4.0-16.0	36	150	124	38-79	0-6	FDC-16	S-4L
	-180	4.0-16.0	36	180	154	38-79	0-6	FDC-16	S-4L
	-210	4.0-16.0	36	210	184	38-79	0-6	FDC-16	S-4L
-HDC22A	-90	4.0-22.0	46	90	64	60	-	FDC-22	S-5L
	-120	4.0-22.0	46	120	94	47-60	0-8	FDC-22	S-5L
	-150	4.0-22.0	46	150	124	47-90	0-8	FDC-22	S-5L
	-180	4.0-22.0	46	180	154	47-100	0-8	FDC-22	S-5L
	-210	4.0-22.0	46	210	184	47-100	0-8	FDC-22	S-5L

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.


Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets



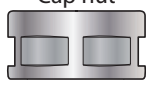
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw




S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners

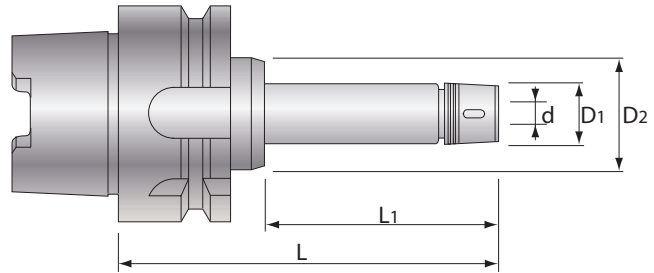
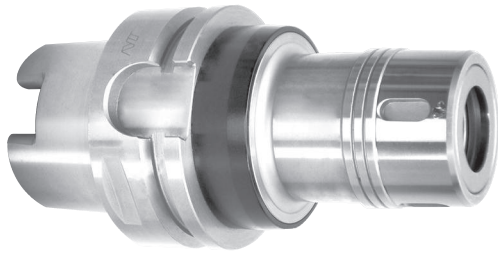


S.|P. 194



# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK63A



DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

G2.5  
20.000  
min<sup>-2</sup>

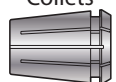


Halter   Holder		d	D1	D2	L	L1		
-GDC07A	-75	1.0-7.0	23	52	75	34	FDC-07	S-0
	-90	1.0-7.0	23	52	90	49	FDC-07	S-0
	-120	1.0-7.0	23	52	120	79	FDC-07	S-0
-GDC09A	-75	3.0-9.0	29	52	75	34	FDC-09	S-0
	-90	3.0-9.0	29	52	90	49	FDC-09	S-0
	-120	3.0-9.0	29	52	120	79	FDC-09	S-0
-GDC12A	-90	3.0-12.0	34	52	90	49	FDC-12	FK-0034
	-120	3.0-12.0	34	52	120	79	FDC-12	FK-0034
	-150	3.0-12.0	34	52	150	109	FDC-12	FK-0034
	-90	4.0-16.0	38	52	90	49	FDC-16	FK-0034
-GDC16A	-120	4.0-16.0	38	52	120	79	FDC-16	FK-0034
	-150	4.0-16.0	38	52	150	109	FDC-16	FK-0034
	-90	4.0-22.0	49	52	90	49	FDC-22	FK-0045
-GDC22A	-120	4.0-22.0	49	52	120	79	FDC-22	FK-0045
	-150	4.0-22.0	49	52	150	109	FDC-22	FK-0045

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.


Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners

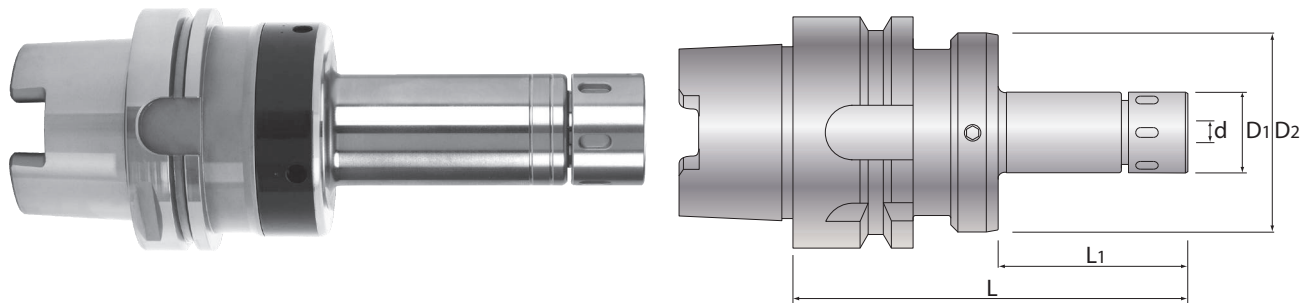


S.|P. 194

# ERZ Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### HSK63A

DIN 69893 | ISO 12164




1.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



für ER-Spannzangen  
for ER-Collets

Halter   Holder		d	D1	D2	L	L1			
HSK63A	-ERZ11S -90	1.0-7.0	16	34	90	48	ER11	S-11E	L-3T
	-ERZ16 -120	1.0-10.0	32	56	120	58	ER16	FK-0034	L-4T
	-ERZ32 -120	2.0-20.0	50	76	120	49	ER32	HS-2-20	L-5T

Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**ER**  
Spannzangen  
Collets




S.|P. 196

**ES**  
Einstellschraube  
Preset screw



S.|P. 196

**ERP**  
Spannmutter  
Cap nut



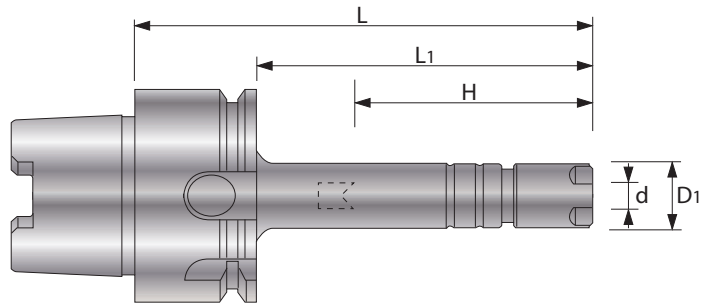
S.|P. 196

**S-E|FK|HS**  
Spannschlüssel  
Spanners



S.|P. 196

# ERC Mikro-Spannzangenfutter Micro-Collet Chuck



## HSK63A

DIN 69893 | ISO 12164



1.0  
-  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

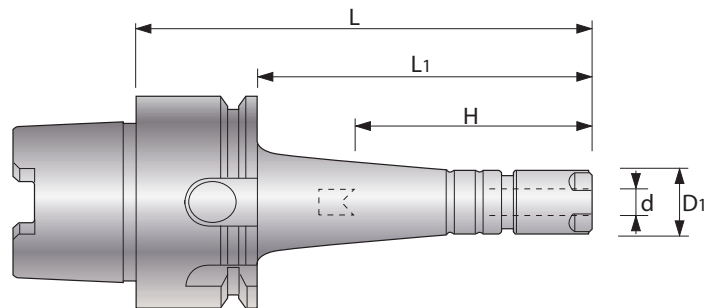
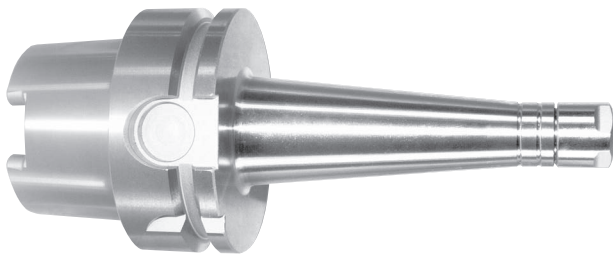
Super-  
schlank  
Super slim

## Form S

Halter   Holder		d	D1	L	L1	H		
HSK63A	-ERC8	-75 <sup>1</sup>	1.0-5.0	12	75	34 (19-28)	ER8	S-8E
		-105 <sup>1</sup>	1.0-5.0	12	105	34 (19-31)	ER8	S-8E
	-ERC11S	-75	1.0-7.0	16	75	22-34	ER11	S-11E
		-105	1.0-7.0	16	105	22-45	ER11	S-11E

Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw.



## HSK63A

DIN 69893 | ISO 12164



1.0  
-  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

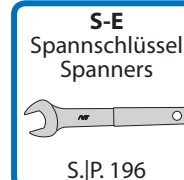
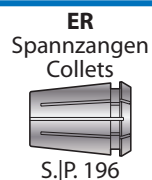
Super-  
schlank  
Super slim

## Form T

Halter   Holder		d	D1	L	L1	H		
HSK63A	-ERC11S	-105T	1.0-7.0	16	105	22-45	ER11	S-11E
		-120T	1.0-7.0	16	120	22-45	ER11	S-11E
		-135T	1.0-7.0	16	135	109	22-45	ER11

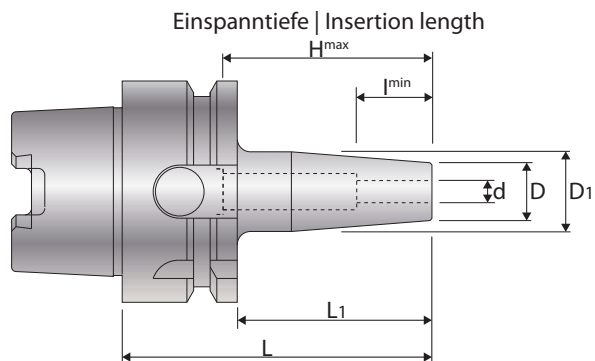
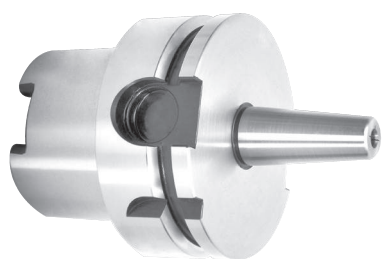
Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw



# SRE Schrumpffutter

## Shrink Fit Chuck



### HSK63A

DIN 69893 | ISO 12164

6.0  
16.0

3  
µm

max  
25.000  
min<sup>-1</sup>



Tol.  
h6

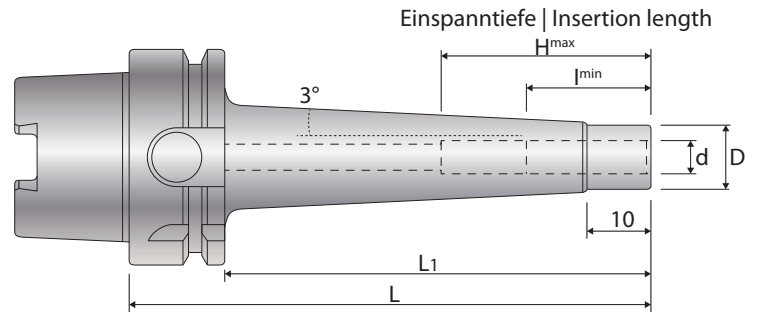
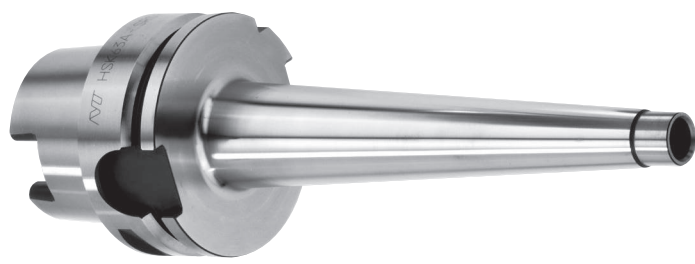
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>
-SRE6A	-50	6	13	16	50	24	19	26
	-70	6	13	16	70	44	27	46
	-90	6	13	18	90	64	27	66
	-120	6	13	18	120	94	27	96
	-135	6	13	18	135	109	27	111
	-165	6	13	18	165	139	27	141
-SRE8A	-50	8	13	16	50	24	19	26
	-70	8	13	16	70	44	27	46
	-90	8	13	18	90	64	27	66
	-120	8	13	18	120	94	27	96
	-135	8	13	18	135	109	27	111
	-165	8	13	18	165	139	27	141
-SRE10A	-65	10	16	19	65	34	26	39
	-120	10	16	19	120	94	26	50
	-165	10	16	19	165	139	26	50
-SRE12A	-65	12	18	21	65	34	26	39
	-120	12	18	21	120	94	26	50
	-165	12	18	21	165	139	26	50
-SRE16A	-60	16	22	25	60	34	26	34
	-120	16	22	25	120	94	26	70
	-165	16	22	25	165	139	39	70

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Nur für HM-Werkzeuge geeignet.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Only for carbide tools.

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



### HSK63A

DIN 69893 | ISO 12164

6.0  
20.0

3  
µm

max  
25.000  
min<sup>-1</sup>



Tol.  
h6

Halter   Holder		d	D	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>
-SRS6A	-105	6	9	105	79	26	36
	-135	6	9	135	109	26	36
	-165	6	9	165	139	26	36
-SRS8A	-105	8	11	105	79	26	50
	-135	8	11	135	109	26	50
	-165	8	11	165	139	26	50
-SRS10A	-105	10	13	105	79	32	50
	-135	10	13	135	109	32	50
	-165	10	13	165	139	32	50
-SRS12A	-105	12	15	105	79	37	70
	-135	12	15	135	109	37	70
	-165	12	15	165	139	37	70
-SRS16A	-105	16	20	105	79	40	75
	-135	16	20	135	109	40	80
	-165	16	20	165	139	40	80
-SRS20A	-105	20	26	105	79	42	75
	-135	20	26	135	109	42	100
	-165	20	26	165	139	42	100

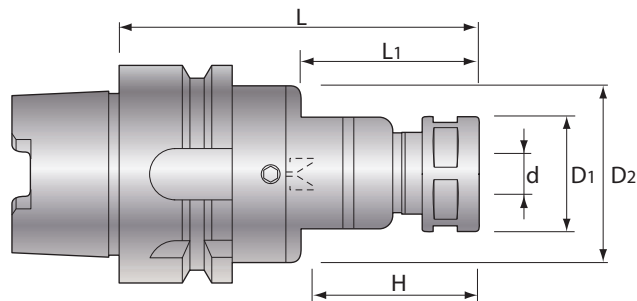
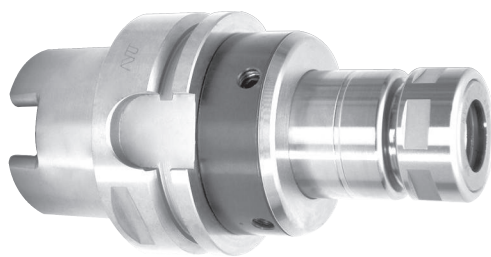
HSK-Kühlmitelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Nur für HM-Werkzeuge geeignet.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Only for carbide tools.

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### HSK63A

DIN 69893 | ISO 12164

1.0  
22.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



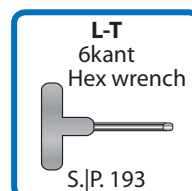
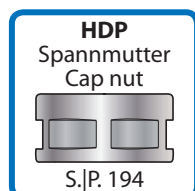
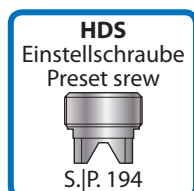
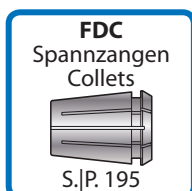
MMS  
MQL

für FDC-Spannzangen  
for FDC-Collets

Halter   Holder		d	D1	D2	L	L1	H			
-HDZ07A	-75	1.0-7.0	23	41	75	33	22-34	FDC-07	S-0	L-3T
	-90	1.0-7.0	23	41	90	48	22-45	FDC-07	S-0	L-3T
	-120	1.0-7.0	23	41	120	78	22-45	FDC-07	S-0	L-3T
-HDZ09A	-75	3.0-9.0	26	45	75	33	27-34	FDC-09	S-1L	L-3T
	-90	3.0-9.0	26	45	90	48	27-42	FDC-09	S-1L	L-3T
	-120	3.0-9.0	26	45	120	78	27-57	FDC-09	S-1L	L-3T
-HDZ12A	-90	3.0-12.0	32	52	90	44	33-47	FDC-12	S-3L	L-4T
	-120	3.0-12.0	32	52	120	74	33-69	FDC-12	S-3L	L-4T
	-150	3.0-12.0	32	52	150	104	33-69	FDC-12	S-3L	L-4T
-HDZ16A	-90	3.0-16.0	36	56	90	28	38-47	FDC-16	S-4L	L-4T
	-120	3.0-16.0	36	56	120	58	38-61	FDC-16	S-4L	L-4T
	-150	3.0-16.0	36	56	150	88	38-81	FDC-16	S-4L	L-4T
-HDZ22A	-120	4.0-22.0	46	69	120	49	47-63	FDC-22	S-5L	L-5T
	-150	4.0-22.0	46	69	150	79	47-93	FDC-22	S-5L	L-5T

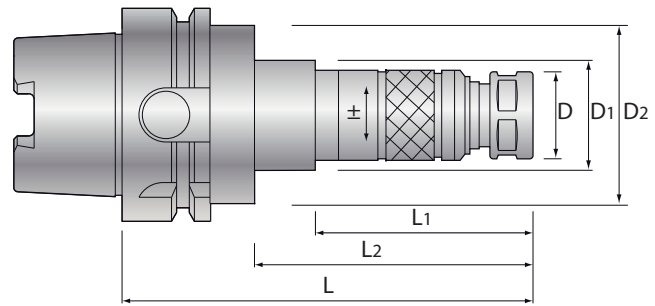
Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.



# SFH|S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**HSK63A**

DIN 69893 | ISO 12164

**M3  
M30**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M1  
M27**

Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2			
HSK63A	-SFH12	-135	M3-M8	26	34	47	135	60	93	FSC-09	S-1L
	-SFH12	-150	M3-M8	26	34	47	150	75	108	FSC-09	S-1L
	-SFH12	-165	M3-M8	26	34	47	165	90	123	FSC-09	S-1L
	-SFH18	-150	M5-M20	36	40	47	150	68	108	FSC-16	S-4L
	-SFH18	-180	M5-M20	36	40	47	180	96	138	FSC-16	S-4L
	-SFH30	-180	M20-M30	46	50	-	180	87	154	FSC-22	S-5L

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK without holes for manual clamping.

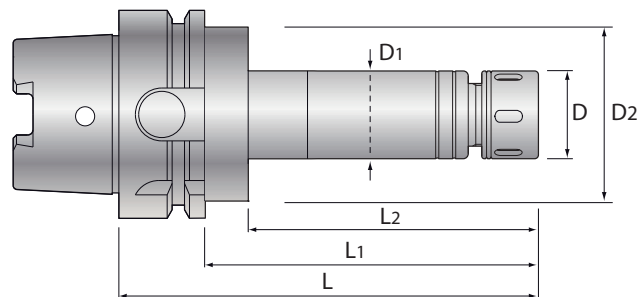
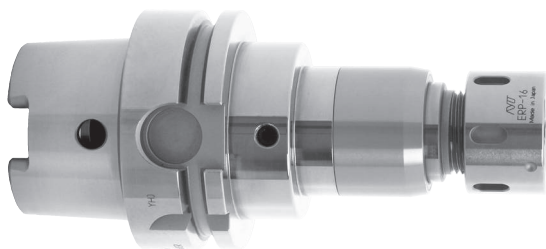
**STS**  
4kant-Mitnehmer  
Square driver  
  
S.|P. 197

**FSC**  
Spannzangen  
Collets  
  
S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer  
  
S.|P. 197

**HTP**  
Spannmutter  
Cap nut  
  
S.|P. 197

**S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 197



Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2			
HSK63A	-SFH8S	-105	M1-M8	16	32	46.5	105	79	63	ER11-GB	S-11E
	-SFH12S	-105	M3-M12	32	34	46.5	105	79	63	ER16-GB	FK-0034
	-SFH18S	-130	M3-M20	42	40	46.5	130	104	88	ER25-GB	HS-1-16
	-SFH30S	-150	M4-M27	50	50	50	150	124	124	ER32-GB	HS-2-20

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

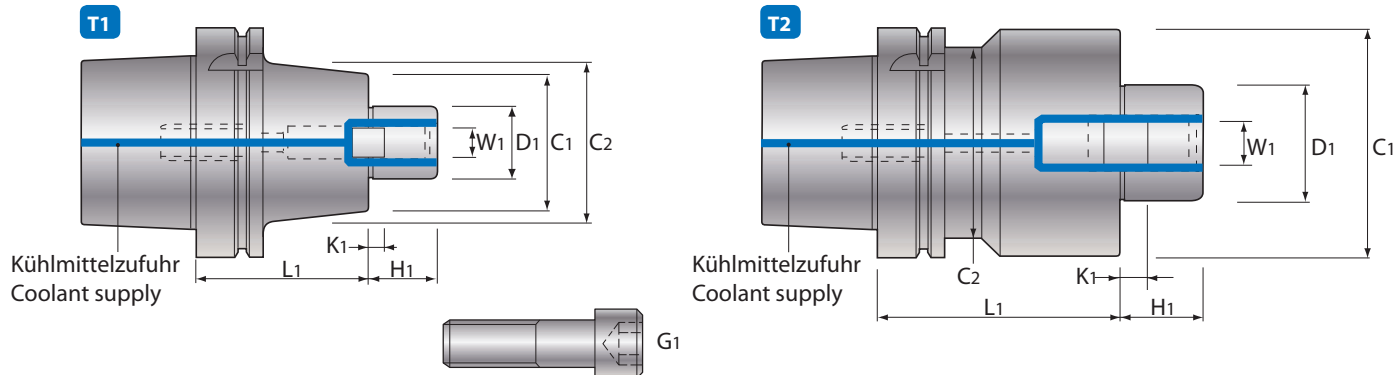
**ER-GB**  
Spannzangen  
Collets  
  
S.|P. 199

**ERP**  
Spannmutter  
Cap nut  
  
S.|P. 198

**S-E|FK|HS**  
Spannschlüssel  
Spanners  
  
S.|P. 198

# FMH Aufsteck-Fräsdorn

## Face Mill Arbor



### HSK63A

DIN 69893 | ISO 12164

**mit Kühlkanalbohrungen**  
with Coolant Jet

Halter   Holder		Type	D <sub>1</sub> (h6)	L <sub>1</sub>	C <sub>1</sub>	C <sub>2</sub>	H <sub>1</sub>	W <sub>1</sub>	K <sub>1</sub>	G <sub>1</sub>	Messerkopf Cutter Ø
-FMH16	-60	T1	16	60	34	-	17	8	5	M8	40 50
	-34	-90	T1	16	90	34	-	17	8	M8	40 50
	-120	T1	16	120	34	-	17	8	5	M8	40 50
-FMH22	-60	T1	22	60	47	-	18	10	5	M10	50 63
	-47	-90	T1	22	90	47	-	18	10	M10	50 63
	-120	T1	22	120	47	-	18	10	5	M10	50 63
-FMH27	-60	T2	22	60	60	53	18	10	5	M10	50 63
	-60	-90	T2	22	90	60	53	18	10	M10	50 63
	-120	T2	22	120	60	53	18	10	5	M10	50 63
-FMH32	-60	T2	27	60	60	53	20	12	6	M12	80
	-60	-90	T2	27	90	60	53	20	12	M12	80
	-120	T2	27	120	60	53	20	12	6	M12	80
-FMH32	-60	T2	27	60	76	53	20	12	6	M12	80
	-76	-90	T2	27	90	76	53	20	12	M12	80
	-120	T2	27	120	76	53	20	12	6	M12	80
-FMH32	-60	T2	32	60	96	53	22	14	7	M16	100
	-96	-90	T2	32	90	96	53	22	14	M16	100
	-120	T2	32	120	96	53	22	14	7	M16	100

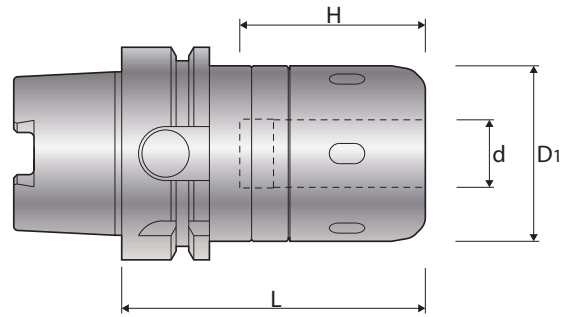
HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK80A



DIN 69893 | ISO 12164

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	L1	H		
HSK80A	-CT20SA -105	20	52	105	79	70	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	79	70	MC25-d	HS-2.5-25
	-CT32SA -120 <sup>1</sup>	32	73	120	-	70	MC32-d	HS-3-32

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.


HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

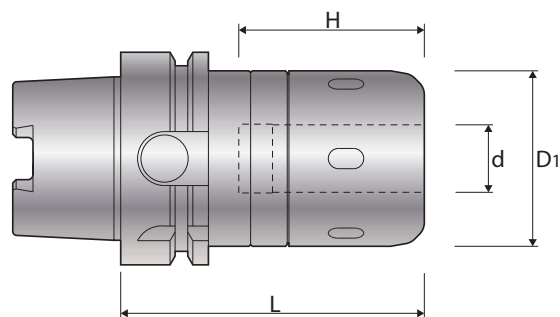
**EM**  
Verlängerungen  
Extensions



S.|P. 187

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK100A

DIN 69893 | ISO 12164



3.0  
42.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>



MMS  
MQL

Halter   Holder		d	D1	L	L1	H			
HSK100A	-CT16SA	-90 <sup>1</sup>	16	45	90	-	55	MC16-d	HS-1-16
		-105	16	45	105	-	70	MC16-d	HS-1-16
	-CT20SA	-90 <sup>3</sup>	20	52	90	-	55	MC20-d-SL	HS-2-20
		-105	20	52	105	-	70	MC20-d	HS-2-20
		-120	20	52	120	-	80	MC20-d	HS-2-20
	-CT25SA	-135	20	52	135	-	80	MC20-d	HS-2-20
		-150	20	52	150	-	80	MC20-d	HS-2-20
		-90 <sup>1,2</sup>	25	61	90	61	55	-	HS-2.5-25
	-CT25SA	-105	25	61	105	-	70	MC25-d	HS-2.5-25
		-120	25	61	120	-	80	MC25-d	HS-2.5-25
		-135	25	61	135	-	80	MC25-d	HS-2.5-25
	-CT32SA	-150	25	61	150	-	80	MC25-d	HS-2.5-25
-90 <sup>1,2</sup>		32	73	90	61	55	-	HS-3-32	
-105 <sup>1</sup>		32	73	105	76	70	MC32-d	HS-3-32	
-120 <sup>1</sup>		32	73	120	91	85	MC32-d	HS-3-32	
-CT42SA	-135 <sup>1</sup>	32	73	135	106	100	MC32-d	HS-3-32	
	-150 <sup>1</sup>	32	73	150	121	115	MC32-d	HS-3-32	
	-105 <sup>2</sup>	42	88	105	-	70	-	HS-4-42	
	-120 <sup>1</sup>	42	88	120	-	85	MC42-d	HS-4-42	
	-135 <sup>1</sup>	42	88	135	-	100	MC42-d	HS-4-42	
-CT42SA	-150 <sup>1</sup>	42	88	150	-	110	MC42-d	HS-4-42	
	-165 <sup>1</sup>	42	88	165	-	120	MC42-d	HS-4-42	

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> MC Spannhülsen nicht einsetzbar, nur Direktspannung.

<sup>3</sup> MC20-d-SL Spannhülsen: Seite ...

HSK-Coolant pipe included in delivery.


HSK without holes for manual clamping.

<sup>1</sup> MC-A Collets cannot be used.

<sup>2</sup> MC straight collets cannot be used, only direct chucking.


<sup>3</sup> MC20-d-SL Straight Collets: Page ...

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

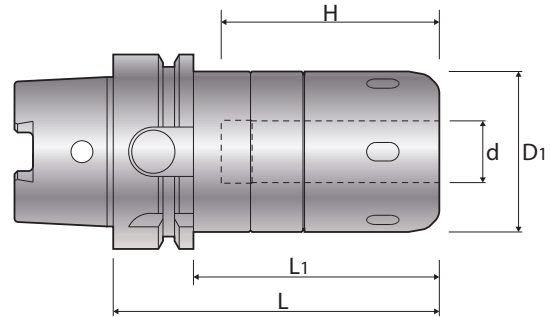
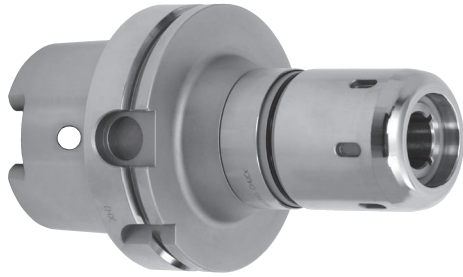


S.|P. 187

# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



### HSK100A

DIN 69893 | ISO 12164



3.0  
32.0

0.005  
3xD

max  
15.000  
min<sup>-1</sup>




**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	L	L1	H		
HSK100A	-CT20S -115P	20	52	115	86	80	MC20-d	RS-20
	-CT25S -115P	25	61	115	86	80	MC25-d	RS-25
	-CT32S -115P	32	73	115	86	80	MC32-d	RS-32

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.  
Mit ID-Chip Bohrung.


HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.  
With ID-Chip hole.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw




S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

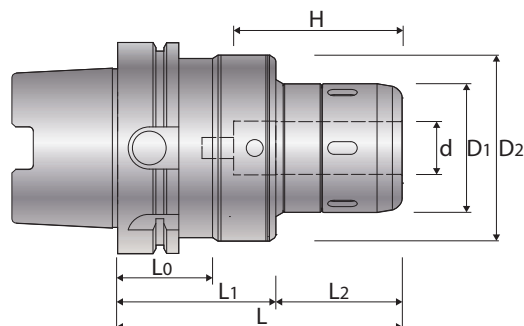


S.|P. 187

# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### HSK100A

DIN 69893 | ISO 12164

4.0  
42.0

0-2  
µm

max  
10.000  
min<sup>-1</sup>



Halter   Holder		d	D1	D2	L	L1	L2	L0	H			
HSK100A	-CTZ25SA -135	25	61	74	135	65	70	-	80	MC25-d	HS-2.5-25	L-6L
	-150	25	61	74	150	65	85	-	80	MC25-d	HS-2.5-25	L-6L
	-CTZ32SA -135 <sup>1</sup>	32	68	80	135	65	70	-	100	MC32-d	HS-3-32	L-6L
	-150 <sup>1</sup>	32	68	80	150	65	85	-	115	MC32-d	HS-3-32	L-6L
	-CTZ42SA -135 <sup>1</sup>	42	88	99	135	76	59	45	100	MC42-d	HS-4-42	L-6L
	-150 <sup>1</sup>	42	88	99	150	76	74	45	110	MC42-d	HS-4-42	L-6L

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.


HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



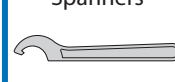
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

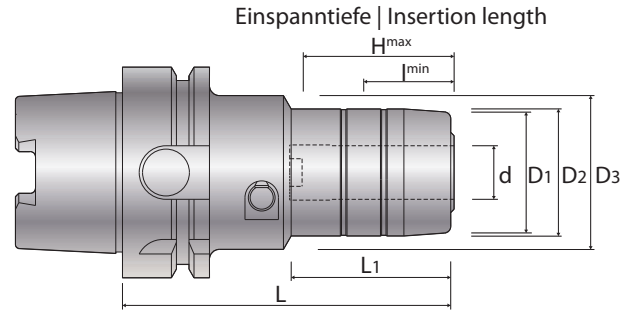
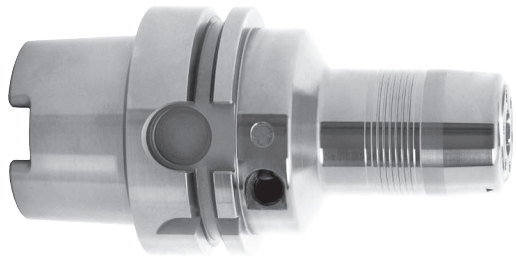


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



**HSK100A**

DIN 69893 | ISO 12164

3.0 / 32.0
0.003 / 50
max 20.000 min<sup>-1</sup>

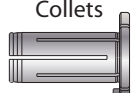
MMS MQL
Tol. h6
HA ✓ / HB ✗

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
HSK100A	-PHC06A -90	6	24	26	46	90	30	29	34	-	L-4T
	-120	6	24	26	46	120	41	29	45	-	L-4T
	-150	6	24	26	46	150	41	29	45	-	L-4T
	-PHC08A -90	8	26	28	46	90	30	29	34	-	L-4T
	-120	8	26	28	46	120	41	29	45	-	L-4T
	-150	8	26	28	46	150	41	29	45	-	L-4T
	-PHC10A -105	10	28	30	52	105	44	40	50	-	L-4T
	-135	10	28	30	52	135	64	40	70	-	L-4T
	-165	10	28	30	52	165	64	40	70	-	L-4T
	-PHC12A -105	12	30	32	52	105	45	40	50	PHS12-d	L-4T
	-135	12	30	32	52	135	65	40	70	PHS12-d	L-4T
	-165	12	30	32	52	165	65	40	70	PHS12-d	L-4T
	-PHC14A -105	14	34	36	52	105	46	40	50	-	L-4T
	-135	14	34	36	52	135	66	40	70	-	L-4T
	-165	14	34	36	52	165	66	40	70	-	L-4T
	-PHC16A -105	16	36	38	52	105	46	40	50	-	L-4T
	-135	16	36	38	52	135	66	40	70	-	L-4T
	-165	16	36	38	52	165	66	40	70	-	L-4T
	-PHC20A -105	20	40	42	46	105	49	40	50	PHS20-d	L-4T
	-135	20	40	42	46	135	69	40	70	PHS20-d	L-4T
	-165	20	40	42	46	165	69	40	70	PHS20-d	L-4T
	-PHC25A -120	25	50	52	62	120	59	50	64	-	L-6T
	-165	25	50	52	62	165	79	50	80	-	L-6T
	-PHC32A -135	32	60	62	-	135	-	65	80	-	L-6T
-165	32	60	62	-	165	-	65	80	-	L-6T	

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.

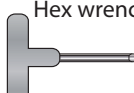
HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
 With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S.|P. 192

**L-T**  
6kant  
Hex wrench

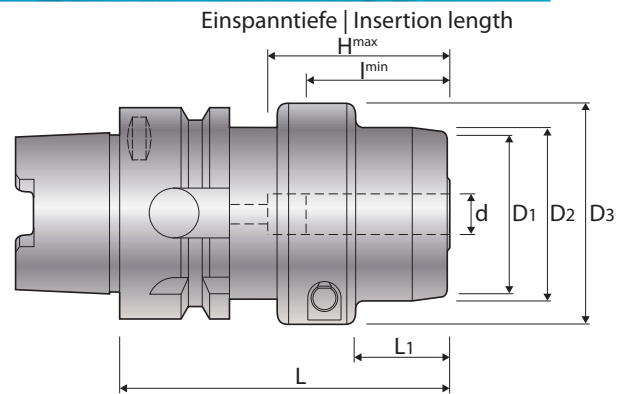


S.|P. 193

# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



**HSK100A** 6.0 / 32.0 0.003 / 50 max 20.000 min<sup>-1</sup> Tol. h6 HA ✓ HB ✗ **mit erhöhter Spannkraft**  
 with enhanced clamping force

DIN 69893 | ISO 12164

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
<b>HSK100A</b>	-PHC16H -75	16	-	44	56	75	21	45	51	-	L-4T	
	-PHC20H -105	20	48	50	60	105	32	50	70	PHS20H-d	L-4T	
	-PHC25H	-105	25	58	60	69	105	35	55	70	-	L-5T
		-135	25	58	60	69	135	35	55	100	-	L-5T
	-PHC32H	-115	32	63	65	75	115	47	65	78	PHS32H-d	L-5T
		-135	32	63	65	75	135	47	65	100	PHS32H-d	L-5T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.

HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.

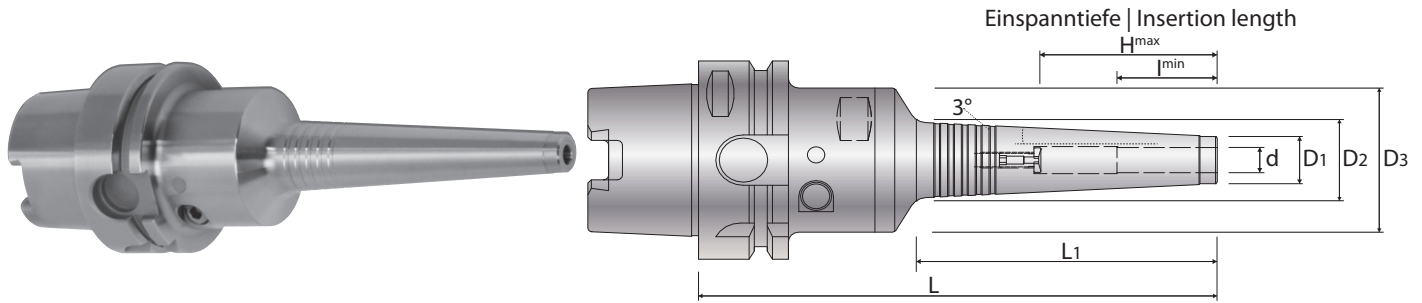
**PHS-H**  
Spannhülsen  
Collets  
  
S.|P. 192

**L-T**  
6kant  
Hex wrench  
  
S.|P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### HSK100A

DIN 69893 | ISO 12164

6.0 / 25.0
0.003 / 3xD
G2.5 / 25.000 min<sup>-2</sup>

Tol. h6

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
HSK100A	-105	6	13	15.8	46	105	26	29	59	-	L-4T
	-150	6	13	20.5	46	150	71	29	52	-	L-4T
	-PHC06SA -165	6	13	22.2	46	165	87	29	57	-	L-4T
	-180	6	13	23.7	46	180	102	29	52	-	L-4T
	-195	6	13	25.4	46	195	118	29	59	-	L-4T
	-105	8	15	17.9	46	105	27	29	59	-	L-4T
	-150	8	15	22.6	46	150	72	29	52	-	L-4T
	-PHC08SA -165	8	15	24.2	46	165	87	29	57	-	L-4T
	-180	8	15	25.8	46	180	103	29	52	-	L-4T
	-195	8	15	27.4	46	195	118	29	59	-	L-4T
	-150	10	17	24.6	46	150	72	40	70	-	L-4T
	-PHC10SA -165	10	17	26.3	46	165	88	40	63	-	L-4T
	-180	10	17	27.8	46	180	103	40	70	-	L-4T
	-195	10	17	29.5	46	195	119	40	70	-	L-4T
	-150	12	19	26.7	46	150	73	40	70	HS12-d	L-4T
-PHC12SA -165	12	19	28.3	46	165	88	40	63	HS12-d	L-4T	
-180	12	19	30.0	46	180	104	40	70	HS12-d	L-4T	
-195	12	19	31.5	46	195	119	40	70	HS12-d	L-4T	
-150	16	23	30.6	52.5	150	72	40	85	-	L-4T	
-PHC16SA -180	16	23	33.8	52.5	180	103	40	80	-	L-4T	
-195	16	23	35.5	52.5	195	119	40	80	-	L-4T	
-150	20	28	34.7	62	150	63	40	80	HS20-d	L-6T	
-PHC20SA -180	20	28	37.8	62	180	93	40	80	HS20-d	L-6T	
-195	20	28	39.5	62	195	109	40	80	HS20-d	L-6T	
-150	25	37	43.9	62	150	65	50	80	-	L-6T	
-PHC25SA -180	25	37	47.1	62	180	96	50	90	-	L-6T	
-195	25	37	48.8	62	195	112	50	90	-	L-6T	

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

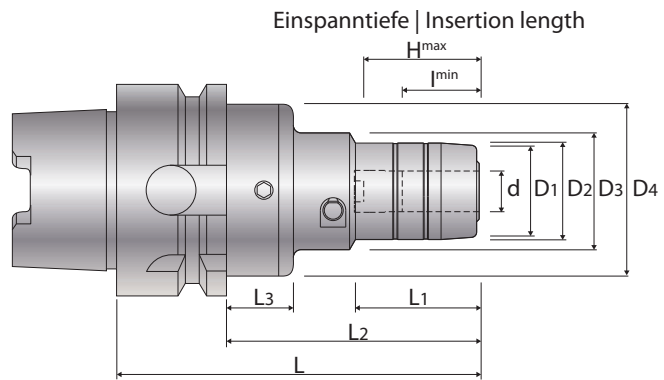
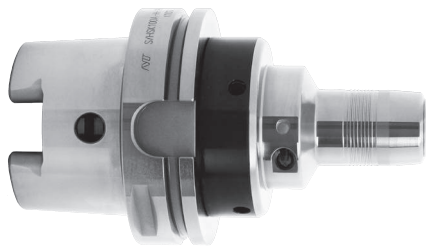
**HS**  
Spannhülsen  
Collets  
  
S.|P. 193

**L-T**  
6kant  
Hex wrench  
  
S.|P. 193

# PHC-Z Dehnspannfutter mit Rundlauf "0"

## Hydro Chuck with run out "0"

R"0" Series



Einspanntiefe | Insertion length

**HSK100A**

DIN 69893 | ISO 12164

3.0  
20.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>



MMS  
MQL

Tol.  
h6



Halter   Holder		d	D1	D2	D3	D4	L	L1	L2	L3	I <sub>min</sub>	H <sub>max</sub>			
<b>HSK100A</b>	-PHC-Z12 -120	12	30	32	52	76	120	45	91	24	40	50	PHS12-d	L-4T	L-5T
	-PHC-Z20 -120	20	40	42	46	69	120	50	91	24	40	50	PHS20-d	L-4T	L-5T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.  
 \* 6kant-Schlüssel für Einstellring.

HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With axial length adjustment.  
 \* Hex wrench for Rotor ring.

**PHS**  
Spannhülsen  
Collets

S.|P. 192

**L-T**  
6kant  
Hex wrench

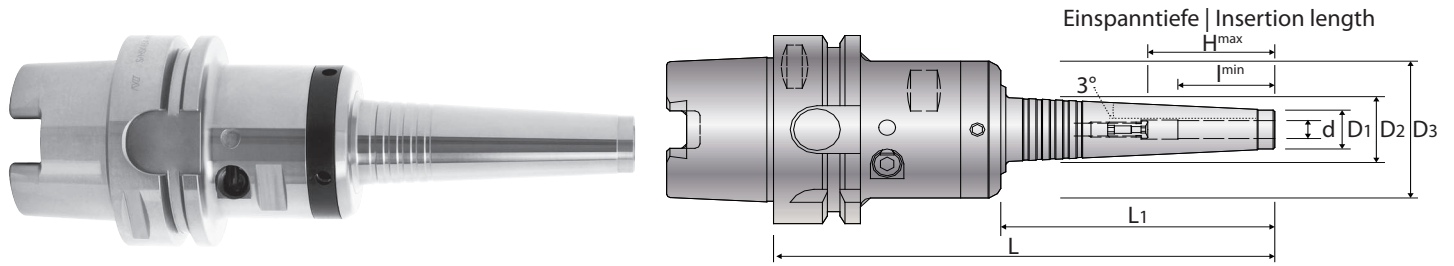
S.|P. 193



# PHZ-SA

R"0" Series

## Dehnspannfutter R"0" superschlank Slim Hydro Chuck with run out "0"



### HSK100A

DIN 69893 | ISO 12164

6.0  
12.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>

Tol.  
h6

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>				
HSK100A	-PHZ06SA	-165	6	13	21.5	46	165	82	29	37	-	L-4T	L-3T
		-195	6	13	24.6	46	195	112	29	37	-	L-4T	L-3T
	-PHZ08SA	-165	8	15	23.5	46	165	82	29	50	-	L-4T	L-3T
		-195	8	15t	26.6	46	195	112	29	50	-	L-4T	L-3T
	-PHZ10SA	-165	10	17	25.5	46	165	82	40	50	-	L-4T	L-3T
		-195	10	17	28.2	46	195	112	40	50	-	L-4T	L-3T
	-PHZ12SA	-165	12	19	27.4	46	165	82	40	70	HS12-d	L-4T	L-3T
		-195	12	19	28.2	46	195	112	40	70	HS12-d	L-4T	L-3T

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.  
\* 6kant-Schlüssel für Einstellring.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.  
\* Hex wrench for Rotor ring.

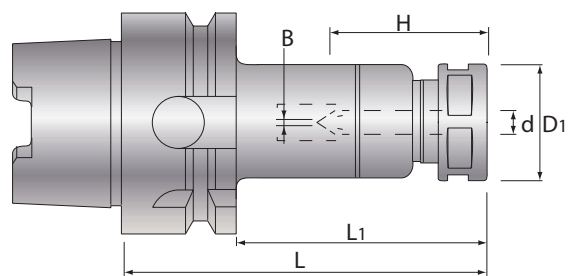
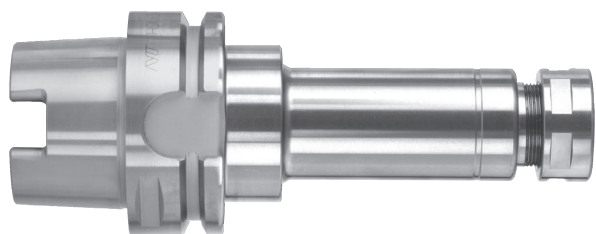
**HS**  
Spannhülsen  
Collets

S.|P. 193

**L-T**  
6kant  
Hex wrench

S.|P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## HSK100A



DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	L	L1	H	B		
-HDC07A	-75	1.0-7.0	23	75	36	22-24	0-4	FDC-07	S-0
	-90	1.0-7.0	23	90	51	22-42	0-4	FDC-07	S-0
	-120	1.0-7.0	23	120	81	22-42	0-4	FDC-07	S-0
	-150	1.0-7.0	23	150	111	22-42	0-4	FDC-07	S-0
	-180	1.0-7.0	23	180	141	22-42	0-4	FDC-07	S-0
-HDC09A	-75	3.0-9.0	26	75	36	44	-	FDC-09	S-1L
	-90	3.0-9.0	26	90	51	27-45	0-4	FDC-09	S-1L
	-120	3.0-9.0	26	120	81	27-54	0-4	FDC-09	S-1L
	-150	3.0-9.0	26	150	111	27-54	0-4	FDC-09	S-1L
	-180	3.0-9.0	26	180	141	27-54	0-4	FDC-09	S-1L
-HDC12A	-90	3.0-12.0	32	90	61	33-38	0-5	FDC-12	S-3L
	-120	3.0-12.0	32	120	91	33-56	0-5	FDC-12	S-3L
	-150	3.0-12.0	32	150	121	33-66	0-5	FDC-12	S-3L
	-180	3.0-12.0	32	180	151	33-66	0-5	FDC-12	S-3L
	-210	3.0-12.0	32	210	181	33-66	0-5	FDC-12	S-3L
-HDC16A	-90	4.0-16.0	36	90	61	54	-	FDC-16	S-4L
	-120	4.0-16.0	36	120	91	38-59	0-6	FDC-16	S-4L
	-150	4.0-16.0	36	150	121	38-79	0-6	FDC-16	S-4L
	-180	4.0-16.0	36	180	151	38-79	0-6	FDC-16	S-4L
	-210	4.0-16.0	36	210	181	38-79	0-6	FDC-16	S-4L
-HDC22A	-90	4.0-22.0	46	90	61	54	-	FDC-22	S-5L
	-120	4.0-22.0	46	120	91	47-56	0-8	FDC-22	S-5L
	-150	4.0-22.0	46	150	121	47-80	0-8	FDC-22	S-5L
	-180	4.0-22.0	46	180	151	47-100	0-8	FDC-22	S-5L
	-210	4.0-22.0	46	210	181	47-100	0-8	FDC-22	S-5L

Spannmutter, HSK-Kühlmitelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.


Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw




S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

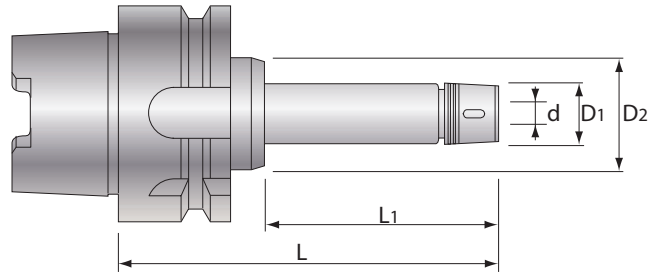
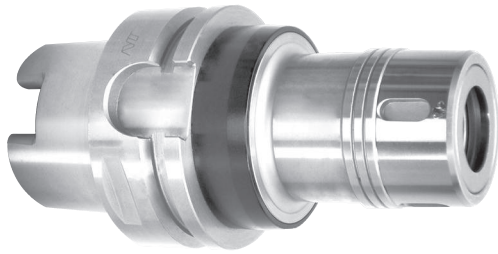
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK100A



DIN 69893 | ISO 12164

3.0  
22.0

0.005  
4x D

G2.5  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	D2	L	L1		
HSK100A	-90	3.0-12.0	34	84	90	46	FDC-12	FK-0034
	-120	3.0-12.0	34	84	120	76	FDC-12	FK-0034
	-150	3.0-12.0	34	84	150	106	FDC-12	FK-0034
	-90	3.0-16.0	38	84	90	46	FDC-16	FK-0034
	-120	3.0-16.0	38	84	120	76	FDC-16	FK-0034
	-150	3.0-16.0	38	84	150	106	FDC-16	FK-0034
	-90	4.0-22.0	49	84	90	46	FDC-22	FK-0045
	-120	4.0-22.0	49	84	120	76	FDC-22	FK-0045
	-150	4.0-22.0	49	84	150	106	FDC-22	FK-0045

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.


Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**GDP**  
Spannmutter  
Cap nut



S.|P. 194

**FK**  
Spannschlüssel  
Spanners

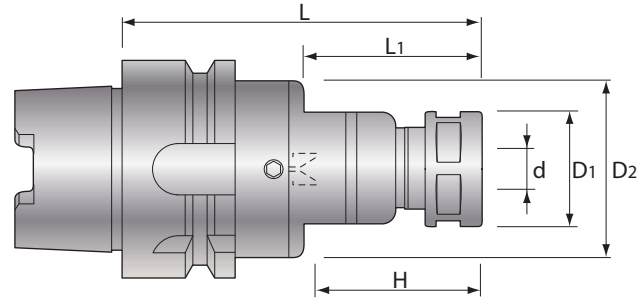
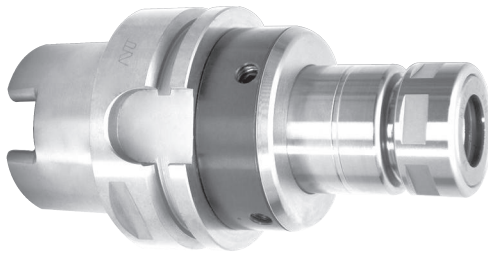


S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### HSK100A

DIN 69893 | ISO 12164




3.0  
22.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>

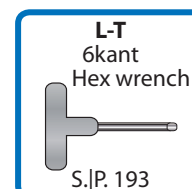
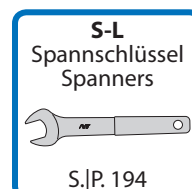
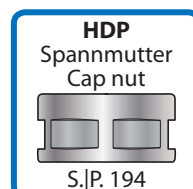
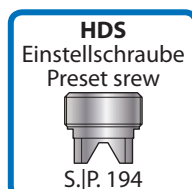
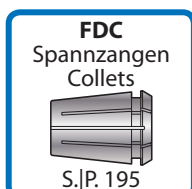


MMS  
MQL

Halter   Holder		d	D1	D2	L	L1	H			
-HDZ12A	-90	3.0-12.0	32	56	90	41	33-40	FDC-12	S-3L	L-4T
	-120	3.0-12.0	32	56	120	71	33-58	FDC-12	S-3L	L-4T
	-150	3.0-12.0	32	56	150	101	33-68	FDC-12	S-3L	L-4T
-HDZ16A	-90	3.0-16.0	36	62	90	41	38-40	FDC-16	S-4L	L-4T
	-120	3.0-16.0	36	62	120	71	38-61	FDC-16	S-4L	L-4T
	-150	3.0-16.0	36	62	150	101	38-81	FDC-16	S-4L	L-4T
-HDZ22A	-90 <sup>1</sup>	4.0-22.0	46	76	90	37	56	FDC-22	S-5L	L-5T
	-120	4.0-22.0	46	76	120	67	47-59	FDC-22	S-5L	L-5T
	-150	4.0-22.0	46	76	150	97	47-83	FDC-22	S-5L	L-5T

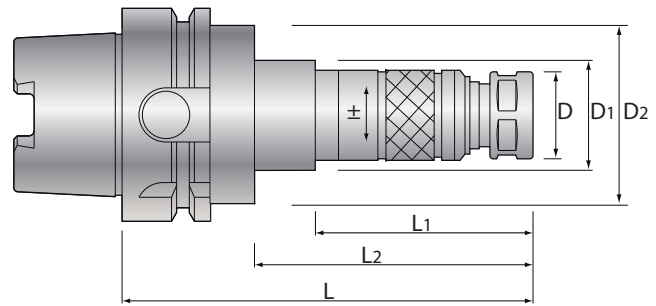
Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube.  
 Mit axialer Längeneinstellung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw.  
 With axial length adjustment.



# SFH|S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



HSK100A

**M3**  
**M30**

SFH

**mit easy-Längeneinstellung**  
with easy-length adjustment

**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M2**  
**M27**

DIN 69893 | ISO 12164

Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2		
<b>HSK100A</b>	-135	M3-M8	26	34	46	135	55	89	FSC-09	S-1L
	-150	M3-M8	26	34	46	150	70	104	FSC-09	S-1L
	-180	M3-M8	26	34	46	180	100	134	FSC-09	S-1L
	-155	M5-M20	36	40	46	155	68	108	FSC-16	S-4L
	-180	M5-M20	36	40	46	180	93	133	FSC-16	S-4L
	-180	M20-M30	46	50	-	180	87	151	FSC-22	S-5L

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK without holes for manual clamping.

**STS**  
4kant-Mitnehmer  
Square driver

S.|P. 197

**FSC**  
Spannzangen  
Collets

S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer

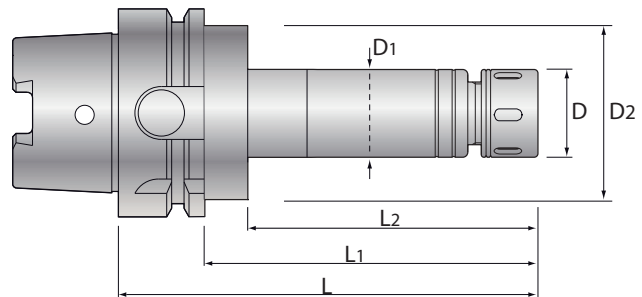
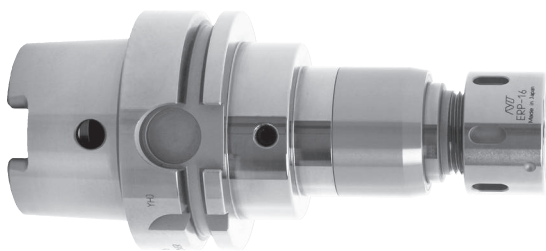
S.|P. 197

**HTP**  
Spannmutter  
Cap nut

S.|P. 197

**S-L**  
Spannschlüssel  
Spanners

S.|P. 197



Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	L2		
<b>HSK100A</b>	-110	M2-M12	32	34	46	110	81	64	ER16-GB	FK-0034
	-135	M3-M20	42	40	46	135	106	88	ER25-GB	HS-1-16
	-150	M4-M27	50	50	50	150	121	121	ER32-GB	HS-2-20

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

**ER-GB**  
Spannzangen  
Collets

S.|P. 199

**ERP**  
Spannmutter  
Cap nut

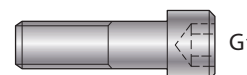
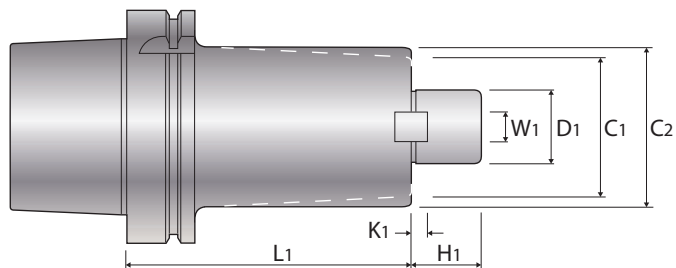
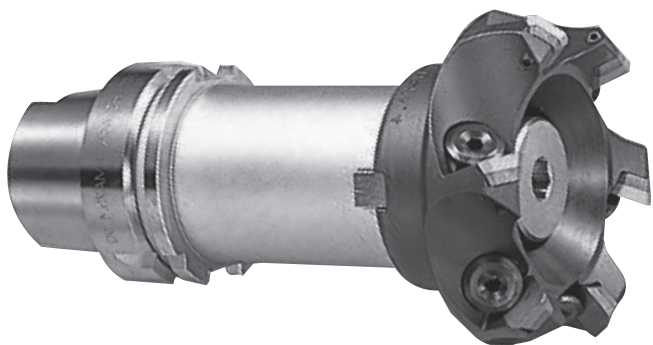
S.|P. 198

**FK|HS**  
Spannschlüssel  
Spanners

S.|P. 198

# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



### HSK100A

DIN 69893 | ISO 12164

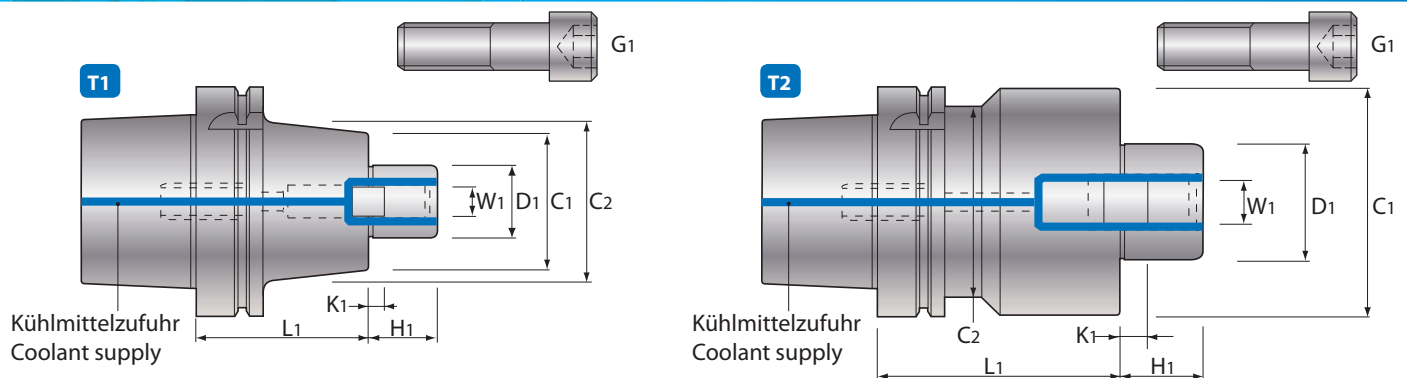
Halter   Holder		D1 (h6)	L1	C1	C2	H1	W1	K1	G1	Messerkopf Cutter Ø
HSK100A	-185	22	185	45	85	18	10.5	5	M10	50 63
	-FMC22-285	22	285	45	85	18	10.5	5	M10	50 63
	-388	22	388	45	85	18	10.5	5	M10	50 63
HSK100A	-185	27	185	70	85	20	12.5	6	M12	80
	-FMC27-285 <sup>1</sup>	27	285	70	-	20	12.5	6	M12	80
	-385 <sup>1</sup>	27	385	70	-	20	12.5	6	M12	80

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup>Bauform zylindrisch.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup>Straight shank type.

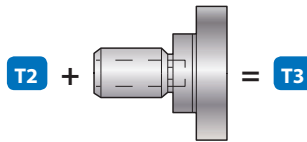
# FMH Aufsteck-Fräsdorn

## Face Mill Arbor



### HSK100A

DIN 69893 | ISO 12164



**mit Kühlkanalbohrungen**  
with Coolant Jet

Halter   Holder		Type	D <sub>1</sub> (h6)	L <sub>1</sub>	C <sub>1</sub>	C <sub>2</sub>	H <sub>1</sub>	W <sub>1</sub>	K <sub>1</sub>	G <sub>1</sub>	Messerkopf Cutter Ø
-FMH16	-34	T1	16	75	34	-	17	8	5	M8	40 50
		T1	16	105	34	-	17	8	5	M8	40 50
		T1	16	135	34	-	17	8	5	M8	40 50
		T1	16	150	34	-	17	8	5	M8	40 50
		T1	16	200	34	-	17	8	5	M8	40 50
		T1	16	250	34	-	17	8	5	M8	40 50
	-47	T1	22	75	47	-	18	10	5	M10	50 63
		T1	22	105	47	-	18	10	5	M10	50 63
		T1	22	135	47	-	18	10	5	M10	50 63
		T1	22	150	47	-	18	10	5	M10	50 63
		T1	22	200	47	-	18	10	5	M10	50 63
		T1	22	250	47	-	18	10	5	M10	50 63
-60	T1	22	75	60	-	18	10	5	M10	50 63	
	T1	22	105	60	-	18	10	5	M10	50 63	
	T1	22	135	60	-	18	10	5	M10	50 63	
	T1	22	150	60	-	18	10	5	M10	50 63	
	T1	22	200	60	-	18	10	5	M10	50 63	
	T1	22	250	60	-	18	10	5	M10	50 63	
-FMH27	-60	T1	27	75	60	-	20	12	6	M12	80
		T1	27	105	60	-	20	12	6	M12	80
		T1	27	135	60	-	20	12	6	M12	80
		T1	27	150	60	-	20	12	6	M12	80
		T1	27	200	60	-	20	12	6	M12	80
		T1	27	75	76	-	20	12	6	M12	80
	-76	T1	27	105	76	-	20	12	6	M12	80
		T1	27	135	76	-	20	12	6	M12	80
		T1	27	150	76	-	20	12	6	M12	80
		T1	27	200	76	-	20	12	6	M12	80
		T2	32	75	96	85	22	14	7	M16	100
		T2	32	105	96	85	22	14	7	M16	100
-FMH32	-96	T2	32	135	96	85	22	14	7	M16	100
	-100	T3	40	75	100	85	26	16	8.5	M20	100 125
		T3	40	105	100	85	26	16	8.5	M20	100 125
T3		40	135	100	85	26	16	8.5	M20	100 125	

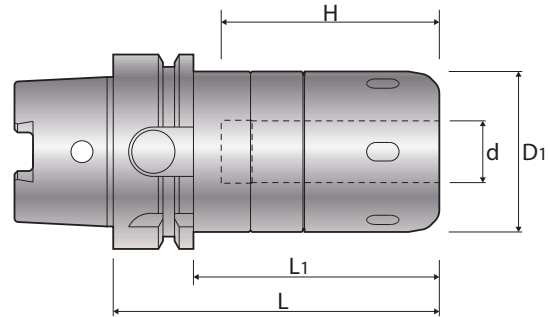
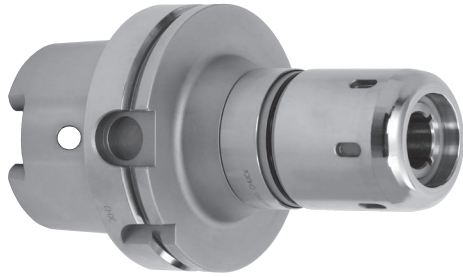
HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.

# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



### HSK125A

DIN 69893 | ISO 12164



3.0  
32.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>




**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	L	L1	H		
HSK125A	-CT20S -120P	20	52	120	86	80	MC20-d	RS-20
	-CT25S -120P	25	61	120	86	80	MC25-d	RS-25
	-CT32S -120P	32	73	120	86	80	MC32-d	RS-32

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.  
Mit ID-Chip Bohrung.


HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.  
With ID-Chip hole.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

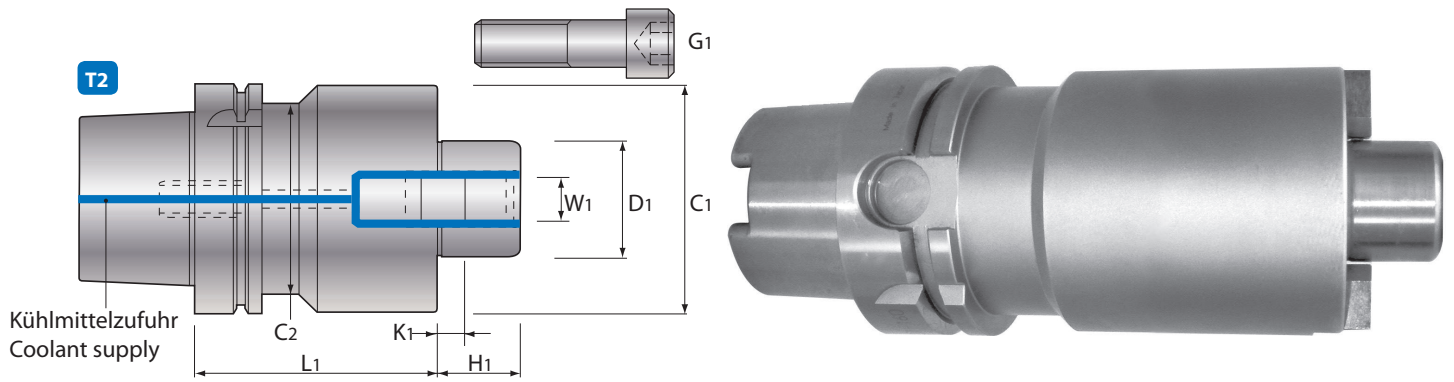
**EM**  
Verlängerungen  
Extensions



S.|P. 187



# FMH Aufsteck-Fräsdorn Face Mill Arbor



## HSK125A

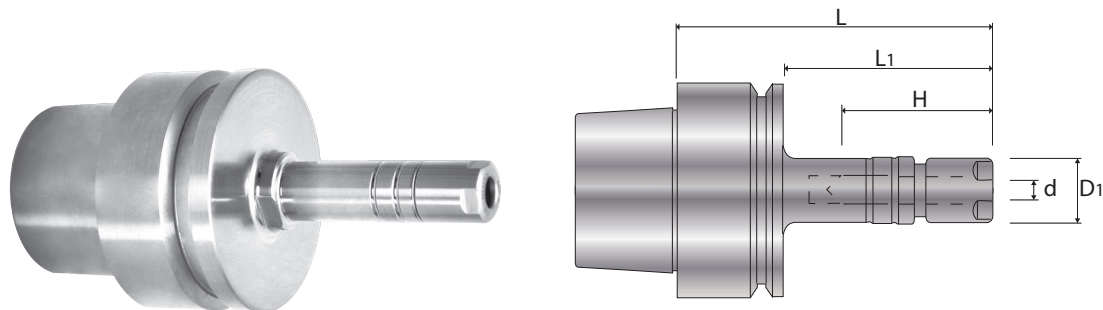
DIN 69893 | ISO 12164

 **mit Kühlkanalbohrungen**  
with Coolant Jet

Halter   Holder		Type	D <sub>1</sub> (h6)	L <sub>1</sub>	C <sub>1</sub>	C <sub>2</sub>	H <sub>1</sub>	W <sub>1</sub>	K <sub>1</sub>	G <sub>1</sub>	Messerkopf Cutter Ø
HSK125A	-FMH32 -100	T2	32	100	78	78	24	16.5	8	M16	100
	-FMH40 -100	T2	42	100	85	85	26	28	8.5	M20	125

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK25E



DIN 69893

1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

Halter   Holder			d	D1	L	L1	H		
HSK25E	-ERC11S	-45 <sup>1</sup>	1.0-7.0	16	45	35	34	ER11	S-11E
		-60	1.0-7.0	16	60	50	20-30	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

**ER**  
Spannzangen  
Collets




S.|P. 196

**ES**  
Einstellschraube  
Preset screw




S.|P. 196

**Mini ERP**  
Spannmutter  
Cap nut



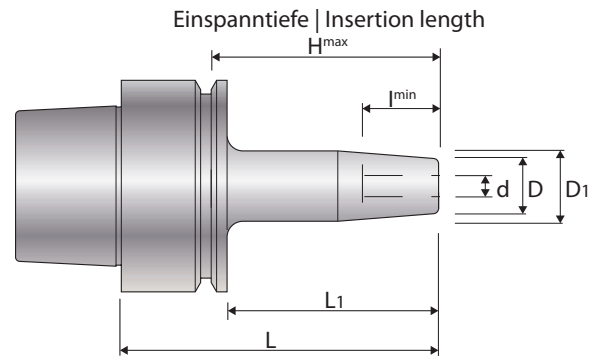
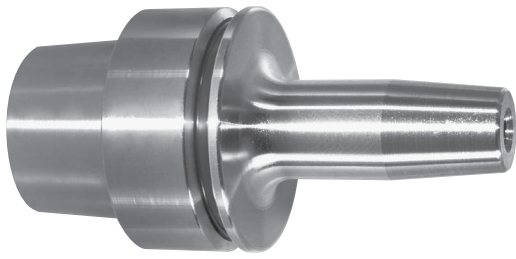
S.|P. 196

**S-E**  
Spannschlüssel  
Spanners



S.|P. 196

# SRE Schrumpffutter Shrink Fit Chuck



**HSK25E**

DIN 69893

6.0  
-  
8.0

3  
μm

max  
50.000  
min<sup>-1</sup>



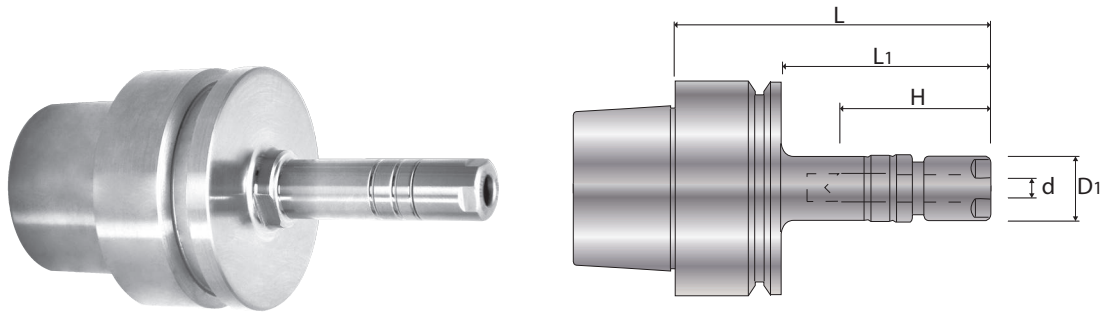
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>	
HSK25E	-SRE6A	-35	6	13	16	35	25	19	20
		-50	6	13	16	50	40	24	35
	-SRE8A	-35	8	13	16	35	25	19	20
		-50	8	13	16	50	40	24	35

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



**HSK32E**



DIN 69893

1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>


Super-  
schlank  
Super slim

Halter   Holder			d	D1	L	L1	H		
HSK32E	-ERC11S	-45°	1.0-7.0	16	45	25	31	ER11	S-11E
		-60	1.0-7.0	16	60	40	22-27	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

**ER**  
Spannzangen  
Collets




S.|P. 196

**ES**  
Einstellschraube  
Preset screw



S.|P. 196

**Mini ERP**  
Spannmutter  
Cap nut



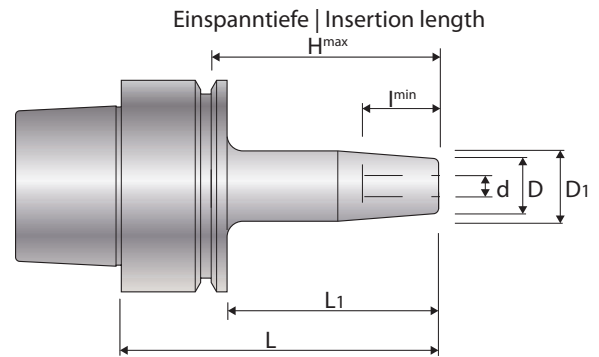
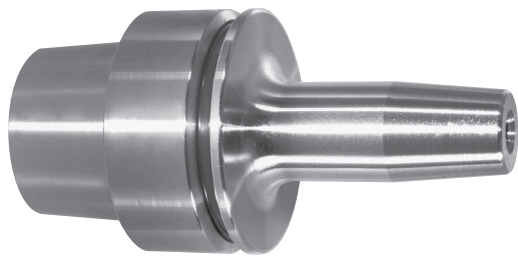
S.|P. 196

**S-E**  
Spannschlüssel  
Spanners



S.|P. 196

# SRE Schrumpffutter Shrink Fit Chuck



## HSK32E

DIN 69893

6.0  
8.0

3  
µm

max  
50.000  
min<sup>-1</sup>



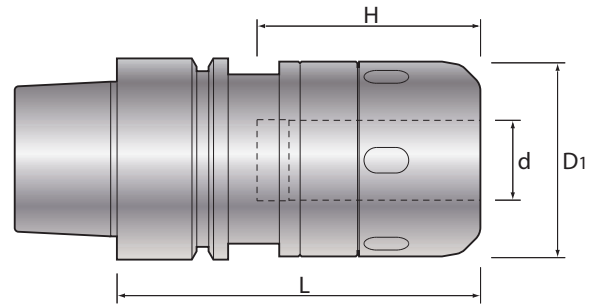
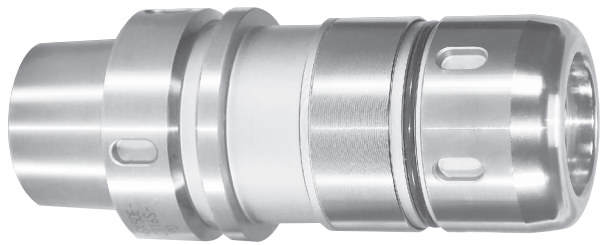
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>
HSK32E	-45	6	13	16	45	25	19	28
	-60	6	13	16	60	40	24	43
	-45	8	13	16	45	25	19	28
	-60	8	13	16	60	40	24	43

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK40E



DIN 69893

3.0  
25.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	H		
HSK40E	-CT16SA -75	16	45	75	55	MC16-d	HS-1-16
	-90	16	45	90	70	MC16-d	HS-1-16
	-CT20SA -90	20	52	90	70	MC20-d	HS-2-20
	-105	20	52	105	85	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	85	MC25-d	HS-2.5-25

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

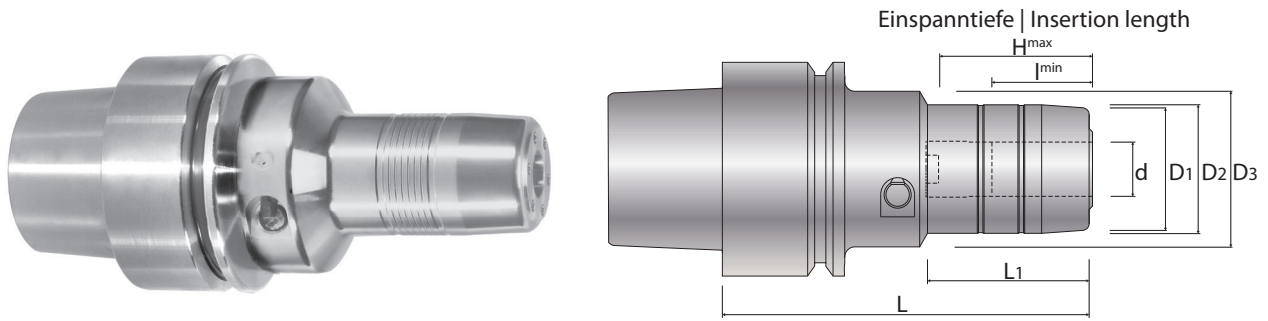


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK40E

DIN 69893

3.0  
12.0



0.003  
50

max  
20.000  
min<sup>-1</sup>



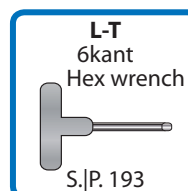
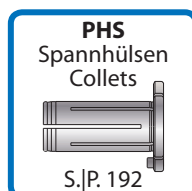
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
HSK40E	-PHC06A -90	6	24	26	46	90	30	29	34	-	L-4T
	-PHC08A -90	8	26	28	46	90	30	29	34	-	L-4T
	-PHC10A -105	10	28	30	52	105	44	40	50	-	L-4T
	-PHC12A -105	12	30	32	52	105	45	40	50	PHS12-d	L-4T

Mit axialer Längeneinstellung.

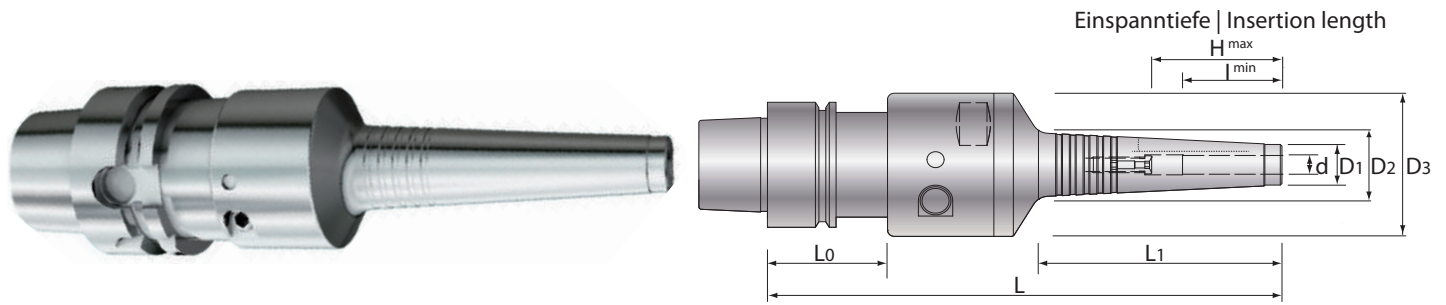
With axial length adjustment.



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### HSK40E

DIN 69893

3.0  
12.0



0.005  
3xD

G2.5  
25.000  
min<sup>-2</sup>



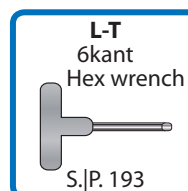
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L0	L1	I <sub>min</sub>	H <sub>max</sub>		
HSK40E	-PHC03SA -100	3	11	14.2	46	100	35	30	18	-	-	L-4T
	-145	3	11	18.5	46	145	35	71	18	-	-	L-4T
	-PHC04SA -100	4	11	14.2	46	100	35	30	24	52	-	L-4T
	-145	4	11	18.5	46	145	35	71	24	97	-	L-4T
	-PHC06SA -135	6	13	18.8	46	135	35	55	29	37	-	L-4T
	-150	6	13	20.4	46	150	35	71	29	37	-	L-4T
	-PHC08SA -135	8	15	20.3	46	135	35	51	29	50	-	L-4T
	-150	8	15	22.5	46	150	35	72	29	50	-	L-4T
	-PHC10SA -150	10	17	24.5	46	150	35	72	40	50	-	L-4T
	-PHC12SA -150	12	19	26.7	46	150	35	73	40	70	HS12-d	L-4T

Mit axialer Längeneinstellung.

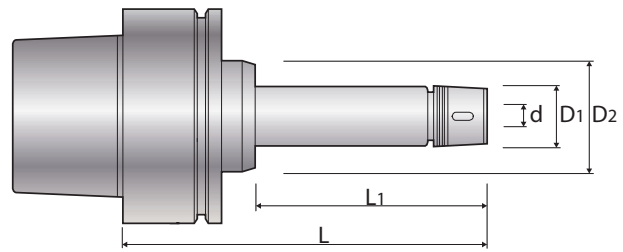
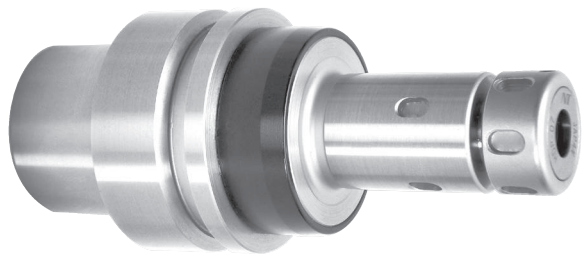
With axial length adjustment.





# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK40E



DIN 69893

1.0  
12.0

0.005  
4x D

G2.5  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	D2	L	L1		
-GDC07A	-75	1.0-7.0	23	34	75	40	FDC-07	S-0
	-90	1.0-7.0	23	34	90	55	FDC-07	S-0
	-120	1.0-7.0	23	34	120	85	FDC-07	S-0
-GDC09A	-75	3.0-9.0	29	34	75	40	FDC-09	S-0
	-90	3.0-9.0	29	34	90	55	FDC-09	S-0
	-120	3.0-9.0	29	34	120	85	FDC-09	S-0
-GDC12A	-90	3.0-12.0	34	39	90	-	FDC-12	FK-0034
	-120	3.0-12.0	34	39	120	-	FDC-12	FK-0034
	-150	3.0-12.0	34	39	150	-	FDC-12	FK-0034

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.


Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

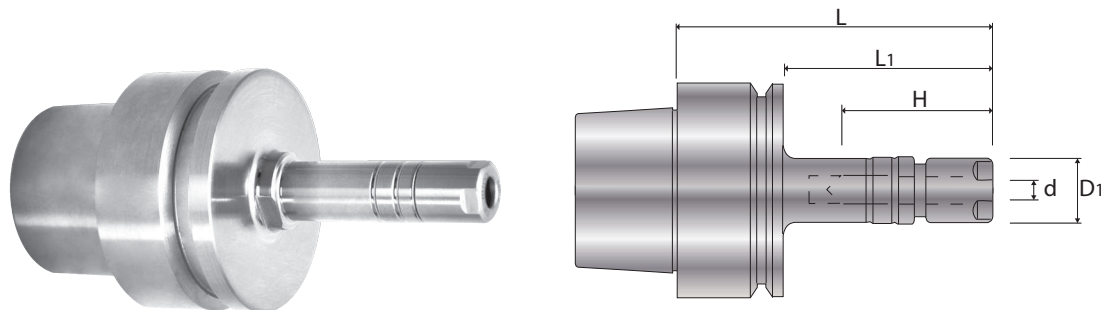
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK40E

DIN 69893



1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>

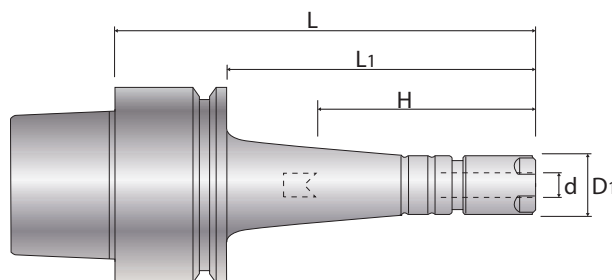
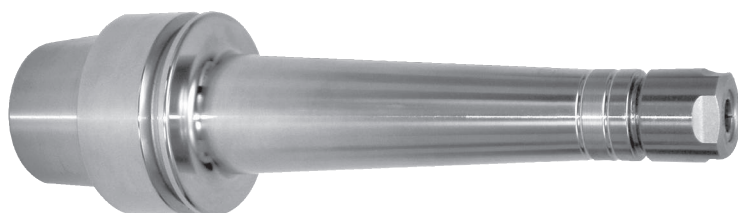
Super-  
schlank  
Super slim

### Form S

Halter   Holder		d	D1	L	L1	H			
HSK40E	-ERC8	-40 <sup>1</sup>	1.0-5.0	12	40	20	26	ER8	S-8E
		-60 <sup>1</sup>	1.0-5.0	12	60	40	34	ER8	S-8E
	-ERC11S	-45 <sup>1</sup>	1.0-7.0	16	45	25	31	ER11	S-11E
		-60	1.0-7.0	16	60	40	22-24	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.



### HSK40E

DIN 69893



1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

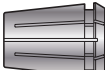



Super-  
schlank  
Super slim

### Form T

Halter   Holder		d	D1	L	L1	H			
HSK40E	-ERC11S	-105T	1.0-7.0	16	105	85	22-45	ER11	S-11E
		-120T	1.0-7.0	16	120	94	22-45	ER11	S-11E

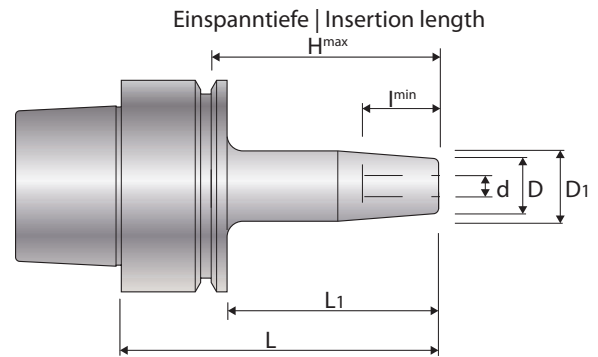
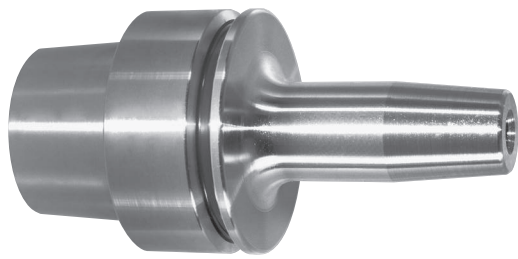
Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

<b>ER</b> Spannzangen Collets  S. P. 196	<b>ES</b> Einstellschraube Preset screw  S. P. 196	<b>Mini ERP</b> Spannmutter Cap nut  S. P. 196	<b>S-E</b> Spannschlüssel Spanners  S. P. 196
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# SRE Schrumpffutter

## Shrink Fit Chuck



### HSK40E

DIN 69893

6.0  
16.0

3  
μm

max  
42.000  
min<sup>-1</sup>



Tol.  
h6

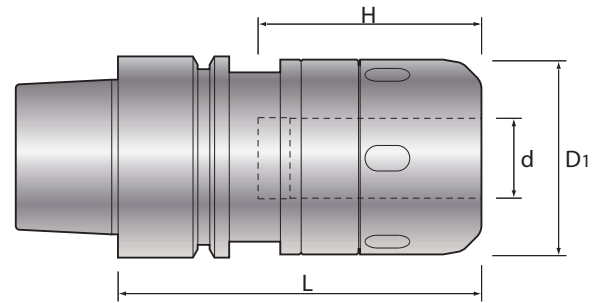
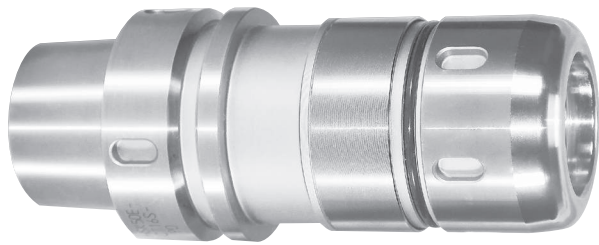
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>
-SRE6A	-45	6	13	16	45	25	19	28
	-60	6	13	16	60	40	27	43
	-80	6	13	16	80	60	27	63
-SRE8A	-45	8	13	16	45	24	19	28
	-60	8	13	16	60	40	27	43
	-80	8	13	16	80	60	27	63
-SRE10A	-60	10	16	19	60	40	26	40
	-80	10	16	19	80	60	26	50
-SRE12A	-60	12	18	21	60	40	37	47
	-80	12	18	21	80	60	37	50
-SRE16A	-60	16	22	25	60	40	39	47
	-80	16	22	25	80	60	39	50

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK50E



DIN 69893

3.0  
25.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	L2		
HSK50E	-CT16SA -90	16	45	90	64	MC16-d	HS-1-16
	-CT20SA -90	20	52	90	64	MC20-d	HS-2-20
	-CT20SA -105	20	52	105	79	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	79	MC25-d	HS-2.5-25

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

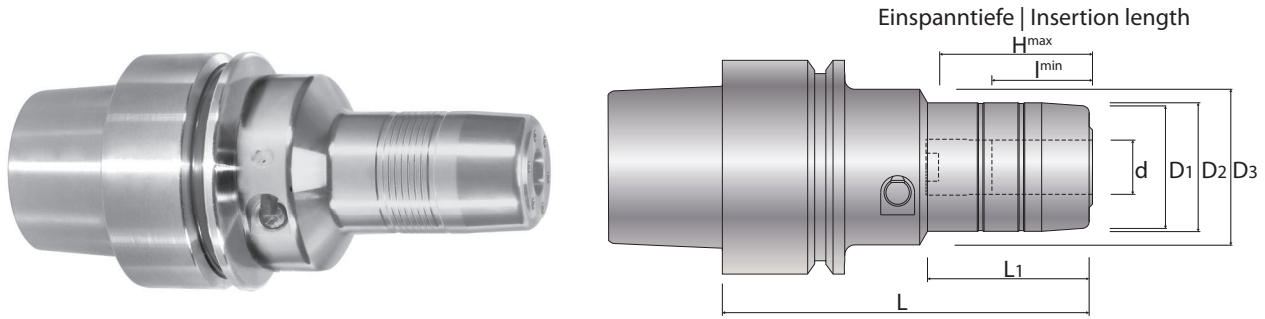


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK50E

DIN 69893

3.0  
20.0



0.003  
50

max  
20.000  
min<sup>-1</sup>



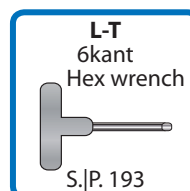
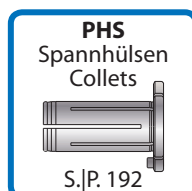
Tol.  
h6



Halter   Holder	d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
-PHC06A -90	6	24	26	46	90	30	29	34	-	L-4T
-PHC08A -90	8	26	28	46	90	30	29	34	-	L-4T
-PHC10A -105	10	28	30	52	105	44	40	50	-	L-4T
<b>HSK50E</b> -PHC12A -105	12	30	32	52	105	45	40	50	PHS12-d	L-4T
-PHC14A -105	14	34	36	52	105	46	40	50	-	L-4T
-PHC16A -105	16	36	38	52	105	46	40	50	-	L-4T
-PHC20A -105	20	40	42	46	105	49	40	50	PHS20-d	L-4T

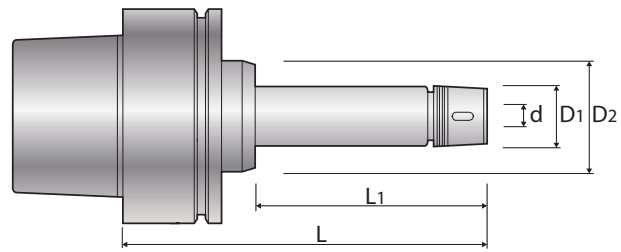
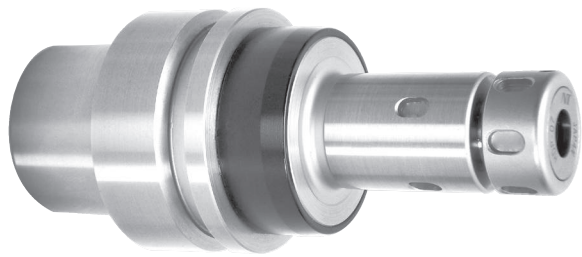
Mit axialer Längeneinstellung.

With axial length adjustment.



# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK50E



DIN 69893

1.0  
16.0

0.005  
4x D

G2.5  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	D2	L	L1		
-GDC07A	-75	1.0-7.0	23	42	75	34	FDC-07	S-0
	-90	1.0-7.0	23	42	90	49	FDC-07	S-0
	-120	1.0-7.0	23	42	120	79	FDC-07	S-0
-GDC09A	-75	3.0-9.0	29	42	75	34	FDC-09	S-0
	-90	3.0-9.0	29	42	90	49	FDC-09	S-0
	-120	3.0-9.0	29	42	120	79	FDC-09	S-0
-GDC12A	-90	3.0-12.0	34	42	90	49	FDC-12	FK-0034
	-120	3.0-12.0	34	42	120	79	FDC-12	FK-0034
	-150	3.0-12.0	34	42	150	109	FDC-12	FK-0034
-GDC16A	-90	3.0-16.0	38	42	90	49	FDC-16	FK-0034
	-120	3.0-16.0	38	42	120	79	FDC-16	FK-0034
	-150	3.0-16.0	38	42	150	109	FDC-16	FK-0034

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.


Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



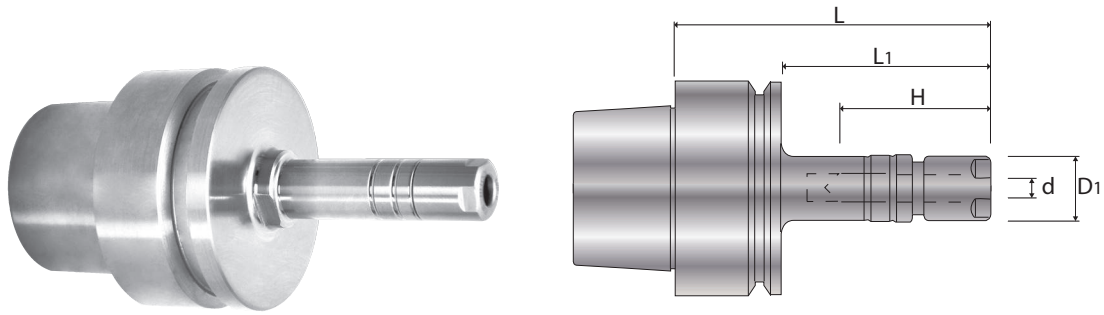
S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter Micro-Collet Chuck



## HSK50E



DIN 69893

1.0  
7.0

0.005  
3x D

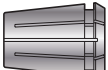



max  
42.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

Halter   Holder		d	D1	L	L1	H		
HSK50E	-45 <sup>1</sup>	1.0-7.0	16	45	19	28	ER11	S-11E
	-60	1.0-7.0	16	60	34	22-28	ER11	S-11E
	-75	1.0-7.0	16	75	49	22-39	ER11	S-11E

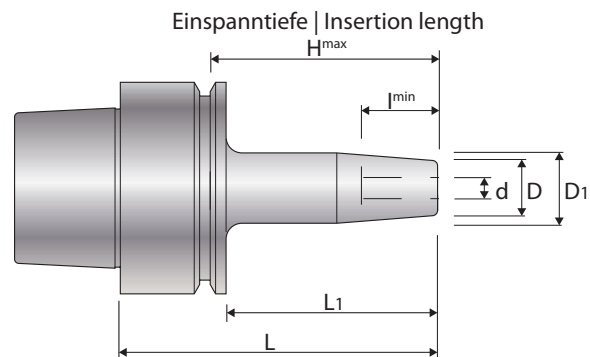
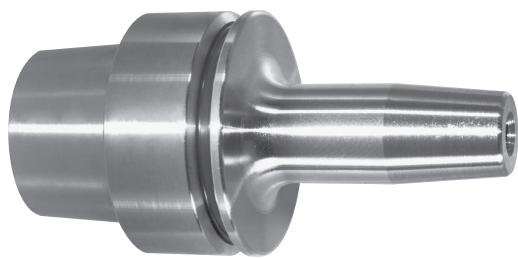
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

<p><b>ER</b> Spannzangen Collets</p>  <p>S. P. 196</p>	<p><b>ES</b> Einstellschraube Preset screw</p>  <p>S. P. 196</p>	<p><b>Mini ERP</b> Spannmutter Cap nut</p>  <p>S. P. 196</p>	<p><b>S-E</b> Spannschlüssel Spanners</p>  <p>S. P. 196</p>
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# SRE Schrumpffutter

## Shrink Fit Chuck



### HSK50E

DIN 69893

6.0  
16.0

3  
µm

max  
42.000  
min<sup>-1</sup>



Tol.  
h6

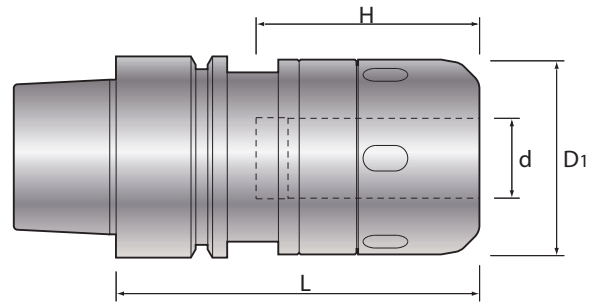
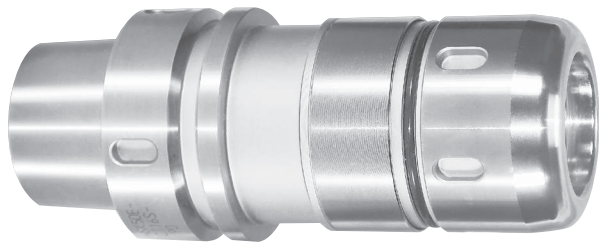
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>
-SRE6A	-50	6	13	16	50	24	19	31
	-70	6	13	16	70	44	27	51
	-90	6	13	16	90	64	27	71
-SRE8A	-50	8	13	16	50	24	19	31
	-70	8	13	16	70	44	27	51
	-90	8	13	16	90	64	27	71
-SRE10A	-60	10	16	19	60	34	26	40
	-80	10	16	19	80	54	26	50
-SRE12A	-60	12	18	21	60	34	26	50
	-80	12	18	21	80	54	26	50
-SRE16A	-60	16	22	25	60	34	26	50
	-80	16	22	25	80	54	26	50

Nur für HM-Werkzeuge geeignet

Only for carbide tools.



# CT-SA Hochleistungs-Kraftspannfutter High Performance Milling Chuck



## HSK63E



DIN 69893

3.0  
32.0

0.005  
3x D

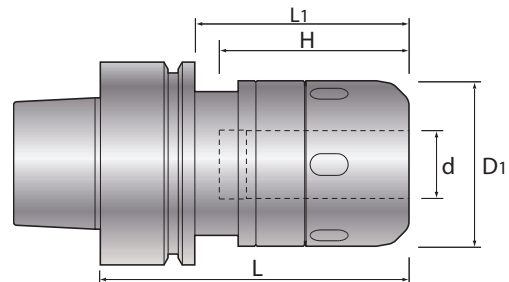
max  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	L	H		
HSK63E	-CT20SA -105	20	52	105	75	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	75	MC25-d	HS-2.5-25
	-CT32SA -105	32	73	105	75	MC32-d	HS-3-32

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.



## HSK63F



DIN 69893

3.0  
32.0

0.005  
3x D

max  
25.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	L1	H		
HSK63F	-CT20SA -105	20	52	105	79	75	MC20-d	HS-2-20
	-CT25SA -105	25	61	105	79	75	MC25-d	HS-2.5-25
	-CT32SA -105	32	73	105	79	75	MC32-d	HS-3-32

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S. | P. 188-189

**HS|RS**  
Spannschlüssel  
Spanners



S. | P. 190

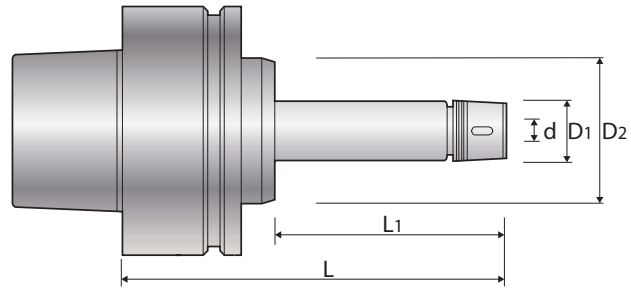
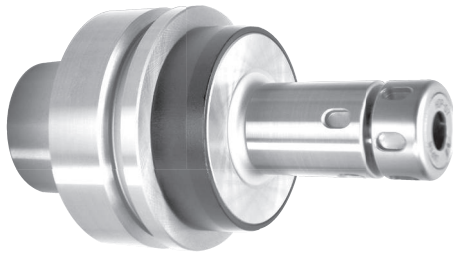
**EM**  
Verlängerungen  
Extensions



S. | P. 187

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### HSK63F



DIN 69893

3.0  
22.0

0.005  
4x D

G2.5  
20.000  
min<sup>-1</sup>

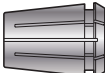


Halter   Holder		d	D1	D2	L	L1		
HSK63F	-GDC12A -90	3.0-12.0	34	52	90	49	FDC-12	FK-0034
	-120	3.0-12.0	34	52	120	79	FDC-12	FK-0034
	-GDC16A -90	3.0-16.0	38	52	90	49	FDC-16	FK-0034
	-120	3.0-16.0	38	52	120	79	FDC-16	FK-0034

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.


Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**GDP**  
Spannmutter  
Cap nut



S.|P. 194

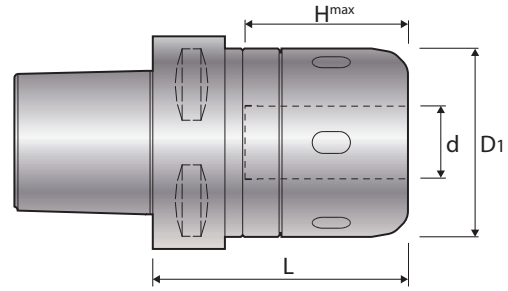
**FK**  
Spannschlüssel  
Spanners



S.|P. 194

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**POLYGON**

ISO 26623-1

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	H <sup>max</sup>			
C5	-CT16SA	-70 <sup>1,2</sup>	16	45	70	64	MC16-d	HS-1-16
		-90	16	45	90	65	MC16-d	HS-1-16
	-CT20SA	-75 <sup>1,2</sup>	20	52	75	65	MC20-d	HS-2-20
		-90 <sup>1,2</sup>	20	52	90	80	MC20-d	HS-2-20
	-CT25SA	-90 <sup>1,2</sup>	25	61	90	80	MC25-d	HS-2.5-25
		-105 <sup>1</sup>	25	61	105	80	MC25-d	HS-2.5-25
-CT32SA	-90 <sup>1,2</sup>	32	73	90	75	MC32-d	HS-3-32	
C6	-CT16SA	-70 <sup>2</sup>	16	45	70	61	MC16-d	HS-1-16
		-90	16	45	90	65	MC16-d	HS-1-16
		-105	16	45	105	65	MC16-d	HS-1-16
		-135	16	45	135	65	MC16-d	HS-1-16
	-CT20SA	-75 <sup>1,2</sup>	20	52	75	60	MC20-d	HS-2-20
		-90 <sup>1,2</sup>	20	52	90	75	MC20-d	HS-2-20
		-105 <sup>1</sup>	20	52	105	80	MC20-d	HS-2-20
		-135	20	52	135	80	MC20-d	HS-2-20
	-CT25SA	-80 <sup>1,2</sup>	25	61	80	65	MC25-d	HS-2.5-25
		-90 <sup>1,2</sup>	25	61	90	75	MC25-d	HS-2.5-25
		-105 <sup>1</sup>	25	61	105	80	MC25-d	HS-2.5-25
		-135	25	61	135	80	MC25-d	HS-2.5-25
	-CT32SA	-90 <sup>1,2</sup>	32	73	90	75	MC32-d	HS-3-32
		-105 <sup>1,2</sup>	32	73	105	90	MC32-d	HS-3-32
		-135 <sup>1</sup>	32	73	135	100	MC32-d	HS-3-32

<sup>1</sup>MC-A Spannhülsen nicht einsetzbar.  
<sup>2</sup>BL-Einstellschraube nicht einsetzbar.


<sup>1</sup>MC-A Collets cannot be used.  
<sup>2</sup>BL Back-up screw cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

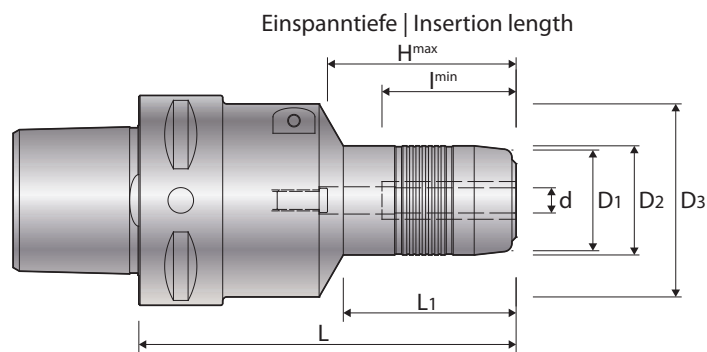


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series

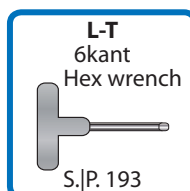
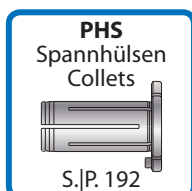


**POLYGON**

ISO 26623-1



Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
C5	-PHC03A -55	3	-	24	46	55	4	18	42	-	L-4T
	-90	3	-	25	46	90	44	18	49	-	L-4T
	-PHC04A -55	4	-	25	46	55	9	24	42	-	L-4T
	-90	4	-	25	46	90	45	24	49	-	L-4T
	-PHC06A -55	6	24	26	46	55	11	29	34	-	L-4T
	-90	6	24	26	46	90	41	29	45	-	L-4T
	-PHC08A -55	8	26	28	46	55	11	29	34	-	L-4T
	-90	8	26	28	46	90	41	29	45	-	L-4T
	-PHC10A -60	10	28	30	46	60	19	33	47	-	L-4T
	-90	10	28	30	52	90	44	40	50	-	L-4T
	-PHC12A -60	12	30	32	46	60	17	33	47	PHS12-d	L-4T
	-90	12	30	32	52	90	45	40	50	PHS12-d	L-4T
	-PHC14A -75	14	34	36	46	75	17	33	50	-	L-4T
	-90	14	34	36	52	90	46	40	50	-	L-4T
	-PHC16A -75	16	36	38	46	75	18	33	50	-	L-4T
	-90	16	36	38	52	90	46	40	50	-	L-4T
	-PHC20A -90	20	40	42	46	90	49	40	50	PHS20-d	L-4T
	-125	20	40	42	46	125	69	40	70	PHS20-d	L-4T
	-PHC25A -105	25	50	52	62	105	59	50	60	-	L-6T





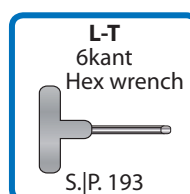
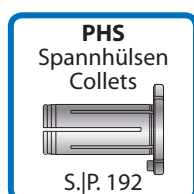
# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

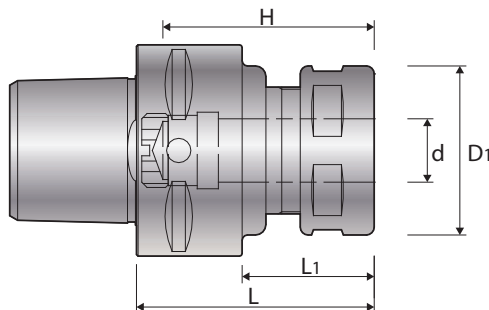
Power Series



Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
<b>C6</b>	-PHC03A	-50	3	-	24	46	50	4	18	35	-	L-4T
		-90	3	-	25	46	90	44	18	49	-	L-4T
	-PHC04A	-55	4	-	25	46	55	9	24	40	-	L-4T
		-90	4	-	25	46	90	45	24	49	-	L-4T
	-PHC06A	-60	6	24	26	46	60	11	29	34	-	L-4T
		-90	6	24	26	46	90	41	29	45	-	L-4T
		-120	6	24	26	46	120	41	29	45	-	L-4T
	-PHC08A	-60	8	26	28	46	60	11	29	34	-	L-4T
		-90	8	26	28	46	90	41	29	45	-	L-4T
		-120	8	26	28	46	120	41	29	45	-	L-4T
	-PHC10A	-65	10	28	30	46	65	19	33	47	-	L-4T
		-90	10	28	30	52	90	44	40	50	-	L-4T
		-120	10	28	30	52	120	64	40	70	-	L-4T
	-PHC12A	-65	12	30	32	46	65	17	33	47	PHS12-d	L-4T
		-90	12	30	32	52	90	45	40	50	PHS12-d	L-4T
		-120	12	30	32	52	120	65	40	70	PHS12-d	L-4T
	-PHC14A	-75	14	34	36	46	75	17	33	45	-	L-4T
		-90	14	34	36	52	90	46	40	50	-	L-4T
		-120	14	34	36	52	120	66	40	70	-	L-4T
	-PHC16A	-75	16	36	38	46	75	18	33	45	-	L-4T
-90		16	36	38	52	90	46	40	50	-	L-4T	
-120		16	36	38	52	120	66	40	70	-	L-4T	
-PHC20A	-90	20	40	42	46	90	49	40	50	PHS20-d	L-4T	
	-120	20	40	42	46	120	69	40	70	PHS20-d	L-4T	
-PHC25A	-105	25	50	52	62	105	59	50	60	-	L-6T	
	-120	25	50	52	62	120	59	50	80	-	L-6T	
-PHC32A	-120	32	60	62	-	120	96	65	75	-	L-6T	



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



**POLYGON**



ISO 26623-1

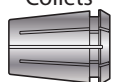
1.0  
22.0


0.005  
4x D


max  
20.000  
min<sup>-1</sup>



Halter   Holder		d	D1	L	L1	H			
<b>C3</b>	-HDC07A	-35°	1.0-7.0	23	35	17	24	FDC-07	S-0
		-45°	1.0-7.0	23	45	27	34	FDC-07	S-0
	-HDC09A	-35°	3.0-9.0	26	35	17	29	FDC-09	S-1L
		-45°	3.0-9.0	26	45	27	34	FDC-09	S-1L
	-HDC12A	-36°	3.0-12.0	32	36	18	31	FDC-12	S-3L
		-45°	3.0-12.0	32	45	27	37	FDC-12	S-3L
-HDC16A	-45°	4.0-16.0	36	45	27	37	FDC-16	S-4L	
<b>C4</b>	-HDC07A	-45°	1.0-7.0	23	45	27	34	FDC-07	S-0
		-52°	1.0-7.0	23	52	34	22-29	FDC-07	S-0
		-70°	1.0-7.0	23	70	52	22-45	FDC-07	S-0
	-HDC09A	-45°	3.0-9.0	26	45	27	34	FDC-09	S-1L
		-52°	3.0-9.0	26	52	34	41	FDC-09	S-1L
		-70°	3.0-9.0	26	70	52	27-45	FDC-09	S-1L
	-HDC12A	-45°	3.0-12.0	32	45	27	38	FDC-12	S-3L
		-52°	3.0-12.0	32	52	34	40	FDC-12	S-3L
		-70°	3.0-12.0	32	70	52	33-45	FDC-12	S-3L
	-HDC16A	-52°	4.0-16.0	36	52	34	44	FDC-16	S-4L
-HDC22A	-54°	4.0-22.0	46	54	36	47	FDC-22	S-5L	
<b>C5</b>	-HDC07A	-60°	1.0-7.0	23	60	42	47	FDC-07	S-0
		-75°	1.0-7.0	23	75	57	22-37	FDC-07	S-0
		-105°	1.0-7.0	23	105	87	22-45	FDC-07	S-0
	-HDC09A	-60°	3.0-9.0	26	60	42	47	FDC-09	S-1L
		-75°	3.0-9.0	26	75	57	27-37	FDC-09	S-1L
		-105°	3.0-9.0	26	105	87	27-57	FDC-09	S-1L
	-HDC12A	-60°	3.0-12.0	32	60	42	43	FDC-12	S-3L
		-75°	3.0-12.0	32	75	57	58	FDC-12	S-3L
		-105°	3.0-12.0	32	105	87	33-69	FDC-12	S-3L

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195



**HDS**  
Einstellschraube  
Preset screw  
  
S.|P. 194

**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



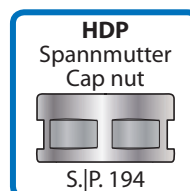
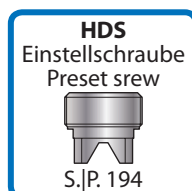
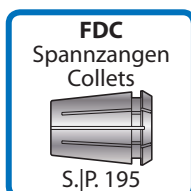
Halter   Holder		d	D1	L	L1	H			
C5	-HDC16A	-60 <sup>1</sup>	4.0-16.0	36	60	42	38	FDC-16	S-4L
		-75 <sup>1</sup>	4.0-16.0	36	75	57	53	FDC-16	S-4L
		-105	4.0-16.0	36	105	87	38-73	FDC-16	S-4L
	-HDC22A	-75 <sup>1</sup>	4.0-22.0	46	75	57	57	FDC-22	S-5L
		-105	4.0-22.0	46	105	87	47-68	FDC-22	S-5L
	C6	-HDC07A	-60 <sup>1</sup>	1.0-7.0	23	60	42	45	FDC-07
-75			1.0-7.0	23	75	57	22-37	FDC-07	S-0
-105			1.0-7.0	23	105	87	22-45	FDC-07	S-0
-135			1.0-7.0	23	135	117	22-45	FDC-07	S-0
-HDC09A		-60 <sup>1</sup>	3.0-9.0	26	60	42	45	FDC-09	S-1L
		-75	3.0-9.0	26	75	57	27-37	FDC-09	S-1L
		-105	3.0-9.0	26	105	87	27-57	FDC-09	S-1L
		-135	3.0-9.0	26	135	117	27-57	FDC-09	S-1L
-HDC12A		-60 <sup>1</sup>	3.0-12.0	32	60	42	45	FDC-12	S-3L
		-75 <sup>1</sup>	3.0-12.0	32	75	57	60	FDC-12	S-3L
		-105	3.0-12.0	32	105	87	33-64	FDC-12	S-3L
		-135	3.0-12.0	32	135	117	33-69	FDC-12	S-3L
-HDC16A		-60 <sup>1</sup>	4.0-16.0	36	60	42	41	FDC-16	S-4L
		-75 <sup>1</sup>	4.0-16.0	36	75	57	56	FDC-16	S-4L
		-105	4.0-16.0	36	105	87	38-65	FDC-16	S-4L
		-135	4.0-16.0	36	135	117	38-82	FDC-16	S-4L
		-150	4.0-16.0	36	150	132	38-82	FDC-16	S-4L
-HDC22A		-75 <sup>1</sup>	4.0-22.0	46	75	57	56	FDC-22	S-5L
		-105	4.0-22.0	46	105	87	47-68	FDC-22	S-5L
		-135	4.0-22.0	46	135	117	47-98	FDC-22	S-5L
		-150	4.0-22.0	46	150	132	47-103	FDC-22	S-5L

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

<sup>1</sup>Ohne axiale Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

<sup>1</sup>Without axial length adjustment.



# Werkzeugaufnahmen mit Polygonschaft

Polygon Shank Tooling

ISO 26623-1

C3  
C4  
C5  
C6



- Hochleistungs-Kraftspannfutter
- Hochgenauigkeits-Spannzangenfutter
- SynchroFit-Gewindeschneidfutter
- Aufnahmen mit Rundlauf "0"
- Power-Dehnspannfutter
- DIN-Schrumpffutter
- Aufsteck-Fräsdorne



- High Performance Milling Chucks
- High Precision Collet Chucks
- SynchroFit Tapping Holders
- Toolholders with run out "0"
- Power Hydro Chucks
- DIN Shrink Fit Chucks
- Face Mill Arbors



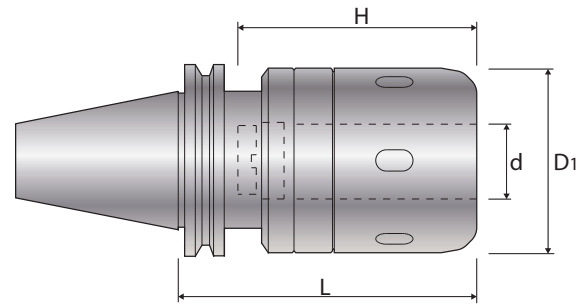
# SK

## DIN 69871 | ISO 7388-1

	Spannsystem	Tooling System	SK		
			30	40	50
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	114	116	134
CT-SA-C	Kraftspannfutter Coolant Jet	Milling Chuck Coolant Jet	-	117	-
CTS-P	Power-Kraftspannfutter	Power Milling Chuck	-	118	135
CTZ-SA	Kraftspannfutter Rundlauf "0"	Milling Chuck R-Zero	-	119	136
PHC-A	Power Dehnspannfutter	Power Hydro Chuck	-	120	137
PHC-H	Hochdruck-Dehnspannfutter	High Pressure Hydro Chuck	-	121	138
PHC-SA	Dehnspannfutter superschlank	Slim Hydro Chuck	-	122-123	139
PHC-SC	Dehnspannfutter schlank Coolant Jet	Slim Hydro Chuck Coolant Jet	-	122-123	-
PHZ-SA	Dehnspannfutter Rundlauf "0"	Slim Hydro Chuck R-Zero	-	124	-
HDC-A	Hochgenauigkeits-Spannzangenfutter	High Precision Collet Chuck	-	125	140
GDC-A	Highspeed-Spannzangenfutter	Highspeed Collet Chuck	-	126	-
HDZ-A	Spannzangenfutter Rundlauf "0"	Collet Chuck R-Zero	-	127	141
ERZ	ER-Spannzangenfutter Rundlauf "0"	ER-Collet Chuck R-Zero	-	128	-
ERC	Mikro-Spannzangenfutter	Micro Collet Chuck	115	129	-
SRE	Schrumpffutter	Shrink Fit Chuck	-	130	-
SRS	Schrumpffutter superschlank	Slim Shrink Fit Chuck	-	131	-
SFH	SynchroFit-Gewindescheidfutter	SynchroFit Tapping Holder	-	132	142
SFH-S	SynchroFit-Gewindescheidfutter	SynchroFit Tapping Holder	-	132	142
FMC	Aufsteck-Fräsdorn extra lang	Face Mill Arbor extra long	-	-	143
HPH	Präzisions-Schnelllaufspindel	Precision Hyper Spindle	-	133	144

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### SK30



DIN 69871 | ISO 7388-1

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

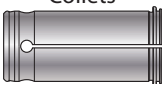
Form  
AD

Halter   Holder		d	D1	L	H		
SK30	-CT16SA	-90	16	45	90	MC16-d	HS-1-16
		-105	16	45	105	MC16-d	HS-1-16
	-CT20SA	-90	20	52	90	MC20-d	HS-2-20
		-105	20	52	105	MC20-d	HS-2-20

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

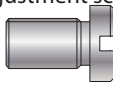
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery).

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw




S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



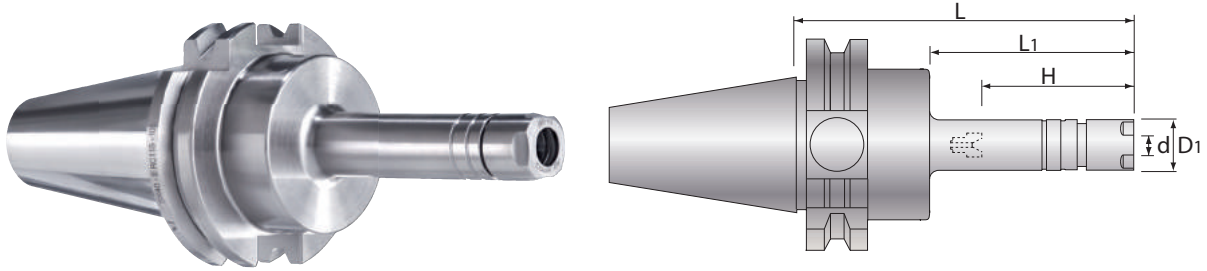
S.|P. 190

**EM**  
Verlängerungen  
Extensions



S.|P. 187

# ERC Mikro-Spannzangenfutter Micro-Collet Chuck



## SK30

DIN 69871 | ISO 7388-1

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

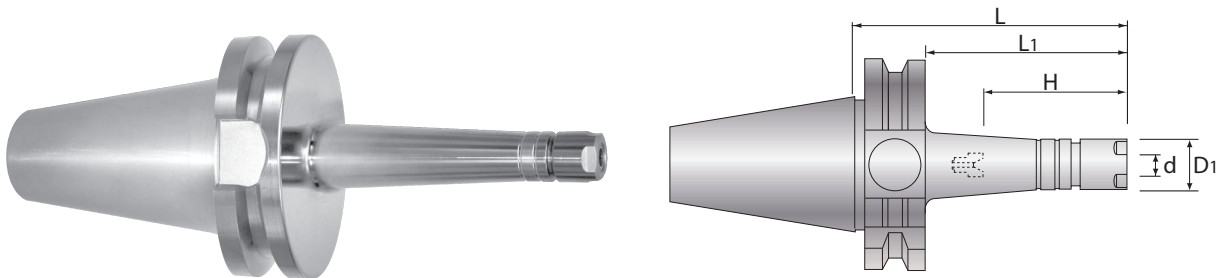
Super-  
schlank  
Super slim

## Form S

Halter   Holder			d	D <sub>1</sub>	L	L <sub>1</sub>	H		
SK30	-ERC11S	-75	1.0-7.0	16	75	40	22-42	ER11	S-11E
		-105	1.0-7.0	16	105	70	22-42	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.



## SK30

DIN 69871 | ISO 7388-1

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

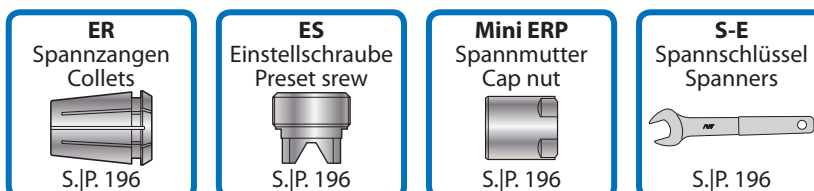
Super-  
schlank  
Super slim

## Form T

Halter   Holder			d	D <sub>1</sub>	L	L <sub>1</sub>	H		
SK30	-ERC11S	-75T	1.0-7.0	16	75	56	22-45	ER11	S-11E
		-105T	1.0-7.0	16	105	86	22-45	ER11	S-11E

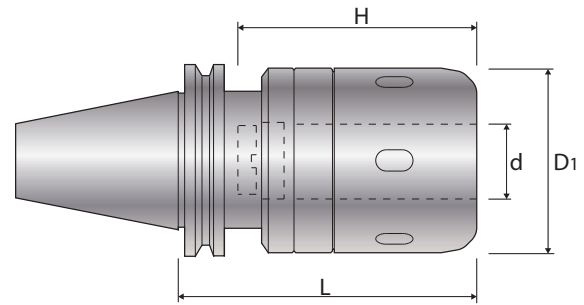
Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### SK40



DIN 69871 | ISO 7388-1

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H			
SK40	-CT16SA -90	16	45	90	65	MC16-d	HS-1-16	
	-75 <sup>4</sup>	20	52	75	80	MC20-d	HS-2-20	
	-CT20SA	-90 <sup>2</sup>	20	52	90	80	MC20-d	HS-2-20
		-105	20	52	105	80	MC20-d	HS-2-20
		-120	20	52	120	80	MC20-d	HS-2-20
	-CT25SA	-105 <sup>2</sup>	25	61	105	80	MC25-d	HS-2.5-25
		-135	25	61	135	80	MC25-d	HS-2.5-25
	-CT32SA	-105 <sup>1,2</sup>	32	73	105	85	MC32-d	HS-3-32
		-120 <sup>1</sup>	32	73	120	85	MC32-d	HS-3-32
		-135	32	73	135	120	MC32-d	HS-3-32

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> Lagerstandard mit Form B

<sup>4</sup> Ohne Freistich nach DIN 69871 vor dem Greiferbund.

<sup>4</sup> Nicht einsetzbar auf bestimmten BAZ.

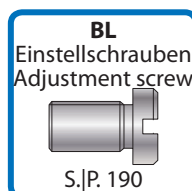
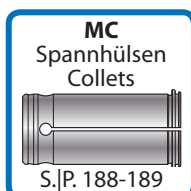
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery).

<sup>1</sup> MC-A Collets cannot be used.

<sup>2</sup> Form B Standard

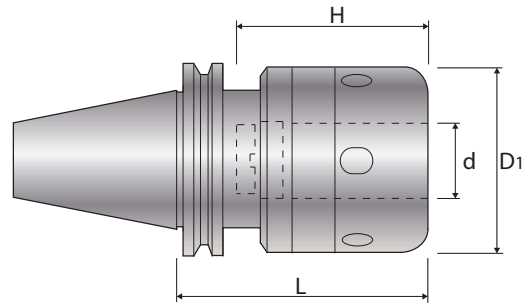
<sup>4</sup> Without undercut (DIN 69871) before flange.

<sup>4</sup> Not suitable for certain M/C.



# CT-SA-C Hochleistungs-Kraftspannfutter High Performance Milling Chuck

Coolant Jet Series



**SK40**

DIN 69871 | ISO 7388-1

4.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

**mit Peripheriekühlung**  
with side-through coolant

Halter   Holder			d	D1	L	H		
<b>SK40</b>	-CT20SA	-90C	20	52	90	80	MC20-d	HS-2-20

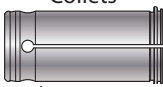
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten)

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery)



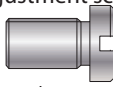
**IKZ und Coolant Jet-Peripheriekühlung** für effektive Spanabfuhr  
Inner coolant and side-through coolant for efficient chip removal.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

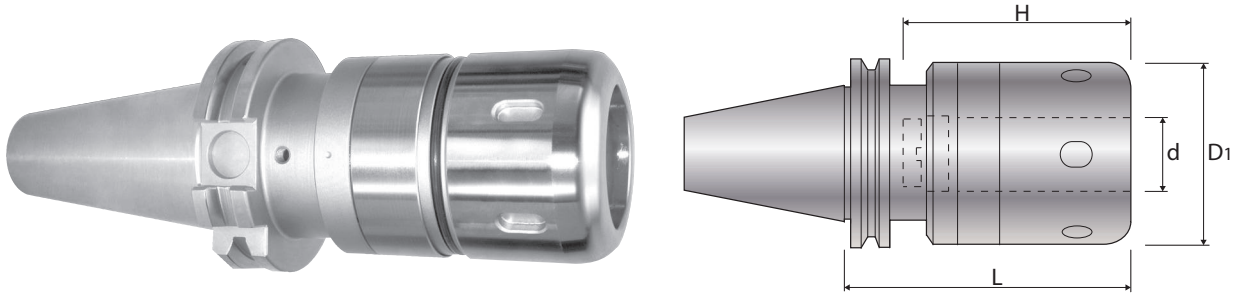


S.|P. 187

# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



### SK40

DIN 69871 | ISO 7388-1

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

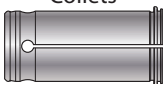
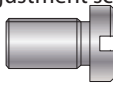
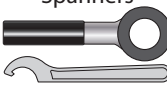

Form  
AD

**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder			d	D1	L	H		
<b>SK40</b>	-CT20S	-115P	20	52	115	80	MC20-d	RS-20

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

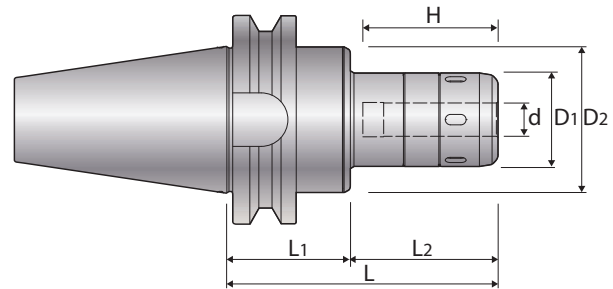
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

<p><b>MC</b> Spannhülsen Collets</p>  <p>S. P. 188-189</p>	<p><b>BL</b> Einstellschrauben Adjustment screw</p>  <p>S. P. 190</p>	<p><b>HS RS</b> Spannschlüssel Spanners</p>  <p>S. P. 190</p>	<p><b>EM</b> Verlängerungen Extensions</p>  <p>S. P. 187</p>
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# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### SK40




DIN 69871 | ISO 7388-1

4.0  
32.0

0-2  
µm

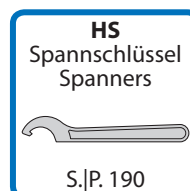
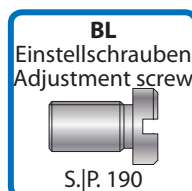
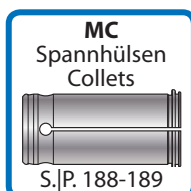
max  
15.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	L2	H			
SK40	-CTZ25SA -135	25	61	74	135	64	71	80	MC25-d	HS-2.5-25	L-6L
	-150	25	61	74	150	64	86	80	MC25-d	HS-2.5-25	L-6L
	-CTZ32SA -135	32	68	80	135	64	71	120	MC32-d	HS-3-32	L-6L
	-150	32	68	80	150	64	86	120	MC32-d	HS-3-32	L-6L

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

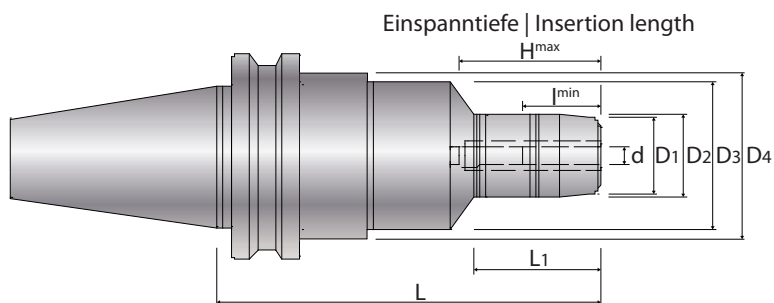
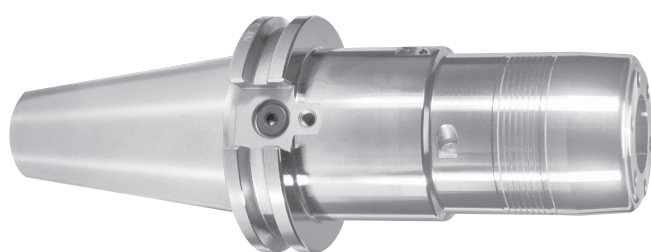
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### SK40

DIN 69871 | ISO 7388-1

3.0  
32.0



0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

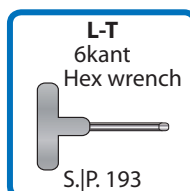
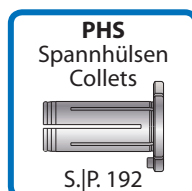
Tol.  
h6



Halter   Holder		d	D1	D2	D3	D4	L	L1	I <sub>min</sub>	H <sub>max</sub>		
-PHC03A	-60	3	-	24	46	-	60	20	18	27	-	L-4T
-PHC04A	-65	4	-	25	46	-	65	25	24	29	-	L-4T
-PHC06A	-90	6	24	26	46	-	90	30	29	33	-	L-4T
	-120	6	24	26	46	-	120	41	29	43	-	L-4T
-PHC08A	-90	8	26	28	46	-	90	30	29	33	-	L-4T
	-120	8	26	28	46	-	120	41	29	43	-	L-4T
-PHC10A	-105	10	28	30	52	50	105	44	40	48	-	L-4T
	-135	10	28	30	52	50	135	64	40	68	-	L-4T
-PHC12A	-105	12	30	32	52	50	105	45	40	48	PHS12-d	L-4T
	-135	12	30	32	52	50	135	65	40	68	PHS12-d	L-4T
-PHC14A	-105	14	34	36	52	50	105	46	40	48	-	L-4T
	-135	14	34	36	52	50	135	66	40	68	-	L-4T
-PHC16A	-105	16	36	38	52	50	105	46	40	48	-	L-4T
	-135	16	36	38	52	50	135	66	40	68	-	L-4T
-PHC20A	-105	20	40	42	46	-	105	49	40	48	PHS20-d	L-4T
	-135	20	40	42	46	-	135	69	40	68	PHS20-d	L-4T
-PHC25A	-120	25	50	52	62	50	120	59	50	58	-	L-6T
	-150	25	50	52	62	50	150	79	50	78	-	L-6T
-PHC32A	-135	32	60	62	62	50	135	100	65	73	-	L-6T
	-165	32	60	62	62	50	165	130	65	78	-	L-6T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

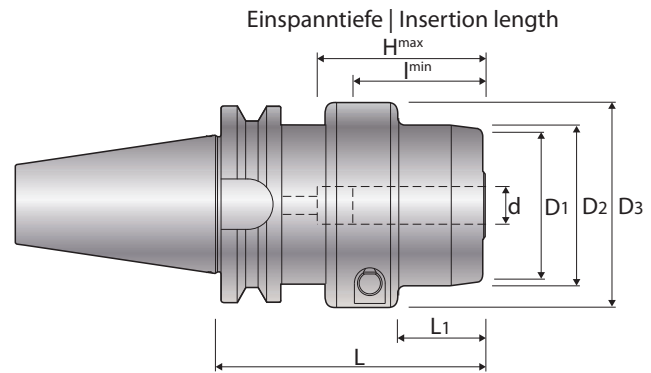




# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### SK40

DIN 69871 | ISO 7388-1

6.0  
32.0

0.003  
50



max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

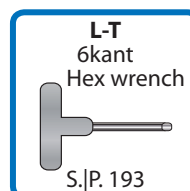
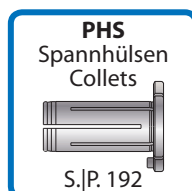


**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	D2	D3	L	L1	l <sub>min</sub>	H <sub>max</sub>			
SK40	-PHC16H	-45	16	42	-	56	45	-	45	70	-	L-4T
		-75	16	-	44	56	75	20	45	85	-	L-4T
	-PHC20H	-75	20	-	50	60	75	16	50	80	PHS20H-d	L-4T
		-105	20	48	50	60	105	32	50	110	PHS20H-d	L-4T
	-PHC25H	-75	25	-	60	69	75	17	55	80	-	L-5T
		-105	25	58	60	69	105	35	55	110	-	L-5T
	-PHC32H	-105	32	63	65	75	105	47	65	105	PHS32H-d	L-5T
		-135	32	63	65	75	135	47	65	120	PHS32H-d	L-5T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



**SK40**

DIN 69871 | ISO 7388-1

**3.0**  
25.0

**0.003**  
3x D



**G2.5**  
25,000  
min<sup>-1</sup>

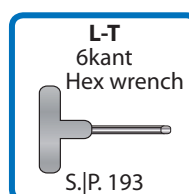
**Form**  
AD

**Tol.**  
h6



mit Coolant Jet: PHC-SC  
with Coolant Jet: PHC-SC

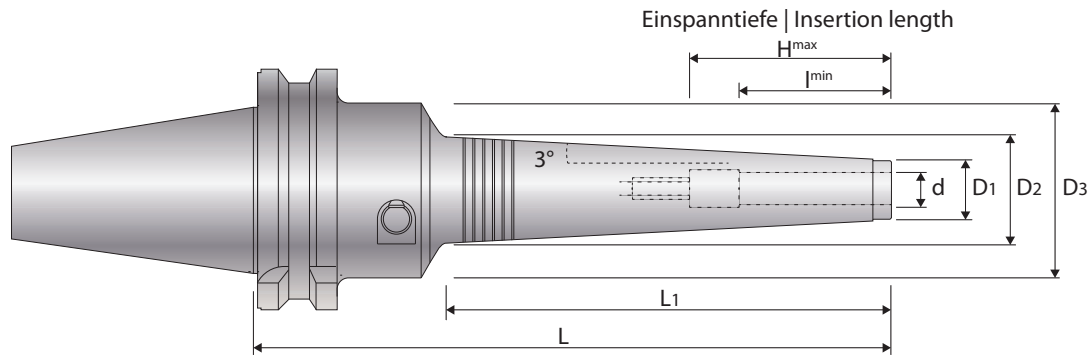
Halter   Holder	d	PHC-S		PHC-SC		D <sub>3</sub>	L	L <sub>1</sub>	l <sub>min</sub>	H <sub>max</sub>			
		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>								
-PHC03SA	-75	3	11	13.0	-	-	46	75	19	18	49	-	L-4T
	-90	3	11	14.2	11.6	14.8	46	90	30	18	49	-	L-4T
	-135	3	11	18.5	11.6	19.1	46	135	71	18	49	-	L-4T
-PHC04SA	-75	4	11	13.0	-	-	46	75	19	24	55	-	L-4T
	-90	4	11	14.2	11.6	14.8	46	90	30	24	55	-	L-4T
	-135	4	11	18.5	11.6	19.1	46	135	71	24	55	-	L-4T
-PHC06SA	-90	6	13	15.8	14	16.8	46	90	26	29	85	-	L-4T
	-135	6	13	20.5	14	21.5	46	135	71	29	69	-	L-4T
	-150	6	13	22.2	-	-	46	150	87	29	84	-	L-4T
-PHC08SA	-165	6	13	23.7	-	-	46	165	102	29	69	-	L-4T
	-180	6	13	25.4	-	-	46	180	118	29	84	-	L-4T
	-90	8	15	17.9	16	18.9	46	90	27	29	85	-	L-4T
-PHC10SA	-135	8	15	22.6	16	23.6	46	135	72	29	69	-	L-4T
	-150	8	15	24.2	-	-	46	150	87	29	84	-	L-4T
	-165	8	15	25.8	-	-	46	165	103	29	69	-	L-4T
-PHC12SA	-180	8	15	27.4	-	-	46	180	118	29	84	-	L-4T
	-90	10	17	20.4	18	21.4	46	90	32	40	85	-	L-4T
	-135	10	17	24.6	18	25.6	46	135	72	40	80	-	L-4T
-PHC12SA	-150	10	17	26.3	-	-	46	150	87	40	95	-	L-4T
	-165	10	17	27.8	-	-	46	165	103	40	80	-	L-4T
	-180	10	17	29.5	-	-	46	180	119	40	95	-	L-4T
-PHC12SA	-90	12	19	22.5	20	23.5	46	90	33	40	85	HS12-d	L-4T
	-135	12	19	26.7	20	27.7	46	135	73	40	80	HS12-d	L-4T
	-150	12	19	28.3	-	-	46	150	88	40	95	HS12-d	L-4T
-PHC12SA	-165	12	19	30.0	-	-	46	165	104	40	80	HS12-d	L-4T
	-180	12	19	31.5	-	-	46	180	119	40	95	HS12-d	L-4T





# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



Halter   Holder	d	PHC-S		PHC-SC		D <sub>3</sub>	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>			
		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>								
-PHC16SA	-135	16	23	30.6	24	31.6	52.5	135	72	40	83	-	L-4T
	-165	16	23	33.8	24	34.8	52.5	165	103	40	105	-	L-4T
	-180	16	23	35.5	-	-	52.5	180	119	40	105	-	L-4T
SK40 -PHC20SA	-150	20	28	34.7	29	35.7	62	150	63	40	70	HS20-d	L-6T
	-180	20	28	37.8	-	-	62	180	93	40	110	HS20-d	L-6T
	-195	20	28	39.5	29	40.5	62	195	109	40	100	HS20-d	L-6T
-PHC25SA	-150	25	37	43.9	38	44.9	62	150	65	50	70	-	L-6T
	-180	25	37	47.1	-	-	62	180	96	50	120	-	L-6T
	-195	25	37	48.8	38	49.8	62	195	112	50	110	-	L-6T

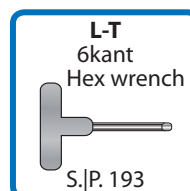
L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

### PHC-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**  
With internal coolant nozzles.

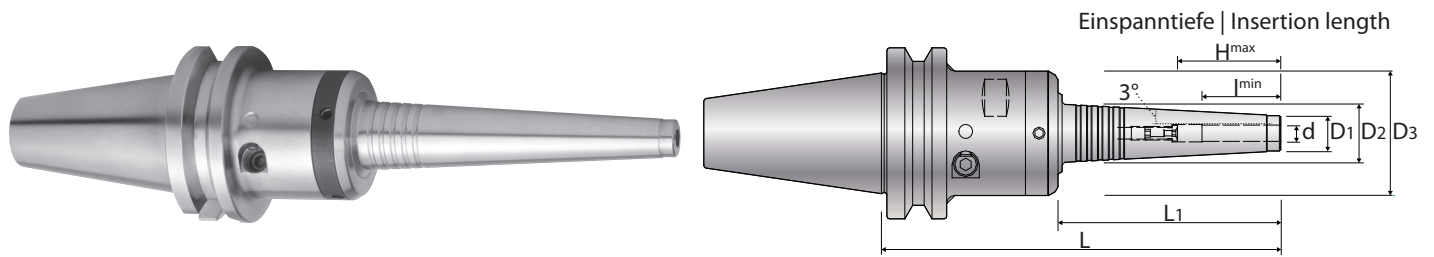
**Bestellbeispiel | Order example**  
SK40-PHC06SC-135



# PHZ-SA Dehnspannfutter R"0" superschlank

## Slim Hydro Chuck with run out "0"

R"0" Series



**SK40**

DIN 69871 | ISO 7388-1

6.0  
12.0




0-2  
µm

max  
20.000  
min<sup>-1</sup>

Form  
AD

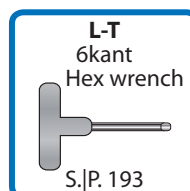
Tol.  
h6

HA ✓  
HB ✗

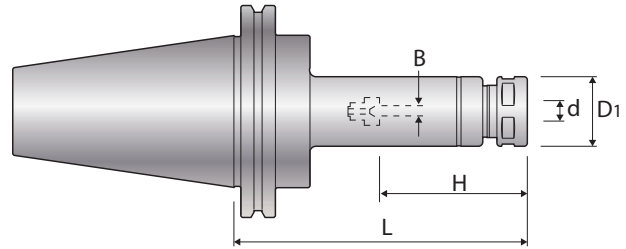
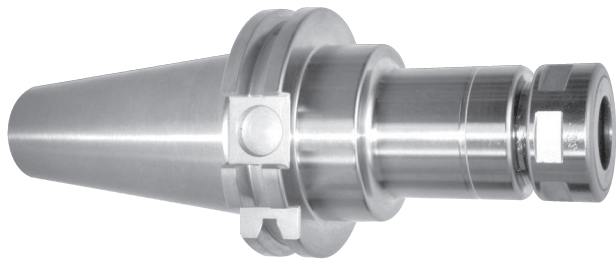
Halter   Holder		d	D1	D2	D3	L	L1	l <sub>min</sub>	H <sub>max</sub>				
SK40	-PHZ06SA	-150	6	13	21.5	46	150	82	29	37	-	L-4T	L-3T
		-180	6	13	24.6	46	180	112	29	37	-	L-4T	L-3T
	-PHZ08SA	-150	8	15	23.5	46	150	82	29	50	-	L-4T	L-3T
		-180	8	15	26.6	46	180	112	29	50	-	L-4T	L-3T
	-PHZ10SA	-150	10	17	25.5	46	150	82	40	50	-	L-4T	L-3T
		-180	10	17	28.2	46	180	112	40	50	-	L-4T	L-3T
	-PHZ12SA	-150	12	19	27.4	46	150	82	40	70	HS12-d	L-4T	L-3T
		-180	12	19	28.2	46	180	112	40	70	HS12-d	L-4T	L-3T

\* 6kant-Schlüssel für Einstellring.  
Mit axialer Längeneinstellung.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

\* Hex wrench for Rotor ring  
With axial length adjustment.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## SK40



DIN 69871 | ISO 7388-1

1.0  
22.0

0.005  
4x D

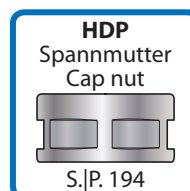
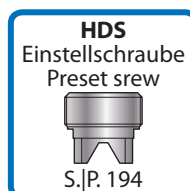
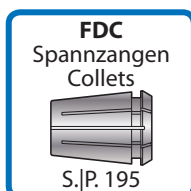
max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H	B			
SK40	-HDC07A	-75	1.0-7.0	23	75	22-45	0-4	FDC-07	S-0
		-90	1.0-7.0	23	90	22-45	0-4	FDC-07	S-0
		-105	1.0-7.0	23	105	22-45	0-4	FDC-07	S-0
	-HDC09A	-90	3.0-9.0	26	90	27-57	0-4	FDC-09	S-1L
		-105	3.0-9.0	26	105	27-57	0-4	FDC-09	S-1L
		-120	3.0-9.0	26	120	27-57	0-4	FDC-09	S-1L
		-135	3.0-9.0	26	135	27-57	0-4	FDC-09	S-1L
		-165	3.0-9.0	26	165	27-57	0-4	FDC-09	S-1L
	-HDC12A	-90	3.0-12.0	32	90	33-68	0-5	FDC-12	S-3L
		-105	3.0-12.0	32	105	33-68	0-5	FDC-12	S-3L
		-120	3.0-12.0	32	120	33-68	0-5	FDC-12	S-3L
		-135	3.0-12.0	32	135	33-68	0-5	FDC-12	S-3L
-165		3.0-12.0	32	165	33-68	0-5	FDC-12	S-3L	
-HDC16A	-90	4.0-16.0	36	90	38-81	0-6	FDC-16	S-4L	
	-105	4.0-16.0	36	105	38-81	0-6	FDC-16	S-4L	
	-120	4.0-16.0	36	120	38-81	0-6	FDC-16	S-4L	
	-135	4.0-16.0	36	135	38-81	0-6	FDC-16	S-4L	
	-165	4.0-16.0	36	165	38-81	0-6	FDC-16	S-4L	
-HDC22A	-105	4.0-22.0	46	105	47-103	0-8	FDC-22	S-5L	
	-120	4.0-22.0	46	120	47-103	0-8	FDC-22	S-5L	
	-135	4.0-22.0	46	135	47-103	0-8	FDC-22	S-5L	
	-165	4.0-22.0	46	165	47-103	0-8	FDC-22	S-5L	
	-195	4.0-22.0	46	195	47-103	0-8	FDC-22	S-5L	

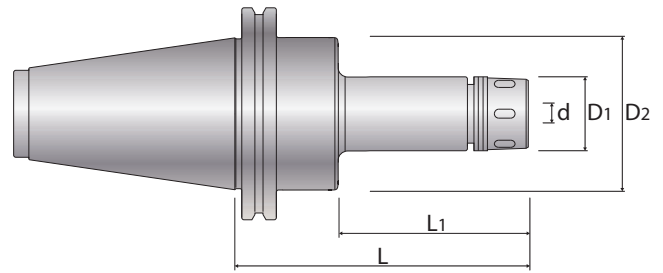
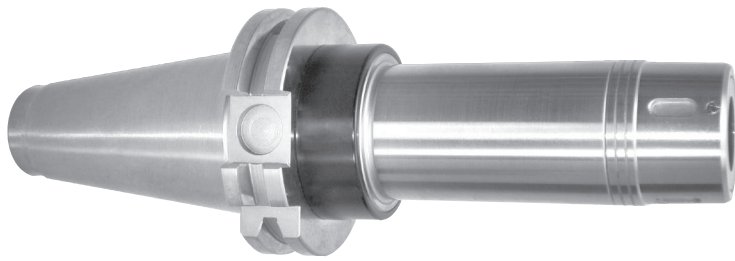
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.



# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### SK40



DIN 69871 | ISO 7388-1

1.0  
22.0

0.005  
4x D

G2.5  
20.000  
min<sup>-2</sup>

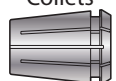
Form  
AD

Halter   Holder		d	D1	D2	L	L1			
SK40	-GDC07A	-75	1.0-7.0	23	45	75	55	FDC-07	S-0
		-90	1.0-7.0	23	45	90	56	FDC-07	S-0
		-120	1.0-7.0	23	45	120	85	FDC-07	S-0
	-GDC09A	-90	3.0-9.0	29	45	90	55	FDC-09	S-0
		-120	3.0-9.0	29	45	120	85	FDC-09	S-0
	-GDC12A	-90	3.0-12.0	34	45	90	55	FDC-12	FK-0034
		-120	3.0-12.0	34	45	120	85	FDC-12	FK-0034
	-GDC16A	-90	3.0-16.0	38	45	90	55	FDC-16	FK-0034
		-120	3.0-16.0	38	45	120	85	FDC-16	FK-0034
	-GDC22A	-90	4.0-22.0	49	45	90	55	FDC-22	FK-0045
		-105	4.0-22.0	49	45	105	70	FDC-22	FK-0045
		-135	4.0-22.0	49	45	135	100	FDC-22	FK-0045

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners

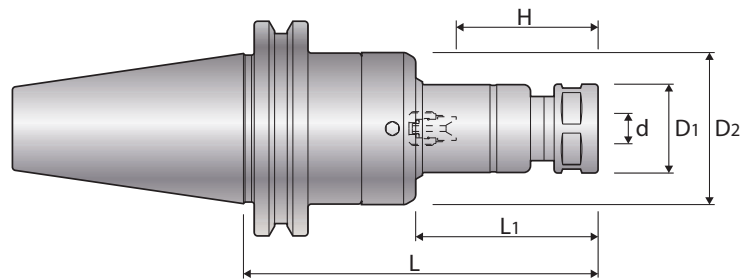
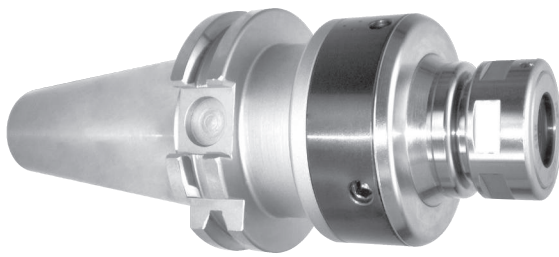


S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### SK40

DIN 69871 | ISO 7388-1



1.0  
22.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>

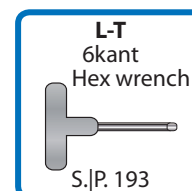
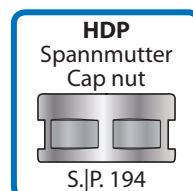
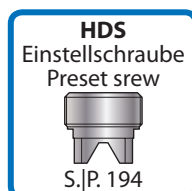
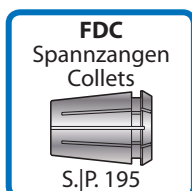
Form  
AD

FDC-Spannzangen  
for FDC-Collets

Halter   Holder		d	D1	D2	L	L1	H				
SK40	-HDZ07A	-75	1.0-7.0	23	41	75	20	20-45	FDC-07	S-0	L-3T
		-90	1.0-7.0	23	41	90	39	20-45	FDC-07	S-0	L-3T
		-105	1.0-7.0	23	41	105	54	20-45	FDC-07	S-0	L-3T
	-HDZ09A	-90	3.0-9.0	26	45	90	39	27-57	FDC-09	S-1L	L-3T
		-105	3.0-9.0	26	45	105	54	27-57	FDC-09	S-1L	L-3T
		-120	3.0-9.0	26	45	120	69	27-57	FDC-09	S-1L	L-3T
		-135	3.0-9.0	26	45	135	84	27-57	FDC-09	S-1L	L-3T
		-165	3.0-9.0	26	45	165	114	27-57	FDC-09	S-1L	L-3T
	-HDZ12A	-90	3.0-12.0	32	56	90	26	33-68	FDC-12	S-3L	L-4T
		-105	3.0-12.0	32	56	105	45	33-68	FDC-12	S-3L	L-4T
		-120	3.0-12.0	32	56	120	60	33-68	FDC-12	S-3L	L-4T
		-135	3.0-12.0	32	56	135	75	33-68	FDC-12	S-3L	L-4T
-165		3.0-12.0	32	56	165	105	33-68	FDC-12	S-3L	L-4T	
-HDZ16A	-90	3.0-16.0	36	62	90	26	38-81	FDC-16	S-4L	L-4T	
	-105	3.0-16.0	36	62	105	45	38-81	FDC-16	S-4L	L-4T	
	-120	3.0-16.0	36	62	120	60	38-81	FDC-16	S-4L	L-4T	
	-135	3.0-16.0	36	62	135	75	38-81	FDC-16	S-4L	L-4T	
	-165	3.0-16.0	36	62	165	105	38-81	FDC-16	S-4L	L-4T	
-HDZ22A	-105	4.0-22.0	46	69	105	31	47-103	FDC-22	S-5L	L-5T	
	-120	4.0-22.0	46	69	120	46	47-103	FDC-22	S-5L	L-5T	
	-135	4.0-22.0	46	69	135	61	47-103	FDC-22	S-5L	L-5T	
	-165	4.0-22.0	46	69	165	91	47-103	FDC-22	S-5L	L-5T	
	-195	4.0-22.0	46	69	195	121	47-103	FDC-22	S-5L	L-5T	

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

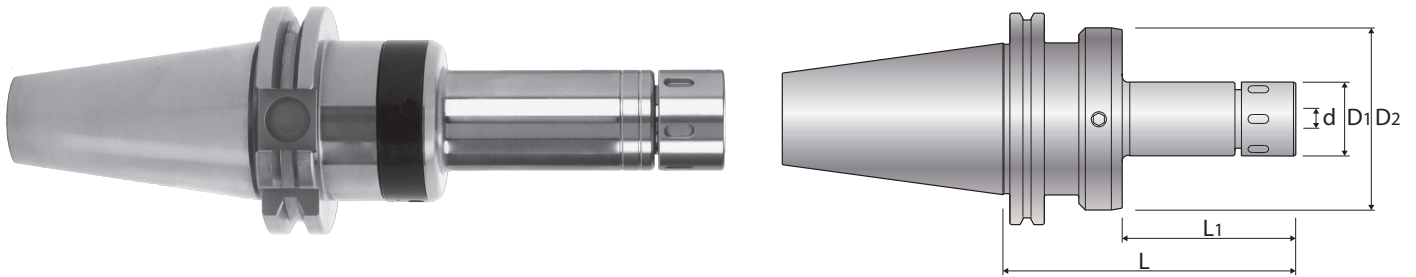
Cap nut and preset screw included in delivery.  
With axial length adjustment.



# ERZ Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



**SK40**

DIN 69871 | ISO 7388-1




1.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>

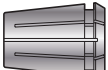



Form  
AD

**ER-Spannzangen**  
for ER-Collets

Halter   Holder		d	D1	D2	L	L1			
SK40	-ERZ16 -120	1.0-10.0	32	56	120	60 (73)	ER16	FK-0034	L-4T
	-ERZ32 -120	2.0-20.0	50	76	120	56 (46)	ER32	HS-2-20	L-5T

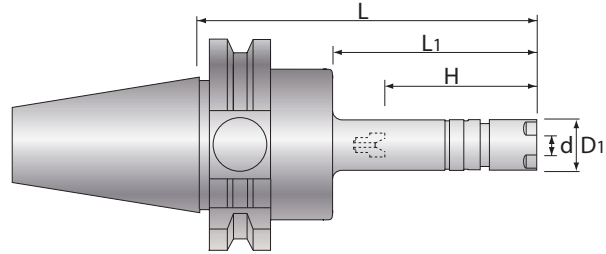
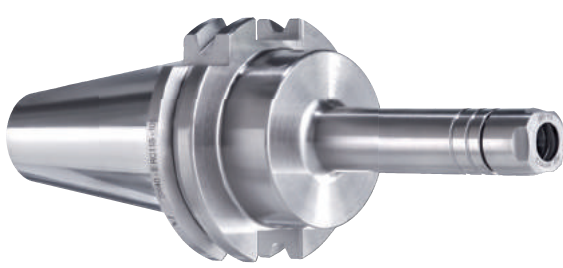
Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

<p><b>ER</b> Spannzangen Collets</p>  <p>S. P. 196</p>	<p><b>ES</b> Einstellschraube Preset screw</p>  <p>S. P. 196</p>	<p><b>ERP</b> Spannmutter Cap nut</p>  <p>S. P. 196</p>	<p><b>FK HS</b> Spannschlüssel Spanners</p>  <p>S. P. 196</p>
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# ERC Mikro-Spannzangenfutter Micro-Collet Chuck



## SK40

DIN 69871 | ISO 7388-1

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

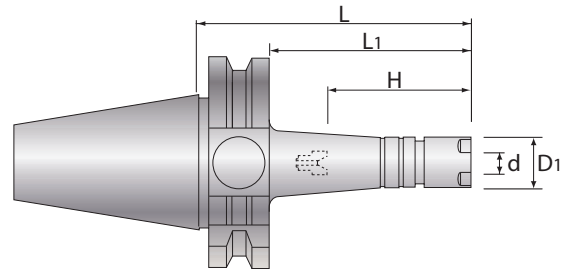
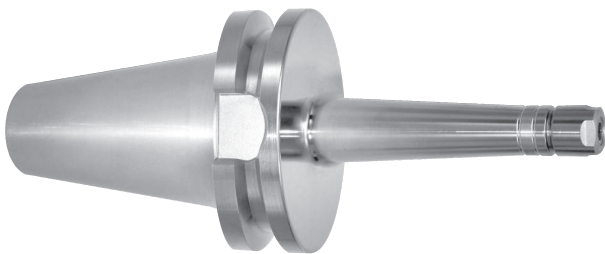
Super-  
schlank  
Super slim

## Form S

Halter   Holder		d	D1	L	L1	H		
-ERC8	-75 <sup>1</sup>	1.0-5.0	12	75	40	33	ER8	S-8E
	-105 <sup>1</sup>	1.0-5.0	12	105	70	33	ER8	S-8E
SK40	-75	1.0-7.0	16	75	40	22-42	ER11	S-11E
	-ERC11S	-105	1.0-7.0	16	105	70	ER11	S-11E
	-135	1.0-7.0	16	135	100	22-42	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.



## SK40

DIN 69871 | ISO 7388-1

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

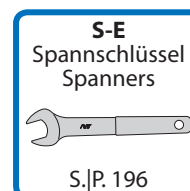
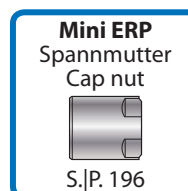
Super-  
schlank  
Super slim

## Form T

Halter   Holder		d	D1	L	L1	H		
-ERC8	-105T <sup>1</sup>	1.0-5.0	12	105	86	34 (19-31)	ER8	S-8E
	-135T <sup>1</sup>	1.0-5.0	12	135	116	34 (19-31)	ER8	S-8E
SK40	-75T	1.0-7.0	16	75	56	22-45	ER11	S-11E
	-ERC11S	-105T	1.0-7.0	16	105	86	ER11	S-11E
	-135T	1.0-7.0	16	135	116	22-45	ER11	S-11E

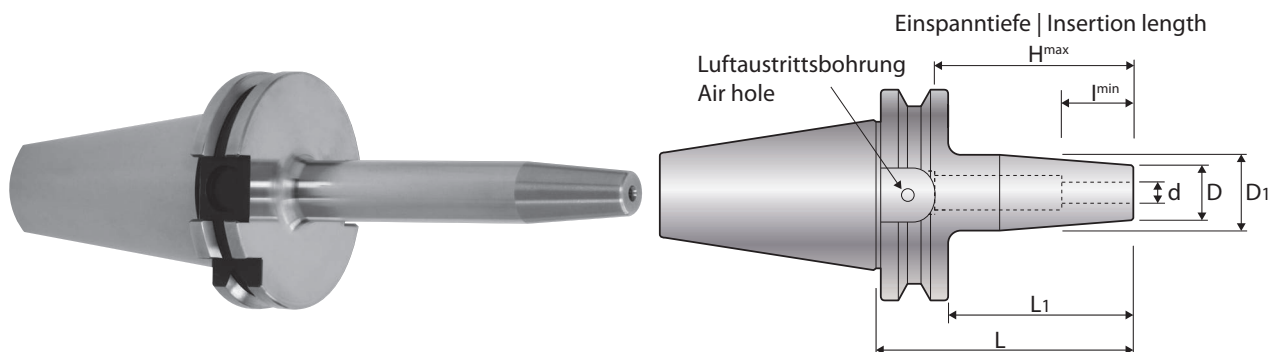
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw



# SRE Schrumpffutter

## Shrink Fit Chuck



### SK40

DIN 69871 | ISO 7388-1

6.0  
16.0

3  
µm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

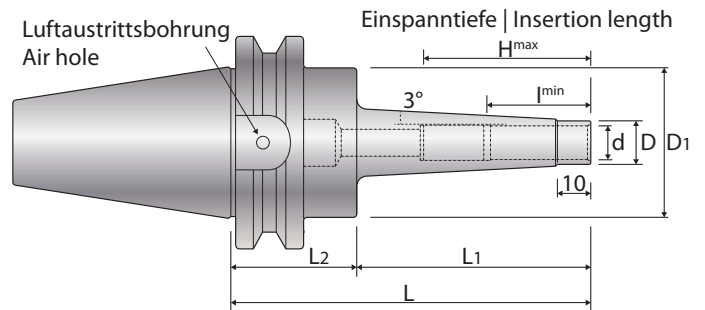
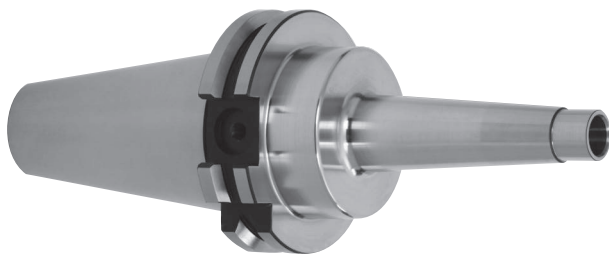
Halter   Holder		d	D	D1	L	L1	l <sub>min</sub>	H <sub>max</sub>
-SRE6A	-45	6	13	16	45	25.9	19	28
	-60	6	13	16	60	40.9	27	43
	-90	6	13	18	90	70.9	27	73
	-120	6	13	18	120	100.9	27	103
	-135	6	13	18	135	115.9	27	112
	-160	6	13	18	160	140.9	27	137
-SRE8A	-45	8	13	16	45	25.9	19	28
	-60	8	13	16	60	40.9	27	43
	-90	8	13	18	90	70.9	27	73
	-120	8	13	18	120	100.9	27	103
	-135	8	13	18	135	115.9	27	112
	-160	8	13	18	160	140.9	27	137
-SRE10A	-70	10	16	19	70	50.9	26	50
	-120	10	16	19	120	100.9	26	50
	-160	10	16	19	160	140.9	26	50
-SRE12A	-70	12	18	21	70	50.9	26	49
	-120	12	18	21	120	100.9	26	70
	-160	12	18	21	160	140.9	26	70
-SRE16A	-70	16	22	25	70	50.9	26	49
	-120	16	22	25	120	100.9	26	70
	-160	16	22	25	160	140.9	26	70

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



### SK40

DIN 69871 | ISO 7388-1

6.0  
20.0

3  
 $\mu m$

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

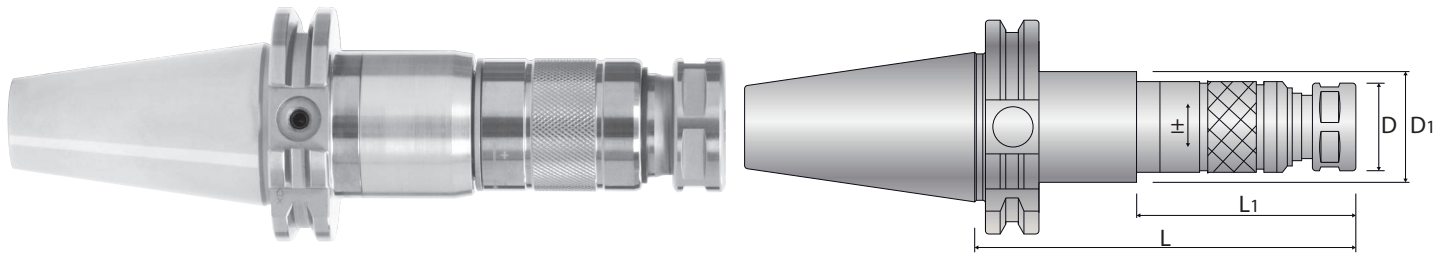
Halter   Holder		d	D	D <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	l <sub>min</sub>	H <sub>max</sub>
-SRS6A	-105	6	9	44.7	105	59	46	26	36
	-135	6	9	44.7	135	89	46	26	36
-SRS8A	-105	8	11	44.7	105	59	46	26	50
	-135	8	11	44.7	135	89	46	26	50
-SRS10A	-105	10	13	44.7	105	70	35	32	50
	-135	10	13	44.7	135	100	35	32	50
	-165	10	13	44.7	165	130	35	32	50
-SRS12A	-105	12	15	44.7	105	70	35	37	70
	-135	12	15	44.7	135	100	35	37	70
	-165	12	15	44.7	165	130	35	37	70
-SRS16A	-105	16	20	44.7	105	70	35	40	80
	-135	16	20	44.7	135	100	35	40	80
	-165	16	20	44.7	165	130	35	40	80
-SRS20A	-105	20	26	44.7	105	70	35	42	100
	-135	20	26	44.7	135	100	35	42	100
	-165	20	26	44.7	165	130	35	42	100

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



### SK40

DIN 69871 | ISO 7388-1



**M3  
M20**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



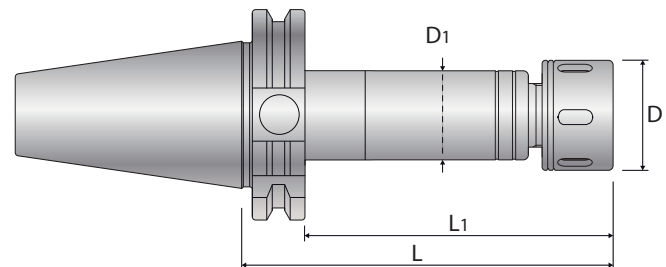
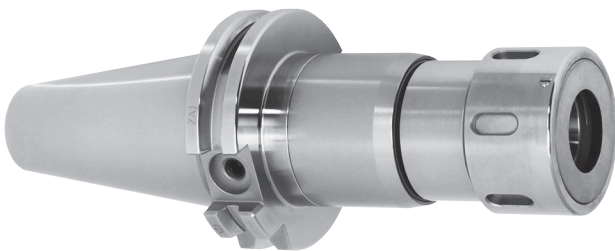
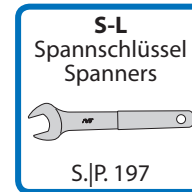
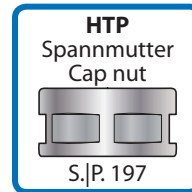
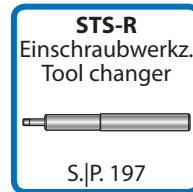
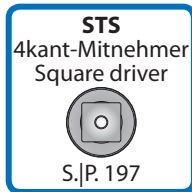
**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets



**M2  
M20**

Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
SK40	-SFH12	-105	M3-M8	26	34	105	55	FSC-09	S-1L
		-120	M3-M8	26	34	120	70	FSC-09	S-1L
		-150	M3-M8	26	34	150	100	FSC-09	S-1L
	-SFH18	-125	M5-M20	36	40	125	68	FSC-16	S-4L
		-135	M5-M20	36	40	135	78	FSC-16	S-4L
		-150	M5-M20	36	40	150	93	FSC-16	S-4L

Spannmutter im Lieferumfang enthalten.

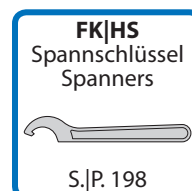
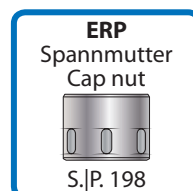
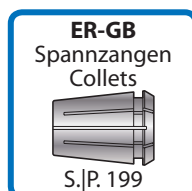
Cap nut included in delivery.



Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
SK40	-SFH12S	-80	M2-M12	32	34	80	61	ER16-GB	FK-0034
	-SFH18S	-105	M3-M20	42	40	105	86	ER25-GB	HS-1-16

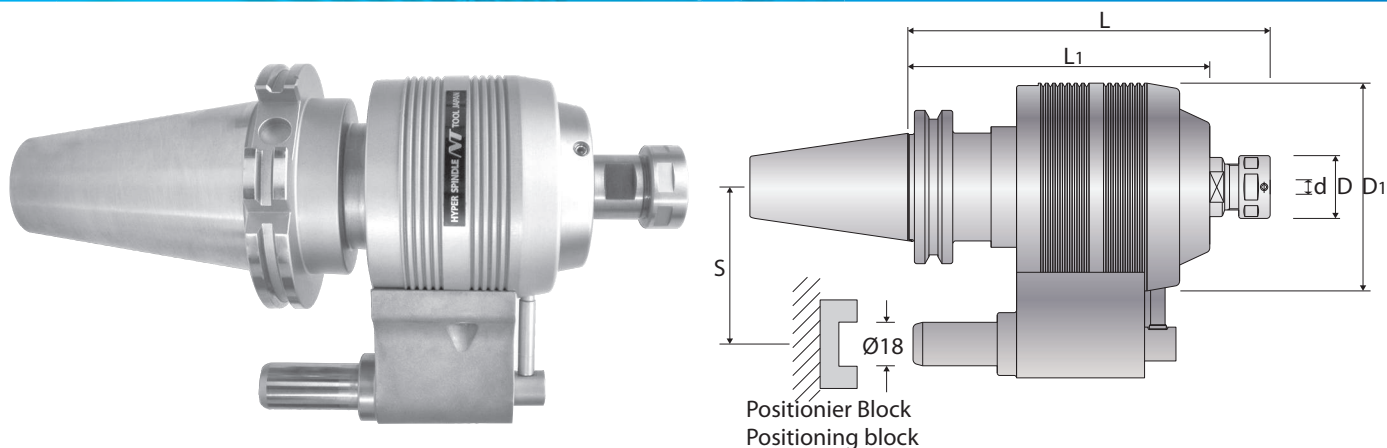
Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.



# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



### SK40

DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

Halter   Holder		d	D	D1	L	L1	S	Übersetzung Gear ratio	max. Drehzahl max. speed rpm		
-HP07H	-150-3	1.0-7.0	23	86	150	125	65	1:5	30.000 <sup>1</sup> 25.000 <sup>2</sup>	FDC-07	S-0
	-180-3	1.0-7.0	23	86	180	125	65	1:5		FDC-07	S-0
-HP09H	-150-3	3.0-9.0	26	86	150	125	65	1:5	30.000 <sup>1</sup> 25.000 <sup>2</sup>	FDC-09	S-1L
	-180-3	3.0-9.0	26	86	180	125	65	1:5		FDC-09	S-1L
-HP12H	-165-3 <sup>3</sup>	3.0-12.0	32	86	165	125	65	1:5	30.000 <sup>1</sup> 25.000 <sup>2</sup>	FDC-12	S-3L
	-180-3	3.0-12.0	32	86	180	125	65	1:5		FDC-12	S-3L

<sup>1</sup> Max. Drehzahl 20% /Std.

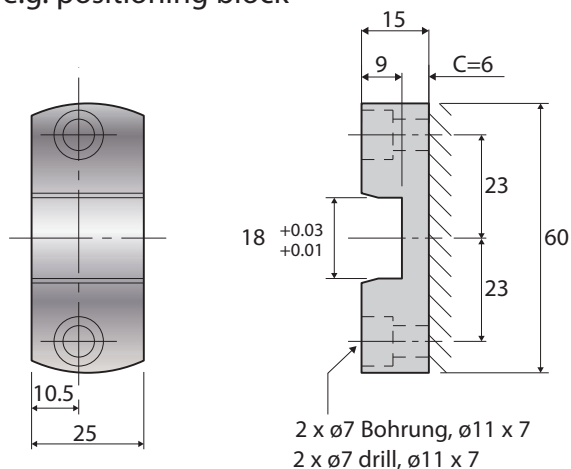
<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h

<sup>2</sup> Max. rotation speed 80% /h

### Bsp. Positionierblock<sup>1)</sup>

e.g. positioning block<sup>1)</sup>



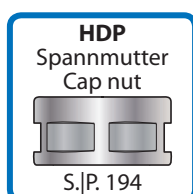
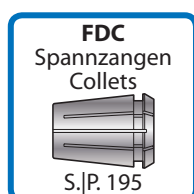
<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine

HP07   09   12	Positionierkolben   Plunger				
	No.1	No.2	No.3 <sup>3</sup>	No.4	No.5
A min (mm)	+15.1	+6.1	-2.9	-3.0	-12.0
A max (mm)	+24.0	+15.0	+6.0	-11.9	-20.9

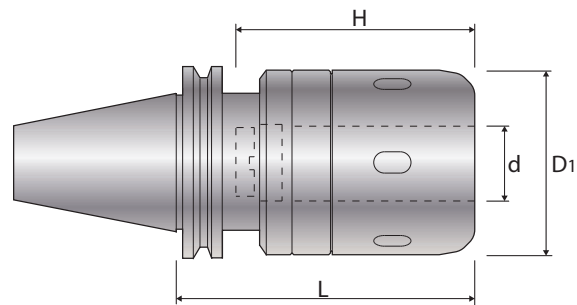
<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

<sup>3</sup> We deliver plunger No.3 ex stock.



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### SK50



DIN 69871 | ISO 7388-1

3.0  
42.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H			
SK50	-CT16SA	-90	16	45	90	65	MC16-d	HS-1-16
		-105 <sup>1</sup>	16	45	105	65	MC16-d	HS-1-16
		-135	16	45	135	65	MC16-d	HS-1-16
	-CT20SA	-90	20	52	90	80	MC20-d	HS-2-20
		-105 <sup>1</sup>	20	52	105	80	MC20-d	HS-2-20
		-135	20	52	135	80	MC20-d	HS-2-20
		-165	20	52	165	80	MC20-d	HS-2-20
		-200	20	52	200	80	MC20-d	HS-2-20
		-250	20	52	250	80	MC20-d	HS-2-20
	-CT25SA	-300	20	52	300	80	MC20-d	HS-2-20
		-105 <sup>1</sup>	25	61	105	80	MC25-d	HS-2.5-25
		-135	25	61	135	80	MC25-d	HS-2.5-25
-165		25	61	165	80	MC25-d	HS-2.5-25	
-200		25	61	200	80	MC25-d	HS-2.5-25	
-CT32SA	-250	25	61	250	80	MC25-d	HS-2.5-25	
	-300	25	61	300	80	MC25-d	HS-2.5-25	
	-95	32	73	95	120	MC32-d	HS-3-32	
	-105 <sup>1</sup>	32	73	105	120	MC32-d	HS-3-32	
	-120	32	73	120	120	MC32-d	HS-3-32	
	-135	32	73	135	120	MC32-d	HS-3-32	
	-150	32	73	150	120	MC32-d	HS-3-32	
	-165	32	73	165	120	MC32-d	HS-3-32	
-CT42SA	-200	32	73	200	120	MC32-d	HS-3-32	
	-250	32	73	250	120	MC32-d	HS-3-32	
	-300	32	73	300	120	MC32-d	HS-3-32	
	-105	42	88	105	120	MC42-d	HS-4-42	
	-150	42	88	150	120	MC42-d	HS-4-42	

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).


<sup>1</sup> Form B Standard

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

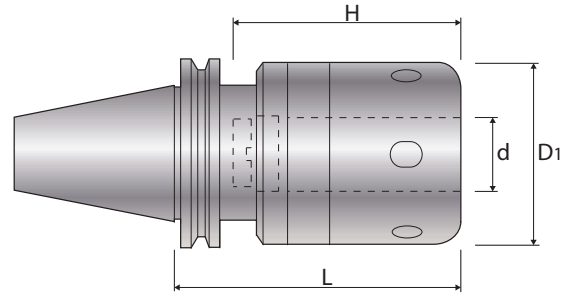
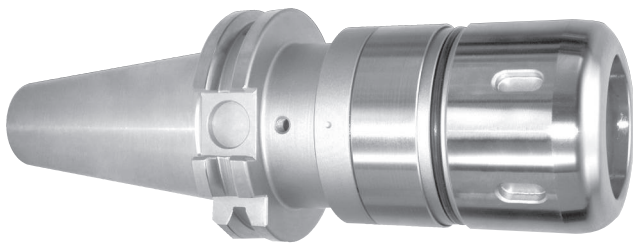


S.|P. 187

# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



**SK50**

DIN 69871 | ISO 7388-1

4.0  
32.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

Form  
AD

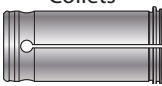
**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder			d	D1	L	H		
<b>SK50</b>	-CT32S	-115P	32	73	115	120	MC32-d	RS-32

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

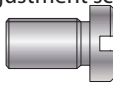
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

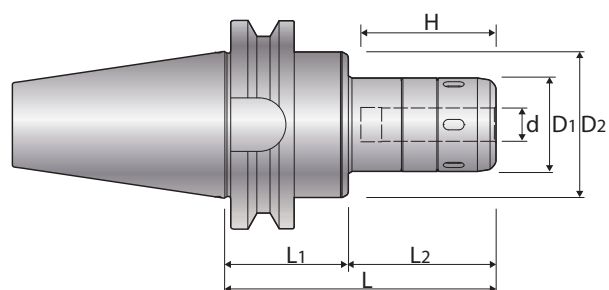
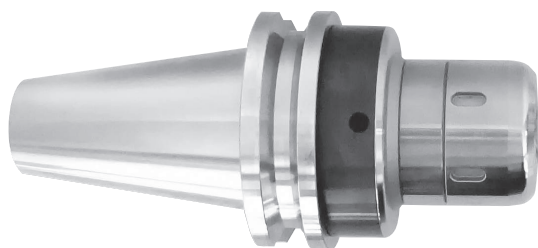


S.|P. 187

# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### SK50




DIN 69871 | ISO 7388-1

4.0  
42.0

0-2  
µm

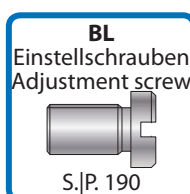
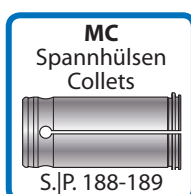
max  
10.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	L2	H			
SK50	-CTZ25SA -135	25	61	74	135	64	71	80	MC25-d	HS-2.5-25	L-6L
	-150	25	61	74	150	64	86	80	MC25-d	HS-2.5-25	L-6L
	-CTZ32SA -135	32	68	80	135	64	71	120	MC32-d	HS-3-32	L-6L
	-150	32	68	80	150	64	86	120	MC32-d	HS-3-32	L-6L
	-CTZ42SA -135	42	88	99	135	66	69	120	MC42-d	HS-4-42	L-6L
	-150	42	88	99	150	66	84	120	MC42-d	HS-4-42	L-6L

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

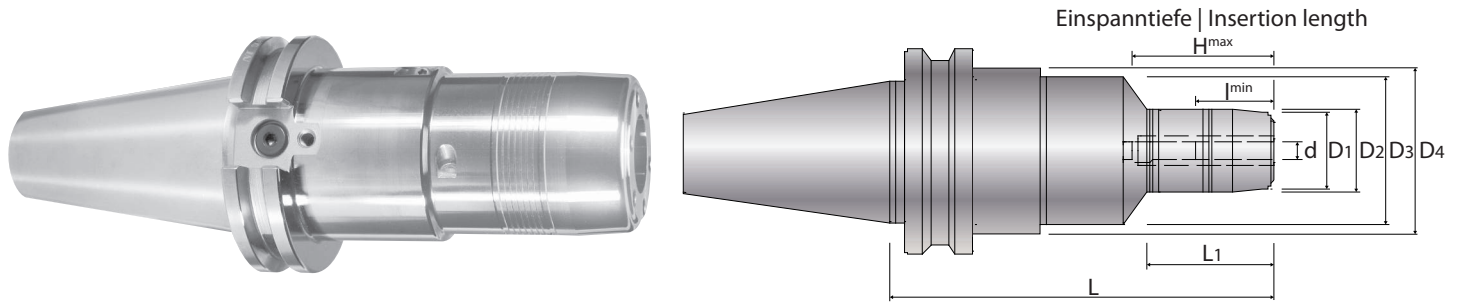




# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



**SK50**

DIN 69871 | ISO 7388-1

3.0  
32.0



0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

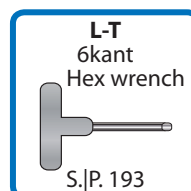
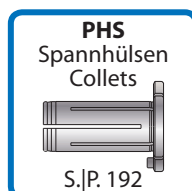
Tol.  
h6

HA ✓  
HB ✗

Halter   Holder		d	D1	D2	D3	D4	L	L1	I <sub>min</sub>	H <sub>max</sub>		
SK50	-PHC20A -105	20	40	42	46	80	105	70	40	50	PHS20-d	L-4T
	-PHC32A -120	32	60	62	-	-	120	100	65	80	-	L-6T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

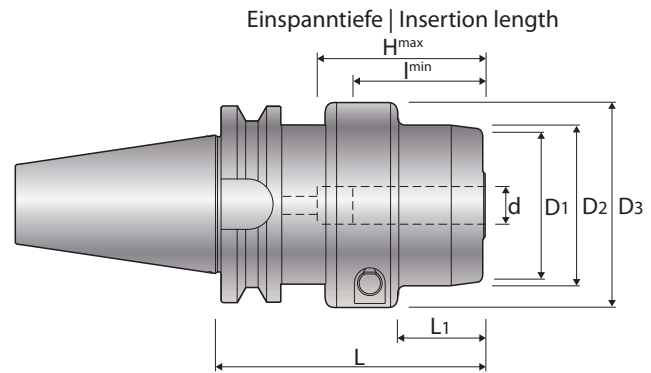
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.



# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### SK50

DIN 69871 | ISO 7388-1

6.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

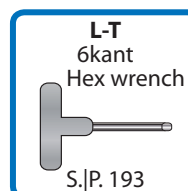
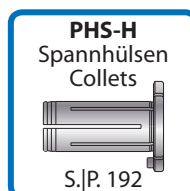


**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
SK50	-PHC16H	-75	16	42	44	56	75	27	45	75	-	L-4T
		-105	16	42	44	56	105	27	45	105	-	L-4T
	-PHC20H	-75	20	48	50	60	75	32	50	80	PHS20H-d	L-4T
		-105	20	48	50	60	105	32	50	110	PHS20H-d	L-4T
	-PHC25H	-75	25	58	60	69	75	35	55	80	-	L-5T
		-105	25	58	60	69	105	35	55	110	-	L-5T
		-135	25	58	60	69	135	35	55	110	-	L-5T
	-PHC32H	-75	32	63	65	75	75	23	65	90	PHS32H-d	L-5T
		-105	32	63	65	75	105	47	65	120	PHS32H-d	L-5T
		-135	32	63	65	75	135	47	65	120	PHS32H-d	L-5T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

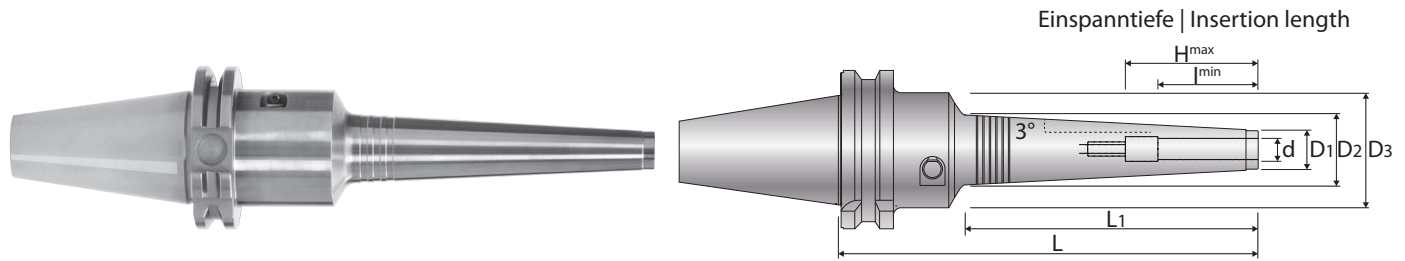
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### SK50

DIN 69871 | ISO 7388-1

6.0  
25.0



0.003  
3xD

G2.5  
25.000  
min<sup>-2</sup>

Form  
AD

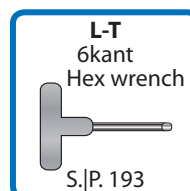
Tol.  
h6



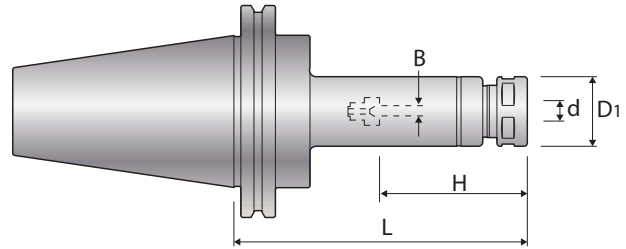
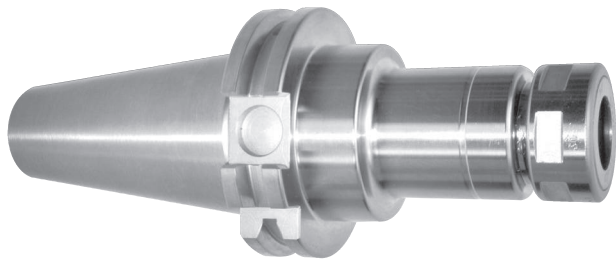
Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
SK50	-PHC06SA	-150	6	13	20.5	46	150	71	29	37	-	L-4T
		-165	6	13	22.2	46	165	87	29	37	-	L-4T
		-180	6	13	23.7	46	180	102	29	37	-	L-4T
		-195	6	13	25.4	46	195	118	29	37	-	L-4T
	-PHC08SA	-150	8	15	22.6	46	150	72	29	50	-	L-4T
		-165	8	15	24.2	46	165	87	29	50	-	L-4T
		-180	8	15	25.8	46	180	103	29	50	-	L-4T
		-195	8	15	27.4	46	195	118	29	50	-	L-4T
	-PHC10SA	-150	10	17	24.6	46	150	72	40	50	-	L-4T
		-165	10	17	26.3	46	165	88	40	50	-	L-4T
		-180	10	17	27.8	46	180	103	40	50	-	L-4T
		-195	10	17	29.5	46	195	119	40	50	-	L-4T
-PHC12SA	-150	12	19	26.7	46	150	73	40	70	HS12-d	L-4T	
	-165	12	19	28.3	46	165	88	40	70	HS12-d	L-4T	
	-180	12	19	30.0	46	180	104	40	70	HS12-d	L-4T	
	-195	12	19	31.5	46	195	119	40	70	HS12-d	L-4T	
-PHC16SA	-150	16	23	30.6	52.5	150	72	40	75	-	L-4T	
	-180	16	23	33.8	52.5	180	103	40	80	-	L-4T	
	-195	16	23	35.5	52.5	195	119	40	80	-	L-4T	
-PHC20SA	-150	20	28	34.7	62	150	63	40	70	HS20-d	L-6T	
	-180	20	28	37.8	62	180	93	40	100	HS20-d	L-6T	
	-195	20	28	39.5	62	195	109	40	100	HS20-d	L-6T	
-PHC25SA	-150	25	37	43.9	62	150	65	50	70	-	L-6T	
	-180	25	37	47.1	62	180	96	50	100	-	L-6T	
	-195	25	37	48.8	62	195	112	50	110	-	L-6T	

L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## SK50



DIN 69871 | ISO 7388-1

3.0  
22.0

0.005  
4x D

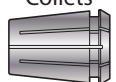
max  
20.000  
min<sup>-1</sup>


Form  
AD


Halter   Holder		d	D1	L	H	B		
-HDC12A	-90	3.0-12.0	32	90	33-68	0-5	FDC-12	S-3L
	-105	3.0-12.0	32	105	33-68	0-5	FDC-12	S-3L
	-120	3.0-12.0	32	120	33-68	0-5	FDC-12	S-3L
	-135	3.0-12.0	32	135	33-68	0-5	FDC-12	S-3L
	-165	3.0-12.0	32	165	33-68	0-5	FDC-12	S-3L
	-195	3.0-12.0	32	195	33-68	0-5	FDC-12	S-3L
	-225	3.0-12.0	32	225	33-68	0-5	FDC-12	S-3L
	-255	3.0-12.0	32	255	33-68	0-5	FDC-12	S-3L
SK50 -HDC16A	-90	4.0-16.0	36	90	38-81	0-6	FDC-16	S-4L
	-105	4.0-16.0	36	105	38-81	0-6	FDC-16	S-4L
	-120	4.0-16.0	36	120	38-81	0-6	FDC-16	S-4L
	-135	4.0-16.0	36	135	38-81	0-6	FDC-16	S-4L
	-165	4.0-16.0	36	165	38-81	0-6	FDC-16	S-4L
	-195	4.0-16.0	36	195	38-81	0-6	FDC-16	S-4L
	-225	4.0-16.0	36	225	38-81	0-6	FDC-16	S-4L
	-255	4.0-16.0	36	255	38-81	0-6	FDC-16	S-4L
-HDC22A	-105	4.0-22.0	46	105	47-103	0-8	FDC-22	S-5L
	-120	4.0-22.0	46	120	47-103	0-8	FDC-22	S-5L
	-135	4.0-22.0	46	135	47-103	0-8	FDC-22	S-5L
	-150	4.0-22.0	46	150	47-103	0-8	FDC-22	S-5L
	-165	4.0-22.0	46	165	47-103	0-8	FDC-22	S-5L
	-195	4.0-22.0	46	195	47-103	0-8	FDC-22	S-5L
	-225	4.0-22.0	46	225	47-103	0-8	FDC-22	S-5L
	-255	4.0-22.0	46	255	47-103	0-8	FDC-22	S-5L

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw  
  
S.|P. 194

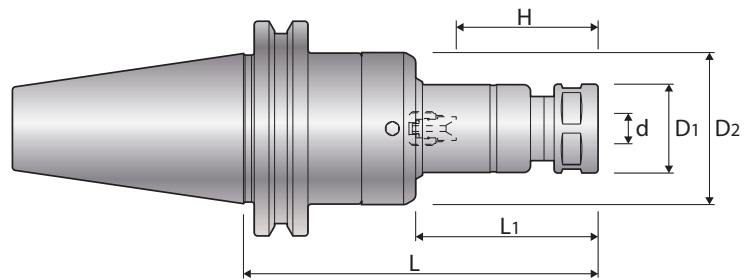
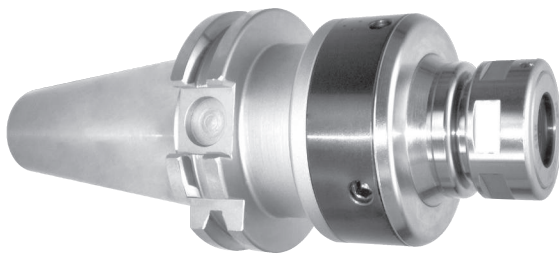
**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### SK50




DIN 69871 | ISO 7388-1

3.0  
22.0

0-2  
µm

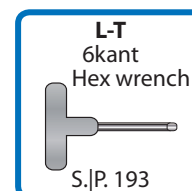
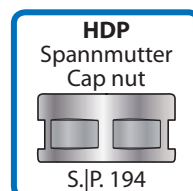
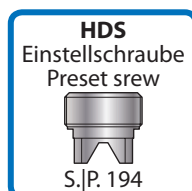
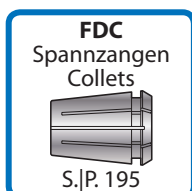
max  
15.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	H			
-HDZ12A	-90	3.0-12.0	32	56	90	35	33-68	FDC-12	S-3L	L-4T
	-105	3.0-12.0	32	56	105	50	33-68	FDC-12	S-3L	L-4T
	-120	3.0-12.0	32	56	120	65	33-68	FDC-12	S-3L	L-4T
	-135	3.0-12.0	32	56	135	80	33-68	FDC-12	S-3L	L-4T
	-165	3.0-12.0	32	56	165	110	33-68	FDC-12	S-3L	L-4T
	-195	3.0-12.0	32	56	195	140	33-68	FDC-12	S-3L	L-4T
	-225	3.0-12.0	32	56	225	170	33-68	FDC-12	S-3L	L-4T
	-255	3.0-12.0	32	56	255	200	33-68	FDC-12	S-3L	L-4T
SK50 -HDZ16A	-90	3.0-16.0	36	62	90	35	38-81	FDC-16	S-4L	L-4T
	-105	3.0-16.0	36	62	105	50	38-81	FDC-16	S-4L	L-4T
	-120	3.0-16.0	36	62	120	65	38-81	FDC-16	S-4L	L-4T
	-135	3.0-16.0	36	62	135	80	38-81	FDC-16	S-4L	L-4T
	-165	3.0-16.0	36	62	165	110	38-81	FDC-16	S-4L	L-4T
	-195	3.0-16.0	36	62	195	140	38-81	FDC-16	S-4L	L-4T
	-225	3.0-16.0	36	62	225	170	38-81	FDC-16	S-4L	L-4T
	-255	3.0-16.0	36	62	255	200	38-81	FDC-16	S-4L	L-4T
-HDZ22A	-105	4.0-22.0	46	76	105	56	47-100	FDC-22	S-5L	L-5T
	-120	4.0-22.0	46	76	120	71	47-100	FDC-22	S-5L	L-5T
	-135	4.0-22.0	46	76	135	86	47-100	FDC-22	S-5L	L-5T
	-165	4.0-22.0	46	76	165	101	47-100	FDC-22	S-5L	L-5T
	-195	4.0-22.0	46	76	195	131	47-100	FDC-22	S-5L	L-5T
	-225	4.0-22.0	46	76	225	161	47-100	FDC-22	S-5L	L-5T
	-255	4.0-22.0	46	76	255	191	47-100	FDC-22	S-5L	L-5tT

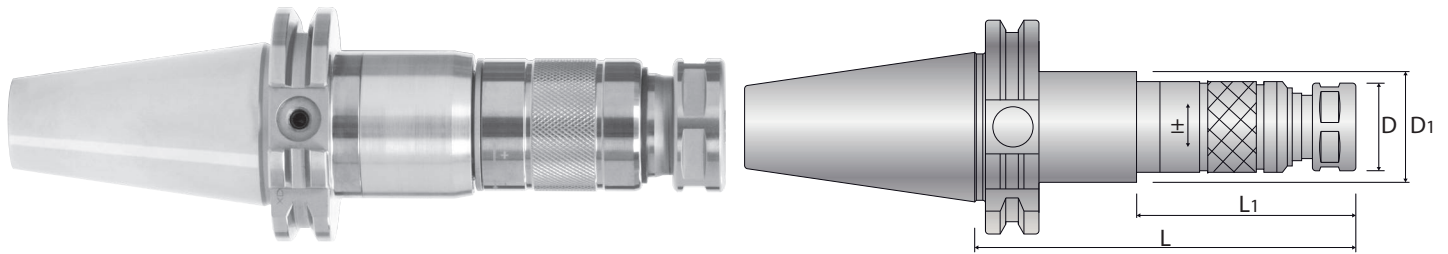
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.



# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder





### SK50

M5  
M20



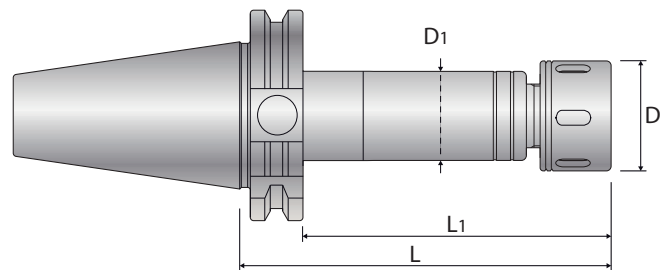
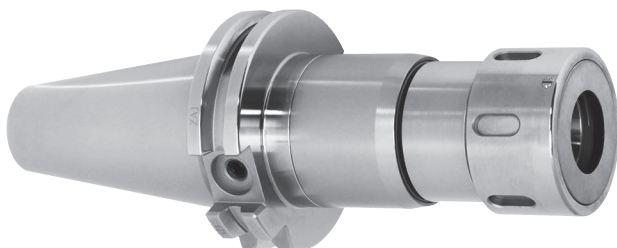
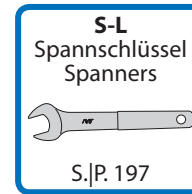
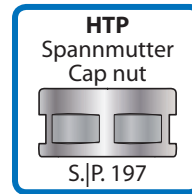
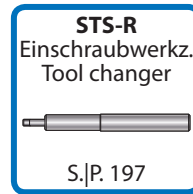
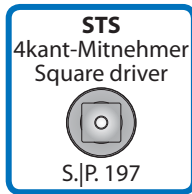
**SFH** mit easy-Längeneinstellung  
with easy-length adjustment

DIN 69871 | ISO 7388-1

Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
SK50	-SFH18	-125	M5-M20	36	40	125	68	FSC-16	S-4L
		-135	M5-M20	36	40	135	78	FSC-16	S-4L
		-150	M5-M20	36	40	150	93	FSC-16	S-4L

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.





### SK50

M2  
M20



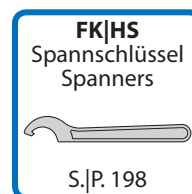
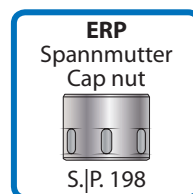
**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

DIN 69871 | ISO 7388-1

Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
SK50	-SFH12S	-90	M2-M12	32	34	90	71	ER16-GB	FK-0034
	-SFH18S	-105	M3-M20	42	40	105	86	ER25-GB	HS-1-16

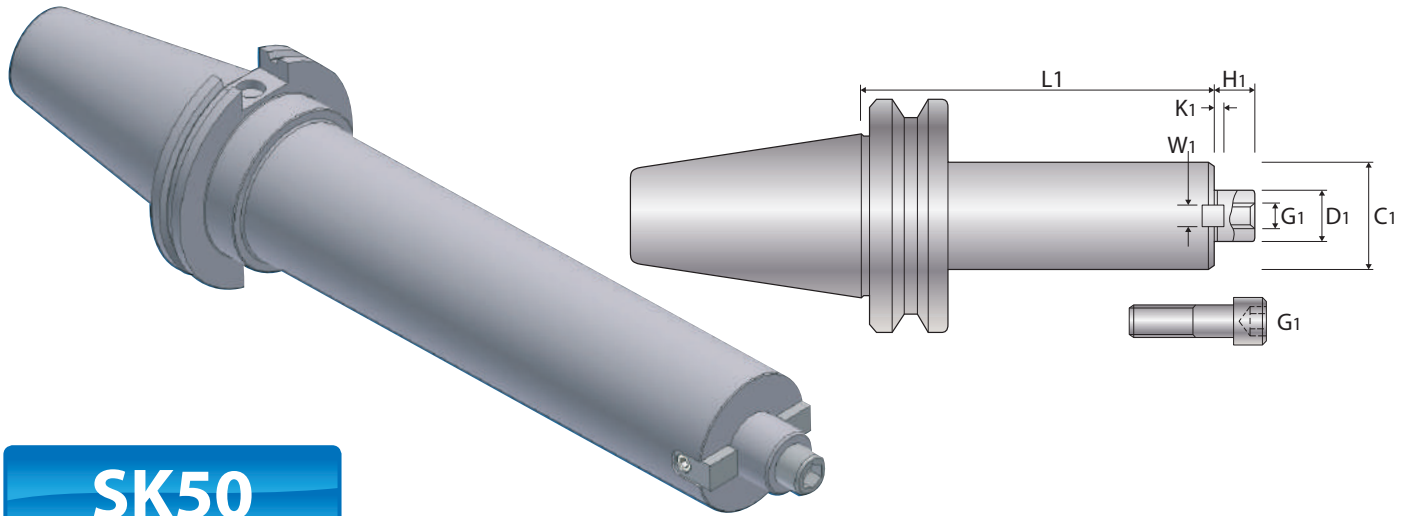
Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.



# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



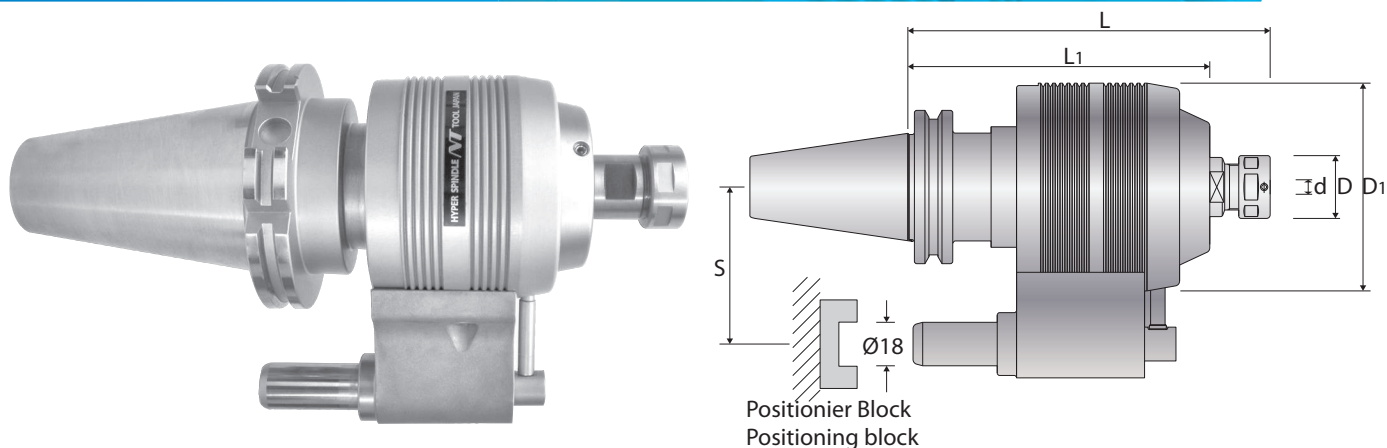
### SK50

DIN 69871 | ISO 7388-1

Halter   Holder		D1 (h6)	L1	C1	H1	W1	K1	G1	Messerkopf Cutter Ø
SK50	-185	22	185	49	20	10	5.6	M10	50 63
	-FMC22-285	22	285	49	20	10	5.6	M10	50 63
	-388	22	388	49	20	10	5.6	M10	50 63
	-185	27	185	60	21	12	6.3	M12	80
	-FMC27-285	27	285	60	21	12	6.3	M12	80
	-385	27	385	60	21	12	6.3	M12	80

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



### SK50



DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

Halter   Holder		d	D	D1	L	L1	S	Übersetzung Gear ratio	max. Drehzahl max. speed rpm		
-HP07H	-150-3	1.0-7.0	23	86	150	125	80	1:5		FDC-07	S-0
	-180-3	1.0-7.0	23	86	180	125	80	1:5			
-HP09H	-150-3	3.0-9.0	26	86	150	125	80	1:5	30.000 <sup>1</sup>	FDC-09	S-1L
	-180-3	3.0-9.0	26	86	180	125	80	1:5	25.000 <sup>2</sup>	FDC-09	S-1L
-HP12H	-165-3 <sup>3</sup>	3.0-12.0	32	86	165	125	80	1:5		FDC-12	S-3L
	-180-3	3.0-12.0	32	86	180	125	80	1:5		FDC-12	S-3L

<sup>1</sup> Max. Drehzahl 20% /Std.

<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h

<sup>2</sup> Max. rotation speed 80% /h

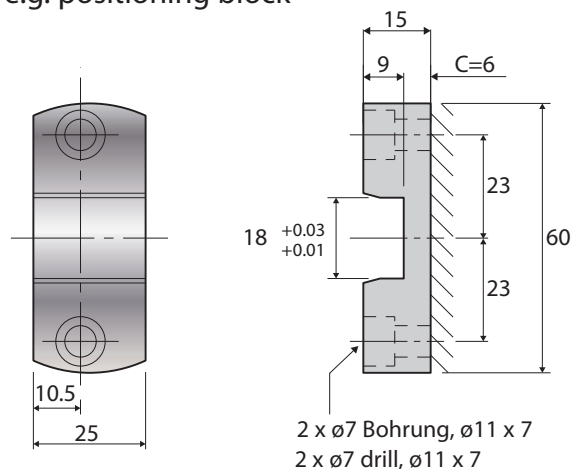
HP07   09   12	Positionierkolben   Plunger				
	No.1	No.2	No.3 <sup>3</sup>	No.4	No.5
A min (mm)	+15.1	+6.1	-2.9	-3.0	-12.0
A max (mm)	+24.0	+15.0	+6.0	-11.9	-20.9

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

<sup>3</sup> We deliver plunger No.3 ex stock.

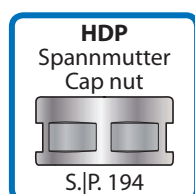
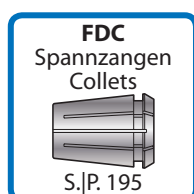
### Bsp. Positionierblock<sup>1)</sup>

e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine





# BT

## JIS B6339 | MAS-BT

Spannsystem	Tooling System	BT			
		30	40	50	
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	146	151	166-167
CTZ-SA	Kraftspannfutter Rundlauf "0"	Milling Chuck R-Zero	-	152	168
PHC-A	Power Dehnspannfutter	Power Hydro Chuck	147	153	169
PHC-H	Hochdruck-Dehnspannfutter	High Pressure Hydro Chuck	-	156	170
PHC-SA	Dehnspannfutter superschlank	Slim Hydro Chuck	-	154-155	171
PHC-SC	Dehnspannfutter schlank Coolant Jet	Slim Hydro Chuck Coolant Jet	-	154-155	-
PHZ-SA	Dehnspannfutter Rundlauf "0"	Slim Hydro Chuck R-Zero	-	157	-
HDC-A	Hochgenauigkeits-Spannzangenfutter	High Precision Collet Chuck	148	158	172
GDC-A	Highspeed-Spannzangenfutter	Highspeed Collet Chuck	149	159	-
HDZ-A	Spannzangenfutter Rundlauf "0"	Collet Chuck R-Zero	-	160	173
ERC	Mikro-Spannzangenfutter	Micro Collet Chuck	150	161	-
SRE	Schrumpffutter	Shrink Fit Chuck	-	162	-
SRS	Schrumpffutter superschlank	Slim Shrink Fit Chuck	-	163	-
SFH	SynchroFit-Gewindescheidfutter	SynchroFit Tapping Holder	-	164	174
FMC	Aufsteck-Fräsdorn extra lang	Face Mill Arbor extra long	-	-	175
HPH	Präzisions-Schnelllaufspindel	Precision Hyper Spindle	-	165	176

Werkzeugspannsysteme für Brother

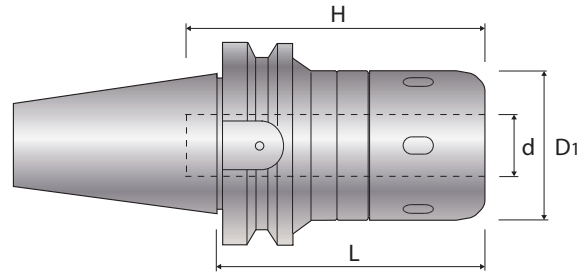
Tooling System for Brother's **SPEEDIO**

**M140X2**

S./P. 178-182

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### BT30



JIS B6339

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H			
BT30	-CT16SA	-75	16	45	75	65	MC16-d	HS-1-16
		-90	16	45	90	65	MC16-d	HS-1-16
	-CT20SA	-75 <sup>1</sup>	20	52	75	80	MC20-d	HS-2-20
		-90	20	52	90	80	MC20-d	HS-2-20
		-105	20	52	105	80	MC20-d	HS-2-20
	-CT25SA	-90	25	61	90	80	MC25-d	HS-2.5-25
		-105	25	61	105	80	MC25-d	HS-2.5-25
	-CT32SA	-90	32	68	90	76	MC32-d	HS-3-32

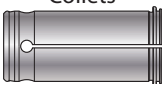
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

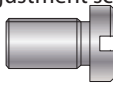
<sup>1</sup> MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S. | P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw




S. | P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S. | P. 190

**EM**  
Verlängerungen  
Extensions

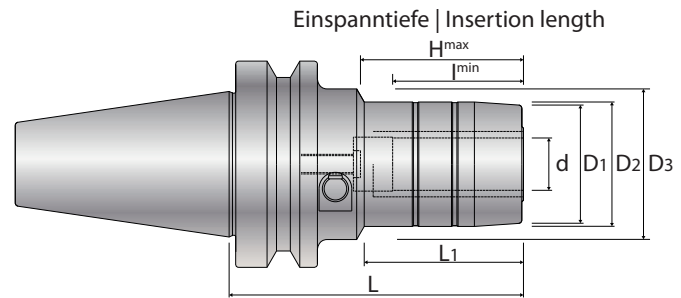
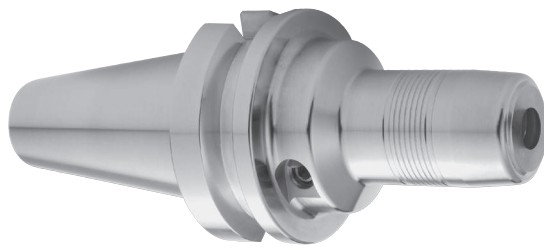


S. | P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT30

JIS B6339

3.0  
20.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

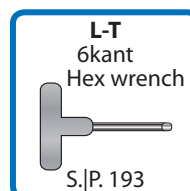
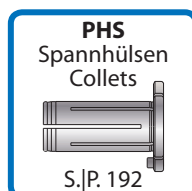
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L1	H <sub>min</sub>	H <sub>max</sub>			
BT30	-45	3	-	24	46	45	4	18	-	-	L-4T	
	-PHC03A	-60	3	-	24	46	60	19.8	18	27	-	L-4T
	-90	3	-	24	46	90	44.8	18	49	-	L-4T	
	-45	4	-	25	46	45	4	24	-	-	L-4T	
	-PHC04A	-65	4	-	25	46	65	25.1	24	29	-	L-4T
	-90	4	-	25	46	90	45.1	24	49	-	L-4T	
	-45	6	-	26	46	45	4	29	34	-	L-4T	
	-PHC06A	-75	6	24	26	46	75	30	29	34	-	L-4T
	-45	8	-	28	46	45	4	29	34	-	L-4T	
	-PHC08A	-75	8	26	28	46	75	30	29	34	-	L-4T
	-45	10	-	30	46	45	4	40	45	-	L-4T	
	-PHC10A	-90	10	28	30	46	90	46	40	55	-	L-4T
	-105	10	28	30	52	105	44	40	50	-	L-4T	
	-45	12	-	30	46	45	4	40	45	PHS12-d	L-4T	
	-PHC12A	-90	12	30	32	46	90	46	40	55	PHS12-d	L-4T
	-105	12	30	32	52	105	45	40	50	PHS12-d	L-4T	
	-45	14	-	30	46	45	4	40	45	-	L-4T	
	-PHC14A	-90	14	34	36	46	90	48	40	55	-	L-4T
	-105	14	34	36	52	105	46	40	50	-	L-4T	
	-45	16	-	30	46	45	4	40	45	-	L-4T	
-PHC16A	-90	16	36	38	46	90	48	40	55	-	L-4T	
-105	16	36	38	52	105	46	40	50	-	L-4T		
-90	20	40	42	46	90	49	40	50	PHS20-d	L-4T		
-PHC20A	-120	20	40	42	46	120	69	40	70	PHS20-d	L-4T	

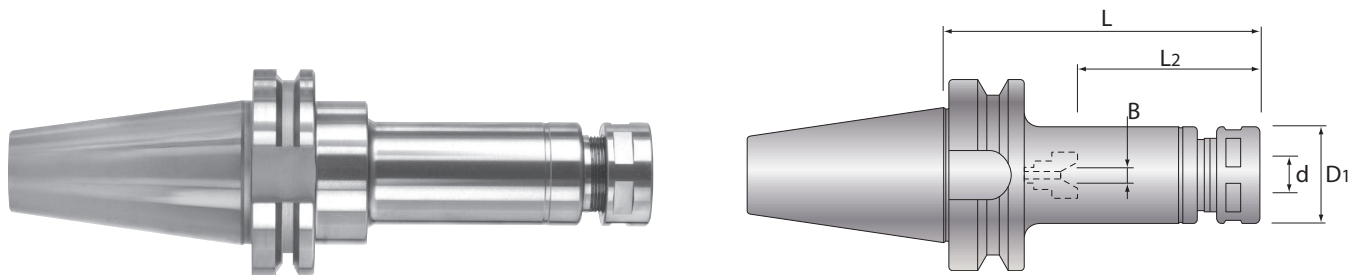
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.



# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



### BT30



JIS B6339

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

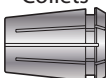
Form  
AD

Halter   Holder		d	D1	L	L2	B		
-HDC07A	-45	1.0-7.0	23	45	22-42	0-4	FDC-07	S-0
	-60	1.0-7.0	23	60	22-42	0-4	FDC-07	S-0
	-75	1.0-7.0	23	75	22-42	0-4	FDC-07	S-0
	-90	1.0-7.0	23	90	22-42	0-4	FDC-07	S-0
-HDC09A	-45	3.0-9.0	26	45	27-41	0-4	FDC-09	S-1L
	-60	3.0-9.0	26	60	27-51	0-4	FDC-09	S-1L
	-75	3.0-9.0	26	75	27-54	0-4	FDC-09	S-1L
	-90	3.0-9.0	26	90	27-54	0-4	FDC-09	S-1L
-HDC12A	-45	3.0-12.0	32	45	33-48	0-5	FDC-12	S-3L
	-60	3.0-12.0	32	60	33-51	0-5	FDC-12	S-3L
	-75	3.0-12.0	32	75	33-66	0-5	FDC-12	S-3L
	-90	3.0-12.0	32	90	33-66	0-5	FDC-12	S-3L
	-105	3.0-12.0	32	105	33-66	0-5	FDC-12	S-3L
-HDC16A	-45	4.0-16.0	36	45	38-49	0-6	FDC-16	S-4L
	-60	4.0-16.0	36	60	38-51	0-6	FDC-16	S-4L
	-75	4.0-16.0	36	75	38-66	0-6	FDC-16	S-4L
	-90	4.0-16.0	36	90	38-79	0-6	FDC-16	S-4L
	-105	4.0-16.0	36	105	38-79	0-6	FDC-16	S-4L
-HDC22A	-45	4.0-22.0	46	45	49	-	FDC-22	S-5L
	-60	4.0-22.0	46	60	67	-	FDC-22	S-5L
	-75	4.0-22.0	46	75	47-61	0-8	FDC-22	S-5L
	-90	4.0-22.0	46	90	47-76	0-8	FDC-22	S-5L
	-105	4.0-22.0	46	105	47-91	0-8	FDC-22	S-5L

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.


Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets




S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

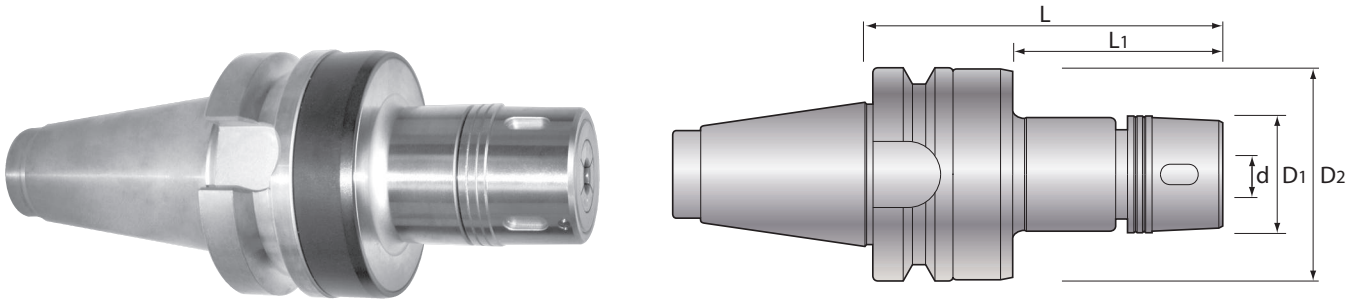
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### BT30



JIS B6339

3.0  
12.0

0.005  
4x D

G2.5  
20.000  
min<sup>-2</sup>

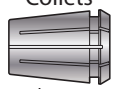
Form  
AD

Halter   Holder		d	D1	D2	L	L1		
BT30	-GDC09A -90	3.0-9.0	29	46	90	53	FDC-09	S-0
	-GDC12A -90	3.0-12.0	34	46	90	53	FDC-12	FK-0034
	-105	3.0-12.0	34	46	105	68	FDC-12	FK-0034

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



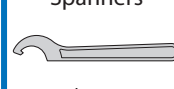
S.|P. 194

**GDP**  
Spannmutter  
Cap nut



S.|P. 194

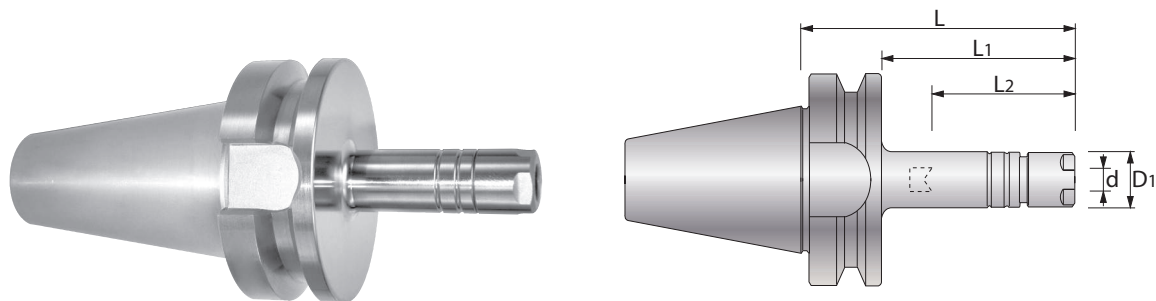
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### BT30

JIS B6339

1.0  
7.0



0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Form  
AD

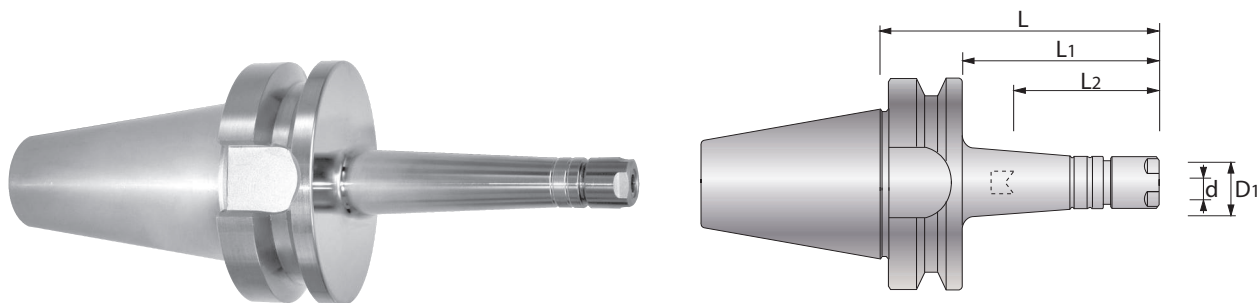
Super-  
schlank  
Super slim

### Form S

Halter   Holder		d	D1	L	L1	L2			
BT30	-ERC8	-75 <sup>1</sup>	1.0-5.0	12	75	53	34 (19-31)	ER8	S-8E
		-90 <sup>1</sup>	1.0-5.0	12	90	68	34 (19-31)	ER8	S-8E
	-ERC11S	-75	1.0-7.0	16	75	53	22-45	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.



### BT30

JIS B6339

1.0  
7.0



0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Form  
AD

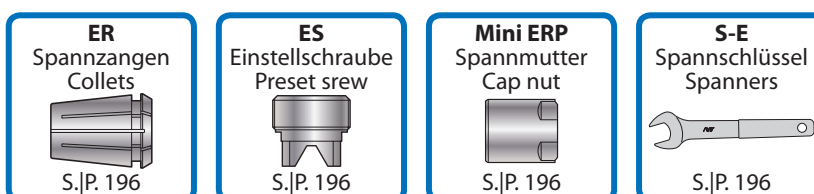
Super-  
schlank  
Super slim

### Form T

Halter   Holder		d	D1	L	L1	L2			
BT30	-ERC11S	-75T	1.0-7.0	16	75	53	22-45	ER11	S-11E
		-105T	1.0-7.0	16	105	83	22-45	ER11	S-11E

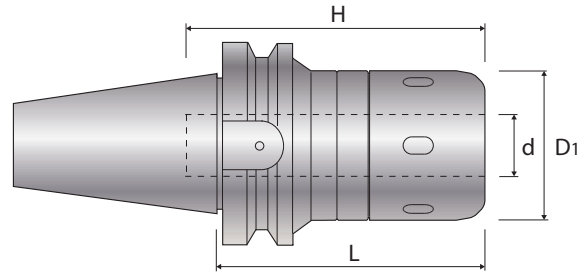
Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### BT40



JIS B6339

3.0  
32.0

0.005  
3xD

max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	L2			
BT40	-CT16SA	-75	16	45	75	65	MC16-d	HS-1-16
		-90	16	45	90	65	MC16-d	HS-1-16
	-CT20SA	-75	20	52	75	75	MC20-d	HS-2-20
		-90 <sup>2</sup>	20	52	90	80	MC20-d	HS-2-20
		-105	20	52	105	80	MC20-d	HS-2-20
		-120	20	52	120	80	MC20-d	HS-2-20
	-CT25SA	-90	25	61	90	80	MC25-d	HS-2.5-25
		-105 <sup>2</sup>	25	61	105	80	MC25-d	HS-2.5-25
		-120	25	61	120	80	MC25-d	HS-2.5-25
	-CT32SA	-135	25	61	135	80	MC25-d	HS-2.5-25
		-90 <sup>1</sup>	32	73	90	76	MC32-d	HS-3-32
		-105 <sup>2</sup>	32	73	105	85	MC32-d	HS-3-32
-120		32	73	120	85	MC32-d	HS-3-32	
		-135	32	73	135	120	MC32-d	HS-3-32

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.


<sup>2</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

<sup>1</sup> MC-A Collets cannot be used.


<sup>2</sup> Form B Standard

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

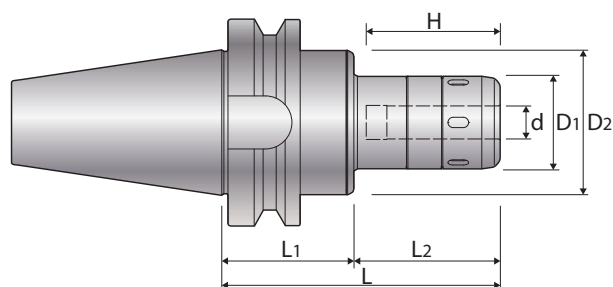
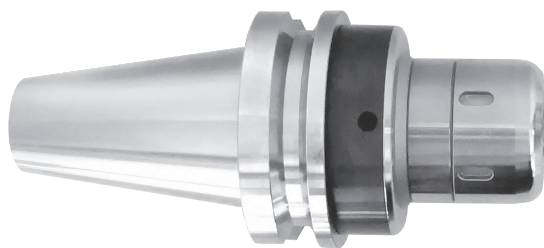


S.|P. 187

# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### BT40




JIS B6339

4.0  
32.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	L2	I				
BT40	-CTZ25SA	-125	25	61	74	125	64	61	80	MC25-d	HS-2.5-25	L-6L
		-150	25	61	74	150	74	76	80	MC25-d	HS-2.5-25	L-6L
	-CTZ32SA	-125	32	68	80	125	64	61	110	MC32-d	HS-3-32	L-6L
		-150	32	68	80	150	74	76	120	MC32-d	HS-3-32	L-6L

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).


Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

**MC**  
Spannhülsen  
Collets




S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



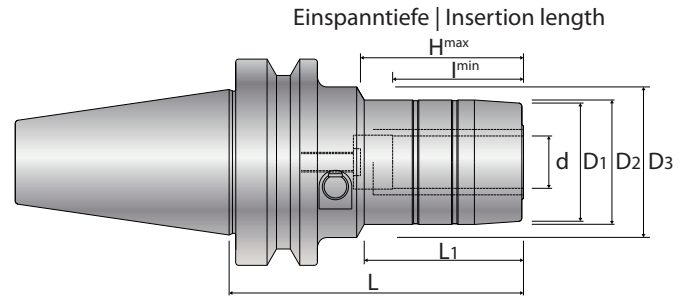
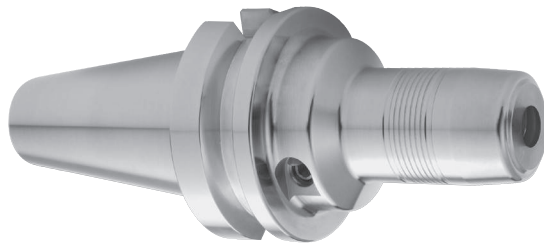
S.|P. 187



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT40

JIS B6339

3.0  
32.0



0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

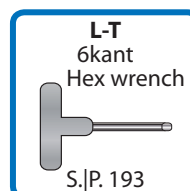
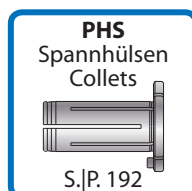
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>		
<b>BT40</b>	-PHC03A -65	3	-	24	46	65	20	18	27	-	L-4T
	-90	3	-	24	46	90	45	18	49	-	L-4T
	-PHC04A -70	4	-	25	46	70	25	24	29	-	L-4T
	-90	4	-	25	46	90	45	24	49	-	L-4T
	-PHC06A -75	6	24	26	46	75	30	29	34	-	L-4T
	-105	6	24	26	46	105	41	29	45	-	L-4T
	-PHC08A -75	8	26	28	46	75	30	29	34	-	L-4T
	-105	8	26	28	46	105	41	29	45	-	L-4T
	-PHC10A -90	10	28	30	52	90	44	40	50	-	L-4T
	-120	10	28	30	52	120	64	40	70	-	L-4T
	-PHC12A -90	12	30	32	52	90	45	40	50	PHS12-d	L-4T
	-120	12	30	32	52	120	65	40	70	PHS12-d	L-4T
	-PHC14A -90	14	34	36	52	90	46	40	50	-	L-4T
	-120	14	34	36	52	120	66	40	70	-	L-4T
	-PHC16A -90	16	36	38	52	90	46	40	50	-	L-4T
	-120	16	36	38	52	120	66	40	70	-	L-4T
	-PHC20A -90	20	40	42	46	90	49	40	50	PHS20-d	L-4T
	-120	20	40	42	46	120	69	40	70	PHS20-d	L-4T
	-PHC25A -105	25	50	52	62	105	59	50	60	-	L-6T
	-135	25	50	52	62	135	79	50	80	-	L-6T
-PHC32A -120	32	60	62	62	120	93	65	75	-	L-6T	
-150	32	60	62	62	150	123	65	80	-	L-6T	

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.



# PHC-SA Dehnspanfutter superschlank

## Slim Hydro Chuck

Super slim Series



### BT40

JIS B6339

3.0  
25.0

0.003  
3x D



G2.5  
25,000  
min<sup>-1</sup>

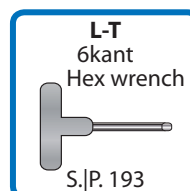
Form  
AD

Tol.  
h6



mit Coolant Jet: PHC-SC  
with Coolant Jet: PHC-SC

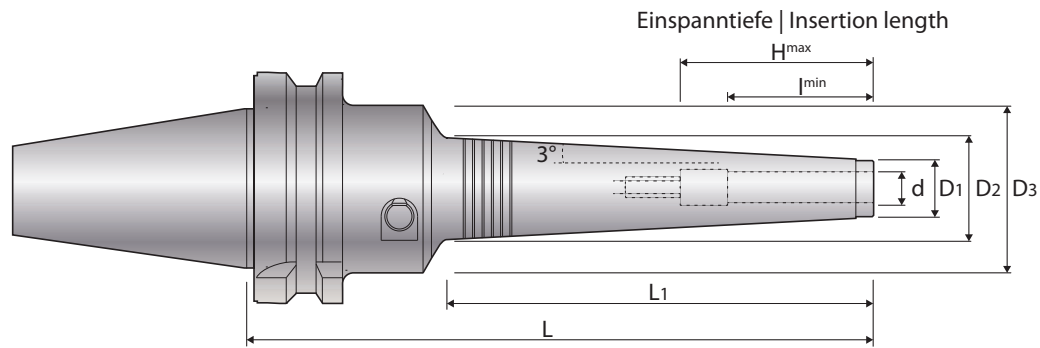
Halter   Holder		d	PHC-S		PHC-SC		D <sub>3</sub>	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>			
			D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>								
BT40	-PHC03SA	-75	3	11	13.0	-	-	46	75	19	18	49	-	L-4T
		-90	3	11	14.2	11.6	14.8	46	90	30	18	49	-	L-4T
		-135	3	11	18.5	11.6	19.1	46	135	71	18	49	-	L-4T
	-PHC04SA	-75	4	11	13.0	-	-	46	75	19	24	55	-	L-4T
		-90	4	11	14.2	11.6	14.8	46	90	30	24	55	-	L-4T
		-135	4	11	18.5	11.6	19.1	46	135	71	24	55	-	L-4T
	-PHC06SA	-90	6	13	15.8	14	16.8	46	90	26	29	85	-	L-4T
		-135	6	13	20.5	14	21.5	46	135	71	29	69	-	L-4T
		-150	6	13	22.2	-	-	46	150	87	29	84	-	L-4T
	-PHC08SA	-165	6	13	23.7	-	-	46	165	102	29	69	-	L-4T
		-180	6	13	25.4	-	-	46	180	118	29	84	-	L-4T
		-90	8	15	17.9	16	18.9	46	90	27	29	85	-	L-4T
-PHC10SA	-135	8	15	22.6	16	23.6	46	135	72	29	69	-	L-4T	
	-150	8	15	24.2	-	-	46	150	87	29	84	-	L-4T	
	-165	8	15	25.8	-	-	46	165	103	29	69	-	L-4T	
-PHC12SA	-180	8	15	27.4	-	-	46	180	118	29	84	-	L-4T	
	-90	10	17	20.4	18	21.4	46	90	32	40	85	-	L-4T	
	-135	10	17	24.6	18	25.6	46	135	72	40	80	-	L-4T	
-PHC12SA	-150	10	17	26.3	-	-	46	150	87	40	95	-	L-4T	
	-165	10	17	27.8	-	-	46	165	103	40	80	-	L-4T	
	-180	10	17	29.5	-	-	46	180	119	40	95	-	L-4T	
-PHC12SA	-90	12	19	22.5	20	23.5	46	90	33	40	85	-	L-4T	
	-135	12	19	26.7	20	27.7	46	135	73	40	80	HS12-d	L-4T	
	-150	12	19	28.3	-	-	46	150	88	40	95	HS12-d	L-4T	
-PHC12SA	-165	12	19	30.0	-	-	46	165	104	40	80	HS12-d	L-4T	
	-180	12	19	31.5	-	-	46	180	119	40	95	HS12-d	L-4T	





# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



Halter   Holder	d	PHC-S		PHC-SC		D <sub>3</sub>	L	L <sub>1</sub>	I <sub>min</sub>	H <sub>max</sub>			
		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>								
-PHC16SA	-135	16	23	30.6	24	31.6	52.5	135	72	40	83	-	L-4T
	-165	16	23	33.8	24	34.8	52.5	165	103	40	105	-	L-4T
	-180	16	23	35.5	-	-	52.5	180	119	40	105	-	L-4T
BT40 -PHC20SA	-135	20	28	34.7	29	35.7	62	135	63	40	78	HS20-d	L-6T
	-165	20	28	37.8	-	-	62	165	93	40	108	HS20-d	L-6T
	-180	20	28	39.5	29	40.5	62	180	109	40	110	HS20-d	L-6T
-PHC25SA	-135	25	37	43.9	38	44.9	62	135	65	50	78	-	L-6T
	-165	25	37	47.1	-	-	62	165	96	50	108	-	L-6T
	-180	25	37	48.8	38	49.8	62	180	112	50	120	-	L-6T

L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

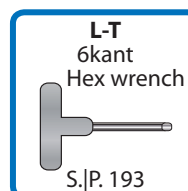
## PHC-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**

With internal coolant nozzles.

**Bestellbeispiel | Order example**

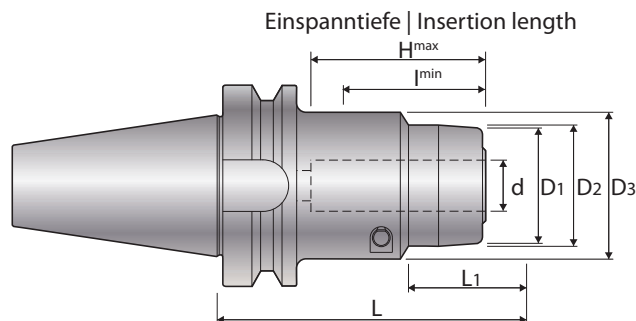
BT40-PHC06SC-135



# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### BT40

JIS B6339

6.0  
32.0

0.003  
50



max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

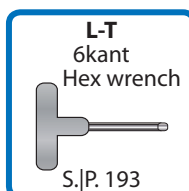
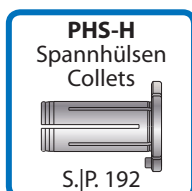


**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
BT40	-PHC16H	-45	16	42	-	56	45	18	45	60	-	L-4T
		-75	16	42	44	56	75	27	45	85	-	L-4T
	-PHC20H	-75	20	48	50	60	75	32	50	80	PHS20H-d	L-4T
		-105	20	48	50	60	105	32	50	95	PHS20H-d	L-4T
	-PHC25H	-75	25	58	60	69	75	25	55	80	-	L-5T
		-105	25	58	60	69	105	35	55	110	-	L-5T
	-PHC32H	-105	32	63	65	75	105	40	65	90	PHS32H-d	L-5T
		-135	32	63	65	75	135	47	65	120	PHS32H-d	L-5T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

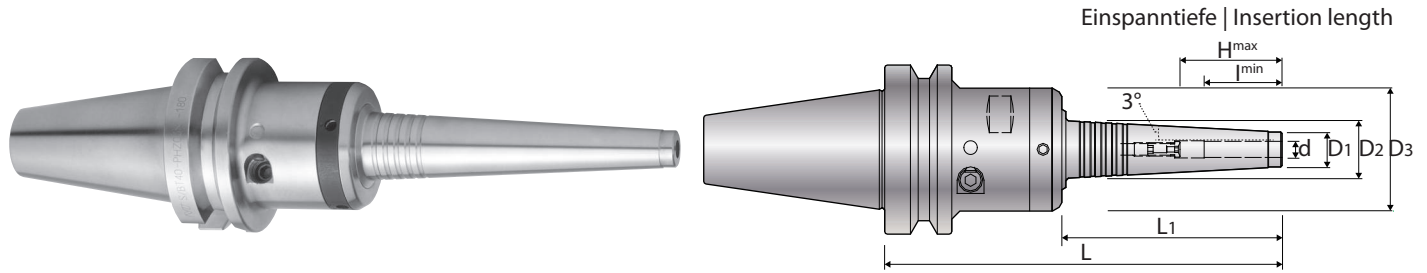
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# PHZ-SA

R"0" Series

## Dehnspannfutter R"0" superschlank Slim Hydro Chuck with run out "0"



### BT40

JIS B6339

6.0  
12.0




0-2  
µm

max  
20.000  
min<sup>-1</sup>

Form  
AD

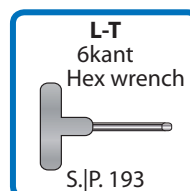
Tol.  
h6



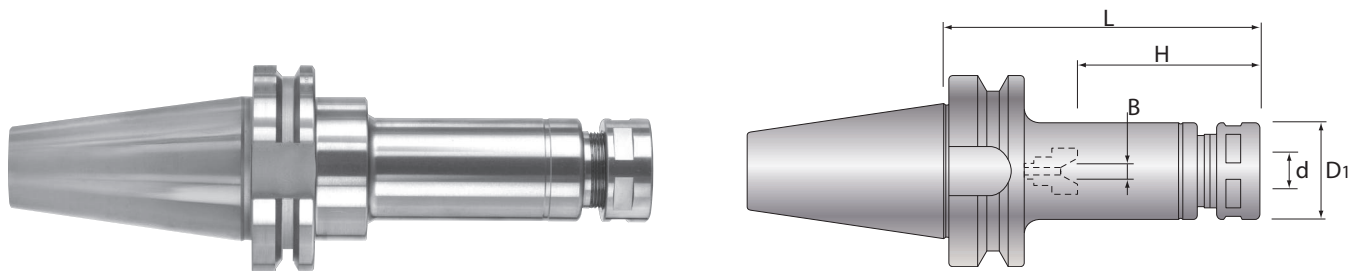
Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>				
BT40	-PHZ06SA	-150	6	13	21.5	46	150	82	29	37	-	L-4T	L-3T
		-180	6	13	24.6	46	180	112	29	37	-	L-4T	L-3T
	-PHZ08SA	-150	8	15	23.5	46	150	82	29	50	-	L-4T	L-3T
		-180	8	15	26.6	46	180	112	29	50	-	L-4T	L-3T
	-PHZ10SA	-150	10	17	25.5	46	150	82	40	50	-	L-4T	L-3T
		-180	10	17	28.2	46	180	112	40	50	-	L-4T	L-3T
	-PHZ12SA	-150	12	19	27.4	46	150	82	40	70	HS12-d	L-4T	L-3T
		-180	12	19	28.2	46	180	112	40	70	HS12-d	L-4T	L-3T

\* 6kant-Schlüssel für Einstellung.  
Mit axialer Längeneinstellung.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

\* Hex wrench for Rotor ring  
With axial length adjustment.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).



# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## BT40


JIS B6339

1.0  
22.0

0.005  
4x D

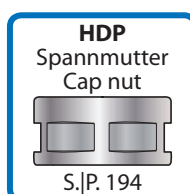
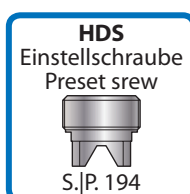
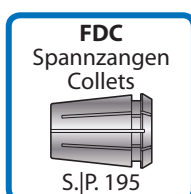
max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H	B			
BT40	-HDC07A	-75	1.0-7.0	23	75	22-42	0-4	FDC-07	S-0
		-90	1.0-7.0	23	90	22-42	0-4	FDC-07	S-0
		-105	1.0-7.0	23	105	22-42	0-4	FDC-07	S-0
	-HDC09A	-90	3.0-9.0	26	90	27-54	0-4	FDC-09	S-1L
		-105	3.0-9.0	26	105	27-54	0-4	FDC-09	S-1L
		-120	3.0-9.0	26	120	27-54	0-4	FDC-09	S-1L
		-135	3.0-9.0	26	135	27-54	0-4	FDC-09	S-1L
		-165	3.0-9.0	26	165	27-54	0-4	FDC-09	S-1L
	-HDC12A	-90	3.0-12.0	32	90	33-66	0-5	FDC-12	S-3L
		-105	3.0-12.0	32	105	33-66	0-5	FDC-12	S-3L
		-120	3.0-12.0	32	120	33-66	0-5	FDC-12	S-3L
		-135	3.0-12.0	32	135	33-66	0-5	FDC-12	S-3L
		-165	3.0-12.0	32	165	33-66	0-5	FDC-12	S-3L
	-HDC16A	-90	4.0-16.0	36	90	38-79	0-6	FDC-16	S-4L
		-105	4.0-16.0	36	105	38-79	0-6	FDC-16	S-4L
		-120	4.0-16.0	36	120	38-79	0-6	FDC-16	S-4L
		-135	4.0-16.0	36	135	38-79	0-6	FDC-16	S-4L
		-165	4.0-16.0	36	165	38-79	0-6	FDC-16	S-4L
	-HDC22A	-105	4.0-22.0	46	105	47-100	0-8	FDC-22	S-5L
		-120	4.0-22.0	46	120	47-100	0-8	FDC-22	S-5L
-135		4.0-22.0	46	135	47-100	0-8	FDC-22	S-5L	
-165		4.0-22.0	46	165	47-100	0-8	FDC-22	S-5L	
-195		4.0-22.0	46	195	47-100	0-8	FDC-22	S-5L	

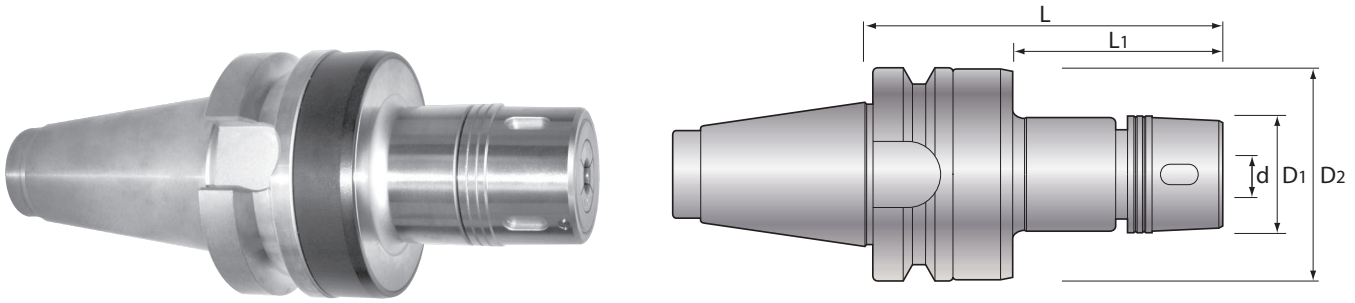
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment



# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



### BT40



JIS B6339

1.0  
22.0

0.005  
4x D

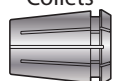



G2.5  
20.000  
min<sup>-2</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1		
BT40	-GDC07A	-90	1.0-7.0	23	62	90	FDC-07	S-0
		-120	1.0-7.0	23	62	120	FDC-07	S-0
	-GDC09A	-90	3.0-9.0	29	62	90	FDC-09	S-0
		-120	3.0-9.0	29	62	120	FDC-09	S-0
	-GDC12A	-90	3.0-12.0	34	62	90	FDC-12	FK-0034
		-120	3.0-12.0	34	62	120	FDC-12	FK-0034
	-GDC16A	-90	3.0-16.0	38	62	90	FDC-16	FK-0034
		-120	3.0-16.0	38	62	120	FDC-16	FK-0034
	-GDC22A	-90	4.0-22.0	49	62	90	FDC-22	FK-0045
		-105	4.0-22.0	49	62	105	FDC-22	FK-0045
		-135	4.0-22.0	49	62	135	FDC-22	FK-0045

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

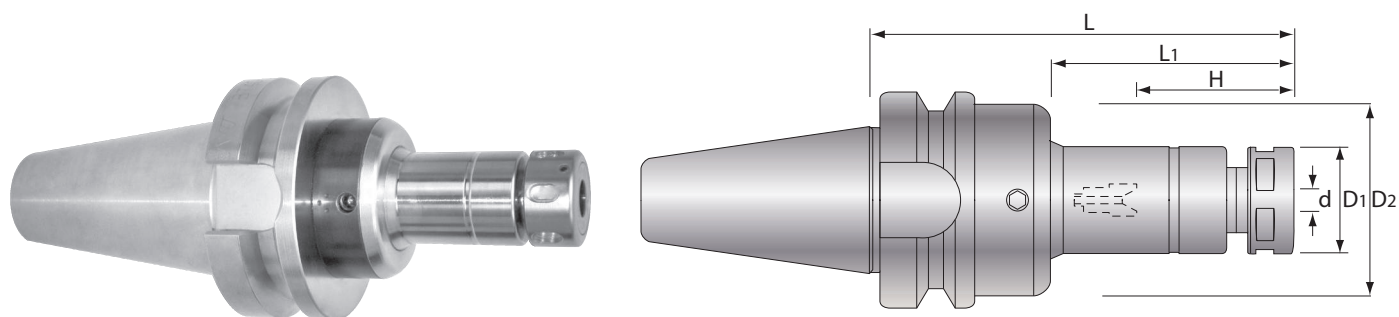
Cap nut included in delivery.  
Preset screw optional.

<p><b>FDC</b> Spannzangen Collets</p>  <p>S. P. 195</p>	<p><b>HDS</b> Einstellschraube Preset screw</p>  <p>S. P. 194</p>	<p><b>HDP GDP</b> Spannmutter Cap nut</p>  <p>S. P. 194</p>	<p><b>S-0 FK</b> Spannschlüssel Spanners</p>  <p>S. P. 194</p>
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# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### BT40



JIS B6339

1.0  
22.0

0-2  
µm

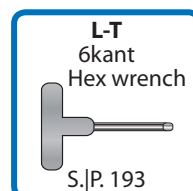
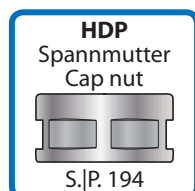
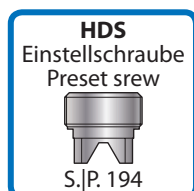
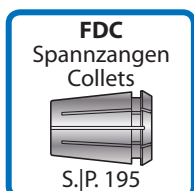
max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	H				
BT40	-HDZ07A	-75	1.0-7.0	23	41	75	32	20-45	FDC-07	S-0	L-3T
		-90	1.0-7.0	23	41	90	47	20-45	FDC-07	S-0	L-3T
		-105	1.0-7.0	23	41	105	62	20-45	FDC-07	S-0	L-3T
	-HDZ09A	-90	3.0-9.0	26	45	90	47	27-57	FDC-09	S-1L	L-3T
		-105	3.0-9.0	26	45	105	62	27-57	FDC-09	S-1L	L-3T
		-120	3.0-9.0	26	45	120	77	27-57	FDC-09	S-1L	L-3T
		-135	3.0-9.0	26	45	135	92	27-57	FDC-09	S-1L	L-3T
		-165	3.0-9.0	26	45	165	122	27-57	FDC-09	S-1L	L-3T
	-HDZ12A	-90	3.0-12.0	32	56	90	43	33-68	FDC-12	S-3L	L-4T
		-105	3.0-12.0	32	56	105	58	33-68	FDC-12	S-3L	L-4T
		-120	3.0-12.0	32	56	120	73	33-68	FDC-12	S-3L	L-4T
		-135	3.0-12.0	32	56	135	88	33-68	FDC-12	S-3L	L-4T
		-165	3.0-12.0	32	56	165	118	33-68	FDC-12	S-3L	L-4T
	-HDZ16A	-90	3.0-16.0	36	62	90	43	38-81	FDC-16	S-4L	L-4T
		-105	3.0-16.0	36	62	105	58	38-81	FDC-16	S-4L	L-4T
-120		3.0-16.0	36	62	120	73	38-81	FDC-16	S-4L	L-4T	
-135		3.0-16.0	36	62	135	88	38-81	FDC-16	S-4L	L-4T	
-165		3.0-16.0	36	62	165	118	38-81	FDC-16	S-4L	L-4T	
-HDZ22A	-105	4.0-22.0	46	69	105	31	47-103	FDC-22	S-5L	L-5T	
	-120	4.0-22.0	46	69	120	46	47-103	FDC-22	S-5L	L-5T	
	-135	4.0-22.0	46	69	135	61	47-103	FDC-22	S-5L	L-5T	
	-165	4.0-22.0	46	69	165	91	47-103	FDC-22	S-5L	L-5T	
	-195	4.0-22.0	46	69	195	121	47-103	FDC-22	S-5L	L-5T	

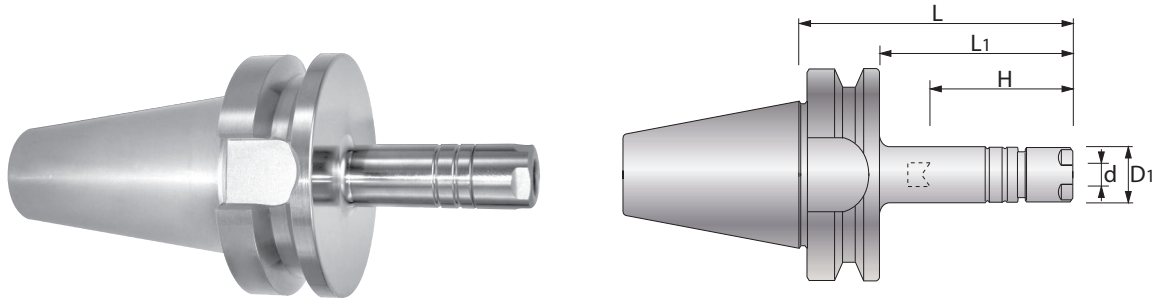
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment





# ERC Mikro-Spannzangenfutter Micro-Collet Chuck



## BT40

JIS B6339

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

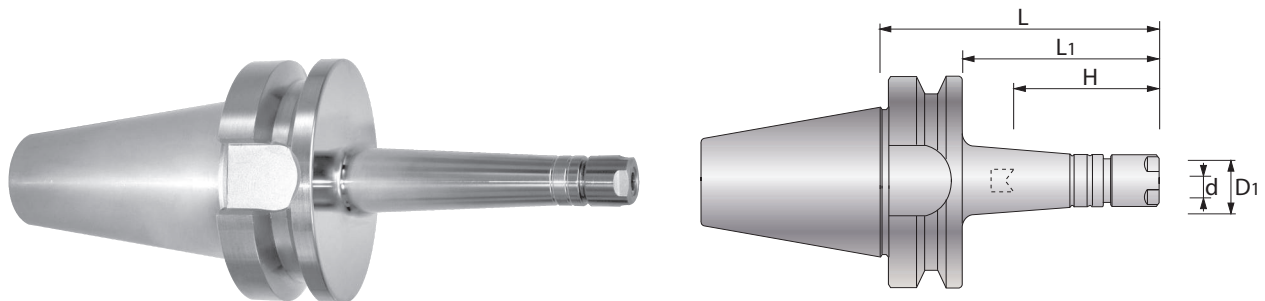
Super-  
schlank  
Super slim

## Form S

Halter   Holder		d	D1	L	L1	H		
-ERC8	-75 <sup>1</sup>	1.0-5.0	12	75	48	34 (19-31)	ER8	S-8E
	-90	1.0-5.0	12	90	78	34 (19-31)	ER8	S-8E
BT40	-75	1.0-7.0	16	75	48	22-45	ER11	S-11E
	-ERC11S	-105	1.0-7.0	105	78	22-45	ER11	S-11E
	-135	1.0-7.0	16	135	108	22-45	ER11	S-11E

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw



## BT40

JIS B6339

1.0  
7.0



0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

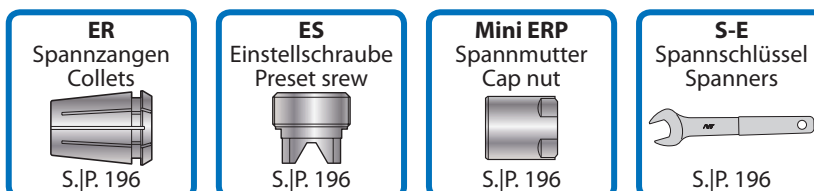
Super-  
schlank  
Super slim

## Form T

Halter   Holder		d	D1	L	L1	H		
-105T <sup>1</sup>	-105T <sup>1</sup>	1.0-5.0	12	105	78	34 (19-31)	ER8	S-8E
	-135T <sup>1</sup>	1.0-5.0	12	135	108	34 (19-31)	ER8	S-8E
BT40	-ERC11S	-75T	1.0-7.0	75	48	22-45	ER11	S-11E
	-105T	1.0-7.0	16	105	78	22-45	ER11	S-11E
	-135T	1.0-7.0	16	135	108	22-45	ER11	S-11E

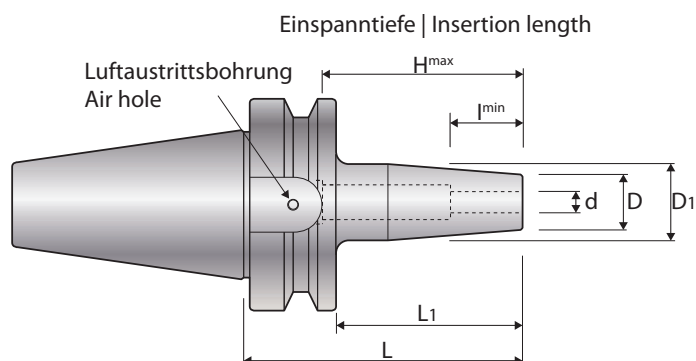
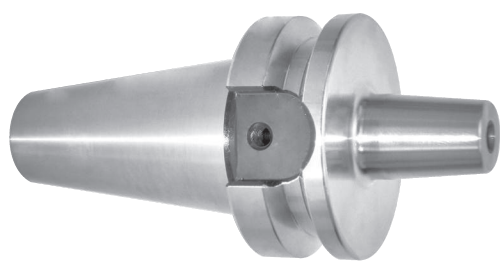
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw



# SRE Schrumpffutter

## Shrink Fit Chuck



### BT40

JIS B6339

6.0  
8.0

3  
μm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

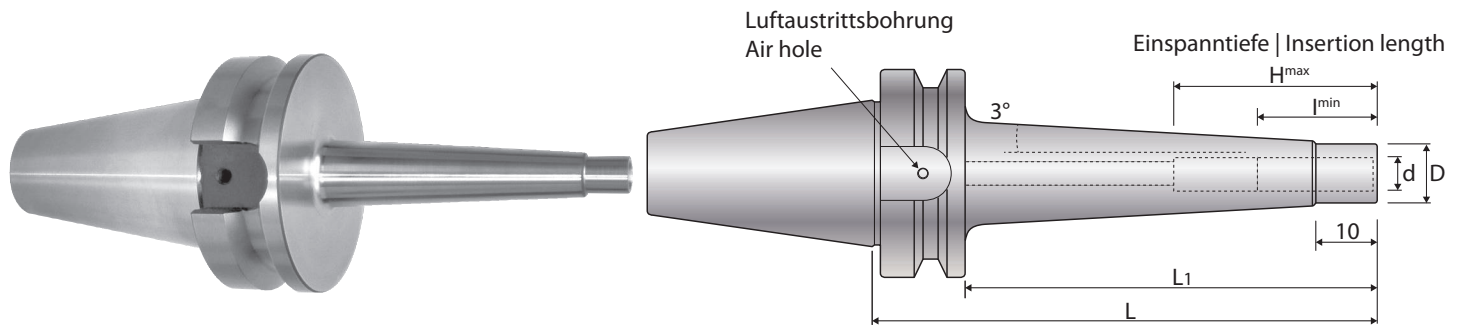
Halter   Holder		d	D	D1	D2	L	L1	l <sub>min</sub>	H <sub>max</sub>	
BT40	-SRE6A	-50	6	13	16	-	50	23	19	27
		-70	6	13	16	-	70	43	27	47
		-100	6	13	18	-	100	73	27	77
		-120	6	13	18	-	120	93	27	97
		-135	6	13	18	30	135	108	27	112
	-160	6	13	18	30	160	133	27	137	
	-SRE8A	-50	8	13	16	-	50	23	19	27
		-70	8	13	16	-	70	43	27	47
		-100	8	13	18	-	100	73	27	77
		-120	8	13	18	-	120	93	27	97
-135		8	13	18	30	135	108	27	112	
-160	8	13	18	30	160	133	27	137		

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



### BT40

JIS B6339

6.0  
20.0

3  
µm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

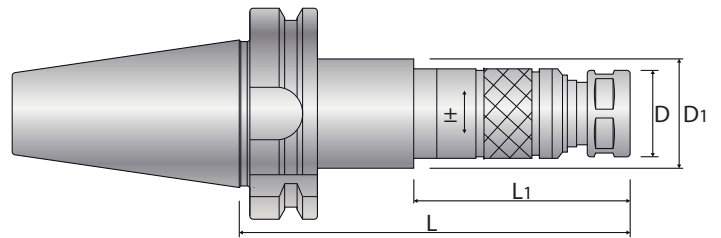
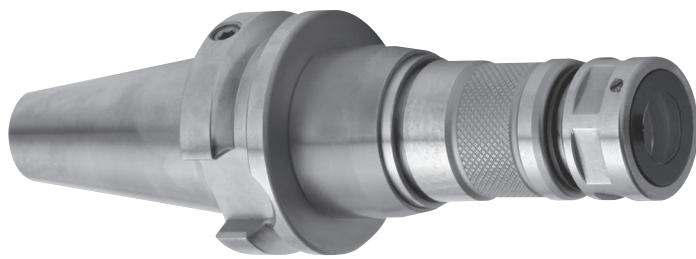
Halter   Holder		d	D	L	L <sub>1</sub>	l <sub>min</sub>	H <sub>max</sub>
-SRS6A	-105	6	9	105	78	26	36
	-135	6	9	135	108	26	36
	-165	6	9	165	138	26	36
-SRS8A	-105	8	11	105	78	26	50
	-135	8	11	135	108	26	50
	-165	8	11	165	138	26	50
-SRS10A	-105	10	13	105	78	32	50
	-135	10	13	135	108	32	50
	-165	10	13	165	138	32	50
-SRS12A	-105	12	15	105	78	37	70
	-135	12	15	135	108	37	70
	-165	12	15	165	138	37	70
-SRS16A	-105	16	20	105	78	40	80
	-135	16	20	135	108	40	80
	-165	16	20	165	138	40	80
-SRS20A	-105	20	26	105	78	42	100
	-135	20	26	135	108	42	100
	-165	20	26	165	138	42	100

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



### BT40

JIS B6339



**M3  
M20**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



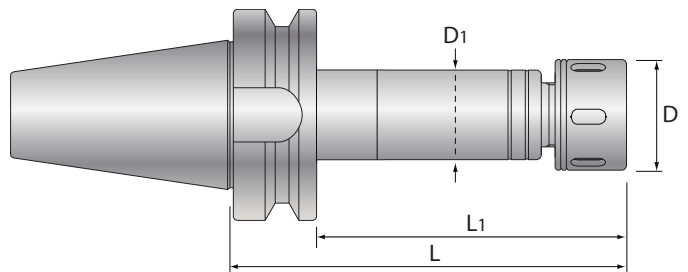
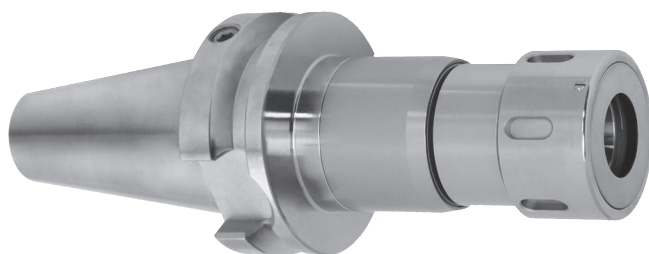
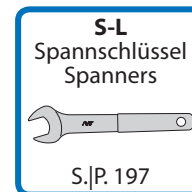
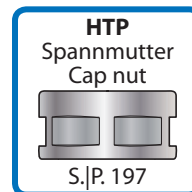
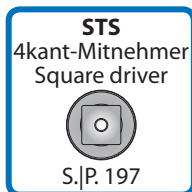
**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets



**M2  
M20**

Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
BT40	-SFH12	-105	M3-M8	26	34	105	55	FSC-09	S-1L
		-120	M3-M8	26	34	120	70	FSC-09	S-1L
		-150	M3-M8	26	34	150	100	FSC-09	S-1L
	-SFH18	-125	M5-M20	36	40	125	68	FSC-16	S-4L
		-135	M5-M20	36	40	135	78	FSC-16	S-4L
		-150	M5-M20	36	40	150	93	FSC-16	S-4L

Spannmutter im Lieferumfang enthalten.

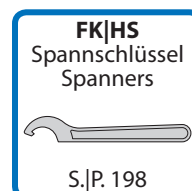
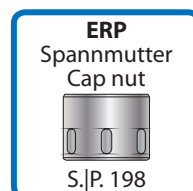
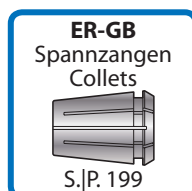
Cap nut included in delivery.



Halter   Holder		Schneidbereich Tapping range	D	D1	L	L1			
BT 40	-SFH12S	-80	M2-M12	32	34	80	61	ER16-GB	FK-0034
	-SFH18S	-105	M3-M20	42	40	105	86	ER25-GB	HS-1-16

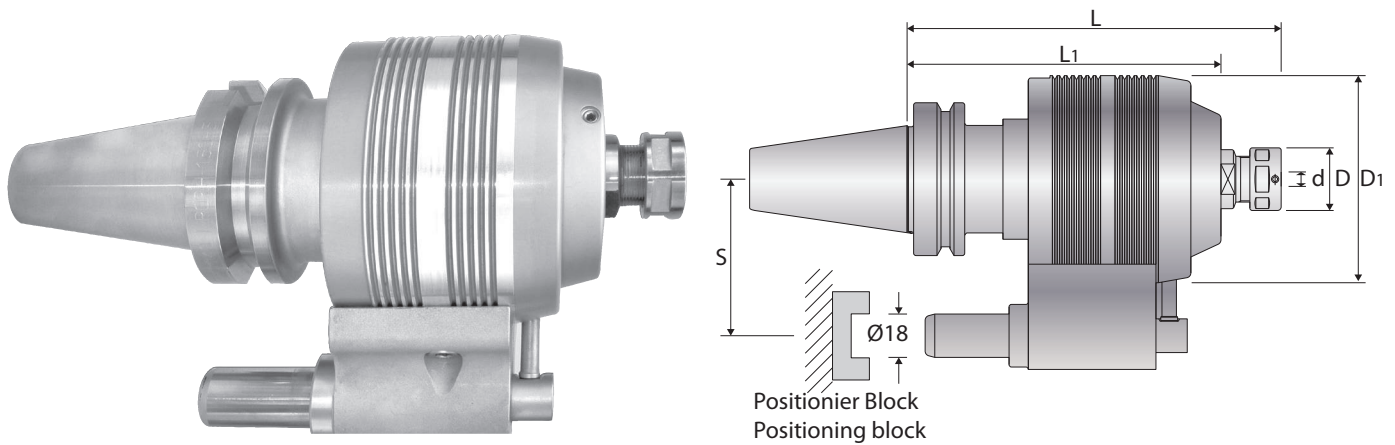
Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.



# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



### BT40



DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

Halter   Holder		d	D	D1	L	L1	S	Übersetzung Gear ratio	max. Drehzahl max. speed rpm		
-HP07H	-150-3	1.0-7.0	23	86	150	125	65	1:5		FDC-07	S-0
	-180-3	1.0-7.0	23	86	180	125	65	1:5		FDC-07	S-0
-HP09H	-150-3	3.0-9.0	26	86	150	125	65	1:5	30.000 <sup>1</sup>	FDC-09	S-1L
	-180-3	3.0-9.0	26	86	180	125	65	1:5	25.000 <sup>2</sup>	FDC-09	S-1L
-HP12H	-165-3 <sup>3</sup>	3.0-12.0	32	86	165	125	65	1:5		FDC-12	S-3L
	-180-3	3.0-12.0	32	86	180	125	65	1:5		FDC-12	S-3L

<sup>1</sup> Max. Drehzahl 20% /Std.  
<sup>2</sup> Max. Drehzahl 80% /Std.

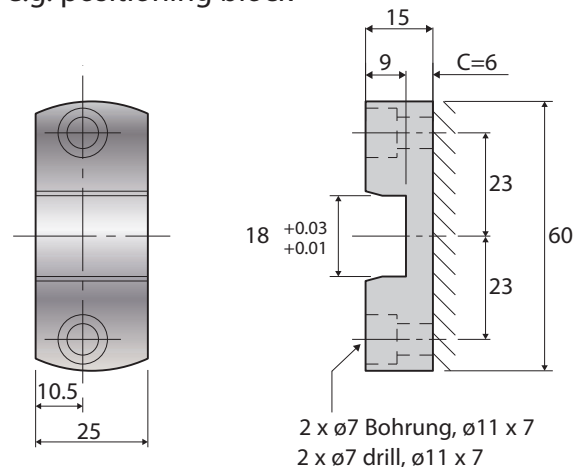
<sup>1</sup> Max. rotation speed 20% /h  
<sup>2</sup> Max. rotation speed 80% /h

HP07   09   12	Positionierkolben   Plunger				
	No.1	No.2	No.3 <sup>3</sup>	No.4	No.5
A min (mm)	+15.1	+6.1	-2.9	-3.0	-12.0
A max (mm)	+24.0	+15.0	+6.0	-11.9	-20.9

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

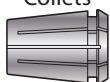
<sup>3</sup> We deliver plunger No.3 ex stock.


### Bsp. Positionierblock<sup>1)</sup> e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine

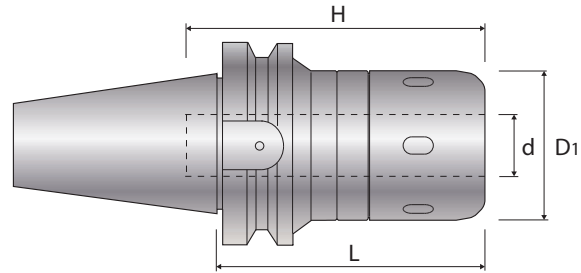
**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### BT50



JIS B6339

3.0  
32.0


0.005  
3x D

max  
15.000  
min<sup>-1</sup>

Form  
AD


Halter   Holder		d	D1	L	H		
-CT16SA	-90	16	45	90	65	MC16-d	HS-1-16
	-105	16	45	105	65	MC16-d	HS-1-16
	-135	16	45	135	65	MC16-d	HS-1-16
-CT20SA	-90	20	52	90	80	MC20-d	HS-2-20
	-105 <sup>2</sup>	20	52	105	80	MC20-d	HS-2-20
	-120	20	52	120	80	MC20-d	HS-2-20
	-135	20	52	136	80	MC20-d	HS-2-20
	-165	20	52	165	80	MC20-d	HS-2-20
	-200	20	52	200	80	MC20-d	HS-2-20
	-250	20	52	250	80	MC20-d	HS-2-20
-CT25SA	-300	20	52	300	80	MC20-d	HS-2-20
	-105 <sup>2</sup>	25	61	105	80	MC25-d	HS-2.5-25
	-120	25	61	120	80	MC25-d	HS-2.5-25
	-135	25	61	135	80	MC25-d	HS-2.5-25
	-165	25	61	165	80	MC25-d	HS-2.5-25
	-200	25	61	200	80	MC25-d	HS-2.5-25
	-250	25	61	250	80	MC25-d	HS-2.5-25
-CT32SA	-300	25	61	300	80	MC25-d	HS-2.5-25
	-95	32	73	95	120	MC32-d	HS-3-32
	-105 <sup>2</sup>	32	73	105	120	MC32-d	HS-3-32
	-120	32	73	120	120	MC32-d	HS-3-32
	-135	32	73	135	120	MC32-d	HS-3-32
	-150	32	73	150	120	MC32-d	HS-3-32
	-165	32	73	165	120	MC32-d	HS-3-32
	-200	32	73	200	120	MC32-d	HS-3-32
-250	32	73	250	120	MC32-d	HS-3-32	
-300	32	73	300	120	MC32-d	HS-3-32	

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190



**EM**  
Verlängerungen  
Extensions



S.|P. 187

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Halter   Holder		d	D1	L	H		
<b>BT50</b>	-95 <sup>1</sup>	42	88	95	120	MC42-d	HS-4-42
	-105 <sup>1</sup>	42	88	105	120	MC42-d	HS-4-42
	-120	42	88	120	120	MC42-d	HS-4-42
	-135	42	88	135	120	MC42-d	HS-4-42
	-150	42	88	150	120	MC42-d	HS-4-42
	-165	42	88	165	120	MC42-d	HS-4-42
	-200	42	88	200	120	MC42-d	HS-4-42
	-250	42	88	250	120	MC42-d	HS-4-42
	-300	42	88	300	120	MC42-d	HS-4-42
		-CT42SA					

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

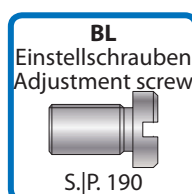
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

<sup>1</sup> MC-A Collets cannot be used.

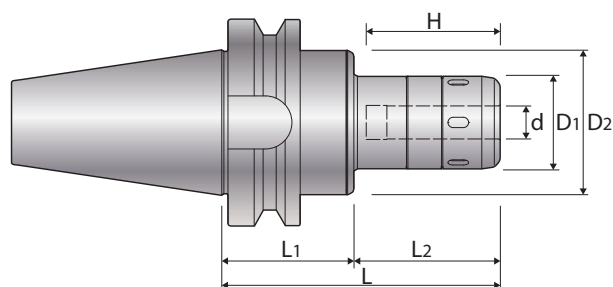
<sup>2</sup> Form B Standard



# CTZ-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

R"0" Series



### BT50




JIS B6339

4.0  
42.0

0-2  
µm

max  
10.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	L2	H			
BT50	-CTZ25SA -125	25	61	74	125	64	61	80	MC25-d	HS-2.5-25	L-6L
	-165	25	61	74	165	64	101	80	MC25-d	HS-2.5-25	L-6L
	-CTZ32SA -125	32	68	80	125	64	61	120	MC32-d	HS-3-32	L-6L
	-165	32	68	80	165	64	101	120	MC32-d	HS-3-32	L-6L
	-CTZ42SA -125	42	88	99	125	64	61	120	MC42-d	HS-4-42	L-6L
	-165	42	88	99	165	64	101	120	MC42-d	HS-4-42	L-6L

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten)


Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery)

**MC**  
Spannhülsen  
Collets



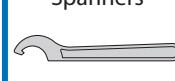
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



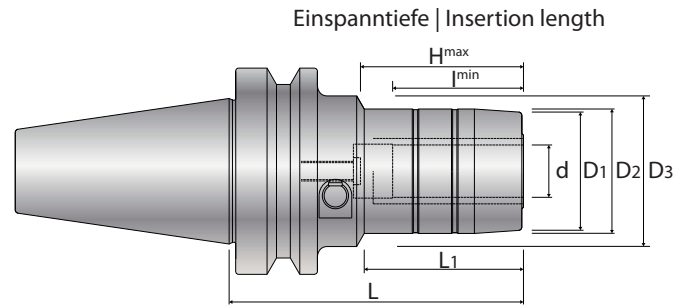
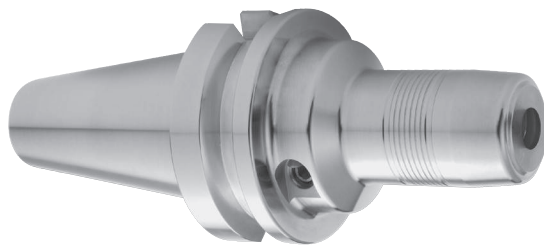
S.|P. 187



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT50

JIS B6339

6.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

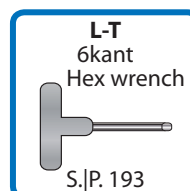
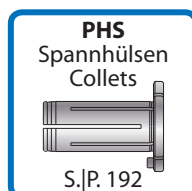
Tol.  
h6



Halter   Holder		d	D1	D2	D3	L	L1	H <sub>min</sub>	H <sub>max</sub>			
BT50	-90	6	24	26	46	90	30	29	34	-	L-4T	
	-PHC06A	-120	6	24	26	46	120	41	45	-	L-4T	
	-150	6	24	26	46	150	41	29	45	-	L-4T	
	-90	8	26	28	46	90	30	29	34	-	L-4T	
	-PHC08A	-120	8	26	28	46	120	41	29	45	-	L-4T
	-150	8	26	28	46	150	41	29	45	-	L-4T	
	-105	10	28	30	52	105	44	40	50	-	L-4T	
	-PHC10A	-135	10	28	30	52	135	64	40	70	-	L-4T
	-165	10	28	30	52	165	64	40	70	-	L-4T	
	-105	12	30	32	52	105	45	40	50	PHS12-d	L-4T	
	-PHC12A	-135	12	30	32	52	135	65	40	70	PHS12-d	L-4T
	-165	12	30	32	52	165	65	40	70	PHS12-d	L-4T	
	-105	14	34	36	52	105	46	40	50	-	L-4T	
	-PHC14A	-135	14	34	36	52	135	66	40	70	-	L-4T
	-165	14	34	36	52	165	66	40	70	-	L-4T	
	-105	16	36	38	52	105	46	40	50	-	L-4T	
	-PHC16A	-135	16	36	38	52	135	66	40	70	-	L-4T
	-165	16	36	38	52	165	66	40	70	-	L-4T	
	-105	20	40	42	46	105	49	40	50	PHS20-d	L-4T	
	-PHC20A	-135	20	40	42	46	135	69	40	70	PHS20-d	L-4T
	-165	20	40	42	46	165	69	40	70	PHS20-d	L-4T	
	-120	25	50	52	62	120	59	50	64	-	L-6T	
	-PHC25A	-150	25	50	52	62	150	79	50	80	-	L-6T
	-165	25	50	52	62	165	79	50	80	-	L-6T	
-135	32	60	62	-	135	-	65	75	-	L-6T		
-PHC32A	-165	32	60	62	-	165	-	65	80	-	L-6T	

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung

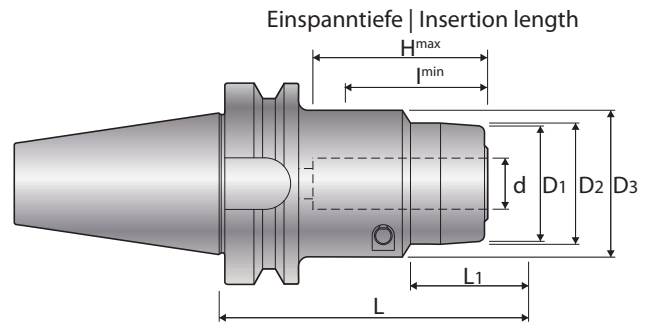
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment



# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### BT50

JIS B6339

6.0  
32.0

0.003  
50



max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

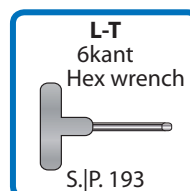
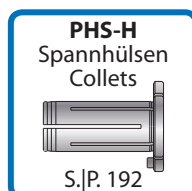


**mit erhöhter Spannkraft**  
with enhanced clamping force

Halter   Holder		d	D1	D2	D3	L	L1	I <sub>min</sub>	H <sub>max</sub>			
BT50	-PHC16H	-75	16	-	44	56	75	17	45	75	-	L-4T
		-105	16	42	44	56	105	27	45	105	-	L-4T
	-PHC20H	-75	20	-	50	60	75	17	50	80	PHS20H-d	L-4T
		-105	20	48	50	60	105	32	50	110	PHS20H-d	L-4T
	-PHC25H	-75	25	-	60	69	75	17	55	80	-	L-5T
		-105	25	58	60	69	105	35	55	110	-	L-5T
		-135	25	58	60	69	135	35	55	110	-	L-5T
	-PHC32H	-75	32	-	65	75	75	17	65	90	-	L-5T
		-105	32	63	65	75	105	47	65	120	PHS32H-d	L-5T
		-135	32	63	65	75	135	47	65	120	PHS32H-d	L-5T

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

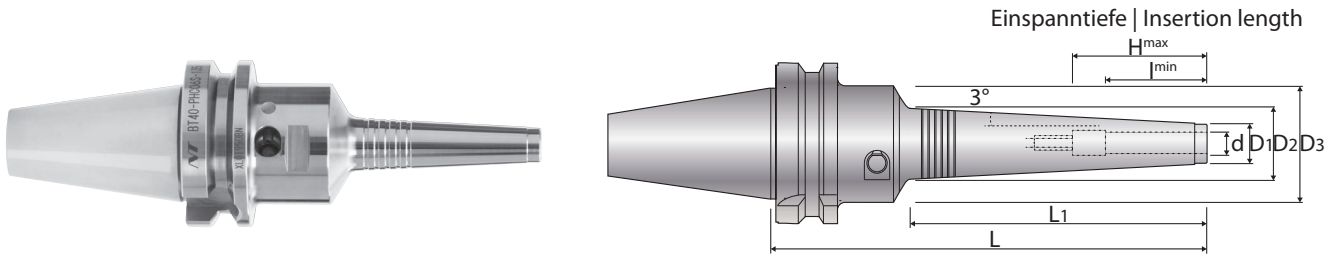
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### BT50

JIS B6339



6.0  
25.0

0.003  
3xD

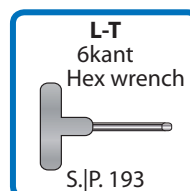
G2.5  
25.000  
min<sup>-2</sup>

Form  
AD



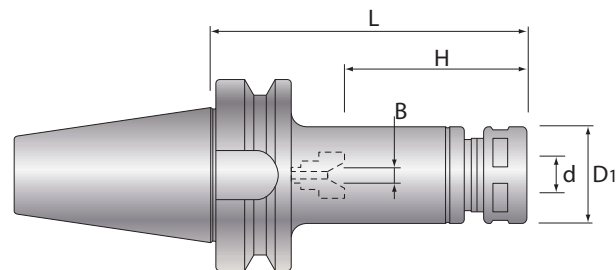
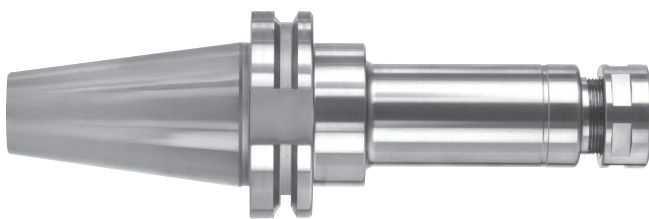
Halter   Holder		d	D1	D2	D3	L	L1	l <sub>min</sub>	H <sub>max</sub>			
BT50	-PHC06SA	-105	6	13	15.8	46	105	26	29	121	-	L-4T
		-150	6	13	20.5	46	150	71	29	105	-	L-4T
		-165	6	13	22.2	46	165	87	29	120	-	L-4T
		-180	6	13	23.7	46	180	102	29	105	-	L-4T
		-195	6	13	25.4	46	195	118	29	120	-	L-4T
	-PHC08SA	-105	8	15	17.9	46	105	27	29	121	-	L-4T
		-150	8	15	22.6	46	150	72	29	105	-	L-4T
		-165	8	15	24.2	46	165	87	29	120	-	L-4T
		-180	8	15	25.8	46	180	103	29	105	-	L-4T
		-195	8	15	27.4	46	195	118	29	120	-	L-4T
	-PHC10SA	-150	10	17	24.6	46	150	72	40	116	-	L-4T
		-165	10	17	26.3	46	165	88	40	101	-	L-4T
-180		10	17	27.8	46	180	103	40	116	-	L-4T	
-195		10	17	29.5	46	195	119	40	131	-	L-4T	
-PHC12SA	-150	12	19	26.7	46	150	73	40	116	HS12-d	L-4T	
	-165	12	19	28.3	46	165	88	40	101	HS12-d	L-4T	
	-180	12	19	30.0	46	180	104	40	116	HS12-d	L-4T	
	-195	12	19	31.5	46	195	119	40	131	HS12-d	L-4T	
-PHC16SA	-150	16	23	30.6	52.5	150	72	40	83	-	L-4T	
	-180	16	23	33.8	52.5	180	103	40	113	-	L-4T	
	-195	16	23	35.5	52.5	195	119	40	128	-	L-4T	
-PHC20SA	-150	20	28	34.7	62	150	63	40	78	HS20-d	L-6T	
	-180	20	28	37.8	62	180	93	40	108	HS20-d	L-6T	
	-195	20	28	39.5	62	195	109	40	123	HS20-d	L-6T	
-PHC25SA	-150	25	37	43.9	62	150	65	50	78	-	L-6T	
	-180	25	37	47.1	62	180	96	50	108	-	L-6T	
	-195	25	37	48.8	62	195	112	50	123	-	L-6T	

L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.



L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

# HDC-A Hochgenauigkeits-Spannzangenfutter High Precision Collet Chuck



## BT50



JIS B6339

3.0  
22.0

0.005  
4x D

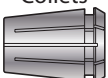



max  
20.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	L	H	B			
BT50	-HDC12A	-90	3.0-12.0	32	90	33-66	0-5	FDC-12	S-3L
		-105	3.0-12.0	32	105	33-66	0-5	FDC-12	S-3L
		-120	3.0-12.0	32	120	33-66	0-5	FDC-12	S-3L
		-135	3.0-12.0	32	135	33-66	0-5	FDC-12	S-3L
		-165	3.0-12.0	32	165	33-66	0-5	FDC-12	S-3L
		-195	3.0-12.0	32	195	33-66	0-5	FDC-12	S-3L
		-225	3.0-12.0	32	225	33-66	0-5	FDC-12	S-3L
		-255	3.0-12.0	32	255	33-66	0-5	FDC-12	S-3L
BT50	-HDC16A	-90	4.0-16.0	36	90	38-79	0-6	FDC-16	S-4L
		-105	4.0-16.0	36	105	38-79	0-6	FDC-16	S-4L
		-120	4.0-16.0	36	120	38-79	0-6	FDC-16	S-4L
		-135	4.0-16.0	36	135	38-79	0-6	FDC-16	S-4L
		-165	4.0-16.0	36	165	38-79	0-6	FDC-16	S-4L
		-195	4.0-16.0	36	195	38-79	0-6	FDC-16	S-4L
		-225	4.0-16.0	36	225	38-79	0-6	FDC-16	S-4L
		-255	4.0-16.0	36	255	38-79	0-6	FDC-16	S-4L
BT50	-HDC22A	-105	4.0-22.0	46	105	47-100	0-8	FDC-22	S-5L
		-120	4.0-22.0	46	120	47-100	0-8	FDC-22	S-5L
		-135	4.0-22.0	46	135	47-100	0-8	FDC-22	S-5L
		-150	4.0-22.0	46	150	47-100	0-8	FDC-22	S-5L
		-165	4.0-22.0	46	165	47-100	0-8	FDC-22	S-5L
		-195	4.0-22.0	46	195	47-100	0-8	FDC-22	S-5L
		-225	4.0-22.0	46	225	47-100	0-8	FDC-22	S-5L
		-255	4.0-22.0	46	255	47-100	0-8	FDC-22	S-5L

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

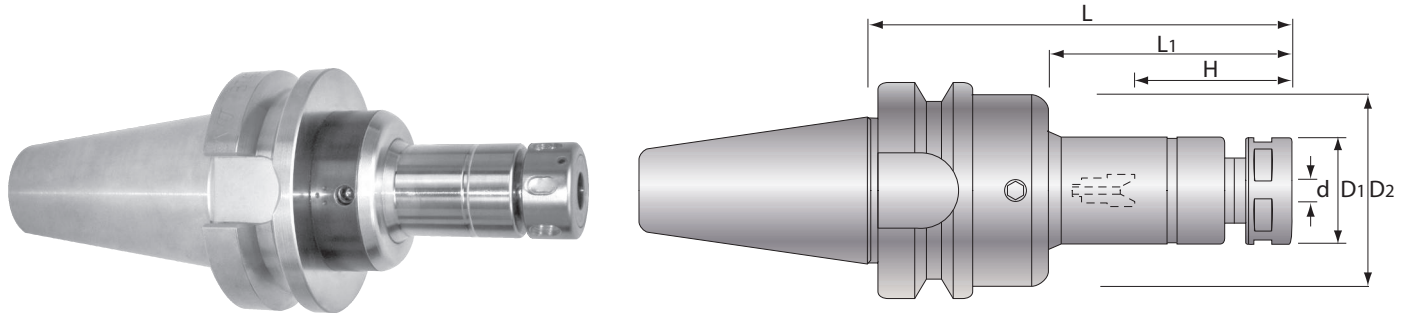
Cap nut and preset screw included in delivery.  
With axial length adjustment

<p><b>FDC</b> Spannzangen Collets</p>  <p>S. P. 195</p>	<p><b>HDS</b> Einstellschraube Preset screw</p>  <p>S. P. 194</p>	<p><b>HDP</b> Spannmutter Cap nut</p>  <p>S. P. 194</p>	<p><b>S-L</b> Spannschlüssel Spanners</p>  <p>S. P. 194</p>
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# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



### BT50


JIS B6339

3.0  
22.0

0-2  
µm

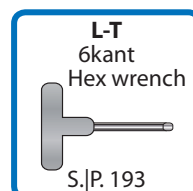
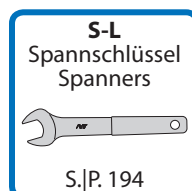
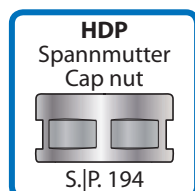
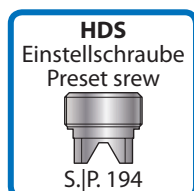
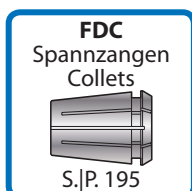
max  
15.000  
min<sup>-1</sup>

Form  
AD

Halter   Holder		d	D1	D2	L	L1	H			
-HDZ12A	-90	3.0-12.0	32	56	90	32	33-68	FDC-12	S-3L	L-4T
	-105	3.0-12.0	32	56	105	47	33-68	FDC-12	S-3L	L-4T
	-120	3.0-12.0	32	56	120	62	33-68	FDC-12	S-3L	L-4T
	-135	3.0-12.0	32	56	135	77	33-68	FDC-12	S-3L	L-4T
	-165	3.0-12.0	32	56	165	107	33-68	FDC-12	S-3L	L-4T
	-195	3.0-12.0	32	56	195	137	33-68	FDC-12	S-3L	L-4T
	-225	3.0-12.0	32	56	225	167	33-68	FDC-12	S-3L	L-4T
	-255	3.0-12.0	32	56	255	197	33-68	FDC-12	S-3L	L-4T
BT50 -HDZ16A	-90	3.0-16.0	36	62	90	32	38-81	FDC-16	S-4L	L-4T
	-105	3.0-16.0	36	62	105	47	38-81	FDC-16	S-4L	L-4T
	-120	3.0-16.0	36	62	120	62	38-81	FDC-16	S-4L	L-4T
	-135	3.0-16.0	36	62	135	77	38-81	FDC-16	S-4L	L-4T
	-165	3.0-16.0	36	62	165	107	38-81	FDC-16	S-4L	L-4T
	-195	3.0-16.0	36	62	195	137	38-81	FDC-16	S-4L	L-4T
	-225	3.0-16.0	36	62	225	167	38-81	FDC-16	S-4L	L-4T
	-255	3.0-16.0	36	62	255	197	38-81	FDC-16	S-4L	L-4T
-HDZ22A	-105	4.0-22.0	46	76	105	43	47-103	FDC-22	S-5L	L-5T
	-120	4.0-22.0	46	76	120	58	47-103	FDC-22	S-5L	L-5T
	-135	4.0-22.0	46	76	135	73	47-103	FDC-22	S-5L	L-5T
	-150	4.0-22.0	46	76	150	88	47-103	FDC-22	S-5L	L-5T
	-165	4.0-22.0	46	76	165	103	47-103	FDC-22	S-5L	L-5T
	-195	4.0-22.0	46	76	195	133	47-103	FDC-22	S-5L	L-5T
	-225	4.0-22.0	46	76	225	163	47-103	FDC-22	S-5L	L-5T
	-255	4.0-22.0	46	76	255	193	47-103	FDC-22	S-5L	L-5T

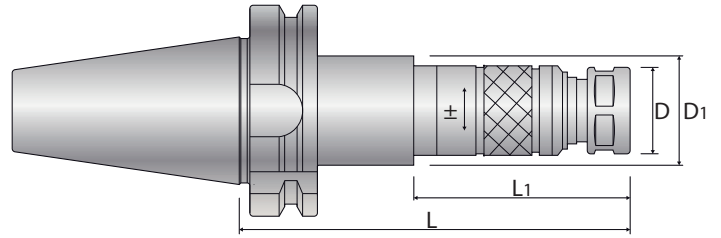
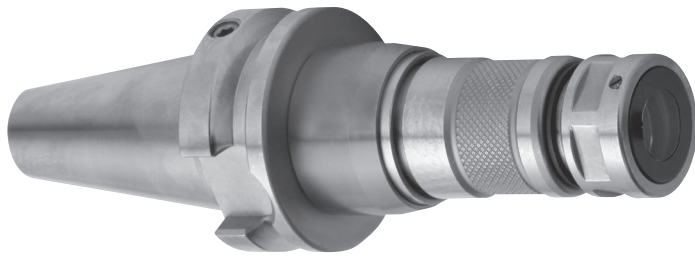
Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment



# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder





**BT50**

JIS B6339

**M5  
M20**

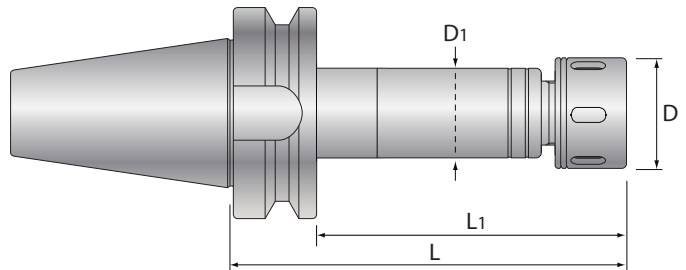
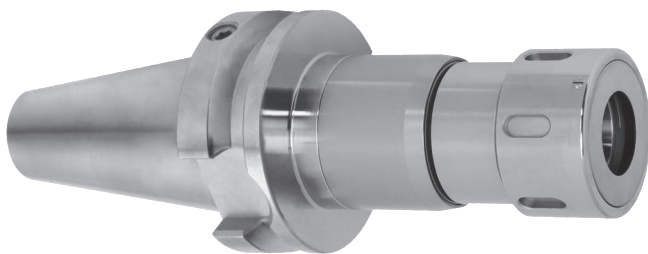
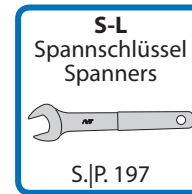
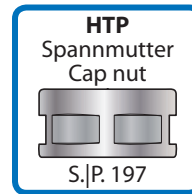
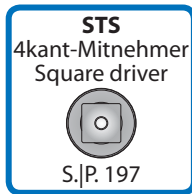


**SFH** mit easy-Längeneinstellung  
with easy-length adjustment

Halter   Holder		Schneidbereich Tapping range		D	D1	L	L1		
<b>BT50</b>	-SFH18	-125	M5-M20	36	40	125	68	FSC-16	S-4L
		-135	M5-M20	36	40	135	78	FSC-16	S-4L
		-150	M5-M20	36	40	150	93	FSC-16	S-4L

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.





**BT50**

JIS B6339

**M2  
M20**

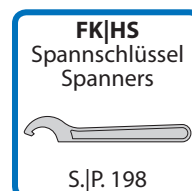
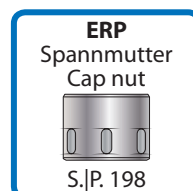
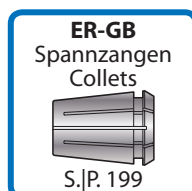


**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

Halter   Holder		Schneidbereich Tapping range		D	D1	L	L1		
<b>BT 50</b>	-SFH12S	-90	M2-M12	32	34	90	71	ER16-GB	FK-0034
	-SFH18S	-105	M3-M20	42	40	105	86	ER25-GB	HS-1-16

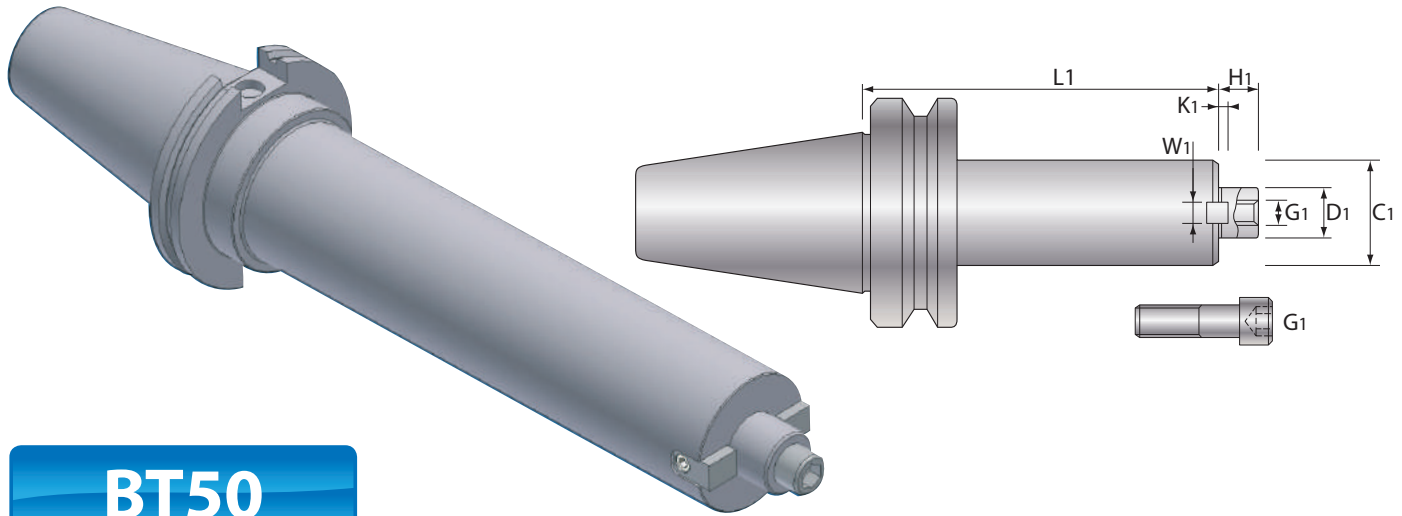
Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.



# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



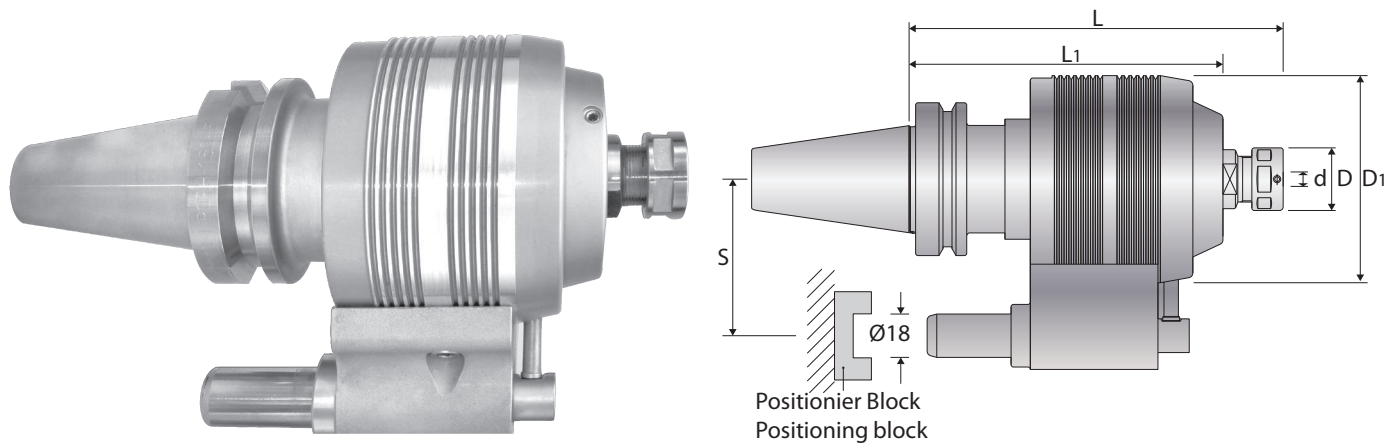
### BT50

JIS B6339

Halter   Holder		D1 (h6)	L1	C1	H1	W1	K1	G1	Messerkopf Cutter Ø
BT50	-188	22	188	49	20	10	5.6	M10	50 63
	-FMC22-288	22	288	49	20	10	5.6	M10	50 63
	-388	22	388	49	20	10	5.6	M10	50 63
	-185	27	185	60	21	12	6.3	M12	80
	-FMC27-285	27	285	60	21	12	6.3	M12	80
	-385	27	385	60	21	12	6.3	M12	80

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



### BT50

DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

Halter   Holder		d	D	D1	L	L1	S	Übersetzung Gear ratio	max. Drehzahl max. speed rpm			
BT50	-HP07H	-150-3	1.0-7.0	23	86	150	125	80	1:5	30.000 <sup>1</sup>	FDC-07	S-0
		-180-3	1.0-7.0	23	86	180	125	80	1:5		FDC-07	S-0
	-HP09H	-150-3	3.0-9.0	26	86	150	125	80	1:5	25.000 <sup>2</sup>	FDC-09	S-1L
		-180-3	3.0-9.0	26	86	180	125	80	1:5		FDC-09	S-1L
	-HP12H	-165-3 <sup>3</sup>	3.0-12.0	32	86	165	125	80	1:5		FDC-12	S-3L
		-180-3	3.0-12.0	32	86	180	125	80	1:5		FDC-12	S-3L

<sup>1</sup> Max. Drehzahl 20% /Std.  
<sup>2</sup> Max. Drehzahl 80% /Std.

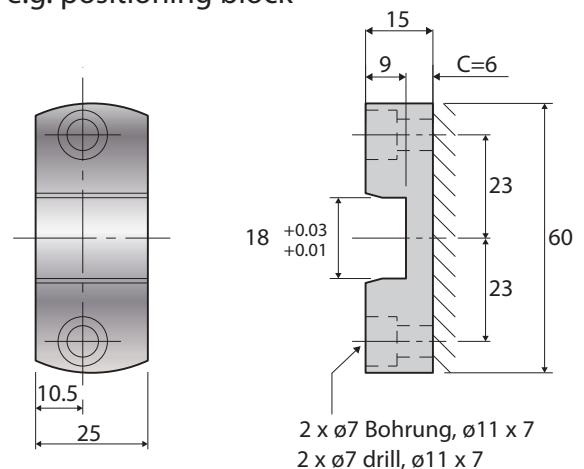
<sup>1</sup> Max. rotation speed 20% /h  
<sup>2</sup> Max. rotation speed 80% /h

HP07   09   12	Positionierkolben   Plunger				
	No.1	No.2	No.3 <sup>3</sup>	No.4	No.5
A min (mm)	+15.1	+6.1	-2.9	-3.0	-12.0
A max (mm)	+24.0	+15.0	+6.0	-11.9	-20.9

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

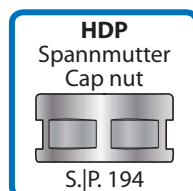
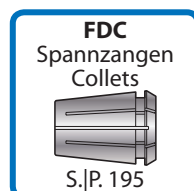
<sup>3</sup> We deliver plunger No.3 ex stock.

### Bsp. Positionierblock<sup>1)</sup> e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine







## Grundkörper

- Aus Qualitäts-Einsatzstahl:  
Zugfestigkeit: 980 N/mm<sup>2</sup>  
Härte: 52 ±2 HRC
- SK und HSK-Kegel:  
präzisionsgeschliffen  
sehr hohe Oberflächengüte (Rmax: 8 µm)  
vergrößerte Kegelkontaktfläche (SK, BT: min. 80 %)
- Steilkegelgenauigkeit:  
< AT 3.
- HSK-Mitnehmernuten und Innenkontur:  
hart nachgearbeitet
- Wuchtsymmetrisch gestaltet
- Im Flanschbereich vorgewuchtet für Drehzahlen  
bis 20.000 min<sup>-1</sup> [nach ISO Empfehlung]
- Mit hoher Rundlauf- und Bearbeitungsgenauigkeit

## Body

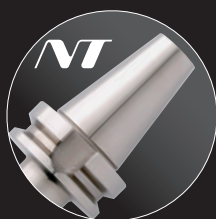
- Case-hardened steel:  
Tensile strength: 980 N/mm<sup>2</sup>  
Hardness: 52 ±2 HRC
- SK and HSK shank:  
precision ground  
improved surface quality (Rmax: 8 µm)  
enhanced taper contact (SK, BT: min. 80 %)
- Taper quality:  
< AT 3
- HSK driver slots and inner contour:  
reworked after hardening
- Designed by symmetrical
- Pre-balanced at the flange for speeds up to 20.000 rpm  
[in compliance with ISO]
- With high run out and machining accuracy

**Herkömmliche Aufnahmen zeigen schon nach kurzer Zeit Rostbefall, der sich negativ auf die Rundlaufgenauigkeit (0.01-0.02mm) auswirkt und die Maschinenspindel beschädigt.**

Without proper maintenance for rust prevention, ordinary tool holders will begin to rust after several days of use. This rust has a negative effect on machining accuracy (0.01-0.02) or spindle.

### Spezieller Oberflächenschutz

- Verhindert Korrosion
- Lange Gebrauchsdauer
- Schont Maschinenspindel



### Special rust proofment

- Prevents rust
- Long tool life
- Spindle protection

Werkzeugspanntechnik  
der Spitzenklasse



Premium Class Tooling

Drehhalter für Brother Speedio Dreh-Fräszentren  
Turning tools for Brother's *SPEEDIO*  
**M140X2**



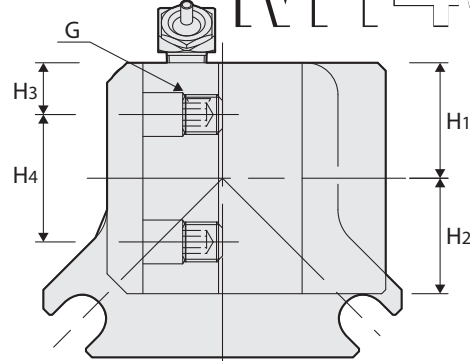
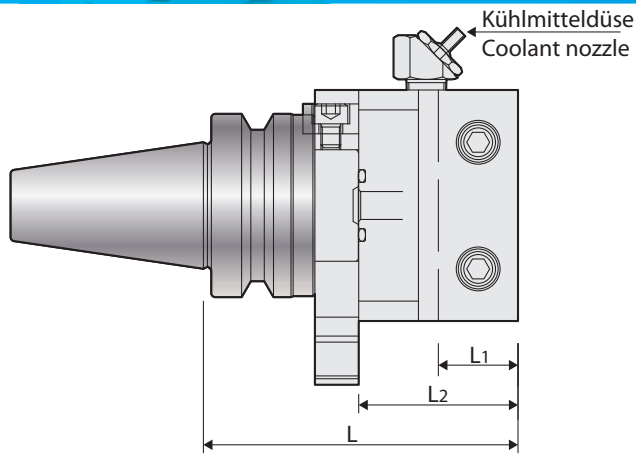
Dreh-Fräszentrum *SPEEDIO*  
Millturn Center **M140X2**



**NT TOOL**

# Werkzeugspannsysteme für Brother Tooling System for Brother's *SPEEDIO*

# M140X2



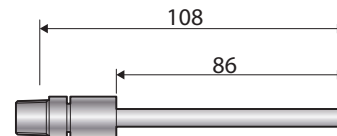
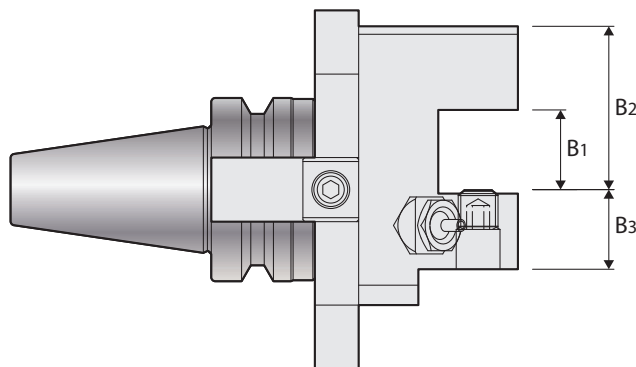
**SBH Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBH Toolholders | for Facing

ISO 12164-3

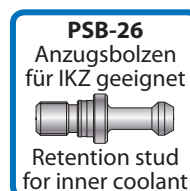
Halter   Holder		L	L1	L2	B1	B2	B3	H1	H2	H3	H4	G
BT30	-SBH2020 R -79	79	20	40	20	41	20	29	29	13	32	M10
	-SBH2020 L -79	79	20	40	20	41	20	29	29	13	32	M10

Kühlmitteldüsen einstellbar.  
(Nicht in jedem Fall können die Werkzeugschneiden erreicht werden).  
I.d.F. Auskrägung verkürzen.

Direction of coolant nozzle can be adjusted.  
(Coolant may not reach the cutting edge properly depending on the bit shape).  
Please shorten a square bit if necessary.

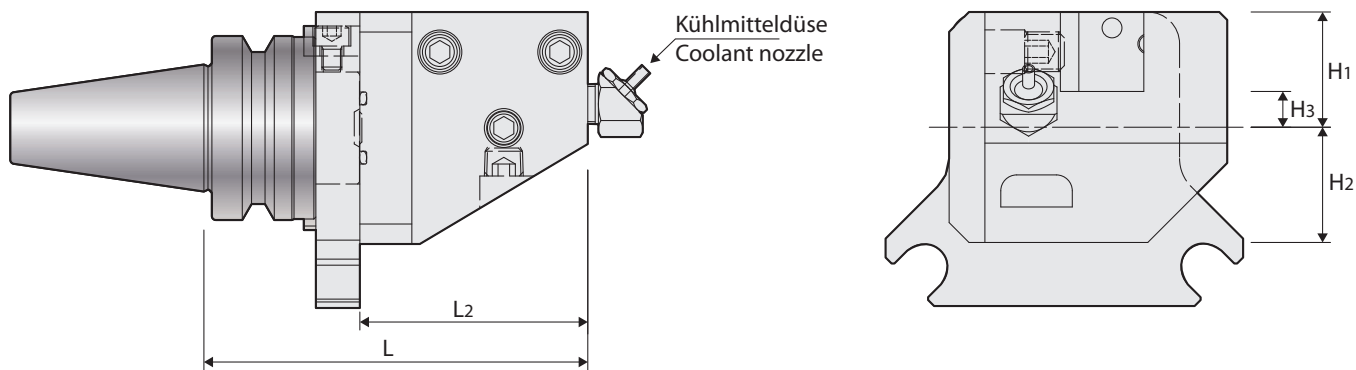


**Kühlmitteldüse lange Ausführung<sup>1</sup>**  
Replacement copper tube coolant nozzle<sup>1</sup>



# Werkzeugspannsysteme für Brother Tooling System for Brother's *SPEEDIO*

## M140X2



**SBV**

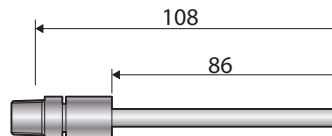
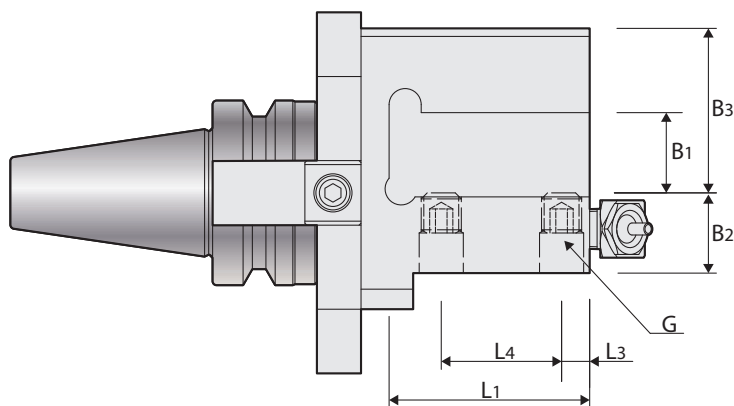
ISO 12164-3

**SBV Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBV Toolholders | for External | Cut-off

Halter   Holder		L	L1	L2	L3	L4	B1	B2	B3	H1	H2	H3	G
BT30	-SBV2020 R -96	96	50	57	7	30	20	20	41	29	29	9	M10
	L -96	96	50	57	7	30	20	20	41	29	29	9	M10

Kühlmitteldüsen einstellbar.  
(Nicht in jedem Fall können die Werkzeugschneiden erreicht werden).  
I.d.F. Auskrägung verkürzen.  
\*Kühlmitteldüse lange Ausführung im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
(Coolant may not reach the cutting edge properly depending on the bit shape).  
Please shorten a square bit if necessary.  
\*Replacement copper tube coolant nozzle included in delivery.

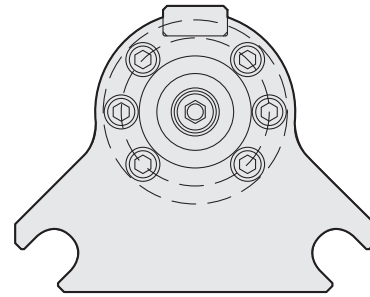
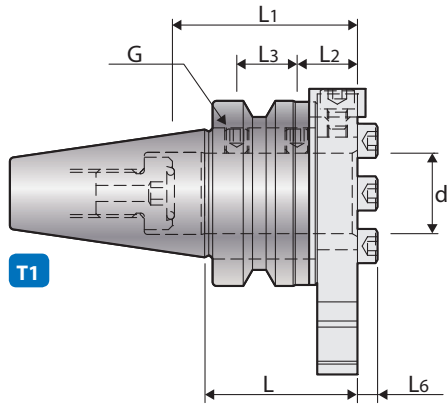


**Kühlmitteldüse lange Ausführung<sup>1</sup>**  
Replacement copper tube coolant nozzle<sup>1</sup>



# Werkzeugspannsysteme für Brother Tooling System for Brother's *SPEEDIO*

# M140X2

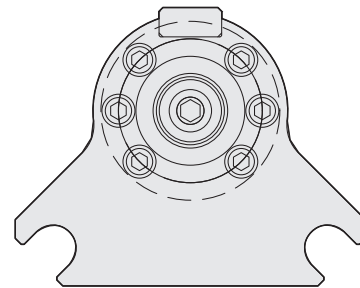
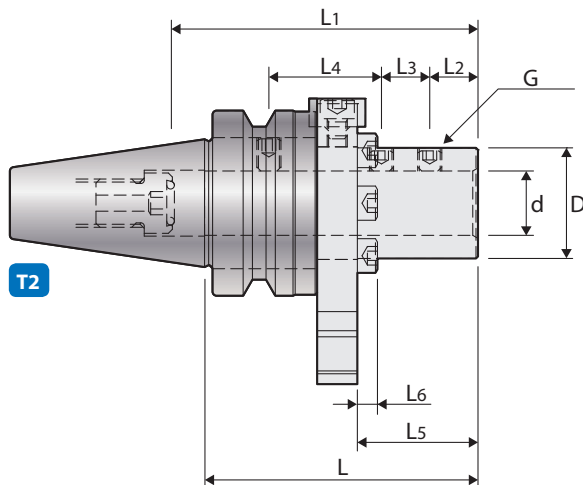


## TSB

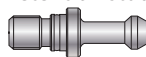
**TSB Bohrstangenhalter**  
TSB Boring bar holders

ISO 12164-3

Halter   Holder	Type	d	D	L	L1	L2	L3	L4	L5	L6	G
-TSB10	T1	10	-	38	40	15	15	-	-	5	M6
	T2	10	20	68	45	12	12	-	30	5	M6
-TSB12	T1	12	-	38	40	15	15	-	-	5	M6
	T2	12	22	68	65	12	12	26	30	5	M6
-TSB16	T1	16	-	38	46	15	15	-	-	5	M6
	T2	16	27.5	68	76	12	12	26	30	5	M6
-TSB20	T1	20	-	38	46	15	15	-	-	5	M6



**PSB-0A**  
Anzugsbolzen  
Retention stud



**PSB-26**  
Anzugsbolzen  
für IKZ geeignet



Retention stud  
for inner coolant

# HSK-T

## Aufnahmen für Dreh- Fräszentren

### Millturn Tooling Systems

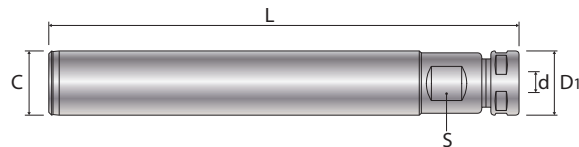


# Zubehör | Accessories

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# ST Verlängerung für FDC-Spannzangen

## Extension for FDC-Collets



### ST20

3.0  
-  
9.0



Halter   Holder			d	D1	L	C	S	Spannfläche Flat	
ST20	-HDC09A	-175	3.0-9.0	26	175	20	24	FDC-09	S-1L

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

### ST32

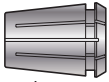



3.0  
-  
12.0



Halter   Holder			d	D1	L	C	S	Spannfläche Flat	
ST32	-HDC12A	-185	3.0-12.0	32	185	32	30	FDC-12	S-3L
		-235	3.0-12.0	32	235	32	30	FDC-12	S-3L

Spannmutter und Einstellschraube im Lieferumfang enthalten.

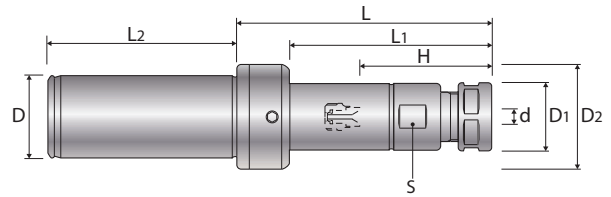
Cap nut and preset screw incl. in delivery.

<p><b>FDC</b> Spannzangen Collets</p>  <p>S. P. 195</p>	<p><b>HDS</b> Einstellschraube Preset screw</p>  <p>S. P. 194</p>	<p><b>HDP</b> Spannmutter Cap nut</p>  <p>S. P. 194</p>	<p><b>S-L</b> Spannschlüssel Spanners</p>  <p>S. P. 194</p>
--	--	---	--



# ST Verlängerung für FDC-Spannzangen

## Extension for FDC-Collets



### ST20

1.0  
9.0

0-2  
µm



mit Rundlauf "0"  
with run out "0"

Halter   Holder		d	D	D1	D2	L	L1	L2	H	S Spannfläche   Flat				
ST20	-HDZ07	-75	1.0-7.0	20	23	41	75	44	57	22-45	19	FDC-07	S-0	L-3T
		-120	1.0-7.0	20	23	41	120	89	57	22-45	19	FDC-07	S-0	L-3T
		-165	1.0-7.0	20	23	41	165	134	57	22-45	19	FDC-07	S-0	L-3T
	-HDZ09	-75	3.0-9.0	20	26	41	75	44	57	27-57	24	FDC-09	S-1L	L-3T
		-120	3.0-9.0	20	26	41	120	89	57	27-57	24	FDC-09	S-1L	L-3T
		-165	3.0-9.0	20	26	41	165	134	57	27-57	24	FDC-09	S-1L	L-3T

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

### ST32

3.0  
22.0

0-2  
µm

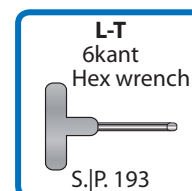
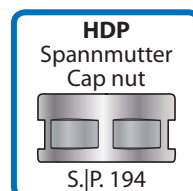
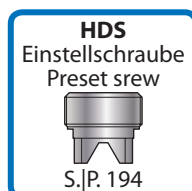
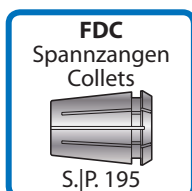


mit Rundlauf "0"  
with run out "0"

Halter   Holder		d	D	D1	D2	L	L1	L2	H	S Spannfläche   Flat				
ST32	-HDZ12	-90	3.0-12.0	32	32	52	90	55	70	33-68	30	FDC-12	S-3L	L-4T
		-135	3.0-12.0	32	32	52	135	100	70	33-68	30	FDC-12	S-3L	L-4T
		-180	3.0-12.0	32	32	52	180	145	70	33-68	30	FDC-12	S-3L	L-4T
	-HDZ16	-90	4.0-16.0	32	36	56	90	55	70	38-81	30	FDC-16	S-4L	L-4T
		-135	4.0-16.0	32	36	56	135	100	70	38-81	30	FDC-16	S-4L	L-4T
		-180	4.0-16.0	32	36	56	180	145	70	38-81	30	FDC-16	S-4L	L-4T
	-HDZ22	-105	4.0-22.0	32	46	69	105	66	70	47-73	42	FDC-22	S-5L	L-5T
		-150	4.0-22.0	32	46	69	150	111	70	47-103	42	FDC-22	S-5L	L-5T
		-195	4.0-22.0	32	46	69	195	156	70	47-103	42	FDC-22	S-5L	L-5T

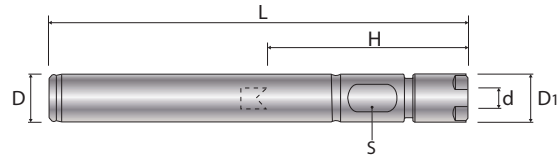
Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.



# ST Verlängerung für ER-Spannzangen

## Extension for ER-Collets



### ST-ERC

1.0  
7.0

Super-  
schlanke  
Bauform  
Super slim  
Design



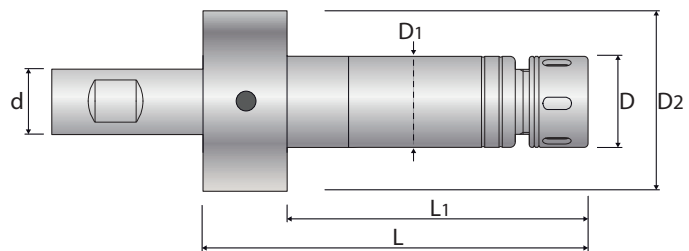
Halter   Holder		d	D	D1	L	H	S Spannfläche Flat			
ST12 <sup>1</sup>	-ERC8	-75	1.0-5.0	12	12	75	33	10	ER8	S-8E
		-105	1.0-5.0	12	12	105	33	10	ER8	S-8E
		-135	1.0-5.0	12	12	135	33	10	ER8	S-8E
		-220	1.0-5.0	12	12	220	22-42	10	ER8	S-8E
ST16 <sup>2</sup>	-ERC11S	-105	1.0-7.0	16	16	105	22-42	14	ER11	S-11E
		-135	1.0-7.0	16	16	135	22-42	14	ER11	S-11E
		-165	1.0-7.0	16	16	165	22-42	14	ER11	S-11E
		-250	1.0-7.0	16	16	250	22-42	14	ER11	S-11E

<sup>1</sup>Spannmutter im Lieferumfang enthalten. Ohne Einstellschraube.

<sup>2</sup>Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup>Cap nut incl. in delivery. Without preset screw.

<sup>2</sup>Cap nut and preset screw incl. in delivery.



### ST-SFH-S

M2  
M27

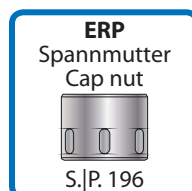
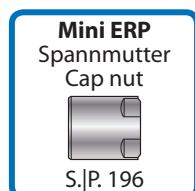
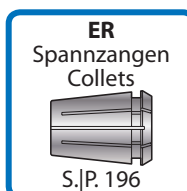


**SynchroFit Gewindeschneidfutter**  
SynchroFit Tapping Holder

**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

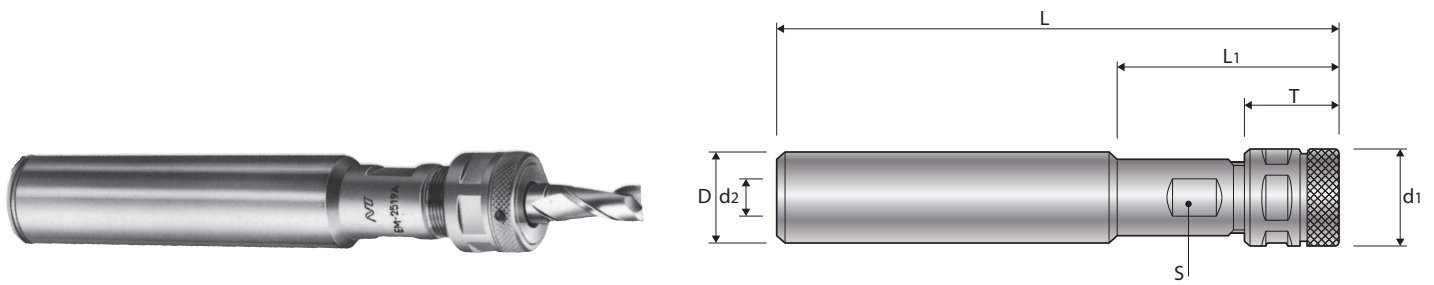
DIN 1835-B

Halter   Holder		Schneidbereich Tapping range	D	D1	D2	L	L1	d		
ST20	-SFH12S -80	M2-M12	32	34	45	80	60	20	ER16-GB	FK-0034
	-SFH18S -105	M3-M20	42	40	45	105	85	20	ER25-GB	HS-1-16
ST25	-SFH12S -80	M2-M12	32	34	45	80	60	25	ER16-GB	FK-0034
	-SFH18S -105	M3-M20	42	40	45	105	85	25	ER25-GB	HS-1-16
	-SFH30S -120	M4-M27	50	50	50	120	-	25	ER32-GB	HS-2-20



# EM Verlängerung für EMS|EMC-Spannzangen

## Extension for EMS|EMC-Collets



### EM

**Halter**  
Holder

Halter   Holder	Spannbereich Chucking range	D	d1	d2	L	L1	T	S Spannfläche Flat
EM -2019A	3.0-10.0	20	26	11.5	125	50	24	17
EM -2528A	3.0-16.0	25	36	11.5	125	60	33	22
EM -3228A	3.0-16.0	32	36	17.5	150	60	33	22

### EM-Set

**Set-Inhalt | 1x Halter, 5x Spannzangen, 1x Spannmutter, 1x Spannschlüssel**  
Contents of Set | 1x holder, 5x collets, 1x cap nut, 1x spanner

Verlängerung Extension	Satz Set	Spannmutter mit - zange Cap nut with collet	Zylindrische Spannzange Straight collet				
		EMP-19A ø 10	EMS-0810 ø 8	EMS-0610 ø 6	EMS-0510 ø 5	EMS-0410 ø 4	EMS-0310 ø 3
EM -2019A	C	✓	✓	✓	✓	✓	✓

Verlängerung Extension	Satz Set	Spannmutter Cap nut	Spannmutter mit - zange Cap nut with collet	Zylindrische Spannzange Straight collet				
		EMP-28A	EMC-1628 ø 16	EMS-1216 ø 12	EMS-1016 ø 10	EMS-0816 ø 8	EMS-0616 ø 6	EMS-0516 ø 5
EM -2528A -3228A	C	✓	✓	✓	✓	✓	✓	✓

### EMS|EMC

**EMS | Gerade Spannzangen**  
EMS | Straight Collets

**EMC | Konische Spannzangen**  
EMC | Tapered Collets

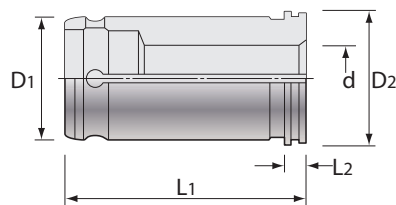
Spannzange   Collet	Ø
EMS -0310	3.0
EMS -0410	4.0
EMS -0610	6.0
EMS -0810	8.0

Spannzange   Collet	Ø
EMS -0516	5.0
EMS -0616	6.0
EMS -0816	8.0
EMS -1016	10.0
EMS -1216	12.0

Spannzange   Collet	Ø
EMC -1026	10.0
EMC -1228	12.0
EMC -1428	14.0
EMC -1628	15.0

# CT-SA Spannhülsen für Kraftspannfutter

## Straight Collets for Milling Chucks

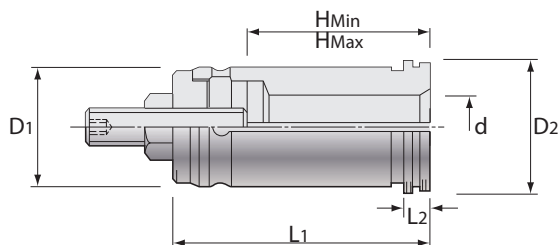


**MC**

**MC Spannhülsen | dienen zur Reduzierung des Spanndurchmessers. Das erhöht die Flexibilität und reduziert die Kosten.**

MC Straight Collets | enables you to clamp several shank diameters in one Milling Chuck. This makes the Milling Chuck flexible and saves costs.

Hülse   Collet	D1	D2	L1	L2	d												
MC	-16-d	16	19	50	4	-	-	6	8	10	12	-	-	-	-	-	-
	-20-d	20	24	60	4	-	4	6	8	10	12	14	16	18	-	-	-
	-25-d	20	24	60	4	3	5	7	9	11	13	15	17	-	-	-	-
	-32-d	25	29	60	4	-	-	6	8	10	12	-	16	-	20	-	-
	-42-d	32	36	72	4	-	4	6	8	10	12	14	16	18	20	25	-
-42-d	42	47	85	4	-	-	6	8	10	12	-	16	-	20	25	32	40



**MC-A**

**MC-A Spannhülsen | mit Stellschraube zur Einstellung der Ausraglänge.**

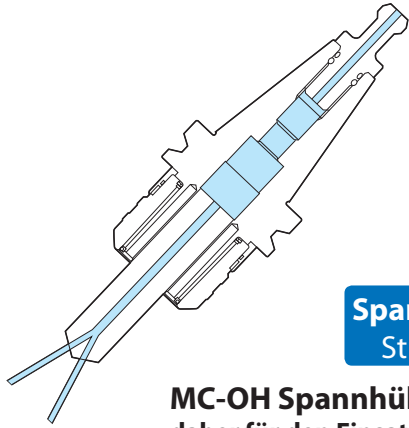
MC-A Straight Collets | with a bolt to adjust the tool-length.

Hülse   Collet	D1	D2	L1	L2	HMAX	d								
MC-A	-16-d	16	19	55	4	45	6	8	10	12	-	-	-	-
	-20-d	20	24	65	4	55	6	8	10	12	16	-	-	-
	-25-d	25	29	65	4	55	6	8	10	12	16	20	-	-
	-32-d	32	36	79	4	66	6	8	10	12	16	20	25	-
	-42-d	42	47	92	4	79	6	8	10	12	16	20	25	32

Hülse   Collet	HMIN								
D1	6	8	10	12	16	20	25	32	
MC-A	16	24	25	29	35	-	-	-	-
	20	22	28	29	35	39	-	-	-
	25	22	28	29	35	39	39	-	-
	32	27	29	36	35	39	39	49	-
	42	27	33	35	43	39	39	49	49

# CT-SA Spannhülsen für Kraftspannfutter

## Straight Collets for Milling Chucks



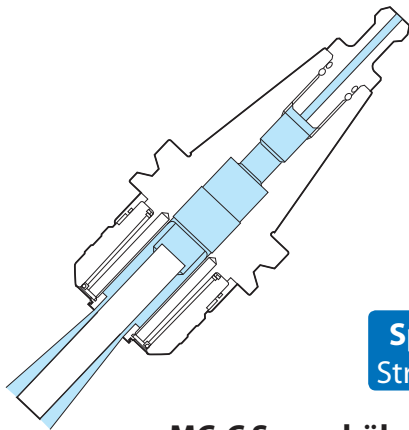
**Spannhülsen für innere Kühlmittelzufuhr**  
Straight Collets for inner coolant supply

### MC-OH

**MC-OH Spannhülsen | dichten durch kurze Schlitz vollständig ab und sind daher für den Einsatz von Werkzeugen mit innerer Kühlmittelzufuhr geeignet. Es werden keine zusätzlichen Dichtmaterialien benötigt (Verschleiß).**

MC-OH Straight Collets | completely sealed by short slots for the use of cutting tools with inner coolant supply. No additional seals are necessary (wear down).

Hülse   Collet	D1	D2	L1	L2	d										
-16-d-OH	16	19	50	4	-	6	8	10	12	-	-	-	-	-	-
-20-d-OH	20	24	60	4	4	6	8	10	12	14	16	18	-	-	-
MC -25-d-OH	20	24	60	4	5	7	9	11	13	15	17	-	-	-	-
-25-d-OH	25	29	60	4	-	6	8	10	12	-	16	-	20	-	-
-32-d-OH	32	36	72	4	4	6	8	10	12	14	16	18	20	25	-
-42-d-OH	42	47	85	4	-	6	8	10	12	-	16	-	20	25	32
-20-d-OH SL	20	24	50	4	-	6	8	10	12	-	16	-	-	-	-



**Spannhülsen für Peripheriekühlung**  
Straight Collets for side-through coolant

### MC-C

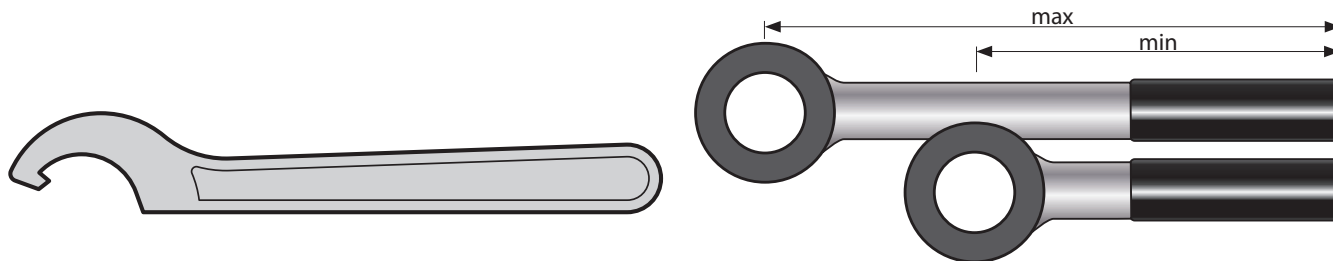
**MC-C Spannhülsen | dichten durch kurze Schlitz vollständig ab. Zwei in der Innenbohrung angebrachte Kühlmittelnutzen erlauben eine effektive Kühlung der Schneidenperipherie.**

MC-C Straight Collets | completely sealed by short slots. Two additional nozzels allow an effective side-through coolant.

Hülse   Collet	D1	D2	L1	L2	d										
-16-d-C	16	19	50	4	-	6	8	10	12	-	-	-	-	-	-
-20-d-C	20	24	60	4	4	6	8	10	12	14	16	-	-	-	-
MC -25-d-C	20	24	60	4	-	6	8	10	12	-	16	-	20	-	-
-25-d-C	25	29	60	4	-	6	8	10	12	-	16	-	20	-	-
-32-d-C	32	36	72	4	4	6	8	10	12	14	16	18	20	25	-
-42-d-C	42	47	85	4	-	6	8	10	12	-	16	-	20	25	32

# CT-SA Zubehör für Kraftspannfutter

## Accessories for Milling Chucks



### Spannschlüssel für Kraftspannfutter CT-S<sub>Series</sub>

#### Spanners for Milling Chucks CT-S<sub>Series</sub>

**HS|RS Spannschlüssel | Unsere Spannschlüssel sind für das funktionsgerechte Spannen ausgelegt. Ihre Anwendung verhindert Überlastung und Bruch. Wegen der schmalen Ausführung der Spannflächen können handelsübliche Spannschlüssel nicht verwendet werden.**

HS|RS Spanners | Our spanners are standardized for an appropriate clamping. They prevent overtightening and breakage. As the spanner flats are special, conventional spanners cannot be used.

**HS**

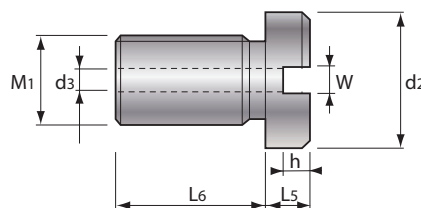
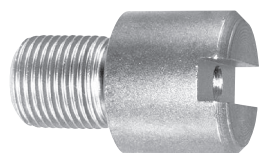
Halter   Holder	Hakenschlüssel Hookspanner
CT16SA	HS-1-16
CT20SA   CT20SA-C	HS-2-20
CT25SA   CTZ25SA	HS-2.5-25
CT32SA   CTZ32SA	HS-3-32
CT42SA   CTZ42SA	HS-4-42

**RS**

### RS Rollenschlüssel | Teleskopausführung

#### RS Roller Spanner | Telescope type

Halter   Holder	Rollenschlüssel Roller spanner	min.   max.
CT20SA   CT20S-P   CT20SA-C	RS-20	250-370
CT25SA   CT25S-P	RS-25	280-400
CT32SA   CT32S-P	RS-32	280-400



**BL**

### BL Einstellschraube | für Kraftspannfutter mit SK, BT, POLYGON-Schaft

#### BL Back-up screw | for Milling Chucks with SK, BT, POLYGON interface

Schraube   Screw	d2	d3	L5	L6	M1 P=1.0	W	h	Halter   Holder
-16-L5	15	4.5	5, 15, 25	14	10	5	3.5	CT16SA
BL -20-L5	18	4.5	5, 15, 25	14	12	5	3.5	CT20SA, CT25SA
-32-L5	25	4.5	10, 20, 35	17	18	5	5	CT32SA, CT42SA

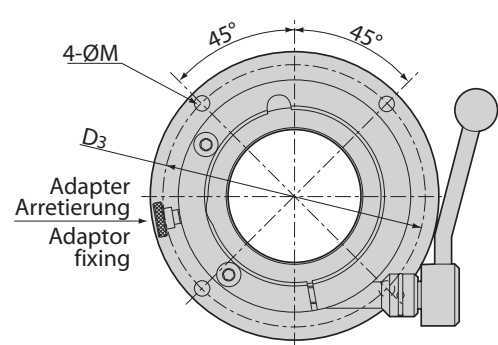
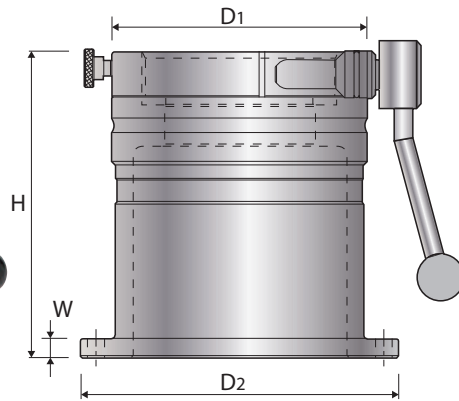
**BL**

### BL Einstellschraube | für Kraftspannfutter mit HSK-Schaft

#### BL Back-up screw | for Milling Chucks with HSK interface

Schnittstelle   Interface	d2	d3	L5	L6	M1	W	h
HSK-A 40 50	13	2.5	5, 15, 25	8.5	M5 x0.8	5	2.5
HSK-A 63 80	15	4	5	5.5	M8 x1.25	5	3
HSK-A 63 80	15	4	15, 25	7.5	M8 x1.25	5	3
HSK-A 100 125	15	4.5	5, 15, 25	14.0	M10 x1.5	5	3.5

# HCL Kompaktspanner Clamper



**HCL**

**HCL Grundkörper | für HSK- und Polygonschäfte**  
HCL Body | for HSK- and Polygonshanks

Grundkörper   Body	Schaftgröße Shank size	D1	D2	D3	H	W	M	KG	Adapter Adaptor	
HCL	-63	HSK63	98	131	115	162	10	9	4.6	ADS-63 <sup>1</sup>
	-100	HSK100	135	168	152	162	10	8	7.0	ADS-100 <sup>1</sup>

<sup>1</sup> Befestigungsschrauben nicht im Lieferumfang enthalten.

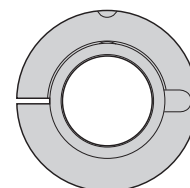
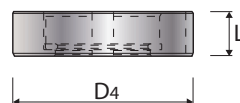
<sup>1</sup> Fixing bolts not included in delivery.

## Grundkörper

- für alle HSK-Schaftformen
- durch Verwendung von Adaptern können alle HSK- und Polygon-Größen gespannt werden
- keine Konus-Beschädigung durch speziellen Kunststoffeinsatz
- kompakte Bauform
- sichere Werkzeugmontage

## Body

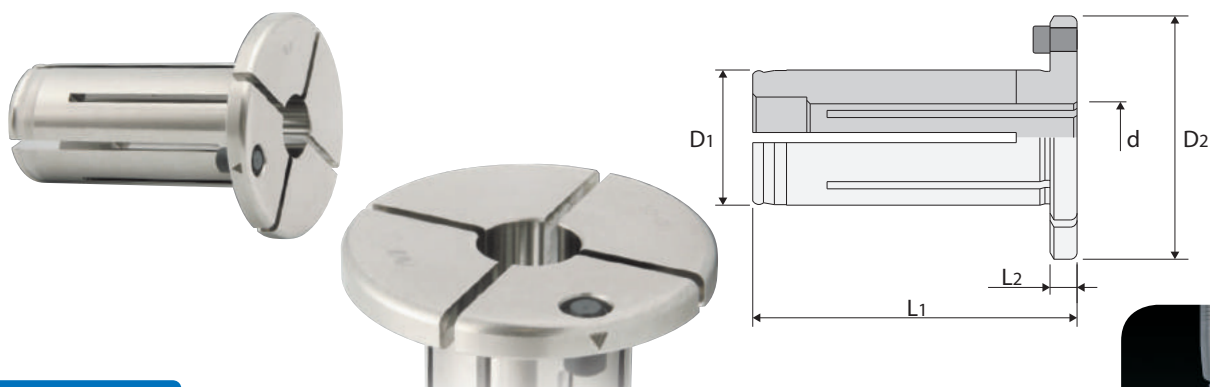
- for all shank types
- with adaptors all HSK and Polygon sizes can be clamped
- vinyl mat prevents damages to the taper
- compact design
- safe tool assembly



**ADS**

**ADS Adapter | für HCL**  
ADS Adaptor | for HCL

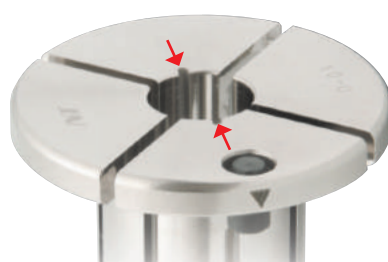
Adapter   Adaptor	Schaftgröße Shank size	D4	L	KG	Grundkörper   Body
ADS	-6325	HSK25	63	24.2	HCL-63
	-6332	HSK32   C3	63	24.2	HCL-63
	-6340	HSK40   C4	63	24.2	HCL-63
	-6350	HSK50   C5	63	24.2	HCL-63
	-10063	HSK63   C6	100	24.2	HCL-100
	-10080	HSK80	100	24.2	HCL-100



### PHS-OH

**PHS-OH Spannhülsen | für innere Kühlmittelzufuhr**  
PHS-OH Straight Collets | for inner coolant supply

Hülse   Collet	D1	D2	L1	L2	d	
PHS	-12-d-OH	12	26	49	4	3, 4, 5, 6, 7, 8, 9, 10
	-20-d-OH	20	36	49	4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18



### PHS-C

**PHS-C Spannhülsen | für Peripheriekühlung**  
PHS-C Straight Collets | for side-through coolant supply

Hülse   Collet	D1	D2	L1	L2	d	
PHS	-12-d-C	12	26	49	4	3, 4, 5, 6, 7, 8, 9
	-20-d-C	20	36	49	4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16



### PHS-H-OH

**PHS-OH Spannhülsen | für PHC-H Dehnspannfutter**  
PHS-OH Straight Collets | for PHC-H Collet Chucks

Hülse   Collet	D1	D2	L1	L2	d	
PHS	-20H-d-OH	20	41	60	4	6, 8, 10, 12, 16
	-32H-d-OH	32	55	72	4	6, 8, 10, 12, 16, 20, 25

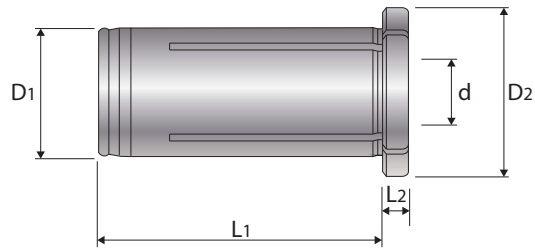
### PHS-H-C

**PHS-C Spannhülsen | für PHC-H Dehnspannfutter**  
PHS-C Straight Collets | for PHC-H Collet Chucks

Hülse   Collet	D1	D2	L1	L2	d	
PHS	-20H-d-C	20	41	60	4	6, 8, 10, 12, 16
	-32H-d-C	32	55	72	4	6, 8, 10, 12, 16, 20, 25



# PHC-SA Spannhülsen für Dehnspannfutter PHZ-SA Collets for Hydro Chucks



## HS-OH

**HS Spannhülsen | zur Durchmesserreduzierung**  
HS Straight Collets | for diameter reduction

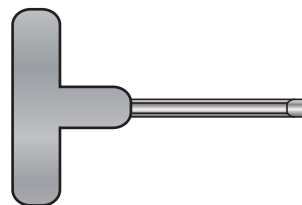
Hülse   Collet	D1	D2	L1	L2	d
HS -12-d-OH	12	16	44	4	3, 4, 6, 8, 10
HS -20-d-OH	20	25	54	4	3, 4, 6, 8, 10, 12, 16



## HS-CF

**HS-CF Spannhülsen | für Peripheriekühlung**  
HS-CF Straight Collets | for side-through coolant supply

Hülse   Collet	D1	D2	L1	L2	d
HS -12-d-CF	12	16	44	4	3, 4, 6, 8
HS -20-d-CF	20	25	54	4	3, 4, 6, 8, 10, 12, 16

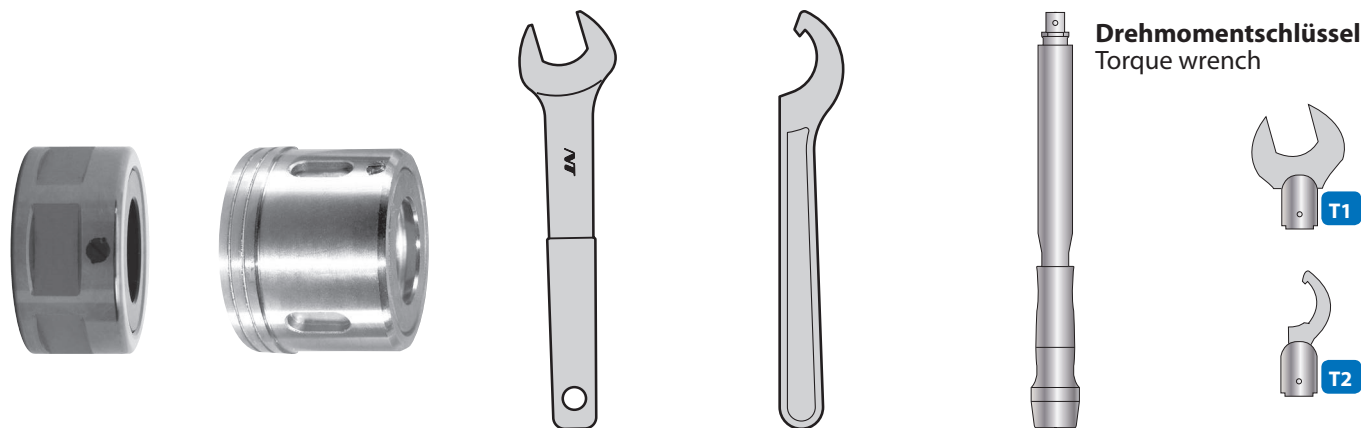


## LT

**LT 6kant-Schlüssel | zur Werkzeugspannung und Rundlaufeinstellung**  
LT Hex wrench | for tool clamping and run out adjustment

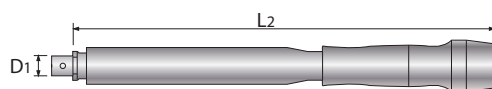
6kant   Hex wrench	Passend für R "0" Futter   Fit for R "0" Chucks		
L-3T	PHZ-SA	HDZ	ERZ
L-4T	PHC-A, PHZ-SA, PHZ-SC, PHC-H, PHC-S, PHC-SC, PHC-Z	HDZ	ERZ
L-5T	PHC-Z, PHC-H	HDZ	ERZ
L-6T	PHC-A, PHC-S, PHC-SC	-	-

# HDC-A GDC-A HDZ-A Zubehör für Spannzangenfutter Accessories for Collet Chucks



## HDP GDP S-L S-0|FK CL T1|T2

Halter   Holder	Spannmutter   Cap nut		Einstellschraube	Spannschlüssel   Spanner		Dremo-Schlüssel	Einsteckwerkzeug
	HDP	GDP	Preset screw			Torque wrench	Spanner head
HDC07A   GDC07A   HDZ07A	HDP-07	-	HDS-07	-	S-0	CL25N x 10D	SH-23-10 <b>T2</b>
GDC09A	-	GDP-09	HDS-09	-	S-0	CL50N x 15D	SH-25-15 <b>T2</b>
HDC09A   HDZ09A	HDP-09	-	HDS-09	S-1L	-		SH-1A-15 <b>T1</b>
GDC12A	-	GDP-12	HDS-12	-	FK-0034	CL100N x 15D	SH-34-15 <b>T2</b>
HDC12A   HDZ12A	HDP-12	-	HDS-12	S-3L	-		SH-3A-15 <b>T1</b>
GDC16A	-	GDP-16	HDS-16	-	FK-0034		SH-34-15 <b>T2</b>
HDC16A   HDZ16A	HDP-16	-	HDS-16	S-4L	-		SH-4A-15 <b>T1</b>
GDC22A	-	GDP-22	HDS-22	-	FK-0045		SH-45-15 <b>T2</b>
HDC22A   HDZ22A	HDP-22	-	HDS-22	S-5L	-		SH-5A-15 <b>T1</b>



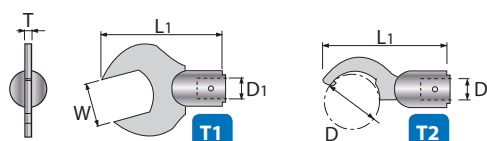
Dremo Torque wrench	Messbereich Range	D1	L2
	CL	25N	5-25 Nm
	50N	10-50 Nm	15 219
	100N	20-100 Nm	15 294
	200N	40-200 Nm	19 435

## CL

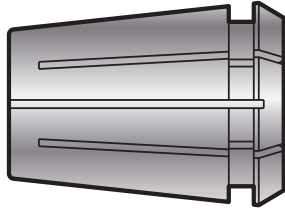
**CL Drehmomentschlüssel | für HDP | GDP | ERP**  
CL Torque wrench | for HDP | GDP | ERP

## SH

**SH Einsteckwerkzeug**  
SH Spanner head



T1   T2	Type	W	T	D	D1	L1	Passende Spannmutter Suitable cap nut	Anzugsmoment Tightening torque	Dremo-Schlüssel Torque wrench	Messbereich Range
-1A-15	<b>T1</b>	24	4.5	-	15	78	HDP-09	30-35 Nm	CL50N x15D	10-50 Nm
-3A-15	<b>T1</b>	30	4.5	-	15	83	HDP-12	34-40 Nm	CL100N x15D	20-100 Nm
-4A-15	<b>T1</b>	33	4.5	-	15	84	HDP-16	40-45 Nm	CL100N x15D	20-100 Nm
-5A-15	<b>T1</b>	42	5.5	-	15	89	HDP-22	55-60 Nm	CL100N x15D	20-100 Nm
-23-10	<b>T2</b>	-	-	23	10	60	HDP-07A	10-15 Nm	CL25N x15D	5-25 Nm
-25-15	<b>T2</b>	-	-	29	15	77	GDP-09	30-35 Nm	CL50N x15D	10-50 Nm
-30-15	<b>T2</b>	-	-	34	15	79	GDP-12 ERP-16	35-40 Nm	CL100N x15D	20-100 Nm
-34-15	<b>T2</b>	-	-	38	15	82	GDP-16	44-45 Nm	CL100N x15D	20-100 Nm
-45-15	<b>T2</b>	-	-	49	15	86	GDP-22 ERP-25	55-60 Nm	CL100N x15D	20-100 Nm
-6A-19	<b>T2</b>	-	-	66	19	118	ERP-32	80-90 Nm	CL200N x19D	40-200 Nm



### Präzision und Haltekraft

FDC-Spannzangen bieten höchste Rundlaufgenauigkeit sowie Haltekraft, die herkömmlichen Spannzangensystemen und Hydrodehnaufnahmen überlegen sind.

Precision and Clamping force

FDC Collets for highest run out accuracy and higher clamping forces than conventional collet chucks or Hydro chucks.

## FDC

Spannzange Collet	Spanndurchmesser   Clamping Range	
	0.5 stgd.   steps	1.0 stgd.   steps
FDC-07	Ø 1.0-7.0	-
FDC-07-OH	Ø 3.0-7.0	-
FDC-07-C	Ø 3.0-7.0	-
FDC-07-MS	-	Ø 3.0-5.0
FDC-09	Ø 3.0-9.0	-
FDC-09-OH	Ø 3.0-9.0	-
FDC-09-C	Ø 3.0-9.0	-
FDC-09-MS	-	Ø 3.0-8.0
FDC-12	Ø 3.0-12.0	-
FDC-12-OH	Ø 3.0-12.0	-
FDC-12-C	Ø 3.0-12.0	-
FDC-12-MS	-	Ø 3.0-12.0
FDC-16	Ø 3.0-16.0	-
FDC-16-OH	Ø 3.0-16.0*	-
FDC-16-C	Ø 6.0-16.0	-
FDC-16-MS	-	Ø 6.0-14.0
FDC-22	Ø 4.0-22.0	-
FDC-22-OH	Ø 6.0-22.0	-
FDC-22-C	Ø 6.0-22.0	-
FDC-22-MS	-	Ø 6.0-20.0

\*Ø 3.0-5.0 = 1.0 stgd. | steps



### FDC-OH Spannzangen

dichten mittels kurzer Kühlmittelnuten vollständig ab und sind für den Einsatz von Schneidwerkzeugen mit innerer Kühlmittelzufuhr geeignet.

Es sind keine zusätzlichen Dichtungen notwendig. (Verschleiß)

### FDC-OH Collets

are completely sealed by short slits and thus suitable for inner coolant supply. No additional sealing necessary. (wearing)



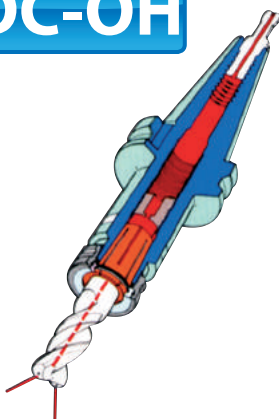
### FDC-C Spannzangen

dichten mittels kurzer Kühlmittelnuten vollständig ab. Die Kühlmittelzufuhr erfolgt über innen liegende Kühlmittelnuten, die eine effektive seitliche Kühlung ermöglichen.

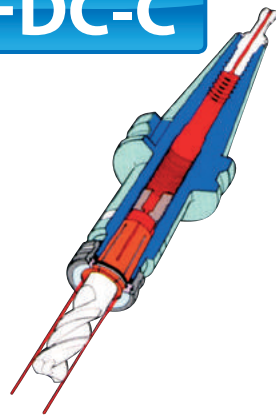
### FDC-C Collets

are completely sealed by short slits. Efficient coolant supply is ensured by two additional nozzles.

## FDC-OH



## FDC-C



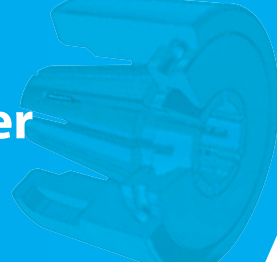
### FDC-MS Spannzangen

für die MMS Bearbeitung. Die Kühlmittelnuten erlauben eine effektive Kühlung der Werkzeugschneide.

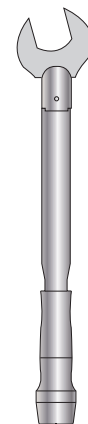
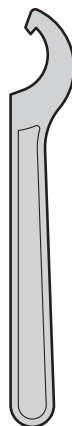
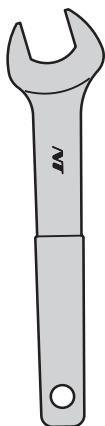
### FDC-MS Collets

with coolant jet nozzles for MQL applications.

# ERC ERZ Zubehör für Spannzangenfutter Accessories for Collet Chucks



Mini ERP



Drehmomentschlüssel  
Torque wrench



ES



ERP

S-E

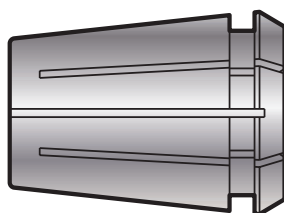
HS

CL

SH

Halter Holder	Spannmutter   Cap nut		Einstellschraube Preset screw	Spannschlüssel   Spanner		Einsteckwerkzeug Spanner head	
	Mini ERP	ERP					
ERC8S	ERP-8	-	ES-8	S-8E	-	CL25N x 10D	SH-11-10
ERC11S	ERP-11S	-	ES-11	S-11E	-	CL25N x 10D	SH-14-10
ERZ16	-	ERP-16	ES-16	-	FK-0034	CL100N x 15D	SH-25-15
ERZ32	-	ERP-32	ES-32	-	HS-2-20	CL200N x 19D	SH-45-15


## Präzisions-Spannzangen Precision Collets



ER

## ER Spannzangen | zur Durchmesserreduzierung ER Collets | for diameter reduction

DIN 6499 | ISO 15488

Halter Holder		Spann- $\varnothing$   Clamping range	kühlmitteldicht   sealed
		0.5 stgd.   rising	1.0 stgd.   rising
ERC8	ER-8	$\varnothing$ 1.0-5.0	auf Anfrage
ERC11S	ER-11	$\varnothing$ 1.0-7.0	$\varnothing$ 3.0-7.0
ERZ16	ER-16	$\varnothing$ 1.0-10.0	$\varnothing$ 3.0-10.0
ERZ32	ER-32	$\varnothing$ 3.0-20.0	$\varnothing$ 6.0-20.0

# SFH Zubehör für Gewindeschneidfutter

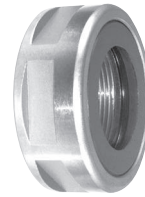
## Accessories for Tapping Holder



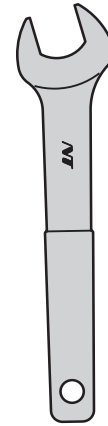
**STS**



**STS-R**



**HTP**



**S-L**

Halter   Holder	Schneidbereich Tapping range	4kant-Mitnehmer Square driver	Einschraubwerkzeug Tool changer		Spannmutter Cap nut		
<b>SFH12</b>   DIN 371	M2	STS12-□2.1	STS-M2	FSC-02809	HTP-09	S-1L	
	M3	STS12-□2.7	STS-M2	FSC-03509	HTP-09	S-1L	
	M4	STS12-□3.4	STS-R1	FSC-04509	HTP-09	S-1L	
	M5	STS12-□4.9	STS-R1	FSC-06009	HTP-09	S-1L	
	M6	STS12-□4.9	STS-R1	FSC-06009	HTP-09	S-1L	
	M8	STS12-□6.2	STS-R1	FSC-08009	HTP-09	S-1L	
<b>SFH18</b>	DIN 371	M5	STS18-□4.9	STS-R1	FSC-06016	HTP-16	S-4L
		M6	STS18-□4.9	STS-R1	FSC-06016	HTP-16	S-4L
		M8	STS18-□6.2	STS-R1	FSC-08016	HTP-16	S-4L
		M10	STS18-□8.0	STS-R2	FSC-10016	HTP-16	S-4L
	DIN 376	M12	STS18-□7.0	STS-R2	FSC-09016	HTP-16	S-4L
		M14	STS18-□9.0	STS-R2	FSC-11016	HTP-16	S-4L
		M16	STS18-□9.0	STS-R2	FSC-12016	HTP-16	S-4L
		M18	STS18-□11.0	STS-R2	FSC-14016	HTP-16	S-4L
	M20	STS18-□12.0	STS-R2	FSC-16016	HTP-16	S-4L	

### FSC-OH Spannzangen | Collets

kühlmitteldicht für innere Kühlmittelzufuhr  
sealed for inner coolant supply



### FSC-C Spannzangen | Collets

für effektive Peripheriekühlung  
for effective side-through coolant



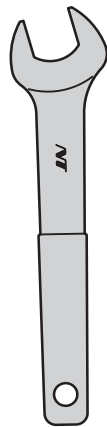
# SFH-S Zubehör für Gewindeschneidfutter

## Accessories for Tapping Holder

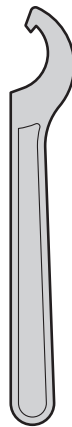


Mini ERP

**ERP**



**S-E**

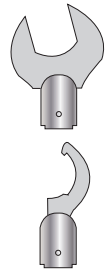


**HS**



**Drehmomentschlüssel**  
Torque wrench

**CL**

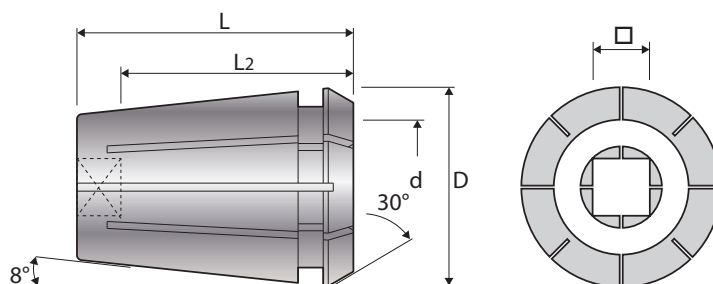


**SH**

Halter   Holder	Spannmutter Cap Nut	Spannschlüssel Spanner	Drehmomentschlüssel Torque Wrench	Einsteckwerkzeug Torque wrench head
<b>SFH8S</b>	ERP-11S	S-11E	CL25NX10D	SH-14-10
<b>SFH12S</b>	ERP-16	FK-0034	CL100NX15D	SH-23-10
<b>SFH18S</b>	ERP-25	HS-1-16	CL100NX15D	SH-25-15
<b>SFH30S</b>	ERP-32	HS-2-20	CL200NX19D	SH-45-15

# SFH-S Zubehör für Gewindeschneidfutter

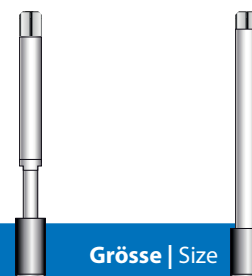
## Accessories for Tapping Holder



### ER-GB

#### ER-GB Gewindebohrspannzangen ER-GB Tapping Collets

DIN 6449B | ISO 15488



Spannzange Collet	d	4kant Square	D x L	L <sub>2</sub>	Grösse   Size
ER 11-GB	Ø 2.5 mm	□ 2.1 mm	11.3 x 18.0	-	M 1   M 3.5
ER 11-GB	Ø 2.8 mm	□ 2.1 mm	11.3 x 18.0	12	M 2   M 4
ER 11-GB	Ø 3.5 mm	□ 2.7 mm	11.3 x 18.0	14	M 3   M 5
ER 11-GB	Ø 4.5 mm	□ 3.4 mm	11.3 x 18.0	14	M 4   M 6
ER 11-GB	Ø 6.0 mm	□ 4.9 mm	11.3 x 18.0	18	M 5, M 6   M 8
ER 16-GB	Ø 2.8 mm	□ 2.1 mm	16.7 x 27.5	18	M 2   M 4
ER 16-GB	Ø 3.5 mm	□ 2.7 mm	16.7 x 27.5	18	M 3   M 5
ER 16-GB	Ø 4.5 mm	□ 3.4 mm	16.7 x 27.5	18	M 4   M 6
ER 16-GB	Ø 6.0 mm	□ 4.9 mm	16.7 x 27.5	18	M 5, M 6   M 8
ER 16-GB	Ø 7.0 mm	□ 5.5 mm	16.7 x 27.5	18	M 7   M 10
ER 16-GB	Ø 8.0 mm	□ 6.2 mm	16.7 x 27.5	22	M 8   M 11
ER 16-GB	Ø 9.0 mm	□ 7.0 mm	16.7 x 27.5	22	M 9   M 12
ER 25-GB	Ø 4.5 mm	□ 3.4 mm	25.7 x 34	18	M 4   M 6
ER 25-GB	Ø 6.0 mm	□ 4.9 mm	25.7 x 34	18	M 5, M 6   M 8
ER 25-GB	Ø 7.0 mm	□ 5.5 mm	25.7 x 34	18	M 7   M 10
ER 25-GB	Ø 8.0 mm	□ 6.2 mm	25.7 x 34	22	M 8   M 11
ER 25-GB	Ø 9.0 mm	□ 7.0 mm	25.7 x 34	22	M 9   M 12
ER 25-GB	Ø 10.0 mm	□ 8.0 mm	25.7 x 34	25	M 10   -
ER 25-GB	Ø 11.0 mm	□ 9.0 mm	25.7 x 34	25	-   M 14
ER 25-GB	Ø 12.0 mm	□ 9.0 mm	25.7 x 34	25	-   M 16
ER 25-GB	Ø 14.0 mm	□ 11.0 mm	25.7 x 34	25	-   M 18
ER 25-GB	Ø 16.0 mm	□ 12.0 mm	25.7 x 34	25	-   M 20
ER 32-GB	Ø 4.5 mm	□ 3.4 mm	32.7 x 40	18	M 4   M 6
ER 32-GB	Ø 6.0 mm	□ 4.9 mm	32.7 x 40	18	M 5, M 6   M 8
ER 32-GB	Ø 7.0 mm	□ 5.5 mm	32.7 x 40	18	M 7   M 10
ER 32-GB	Ø 8.0 mm	□ 6.2 mm	32.7 x 40	22	M 8   M 11
ER 32-GB	Ø 9.0 mm	□ 7.0 mm	32.7 x 40	22	M 9   M 12
ER 32-GB	Ø 10.0 mm	□ 8.0 mm	32.7 x 40	25	M 10   -
ER 32-GB	Ø 11.0 mm	□ 9.0 mm	32.7 x 40	25	-   M 14
ER 32-GB	Ø 12.0 mm	□ 9.0 mm	32.7 x 40	25	-   M 16
ER 32-GB	Ø 14.0 mm	□ 11.0 mm	32.7 x 40	25	-   M 18
ER 32-GB	Ø 16.0 mm	□ 12.0 mm	32.7 x 40	25	-   M 20
ER 32-GB	Ø 18.0 mm	□ 14,5 mm	32.7 x 40	30	-   M 22, M 24
ER 32-GB	Ø 20.0 mm	□ 16.0 mm	32.7 x 40	30	-   M 27

# HSK-T

## Aufnahmen für Dreh-Fräszentren

Millturn Tooling Systems

ISO 12164

	Zubehör	Accessories	Seite Page
SBV   SBN   SBH   SBT	Drehhalter	Turning tools	203 - 204
TSB	Bohrstangenhalter	Boring bar holder	205
TSD	Werkzeughalter für Wendeplattenbohrer	Holder for Insert drills	206
CT-SA	Hochleistungs-Kraftspannfutter	High Performance Milling Chuck	207



# HSK-T Werkzeugspannsysteme Tooling Systems

## HSK-T | ISO 12164-3

Der HSK-T Hohlschaftkegel wurde entwickelt für Anwendungen beim Drehen. Das große Interesse am Einsatz von HSK zum Drehen hat zu der weltweit gültigen ISO Norm HSK-T 12164-3 geführt.

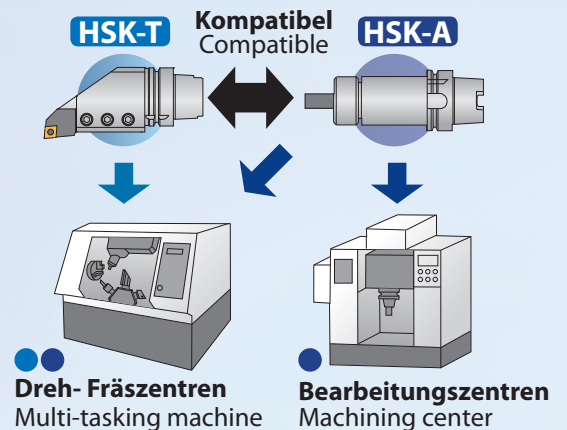
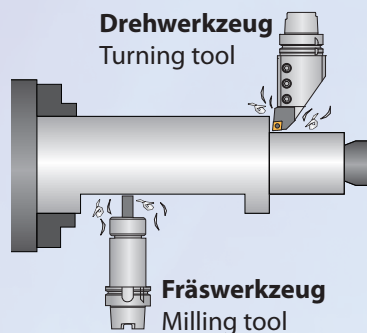
HSK-T interface was developed to maximize cutting ability of multi-tasking machines. HSK-T interface became ISO standard in 2008: ISO 12164-3

## HSK-T | Merkmale 1 | Der HSK-T Hohlschaftkegel ist kompatibel mit dem HSK-A für rotierende Anwendungen Features 1 | HSK-T shank is compatible with HSK-A shank that is used for machining centers

### Dreh- Fräszentren

HSK-T Werkzeugsysteme bieten minimale Wechselzeiten und höchste Genauigkeit auf Drehmaschinen und Dreh- Fräszentren - herstellerunabhängig

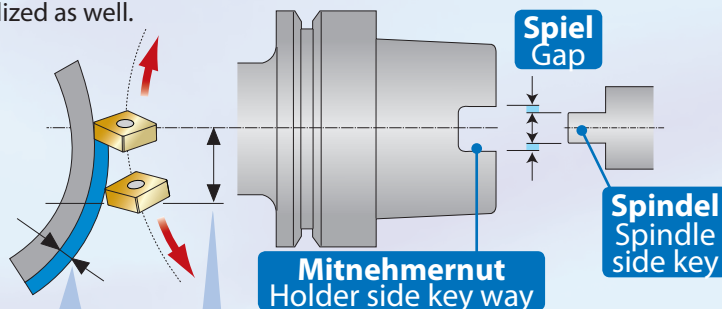
Multi-tasking machine combines milling and turning processes, which were conventionally processed on multiple machines, onto one machine



## HSK-T | Merkmale 2 | Erhöhte Produktivität bei der Drehbearbeitung Features 2 | Increased cutting accuracy at turning process

Der Unterschied zu den HSK-Formen für rotierende Anwendungen liegt in den enger tolerierten Mitnehmernuten. Sie garantieren die für das Drehen wichtige radiale Positioniergenauigkeit.

HSK-T shank was designed to minimize the gap between the key and key way. Consequently, cutting edge height was sustained accurately and cutting accuracy was improved. Invariant cutting diameter was realized as well.



Minimiertes Spiel zwischen Aufnahme und Spindelmitnehmer.  
Minimized gap between Holder and Spindle side key.

- Hohe Wechsel- und Wiederholgenauigkeit  
• High change and repeat accuracy
- Hohe Passgenauigkeit  
• High fitting accuracy
- Hohe Steifigkeit  
• High rigidity
- Exakte radiale Positioniergenauigkeit  
• Precise radial position accuracy
- Hohe Flexibilität  
• High flexibility
- Korrosionsgeschützt  
• Rust proofed
- Eine Schnittstelle für Drehen und Fräsen  
• One interface for turning and milling

Schnittstelle Interface	Drehen   Turning				Bohren   Drilling		Fräsen   Milling
	Halter   Holder	SBV	SBN	SBH	SBT	TSB	TSD
HSK63T <small>Seite Page</small>	203	203	204	204	205	206	207
HSK100T <small>Seite Page</small>	203	203	204	204	205	206	-

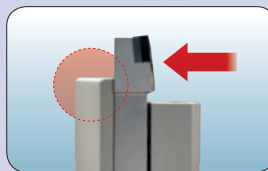
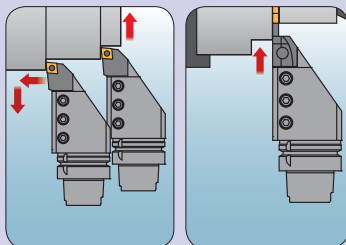
# HSK-T Werkzeugspannsysteme Tooling Systems

## SBV

Werkzeughalter für  
Klemmhalter mit  
4kant-Schaft

Toolholders for  
External / Cut-off

□20, □25, □32



Hohe Steifigkeit durch  
optimiertes Design

High rigidity by bit support design

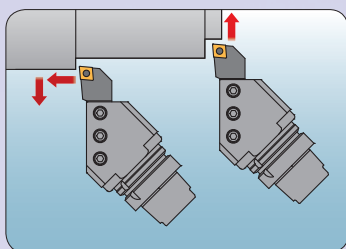


## SBN

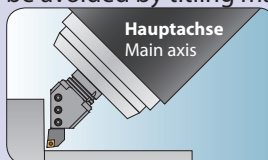
Werkzeughalter für  
Klemmhalter mit  
4kant-Schaft

Toolholders for  
External / Facing

□20, □25, □32



Optimierte Störkontur für schwer  
zugängliche Werkstückstellen.  
Interference with work piece can  
be avoided by tilting main axis.

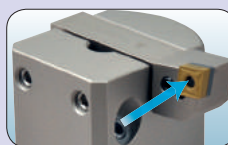
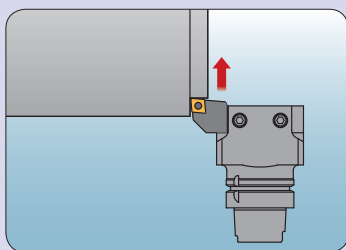


## SBH

Werkzeughalter für  
Klemmhalter mit  
4kant-Schaft

Toolholders for Facing

□20, □25, □32



Mit einstellbaren Kühlmitteldüsen,  
für Links- und Rechtslauf.

Coolant feeding enabled for both  
Right- and Left-hand.

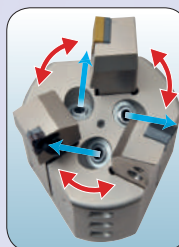
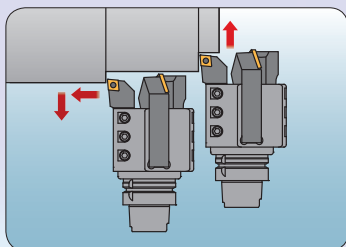


## SBT

Werkzeughalter für  
Klemmhalter mit  
4kant-Schaft

Toolholders for  
External / Facing

□20, □25



Axial, 3fach mit  
einstellbaren  
Kühlmitteldüsen

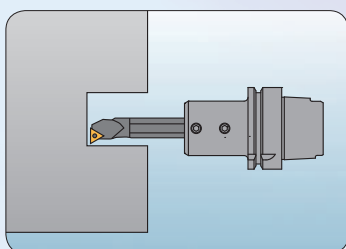
Coolant feeding  
enabled for all  
three bits.



## TSB

Bohrstangenhalter  
Boring bar holders

∅ 8-50



Flexibel durch Reduzierhülsen,  
mit Innenkühlung

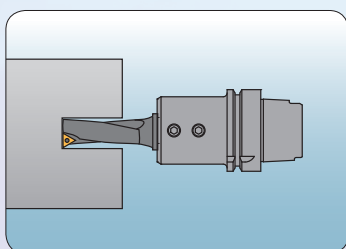
Coolant/Size reduction sleeve.  
Coolant feeding enabled  
for boring bar without oil  
hole using TSS sleeve.



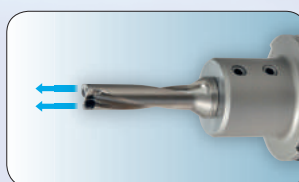
## TSD

Werkzeughalter für  
Wendeplattenbohrer  
Toolholders for Drills

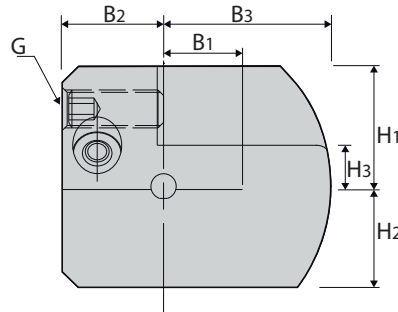
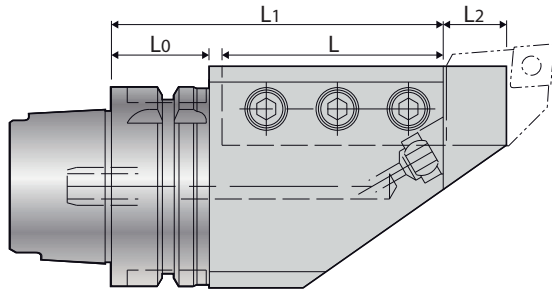
∅ 16-50



Mit Innenkühlung  
Coolant feeding enabled



# HSK-T Werkzeugspannsysteme Tooling Systems



## HSK-T

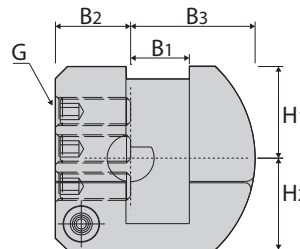
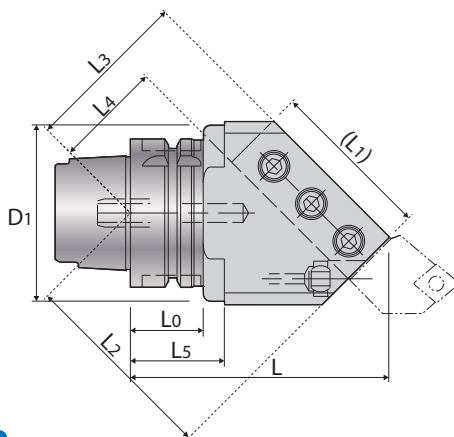
**SBV Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBV Toolholders | for External | Cut-off

ISO 12164-3

Halter   Holder		L	L0	L1	L2	B1	B2	B3	H1	H2	H3	G
HSK63T	-SBV2020 R -95	95	32	60	15	20	32	43,5	33	32	13	M10
	-SBV2020 L -95	95	32	60	15	20	32	43,5	33	32	13	M10
	-SBV2525 R -105	105	32	70	20	25	32	45	30	30	5	M12
	-SBV2525 L -105	105	32	70	20	25	32	45	30	30	5	M12
HSK100T	-SBV2525 R -150	150	35	110	20	25	37	59	48	43	23	M12
	-SBV2525 L -150	150	35	110	20	25	37	59	48	43	23	M12
	-SBV3232 R -150	150	35	110	20	32	40	68,5	45	43	15	M14
	-SBV3232 L -150	150	35	110	20	32	40	68,5	45	43	15	M14

Kühlmitteldüsen einstellbar.

Direction of coolant nozzle can be adjusted.



## HSK-T

**SBN Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBN Toolholders | for External | Facing

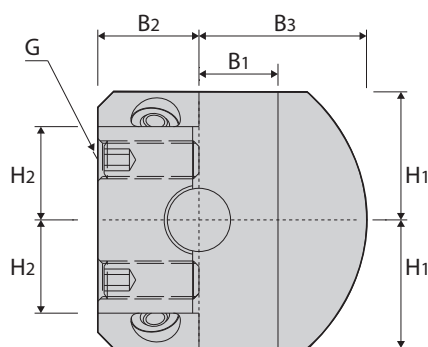
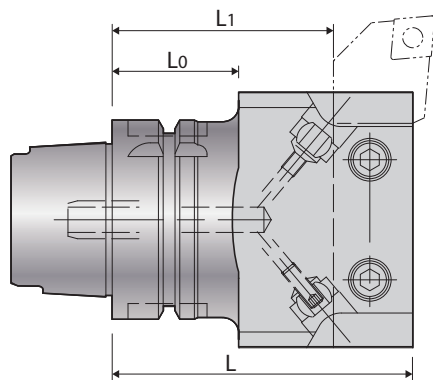
ISO 12164-3

Halter   Holder		D1	L	L0	(L1)	L2	L3	L4	L5	B1	B2	B3	H1	H2	G
HSK63T	-SBN2020 R -110	-	110	32	60	83,1	72,8	52,8	-	20	32	43,5	35	35	M10
	-SBN2020 L -110	-	110	32	60	83,1	72,8	52,8	-	20	32	43,5	35	35	M10
	-SBN2525 R -110	90	110	32	70	85,2	70,8	45,8	40	25	32	53	39	39	M12
	-SBN2525 L -110	90	110	32	70	85,2	70,8	45,8	40	25	32	53	39	39	M12
HSK100T	-SBN2525 R -135	-	135	35	70	102,9	88,5	63,5	-	25	32	59	43	43	M12
	-SBN2525 L -135	-	135	35	70	102,9	88,5	63,5	-	25	32	59	43	43	M12
	-SBN3232 R -140	-	140	35	85	109,9	89	59	-	32	37	68,5	48	43	M14
	-SBN3232 L -140	-	140	35	85	109,9	89	59	-	32	37	68,5	48	43	M14

Kühlmitteldüsen einstellbar.

Direction of coolant nozzle can be adjusted.

# HSK-T Werkzeugspannsysteme Tooling Systems



## HSK-T

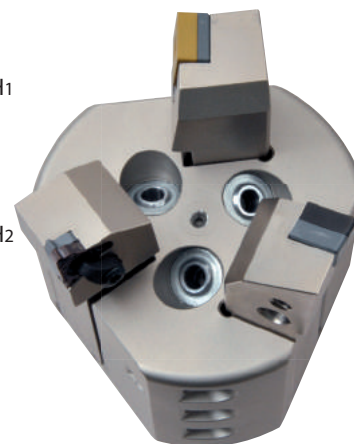
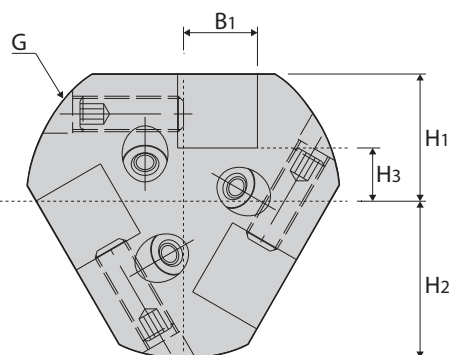
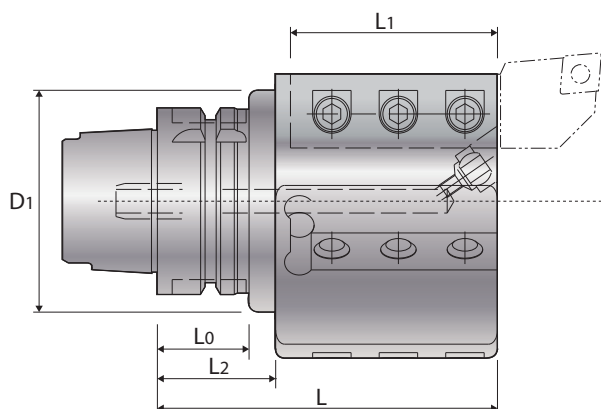
**SBH Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBH Toolholders | for Facing

ISO 12164-3

Halter   Holder		L	L <sub>0</sub>	L <sub>1</sub>	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	H <sub>1</sub>	H <sub>2</sub>	G
HSK63T	-SBH2020 N -90	90	40	70	20	32	43,5	30	-	M10
	-SBH2525 N -90	90	40	65	25	32	53	40,5	29,5	M12
	-SBH2525 N -120	120	70	95	25	32	53	40,5	29,5	M12
HSK100T	-SBH2525 N -105	105	35	80	25	32	59	48	37	M12
	-SBH2525 N -150	150	35	125	25	32	59	48	37	M12
	-SBH3232 N -105	105	35	75	32	40	68,5	57	43	M14

Kühlmitteldüsen einstellbar.  
Eine Verschlusschraube (M5x15) für Kühlmitteldüsen ist im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
One plug screw (M5x15) for coolant nozzle is included in delivery.



## HSK-T

**SBT Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBT Toolholders | for External | for Facing

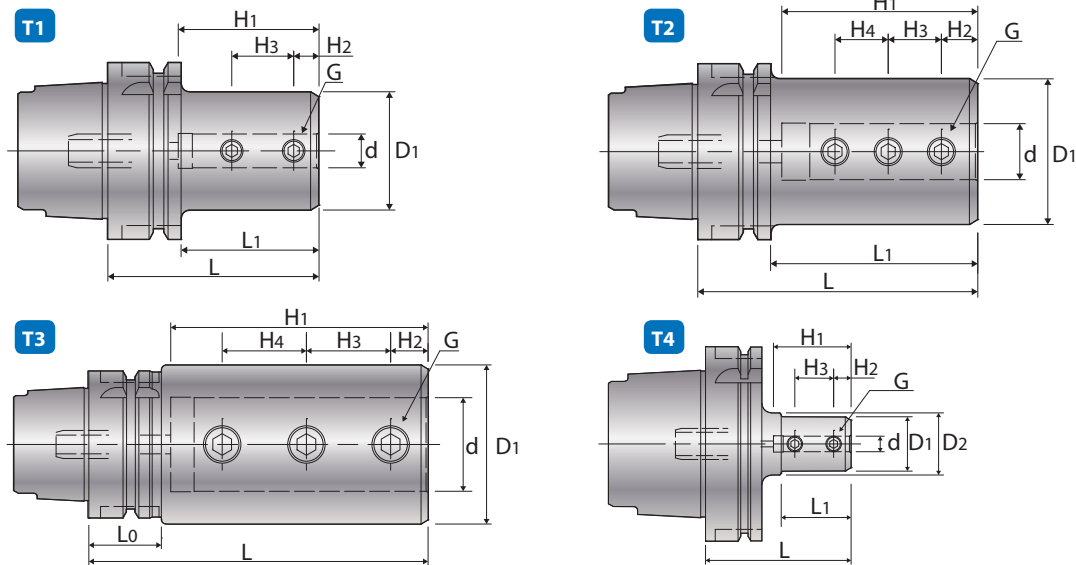
ISO 12164-3

Halter   Holder		D <sub>1</sub>	L	L <sub>0</sub>	L <sub>1</sub>	L <sub>2</sub>	B <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	G
HSK63T	-SBT2020 R -95	-	95	32	60	-	20	35	43,5	15	M10
	-SBT2020 L -95	-	95	32	60	-	20	35	43,5	15	M10
	-SBT2525 R -115	90	115	32	70	40	25	43	53	18	M12
	-SBT2525 L -115	90	115	32	70	40	25	43	53	18	M12
HSK100T	-SBT2525 R -150	-	150	35	110	-	25	48	59	23	M12
	-SBT2525 L -150	-	150	35	110	-	25	48	59	23	M12

Kühlmitteldüsen einstellbar.  
Zwei Verschlusschrauben (M5x15) für Kühlmitteldüsen sind im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
Two plug screws (M5x15) for coolant nozzle are included in delivery.

# HSK-T Werkzeugspannsysteme Tooling Systems



## HSK-T

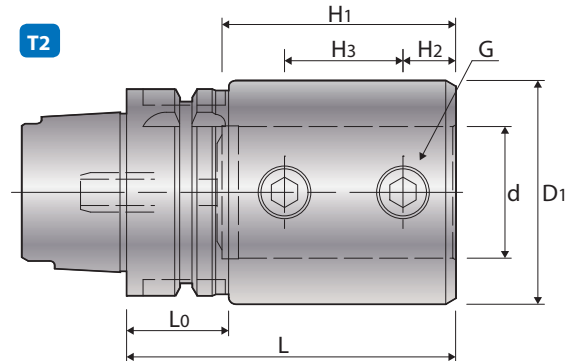
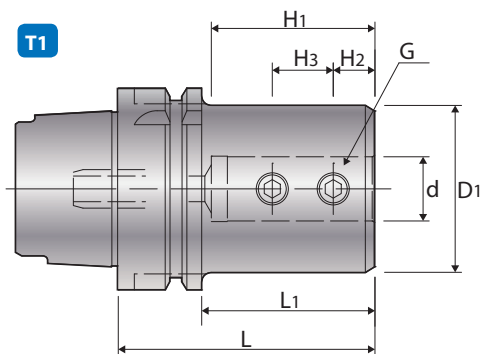
**TSB Bohrstangenhalter**  
TSB Boring bar holders

ISO 12164-3

Halter   Holder		Type	d	D1	D2	L	L0	L1	H1	H2	H3	H4	G
HSK63T	-TSB8 -65	T1	8	28	-	65	-	39	40	9	20	-	M8
	-TSB10 -70	T1	10	35	-	70	-	44	45	9	22	-	M8
	-TSB12 -75	T1	12	42	-	75	-	49	50	9	22	-	M8
	-TSB16 -100	T2	16	48	-	100	-	74	70	14	18	18	M10
	-TSB20 -100	T2	20	52	-	100	-	74	70	14	18	18	M10
	-TSB25 -115	T2	25	62	-	115	-	89	85	14	26	26	M12
	-TSB32 -130	T2	32	62	-	130	-	104	100	14	30	30	M12
	-TSB40 -145	T3	40	68	-	145	32	-	115	16	36	36	M16
HSK100T	-TSB8 -75	T4	8	28	32	75	-	36	40	9	20	-	M8
	-TSB10 -80	T1	10	35	-	80	-	51	45	9	22	-	M8
	-TSB12 -85	T1	12	42	-	85	-	56	50	9	22	-	M8
	-TSB16 -105	T2	16	48	-	105	-	76	70	14	18	18	M10
	-TSB20 -105	T2	20	52	-	105	-	76	70	14	18	18	M10
	-TSB25 -120	T2	25	62	-	120	-	91	85	14	26	26	M12
	-TSB32 -135	T2	32	72	-	135	-	106	100	14	30	30	M12
	-TSB40 -150	T2	40	82	-	150	-	121	115	16	36	36	M16
-TSB50 -180	T2	50	92	-	180	-	151	145	18	38	38	M16	



# HSK-T Werkzeugspannsysteme Tooling Systems



## HSK-T

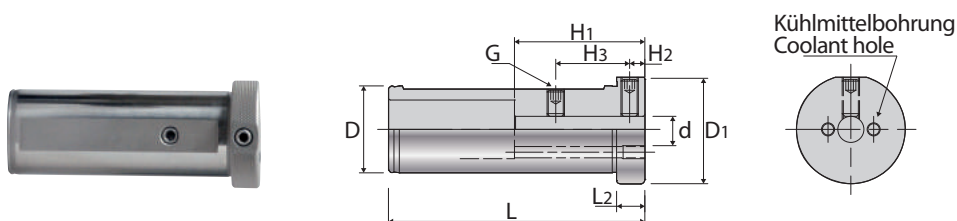
**TSD Werkzeughalter | für Wendepplattenbohrer**  
TSD Toolholders | for Drills

ISO 12164-3

Halter   Holder		Type	d	D1	L	L0	L1	H1	H2	H3	G
HSK63T	-TSD16 -75	T1	16	48	75	-	49	49	14	18	M10
	-TSD20 -80	T1	20	52	80	-	54	51	14	18	M10
	-TSD25 -85	T1	25	62	85	-	59	57	14	26	M12
	-TSD32 -90	T1	32	62	90	-	64	61	14	30	M12
	-TSD40 -100	T2	40	68	100	32	-	71	16	36	M16
HSK100T	-TSD16 -85	T1	16	48	85	-	56	49	14	18	M10
	-TSD20 -85	T1	20	52	85	-	56	51	14	18	M10
	-TSD25 -90	T1	25	62	90	-	61	57	14	26	M12
	-TSD32 -95	T1	32	72	95	-	66	61	14	30	M12
	-TSD40 -105	T1	40	82	105	-	76	71	16	36	M16
	-TSD50 -115	T1	50	92	115	-	86	81	18	38	M16

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK-Coolant pipe included in delivery.



## TSS

**TSS Reduzierhülsen | für TSB40 Halter**  
TSS Reduction Sleeves | for TSB40 Holders

Hülse   Collet		d	D	D1	L1	L2	H1	H2	H3	G
TSS40	-8	8	40	50	118	13	50	7	34	M8
	-10	10	40	50	118	13	50	7	34	M8
	-12	12	40	50	118	13	60	7	34	M8
	-16	16	40	50	118	13	70	7	34	M8

**Für Anwendungen mit IKZ, Kühlmittelbohrung verschließen (M6x10, im Lieferumfang enthalten).**

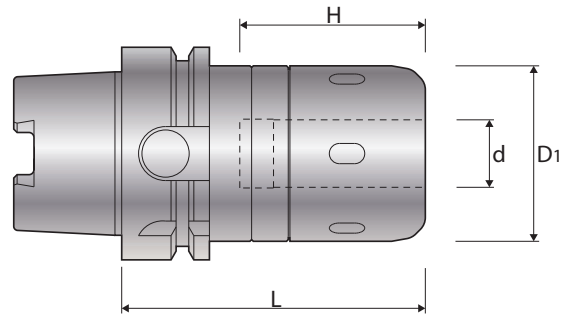
**Flexibel durch die Verwendung von Reduzierhülsen.**

For coolant use, plug one of the two coolant holes with plug screw (M6x10 included in delivery).

Various sizes of boring bars can be clamped by using reduction sleeves.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK63T



DIN 69893 | ISO 12164

3.0  
32.0


0.005  
3x D

max  
20.000  
min<sup>-1</sup>




Halter   Holder		d	D1	L	L1	H		
HSK63T	-CT20SA -90	20	52	90	64	60	MC20-d	HS-2-20
	-CT32SA -105	32	73	105	-	75	MC32-d	HS-3-32

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



S.|P. 187

# Technische Informationen

## Technical Informations

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## Mindesteinspanntiefen und zulässige übertragbare Drehmomente

### Minimal clamping lengths and maximum transmittable torques



**Die Einhaltung der Mindesteinspanntiefe gewährleistet die sichere Werkzeugspannung mit hoher Rundlaufgenauigkeit.**

**Bei Nichteinhaltung kann es zu Fräserauszug oder zur Beschädigung der Aufnahme führen.**

Compliance with minimum clamping lengths ensures safe tool clamping with high run out accuracy. Failure to comply can lead to pull out of a cutting tool or damage the toolholder.

### Mindesteinspanntiefen und zulässige übertragbare Drehmomente für Kraftspannfutter [Direktspannung]

Minimum clamping length and maximum transmittable torque for Milling Chucks [Direct chucking]

CT-SA   CT-SA-C		
Spann- $\emptyset$ Clamping- $\emptyset$	Mindesteinspanntiefe min clamping length	zul. übertrag. Drehmoment* max transmittable torque*
CT16SA	40 mm	800 Nm
CT20SA   -C	40 mm	1000 Nm
CT25SA	50 mm	2000 Nm
CT32SA	50 mm	4000 Nm
CT42SA	50 mm	6500 Nm

CTS-P		
Spann- $\emptyset$ Clamping- $\emptyset$	Mindesteinspanntiefe min clamping length	zul. übertrag. Drehmoment* max transmittable torque*
CT20S-P	50 mm	1700 Nm
CT25S-P	60 mm	3000 Nm
CT32S-P	60 mm	5000 Nm

\* Schafttoleranz: h6 | trockener Schaft

Shank tolerance h6 | dry shank

### Mindesteinspanntiefen und zulässige übertragbare Drehmomente für Power-Dehnspannfutter.

Minimum clamping length and maximum transmittable torque for Power Hydro Chucks.

PHC-A		
Spann- $\emptyset$ Clamping- $\emptyset$	Mindesteinspanntiefe min clamping length	zul. übertrag. Drehmoment* max transmittable torque*
3	18 mm	8 Nm
4	24 mm	15 Nm
6	29 mm	20 Nm
8	29 mm	35 Nm
10	40 mm	60 Nm
12	40 mm	100 Nm
16	40 mm	200 Nm
20	40 mm	350 Nm
25	50 mm	600 Nm
32	65 mm	1000 Nm

PHC-H		
Spann- $\emptyset$ Clamping- $\emptyset$	Mindesteinspanntiefe min clamping length	zul. übertrag. Drehmoment* max transmittable torque*
16	45 mm	600 Nm
20	50 mm	800 Nm
25	55 mm	1200 Nm
32	65 mm	2000 Nm

\* Schafttoleranz: h6 | trockener Schaft

Shank tolerance h6 | dry shank

\* Schafttoleranz: h6 | trockener Schaft

Shank tolerance h6 | dry shank

### Anzugsmomente für Spannzangensysteme

Clamping torque for collet chuck systems

Halter   Holder	Anzugsmoment Clamping torque
HDC07A   HDZ07A   GDC07A	10-15 Nm
HDC09A   HDZ09A   GDC09A	30-35 Nm
HDC12A   HDZ12A   GDC12A	35-40 Nm
HDC16A   HDZ16A   GDC16A	40-45 Nm
HDC22A   HDZ22A   GDC22A	55-60 Nm
ERC8	5-7 Nm
ERC11S	15-20 Nm

**Das maximale Anzugsmoment darf nicht mehr als 30 % über den genannten Angaben liegen, um Deformationen an der Aufnahme und Spannzange zu vermeiden.**

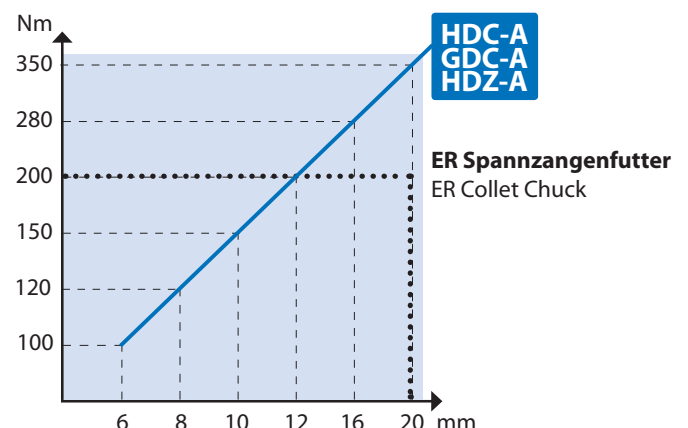
Maximum torque should not be exceeded by 30 % in order to avoid damages to the holder and collet.

### Spannkräfte der Hochgenauigkeits-Spannzangenfutter:

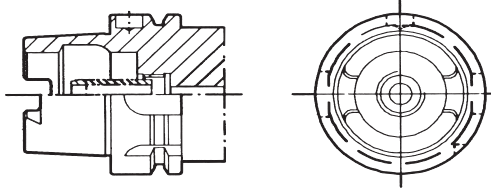
Typ HDC-A | GDC-A | HDZ-A

Clamping forces of High Performance Collet Chucks:

Type HDC-A | GDC-A | HDZ-A

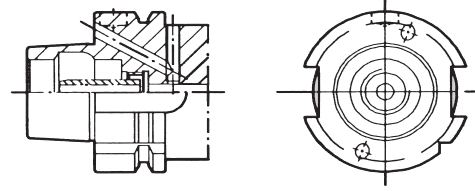


### Form A | Type A



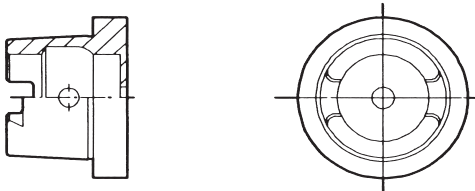
- Anwendung für BAZ, Fräsmaschinen
- Zentrale, axiale Kühlmittelzufuhr
- Drehmomentübertragung über 2 Mitnehmernuten am Kegellende
- 2 Bundnuten für Werkzeugmagazin, Positionskerbe
- Bohrung für Datenträger DIN 69873 im Bund (optional)
- Application: Machining centres
- Centre-through coolant hole
- Torque transmission with drive keys on flange
- U-grooves for ATC positioning notch
- Tool ID recess hole (option)

### Form B | Type B



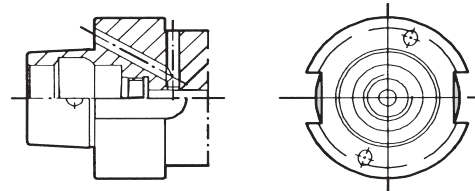
- Anwendung für BAZ, Fräsmaschinen, Drehmaschinen
- Mit vergrößertem Bund
- Dezentrale Kühlmittelzufuhr oder zentral über den Bund
- Drehmomentübertragung über 2 Bundnuten
- Bohrung für Datenträger DIN 69 873 im Bund (optional)
- Application: Machining centres, milling machines
- Large flange diameter
- Flange-through coolant hole or centre-through coolant hole
- Torque transmission by U-grooves on flange
- Tool ID recess hole (option)

### Form C | Type C



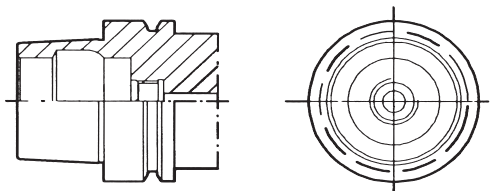
- Anwendung in Transferstraßen und Sondermaschinen ohne automatischen Werkzeugwechsel
- Zentrale, axiale Kühlmittelzufuhr
- Drehmomentübertragung über 2 Mitnehmernuten am Kegellende
- Application: Transfer lines and special purpose machines without ATC
- Centre-through coolant hole
- Torque transmission with drive keys on flange

### Form D | Type D



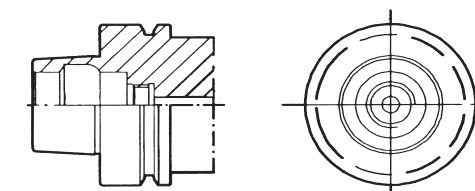
- Anwendung in Transferstraßen und Sondermaschinen ohne automatischen Werkzeugwechsel
- Mit vergrößertem Bund
- Dezentrale Kühlmittelzufuhr oder zentral über den Bund
- Drehmomentübertragung über 2 Bundnuten
- Application: Transfer lines and special purpose machines without ATC
- Large flange diameter
- Flange-through coolant hole
- Torque transmission by U-grooves on flange

### Form E | Type E



- Anwendung für Hochgeschwindigkeitsmaschinen
- Rotationssymmetrisch, ohne Mitnehmernuten
- Drehmomentübertragung über Reibschluss
- Zentrale Kühlmittelzufuhr (optional)
- Application: High speed machining centres
- Complete symmetrical shape without drive keys
- Torque transmission by friction
- Centre-through coolant hole (option)

### Form F | Type F

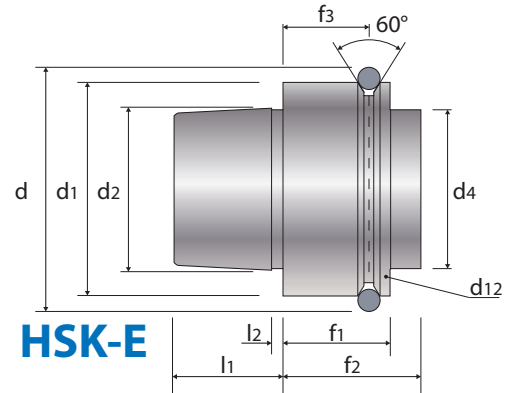
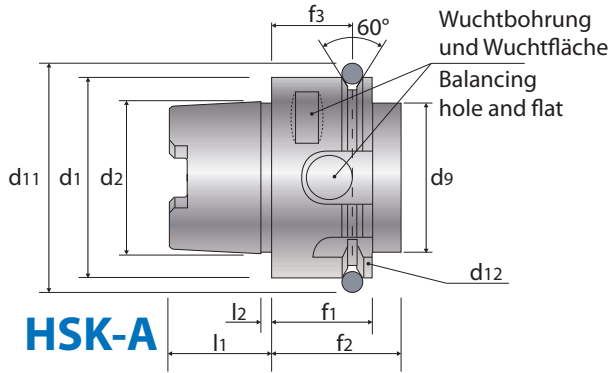


- Anwendung für Hochgeschwindigkeitsmaschinen
- Mit vergrößertem Bund
- Zentrale Kühlmittelzufuhr (optional)
- Application: High speed machining centres
- Large flange diameter
- Centre-through coolant hole (option)

# Die HSK-Schnittstelle | Formen und Merkmale

## The HSK-Interface | Shapes and features

DIN 69893 | ISO 12164



### HSK-A

DIN 69893 | ISO 12164

#### Empfohlene Grenzdrehzahlen | Recommended speed limits

**HSK32A** bis / up to 50.000 min<sup>-1</sup>  
**HSK40A** bis / up to 42.000 min<sup>-1</sup>  
**HSK50A** bis / up to 30.000 min<sup>-1</sup>

**HSK63A** bis / up to 25.000 min<sup>-1</sup>  
**HSK100A** bis/up to 16.000 min<sup>-1</sup>

Nenngröße Nominal size	d1	d2	d9	d11	d12	l1	l2	f1	f2	f3	
HSK	-32A	32	24	26	37.00	4	16	3.2	20	35	16
	-40A	40	30	34	45.00	4	20	4.0	20	35	16
	-50A	50	38	42	59.30	7	25	5.0	26	42	18
	-63A	63	48	53	72.30	7	32	6.3	26	42	18
	-80A	80	60	67	88.80	7	40	8.0	26	42	20
	-100A	100	75	85	109.75	7	50	10.0	29	45	20
	-125A	125	95	105	134.75	7	63	12.5	29	45	20
-160A	160	120	130	169.75	7	80	16.0	31	47	22	

#### Schaftausführung

- Ohne Bohrungen für manuellen Werkzeugwechsel (auf Kundenwunsch mit Bohrungen erhältlich)
- Ohne Bohrung für Datenträger (auf Kundenwunsch mit Bohrung erhältlich)

#### Wuchtausführung

- Ausgleich der HSK-Unwucht, entsprechend ISO-Empfehlung

#### Kühlmittelrohr

- Bei jedem HSK-A-Halter im Lieferumfang enthalten
- Durch Einkleben gesichert

### HSK-E

DIN 69893 | ISO 12164

Nenngröße Nominal size	d1	d2	d4	d6	d12	l1	l2	f1	f2	f3	
HSK	-25E	25	19	20	28.50	3	13	2.5	10	20	4.5
	-32E	32	24	26	37.00	4	16	3.2	20	35	16
	-40E	40	30	34	45.00	4	20	4.0	20	35	16
	-50E	50	38	42	59.30	7	25	5.0	26	42	18
	-63E	63	48	53	72.30	7	32	6.3	26	42	18

#### Kühlmittelrohr

- ist für HSK-E-Halter nicht im Lieferumfang enthalten
  - Halterausführung ohne Gewindebohrung für Kühlmittelrohr
  - Halter mit Kühlmittelrohr auf Kundenwunsch
- Alle HSK-A-Produkte auf Kundenwunsch mit HSK-E-Schaft  
 ...weitere HSK-Ausführungen auf Anfrage (zB HSK-C, HSK-F)

#### Shank design

- Without holes for manual tool change, (with holes on request)
- Without data chip hole, (with hole on request)

#### Balance design

- Compensation of HSK-imbalance in compliance with ISO

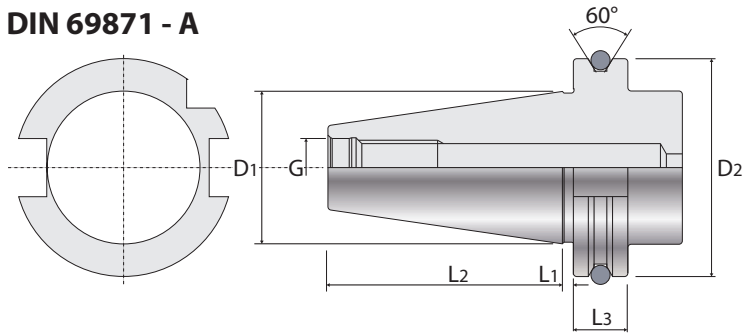
#### Lubrication pipe

- For each HSK-A holder incl. in delivery
- Secured by adhesive

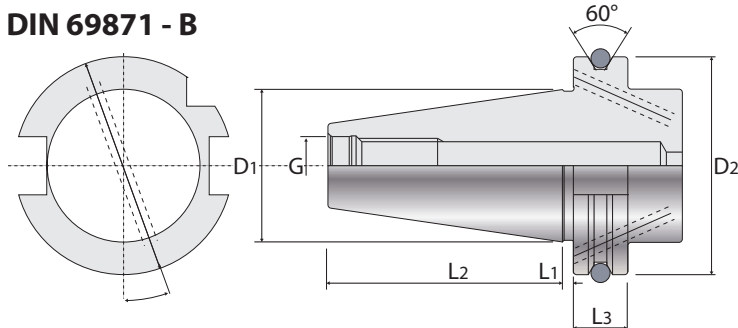
#### Lubrication pipe

- for HSK-E-holder not included in delivery
  - Holder design without thread for lubrication pipe (with lubrication pipe on request)
- All HSK-A-products are available on request with HSK-E  
 ...other HSK-shanks on request (e. g. HSK-C, HSK-F)

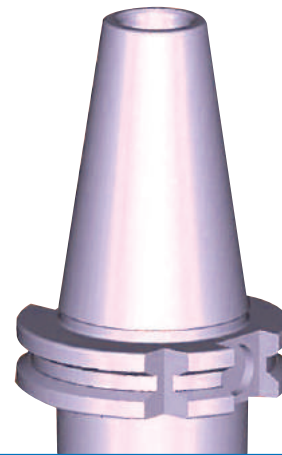
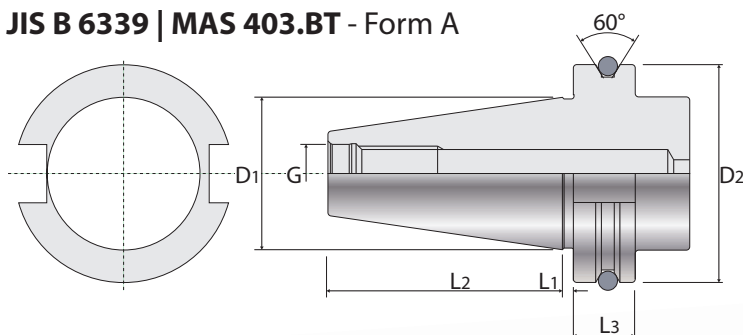
### DIN 69871 - A



### DIN 69871 - B



### JIS B 6339 | MAS 403.BT - Form A



Typ Type	D1	D2	L1	L2	L3	G
SK30	31.75	50.00	3.20	47.80	15.85	M12
SK40	44.45	63.55	3.20	68.40	15.85	M16
SK50	69.85	97.50	3.20	101.75	15.85	M24



Typ Type	D1	D2	L1	L2	L3	G
BT30	31.75	46	2	48.40	20	M12
BT40	44.45	63	2	65.40	25	M16
BT50	69.85	100	3	101.80	35	M24

### Empfohlene Grenzdrehzahlen für Steilkegelwerkzeuge

Recommended speed limits for steep taper holders

**SK30** bis / up to 20.000 min<sup>-1</sup>

**SK40** bis / up to 20.000 min<sup>-1</sup>

**SK50** bis / up to 16.000 min<sup>-1</sup>

# DIN Gewindebohrerschaftmaße DIN Tap Shank dimensions



Ø x □	DIN 352	DIN 5156 DIN 5157	DIN 371	DIN 374	DIN 376	BSW DIN 2183	BSW verstärkt DIN 2182	UNC DIN 376	UNC verstärkt DIN 371	UNF DIN 374	UNF verstärkt DIN 371
2.5 x 2.1	M1		M1		M3.5		1/16"				
2.5 x 2.1	M1.1		M1.1	M3.5							
2.5 x 2.1	M1.2		M1.2								
2.5 x 2.1	M1.4		M1.4								
2.5 x 2.1	M1.6		M1.6								Nr.2-64
2.5 x 2.1	M1.8		M1.8					Nr.6-32		Nr.6-40	Nr.3-56
2.8 x 2.1	M2		M2	M4	M4	5/32"	3/32"	Nr.8-32			
2.8 x 2.1	M2.2		M2.2						Nr.2-56		
2.8 x 2.1	M2.5		M2.5						Nr.3-48	Nr.8-36	
3.5 x 2.7	M3		M3	M5	M5		1/8"		Nr.5-40		Nr.5-44
4 x 3	M3.5		M3.5				7/32"	Nr.12-24	Nr.6-32	Nr.12-28	Nr.6-40
4.5 x 3.4	M4		M4	M6	M6	1/4"	5/32"	1/4"-20	Nr.8-32	1/4"-28	Nr.8-36
5.5 x 4.5				M7	M7						
6 x 4.9	M5	G1/16"	M4.5					5/16"-18			Nr.10-32
6 x 4.9	M6		M5						Nr.10-24		Nr.12-28
6 x 4.9	M8		M6	M8	M8				Nr.12-24		
7 x 5.5	M10	G1/8"	M7	M9+M10	M9+M10	3/8"	1/4"	3/8"-16	1/4"-20	3/8"-24	1/4"-28
8 x 6.2			M8			7/16"	5/16"		5/16"-18		5/16"-24
9 x 7	M12		M9	M12	M12	1/2"	3/8"	1/2"-13	3/8"-16	1/2"-20	3/8"-24
10 x 8			M10								
11 x 9	M14	G1/4"		M14	M14	9/16"					
12 x 9	M16	G3/8"		M16	M16	5/8"		5/8"-11		5/8"-18	
14 x 11	M18			M18	M18	11/16"		3/4"-10		3/4"-16	
16 x 12	M20	G1/2"		M20	M20	13/16"					
18 x 14.5	M22	G5/8"		M22	M22	7/8"					
18 x 14.5	M24			M24	M24	15/16"					
20 x 16	M27	G3/4"		M27	M27	1"					
22 x 18	M30	G7/8"		M30	M30	1.1/8"					
25 x 20	M33	G1"		M33	M33	1.1/4"					
28 x 22	M36	G1.1/8"		M36	M36	1.3/8"					
32 x 24	M39	G1.1/4"		M39	M39	1.1/2"					
32 x 24	M42			M42	M42	1.5/8"					
36 x 29	M45	G1.3/8"		M45	M45	1.3/4"					
36 x 29	M48	G1.1/2"		M48	M48	1.7/8"					
36 x 29		G1.3/4"									
36 x 29		G2"									
40 x 32	M52	G2.1/4"		M52	M52	2"					
45 x 35	M56	G2.1/2"			M56	2.1/4"					
45 x 35	M60				M60						
50 x 39	M64	G2.3/4"			M64	2.1/2"					
50 x 39		G3"									
56 x 44	M68	G3.1/4"			M68	2.3/4"					
56 x 44						3"					

R-Zero...

Spannsysteme besitzen einen einfachen mechanischen Einstellmechanismus, um den Rundlauf eines eingespannten Werkzeugs an der Schneide auf 0-2µm einzustellen.

Damit können alle Rundlauffehler von der Schneide bis zur Spindel kompensiert werden.

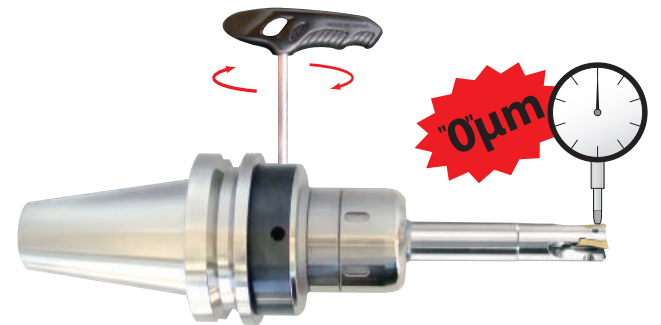
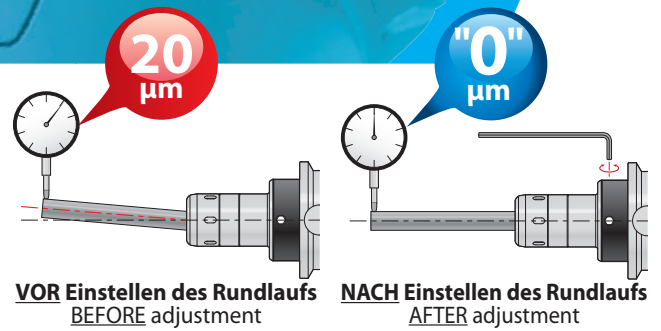
Durch Drehen einer Verstellechraube im Justiering (Inbusschlüssel) wird der Halterschaft leicht elastisch verformt. Bei einer Auskraglänge von 100mm (vom Justiering) kann ein Rundlauffehler von ca. 25µm ausgeglichen werden.

R-Zero...

Tooling Systems have a simple mechanical adjustment mechanism to adjust the run out at the tip of a clamped cutting tool to 0-2µm.

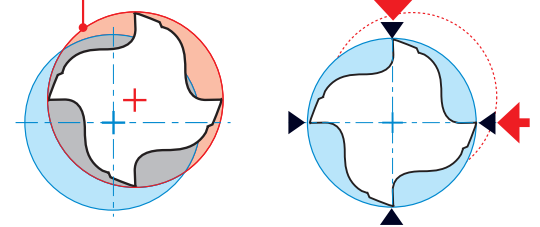
Thus all run out errors can be compensated from the tool tip to the spindle.

By turning an adjustment screw in the adjustment ring (hex key) the holder shank will be slightly elastically deformed. At a protruding length of 100 mm (from adjustment ring) a run out of about 25µm can be compensated.



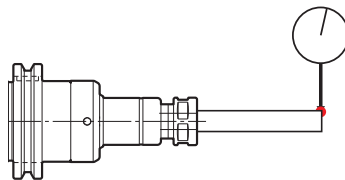
**Max. Rundlaufabweichung**  
Max. run out

**Einstellvorgang**  
Adjustment



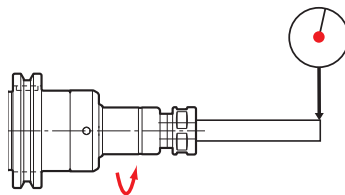
### Der Einstellvorgang

#### How to adjust



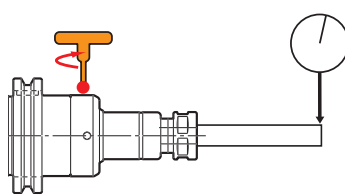
**Die Meßuhr an die Werkzeugspitze setzen.**

The dial gauge is set at the tip of the cutting tool.



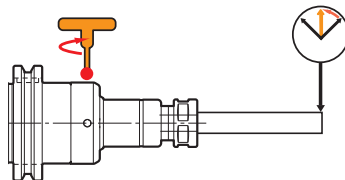
**Bestimmen in welcher Position der Rundlauf maximal ist.**

Locate at which position the run out is maximally.



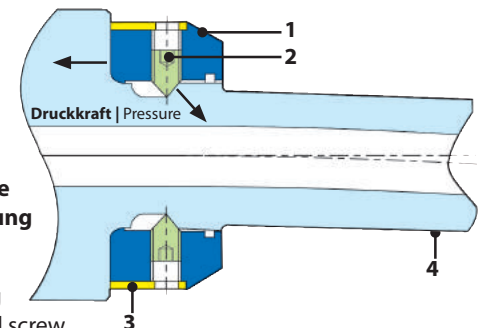
**Den Justiering drehen und die Justierschraube in die Position des größten Rundlauffehlers setzen. Danach die 4 Schrauben leicht festziehen.**

Turn the rotor ring and put the adjustment screw to the maximum run out position. Then tighten the 4 screws slightly.



**Die Justierschraube in der "Maximumposition" so weit festziehen, bis der Maximalwert auf die Hälfte reduziert ist. Damit ist der Rundlauf nahezu "0".**

Tighten the adjustment screw at the "maximum run out position" until the maximum value decreases to a half. Thus the run out is nearly "0".

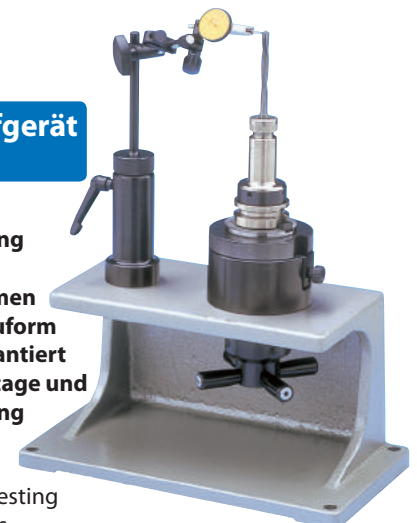


1. Justiering
2. Justierschraube
3. Schutzabdeckung
4. Einstellbereich





1. Adjustment ring
2. Hex socket head screw
3. Screw stopper ring
4. Adjustment of run out

### SPZ Rundlaufprüfgerät R-ZERO Setter

- Schnelle und einfache Rundlaufprüfung
- Für SK, BT oder HSK-A Aufnahmen
- Kompakte, robuste Bauform
- Hohe Einzugskraft garantiert sichere Werkzeugmontage und präzise Rundlaufprüfung



- Quick and easy run out testing
- For SK, BT or HSK-Holders
- Compact and robust design
- High pull-in forces assures safe tool set up and accurate run out testing

<p><b>Kraftspannfutter</b> Milling Chuck</p> <p><b>CTZ-SA</b></p>  <p>ø 4.0 - 42.0</p>	<p><b>Spannzangensystem</b> Collet Chuck</p> <p><b>HDZ-A ERZ</b></p>  <p>ø 1.0 - 22.0</p>	<p><b>Dehnspannfutter</b> Hydro Chuck</p> <p><b>PHC-Z</b></p>  <p>ø 3.0 - 20.0</p>	<p><b>Dehnspannfutter</b> Slim Hydro Chuck</p> <p><b>PHZ-SA</b></p>  <p>ø 1.0 - 12.0</p>
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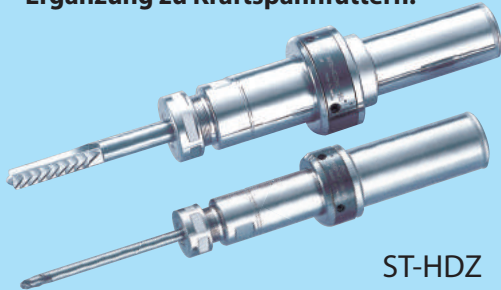
**Präzisionsbearbeitung mit einzigartigen Vorteilen:**

- Konstante Bohrungsdurchmesser
- Beste Oberflächengüten
- Lange Werkzeugstandzeiten
- Bohren, reiben in Passungstoleranzen
- Bohren, fräsen mit Diamantwerkzeugen
- Hochleistungsbohren in Bohrtiefen > 5xD

**Precision machining with unique advantages:**

- Invariant hole diameter
- Perfect surface roughness
- Long tool life
- Drilling, reaming within tight tolerances
- Drilling, milling with PCD tools
- High performance drilling in drilling depths > 5xD

**ST-HDZ**  
**R-ZERO mit zylindrischem Schaft**  
Das einstellbare Spannzangenfutter mit zylindrischem Schaft ist die ideale Ergänzung zu Kraftspannfuttern.



ST-HDZ  
R-ZERO with straight shank

The adjustable collet chuck with straight shank ist the perfect completion to milling chucks

Halter   Holder	max. Einstellbereich max. adjustment range
HDZ-A   ERZ	bis   up to 25 µm
CTZ-SA	bis   up to 60 µm
PHC-Z   PHZ-SA	bis   up to 20 µm

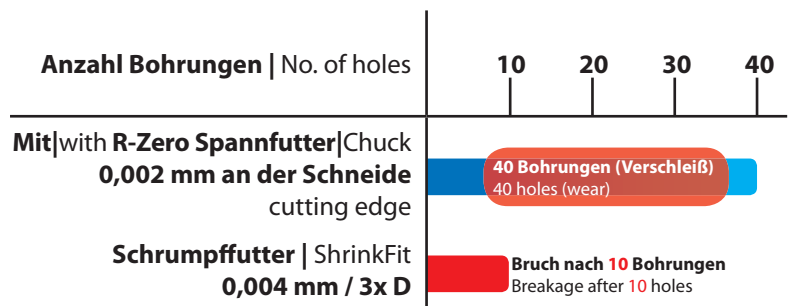


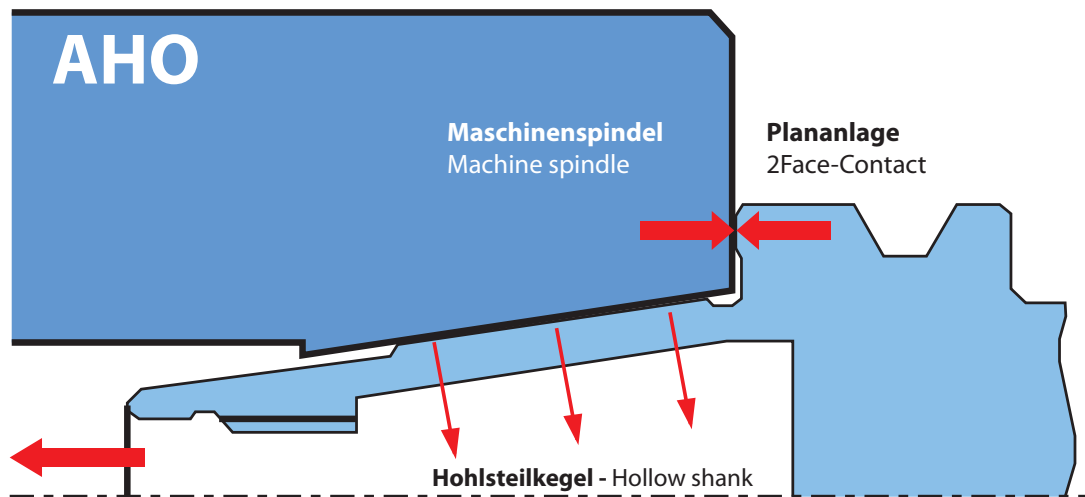
**Bearbeitungsbeispiel | Machining example:**

**Werkstoff | Work piece:** Titanlegierung (38HRC)  
**Bohrer | Drill:** OSG VHM-Tieflochbohrer FTO-GDXL - ø 12,0 mm

**Bohrtiefe | Drill depth:** 200 mm  
**Vc:** 40 m/min

**Vorschub f | Feed rate f:** 0,18 mm/U.  
**BAZ | Machine tool:** Horizontal-BAZ  
**Schmierung | Coolant:** Emulsion





## TECHNISCHE MERKMALE

**Hohe Spindelbelastungen können durch den Hohlsteilkegel vermieden werden.**

- Der Hohlsteilkegel reduziert das Werkzeuggewicht enorm:  
z.B. Werkzeugkegel BT50: 4KG - 2.8KG

**Steigerung des Spanvolumens um 20-50%**

- Große Traganteile am Kegel, sowie eine ringförmige Abstützung des Werkzeugbundes an der Spindel ermöglichen eine deutliche Steigerung der Schnittleistung.

**Vollständige Plananlage auch bei höchsten Drehzahlen.**

- Durch die elastische Verformung des Hohlsteilkegels wird auch bei hohen Drehzahlen konstante Plananlage erreicht.

**Hohe Wiederholgenauigkeit**

- Die elastische Verformung des Hohlsteilkegels, sowie die Plananlage am Werkzeugbund generieren optimale Rundlauf- und Wiederholgenauigkeiten.

## TECHNICAL FEATURES

Heavy load machine spindle can be eliminated thanks to the low weight.

- The hollow taper shank greatly reduces the weight of toolholder:  
e.g. taper shank of BT50: 4KG - 2,8KG

Chip removal rate: 20-50% up

- Dual face contact and ideal sustaining balance of taper and flange achieves remarkable increase of performance limit.

Perfect 2Face-Contact even at high speed rotation.

- Even if the machine spindle expands with centrifugal force, 2Face-Contact will be maintained.

High repetitive accuracy

- Taper area of toolholder deforms along spindle taper. In addition, flange face contacts, which realizes perfect run out and repetitive accuracy.



**Mehr Informationen ?  
Fordern Sie unseren Katalog an:  
"AHO Werkzeugaufnahmen mit  
Plananlage und Hohlsteilkegel"**

**More Informations ?  
Please ask for our catalogue:  
"AHO 2Face Contact  
Tooling Systems".**



**NT TOOL** bietet verschiedene Spannsysteme mit Minimalmengenschmierung (MMS-Technologie) an. Sowohl für die 1-Kanal- und 2-Kanal-Technik oder nach Werksnorm (Lizenz Horkos Japan).  
**Mehr Infos zur MMS Technologie: DIN 69090**

**NT TOOL** offers various Tooling systems for Minimum Quantity Lubrication (MQL). In both 1-Channel and 2-Channel-Technology as well as according to Factory Standard (Licenced by Horkos Japan).  
**More Informations for MQL: DIN 69090**



## CT-SA

**Hochleistungs-Kraftspannfutter**  
High Performance Milling Chucks

**Kraftvolle Zerspantung mit höchsten Spannkräften**  
Powerful machining with highest clamping forces

## PHC-A

**Power-Dehnspannfutter**  
Power-Chucks

**Optimale Vibrationsdämpfung und einfache Werkzeugspannung**  
Perfect vibration dampening and easy tool clamping

## HDZ-A | PHC-Z

**R-Zero mit Rundlauf "0"**  
R-Zero with run out "0"

**Bohren, reiben und schlichten mit höchster Rundlaufgenauigkeit**  
Drilling, reaming and finishing with ultimate precision

## SRD

**DIN Schrumpffutter für universelle Anwendungen:**  
bohren | reiben | fräsen  
DIN Shrink Fit Chuck for wide range of applications:  
drilling | reaming | milling

## STM

**SynchroFit-Gewindeschneidfutter**  
SynchroFit Tapping Holders

**Mit neuartiger Schnittdruckkompensation**  
With innovative force compensation

**Weitere Spannsysteme auf Anfrage**  
Other tooling systems on request

### **Katalog Ausgabe 2017<sup>©</sup>**

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