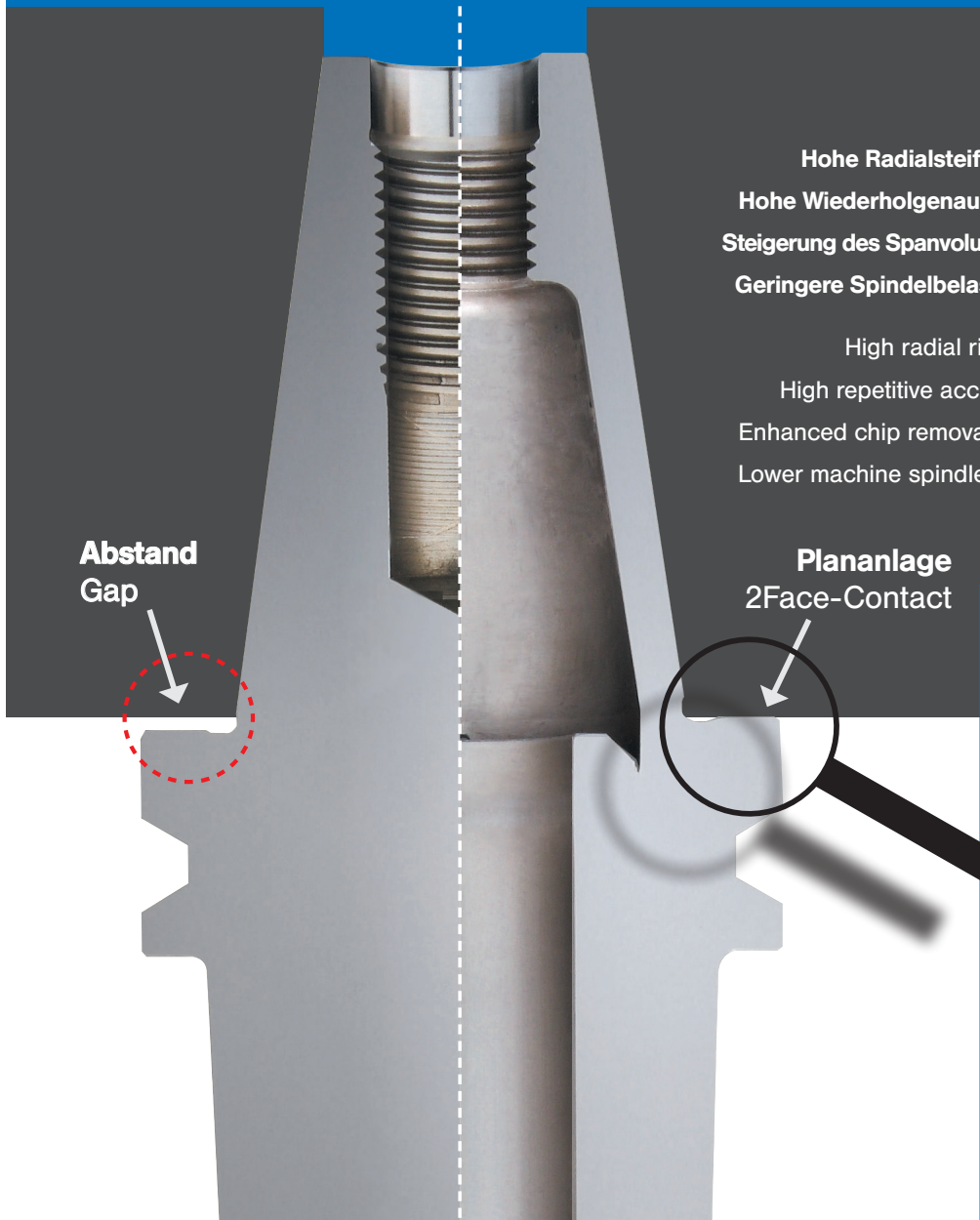


# Aufnahmen mit Plananlage & Hohlsteilkegel 2Face-Contact Tooling & Hollow shank

**Herkömmlicher Steilkegel**  
Conventional taper

**AHO Hohlsteilkegel**  
AHO Hollow shank



- Hohe Radialsteifigkeit
- Hohe Wiederholgenauigkeit
- Steigerung des Spanvolumens
- Geringere Spindelbelastung



- High radial rigidity
- High repetitive accuracy
- Enhanced chip removal rate
- Lower machine spindle load

**Abstand**  
Gap

**Plananlage**  
2Face-Contact





<b>Spannsystem</b>	<b>Typ</b>	<b>Seite</b>
Tooling	Type	Page
<b>Merkmale der AHO-Schnittstelle</b> Features of the AHO Interface		10-11
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**CTS**

**Hochleistungs-Kraftspannfutter**  
High Performance Milling Chucks

**Kraftvolle Zerspanung  
mit hoher Rundlaufgenauigkeit**

Powerful machining with  
high run out accuracy

**CTZ**

**Kraftspannfutter**  
Milling Chucks

**Perfekter Rundlauf**  
- von der Spindel bis zur Schneide  
**Bohren, reiben, fräsen**  
- in höchster Präzision

Run out "0" at the tool tip within seconds.  
Drilling, reaming and milling  
- in ultimate precision

**HDC**

**Hochgenauigkeits  
-Spannzangenfutter**  
High Precision Collet Chucks

**Universelles Spannzangensystem mit  
hoher Rundlaufgenauigkeit**

Universal Collet chuck with high run out  
accuracy





## **HDZ** Spannzangenfutter Collet Chucks

**Perfekter Rundlauf**  
- von der Spindel bis zur Schneide  
**Bohren, reiben, fräsen**  
- in höchster Präzision

Run out "0" at the tool tip within seconds.  
Drilling, reaming and milling  
- in ultimate precision



## **GDC** Highspeed-Spannzangenfutter Highspeed Collet Chucks

**Das Spannzangenfutter**  
**für höchste Zerspanungsleistung**  
**Ideal für das HSC- und Hartfräsen**

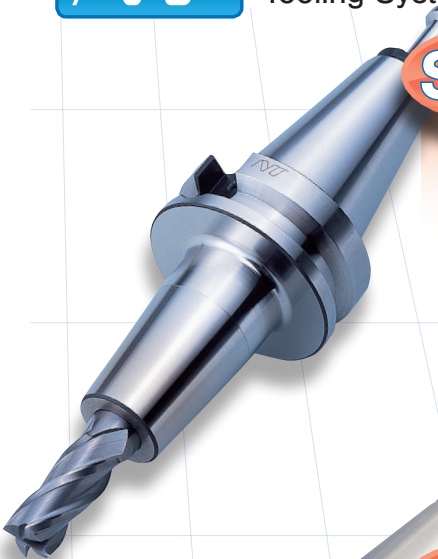
The Collet chuck  
for highest machining capacity  
Perfect for Highspeed- and Hardmilling



## **ERC** Präzisions-Spannzangenfutter Precision Collet Chucks

**Hochpräzises Spannzangenfutter**  
**für ER-Spannzangen**

High precision collet chuck  
for ER collets



**SRD**

**Schrumpffutter DIN**  
Shrink fit Chucks DIN

**Schrumpffutter  
für universelle Anwendung**

Shrink fit chuck  
for universal machining

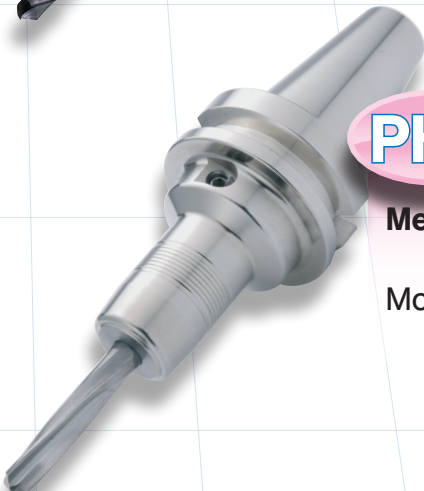


**SRS**

**Schrumpffutter superschlank**  
Shrink fit Chucks slim type

**Superschlanke Bauform für die  
Feinbearbeitung an schwer  
zugänglichen Werkstückstellen.**

Slim design suitable  
for fine machining  
in tight work piece areas.



**PHC**

**Power-Dehnspannfutter**  
Power Hydro Chucks

**Mehr Spannkraft  
mehr Präzision**

More clamping force  
more precision

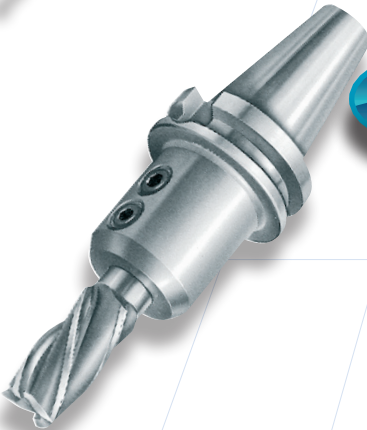


**PHC-S**

**Dehnspannfutter superschlank**  
Slim Hydro Chucks

**Produktive 5achs-Bearbeitung**  
**Präziser, schneller und stabiler**  
**als Schrumpffutter**

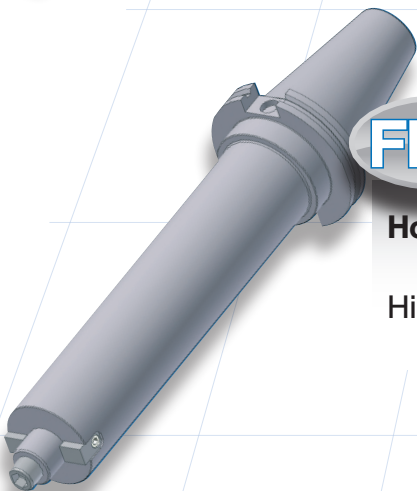
Efficient 5-axis machining  
Precise, faster and more stable  
than Shrink fit chucks



**SL2**

**Weldon-Fräserspannfutter**  
Weldon Chucks

**Für Fräser mit seitlicher Mitnahmefläche**  
For milling cutters with flat



**FMC**

**Aufsteck-Fräsdorne**  
Face Mill Arbors

**FMB**

**Hohe Zerspanleistung bei**  
**geringer Maschinenbelastung**

High machining capacity,  
less machine spindle load



**SFH**

**SynchroFit-Gewindeschneidfutter**  
SynchroFit Tapping Holders

**Einzigartige Schnittdruckkompensation  
reduziert den Flankendruck  
und ermöglicht lange  
Werkzeugstandzeiten**

Unique cutting force compensation  
reduce forces on the tool flank  
and generates longer tool life



**MS**

**Grundaufnahmen**  
Master Shanks

**NT**  **MULTI  
BORE** Tooling Systems



**CLF**

**Spindelreiniger**  
Spindle Face Cleaner

**Spindelkopf innerhalb  
von Sekunden reinigen**

Within ten seconds, chips and dust on  
the spindle face will be blown away



Oberflächenschmutz und Späne werden restlos entfernt

Dust or chips on the spindle face can be removed

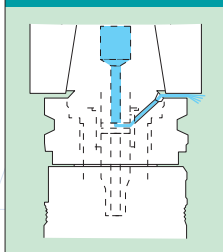


Vor der Anwendung  
Before use

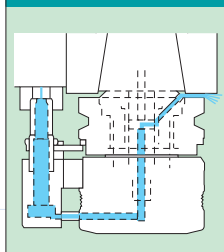
Nach der Anwendung  
After use



Zentrale Druckluftzufuhr  
Center through supply

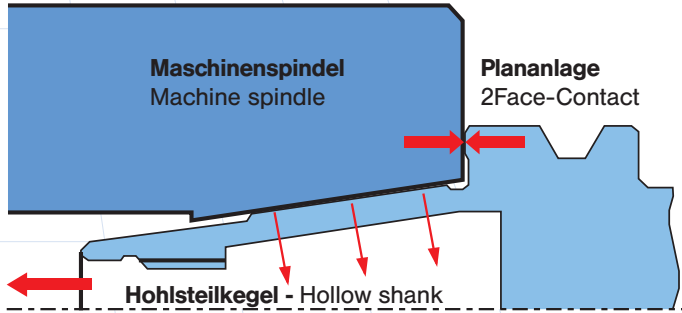


Periphere Druckluftzufuhr  
Side through supply



- Spindelkopf innerhalb von Sekunden reinigen.
- Druckluftzufuhr zentral oder peripher.
- Kein Positionierblock für zentrale Druckluftzufuhr notwendig.

- Within ten seconds, chips and dust on the spindle face will be blown away.
- Compatible with two compressed air supply channels (center and side through).
- No need for positioning (stopper) block in the case of center through compressed air supply.



### Einzug Anzugsbolzen

- Zusätzliche Anzugskräfte sind nicht notwendig

Retention knob is pulled in  
• No extra drawing force is required

### Elastische Verformung des Werkzeugkegels

- Höchste Genauigkeit
- Einteilige Bauweise
- Elastische Verformung des Werkzeugkegels

### Elastic deformation of taper shank

- Excellent accuracy
- One-body structure
- Deflection of taper

## 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.

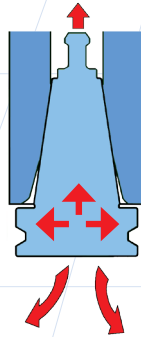
- Even if the machine spindle expands with centrifugal force, 2Face-Contact will be maintained.

High repetitive accuracy

- Taper area of toolholder deforms along spindle taper. In addition, flange face contacts, which realizes perfect run out and repetitive accuracy.

## Herkömmliche Steilkegelaufnahmen

Die fliehkraftbedingte Aufweitung der Maschinenspindel führt zu nachlassender Radialsteifigkeit und beeinträchtigt die Bearbeitungsgenauigkeit. Die Maschinenspindel verschleißt vorzeitig.

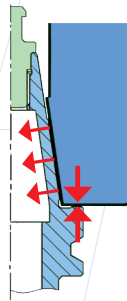


## Conventional steep taper holders

Expansion of machine spindle at high rotation speed by centrifugal forces generates lower rigidity and effects accuracy. Thus machine spindle is wearing down abnormally.

## Plananlage

Die vollständige Plananlage des Werkzeugflansches generiert hohe Radialsteifigkeit und beste Rundlauf-eigenschaften auch bei hohen Drehzahlen.

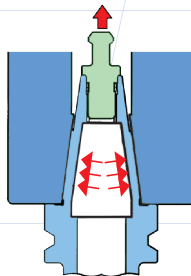


## 2Face-Contact

Perfect 2face-Contact generates high rigidity and high run out accuracy even at high rotation speed.

## Hohlsteilkegel

Der Hohlsteilkegel ermöglicht eine elastische Verformung des Werkzeugkegels und damit eine konstante Plananlage. Hohe Spindelbelastungen können durch das geringere Werkzeuggewicht vermieden werden.

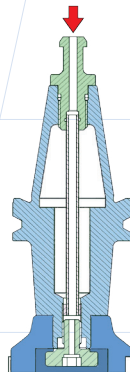


## Hollow shank

Elastic deformation of hollow shank allows perfect adhesion to machine spindle. Heavy machine spindle load can be reduced due to the lightweight toolholder.

## Erhöhtes Zerspanvolumen

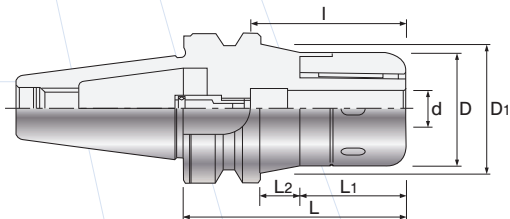
Der Hohlsteilkegel ermöglicht den Einsatz lang auskragender Werkzeuge. Schwingungen werden deutlich reduziert und die Zerspanungsleistung signifikant erhöht.



## Increased cutting performance

Due to the hollow taper long protruding toolholders can be used. Thus vibrations will be reduced and cutting performance increases significantly.

# CTS Hochleistungs-Kraftspannfutter High Performance Milling Chucks



**CTS**

3.0  
42.0

0.005  
3xD

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



Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



Modell • Model	d	D	D <sub>1</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	L <sub>2</sub>	I	Einstellschraube Adjustment screw		
BBT-AHO30	-75	16	45	-	75	-	-	55	x	MC16-d	HS-1-16
	-90	16	45	-	90	-	-	70	x	MC16-d	HS-1-16
	-75*	20	52	-	75	-	-	55	x	MC20-d	HS-2-20
	-90	20	52	-	90	-	-	70	x	MC20-d	HS-2-20
	-105	20	52	-	105	-	-	80	x	MC20-d	HS-2-20
	-90*	25	61	-	90	-	-	70	x	MC25-d	HS-2.5-25
	-105	25	61	-	105	-	-	80	x	MC25-d	HS-2.5-25
-CT32S -90*	32	68	-	90	-	-	68	x	MC32-d	HS-3-32	
BBT-AHO40 SSK-AHO40	-75	16	45	-	75	-	-	60	x	MC16-d	HS-1-16
	-90	16	45	-	90	-	-	65	x	MC16-d	HS-1-16
	-75	20	52	-	75	-	-	60	x	MC20-d	HS-2-20
	-90	20	52	-	90	-	-	75	x	MC20-d	HS-2-20
	-105	20	52	-	105	-	-	80	x	MC20-d	HS-2-20
	-120	20	52	-	120	-	-	80	BL20-xx	MC20-d	HS-2-20
	-90	25	61	-	90	-	-	75	x	MC25-d	HS-2.5-25
	-105	25	61	-	105	-	-	80	x	MC25-d	HS-2.5-25
	-120	25	61	-	120	-	-	80	BL20-xx	MC25-d	HS-2.5-25
	-135	25	61	-	135	-	-	80	BL20-xx	MC25-d	HS-2.5-25
-CT32S	-90*	32	73	-	90	-	-	75	x	MC32-d	HS-3-32
	-105	32	73	-	105	-	-	85	x	MC32-d	HS-3-32
	-120	32	73	-	120	-	-	90	BL20-xx	MC32-d	HS-3-32
	-135	32	73	-	135	-	-	105	BL20-xx	MC32-d	HS-3-32


\* Nicht einsetzbar auf bestimmten Baz.  
\* Take precautions against ATC.

MC  
Spannhülsen  
Collets




Seite•Page  
46-47

HS  
Spannschlüssel  
Spanners



Seite•Page  
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BL  
Einstellschraube  
Stopper bolts



Seite•Page  
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**DIN 69871  
JIS B6339**

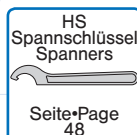
Modell • Model	d	D	D <sub>1</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	L <sub>2</sub>	l	Einstellschraube Adjustment screw			
-CT16S	-90	16	45	58	90	45	71	7	65	x	MC16-d	HS-1-16
	-105	16	45	70	105	45	86	22	65	BL16-xx	MC16-d	HS-1-16
-CT20S	-90	20	52	65	90	45	71	7	65	x	MC20-d	HS-2-20
	-105	20	52	65	105	60	86	7	80	x	MC20-d	HS-2-20
-CT20S	-120	20	52	70	120	58	101	24	80	BL20-xx	MC20-d	HS-2-20
	-135	20	52	73	135	58	116	39	80	BL20-xx	MC20-d	HS-2-20
-CT25S	-105	25	61	82	105	56	86	11	80	x	MC25-d	HS-2.5-25
	-120	25	61	82	120	56	101	26	80	BL20-xx	MC25-d	HS-2.5-25
-CT25S	-135	25	61	83	135	56	116	41	80	BL20-xx	MC25-d	HS-2.5-25
	-165	25	61	86	165	56	130	71	80	BL20-xx	MC25-d	HS-2.5-25
<b>BBT-AHO50</b>	-95	32	73	-	95	-	-	-	75	x	MC32-d	HS-3-32
<b>SSK-AHO50</b>	-105	32	73	-	105	-	-	-	85	x	MC32-d	HS-3-32
-CT32S	-120	32	73	87	120	56	101	26	100	x	MC32-d	HS-3-32
	-135	32	73	88	135	56	116	41	105	x	MC32-d	HS-3-32
-CT32S	-150	32	73	87	150	56	131	56	110	BL32-xx	MC32-d	HS-3-32
	-165	32	73	86	165	56	146	71	120	BL32-xx	MC32-d	HS-3-32
-CT42S	-95	42	88	-	95	-	-	-	75	x	MC42-d	HS-4-42
	-105	42	88	-	105	-	-	-	85	x	MC42-d	HS-4-42
-CT42S	-120	42	88	-	120	-	-	-	100	x	MC42-d	HS-4-42
	-135	42	88	-	135	-	-	-	105	x	MC42-d	HS-4-42
-CT42S	-150	42	88	-	150	-	-	-	110	BL32-xx	MC42-d	HS-4-42
	-165	42	88	-	165	-	-	-	120	BL32-xx	MC42-d	HS-4-42

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

x - Einstellschraube Typ BL kann nicht eingesetzt werden.

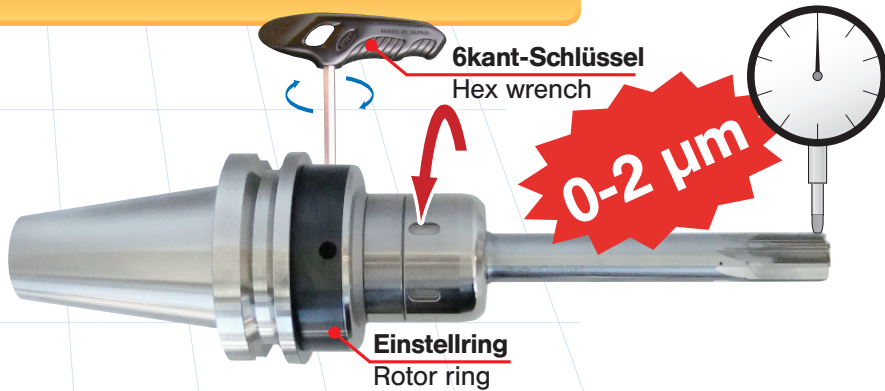
Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

x - Stopper bolt type BL cannot be used.



# CTZ Kraftspannfutter mit Runlauf "0"

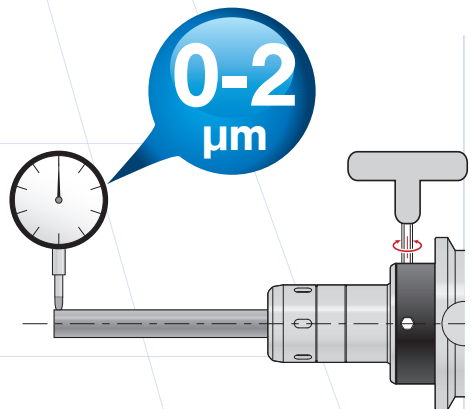
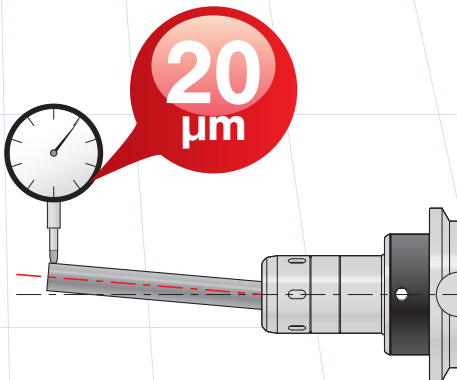
## Milling Chucks with Run out "0"



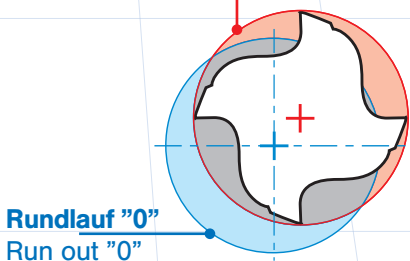
**Werkzeugspannung mit Rundlauf "0": bohren, reiben, fräsen in höchster Präzision**  
**Tool clamping with run out "0": drilling, reaming, milling with ultimate precision**

**Vor der Einstellung**  
Before adjustment

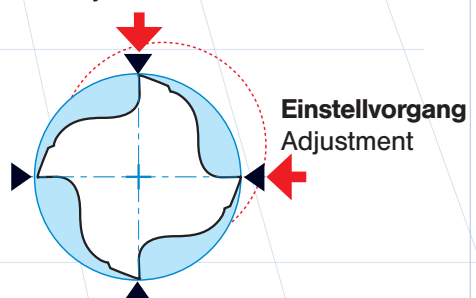
**Nach der Einstellung**  
After adjustment

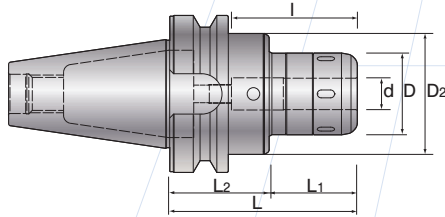


**Max. Rundlaufabweichung**  
Max. run out



**Einstellvorgang**  
Adjustment





## CTZ

3.0  
42.0

0-2  
µm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
rustproof



JIS B6339

Modell • Model	d	D	D2	L	L1	L2	l					
BBT-AHO40	-CTZ25	-125	25	61	88	125	61	64	80	MC25-d	HS-2.5-25	L-6T
	-150	25	61	88	150	76	74	80	MC25-d	HS-2.5-25	L-6T	
	-CTZ32	-125	32	68	88	125	61	64	95	MC32-d	HS-3-32	L-6T
	-150	32	68	88	150	76	74	120	MC32-d	HS-3-32	L-6T	
BBT-AHO50	-CTZ25	-125	25	61	88	125	61	64	80	MC25-d	HS-2.5-25	L-6T
	-165	25	61	88	165	101	64	80	MC25-d	HS-2.5-25	L-6T	
	-CTZ32	-125	32	68	88	125	61	64	105	MC32-d	HS-3-32	L-6T
	-165	32	68	88	165	101	64	120	MC32-d	HS-3-32	L-6T	
	-CTZ42	-125*	42	88	99	125	61	64	105	MC42-d	HS-4-42	L-6T
	-165	42	88	99	165	101	64	120	MC42-d	HS-4-42	L-6T	

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

\* MC-A Spannhülsen nicht einsetzbar.

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

\* MC-A Collets cannot be used.

MC  
Spannhülsen  
Collets

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HS  
Spannschlüssel  
Spanners

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BL  
Einstellschraube  
Stopper bolts

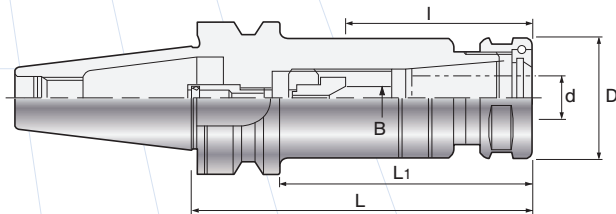
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L-T  
Sechskant  
Hex wrenches

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52

# HDC Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chucks



### HDC

1.0  
22.0

0.005  
4xD

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



Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
rustproof



DIN 69871  
JIS B6339

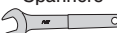
Modell • Model	d	D	L	L1 BBT	L1 SSK	I	B			
-HDC07	-45	0.5-7.0	23	45	23	-	26	-	FDC-07	S-0
	-60	0.5-7.0	23	60	38	-	22-23	0-4	FDC-07	S-0
	-75	0.5-7.0	23	75	53	-	22-38	0-4	FDC-07	S-0
	-90	0.5-7.0	23	90	68	-	22-45	0-4	FDC-07	S-0
	-105	0.5-7.0	23	105	83	-	22-45	0-4	FDC-07	S-0
-HDC09	-60	2.5-9.0	26	60	38	-	40	-	FDC-09	S-1L
	-75	2.5-9.0	26	75	53	-	27-40	0-4	FDC-09	S-1L
	-90	2.5-9.0	26	90	68	-	27-50	0-4	FDC-09	S-1L
	-105	2.5-9.0	26	105	83	-	27-57	0-4	FDC-09	S-1L
	-120	2.5-9.0	26	120	98	-	27-57	0-4	FDC-09	S-1L
-HDC12	-60	2.5-12.0	32	60	38	-	40	-	FDC-12	S-3L
	-75	2.5-12.0	32	75	53	-	30-40	0-5	FDC-12	S-3L
	-90	2.5-12.0	32	90	68	-	33-55	0-5	FDC-12	S-3L
	-105	2.5-12.0	32	105	83	-	33-65	0-5	FDC-12	S-3L
	-120	2.5-12.0	32	120	98	-	33-69	0-5	FDC-12	S-3L
-HDC16	-75	3.5-16.0	36	75	53	-	38-41	-	FDC-16	S-4L
	-90	3.5-16.0	36	90	68	-	38-50	0-6	FDC-16	S-4L
	-105	3.5-16.0	36	105	83	-	38-65	0-6	FDC-16	S-4L
	-120	3.5-16.0	36	120	98	-	38-80	0-6	FDC-16	S-4L
	-HDC22	-75	3.5-22.0	46	75	53	-	56	-	FDC-22
-90		3.5-22.0	46	90	68	-	47-54	0-8	FDC-22	S-5L
-105		3.5-22.0	46	105	83	-	47-69	0-8	FDC-22	S-5L
-120		3.5-22.0	46	120	98	-	47-75	0-8	FDC-22	S-5L

FDC  
Spannzangen  
Collets




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S-0, S-L  
Spannschlüssel  
Spanners



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HDP  
Spannmütern  
Cap nuts





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HDS  
Einstellschraube  
Adjustment screw



Seite•Page  
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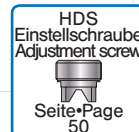
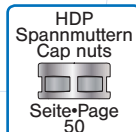
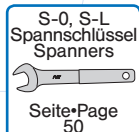
Modell • Model	d	D	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	B			
-HDC07	-75	0.5-7.0	23	75	48	56	22-35	0-4	FDC-07	S-0
	-90	0.5-7.0	23	90	63	71	22-45	0-4	FDC-07	S-0
	-105	0.5-7.0	23	105	78	86	22-45	0-4	FDC-07	S-0
	-120	0.5-7.0	23	120	93	101	22-45	0-4	FDC-07	S-0
	-135	0.5-7.0	23	135	108	116	22-45	0-4	FDC-07	S-0
-HDC09	-90	2.5-9.0	26	90	63	56	27-55	0-4	FDC-09	S-1L
	-105	2.5-9.0	26	105	78	86	27-57	0-4	FDC-09	S-1L
	-120	2.5-9.0	26	120	93	101	27-57	0-4	FDC-09	S-1L
	-135	2.5-9.0	26	135	108	116	27-57	0-4	FDC-09	S-1L
	-165	2.5-9.0	26	165	138	146	27-57	0-4	FDC-09	S-1L
BBT-AHO40 • SSK-AHO40 -HDC12	-90	2.5-12.0	32	90	63	71	33-55	0-5	FDC-12	S-3L
	-105	2.5-12.0	32	105	78	86	33-69	0-5	FDC-12	S-3L
	-120	2.5-12.0	32	120	93	101	33-69	0-5	FDC-12	S-3L
	-135	2.5-12.0	32	135	108	116	33-69	0-5	FDC-12	S-3L
	-165	2.5-12.0	32	165	138	146	33-69	0-5	FDC-12	S-3L
-HDC16	-90	3.5-16.0	36	90	63	71	38-55	0-6	FDC-16	S-4L
	-105	3.5-16.0	36	105	78	86	38-70	0-6	FDC-16	S-4L
	-120	3.5-16.0	36	120	93	101	38-82	0-6	FDC-16	S-4L
	-135	3.5-16.0	36	135	108	116	38-82	0-6	FDC-16	S-4L
	-165	3.5-16.0	36	165	138	146	38-82	0-6	FDC-16	S-4L
-HDC22	-90	3.5-22.0	46	90	63	71	38-82	0-6	FDC-16	S-4L
	-105	3.5-22.0	46	105	78	86	47-65	0-8	FDC-22	S-5L
	-120	3.5-22.0	46	120	93	101	47-80	0-8	FDC-22	S-5L
	-135	3.5-22.0	46	135	108	116	47-95	0-8	FDC-22	S-5L
	-165	3.5-22.0	46	165	138	146	47-103	0-8	FDC-22	S-5L
-195	3.5-22.0	46	195	168	176	47-103	0-8	FDC-22	S-5L	

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Im Lieferumfang enthalten:  
Spannmutter, Einstellschraube

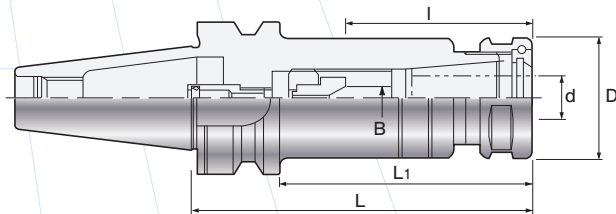
Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

Included in delivery:  
Cap nut, Preset screw



# HDC Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chucks



**HDC**

1.0  
22.0

0.005  
4xD

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



Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
rustproof

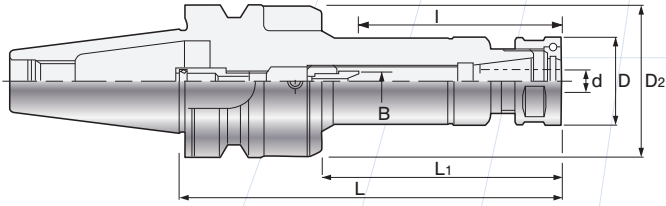


DIN 69871  
JIS B6339

Modell • Model	d	D	L	L1 BBT	L1 SSK	I	B			
-HDC07	-90	0.5-7.0	23	90	52	71	22-45	0-4	FDC-07	S-0
	-105	0.5-7.0	23	105	67	86	22-45	0-4	FDC-07	S-0
	-120	0.5-7.0	23	120	82	101	22-45	0-4	FDC-07	S-0
	-135	0.5-7.0	23	135	97	116	22-45	0-4	FDC-07	S-0
	-165	0.5-7.0	23	165	127	146	22-45	0-4	FDC-07	S-0
	-195	0.5-7.0	23	195	157	176	22-45	0-4	FDC-07	S-0
-HDC09	-90	2.5-9.0	26	90	52	71	27-47	0-4	FDC-09	S-1L
	-105	2.5-9.0	26	105	67	86	27-57	0-4	FDC-09	S-1L
	-120	2.5-9.0	26	120	82	101	27-57	0-4	FDC-09	S-1L
	-135	2.5-9.0	26	135	97	116	27-57	0-4	FDC-09	S-1L
	-165	2.5-9.0	26	165	127	146	27-57	0-4	FDC-09	S-1L
	-195	2.5-9.0	26	195	157	176	27-57	0-4	FDC-09	S-1L
	-225	2.5-9.0	26	225	187	206	27-57	0-4	FDC-09	S-1L
-255	2.5-9.0	26	255	217	236	27-57	0-4	FDC-09	S-1L	
BBT-AH050-HDC12 SSK-AH050	-90	3.5-12.0	32	90	52	71	33-47	0-5	FDC-12	S-3L
	-105	3.5-12.0	32	105	67	86	33-62	0-5	FDC-12	S-3L
	-120	3.5-12.0	32	120	82	101	33-69	0-5	FDC-12	S-3L
	-135	3.5-12.0	32	135	97	116	33-69	0-5	FDC-12	S-3L
	-165	3.5-12.0	32	165	127	146	33-69	0-5	FDC-12	S-3L
	-195	3.5-12.0	32	195	157	176	33-69	0-5	FDC-12	S-3L
	-225	3.5-12.0	32	225	187	206	33-69	0-5	FDC-12	S-3L
-255	3.5-12.0	32	255	217	236	33-69	0-5	FDC-12	S-3L	
-HDC16	-90	3.5-16.0	36	90	52	71	38-48	0-6	FDC-16	S-4L
	-105	3.5-16.0	36	105	67	86	38-63	0-6	FDC-16	S-4L
	-120	3.5-16.0	36	120	82	101	38-78	0-6	FDC-16	S-4L
	-135	3.5-16.0	36	135	97	116	38-82	0-6	FDC-16	S-4L
	-165	3.5-16.0	36	165	127	146	38-82	0-6	FDC-16	S-4L
	-195	3.5-16.0	36	195	157	176	38-82	0-6	FDC-16	S-4L
	-225	3.5-16.0	36	225	187	206	38-82	0-6	FDC-16	S-4L
-255	3.5-16.0	36	255	217	236	38-82	0-6	FDC-16	S-4L	
-HDC22	-90	3.5-22.0	46	90	52	71	47-67	0-8	FDC-22	S-5L
	-105	3.5-22.0	46	105	67	86	47-82	0-8	FDC-22	S-5L
	-120	3.5-22.0	46	120	82	101	47-97	0-8	FDC-22	S-5L
	-135	3.5-22.0	46	135	97	116	47-103	0-8	FDC-22	S-5L
	-165	3.5-22.0	46	165	127	146	47-103	0-8	FDC-22	S-5L
	-195	3.5-22.0	46	195	157	176	47-103	0-8	FDC-22	S-5L
	-225	3.5-22.0	46	225	187	206	47-103	0-8	FDC-22	S-5L
-255	3.5-22.0	46	255	217	236	47-103	0-8	FDC-22	S-5L	

# HDZ Spannzangenfutter mit Runlauf "0"

Collet Chucks with Run out "0"



## HDZ

1.0  
22.0

0-2  
µm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
rustproof



DIN 69871  
JIS B6339

Modell • Model		d	D	D <sub>2</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	B			
-HDZ07	-60	0.5-7.0	23	41	60	22	-	22-23	0-4	FDC-07	S-0	L-3T
	-75	0.5-7.0	23	41	75	37	-	22-38	0-4	FDC-07	S-0	L-3T
	-90	0.5-7.0	23	41	90	52	-	22-45	0-4	FDC-07	S-0	L-3T
	-105	0.5-7.0	23	41	105	67	-	22-45	0-4	FDC-07	S-0	L-3T
-HDZ09	-75	2.5-9.0	26	45	75	37	-	27-40	0-4	FDC-09	S-1L	L-3T
	-90	2.5-9.0	26	45	90	52	-	27-50	0-4	FDC-09	S-1L	L-3T
	-105	2.5-9.0	26	45	105	67	-	27-57	0-4	FDC-09	S-1L	L-3T
	-120	2.5-9.0	26	45	120	82	-	27-57	0-4	FDC-09	S-1L	L-3T
-HDZ12	-90	2.5-12.0	32	52	90	33	-	33-55	0-5	FDC-12	S-3L	L-4T
	-105	2.5-12.0	32	52	105	48	-	33-65	0-5	FDC-12	S-3L	L-4T
-HDZ16	-90	3.5-16.0	36	56	90	33	-	38-50	0-6	FDC-16	S-4L	L-4T
	-105	3.5-16.0	36	56	105	48	-	38-65	0-6	FDC-16	S-4L	L-4T
-HDZ12	-120	3.5-16.0	36	56	120	63	-	38-80	0-6	FDC-16	S-4L	L-4T
	-135	0.5-7.0	23	41	135	92	100	22-45	0-4	FDC-07	S-0	L-3T
-HDZ09	-90	2.5-9.0	26	45	90	47	55	27-55	0-4	FDC-09	S-1L	L-3T
	-105	2.5-9.0	26	45	105	62	70	27-57	0-4	FDC-09	S-1L	L-3T
-HDZ12	-120	2.5-9.0	26	45	120	77	85	27-57	0-4	FDC-09	S-1L	L-3T
	-135	2.5-9.0	26	45	135	92	100	27-57	0-4	FDC-09	S-1L	L-3T
-HDZ12	-165	2.5-9.0	26	45	165	122	130	27-57	0-4	FDC-09	S-1L	L-3T
	-90	2.5-12.0	32	56	90	43	26	33-55	0-5	FDC-12	S-3L	L-4T
-HDZ12	-105	2.5-12.0	32	56	105	58	45	33-69	0-5	FDC-12	S-3L	L-4T
	-120	2.5-12.0	32	56	120	73	60	33-69	0-5	FDC-12	S-3L	L-4T
-HDZ12	-135	2.5-12.0	32	56	135	88	75	33-69	0-5	FDC-12	S-3L	L-4T
	-165	2.5-12.0	32	56	165	118	105	33-69	0-5	FDC-12	S-3L	L-4T
-195	2.5-12.0	32	56	195	148	135	33-69	0-5	FDC-12	S-3L	L-4T	

FDC  
Spannzangen  
Collets  
  
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S-0, S-L  
Spannschlüssel  
Spanners  
  
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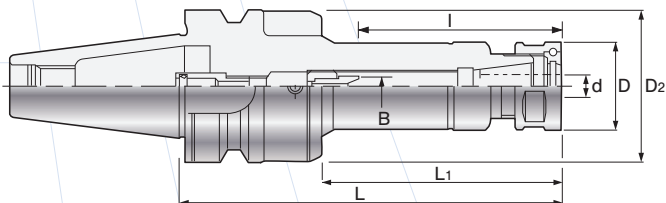
HDP  
Spannmuttern  
Cap nuts  
  
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HDS  
Einstellschraube  
Adjustment screw  
  
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L-T  
Sechskant  
Hex wrenches  
  
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# HDZ Spannzangenfutter mit Runlauf "0"

## Collet Chucks with Run out "0"



# HDZ

1.0  
22.0

0-2  
µm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
rustproof



DIN 69871  
JIS B6339

Modell • Model	d	D	D <sub>2</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	B			
BBT-AHO40 • SSK-AHO40	-90	3.5-16.0	36	62	90	43	26	38-55	0-6	FDC-16	S-4L L-4T
	-105	3.5-16.0	36	62	105	58	45	38-70	0-6	FDC-16	S-4L L-4T
	-120	3.5-16.0	36	62	120	73	60	38-82	0-6	FDC-16	S-4L L-4T
	-135	3.5-16.0	36	62	135	88	75	38-82	0-6	FDC-16	S-4L L-4T
	-165	3.5-16.0	36	62	165	118	105	38-82	0-6	FDC-16	S-4L L-4T
	-195	3.5-16.0	36	62	195	148	135	38-82	0-6	FDC-16	S-4L L-4T
	-105	3.5-22.0	46	69	105	31	31	47-65	0-8	FDC-22	S-5L L-5T
	-120	3.5-22.0	46	69	120	46	46	47-80	0-8	FDC-22	S-5L L-5T
	-135	3.5-22.0	46	69	135	61	61	47-95	0-8	FDC-22	S-5L L-5T
	-165	3.5-22.0	46	69	165	91	91	47-103	0-8	FDC-22	S-5L L-5T
-195	3.5-22.0	46	69	195	121	121	47-103	0-8	FDC-22	S-5L L-5T	
-HDZ07	-90	0.5-7.0	23	41	90	36	55	22-45	0-4	FDC-07	S-0 L-3T
	-105	0.5-7.0	23	41	105	51	70	22-45	0-4	FDC-07	S-0 L-3T
	-120	0.5-7.0	23	41	120	66	85	22-45	0-4	FDC-07	S-0 L-3T
	-135	0.5-7.0	23	41	135	81	100	22-45	0-4	FDC-07	S-0 L-3T
	-165	0.5-7.0	23	41	165	111	130	22-45	0-4	FDC-07	S-0 L-3T
	-195	0.5-7.0	23	41	195	114	160	22-45	0-4	FDC-07	S-0 L-3T
BBT-AHO50 • SSK-AHO50	-90	2.5-9.0	26	45	90	36	55	27-50	0-4	FDC-09	S-1L L-3T
	-105	2.5-9.0	26	45	105	51	70	27-57	0-4	FDC-09	S-1L L-3T
	-120	2.5-9.0	26	45	120	66	85	27-57	0-4	FDC-09	S-1L L-3T
	-135	2.5-9.0	26	45	135	81	100	27-57	0-4	FDC-09	S-1L L-3T
	-165	2.5-9.0	26	45	165	111	130	27-57	0-4	FDC-09	S-1L L-3T
	-195	2.5-9.0	26	45	195	141	160	27-57	0-4	FDC-09	S-1L L-3T
	-225	2.5-9.0	26	45	225	171	190	27-57	0-4	FDC-09	S-1L L-3T
	-255	2.5-9.0	26	45	255	201	220	27-57	0-4	FDC-09	S-1L L-3T
	-90	2.5-12.0	32	56	90	32	55	33-50	0-5	FDC-12	S-3L L-4T
	-105	2.5-12.0	32	56	105	47	70	33-65	0-5	FDC-12	S-3L L-4T
-HDZ12	-120	2.5-12.0	32	56	120	62	85	33-69	0-5	FDC-12	S-3L L-4T
	-135	2.5-12.0	32	56	135	77	100	33-69	0-5	FDC-12	S-3L L-4T
	-165	2.5-12.0	32	56	165	107	130	33-69	0-5	FDC-12	S-3L L-4T
	-195	2.5-12.0	32	56	195	137	160	33-69	0-5	FDC-12	S-3L L-4T
	-225	2.5-12.0	32	56	225	167	190	33-69	0-5	FDC-12	S-3L L-4T
	-255	2.5-12.0	32	56	255	197	220	33-69	0-5	FDC-12	S-3L L-4T

FDC  
Spannzangen  
Collets

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S-0, S-L  
Spannschlüssel  
Spanners

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HDP  
Spannmuttern  
Cap nuts

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HDS  
Einstellschraube  
Adjustment screw

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L-T  
Sechskant  
Hex wrenches

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Modell • Model	d	D	D <sub>2</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	B					
BBT-AHO50 • SSK-AHO50	-90	3.5-16.0	36	62	90	32	55	38-50	0-6	FDC-16	S-4L	L-4T	
	-105	3.5-16.0	36	62	105	47	70	38-65	0-6	FDC-16	S-4L	L-4T	
	-120	3.5-16.0	36	62	120	62	85	38-82	0-6	FDC-16	S-4L	L-4T	
	-135	3.5-16.0	36	62	135	77	100	38-82	0-6	FDC-16	S-4L	L-4T	
	-165	3.5-16.0	36	62	165	107	130	38-82	0-6	FDC-16	S-4L	L-4T	
	-195	3.5-16.0	36	62	195	137	160	38-82	0-6	FDC-16	S-4L	L-4T	
	-225	3.5-16.0	36	62	225	167	190	38-82	0-6	FDC-16	S-4L	L-4T	
	-255	3.5-16.0	36	62	255	197	220	38-82	0-6	FDC-16	S-4L	L-4T	
	-HDZ16	-105	3.5-22.0	46	76	105	43	70	47-67	0-8	FDC-22	S-5L	L-5T
		-120	3.5-22.0	46	76	120	58	85	47-82	0-8	FDC-22	S-5L	L-5T
-135		3.5-22.0	46	76	135	73	100	47-97	0-8	FDC-22	S-5L	L-5T	
-150		3.5-22.0	46	76	150	88	115	47-103	0-8	FDC-22	S-5L	L-5T	
-165		3.5-22.0	46	76	165	103	130	47-103	0-8	FDC-22	S-5L	L-5T	
-195		3.5-22.0	46	76	195	133	160	47-103	0-8	FDC-22	S-5L	L-5T	
-225		3.5-22.0	46	76	225	163	190	47-103	0-8	FDC-22	S-5L	L-5T	
-255	3.5-22.0	46	76	255	193	220	47-103	0-8	FDC-22	S-5L	L-5T		

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.  
Im Lieferumfang enthalten:  
Spannmutter, Einstellschraube


Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.  
Included in delivery:  
Cap nut, Preset screw

FDC  
Spannzangen  
Collets




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S-0, S-L  
Spannschlüssel  
Spanners



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HDP  
Spannmuttern  
Cap nuts




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HDS  
Einstellschraube  
Adjustment screw



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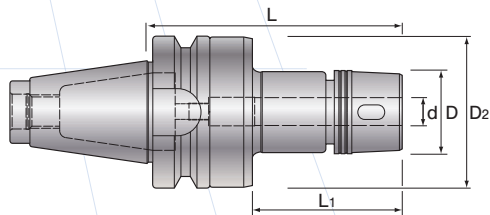
LT  
Sechskant  
Hex wrenches



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# GDC Highspeed-Spannzangenfutter

## Highspeed Collet Chucks



**GDC**

3.0  
22.0

0.005  
4x D

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



Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model	d	D	D2 BBT	D2 SSK	L	L1 BBT	L1 SSK			
BBT-AHO40-GDC12A	-90	2.5-12	34	62	45	90	48	55	FDC-12	FK0034
	-120	2.5-12	34	62	45	120	78	85	FDC-12	FK0034
SSK-AHO40	-GDC16A -90	3.0-16	38	62	45	90	48	55	FDC-16	FK0034
	-GDC22A -90	3.5-22	49	62	45	90	48	55	FDC-22	FK0045
BBT-AHO50-GDC12A	-105	2.5-12	34	84	67	105	52	70	FDC-12	FK0034
	-GDC16A -105	3.0-16	38	84	67	105	52	70	FDC-16	FK0034
SSK-AHO50-GDC22A	-105	3.5-22	49	84	67	105	52	70	FDC-22	FK0045

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Im Lieferumfang enthalten:

Spannmutter, Einstellschraube optional

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

Included in delivery:

Cap nut, Preset screw optional

FDC  
Spannzangen  
Collets



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FK  
Spannschlüssel  
Spanners



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GDP  
Spannmuttern  
Cap nuts

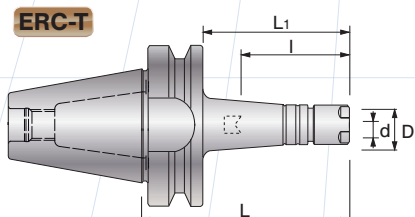
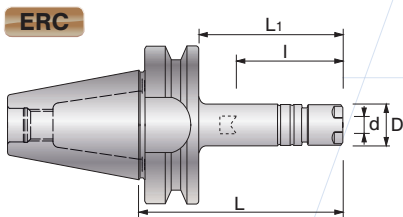


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HDS  
Einstellschraube  
Adjustment screw



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## ERC

1.0  
-7.0

0.005  
3xD

max.  
20.000  
min\*

Super-  
schlanke  
Bauform  
Super  
slim design

Form  
AD

HPC  
HSC

Eco  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model		d	D	L	L1 BBT	L1 SSK	I BBT	I SSK		
BBT-AHO30	-ERC8 -75*	0.5-5.0	12	75	53	-	34 (19-31)	-	ER8	S-8E
	-105*	0.5-5.0	12	105	83	-	34 (19-31)	-	ER8	S-8E
	-ERC11S -75	0.5-7.0	16	75	53	-	22-45	-	ER11	S-11E
	-105	0.5-7.0	16	105	83	-	22-45	-	ER11	S-11E
BBT-AHO40	-ERC8 -75*	0.5-5.0	12	75	48	56	34 (19-31)	33	ER8	S-8E
	-105*	0.5-5.0	12	105	78	86	34 (19-31)	33	ER8	S-8E
	-135*	0.5-5.0	12	135	108	116	34 (19-31)	33	ER8	S-8E
SSK-AHO40	-75	0.5-7.0	16	75	48	56	22-45	22-42	ER11	S-11E
	-ERC11S -105	0.5-7.0	16	105	78	86	22-45	22-42	ER11	S-11E
	-135	0.5-7.0	16	135	108	116	22-45	22-42	ER11	S-11E
	-165	0.5-7.0	16	165	138	146	22-45	22-42	ER11	S-11E

## ERC-T

1.0  
-7.0

0.005  
3xD

max.  
20.000  
min\*

Super-  
schlanke  
Bauform  
Super  
slim design

Form  
AD

HPC  
HSC

Eco  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model		d	D	L	L1 BBT	L1 SSK	I		
BBT-AHO30	-ERC8 -75T*	0.5-5.0	12	75	53	-	34 (19-31)	ER8	S-8E
	-105T*	0.5-5.0	12	105	83	-	34 (19-31)	ER8	S-8E
	-ERC11S -75T	0.5-7.0	16	75	53	-	22-45	ER11	S-11E
	-105T	0.5-7.0	16	105	83	-	22-45	ER11	S-11E
BBT-AHO40	-75T*	0.5-5.0	12	75	48	56	34 (19-31)	ER8	S-8E
	-105T*	0.5-5.0	12	105	78	86	34 (19-31)	ER8	S-8E
	-135T*	0.5-5.0	12	135	108	116	34 (19-31)	ER8	S-8E
SSK-AHO40	-75T	0.5-7.0	16	75	48	56	22-45	ER11	S-11E
	-105T	0.5-7.0	16	105	78	86	22-45	ER11	S-11E
	-ERC11S -135T	0.5-7.0	16	135	108	116	22-45	ER11	S-11E
	-165T	0.5-7.0	16	165	138	146	22-45	ER11	S-11E
	-195T	0.5-7.0	16	195	168	176	22-45	ER11	S-11E

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Im Lieferumfang enthalten:  
Spannmutter, Einstellschraube

\* Ohne Einstellschraube

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

Included in delivery:  
Cap nut, Preset screw

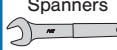
\* Without Preset screw

ER  
Spannzangen  
Collets



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S-E  
Spann Schlüssel  
Spanners



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ERP  
Spannmuttern  
Cap nuts



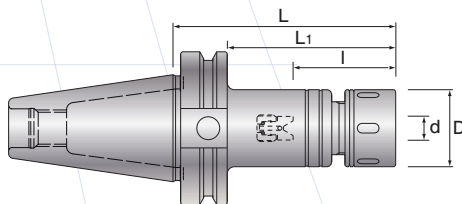
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ES  
Einstellschraube  
Adjustment screw



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# ERC Präzisions-Spannzangenfutter Precision Collet Chucks



**ERC**

1.0  
26.0

0.005  
3xD

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



Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model		d	D	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I		
BBT-AHQ30 -ERC16	-75	0.5-10.0	32	75	53	-	33-54	ER16	FK0034
	-105	0.5-10.0	32	105	83	-	33-54	ER16	FK0034
-ERC16	-90	0.5-10.0	32	90	63	71	33-54	ER16	FK0034
	-105	0.5-10.0	32	105	78	86	33-54	ER16	FK0034
	-120	0.5-10.0	32	120	93	101	33-54	ER16	FK0034
	-135	0.5-10.0	32	135	108	116	33-54	ER16	FK0034
	-165	0.5-10.0	32	165	138	146	33-54	ER16	FK0034
-ERC20	-90	0.5-13.0	35	90	63	71	38-67	ER20	FK0034
	-105	0.5-13.0	35	105	78	86	38-67	ER20	FK0034
	-120	0.5-13.0	35	120	93	101	38-67	ER20	FK0034
	-135	0.5-13.0	35	135	108	116	38-67	ER20	FK0034
	-165	0.5-13.0	35	165	138	146	38-67	ER20	FK0034
-ERC25	-90	0.5-16.0	42	90	63	71	43-80	ER25	HS-1-16
	-105	0.5-16.0	42	105	78	86	43-80	ER25	HS-1-16
	-120	0.5-16.0	42	120	93	101	43-80	ER25	HS-1-16
	-135	0.5-16.0	42	135	108	116	43-80	ER25	HS-1-16
	-165	0.5-16.0	42	165	138	146	43-80	ER25	HS-1-16
-ERC32	-105	2.0-20.0	50	105	78	86	50-101	ER32	HS-2-20
	-120	2.0-20.0	50	120	93	101	50-101	ER32	HS-2-20
	-135	2.0-20.0	50	135	108	116	50-101	ER32	HS-2-20
	-165	2.0-20.0	50	165	138	146	50-101	ER32	HS-2-20
	-195	2.0-20.0	50	195	168	176	50-101	ER32	HS-2-20
-ERC40	-75*	3.0-26.0	63	75	48	-	86	ER40	HS-2.5-25
	-105	3.0-26.0	63	105	78	-	60-99	ER40	HS-2.5-25
	-150	3.0-26.0	63	150	123	-	60-99	ER40	HS-2.5-25
	-165	3.0-26.0	63	165	138	-	60-99	ER40	HS-2.5-25

ER  
Spannzangen  
Collets



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HS, FK  
Spannchlüssel  
Spanners



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ERP  
Spannmuttern  
Cap nuts





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ES  
Einstellschraube  
Adjustment screw



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49

Modell • Model		d	D	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I		
-ERC16	-90	0.5-10.0	32	90	52	71	33-54	ER16	FK0034
	-105	0.5-10.0	32	105	67	86	33-54	ER16	FK0034
	-120	0.5-10.0	32	120	82	101	33-54	ER16	FK0034
	-135	0.5-10.0	32	135	97	116	33-54	ER16	FK0034
	-165	0.5-10.0	32	165	127	146	33-54	ER16	FK0034
	-195	0.5-10.0	32	195	157	176	33-54	ER16	FK0034
	-225	0.5-10.0	32	225	187	206	33-54	ER16	FK0034
-ERC20	-255	0.5-10.0	32	255	217	236	33-54	ER16	FK0034
	-90	0.5-13.0	35	90	52	71	38-67	ER20	FK0034
	-105	0.5-13.0	35	105	67	86	38-67	ER20	FK0034
	-120	0.5-13.0	35	120	82	101	38-67	ER20	FK0034
	-135	0.5-13.0	35	135	97	116	38-67	ER20	FK0034
	-165	0.5-13.0	35	165	127	146	38-67	ER20	FK0034
	-195	0.5-13.0	35	195	157	176	38-67	ER20	FK0034
-ERC25	-225	0.5-13.0	35	225	187	206	38-67	ER20	FK0034
	-255	0.5-13.0	35	255	217	236	38-67	ER20	FK0034
	-90	0.5-16.0	42	90	52	71	43-80	ER25	HS-1-16
	-105	0.5-16.0	42	105	67	86	43-80	ER25	HS-1-16
	-120	0.5-16.0	42	120	82	101	43-80	ER25	HS-1-16
	-135	0.5-16.0	42	135	97	116	43-80	ER25	HS-1-16
	-165	0.5-16.0	42	165	127	146	43-80	ER25	HS-1-16
-ERC32	-195	0.5-16.0	42	195	157	176	43-80	ER25	HS-1-16
	-225	0.5-16.0	42	225	187	206	43-80	ER25	HS-1-16
	-255	0.5-16.0	42	255	217	236	43-80	ER25	HS-1-16
	-90	2.0-20.0	50	90	52	71	50-101	ER32	HS-2-20
	-105*	2.0-20.0	50	105	67	86	50-101	ER32	HS-2-20
	-120	2.0-20.0	50	120	82	101	50-101	ER32	HS-2-20
	-135	2.0-20.0	50	135	97	116	50-101	ER32	HS-2-20
-ERC40	-165	2.0-20.0	50	165	127	146	50-101	ER32	HS-2-20
	-195	2.0-20.0	50	195	157	176	50-101	ER32	HS-2-20
	-225	2.0-20.0	50	225	187	206	50-101	ER32	HS-2-20
	-255	2.0-20.0	50	255	217	236	50-101	ER32	HS-2-20
	-75	3.0-26.0	63	75	37	56	60-94	ER40	HS-2.5-25
-ERC40	-105	3.0-26.0	63	105	67	86	60-99	ER40	HS-2.5-25
	-165	3.0-26.0	63	105	127	146	60-99	ER40	HS-2.5-25

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Im Lieferumfang enthalten:  
Spannmutter, Einstellschraube

\* Ohne Einstellschraube

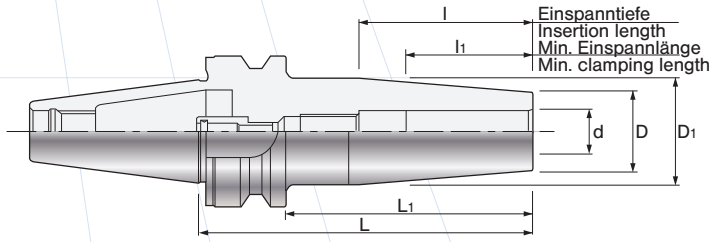
Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

Included in delivery:  
Cap nut, Preset screw

\* Without Preset screw

# SRD Schrumpffutter DIN

## Shrink Fit Chucks DIN



**SRD**

6.0  
32.0

0,003  
mm

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

Form  
AD

HPC  
HSC



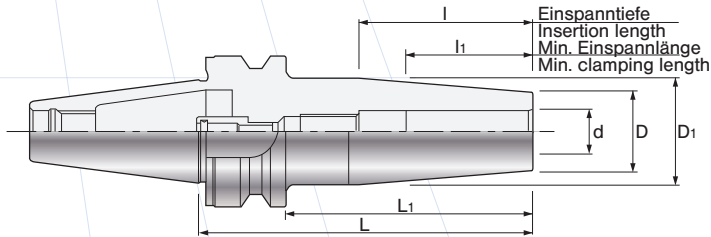
DIN 69871  
JIS B6339

Modell • Model		d	D	D <sub>1</sub>	L	L <sub>1</sub>	I	l <sub>1</sub>
-SRD6A	-80	6	21	27	80	58	26-36	26
	-105	6	21	27	105	83	26-36	26
	-120	6	21	27	120	98	26-36	26
-SRD8A	-80	8	21	27	80	58	26-36	26
	-105	8	21	27	105	83	26-50	26
	-120	8	21	27	120	98	26-50	26
-SRD10A	-80	10	24	32	80	58	32-42	32
	-105	10	24	32	105	83	32-50	32
	-120	10	24	32	120	98	32-50	32
BBT-AHO30 -SRD12A	-90	12	24	32	90	68	37-47	37
	-105	12	24	32	105	83	37-60	37
	-120	12	24	32	120	98	37-70	37
-SRD14A	-90	14	27	34	90	68	37-47	37
	-105	14	27	34	105	83	37-60	37
	-120	14	27	34	120	98	37-70	37
-SRD16A	-90	16	27	34	90	68	40-50	40
	-105	16	27	34	105	83	40-60	40
	-120	16	27	34	120	98	40-70	40

Modell • Model		d	D	D <sub>1</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	I <sub>1</sub>
-SRD6A	-90	6	21	27	90	63	71	26-36	26
	-120	6	21	27	120	93	101	26-36	26
	-160	6	21	27	160	133	141	26-36	26
-SRD8A	-90	8	21	27	90	63	71	26-50	26
	-120	8	21	27	120	93	101	26-50	26
	-160	8	21	27	160	133	141	26-50	26
-SRD10A	-90	10	24	32	90	63	71	32-50	32
	-120	10	24	32	120	93	101	32-50	32
	-160	10	24	32	160	133	141	32-50	32
-SRD12A	-90	12	24	32	90	63	71	37-55	37
	-120	12	24	32	120	93	101	37-70	37
	-160	12	24	32	160	133	141	37-70	37
-SRD14A	-90	14	27	34	90	63	71	37-60	37
	-120	14	27	34	120	93	101	37-70	37
	-160	14	27	34	160	133	141	37-70	37
-SRD16A	-90	16	27	34	90	63	71	40-60	40
	-120	16	27	34	120	93	101	40-70	40
	-160	16	27	34	160	133	141	40-80	40
-SRD18A	-105	18	33	42	105	78	97	40-60	40
	-120	18	33	42	120	93	101	40-70	40
	-160	18	33	42	160	133	141	40-80	40
-SRD20A	-105	20	33	42	105	78	97	42-60	42
	-120	20	33	42	120	93	101	42-70	42
	-160	20	33	42	160	133	141	42-100	42
-SRD25A	-105	25	44	53	105	78	97	48-60	48
	-120	25	44	53	120	93	101	48-70	48
	-160	25	44	53	160	133	141	48-105	48
-SRD32A	-105	32	44	53	105	78	97	52-60	52
	-120	32	44	53	120	93	101	52-70	52
	-160	32	44	53	160	133	141	52-105	52

# SRD Schruppfutter DIN

## Shrink Fit Chucks DIN



**SRD**

6.0  
32.0

0,003  
mm

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

Form  
AD

HPC  
HSC



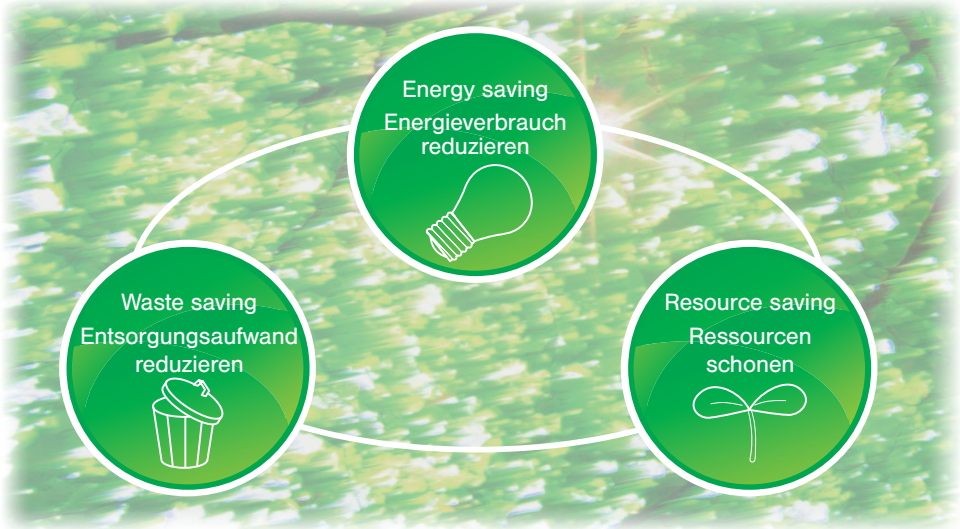
**DIN 69871**  
**JIS B6339**

Modell • Model	d	D	D <sub>1</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	I	I <sub>1</sub>	
-SRD6A	-100	6	21	27	100	62	81	26-36	26
	-120	6	21	27	120	82	101	26-50	26
	-160	6	21	27	160	122	141	37-55	26
-SRD8A	-100	8	21	27	100	62	81	37-70	26
	-120	8	21	27	120	82	101	37-60	26
	-160	8	21	27	160	122	141	37-70	26
-SRD10A	-100	10	24	32	100	62	81	37-70	32
	-120	10	24	32	120	82	101	32-50	32
	-160	10	24	32	160	122	141	32-50	32
-SRD12A	-100	12	24	32	100	62	81	32-50	37
	-120	12	24	32	120	82	101	52-50	37
	-160	12	24	32	160	122	141	32-50	37
-SRD14A	-100	14	27	34	100	62	81	32-50	37
	-120	14	27	34	120	82	101	32-50	37
	-160	14	27	34	160	122	141	32-50	37
-SRD16A	-105	16	27	34	105	67	86	40-60	40
	-120	16	27	34	120	82	101	40-70	40
	-160	16	27	34	160	122	141	40-80	40
-SRD18A	-105	18	33	42	105	67	86	40-60	40
	-120	18	33	42	120	82	101	40-70	40
	-160	18	33	42	160	122	141	40-80	40
-SRD20A	-105	20	33	42	105	67	86	42-60	42
	-120	20	33	42	120	82	101	42-70	42
	-160	20	33	42	160	122	141	42-100	42
-SRD25A	-110	25	44	53	110	72	91	48-65	48
	-135	25	44	53	135	97	116	48-85	48
	-160	25	44	53	160	122	141	48-110	48
-SRD32A	-110	32	44	53	110	72	91	52-65	52
	-135	32	44	53	135	97	116	52-85	52
	-160	32	44	53	160	122	141	52-110	52

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

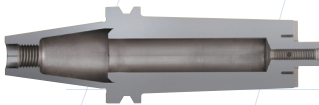
Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.





**NT Werkzeugspannlösungen  
Tooling Solutions**

**Aufnahmen mit  
Plananlage und Hohlsteilkegel**  
2Face-Contact Tooling & Hollow Shank



**AHO**

**Reduzieren Energiekosten**  
Saves electricity

**Spannzangen für die  
MMS-Zerspanung**  
Collets for MQL machining



**FDC-MS**

**Reduzieren den Kühlmittelverbrauch**  
Minimizes coolant usage

**Rostgeschützte Aufnahmen\***  
Rustproof Toolholders\*



**Reduzieren den Rostschutzmittelbedarf**  
Reduces usage of rust prevention oil

**Aufnahmen mit Rundlauf "0"**  
"R" Zero Holders



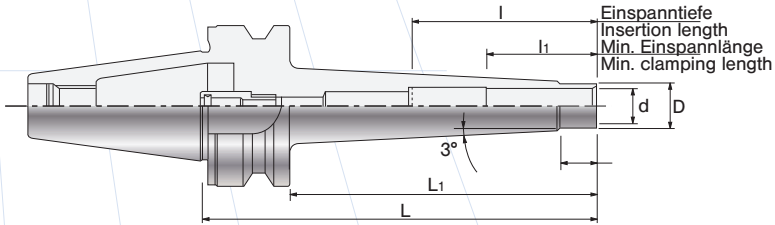
**HDZ**

**Verlängern die Werkzeugstandzeiten**  
Prolongs tool life

\* Ausgenommen: HSK-Schaft, Schrumpffutter  
\* Excluded: HSK shank, Shrink fit chucks

# SRS Schrumpffutter superschlank

## Shrink Fit Chucks slim type



**SRS**

6.0  
20.0

0,003  
mm

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

Form  
AD

HPC  
HSC



**DIN 69871**  
**JIS B6339**

Modell • Model		d	D	L	L <sub>1</sub>	l	l <sub>1</sub>
-SRS6A	-105	6	9	105	83	26-36	26
	-135	6	9	135	113	26-36	26
-SRS8A	-105	8	11	105	83	26-50	26
	-135	8	11	135	113	26-50	26
BBT-AHO30 -SRS10A	-105	10	13	105	83	32-50	32
	-135	10	13	135	113	32-50	32
-SRS12A	-105	12	15	105	83	37-70	37
	-135	12	15	135	113	37-70	37
-SRS16A	-105	16	20	105	83	40-80	40
	-135	16	20	135	113	40-80	40
-SRS6A	-105	6	9	105	78	26-36	26
	-135	6	9	135	108	26-36	26
-SRS8A	-105	8	11	105	78	26-50	26
	-135	8	11	135	108	26-50	26
-SRS10A	-105	10	13	105	78	32-50	32
	-135	10	13	135	108	32-50	32
BBT-AHO40	-165	10	13	165	138	32-50	32
	-105	12	15	105	78	37-70	37
SSK-AHO40 -SRS12A	-135	12	15	135	108	37-70	37
	-165	12	15	165	138	37-70	37
-SRS16A	-105	16	20	105	78	40-80	40
	-135	16	20	135	108	40-80	40
-SRS20A	-165	16	20	165	138	40-80	40
	-105	20	26	105	78	42-85	42
-SRS20A	-135	20	26	135	108	42-100	42
	-165	20	26	165	138	42-100	42

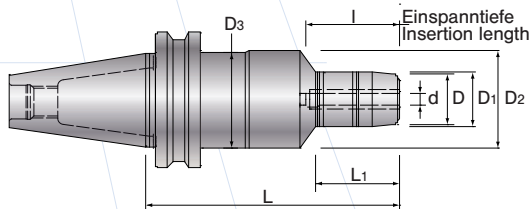
Modell • Model		d	D	L	L <sub>1</sub>	I	I <sub>1</sub>	
BBT-AHO50 • SSK-AHO50	-SRS6A	-105	6	9	105	67	26-36	26
		-135	6	9	135	97	26-36	26
	-SRS8A	-105	8	11	105	67	26-50	26
		-135	8	11	135	97	26-50	26
	-SRS10A	-105	10	13	105	67	32-50	32
		-135	10	13	135	97	32-50	32
		-165	10	13	165	127	32-50	32
		-195	10	13	195	157	32-50	32
	-105	12	15	105	67	37-70	37	
	-SRS12A	-135	12	15	135	97	37-70	37
		-165	12	15	165	127	37-70	37
		-195	12	15	195	157	37-70	37
	-SRS16A	-105	16	20	105	67	40-80	40
		-135	16	20	135	97	40-80	40
		-165	16	20	165	127	40-80	40
		-195	16	20	195	157	40-80	40
	-SRS20A	-105	20	26	105	67	42-85	42
		-135	20	26	135	97	42-100	42
-165		20	26	165	127	42-100	42	
-195		20	26	195	157	42-100	42	

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.  
Nur für HM-Werkzeuge geeignet.

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.  
Only for carbide tools.

# PHC Power-Dehnspannfutter

## Power Hydro Chucks



**PHC**

6.0  
32.0

0.003  
50 mm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



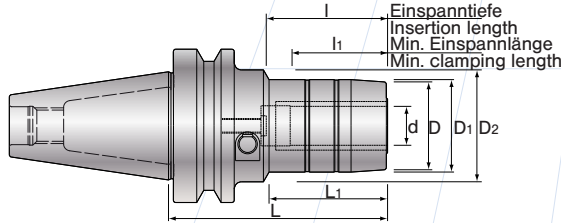
DIN 69871

Modell		d	D	D1	D2	D3	L	L1	I			
SSK-AHO40	-PHC06	-90	6	24	26	46	-	90	30	33	-	L-4T
		-120	6	24	26	46	-	120	41	43	-	L-4T
	-PHC07	-90	7	26	28	46	-	90	30	33	-	L-4T
		-120	7	26	28	46	-	120	41	43	-	L-4T
	-PHC08	-90	8	26	28	46	-	90	30	33	-	L-4T
		-120	8	26	28	46	-	120	41	43	-	L-4T
	-PHC09	-105	9	28	30	52	50	105	44	48	-	L-4T
		-135	9	28	30	52	50	135	64	68	-	L-4T
	-PHC10	-105	10	28	30	52	50	105	44	48	-	L-4T
		-135	10	28	30	52	50	135	64	68	-	L-4T
	-PHC11	-105	11	30	32	52	50	105	45	48	-	L-4T
		-135	11	30	32	52	50	135	65	68	-	L-4T
	-PHC12	-105	12	30	32	52	50	105	45	48	PHS12-d	L-4T
		-135	12	30	32	52	50	135	65	68	PHS12-d	L-4T
	-PHC13	-105	13	34	36	52	50	105	46	48	-	L-4T
		-135	13	34	36	52	50	135	66	68	-	L-4T
	-PHC14	-105	14	34	36	52	50	105	46	48	-	L-4T
		-135	14	34	36	52	50	135	66	68	-	L-4T
	-PHC15	-105	15	36	38	52	50	105	46	48	-	L-4T
		-135	15	36	38	52	50	135	66	68	-	L-4T
-PHC16	-105	16	36	38	52	50	105	46	48	-	L-4T	
	-135	16	36	38	52	50	135	66	68	-	L-4T	
-PHC20	-105	20	40	42	46	-	105	49	48	PHS20-d	L-4T	
	-135	20	40	42	46	-	135	69	68	PHS20-d	L-4T	
-PHC25	-120	25	50	52	62	50	120	59	58	-	L-6T	
	-150	25	50	52	62	50	150	79	78	-	L-6T	
-PHC32	-135	32	60	62	62	50	135	100	73	-	L-6T	
	-165	32	60	62	62	50	165	130	78	-	L-6T	
SSK-AHO50	-PHC20	-105	20	40	42	46	-	105	70	50	PHS20-d	L-4T
	-PHC32	-120	32	60	62	-	-	120	100	80	-	L-6T

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.  
Schافتtoleranz: h6

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.  
Tool shank diameter tolerance must be within h6





## PHC

6.0  
32.0

0.003  
50 mm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



JIS B6339

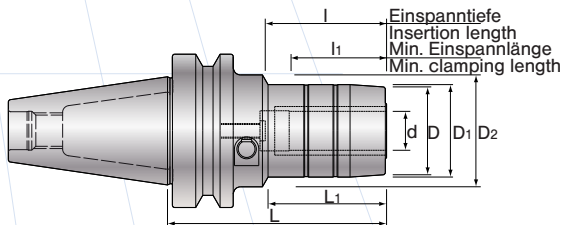
Modell • Model	d	D	D <sub>1</sub>	D <sub>2</sub>	L	L <sub>1</sub>	l	l <sub>1</sub>		
-PHC06 -75	6	24	26	46	75	30	34	29	-	L-4T
-PHC07 -75	7	26	28	46	75	30	34	29	-	L-4T
-PHC08 -75	8	26	28	46	75	30	34	29	-	L-4T
-PHC09 -105	9	28	30	52	105	44	50	40	-	L-4T
-PHC10 -105	10	28	30	52	105	44	50	40	-	L-4T
-PHC11 -105	11	30	32	52	105	45	50	40	-	L-4T
<b>BBT-AHO30</b> -PHC12 -105	12	30	32	52	105	45	50	40	PHS12-d	L-4T
-PHC13 -105	13	34	36	52	105	46	50	40	-	L-4T
-PHC14 -105	14	34	36	52	105	46	50	40	-	L-4T
-PHC15 -105	15	36	38	52	105	46	50	40	-	L-4T
-PHC16 -105	16	36	38	52	105	46	50	40	-	L-4T
-PHC20 -90	20	40	42	46	90	49	50	40	PHS20-d	L-4T
-PHC20 -120	20	40	42	46	120	69	70	40	PHS20-d	L-4T
<hr/>										
-PHC06 -75	6	24	26	46	75	30	34	29	-	L-4T
-PHC06 -105	6	24	26	46	105	41	45	29	-	L-4T
-PHC07 -75	7	26	28	46	75	30	34	29	-	L-4T
-PHC07 -105	7	26	28	46	105	41	45	29	-	L-4T
-PHC08 -75	8	26	28	46	75	30	34	29	-	L-4T
-PHC08 -105	8	26	28	46	105	41	45	29	-	L-4T
-PHC09 -90	9	28	30	52	90	44	50	40	-	L-4T
-PHC09 -120	9	28	30	52	120	64	70	40	-	L-4T
-PHC10 -90	10	28	30	52	90	44	50	40	-	L-4T
-PHC10 -120	10	28	30	52	120	64	70	40	-	L-4T
<b>BBT-AHO40</b> -PHC11 -90	11	30	32	52	90	45	50	40	-	L-4T
-PHC11 -120	11	30	32	52	120	65	70	40	-	L-4T
-PHC12 -90	12	30	32	52	90	45	50	40	PHS12-d	L-4T
-PHC12 -120	12	30	32	52	120	65	70	40	PHS12-d	L-4T
-PHC13 -90	13	34	36	52	90	46	50	40	-	L-4T
-PHC13 -120	13	34	36	52	120	66	70	40	-	L-4T
-PHC14 -90	14	34	36	52	90	46	50	40	-	L-4T
-PHC14 -120	14	34	36	52	120	66	70	40	-	L-4T
-PHC15 -90	15	36	38	52	90	46	50	40	-	L-4T
-PHC15 -120	15	36	38	52	120	66	70	40	-	L-4T

PHS  
Spannhülse  
Collets  
  
Seite•Page  
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L-T  
Sechskant  
Hex wrench  
  
Seite•Page  
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# PHC Power-Dehnspannfutter

## Power Hydro Chucks



**PHC**

6.0  
32.0

0.003  
50 mm

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

Form  
AD

HPC  
HSC

ECO  
Korrosions-  
geschützt  
Rustproof



JIS B6339

Modell • Model		d	D	D <sub>1</sub>	D <sub>2</sub>	L	L <sub>1</sub>	l	l <sub>1</sub>			
BBT-AHO40	-PHC16	-90	16	36	38	52	90	46	50	40	-	L-4T
		-120	16	36	38	52	120	66	70	40	-	L-4T
	-PHC20	-90	20	40	42	46	90	49	50	40	PHS20-d	L-4T
		-120	20	40	42	46	120	69	70	40	PHS20-d	L-4T
	-PHC25	-105	25	50	52	62	105	59	60	50	-	L-6T
		-135	25	50	52	62	135	79	80	50	-	L-6T
BBT-AHO50	-PHC32	-120	32	60	62	62	120	93	75	65	-	L-6T
		-150	32	60	62	62	150	123	80	65	-	L-6T
	-PHC06	-90	6	24	26	46	90	30	34	29	-	L-4T
		-120	6	24	26	46	120	41	45	29	-	L-4T
		-150	6	24	26	46	150	41	45	29	-	L-4T
	-PHC07	-90	7	26	28	46	90	30	34	29	-	L-4T
	-120	7	26	28	46	120	41	45	29	-	L-4T	
	-150	7	26	28	46	150	41	45	29	-	L-4T	
-PHC08	-90	8	26	28	46	90	30	34	29	-	L-4T	
	-120	8	26	28	46	120	41	45	29	-	L-4T	
	-150	8	26	28	46	150	41	45	29	-	L-4T	
-PHC09	-105	9	28	30	52	105	44	50	40	-	L-4T	
	-135	9	28	30	52	135	64	70	40	-	L-4T	
	-165	9	28	30	52	165	64	70	40	-	L-4T	
-PHC10	-105	10	28	30	52	105	44	50	40	-	L-4T	
	-135	10	28	30	52	135	64	70	40	-	L-4T	
	-165	10	28	30	52	165	64	70	40	-	L-4T	
-PHC11	-105	11	30	32	52	105	45	50	40	-	L-4T	
	-135	11	30	32	52	135	65	70	40	-	L-4T	
	-165	11	30	32	52	165	65	70	40	-	L-4T	
-PHC12	-105	12	30	32	52	105	45	50	40	PHS12-d	L-4T	
	-135	12	30	32	52	135	65	70	40	PHS12-d	L-4T	
	-165	12	30	32	52	165	65	70	40	PHS12-d	L-4T	
-PHC13	-105	13	34	36	52	105	46	50	40	-	L-4T	
	-135	13	34	36	52	135	66	70	40	-	L-4T	
	-165	13	34	36	52	165	66	70	40	-	L-4T	

PHS  
Spannhülse  
Collets

Seite•Page  
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L-T  
Sechskant  
Hex wrenches

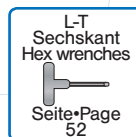
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## PHC

Modell • Model		d	D	D <sub>1</sub>	D <sub>2</sub>	L	L <sub>1</sub>	l	l <sub>1</sub>		
-PHC14	-105	14	34	36	52	105	46	50	40	-	L-4T
	-135	14	34	36	52	135	66	70	40	-	L-4T
	-165	14	34	36	52	165	66	70	40	-	L-4T
-PHC15	-105	15	36	38	52	105	46	50	40	-	L-4T
	-135	15	36	38	52	135	66	70	40	-	L-4T
	-165	15	36	38	52	165	66	70	40	-	L-4T
-PHC16	-105	16	36	38	52	105	46	50	40	-	L-4T
	-135	16	36	38	52	135	66	70	40	-	L-4T
	-165	16	36	38	52	165	66	70	40	-	L-4T
-PHC20	-105	20	40	42	46	105	49	50	40	PHS20-d	L-4T
	-135	20	40	42	46	135	69	70	40	PHS20-d	L-4T
	-165	20	40	42	46	165	69	70	40	PHS20-d	L-4T
-PHC25	-120	25	50	52	62	120	59	64	50	-	L-6T
	-150	25	50	52	62	150	79	80	50	-	L-6T
	-165	25	50	52	62	165	79	80	50	-	L-6T
-PHC32	-135	32	60	62	-	135	-	75	65	-	L-6T
	-165	32	60	62	-	165	-	80	65	-	L-6T

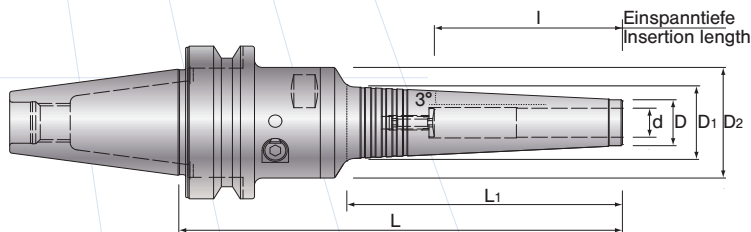
IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.  
Schafftoleranz: h6

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.  
Tool shank diameter tolerance must be within h6



# PHC-S Dehnspannfutter superschlank

## Slim Hydro Chucks



### PHC-S

6.0  
12.0

0.003  
3xD

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

Form  
AD

ECO  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model	d	D	D1	D2	L	L1	I			
-PHC06S	-135	6	13	20.5	46	135	71	37	-	L-4T
	-150	6	13	22.2	46	150	87	37	-	L-4T
	-165	6	13	23.7	46	165	102	37	-	L-4T
	-180	6	13	25.4	46	180	118	37	-	L-4T
-PHC07S	-135	7	14	21.5	46	135	71	37	-	L-4T
	-150	7	14	23.2	46	150	87	37	-	L-4T
	-165	7	14	24.7	46	165	102	37	-	L-4T
	-180	7	14	26.4	46	180	118	37	-	L-4T
-PHC08S	-135	8	15	22.6	46	135	72	50	-	L-4T
	-150	8	15	24.2	46	150	87	50	-	L-4T
	-165	8	15	25.8	46	165	103	50	-	L-4T
	-180	8	15	27.4	46	180	118	50	-	L-4T
BBT-AHO30-PHC09S	-135	9	16	23.6	46	135	72	50	-	L-4T
	-150	9	16	25.2	46	150	87	50	-	L-4T
	-165	9	16	26.8	46	165	103	50	-	L-4T
	-180	9	16	28.4	46	180	118	50	-	L-4T
-PHC10S	-135	10	17	24.6	46	135	72	50	-	L-4T
	-150	10	17	26.3	46	150	88	50	-	L-4T
	-165	10	17	27.8	46	165	103	50	-	L-4T
	-180	10	17	29.5	46	180	119	50	-	L-4T
-PHC11S	-135	11	18	25.7	46	135	73	50	-	L-4T
	-150	11	18	27.3	46	150	88	50	-	L-4T
	-165	11	18	29.0	46	165	104	50	-	L-4T
	-180	11	18	30.5	46	180	119	50	-	L-4T
-PHC12S	-135	12	19	26.7	46	135	73	70		L-4T*
	-150	12	19	28.3	46	150	88	70		L-4T*
	-165	12	19	30.0	46	165	104	70		L-4T*
	-180	12	19	31.5	46	180	119	70		L-4T*

Schafttoleranz: h6







\* Spannhülsen auf Anfrage verfügbar

Tool shank diameter tolerance must be within h6

\* Collets on request available





Modell • Model	d	D	D <sub>1</sub>	D <sub>2</sub>	L	L <sub>1</sub>	I			
-PHC06S	-135	6	13	20.5	46	135	71	37	-	L-4T
	-150	6	13	22.2	46	150	87	37	-	L-4T
	-165	6	13	23.7	46	165	102	37	-	L-4T
	-180	6	13	25.4	46	180	118	37	-	L-4T
-PHC07S	-135	7	14	21.5	46	135	71	37	-	L-4T
	-150	7	14	23.2	46	150	87	37	-	L-4T
	-165	7	14	24.7	46	165	102	37	-	L-4T
	-180	7	14	26.4	46	180	118	37	-	L-4T
-PHC08S	-135	8	15	22.6	46	135	72	50	-	L-4T
	-150	8	15	24.2	46	150	87	50	-	L-4T
	-165	8	15	25.8	46	165	103	50	-	L-4T
	-180	8	15	27.4	46	180	118	50	-	L-4T
BBT-AHO40 • SSK-AHO40	-135	9	16	23.6	46	135	72	50	-	L-4T
	-150	9	16	25.2	46	150	87	50	-	L-4T
	-165	9	16	26.8	46	165	103	50	-	L-4T
	-180	9	16	28.4	46	180	118	50	-	L-4T
-PHC10S	-135	10	17	24.6	46	135	72	50	-	L-4T
	-150	10	17	26.3	46	150	88	50	-	L-4T
	-165	10	17	27.8	46	165	103	50	-	L-4T
	-180	10	17	29.5	46	180	119	50	-	L-4T
-PHC11S	-135	11	18	25.7	46	135	73	50	-	L-4T
	-150	11	18	27.3	46	150	88	50	-	L-4T
	-165	11	18	29.0	46	165	104	50	-	L-4T
	-180	11	18	30.5	46	180	119	50	-	L-4T
-PHC12S	-135	12	19	26.7	46	135	73	70		L-4T*
	-150	12	19	28.3	46	150	88	70		L-4T*
	-165	12	19	30.0	46	165	104	70		L-4T*
	-180	12	19	31.5	46	180	119	70		L-4T*

Schafttoleranz: h6

\* Spannhülsen auf Anfrage verfügbar

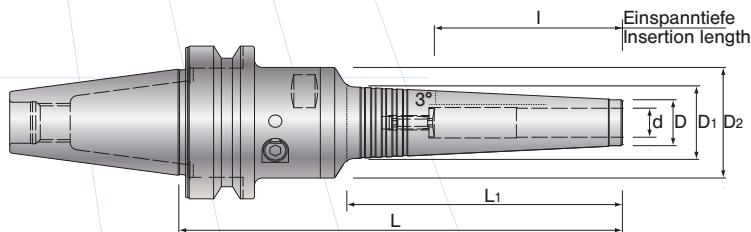
Tool shank diameter tolerance must be within h6

\* Collets on request available



# PHC-S Dehnspanfutter superschlank

## Slim Hydro Chucks



### PHC-S

6.0  
12.0

0.003  
3xD

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

Form  
AD

ECO  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

Modell • Model	d	D	D1	D2	L	L1	I			
-PHC06S	-150	6	13	20.5	46	150	71	37	-	L-4T
	-165	6	13	22.2	46	165	87	37	-	L-4T
	-180	6	13	23.7	46	180	102	37	-	L-4T
	-195	6	13	25.4	46	195	118	37	-	L-4T
-PHC07S	-150	7	14	21.5	46	150	71	37	-	L-4T
	-165	7	14	23.2	46	165	87	37	-	L-4T
	-180	7	14	24.7	46	180	102	37	-	L-4T
	-195	7	14	26.4	46	195	118	37	-	L-4T
-PHC08S	-150	8	15	22.6	46	150	72	50	-	L-4T
	-165	8	15	24.2	46	165	87	50	-	L-4T
	-180	8	15	25.8	46	180	103	50	-	L-4T
	-195	8	15	27.4	46	195	118	50	-	L-4T
BBT-AHO50 • SSK-AHO50	-150	9	16	23.6	46	150	72	50	-	L-4T
	-165	9	16	25.2	46	165	87	50	-	L-4T
	-180	9	16	26.8	46	180	103	50	-	L-4T
-PHC09S	-195	9	16	28.4	46	195	118	50	-	L-4T
	-150	10	17	24.6	46	150	72	50	-	L-4T
	-165	10	17	26.3	46	165	88	50	-	L-4T
	-180	10	17	27.8	46	180	103	50	-	L-4T
-PHC10S	-195	10	17	29.5	46	195	119	50	-	L-4T
	-150	11	18	25.7	46	150	73	50	-	L-4T
	-165	11	18	27.3	46	165	88	50	-	L-4T
	-180	11	18	29.0	46	180	104	50	-	L-4T
-PHC11S	-195	11	18	30.5	46	195	119	50	-	L-4T
	-150	12	19	26.7	46	150	73	70		L-4T*
	-165	12	19	28.3	46	165	88	70		L-4T*
-PHC12S	-180	12	19	30.0	46	180	104	70		L-4T*
	-195	12	19	31.5	46	195	119	70		L-4T*

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Schafttoleranz: h6

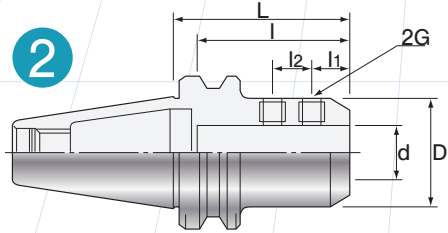
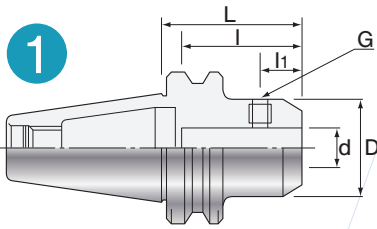
\* Spannhülsen auf Anfrage verfügbar

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

Tool shank diameter tolerance must be within h6

\* Collets on request available





**SL2**

6.0  
42.0

Form  
AD

ECO  
Korrosions-  
geschützt  
Rustproof



DIN 69871  
JIS B6339

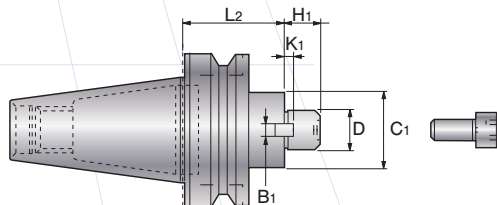
Modell • Model	Typ Type	d(H6)	D	L	l	l <sub>1</sub>	l <sub>2</sub>	G	
BBT-AHO30-SL2	-6-60	1	6	25	60	36	18	-	M6
	-8-60	1	8	28	60	36	18	-	M8
	-10-60	1	10	35	60	40	20	-	M10
	-12-75	1	12	42	75	45	22.5	-	M12
	-16-90	1	16	48	90	48	24	-	M14
	-20-90	1	20	52	90	50	25	-	M16
BBT-AHO40-SL2 • SSK-AHO40-SL2	-6-75	1	6	25	75	36	18	-	M6
	-8-75	1	8	28	75	36	18	-	M8
	-10-75	1	10	35	75	40	20	-	M10
	-12-75	1	12	42	75	45	22.5	-	M12
	-16-75	1	16	48	75	48	24	-	M14
	-20-75	1	20	52	75	50	25	-	M16
BBT-AHO50-SL2 • SSK-AHO50-SL2	-25-90	2	25	65	90	56	24	25	M18
	-32-120	2	32	72	120	60	24	28	M20
	-6-90	1	6	25	90	36	18	-	M6
	-8-90	1	8	28	90	36	18	-	M8
	-10-90	1	10	35	90	40	20	-	M10
	-12-90	1	12	42	90	45	22.5	-	M12
BBT-AHO50-SL2 • SSK-AHO50-SL2	-16-90	1	16	48	90	48	24	-	M14
	-20-90	1	20	52	90	50	25	-	M16
	-25-105	2	25	65	105	56	24	25	M18
	-32-120	2	32	72	120	60	24	28	M20
	-40-120	2	40	80	120	70	30	32	M20
	-42-120	2	42	82	120	70	30	32	M20

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

# FMC Aufsteck-Fräsdorne

## Face Mill Arbors



**FMC**

Form  
AD



**DIN 69871**  
**JIS B6339**

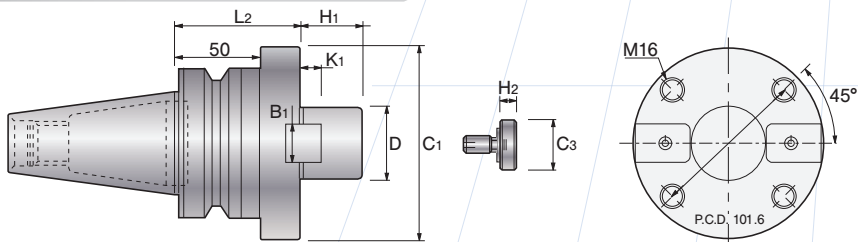
Modell • Model		D	L2	C1	H1	B1	K1	Fräser-Anzugsschraube Clamp bolt	Messerkopf Ø Cutter Ø
BBT-AHO30 -FMC22	-45	22	45	45	18	10	5	M10	50, 63
	-60	22	60	45	18	10	5	M10	50, 63
BBT-AHO40 • SSK-AHO40	-45	22	45	45	18	10	5	M10	50, 63
	-60	22	60	45	18	10	5	M10	50, 63
	-75	22	75	45	18	10	5	M10	50, 63
	-90	22	90	45	18	10	5	M10	50, 63
SSK-AHO40 -FMC27	-60	27	60	70	20	12	6	M12	80
	-75	27	75	70	20	12	6	M12	80
SSK-AHO40 -FMC32	-90	27	90	70	20	12	6	M12	80
	-60	32	60	85	22	14	7	M16	100
	-75	32	75	85	22	14	7	M16	100
	-90	32	90	85	22	14	7	M16	100
BBT-AHO50 • SSK-AHO50	-45	22	45	45	18	10	5	M10	50, 63
	-90	22	90	45	18	10	5	M10	50, 63
	-150	22	150	45	18	10	5	M10	50, 63
	-200	22	200	45	18	10	5	M10	50, 63
	-250*	22	250	45	18	10	5	M10	50, 63
	-300*	22	300	45	18	10	5	M10	50, 63
SSK-AHO50 -FMC27	-45	27	45	70	20	12	6	M12	80
	-105	27	105	70	20	12	6	M12	80
	-150	27	150	70	20	12	6	M12	80
	-200	27	200	70	20	12	6	M12	80
	-250*	27	250	70	20	12	6	M12	80
	-300*	27	300	70	20	12	6	M12	80
SSK-AHO50 -FMC32	-45	32	45	85	22	14	7	M16	100
	-75	32	75	85	22	14	7	M16	100
	-105	32	105	85	22	14	7	M16	100
	-150	32	150	85	22	14	7	M16	100

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

\* IKZ nicht möglich

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

\* No through hole for center through coolant



**FMB**

Form  
AD



**DIN 69871  
JIS B6339**

Modell • Model		D	L2	C1	H1	B1	K1	C3	H2	Fräser-Anzugsschraube Clamp bolt	Messerkopf Ø Cutter Ø	
BBT-AHO30	-FMB27	-45	27	45	80	26	12	6	33	10	MBA-M12	80
		-60	27	60	80	26	12	6	33	10	MBA-M12	80
BBT-AHO40	-FMB27	-60	27	60	80	26	12	6	33	10	MBA-M12	80
		-90	27	90	80	26	12	6	33	10	MBA-M12	80
SSK-AHO40	-FMB40	-60	40	60	85	26	16	8.5	50	14	MBA-M20	100, 125
BBT-AHO50		-45	27	45	80	26	12	6	33	10	MBA-M12	80
	-FMB27	-90	27	90	80	26	12	6	33	10	MBA-M12	80
		-150	27	150	80	26	12	6	33	10	MBA-M12	80
SSK-AHO50		-45	40	45	85	26	16	8.5	50	14	MBA-M20	100, 125
	-FMB40	-75	40	75	85	26	16	8.5	50	14	MBA-M20	100, 125
		-105	40	105	85	26	16	8.5	50	14	MBA-M20	100, 125
	-FMB60	-75*	60	75	140	25	25.4	12.5	-	-	M16	200

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

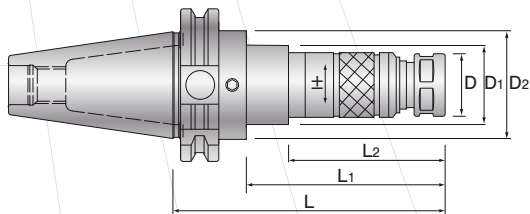
\* IKZ nicht möglich

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

\* No through hole for center through coolant

# SFH

**SynchroFit Gewindeschneidfutter**  
SynchroFit Tapping Holders



IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich. Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

**SFH**

**M1 M30**

**Form AD**



**Axiale Längenverstellung**  
Easy presetting

**Schnittdruckkompensation**  
Cutting force compensation

**DIN 69871 JIS B6339**

Modell • Model	Schneidbereich Tapping size	D	D <sub>1</sub>	D <sub>2</sub>	L	L <sub>1</sub> BBT	L <sub>1</sub> SSK	L <sub>2</sub>	Spannmutter Cap nut				
-SFH8	-120	M1-M6	21	32	45	120	78	-	47	KDP-1414	FDC-07	SW17	
	-135	M1-M6	21	32	45	135	93	-	61	KDP-1414	FDC-07	SW17	
	-150	M1-M6	21	32	45	150	108	-	76	KDP-1414	FDC-07	SW17	
	-135	M3-M8	26	34	45	135	93	-	60	HTP-09	FSC-09	S-1L	
	BBT-AHO30-SFH12	-150	M3-M8	26	34	45	150	108	-	75	HTP-09	FSC-09	S-1L
	-165	M3-M8	26	34	45	165	123	-	90	HTP-09	FSC-09	S-1L	
-SFH18	-150	M5-M20	36	40	45	150	108	-	68	HTP-16	FSC-16	S-4L	
	-165	M5-M20	36	40	45	165	123	-	83	HTP-16	FSC-16	S-4L	
	-180	M5-M20	36	40	45	180	138	-	98	HTP-16	FSC-16	S-4L	
-SFH8	-120	M1-M6	21	32	45	120	78	85	47	KDP-1414	FDC-07	SW17	
	-135	M1-M6	21	32	45	135	93	100	61	KDP-1414	FDC-07	SW17	
	-150	M1-M6	21	32	45	150	108	115	76	KDP-1414	FDC-07	SW17	
	-135	M3-M8	26	34	45	135	93	100	60	HTP-09	FSC-09	S-1L	
	BBT-AHO40-SFH12	-150	M3-M8	26	34	45	150	108	115	75	HTP-09	FSC-09	S-1L
	-165	M3-M8	26	34	45	165	123	130	90	HTP-09	FSC-09	S-1L	
SSK-AHO40	-150	M5-M20	36	40	45	150	108	115	68	HTP-16	FSC-16	S-4L	
-SFH18	-165	M5-M20	36	40	45	165	123	130	83	HTP-16	FSC-16	S-4L	
	-180	M5-M20	36	40	45	180	138	145	98	HTP-16	FSC-16	S-4L	
-SFH30	-180	M20-M30	46	50	-	180	153	160	87	HTP-22	FSC-22	S-5L	
	-195	M20-M30	46	50	-	195	168	175	102	HTP-22	FSC-22	S-5L	
-SFH8	-135	M1-M6	21	32	45	135	78	100	47	KDP-1414	FDC-07	SW17	
	-150	M1-M6	21	32	45	150	93	115	61	KDP-1414	FDC-07	SW17	
	-165	M1-M6	21	32	45	165	108	130	76	KDP-1414	FDC-07	SW17	
	-180	M1-M6	21	32	45	180	123	145	91	KDP-1414	FDC-07	SW17	
	BBT-AHO50-SFH12	-150	M3-M8	26	34	45	150	93	115	60	HTP-09	FSC-09	S-1L
	-165	M3-M8	26	34	45	165	108	130	75	HTP-09	FSC-09	S-1L	
SSK-AHO50	-180	M3-M8	26	34	45	180	123	145	90	HTP-09	FSC-09	S-1L	
-SFH18	-165	M5-M20	36	40	45	165	108	130	68	HTP-16	FSC-16	S-4L	
	-180	M5-M20	36	40	45	180	123	145	83	HTP-16	FSC-16	S-4L	
	-195	M5-M20	36	40	45	195	138	160	98	HTP-16	FSC-16	S-4L	
-SFH30	-185	M20-M30	46	50	-	185	147	169	87	HTP-22	FSC-22	S-5L	
	-200	M20-M30	46	50	-	200	162	185	102	HTP-22	FSC-22	S-5L	

Im Lieferumfang enthalten: Spannmutter

Included in delivery: Cap nut

FSC/FDC Spannzangen Collets  
  
Seite•Page 51

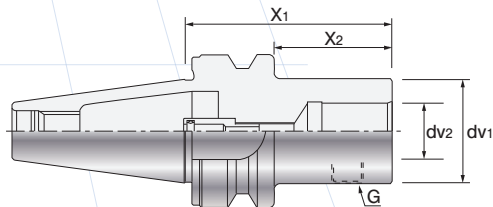
S-O, S-L Spannschlüssel  
  
Seite•Page 53

KDP/HTP Spannmuttern Cap nuts  
  
Seite•Page 53

STS 4kt-Mitnehmer Square drivers  
  
Seite•Page 53

STS-R Einschraubwktz Tool changers  
  
Seite•Page 53





**MS**

Form  
AD



**DIN 69871**  
**JIS B6339**

Modell • Model		X <sub>1</sub>	X <sub>2</sub> BBT	X <sub>2</sub> SSK	dv <sub>1</sub>	dv <sub>2</sub>	G
BBT-AHO30	-1811 -50	50	28	-	18	11	C5-1
	-2211 -65	65	43	-	22	11	C5-2
	-2514 -49	49	27	-	25	14	C8-1
	-3218 -54	54	32	-	32	18	C8-2
	-4022 -60	60	38	-	40	22	C10-1
	-5028 -54	54	-	-	50	28	C12-1
BBT-AHO40 • SSK-AHO40	-1811 -50	50	23	42	18	11	C5-1
	-1811 -90	90	63	82	18	11	C5-1
	-2211 -65	65	38	57	22	11	C5-2
	-2211 -105	105	78	97	22	11	C5-2
	-2514 -49	49	22	41	25	14	C8-1
	-2514 -89	89	62	81	25	14	C8-1
	-3218 -54	54	27	46	32	18	C8-2
	-3218 -94	94	67	86	32	18	C8-2
	-4022 -60	60	33	52	40	22	C10-1
	-4022 -100	100	73	92	40	22	C10-1
	-5028 -54	54	27	46	50	28	C12-1
	-5028 -94	94	67	86	50	28	C12-1
-6336	-64	64	37	56	63	36	C16-1
	-114	114	87	106	63	36	C16-1
	-70	70	-	-	80	36	C16-2
	-120	120	-	-	80	36	C16-2



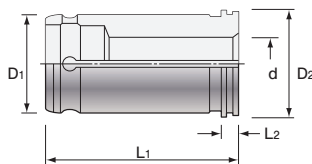
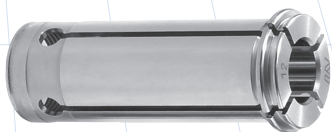
Modell • Model		X1	X2 BBT	X2 SSK	dv1	dv2	G
-1811	-65	65	27	46	18	11	C5-1
	-105	105	67	86	18	11	C5-1
-2211	-65	65	27	46	22	11	C5-2
	-105	105	67	86	22	11	C5-2
-2514	-64	64	26	45	25	14	C8-1
	-104	104	66	85	25	14	C8-1
-3218	-69	69	31	50	32	18	C8-2
	-109	109	71	90	32	18	C8-2
	-149	149	111	130	32	18	C8-2
BBT-AHO50 • SSK-AHO50	-4022	-60	60	22	41	40	C10-1
		-100	100	62	81	40	C10-1
		-140	140	102	121	40	C10-1
	-180	180	142	161	40	22	C10-1
-5028	-65	65	27	46	50	28	C12-1
	-105	105	67	86	50	28	C12-1
	-165	165	127	146	50	28	C12-1
	-205	205	167	186	50	28	C12-1
-6336	-75	75	37	56	63	36	C16-1
	-125	125	87	106	63	36	C16-1
	-200	200	162	181	63	36	C16-1
-8036	-75	75	37	56	80	36	C16-2
	-125	125	87	106	80	36	C16-2
	-200	200	162	181	80	36	C16-2

IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

# Zubehör CTS Kraftspannfutter

## Accessories CTS Milling Chucks

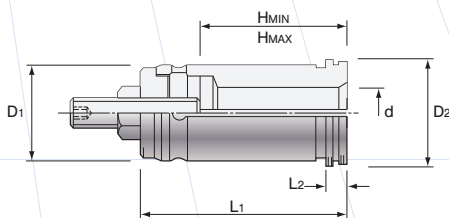


### MC

**MC Spannhülsen**  
Flexible Werkzeugspannung  
durch Spannhülsen

**MC Straight Collets**  
Flexible clamping through  
Straight Collets

Modell • Model	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	-	-	-
	-20-d	20	24	60	4	3	5	7	9	11	13	15	17	-	-	-	-
	-25-d	25	29	60	4	-	-	6	8	10	12	-	16	-	20	-	-
	-32-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



### MC-A

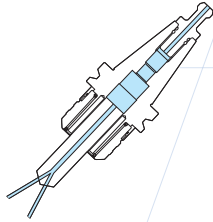
**MC-A Spannhülsen**  
mit Längenverstellungsschraube

**MC-A Straight Collets**  
with presetting screw

Modell • Model	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	-	-

### MC-A

Modell • Model	d	HMIN								
		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	

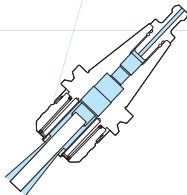


## MC-OH

**MC-OH Spannhülsen**  
für innere Kühlmittelzufuhr

MC-OH Straight Collets  
for inner coolant supply

Modell • Model		D1	D2	L1	L2	d											
MC	-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	-	-	-	
	-20-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	

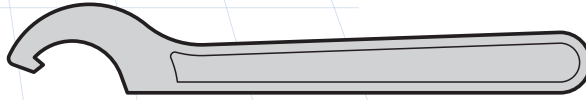


## MC-C

**MC-C Spannhülsen**  
für Peripheriekühlung

MC-OH Straight Collets  
for side through coolant

Modell • Model		D1	D2	L1	L2	d										
MC	-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	18	-	-	-
	-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



**HS**

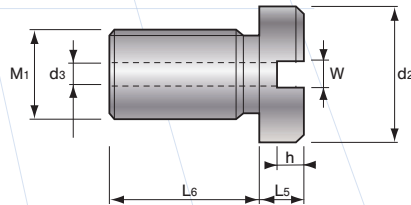
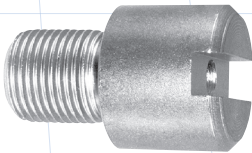
**HS Spannschlüssel**

HS Spanners

**Schnelle, einfache und sichere Werkzeugspannung mittels Hakenschlüssel.**

Quick, easy and save tool clamping by using a hook spanner

Modell • Model	Spannschlüssel • Spanner
CT-16	HS-1-16
CT-20	HS-2-20
CT-25	HS-2.5-25
CT-32	HS-3-32
CT-42	HS-4-42



**BL**

**BL Einstellschraube für Kraftspannfutter CTS**

BL Presetting srew for CTS Milling Chucks

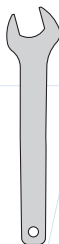
Modell • Model	d2	d3	L5	L6	M1 P=1,0	W	h	Modell
-16-L5	15	4.5	5, 15, 25	14	10	5	3.5	CT16
BL -20-L5	18	4.5	5, 15, 25	14	12	5	3.5	CT20, CT25
-32-L5	25	4.5	10, 20, 35	17	18	5	5	CT32, CT42



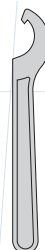
**ES**






**ERP**

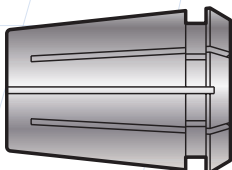


**S-E**



**FK-HS**


Modell • Model		Spannmutter • Cap nut		Einstellschraube Preset screw	Spannschlüssel • Spanner	
		Mini ERP	ERP			
ERC8	ER-8	ERP-8	-	ES-8	S-8E	-
ERC11S	ER-11	ERP-11S	-	ES-11	S-11E	-
ERC16	ER-16	-	ERP-16	ES-16	-	FK0034
ERC20	ER-20	-	ERP-20	ES-20	-	FK0034
ERC25	ER-25	-	ERP-25	ES-25	-	HS-1-16
ERC32	ER-32	-	ERP-32	ES-32	-	HS-2-20
ERC40	ER-40	-	ERP-40	-	-	HS-2.5-25



**ER**

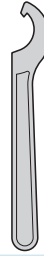
**Präzisions-Spannzangen**  
DIN 6499

Precision Collets  
DIN 6499

Modell • Model		Spann-Ø • Clamping range	
		0.5 stgd. • 0.5 steps	Für IKZ • For Inner Coolant 1.0 stgd. • 1.0 steps
ERC8	ER-8	Ø 0.5-5.0	nur auf Anfrage
ERC11S	ER-11	Ø 0.5-7.0	Ø 3.0-7.0
ERC16	ER-16	Ø 1.0-10.0	Ø 3.0-10.0
ERC20	ER-20	Ø 2.0-13.0	Ø 3.0-13.0
ERC25	ER-25	Ø 3.0-16.0	Ø 6.0-16.0
ERC32	ER-32	Ø 3.0-20.0	Ø 6.0-20.0
ERC40	ER-40	Ø 4.0-26.0	Ø 6.0-26.0

# Zubehör Spannzangenfutter HDC•HDZ•GDC

## Accessories Collet Chucks HDC•HDZ•GDC



**HDP**

**GDP**

**HDS**

**S-L**

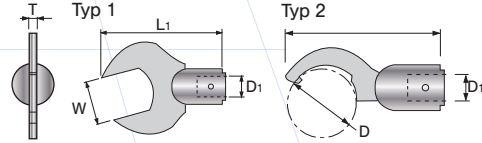
**S-0-FK**

**L-T**

Modell • Model		Spannmutter • Cap nut		Einstellschraube Preset screw	Spannschlüssel • Spanner		
		HDP	GDP				
<b>HDC07A • GDC07A</b>	FDC-07	HDP-07	-	HDS-07	-	S-0	-
<b>HDZ07</b>	FDC-07	HDP-07	-	HDS-07	-	S-0	L-3T
<b>HDC09A • GDC09A</b>	FDC-09	-	GDP-09	HDS-09	-	FK0025	-
<b>HDZ09</b>	FDC-09	HDP-09	-	HDS-09	S-1L	-	L-3T
<b>HDC12A • GDC12A</b>	FDC-12	-	GDP-12	HDS-12	-	FK0034	-
<b>HDZ12</b>	FDC-12	HDP-12	-	HDS-12	S-3L	-	L-4T
<b>HDC16A • GDC16A</b>	FDC-16	-	GDP-16	HDS-16	-	FK0034	-
<b>HDZ16</b>	FDC-16	HDP-16	-	HDS-16	S-4L	-	L-4T
<b>HDC16A • GDC16A</b>	FDC-22	-	GDP-22	HDS-22	-	FK0045	-
<b>HDZ22</b>	FDC-22	HDP-22	-	HDS-22	S-5L	-	L-5T

### Drehmomentschlüssel für HDP, GDP, ERP

### Torque Wrench for HDP, GDP, ERP



**SH**

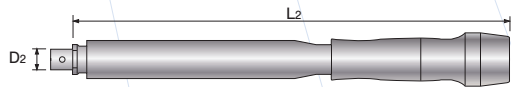
**SH Einsteckwerkzeug**  
SH Spanner head

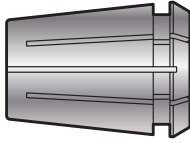
Modell • Model	Typ	W	T	D	D <sub>1</sub>	Modell Model	Torque	Schlüssel Wrench	Bereich Range	D <sub>2</sub>	L <sub>2</sub>
-1A-15	1	24	4.5	-	15	HDP-09	30-35 Nm	CL50N x15D	10-50 Nm	15	219
-3A-15	1	30	4.5	-	15	HDP-12	34-40 Nm	CL100N x15D	20-100 Nm	15	294
-4A-15	1	33	4.5	-	15	HDP-16	40-45 Nm	CL100N x15D	20-100 Nm	15	294
-5A-15	1	42	5.5	-	15	HDP-22	55-60 Nm	CL100N x15D	20-100 Nm	15	294
-23-10	2	-	-	23	10	HDP-07A	15-15 Nm	CL25N x10D	5-25 Nm	10	189
-25-15	2	-	-	29	15	GDP-09	30-35 Nm	CL50N x15D	10-50 Nm	15	219
-30-15	2	-	-	34	15	GDP-12/ERP-16	35-40 Nm	CL100N x15D	20-100 Nm	15	294
-34-15	2	-	-	38	15	GDP-16/ERP-20	44-45 Nm	CL100N x15D	20-100 Nm	15	294
-45-15	2	-	-	49	15	GDP-22/ERP-25	55-60 Nm	CL100N x15D	20-100 Nm	15	294
-6A-19	2	-	-	66	19	ERP-32/ERP-40	80-90 Nm	CL200N x19D	40-200 Nm	19	435

**CL**

**CL Drehmomentschlüssel**  
CL Torque wrench

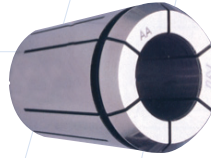
Modell • Model	Bereich Range	D <sub>2</sub>	L <sub>2</sub>
25N	5-25 Nm	10	189
50N	10-50 Nm	15	219
100N	20-100 Nm	15	294
200N	40-200 Nm	19	435





## FDC Spannangen

Mehr Spannkraft, Präzision und Radialsteifigkeit als herkömmliche ER-Spannzangen.



## FDC Collets

Better clamping force, precision and rigidity compared to conventional ER collets.

## FDC

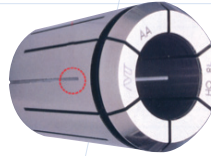
### Ultra Präzisions-Spannzangen

Ultra Precision Collets

Modell • Model	Spann-Ø • 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

## FDC-OH Spannangen

Selbstdichtend für innere Kühlmittelzufuhr.

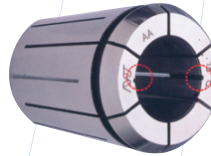


## FDC-OH Spannangen

Metallic sealed for inner coolant supply.

## FDC-C Spannangen

Selbstdichtend mit innenliegenden Kühlmittelnuten für die Peripheriekühlung.



## FDC-C Spannangen

Metallic sealed with additional nozzels für side through coolant.

## FDC-MS Spannangen

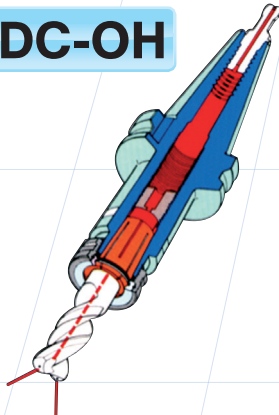
Für die MMS-Bearbeitung.



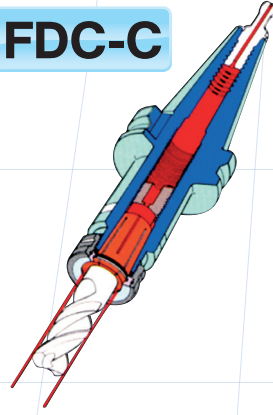
## FDC-MS Collets

For MQL machining.

## FDC-OH

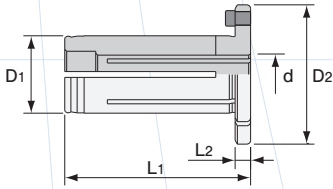


## FDC-C



# Zubehör Dehnspannfutter PHC

## Accessories Hydro Chucks PHC

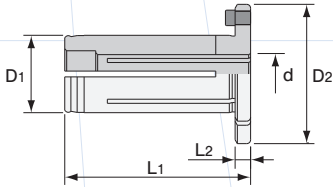


### PHS-OH

**PHS-OH Spannhülsen**  
für innere Kühlmittelzufuhr

**PHS-OH Collets**  
for inner coolant supply

Modell • Model	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

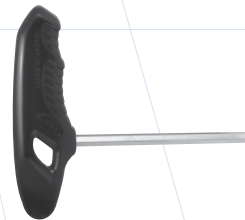
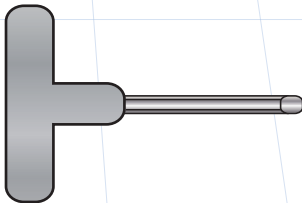


### PHS-C

**PHS-C Spannhülsen**  
für Peripheriekühlung

**PHS-C Collets**  
for side through coolant

Modell • Model	D1	D2	L1	L2	d	
PHS	-12-d-C	12	26	49	4	3, 4, 5, 6, 7, 8, 9, 10
	-20-d-C	20	36	49	4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16



### L-T

**L-T Sechskant-Schlüssel**  
L-T Hex wrench

Modell • Model	Passend für Dehnspannfutter • Fit for Hydro Chucks	
L-4T	PHC	06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 18, 20
	PHC-S	06, 07, 08, 09, 10, 11, 12
	PHC-Z	12, 20
L-5T	PHC-Z	Einstellung / Rotor ring 12, 20
L-6T	PHC	25, 32







**STS**

**STS-R**

**KDP-HTP**

**SW17-S-L**

Modell • Model		Größe Size	STS 4kant Square driver	STS-R Einschraubwz Tool changer		KDP-HTP Spannmutter Cap nut	
<b>SFH8</b>	DIN 371	M1	STS8-□2.1	STS-R0	FDC-02507	KDP-1414	SW17
	DIN 371	M2	STS8-□2.1	STS-R0	FDC-02807	KDP-1414	SW17
	DIN 371	M3	STS8-□2.7	STS-R0	FDC-03507	KDP-1414	SW17
	DIN 371	M4	STS8-□3.4	STS-R0	FDC-04507	KDP-1414	SW17
	DIN 371	M5	STS8-□4.9	STS-R0	FDC-06007	KDP-1414	SW17
	DIN 371	M6	STS8-□4.9	STS-R0	FDC-06007	KDP-1414	SW17
<b>SFH12</b>	DIN 371	M2	STS12-□2.1	STS-R1	FSC-02809	HTP-09	S-1L
	DIN 371	M3	STS12-□2.7	STS-R1	FSC-03509	HTP-09	S-1L
	DIN 371	M4	STS12-□3.4	STS-R1	FSC-04509	HTP-09	S-1L
	DIN 371	M5	STS12-□4.9	STS-R1	FSC-06009	HTP-09	S-1L
	DIN 371	M6	STS12-□4.9	STS-R1	FSC-06009	HTP-09	S-1L
	DIN 371	M8	STS12-□6.2	STS-R1	FSC-08009	HTP-09	S-1L
<b>SFH18</b>	DIN 371	M5	STS18-□4.9	STS-R2	FSC-06016	HTP-16	S-4L
	DIN 371	M6	STS18-□4.9	STS-R2	FSC-06016	HTP-16	S-4L
	DIN 371	M8	STS18-□6.2	STS-R2	FSC-08016	HTP-16	S-4L
	DIN 371	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
	DIN 376	M14	STS18-□9.0	STS-R2	FSC-11016	HTP-16	S-4L
	DIN 376	M16	STS18-□9.0	STS-R2	FSC-12016	HTP-16	S-4L
	DIN 376	M18	STS18-□11.0	STS-R2	FSC-14016	HTP-16	S-4L
	DIN 376	M20	STS18-□12.0	STS-R2	FSC-16016	HTP-16	S-4L
<b>SFH30</b>	DIN 376	M20	STS30-□12.0	STS-R2	FSC-16022	HTP-22	S-5L
	DIN 376	M24	STS30-□14.5	STS-R2	FSC-18022	HTP-22	S-5L
	DIN 376	M27	STS30-□16.0	STS-R2	FSC-20022	HTP-22	S-5L
	DIN 376	M30	STS30-□18.0	STS-R2	FSC-22022	HTP-22	S-5L

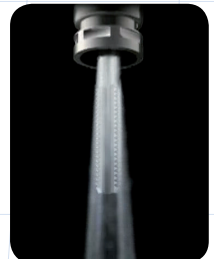
**FSC-OH**

für IKZ  
für Inner coolant supply



**FSC-C**

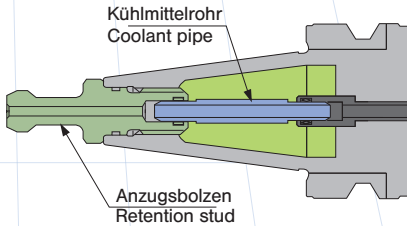
für Peripheriekühlung  
für side through coolant



### AHO

#### Hohlsteilkegel

Hollow shank



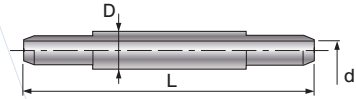
IKZ nur unter Verwendung des AHO-Anzugsbolzen mit Kühlmittelrohr möglich.

Inner coolant supply only possible by using AHO-Retention stud with coolant pipe.

### AHO

#### Kühlmittelrohr

Coolant pipe

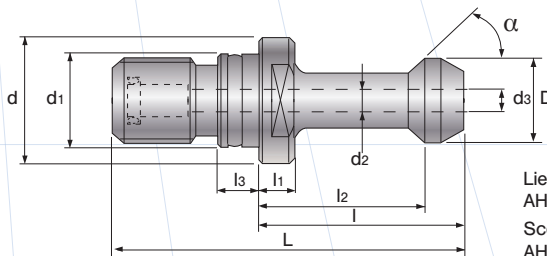


Modell • Model	d	D	L
CP-BBT30-OH	3	6	42
CP-BBT40-OH	4	8	70
CP-BBT50-OH	7	13	98

### AHO

#### Anzugsbolzen

Retention stud



Lieferumfang:  
AHO-Anzugsbolzen mit Kühlmittelrohr  
Scope of delivery:  
AHO-Retention stud with coolant pipe

Modell • Model	MAS	JIS	D	d	d1	d2	d3	L	l	l1	l2	l3	G	α
PSB-0-CH-AHO	P30T1	-	11	16.5	12.5	7	2.5	43	23	5	18	4	M12	45°
PSB-3-CH-AHO	P40T1	-	15	23	17	10	4	60	35	6	28	5	M16	45°
PSB-4-CH-AHO	P40T2	-	15	23	17	10	4	60	35	6	28	5	M16	60°
PSB-7-CH-AHO	P50T1	-	23	38	25	17	6	85	45	10	35	8	M24	45°
PSB-8-CH-AHO	P50T2	-	23	38	25	17	6	85	45	10	35	8	M24	60°
PSB-30P-AHO	-	30P	12	16.5	12.5	8	4	43	23.4	5	18.4	4	M12	75°
PSB-40P-AHO	-	40P	19	23	17	14	7	54	29	7	23	5	M16	75°
PSB-50P-AHO	-	50P	28	38	25	21	10	74	34	7	25	8	M24	75°

Modell • Model	D	d	d1	d2	d3	L	l	l1	l2	l3	G	α
PSB-17-CH-AHO	24	36	25	18	6	71	31	5	23	10	M24	45°
PSB-19-CH-AHO	23	38	25	17	6	85	45	10	35	10	M24	90°
PSB-23-CH-AHO	18.8	22	17	12.5	7	44.1	19.1	3	14	5	M16	45°
PSB-24-CH-AHO	29	37	25	20.9	10	65.2	25.2	5	17.6	8	M24	45°
PSB-25-CH-AHO	19	23	17	14	7	54	29	4	23	7	M16	75°
PSB-26-CH-AHO	11	16.5	12.5	7.5	2.5	43	23	5	18	5.5	M12	60°
PSB-DIN40-AHO	19	23	17	14	7	54	26	4	20	8	M16	30°
PSB-DIN50-AHO	28	36	25	21	10	74	34	5	25	10	M24	30°



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# Optimale Spannösungen für Ihre Anwendungen

## Comprehensive Tooling Solutions for your applications

CTS	ERC	GDC	PHC	SFH
 <p>Hochleistungs Kraftspannfutter</p>	 <p>Präzisions Spannzangenfutter</p>	 <p>Highspeed Spannzangenfutter</p>	 <p>Power-Dehnspannfutter</p>	 <p>SynchroFit Gewindeschneidfutter</p>




# Werkzeug-Spannlösungen superschlank und extra lang

## Tooling Solutions super slim and extra long

ERC-S	PHC-S	SRE SRS
 <p>Mikro-Spannzangenfutter</p>	 <p>Dehnspannfutter</p>	 <p>Schrumpffutter</p>

# Werkzeug-Spannlösungen mit Rundlauf "0"

## Tooling Solutions with Run out "0"

CTZ	HDZ	PHC-Z
 <p>Kraftspannfutter</p>	 <p>Spannzangenfutter</p>	 <p>Dehnspannfutter</p>

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