

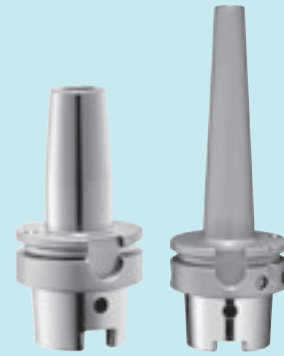
CNC TOOL HOLDERS GAUGING PRODUCTS



INNOVATION | PERFORMANCE | QUALITY



BILZ—FIT FOR THE FUTURE



TAPPING

For decades, Bilz has been the global leader in tapping technology. Quality engineered and well designed, Bilz tap holders are the industry standard.

Special features like length compensation (tension/compression), quick change, parallel float, internal coolant or external coolant are incorporated in many different combinations in our chucks.

ADVANTAGES

- Faster Tool Set-ups
- Increased Tap Life
- Improved Thread Quality
- Faster Tool Changes

APPLICATIONS

- Tapping and thread forming on all possible applications with many different machine spindle connections.



(MQL) MINIMUM QUANTITY LUBRICANT

Minimum Quantity Lubricant (MQL) technology provides unmatched efficiency in coolant delivery. The system delivers coolant immediately upon start-up with consistent pressure, and the optimized sealed design provides a leak-free coolant stream.

Reduced coolant usage and coolant handling leads to a safer workplace, lower maintenance costs, and a smaller impact on the environment. MQL is available in Shrink Fit holders and Synchro Chuck holders.

ADVANTAGES

- More efficient coolant consumption
- Environmentally friendly
- Up to 100% increase in tool life
- Reduce coolant costs up to 19%

APPLICATIONS

- Perfect for any application where safer and more-efficient coolant usage is desired. Specific industries include Aerospace, Automotive, Die & Mold, Medical Equipment and more.



INDUCTION SHRINK-FIT SYSTEM

The finest shrink fit holders available. Precise manufacturing and our exclusive “counter bore” technology optimize the advantages of using shrink fit tooling. Combine the Bilz ThermoGrip holders with the Bilz ThermoGrip machines and you have the ultimate shrink fit system.

Bilz holders offer the best part finish quality, longer tool life, and higher feed rates and speeds. All of this is accomplished due to micrometer accuracy in runout, high cutting tool rigidity and extremely high clamping forces.

TOOL OPTIONS

- Standard chucks
- Slimline chucks
- Heavy duty (thick walled) chucks
- JetSleeve
- TER shrink-fit collets

APPLICATIONS

- Milling, drilling and reaming
- Milling and reaming on driven tooling
- Micro milling applications





CNC HOLDERS

Our CNC Holder line provides options for all industry-standard sizes and configurations for collet chucks, end mill holders, shell mill holders, hi-power milling chucks, and face mill holders.

Each product represents the latest technology, and reflects our commitment to quality and innovation. We also support our products with unmatched application expertise and customer service.

ADVANTAGES

- Latest tool holding technology
- Extensive product line
- Strong, high-quality products
- Very accurate and durable

APPLICATIONS

- CNC holders are used in a variety of industries including Aerospace, Automotive, Die & Mold, Medical Equipment and more.



FLOATING HOLDERS

Bilz Floating Holders enable the serial production of perfectly aligned reamed bores with the automatic centering of the reamer after every cycle, protecting the reamer from any side forces.

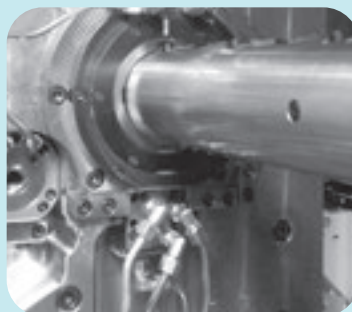
Our Floating Holders can be used horizontally or vertically and can be delivered with internal coolant supply and integrated length adjustment.

ADVANTAGES

- Axial float without play
- Maintenance free
- Adjustable centering
- High coolant pressure

APPLICATIONS

- Using reamer tools where the machining spindle and the bore in the workpiece are not 100% aligned.
- Used in transfer lines, lathes and custom machinery



SPECIAL TOOL HOLDERS

Our Specialty Holders represent a unique set of products that offer cost-effective capabilities you won't find from any other manufacturer. In fact, nearly all Special Holders can demonstrate a substantial cost savings when compared to other methods.

ADVANTAGES

- Expand your capabilities
- Make your spindle more productive
- Meet unique customer requirements
- Open a new range of potential

APPLICATIONS

- Specialty tool holders can be used to help machine unique profiles, provide critical part ID and marking, and even set and drive studs.



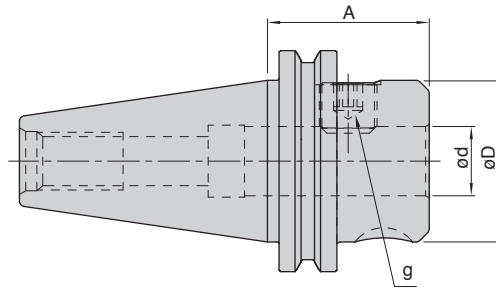
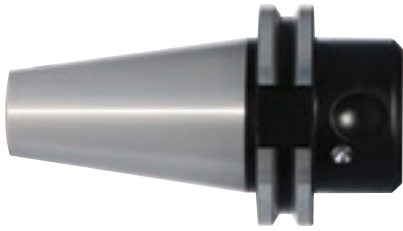
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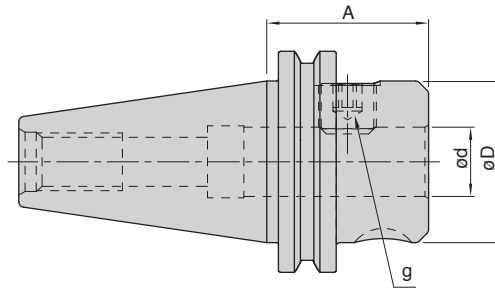
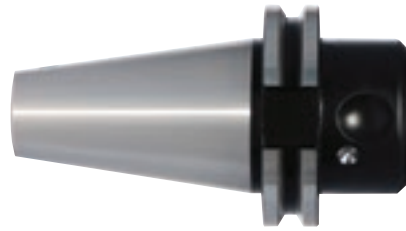
CNC HOLDERS

- Comprehensive range of Milling Chucks, ER Collet Chucks, End Mill Holders and Shell Mill Holders
- Close dimension control of products
- TIR of front end in relationship to taper, controlled within 3 microns for collet chucks and end mill holders
- BT (MAS 403), HSK (DIN69893), CAT (ANSI B50.50-1994) taper specifications
- All holders are dynamically balanced to G6.3 tolerances
- All tool holders have taper angle accuracy as per AT3 class / HSK holders meet AT2 class
- Form AD/B standard for all holders (DIN69871 B)
- Data chip hole as standard for all HSK taper holders
- Bore tolerance H4 as standard for all end mill holders
- Black oxide surface treatment on all non-contact surfaces for corrosion protection



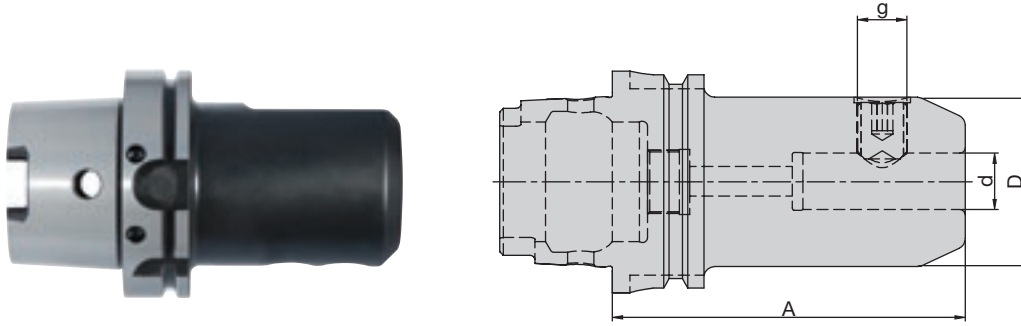


CAT40		Balanced to G6.3 @ 8,000 RPM				
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (mm)	A (inch)	g	
66651201M	WSLH/0.125"-1.38"/CAT40	0.125	17.5	1.38	6-32 UNC	Form "AD/B"
66651202M	WSLH/0.125"-4.50"/CAT40	0.125	17.5	4.50	6-32 UNC	Form "AD/B"
66651203M	WSLH/0.187"-1.38"/CAT40	0.187	17.5	1.38	8-32 UNC	Form "AD/B"
66651204M	WSLH/0.187"-2.50"/CAT40	0.187	17.5	2.50	8-32 UNC	Form "AD/B"
66651205M	WSLH/0.187"-4.50"/CAT40	0.187	17.5	4.50	8-32 UNC	Form "AD/B"
66651206M	WSLH/0.250"-1.38"/CAT40	0.250	19.8	1.38	1/4-28 UNF	Form "AD/B"
66651207M	WSLH/0.250"-2.50"/CAT40	0.250	19.8	2.50	1/4-28 UNF	Form "AD/B"
66651208M	WSLH/0.250"-4.50"/CAT40	0.250	19.8	4.50	1/4-28 UNF	Form "AD/B"
66651209M	WSLH/0.312"-1.38"/CAT40	0.312	25.4	1.38	5/16-24 UNF	Form "AD/B"
66651210M	WSLH/0.312"-2.50"/CAT40	0.312	25.4	2.50	5/16-24 UNF	Form "AD/B"
66651211M	WSLH/0.312"-4.50"/CAT40	0.312	25.4	4.50	5/16-24 UNF	Form "AD/B"
66651212M	WSLH/0.375"-1.38"/CAT40	0.375	25.4	1.38	3/8-24 UNF	Form "AD/B"
66651213M	WSLH/0.375"-2.50"/CAT40	0.375	25.4	2.50	3/8-24 UNF	Form "AD/B"
66651214M	WSLH/0.375"-4.50"/CAT40	0.375	25.4	4.50	3/8-24 UNF	Form "AD/B"
66651215M	WSLH/0.375"-6.50"/CAT40	0.375	25.4	6.50	3/8-24 UNF	Form "AD/B"
66651216M	WSLH/0.437"-1.75"/CAT40	0.437	35.1	1.75	7/16-20 UNF	Form "AD/B"
66651217M	WSLH/0.437"-4.50"/CAT40	0.437	35.1	4.50	7/16-20 UNF	Form "AD/B"
66651218M	WSLH/0.500"-1.75"/CAT40	0.500	35.1	1.75	7/16-20 UNF	Form "AD/B"
66651219M	WSLH/0.500"-2.62"/CAT40	0.500	35.1	2.62	7/16-20 UNF	Form "AD/B"
66651220M	WSLH/0.500"-4.62"/CAT40	0.500	35.1	4.62	7/16-20 UNF	Form "AD/B"
66651221M	WSLH/0.500"-6.62"/CAT40	0.500	35.1	6.62	7/16-20 UNF	Form "AD/B"
66651222M	WSLH/0.625"-1.75"/CAT40	0.625	38.1	1.75	1/2-20 UNF	Form "AD/B"
66651223M	WSLH/0.625"-3.75"/CAT40	0.625	38.1	3.75	1/2-20 UNF	Form "AD/B"
66651224M	WSLH/0.625"-5.75"/CAT40	0.625	38.1	5.75	1/2-20 UNF	Form "AD/B"
66651225M	WSLH/0.750"-1.75"/CAT40	0.750	44.5	1.75	5/8-18 UNF	Form "AD/B"
66651226M	WSLH/0.750"-3.75"/CAT40	0.750	44.5	3.75	5/8-18 UNF	Form "AD/B"
66651227M	WSLH/0.750"-5.75"/CAT40	0.750	44.5	5.75	5/8-18 UNF	Form "AD/B"
66651228M	WSLH/0.875"-1.75"/CAT40	0.875	50.8	1.75	5/8-18 UNF	Form "AD/B"
66651229M	WSLH/0.875"-4.00"/CAT40	0.875	50.8	4.00	5/8-18 UNF	Form "AD/B"
66651230M	WSLH/0.875"-6.00"/CAT40	0.875	50.8	6.00	5/8-18 UNF	Form "AD/B"
66651231M	WSLH/1.000"-1.75"/CAT40	1.000	50.8	1.75	3/4-16 UNF	Form "AD/B"
66651232M	WSLH/1.000"-4.00"/CAT40	1.000	50.8	4.00	3/4-16 UNF	Form "AD/B"
66651233M	WSLH/1.000"-6.00"/CAT40	1.000	50.8	6.00	3/4-16 UNF	Form "AD/B"
66651234M	WSLH/1.250"-2.00"/CAT40	1.250	63.5	2.00	3/4-16 UNF	Form "AD/B"
66651235M	WSLH/1.250"-4.25"/CAT40	1.250	63.5	4.25	3/4-16 UNF	Form "AD/B"
66651236M	WSLH/1.250"-6.25"/CAT40	1.250	63.5	6.25	3/4-16 UNF	Form "AD/B"
66651237M	WSLH/1.500"-4.62"/CAT40	1.500	69.9	4.62	3/4-16 UNF	Form "AD/B"
66651238M	WSLH/1.500"-6.62"/CAT40	1.500	69.9	6.62	3/4-16 UNF	Form "AD/B"



CAT50 **Balanced to G6.3 @ 8,000 RPM**

SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (mm)	A (inch)	g	
66651251M	WSLH/0.187"-2.50"/CAT50	0.187	17.5	2.50	8-32 UNC	Form "AD/B"
66651252M	WSLH/0.187"-4.50"/CAT50	0.187	17.5	4.50	8-32 UNC	Form "AD/B"
66651254M	WSLH/0.250"-2.50"/CAT50	0.250	19.8	2.50	1/4-28 UNF	Form "AD/B"
66651255M	WSLH/0.250"-4.50"/CAT50	0.250	19.8	4.50	1/4-28 UNF	Form "AD/B"
66651256M	WSLH/0.250"-6.50"/CAT50	0.250	19.8	6.50	1/4-28 UNF	Form "AD/B"
66651257M	WSLH/0.312"-2.50"/CAT50	0.312	25.4	2.50	5/16-24 UNF	Form "AD/B"
66651258M	WSLH/0.312"-4.50"/CAT50	0.312	25.4	4.50	5/16-24 UNF	Form "AD/B"
66651260M	WSLH/0.375"-2.50"/CAT50	0.375	25.4	2.50	3/8-24 UNF	Form "AD/B"
66651261M	WSLH/0.375"-4.50"/CAT50	0.375	25.4	4.50	3/8-24 UNF	Form "AD/B"
66651262M	WSLH/0.375"-6.50"/CAT50	0.375	25.4	6.50	3/8-24 UNF	Form "AD/B"
66651264M	WSLH/0.437"-2.50"/CAT50	0.437	35.1	2.50	7/16-20 UNF	Form "AD/B"
66651265M	WSLH/0.500"-2.62"/CAT50	0.500	35.1	2.62	7/16-20 UNF	Form "AD/B"
66651266M	WSLH/0.500"-4.62"/CAT50	0.500	35.1	4.62	7/16-20 UNF	Form "AD/B"
66651267M	WSLH/0.500"-6.62"/CAT50	0.500	35.1	6.62	7/16-20 UNF	Form "AD/B"
66651268M	WSLH/0.500"-8.50"/CAT50	0.500	35.1	8.50	7/16-20 UNF	Form "AD/B"
66651269M	WSLH/0.625"-3.75"/CAT50	0.625	38.1	3.75	1/2-20 UNF	Form "AD/B"
66651270M	WSLH/0.625"-5.75"/CAT50	0.625	38.1	5.75	1/2-20 UNF	Form "AD/B"
66651271M	WSLH/0.625"-7.75"/CAT50	0.625	38.1	7.75	1/2-20 UNF	Form "AD/B"
66651272M	WSLH/0.750"-3.75"/CAT50	0.750	44.5	3.75	5/8-18 UNF	Form "AD/B"
66651273M	WSLH/0.750"-5.75"/CAT50	0.750	44.5	5.75	5/8-18 UNF	Form "AD/B"
66651274M	WSLH/0.750"-7.75"/CAT50	0.750	44.5	7.75	5/8-18 UNF	Form "AD/B"
66651275M	WSLH/0.750"-10.00"/CAT50	0.750	44.5	10.00	5/8-18 UNF	Form "AD/B"
66651276M	WSLH/0.875"-3.75"/CAT50	0.875	50.8	3.75	5/8-18 UNF	Form "AD/B"
66651279M	WSLH/1.000"-4.00"/CAT50	1.000	50.8	4.00	3/4-16 UNF	Form "AD/B"
66651280M	WSLH/1.000"-6.00"/CAT50	1.000	50.8	6.00	3/4-16 UNF	Form "AD/B"
66651281M	WSLH/1.000"-8.00"/CAT50	1.000	50.8	8.00	3/4-16 UNF	Form "AD/B"
66651282M	WSLH/1.000"-10.00"/CAT50	1.000	50.8	10.00	3/4-16 UNF	Form "AD/B"
66651283M	WSLH/1.250"-4.00"/CAT50	1.250	63.5	4.00	3/4-16 UNF	Form "AD/B"
66651284M	WSLH/1.250"-6.00"/CAT50	1.250	63.5	6.00	3/4-16 UNF	Form "AD/B"
66651285M	WSLH/1.250"-8.00"/CAT50	1.250	63.5	8.00	3/4-16 UNF	Form "AD/B"
66651286M	WSLH/1.250"-10.00"/CAT50	1.250	63.5	10.00	3/4-16 UNF	Form "AD/B"
66651287M	WSLH/1.500"-4.00"/CAT50	1.500	69.9	4.00	3/4-16 UNF	Form "AD/B"
66651288M	WSLH/1.500"-6.00"/CAT50	1.500	69.9	6.00	3/4-16 UNF	Form "AD/B"
66651289M	WSLH/1.500"-8.00"/CAT50	1.500	69.9	8.00	3/4-16 UNF	Form "AD/B"
66651290M	WSLH/2.000"-5.62"/CAT50	2.000	95.3	5.62	1-14 UNS	Form "AD/B"
66651291M	WSLH/2.000"-9.62"/CAT50	2.000	95.3	9.62	1-14 UNS	Form "AD/B"



HSK-A63 End Mill Holders with Weldon Notch DIN1835-B **Balanced to G6.3 @ 20,000 RPM**

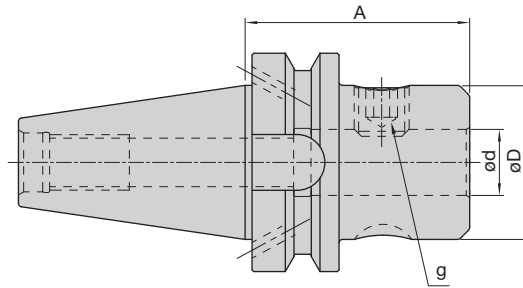
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (inch)	A (inch)	g	
66652161M	WSLH/0.250"-3.94"/HSK-A63	0.250	1.00	3.94	1/4-28UNF	Form "AD"
66652162M	WSLH/0.375"-3.94"/HSK-A63	0.375	1.10	3.94	3/8-24UNF	Form "AD"
66652163M	WSLH/0.500"-3.94"/HSK-A63	0.500	1.65	3.94	7/16-20UNF	Form "AD"
66652164M	WSLH/0.625"-3.94"/HSK-A63	0.625	1.89	3.94	1/2-20UNF	Form "AD"
66652165M	WSLH/0.750"-3.94"/HSK-A63	0.750	2.05	3.94	5/8-18UNF	Form "AD"
66652166M	WSLH/1.00"-4.33"/HSK-A63	1.000	2.60	4.33	3/4-16UNF	Form "AD"
66652167M	WSLH/1.250"-4.33"/HSK-A63	1.250	2.83	4.33	3/4-16UNF	Form "AD"

For HSK coolant tubes, see page 32.
 For coolant tube wrenches see page 33.

HSK-A100 End Mill Holders with Weldon Notch DIN1835-B **Balanced to G6.3 @ 20,000 RPM**

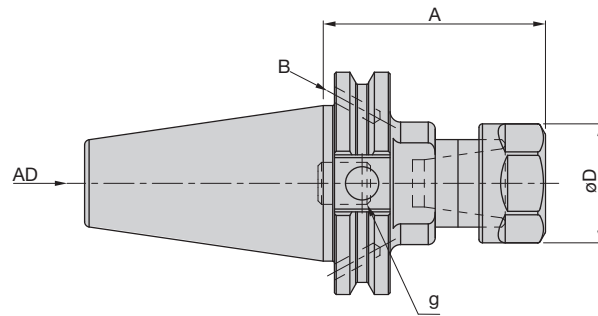
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (inch)	A (inch)	g	
66652171M	WSLH/0.250"-3.15"/HSK-A100	0.250	0.78	3.15"	1/4-28UNF-8	Form "AD"
66652181M	WSLH/0.312"-3.15"/HSK-A100	0.312	1.00	3.15"	5/16-24UNF-10	Form "AD"
66652172M	WSLH/0.375"-3.15"/HSK-A100	0.375	1.00	3.15"	3/8-24UNF-9	Form "AD"
66652173M	WSLH/0.500"-3.15"/HSK-A100	0.500	1.38	3.15"	7/16-20UNF-12	Form "AD"
66652174M	WSLH/0.625"-3.94"/HSK-A100	0.625	1.50	3.94"	1/2-20UNF-14	Form "AD"
66652175M	WSLH/0.750"-3.94"/HSK-A100	0.750	1.75	3.94"	5/8-18UNF-14	Form "AD"
66652176M	WSLH/1.000"-3.94"/HSK-A100	1.000	2.00	3.94"	3/4-16UNF-14	Form "AD"
66652177M	WSLH/1.250"-3.94"/HSK-A100	1.250	2.50	3.94"	3/4-16UNF-14	Form "AD"

For HSK coolant tubes, see page 32.
 For coolant tube wrenches see page 33.



BT30		Balanced to G6.3 @ 8,000 RPM				
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (mm)	A (inch)	g	
66651311M	WSLH/0.125"-2.36"/BT30	0.125	17.5	2.36	6-32 UNC	Form "AD"
66651312M	WSLH/0.188"-2.36"/BT30	0.187	17.5	2.36	8-32 UNC	Form "AD"
66651313M	WSLH/0.250"-2.36"/BT30	0.250	19.8	2.36	1/4-28 UNF	Form "AD"
66651314M	WSLH/0.312"-2.36"/BT30	0.312	25.4	2.36	5/16-24 UNF	Form "AD"
66651315M	WSLH/0.375"-2.36"/BT30	0.375	25.4	2.36	3/8-24 UNF	Form "AD"
66651316M	WSLH/0.500"-2.36"/BT30	0.500	35.1	2.36	7/16-20 UNF	Form "AD"
66651317M	WSLH/0.625"-2.36"/BT30	0.625	38.1	2.36	1/2-20 UNF	Form "AD"
66651318M	WSLH/0.750"-2.36"/BT30	0.750	44.5	2.36	5/8-18 UNF	Form "AD"

BT40		Balanced to G6.3 @ 8,000 RPM				
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (mm)	A (inch)	g	
66651331M	WSLH/0.250"-2.55"/BT40	0.250	19.8	2.55	1/4-28 UNF	Form "AD/B"
66651332M	WSLH/0.312"-2.55"/BT40	0.312	25.4	2.55	5/16-24 UNF	Form "AD/B"
66651333M	WSLH/0.375"-2.55"/BT40	0.375	25.4	2.55	3/8-24 UNF	Form "AD/B"
66651334M	WSLH/0.500"-2.55"/BT40	0.500	35.1	2.55	7/16-20 UNF	Form "AD/B"
66651335M	WSLH/0.500"-4.00"/BT40	0.500	35.1	4.00	7/16-20 UNF	Form "AD/B"
66651336M	WSLH/0.625"-2.55"/BT40	0.625	38.1	2.55	1/2-20 UNF	Form "AD/B"
66651337M	WSLH/0.750"-2.55"/BT40	0.750	44.5	2.55	5/8-18 UNF	Form "AD/B"
66651338M	WSLH/0.875"-3.35"/BT40	0.875	50.8	3.35	5/8-18 UNF	Form "AD/B"
66651339M	WSLH/1.000"-3.74"/BT40	1.000	50.8	3.74	3/4-16 UNF	Form "AD/B"
66651340M	WSLH/1.000"-5.00"/BT40	1.000	50.8	5.00	3/4-16 UNF	Form "AD/B"
66651341M	WSLH/1.250"-3.35"/BT40	1.250	63.5	3.35	3/4-16 UNF	Form "AD/B"

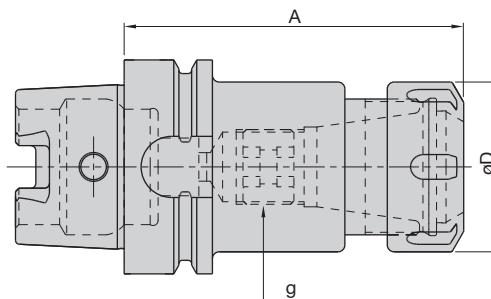


CAT40		Balanced to G6.3 @ 20,000 RPM						
SAP No.	Designation	Dimensions						Coolant Supply
		Collet Type	Range (mm)	D (mm)	A (mm)	A (inch)	g	
66651351M	WCCH/ER16-2.50"/CAT40	ER16	1-10	28	63.5	2.50	M10	Form "AD/B"
66651352M	WCCH/ER16-5.00"/CAT40	ER16	1-10	28	127.0	5.00	M10	Form "AD/B"
66651353M	WCCH/ER20-2.50"/CAT40	ER20	1-13	34	63.5	2.50	M12	Form "AD/B"
66651361M	WCCH/ER20-4.00"/CAT40	ER20	1-13	34	101.6	4.00	M12	Form "AD/B"
66651354M	WCCH/ER20-6.00"/CAT40	ER20	1-13	34	152.4	6.00	M12	Form "AD/B"
66651355M	WCCH/ER25-2.50"/CAT40	ER25	2-16	42	63.5	2.50	M16	Form "AD/B"
66651362M	WCCH/ER25-4.00"/CAT40	ER25	2-16	42	101.6	4.00	M16	Form "AD/B"
66651356M	WCCH/ER25-6.00"/CAT40	ER25	2-16	42	152.4	6.00	M16	Form "AD/B"
66651357M	WCCH/ER32-2.75"/CAT40	ER32	2-20	50	69.9	2.75	M22x1.5	Form "AD/B"
66651363M	WCCH/ER32-4.00"/CAT40	ER32	2-20	50	101.6	4.00	M22x1.5	Form "AD/B"
66651358M	WCCH/ER32-6.00"/CAT40	ER32	2-20	50	152.4	6.00	M22x1.5	Form "AD/B"
66651359M	WCCH/ER40-3.00"/CAT40	ER40	3-26	63	76.2	3.00	M22x1.5	Form "AD/B"
66651364M	WCCH/ER40-4.00"/CAT40	ER40	3-26	63	101.6	4.00	M22x1.5	Form "AD/B"
66651360M	WCCH/ER40-6.00"/CAT40	ER40	3-26	63	152.4	6.00	M22x1.5	Form "AD/B"

For collets, see pages 13-15.
 For ER collet nuts and seal discs, see pages 26-30.
 For wrenches, see page 33.

CAT50		Balanced to G6.3 @ 20,000 RPM						
SAP No.	Designation	Dimensions						Coolant Supply
		Collet Type	Range (mm)	D (mm)	A (mm)	A (inch)	g	
66651366M	WCCH/ER16-2.50"/CAT50	ER16	1-10	28	63.5	2.50	M10	Form "AD/B"
66651367M	WCCH/ER16-4.00"/CAT50	ER16	1-10	28	101.6	4.00	M10	Form "AD/B"
66651368M	WCCH/ER16-6.00"/CAT40	ER16	1-10	28	152.4	6.00	M10	Form "AD/B"
66651369M	WCCH/ER20-2.50"/CAT50	ER20	1-13	34	63.5	2.50	M12	Form "AD/B"
66651370M	WCCH/ER20-4.00"/CAT50	ER20	1-13	34	101.6	4.00	M12	Form "AD/B"
66651371M	WCCH/ER20-6.00"/CAT50	ER20	1-13	34	152.4	6.00	M12	Form "AD/B"
66651372M	WCCH/ER25-2.50"/CAT50	ER25	2-16	42	63.5	2.50	M16	Form "AD/B"
66651373M	WCCH/ER25-4.00"/CAT50	ER25	2-16	42	101.6	4.00	M16	Form "AD/B"
66651374M	WCCH/ER25-6.00"/CAT50	ER25	2-16	42	152.4	6.00	M16	Form "AD/B"
66651375M	WCCH/ER32-2.75"/CAT50	ER32	2-20	50	69.9	2.75	M22x1.5	Form "AD/B"
66651376M	WCCH/ER32-4.00"/CAT50	ER32	2-20	50	101.6	4.00	M22x1.5	Form "AD/B"
66651377M	WCCH/ER32-6.00"/CAT50	ER32	2-20	50	152.4	6.00	M22x1.5	Form "AD/B"
66651378M	WCCH/ER40-3.00"/CAT50	ER40	3-26	63	76.2	3.00	M22x1.5	Form "AD/B"
66651379M	WCCH/ER40-4.00"/CAT50	ER40	3-26	63	101.6	4.00	M22x1.5	Form "AD/B"
66651380M	WCCH/ER40-6.00"/CAT50	ER40	3-26	63	152.4	6.00	M22x1.5	Form "AD/B"

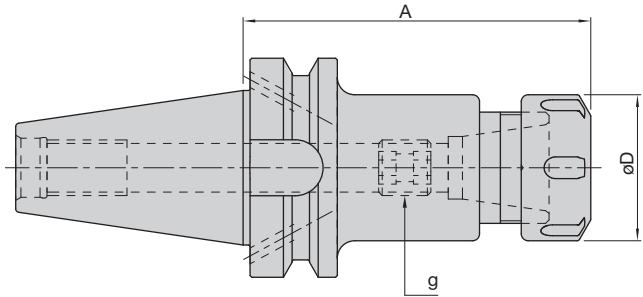
For collets, see pages 13-15.
 For ER collet nuts and seal discs, see pages 26-30.
 For wrenches, see page 33.



HSK ER Collet Chuck Holders Balanced to G6.3 @ 20,000 RPM

SAP No.	Designation	Collet Type	Range (mm)	Dimensions				Coolant Supply	
				D (mm)	A (mm)	A (inch)	g		
HSK-A32									
66611260M	WCCH/ER16M-65/HSK-A32	ER16M	1-10	22	65	2.56	M10	Form "AD"	
66611516M	WCCH/ER20M-70/HSK-A32	ER20M	1-13	28	70	2.76	M12	Form "AD"	
66611261M	WCCH/ER25M-70/HSK-A32	ER25M	2-16	35	70	2.76	M10	Form "AD"	
HSK-A40									
66611262M	WCCH/ER16M-70/HSK-A40	ER16M	1-10	22	70	2.76	M10	Form "AD"	
66611517M	WCCH/ER20-80/HSK-A40	ER20	1-13	34	80	3.15	M12	Form "AD"	
66611263M	WCCH/ER25-80/HSK-A40	ER25	2-16	42	80	3.15	M16	Form "AD"	
66611264M	WCCH/ER32-100/HSK-A40	ER32	2-20	50	100	3.94	M22X1.5	Form "AD"	
HSK-A50									
66611265M	WCCH-ER16M-80/HSK-A50	ER16M	1-10	22	80	3.15	M10	Form "AD"	
66611519M	WCCH/ER20-95/HSK-A50	ER20	1-13	34	95	3.74	M12	Form "AD"	
66611266M	WCCH/ER25-95/HSK-A50	ER25	2-16	42	95	3.74	M16	Form "AD"	
66611267M	WCCH/ER32-100/HSK-A50	ER32	2-20	50	100	3.94	M22X1.5	Form "AD"	
HSK-A63									
66661459M	WCCH/ER16M-100/HSK-A63	ER16	1-10	28	100	3.94	M10	Form "AD"	
66611268M	WCCH/ER16M-160/HSK-A63	ER16	1-10	28	160	6.3	M10	Form "AD"	
66611520M	WCCH/ER20-100/HSK-A63	ER20	1-13	34	100	3.94	M12	Form "AD"	
66611521M	WCCH/ER20M-160/HSK-A63	ER20	1-13	34	160	6.3	M12	Form "AD"	
66661118M	WCCH/ER25-100/HSK-A63	ER25	2-16	42	100	3.94	M16	Form "AD"	
66661460M	WCCH/ER25M-160/HSK-A63	ER25	2-16	42	160	6.3	M16	Form "AD"	
66661120M	WCCH/ER32-100/HSK-A63	ER32	2-20	50	100	3.94	M22x1.5	Form "AD"	
66661121M	WCCH/ER32-160/HSK-A63	ER32	2-20	50	160	6.3	M22x1.5	Form "AD"	
66661122M	WCCH/ER40-120/HSK-A63	ER40	3-26	63	120	4.72	M22x1.5	Form "AD"	
66661123M	WCCH/ER40-160/HSK-A63	ER40	3-26	63	160	6.3	M22x1.5	Form "AD"	
HSK-A100									
33383701M	WCCH/ER16M-100/HSK-A100	ER16M	1-10	22	100	3.94	M10	Form "AD"	
66611522M	WCCH/ER20-100/HSK-A100	ER20	1-13	34	100	3.94	M12	Form "AD"	
66661126M	WCCH/ER25-100/HSK-A100	ER25	2-16	42	100	3.94	M16	Form "AD"	
66661127M	WCCH/ER32-100/HSK-A100	ER32	2-20	50	100	3.94	M22X1.5	Form "AD"	
66661128M	WCCH/ER40-120/HSK-A100	ER40	3-26	63	120	4.72	M22x1.5	Form "AD"	
33383667M	WCCH/ER16M-160/HSK-A100	ER16M	1-10	22	160	6.3	M10	Form "AD"	
66611523M	WCCH/ER20-160/HSK-A100	ER20	1-13	34	160	6.3	M12	Form "AD"	
66611257M	WCCH/ER25-160/HSK-A100	ER25	2-16	42	160	6.3	M16	Form "AD"	
66611258M	WCCH/ER32-160/HSK-A100	ER32	2-20	50	160	6.3	M22X1.5	Form "AD"	
66611259M	WCCH/ER40-160/HSK-A100	ER40	3-26	63	160	6.3	M22x1.5	Form "AD"	

For collets, see pages 13-15.
 For ER collet nuts and seal discs, see pages 26-30.
 For coolant tubes, see page 32.
 For coolant tube wrenches, see page 33.

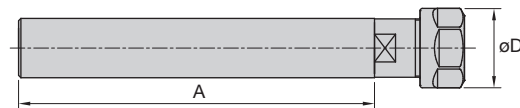


ER Collet Chucks Balanced to G6.3 @ 20,000 RPM

SAP No.	Designation	Collet Type	Range (mm)	Dimensions				Coolant Supply
				D (mm)	A (mm)	A (inch)	g	
BT30								
66611163M	WCCH/ER16-100/BT30	ER16	1-10	28	100	3.94	M10	Form "AD"
66651392M	WCCH/ER16-150/BT30	ER16	1-10	28	150	5.90	M10	Form "AD"
66611162M	WCCH/ER16-70/BT30	ER16	1-10	28	70	2.76	M10	Form "AD"
66611508M	WCCH/ER20-100/BT30	ER20	1-13	34	100	3.94	M12	Form "AD"
66611507M	WCCH/ER20-70/BT30	ER20	1-13	34	70	2.76	M12	Form "AD"
66611180M	WCCH/ER25-100/BT30	ER25	2-16	42	100	3.94	M12	Form "AD"
66611164M	WCCH/ER25-70/BT30	ER25	2-16	42	70	2.76	M12	Form "AD"
66651395M	WCCH/ER32-100/BT30	ER32	2-20	50	100	3.94	M22x1.5	Form "AD"
66611165M	WCCH/ER32-70/BT30	ER32	2-20	50	70	2.76	M12	Form "AD"
66651396M	WCCH/ER40-100/BT30	ER40	3-26	63	100	3.89	M22x1.5	Form "AD"
BT40								
66611168M	WCCH/ER16-100/BT40	ER16	1-10	28	100	3.94	M10	Form "AD/B"
66611169M	WCCH/ER16-160/BT40	ER16	1-10	28	160	6.30	M10	Form "AD/B"
66611253M	WCCH/ER16-70/BT40	ER16	1-10	28	70	2.76	M10	Form "AD/B"
66611510M	WCCH/ER20-100/BT40	ER20	1-13	34	100	3.94	M12	Form "AD/B"
66611511M	WCCH/ER20-160/BT40	ER20	1-13	34	160	6.30	M12	Form "AD/B"
66611509M	WCCH/ER20-70/BT40	ER20	1-13	34	70	2.76	M12	Form "AD/B"
66611182M	WCCH/ER25-100/BT40	ER25	2-16	42	100	3.94	M16	Form "AD/B"
66611270M	WCCH/ER25-160/BT40	ER25	2-16	42	160	6.30	M16	Form "AD/B"
66611199M	WCCH/ER25-70/BT40	ER25	2-16	42	70	2.76	M16	Form "AD/B"
66611172M	WCCH/ER32-100/BT40	ER32	2-20	50	100	3.94	M22x1.5	Form "AD/B"
66611271M	WCCH/ER32-160/BT40	ER32	2-20	50	160	6.30	M22x1.5	Form "AD/B"
66611171M	WCCH/ER32-70/BT40	ER32	2-20	50	70	2.76	M22x1.5	Form "AD/B"
66611269M	WCCH/ER40-100/BT40	ER40	3-26	63	100	3.94	M22x1.5	Form "AD/B"
66611272M	WCCH/ER40-160/BT40	ER40	3-26	63	160	6.30	M22x1.5	Form "AD/B"
66611173M	WCCH/ER40-80/BT40	ER40	3-26	63	80	3.15	M22x1.5	Form "AD/B"

For wrenches, see page 33.

Collet Extension | ER Collet Chucks

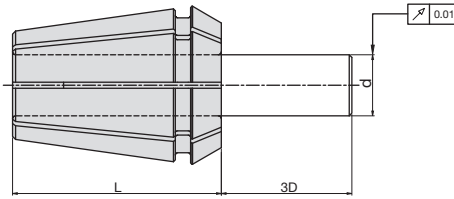


Collet Extension

SAP No.	Designation	Collet Type	Range (mm)	Dimensions		Length Adjustment Screw	Coolant Supply
				D (mm)	A (inch)		
66652151M	WCCH/ER16-6.00"/CYL0.50	ER16	1-10	28	1/2 x 6.00	M10	COOL-THRU
66652152M	WCCH/ER16-6.00"/CYL0.75	ER16	1-10	28	3/4 x 6.00	M10	COOL-THRU
66652153M	WCCH/ER20-6.00"/CYL0.75	ER20	1-13	34	3/4 x 6.00	M12	COOL-THRU
66652154M	WCCH/ER20-6.00"/CYL1.00	ER20	1-13	34	1 x 6.00	M12	COOL-THRU
66652155M	WCCH/ER25-6.00"/CYL0.75	ER25	2-16	42	3/4 x 6.00	M16	COOL-THRU
66652156M	WCCH/ER25-6.00"/CYL1.00	ER25	2-16	42	1 X 6.00	M16	COOL-THRU
66652157M	WCCH/ER32-6.00"/CYL1.00	ER32	2-20	50	1 x 6.00	M22x1.5	COOL-THRU
66652158M	WCCH/ER32-6.00"/CYL1.25	ER32	2-20	50	1-1/4 x 6.00	M22x1.5	COOL-THRU
66652159M	WCCH/ER40-6.00"/CYL1.25	ER40	3-26	63	1-1/4 x 6.00	M22x1.5	COOL-THRU

For wrenches, see page 33.

For length adjustment screws, see page 32.

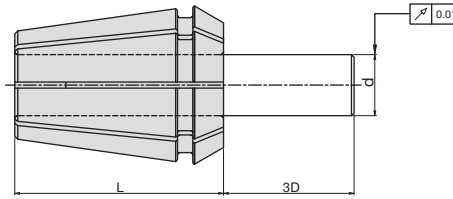
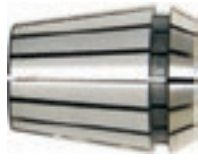


Spring Collets ER16 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1116.01000	66691171M	ER16-1.0	17	27	1.0-0.5
1116.01500		ER16-1.5	17	27	1.5-1.0
1116.02000	66691172M	ER16-2.0	17	27	2.0-1.5
1116.02500		ER16-2.5	17	27	2.5-2.0
1116.03000	66691173M	ER16-3.0	17	27	3.0-2.5
1116.03500		ER16-3.5	17	27	3.5-3.0
1116.04000	66691174M	ER16-4.0	17	27	4.0-3.5
1116.04500		ER16-4.5	17	27	4.5-4.0
1116.05000	66691175M	ER16-5.0	17	27	5.0-4.5
1116.05500		ER16-5.5	17	27	5.5-5.0
1116.06000	66691176M	ER16-6.0	17	27	6.0-5.5
1116.06500		ER16-6.5	17	27	6.5-6.0
1116.07000	66691177M	ER16-7.0	17	27	7.0-6.5
1116.07500		ER16-7.5	17	27	7.5-7.0
1116.08000	66691178M	ER16-8.0	17	27	8.0-7.5
1116.08500		ER16-8.5	17	27	8.5-8.0
1116.09000	66691179M	ER16-9.0	17	27	9.0-8.5
1116.09500		ER16-9.5	17	27	9.5-9.0
1116.10000	66691180M	ER16-10.0	17	27	10.0-9.5
1116.00000	-	ER16 10pc. Collet Set	-	-	-

Spring Collets ER20 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1120.01000	66692101M	ER20-1.0	21	31	1.0-0.5
1120.02000	66692102M	ER20-2.0	21	31	2.0-1.5
1120.03000	66692103M	ER20-3.0	21	31	3.0-2.5
1120.04000	66692104M	ER20-4.0	21	31	4.0-3.5
1120.05000	66692105M	ER20-5.0	21	31	5.0-4.5
1120.06000	66692106M	ER20-6.0	21	31	6.0-5.5
1120.07000	66692107M	ER20-7.0	21	31	7.0-6.5
1120.08000	66692108M	ER20-8.0	21	31	8.0-7.5
1120.09000	66692109M	ER20-9.0	21	31	9.0-8.5
1120.10000	66692110M	ER20-10.0	21	31	10.0-9.5
1120.11000	66692111M	ER20-11.0	21	31	11.0-10.5
1120.12000	66692112M	ER20-12.0	21	31	12.0-11.5
1120.13000	66692113M	ER20-13.0	21	31	13.0-12.5
1120.00000	-	ER20 12pc. Collet Set	-	-	-

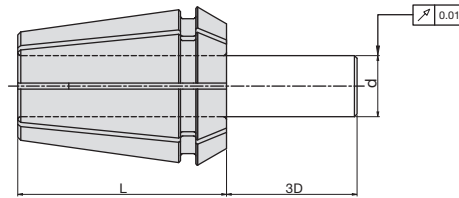
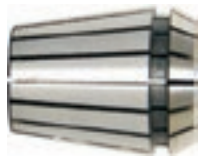
Spring Collets ER25 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1125.02000	66691181M	ER25-2.0	26	35	2.0-1.5
1125.03000	66691182M	ER25-3.0	26	35	3.0-2.5
1125.04000	66691183M	ER25-4.0	26	35	4.0-3.5
1125.05000	66691184M	ER25-5.0	26	35	5.0-4.5
1125.06000	66691285M	ER25-6.0	26	35	6.0-5.5
1125.07000	66691286M	ER25-7.0	26	35	7.0-6.5
1125.08000	66691287M	ER25-8.0	26	35	8.0-7.5
1125.09000	66691288M	ER25-9.0	26	35	9.0-8.5
1125.10000	66691289M	ER25-10.0	26	35	10.0-9.5
1125.11000	66691290M	ER25-11.0	26	35	11.0-10.5
1125.12000	66691291M	ER25-12.0	26	35	12.0-11.5
1125.13000	66691292M	ER25-13.0	26	35	13.0-12.5
1125.14000	66691293M	ER25-14.0	26	35	14.0-13.5
1125.15000	66691294M	ER25-15.0	26	35	15.0-14.5
1125.16000	66691295M	ER25-16.0	26	35	16.0-15.5
1125.00000	-	ER25 15pc. Collet Set	-	-	-

Spring Collets ER32 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1132.02000	66691196M	ER32-2.0	33	40	2.0-1.5
1132.03000	66691197M	ER32-3.0	33	40	3.0-2.5
1132.04000	66691198M	ER32-4.0	33	40	4.0-3.5
1132.05000	66691199M	ER32-5.0	33	40	5.0-4.5
1132.06000	66691200M	ER32-6.0	33	40	6.0-5.5
1132.07000	66691201M	ER32-7.0	33	40	7.0-6.5
1132.08000	66691202M	ER32-8.0	33	40	8.0-7.5
1132.09000	66691203M	ER32-9.0	33	40	9.0-8.5
1132.10000	66691204M	ER32-10.0	33	40	10.0-9.5
1132.11000	66691205M	ER32-11.0	33	40	11.0-10.5
1132.12000	66691206M	ER32-12.0	33	40	12.0-11.5
1132.13000	66691207M	ER32-13.0	33	40	13.0-12.5
1132.14000	66691208M	ER32-14.0	33	40	14.0-13.5
1132.15000	66691209M	ER32-15.0	33	40	15.0-14.5
1132.16000	66691210M	ER32-16.0	33	40	16.0-15.5
1132.17000	66691211M	ER32-17.0	33	40	17.0-16.5
1132.18000	66691212M	ER32-18.0	33	40	18.0-17.5
1132.19000	66691213M	ER32-19.0	33	40	19.0-18.5
1132.20000	66691214M	ER32-20.0	33	40	20.0-19.5
1132.00000	-	ER32 18pc. Collet Set	-	-	-



Spring Collets ER40 (Metric)

Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1140.03000	66691215M	ER40-3.0	41	46	3.0-2.5
1140.04000	66691216M	ER40-4.0	41	46	4.0-3.5
1140.05000	66691217M	ER40-5.0	41	46	5.0-4.5
1140.06000	66691218M	ER40-6.0	41	46	6.0-5.5
1140.07000	66691219M	ER40-7.0	41	46	7.0-6.5
1140.08000	66691220M	ER40-8.0	41	46	8.0-7.5
1140.09000	66691221M	ER40-9.0	41	46	9.0-8.5
1140.10000	66691222M	ER40-10.0	41	46	10.0-9.5
1140.11000	66691223M	ER40-11.0	41	46	11.0-10.5
1140.12000	66691224M	ER40-12.0	41	46	12.0-11.5
1140.13000	66691225M	ER40-13.0	41	46	13.0-12.5
1140.14000	66691226M	ER40-14.0	41	46	14.0-13.5
1140.15000	66691227M	ER40-15.0	41	46	15.0-14.5
1140.16000	66691228M	ER40-16.0	41	46	16.0-15.5
1140.17000	66691229M	ER40-17.0	41	46	17.0-16.5
1140.18000	66691230M	ER40-18.0	41	46	18.0-17.5
1140.19000	66691231M	ER40-19.0	41	46	19.0-18.5
1140.20000	66691232M	ER40-20.0	41	46	20.0-19.5
1140.21000	66691233M	ER40-21.0	41	46	21.0-20.5
1140.22000	66691234M	ER40-22.0	41	46	22.0-21.5
1140.23000	66691235M	ER40-23.0	41	46	23.0-22.5
1140.24000	66691236M	ER40-24.0	41	46	24.0-23.5
1140.25000	66691237M	ER40-25.0	41	46	25.0-24.5
1140.26000	66691238M	ER40-26.0	41	46	26.0-25.5
1140.00000	-	ER40 23pc. Collet Set	-	-	-



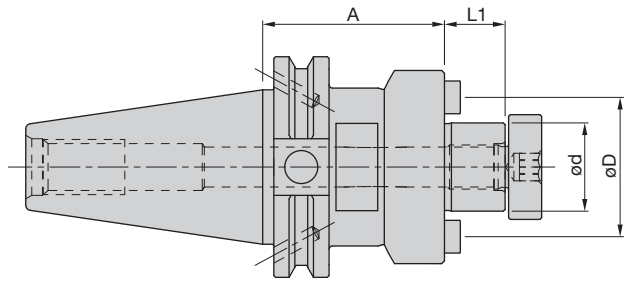
Spring Collets ER16 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1116.01592	66692200M	ER16-1/16"	0.669	1.063	0.043-0.062
1116.02382	66692201M	ER16-3/32"	0.669	1.063	0.054-0.093
1116.03182	66692202M	ER16-1/8"	0.669	1.063	0.086-0.125
1116.03972	66692203M	ER16-5/32"	0.669	1.063	0.117-0.156
1116.04762	66692204M	ER16-3/16"	0.669	1.063	0.148-0.187
1116.05562	66692205M	ER16-7/32"	0.669	1.063	0.179-0.218
1116.06352	66692206M	ER16-1/4"	0.669	1.063	0.211-0.250
1116.07142	66692207M	ER16-9/32"	0.669	1.063	0.242-0.281
1116.07942	66692208M	ER16-5/16"	0.669	1.063	0.273-0.312
1116.08732	66692209M	ER16-11/32"	0.669	1.063	0.304-0.343
1116.09532	66692210M	ER16-3/8"	0.669	1.063	0.336-0.375
1116.10322	66692211M	ER16-13/32"	0.669	1.063	0.367-0.406
1116.00002	-	ER16 12pc. Collet Set	-	-	-

Spring Collets ER32 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1132.03182	66692246M	ER32-1/8"	1.299	1.575	0.086-0.125
1132.04762	66692248M	ER32-3/16"	1.299	1.575	0.148-0.187
1132.06352	66692250M	ER32-1/4"	1.299	1.575	0.211-0.250
1132.07942	66692252M	ER32-5/16"	1.299	1.575	0.273-0.312
1132.09532	66692254M	ER32-3/8"	1.299	1.575	0.336-0.375
1132.11112	66692256M	ER32-7/16"	1.299	1.575	0.398-0.437
1132.12702	66692258M	ER32-1/2"	1.299	1.575	0.461-0.500
1132.14292	66692260M	ER32-9/16"	1.299	1.575	0.523-0.562
1132.15882	66692262M	ER32-5/8"	1.299	1.575	0.586-0.625
1132.17462	66692264M	ER32-11/16"	1.299	1.575	0.648-0.687
1132.19052	66692266M	ER32-3/4"	1.299	1.575	0.711-0.750
1132.00002	-	ER32 12pc Collet Set	-	-	-

Spring Collets ER20 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1120.03182	66692214M	ER20-1/8"	0.827	1.22	0.086-0.125
1120.04762	66692216M	ER20-3/16"	0.827	1.22	0.148-0.187
1120.06352	66692218M	ER20-1/4"	0.827	1.22	0.211-0.250
1120.07942	66692220M	ER20-5/16"	0.827	1.22	0.273-0.312
1120.09532	66692222M	ER20-3/8"	0.827	1.22	0.336-0.375
1120.11112	66692224M	ER20-7/16"	0.827	1.22	0.398-0.437
1120.12702	66692226M	ER20-1/2"	0.827	1.22	0.461-0.500
1120.00002	-	ER20 7pc. Collet Set	-	-	-

Spring Collets ER40 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1140.03182	66692267M	ER40-1/8"	1.614	1.811	0.086-0.125
1140.04762	66692269M	ER40-3/16"	1.614	1.811	0.148-0.187
1140.06352	66692271M	ER40-1/4"	1.614	1.811	0.211-0.250
1140.07942	66692273M	ER40-5/16"	1.614	1.811	0.273-0.312
1140.09532	66692275M	ER40-3/8"	1.614	1.811	0.336-0.375
1140.11112	66692277M	ER40-7/16"	1.614	1.811	0.398-0.437
1140.12702	66692279M	ER40-1/2"	1.614	1.811	0.461-0.500
1140.14292	66692281M	ER40-9/16"	1.614	1.811	0.523-0.562
1140.15882	66692283M	ER40-5/8"	1.614	1.811	0.586-0.625
1140.17462	66692285M	ER40-11/16"	1.614	1.811	0.648-0.687
1140.19052	66692287M	ER40-3/4"	1.614	1.811	0.711-0.750
1140.22232	66692288M	ER40-7/8"	1.614	1.811	0.836-0.875
1140.25402	66692289M	ER40-1.0"	1.614	1.811	0.961-1.000
1140.00002	-	ER40 14pc. Collet Set	-	-	-

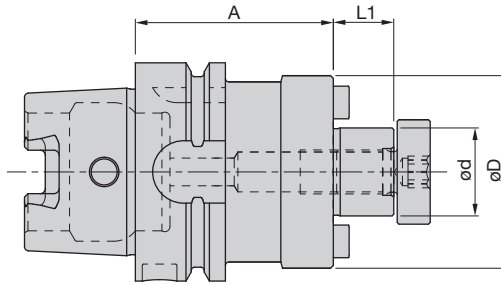
Spring Collets ER25 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1125.03182	66692228M	ER25-1/8"	1.024	1.378	0.086-0.125
1125.04762	66692230M	ER25-3/16"	1.024	1.378	0.148-0.187
1125.06352	66692232M	ER25-1/4"	1.024	1.378	0.211-0.250
1125.07942	66692234M	ER25-5/16"	1.024	1.378	0.273-0.312
1125.09532	66692236M	ER25-3/8"	1.024	1.378	0.336-0.375
1125.11112	66692238M	ER25-7/16"	1.024	1.378	0.398-0.437
1125.12702	66692240M	ER25-1/2"	1.024	1.378	0.461-0.500
1125.14292	66692242M	ER25-9/16"	1.024	1.378	0.523-0.562
1125.15882	66692244M	ER25-5/8"	1.024	1.378	0.586-0.625
1125.00002	-	ER25 9pc. Collet Set	-	-	-



Shell Mill Holders Balanced to G6.3 @ 8,000 RPM

SAP No.	Designation	Dimensions							Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	D ₁ (mm)	
CAT40									
66651416M	WSMH/0.500"-1.38"/CAT40	12.7	0.50	36.6	35.1	1.38	14.2	25.4	Form "AD/B"
66651417M	WSMH/0.500"-3.50"/CAT40	12.7	0.50	36.6	88.9	3.50	14.2	25.4	Form "AD/B"
66651418M	WSMH/0.750"-1.38"/CAT40	19.1	0.75	44.4	35.1	1.38	17.5	28.7	Form "AD/B"
66651419M	WSMH/0.750"-3.50"/CAT40	19.1	0.75	44.4	88.9	3.50	17.5	28.7	Form "AD/B"
66651420M	WSMH/0.750"-6.00"/CAT40	19.1	0.75	44.4	152.4	6.00	17.5	28.7	Form "AD/B"
66651421M	WSMH/1.000"-1.75"/CAT40	25.4	1.00	55.6	44.5	1.75	17.5	40.1	Form "AD/B"
66651422M	WSMH/1.000"-2.06"/CAT40	25.4	1.00	55.6	52.3	2.06	17.5	40.1	Form "AD/B"
66651423M	WSMH/1.000"-4.00"/CAT40	25.4	1.00	55.6	101.6	4.00	17.5	40.1	Form "AD/B"
66651424M	WSMH/1.000"-6.00"/CAT40	25.4	1.00	55.6	152.4	6.00	17.5	40.1	Form "AD/B"
66651425M	WSMH/1.250"-2.12"/CAT40	31.8	1.25	69.9	53.8	2.12	17.5	50.3	Form "AD/B"
66651426M	WSMH/1.250"-4.00"/CAT40	31.8	1.25	69.9	101.6	4.00	17.5	50.3	Form "AD/B"
66651427M	WSMH/1.500"-2.41"/CAT40	38.1	1.50	85.9	61.2	2.41	23.9	60.7	Form "AD/B"
66651428M	WSMH/1.500"-4.00"/CAT40	38.1	1.50	85.9	101.6	4.00	23.9	60.7	Form "AD/B"
CAT50									
66651436M	WSMH/0.500"-1.50"/CAT50	12.7	0.50	36.6	38.1	1.50	14.2	25.4	Form "AD/B"
66651437M	WSMH/0.500"-3.50"/CAT50	12.7	0.50	36.6	88.9	3.50	14.2	25.4	Form "AD/B"
66651438M	WSMH/0.500"-5.50"/CAT50	12.7	0.50	36.6	139.7	5.50	14.2	25.4	Form "AD/B"
66651439M	WSMH/0.750"-1.50"/CAT50	19.1	0.75	44.5	38.1	1.50	17.5	28.7	Form "AD/B"
66651440M	WSMH/0.750"-3.50"/CAT50	19.1	0.75	44.5	88.9	3.50	17.5	28.7	Form "AD/B"
66651441M	WSMH/0.750"-5.50"/CAT50	19.1	0.75	44.5	139.7	5.50	17.5	28.7	Form "AD/B"
66651442M	WSMH/0.750"-7.00"/CAT50	19.1	0.75	44.5	177.8	7.00	17.5	28.7	Form "AD/B"
66651443M	WSMH/0.750"-9.00"/CAT50	19.1	0.75	44.5	228.6	9.00	17.5	28.7	Form "AD/B"
66651448M	WSMH/1.000"-10.00"/CAT50	25.4	1.00	55.6	254.0	10.00	17.5	40.1	Form "AD/B"
66651444M	WSMH/1.000"-2.00"/CAT50	25.4	1.00	55.6	50.8	2.00	17.5	40.1	Form "AD/B"
66651445M	WSMH/1.000"-4.00"/CAT50	25.4	1.00	55.6	101.6	4.00	17.5	40.1	Form "AD/B"
66651446M	WSMH/1.000"-6.00"/CAT50	25.4	1.00	55.6	152.4	6.00	17.5	40.1	Form "AD/B"
66651447M	WSMH/1.000"-8.00"/CAT50	25.4	1.00	55.6	203.2	8.00	17.5	40.1	Form "AD/B"
66651449M	WSMH/1.250"-1.50"/CAT50	31.8	1.25	69.9	38.1	1.50	17.5	50.3	Form "AD/B"
66651450M	WSMH/1.250"-3.50"/CAT50	31.8	1.25	69.9	88.9	3.50	17.5	50.3	Form "AD/B"
66651451M	WSMH/1.250"-5.50"/CAT50	31.8	1.25	69.9	139.7	5.50	17.5	50.3	Form "AD/B"
66651452M	WSMH/1.250"-7.00"/CAT50	31.8	1.25	69.9	177.8	7.00	17.5	50.3	Form "AD/B"
66651453M	WSMH/1.250"-9.00"/CAT50	31.8	1.25	69.9	228.6	9.00	17.5	50.3	Form "AD/B"
66651454M	WSMH/1.500"-2.40"/CAT50	38.1	1.50	85.9	61.0	2.40	23.9	60.7	Form "AD/B"
66651455M	WSMH/1.500"-4.00"/CAT50	38.1	1.50	85.9	101.6	4.00	23.9	60.7	Form "AD/B"
66651456M	WSMH/1.500"-6.00"/CAT50	38.1	1.50	85.9	152.4	6.00	23.9	60.7	Form "AD/B"
66651457M	WSMH/1.500"-8.00"/CAT50	38.1	1.50	85.9	203.2	8.00	23.9	60.7	Form "AD/B"
66651458M	WSMH/2.000"-2.40"/CAT50	50.8	2.00	123.9	61.0	2.40	23.9	77.2	Form "AD/B"
66651459M	WSMH/2.000"-4.00"/CAT50	50.8	2.00	123.9	101.6	4.00	23.9	77.2	Form "AD/B"
66651460M	WSMH/2.000"-6.00"/CAT50	50.8	2.00	123.9	152.4	6.00	23.9	77.2	Form "AD/B"
66651462M	WSMH/2.500"-2.40"/CAT50	63.5	2.50	123.9	61.0	2.40	28.5	92.2	Form "AD/B"
66651463M	WSMH/2.500"-4.00"/CAT50	63.5	2.50	123.9	101.6	4.00	28.5	92.2	Form "AD/B"

For wrenches, see page 33.



HSK-A63 Balanced to G2.5 @ 15,000 RPM

SAP No.	Designation	Dimensions						Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	
66651561M	WSMH/0.500"-2.00"/HSK-A63	12.7	0.50	36.6	50.8	2.00	14.2	Form "AD"
66651562M	WSMH/0.750"-2.00"/HSK-A63	19.1	0.75	44.5	50.8	2.00	17.5	Form "AD"
66651563M	WSMH/1.000"-2.25"/HSK-A63	25.4	1.00	55.6	57.2	2.25	17.5	Form "AD"
66651564M	WSMH/1.250"-2.25"/HSK-A63	31.8	1.25	69.9	57.2	2.25	17.5	Form "AD"
66651565M	WSMH/1.500"-2.25"/HSK-A63	38.1	1.50	58.9	57.2	2.25	23.9	Form "AD"
66661322M	WSMH/16-100/HSK-A63	16	-	38	100	3.94	17	Form "AD"
66661321M	WSMH/16-50/HSK-A63	16	-	38	50	1.97	17	Form "AD"
66661324M	WSMH/22-100/HSK-A63	22	-	48	100	3.94	19	Form "AD"
66661323M	WSMH/22-50/HSK-A63	22	-	48	50	1.97	19	Form "AD"
66661326M	WSMH/27-100/HSK-A63	27	-	58	100	3.94	21	Form "AD"
66661325M	WSMH/27-60/HSK-A63	27	-	58	60	2.36	21	Form "AD"
66661328M	WSMH/32-100/HSK-A63	32	-	78	100	3.94	24	Form "AD"
66661327M	WSMH/32-60/HSK-A63	32	-	78	60	2.36	24	Form "AD"
66661330M	WSMH/40-100/HSK-A63	40	-	88	100	3.94	27	Form "AD"
66661329M	WSMH/40-60/HSK-A63	40	-	88	60	2.36	27	Form "AD"

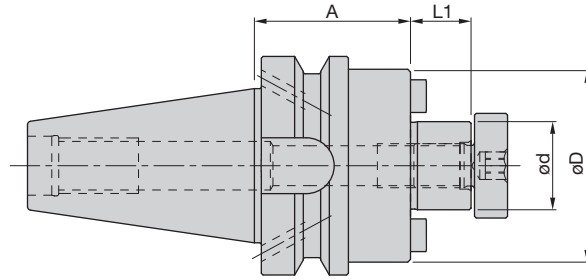
For coolant tube wrenches, see page 33.
 For HSK coolant tubes, see page 32.

HSK-100A

SAP No.	Designation	Dimensions						Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	
66651571M	WSMH/0.750"-2.25"/HSK-A100	0.750	19.1	44.500	57.2	2.25	0.69	Form "AD"
66651572M	WSMH/1.000"-2.25"/HSK-A100	1.000	25.4	55.600	57.2	2.25	0.69	Form "AD"
66651573M	WSMH/1.250"-2.25"/HSK-A100	1.250	31.8	58.900	57.2	2.25	0.69	Form "AD"
66651574M	WSMH/1.500"-2.50"/HSK-A100	1.500	38.1	69.900	63.5	2.50	0.94	Form "AD"
66651575M	WSMH/2.000"-2.50"/HSK-A100	2.000	50.8	-	63.5	2.50	0.94	Form "AD"
66651576M	WSMH/2.500"-2.50"/HSK-A100	2.500	63.5	-	63.5	2.50	1.12	Form "AD"

For coolant tube wrenches, see page 33.
 For HSK coolant tubes, see page 32.





BT30 Balanced to G6.3 @ 8,000 RPM

SAP No.	Designation	Dimensions							Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	D ₁ (mm)	
66651501M	WSMH/0.500"-1.18"/BT30	12.7	0.50	36.6	30.0	1.18	14.2	25.4	Form "AD"
66651502M	WSMH/0.750"-1.18"/BT30	19.1	0.75	44.5	30.0	1.18	17.5	28.7	Form "AD"
66651503M	WSMH/1.000"-1.77"/BT30	25.4	1.00	55.6	45.0	1.77	17.5	40.1	Form "AD"
66631181M	WSMH/16-40/BT30	16	-	38	40	-	17	-	Form "AD"
66631182M	WSMH/22-40/BT30	22	-	48	40	-	19	-	Form "AD"
66631183M	WSMH/27-40/BT30	27	-	58	40	-	21	-	Form "AD"

For wrenches, see page 33.

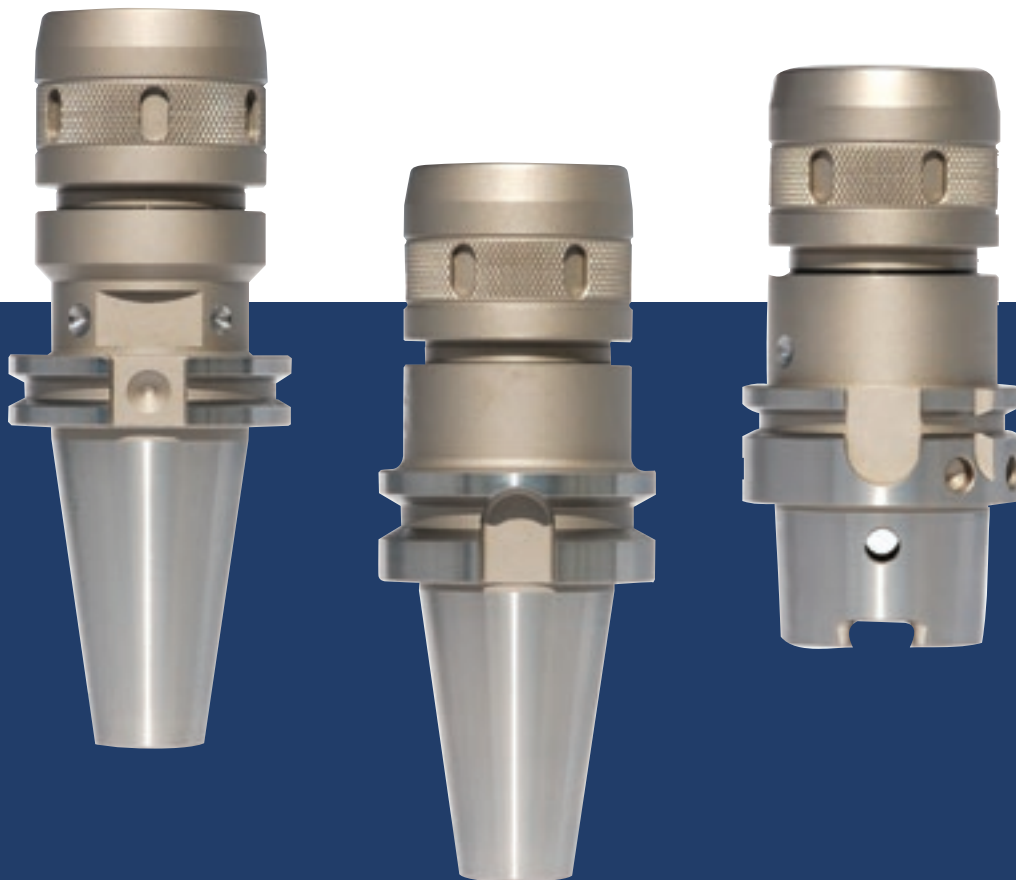
BT40 Balanced to G6.3 @ 8,000 RPM

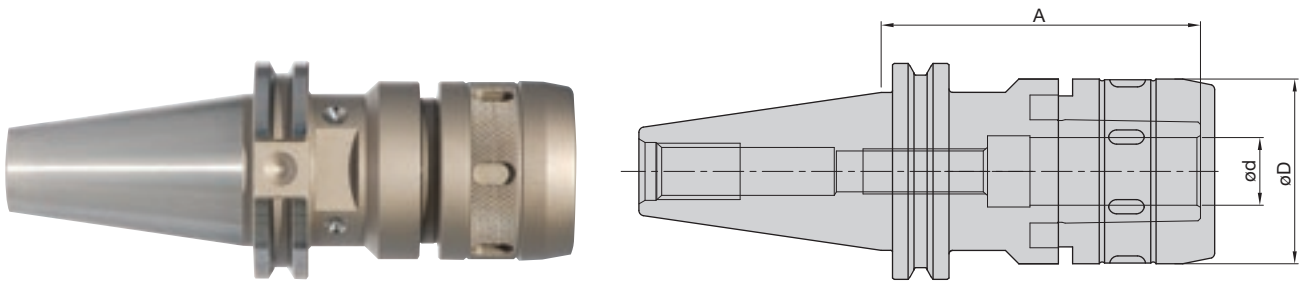
SAP No.	Designation	Dimensions							Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	D ₁ (mm)	
66651516M	WSMH/0.500"-4.00"/BT40	12.7	0.50	36.6	101.6	4.00	14.2	25.4	Form "AD/B"
66651517M	WSMH/0.750"-1.77"/BT40	19.1	0.75	44.5	45.0	1.77	17.5	28.7	Form "AD/B"
66651518M	WSMH/0.750"-4.00"/BT40	19.1	0.75	44.5	101.6	4.00	17.5	28.7	Form "AD/B"
66651519M	WSMH/0.750"-6.00"/BT40	19.1	0.75	44.5	152.4	6.00	17.5	28.7	Form "AD/B"
66651520M	WSMH/1.000"-1.77"/BT40	25.4	1.00	55.6	45.0	1.77	17.5	40.1	Form "AD/B"
66651521M	WSMH/1.000"-4.00"/BT40	25.4	1.00	55.6	101.6	4.00	17.5	40.1	Form "AD/B"
66651523M	WSMH/1.250"-2.36"/BT40	31.8	1.25	69.9	59.9	2.36	17.5	50.3	Form "AD/B"
66651525M	WSMH/1.500"-2.36"/BT40	38.1	1.50	85.9	59.9	2.36	23.9	60.7	Form "AD/B"
66631195M	WSMH/16-100/BT40	16	-	38	100	-	17	-	Form "AD/B"
66631185M	WSMH/16-40/BT40	16	-	38	40	-	17	-	Form "AD/B"
66631197M	WSMH/22-100/BT40	22	-	48	100	-	19	-	Form "AD/B"
66631198M	WSMH/22-160/BT40	22	-	48	160	-	19	-	Form "AD/B"
66631186M	WSMH/22-40/BT40	22	-	48	40	-	19	-	Form "AD/B"
66631199M	WSMH/27-100/BT40	27	-	58	100	-	21	-	Form "AD/B"
66631200M	WSMH/27-160/BT40	27	-	58	160	-	21	-	Form "AD/B"
66631187M	WSMH/27-40/BT40	27	-	58	40	-	21	-	Form "AD/B"
66631201M	WSMH/32-100/BT40	32	-	78	100	-	24	-	Form "AD/B"
66631188M	WSMH/32-50/BT40	32	-	78	50	-	24	-	Form "AD/B"
66631203M	WSMH/40-100/BT40	40	-	88	100	-	27	-	Form "AD/B"
66631189M	WSMH/40-50/BT40	40	-	88	50	-	27	-	Form "AD/B"

For wrenches, see page 33.

HI-POWER MILLING CHUCKS (HPMC)

- Very high clamping forces leads to increased productivity and tool life
- Roller bearing design provides high friction resistance and greater gripping torque
- Low run out accuracy - 5 micron @ 3 x tool diameter. Less wear on cutting tool edge leads to significant increase in tool life and tool performance
- Excellent finish on piece part machined surfaces due to less vibration
- Protective anti-corrosive coating on entire tool holder
- Sealed bearing mechanism of clamping nut, prevents dust and coolant entry and contamination of bearing clamping, extending the life of the tool holder



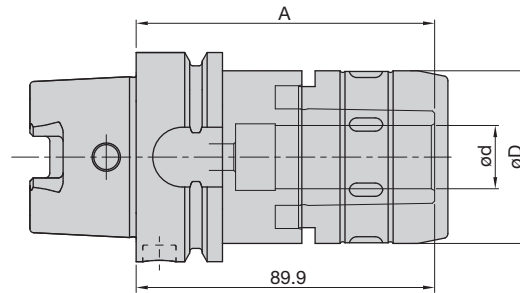


CAT40		Balanced to G6.3 @ 8,000 RPM					
SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611335M	WHPMC/0.750"-3.54"/CAT40	19.05	0.75	52	89.9	3.54	Form "AD"
66611336M	WHPMC/1.000"-3.54"/CAT40	25.4	1.00	58	89.9	3.54	Form "AD"
66611337M	WHPMC/1.250"-4.25"/CAT40	31.75	1.25	66	108.0	4.25	Form "AD"
66611316M	WHPMC/25-90/CAT40	25	-	58	90	-	Form "AD"
66611317M	WHPMC/32-105/CAT40	32	-	66	105	-	Form "AD"

For wrenches, see page 33.

CAT50		Balanced to G6.3 @ 8,000 RPM					
SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611345M	WHPMC/0.750"-3.54"/CAT50	19.05	0.75	52	89.9	3.54	Form "AD"
66611346M	WHPMC/0.750"-6.50"/CAT50	19.05	0.75	52	165.1	6.50	Form "AD"
66611338M	WHPMC/1.000"-3.54"/CAT50	25.4	1.00	58	89.9	3.54	Form "AD"
66611347M	WHPMC/1.000"-5.31"/CAT50	25.4	1.00	58	134.9	5.31	Form "AD"
66611348M	WHPMC/1.250"-4.13"/CAT50	31.75	1.25	66	104.9	4.13	Form "AD"
66611349M	WHPMC/1.250"-5.31"/CAT50	31.75	1.25	66	134.9	5.31	Form "AD"
66611350M	WHPMC/2.000"-4.72"/CAT50	50.8	2.00	103	119.9	4.72	Form "AD"
66611351M	WHPMC/2.000"-5.90"/CAT50	50.8	2.00	103	149.9	5.90	Form "AD"
66611318M	WHPMC/32-105/CAT50	32	-	58	105	-	Form "AD"
66611341M	WHPMC/50-135/CAT50	50	-	103	135	-	Form "AD"

For wrenches, see page 33.



HSK-A63 **Balanced to G6.3 @ 8,000 RPM**

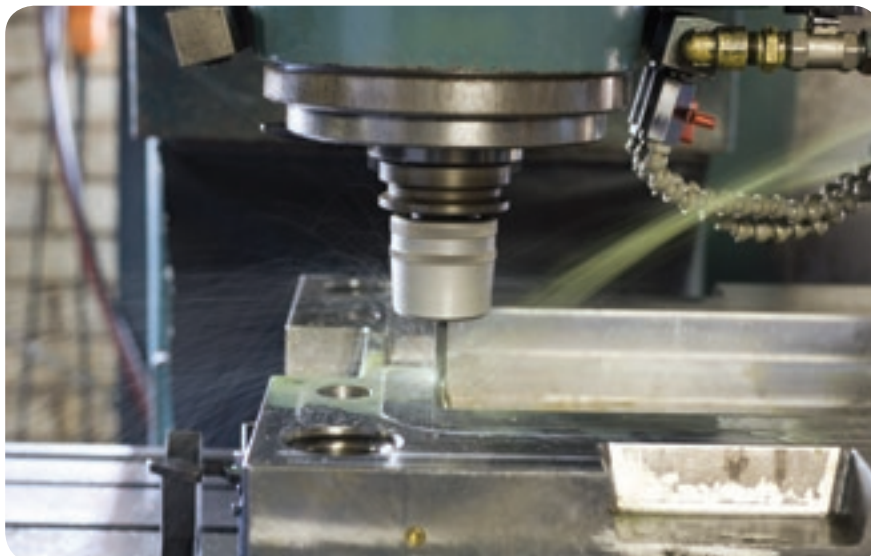
SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611330M	WHPMC/0.750"-3.54"/HSK-A63	19.05	0.75	52	89.9	3.54	Form "AD"
66611331M	WHPMC/1.000"-4.13"/HSK-A63	25.4	1.00	58	104.9	4.13	Form "AD"
66611333M	WHPMC/1.250"-4.72"/HSK-A63	31.75	1.25	66	119.9	4.72	Form "AD"
66611311M	WHPMC/20-90/HSK-A63	20	-	52	90	-	Form "AD"
66611312M	WHPMC/25-105/HSK-A63	25	-	58	105	-	Form "AD"
66611313M	WHPMC/32-135/HSK-A63	32	-	66	135	-	Form "AD"

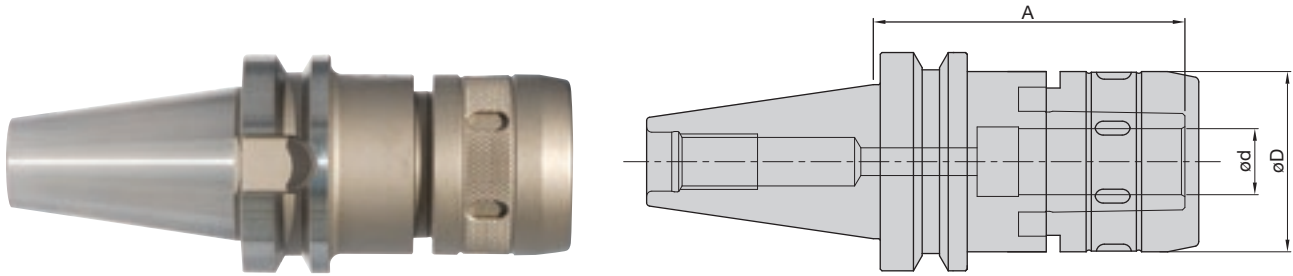
For coolant tubes, see page 32.
 For coolant tube wrenches, see page 33.

HSK-A100 **Balanced to G6.3 @ 15,000 RPM**

SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611374M	WHPMC/0.750"-3.94"/HSK-A100	-	0.750	52	-	3.94"	Form "AD"
66611375M	WHPMC/1.000"-4.53"/HSK-A100	-	1.000	58	-	4.53"	Form "AD"
66611376M	WHPMC/1.250"-5.31"/HSK-A100	-	1.250	66	-	5.31"	Form "AD"
66611327M	WHPMC/20-100/HSK-A100	20	-	52	100mm	-	Form "AD"
66611314M	WHPMC/25-115/HSK-A100	25	-	58	115mm	-	Form "AD"
66611313M	WHPMC/32-135/HSK-A100	32	-	66	135mm	-	Form "AD"

For coolant tubes, see page 32.
 For coolant tube wrenches, see page 33.





BT30 **Balanced to G6.3 @ 8,000 RPM**

SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611352M	WHPMC/0.750"-3.54"/BT30	19.05	0.75	52	89.9	3.54	Form "AD"
66611301M	WHPMC/20-90/BT30	20	-	52	90	-	Form "AD"
66611302M	WHPMC/25-90/BT30	25	-	58	90	-	Form "AD"
66611303M	WHPMC/32-105/BT30	32	-	66	105	-	Form "AD"

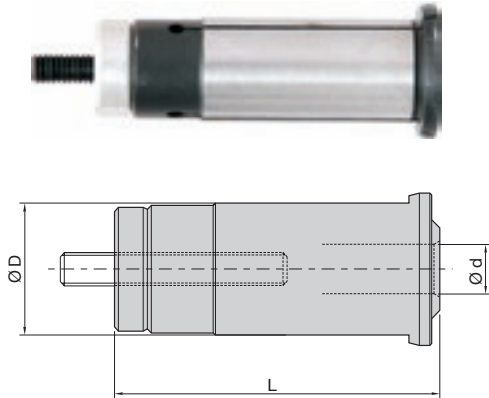
For wrenches, see page 33.

BT40 **Balanced to G6.3 @ 8,000 RPM**

SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611353M	WHPMC/0.750"-3.54"/BT40	19.05	0.75	52	89.9	3.54	Form "AD"
66611354M	WHPMC/1.000"-3.54"/BT40	25.4	1.00	58	89.9	3.54	Form "AD"
66611355M	WHPMC/1.250"-4.25"/BT40	31.75	1.25	66	108.0	4.25	Form "AD"
66611304M	WHPMC/20-90/BT40	20	-	52	90	-	Form "AD"
66611305M	WHPMC/25-90/BT40	25	-	58	90	-	Form "AD"
66611306M	WHPMC/32-105/BT40	32	-	66	105	-	Form "AD"

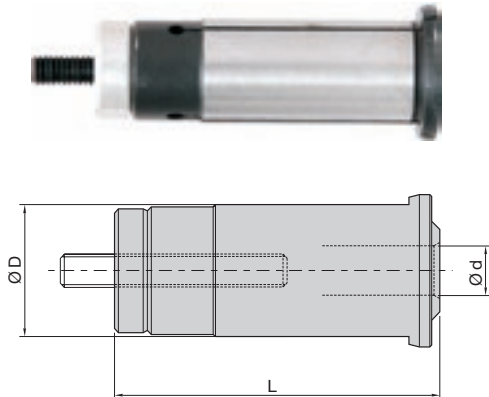
For wrenches, see page 33.

Adjustable Straight Collets for Milling Chucks (Metric)



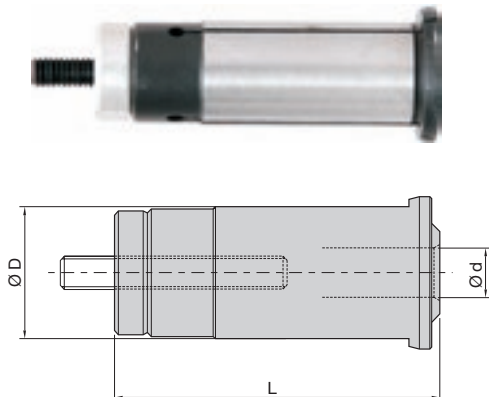
SAP No.	Designation	Dimensions (mm)		
		D	d	L
66611401M	WSC20-6	20	6	63
66611402M	WSC20-8	20	8	63
66611403M	WSC20-10	20	10	63
66611404M	WSC20-12	20	12	63
66611405M	WSC20-16	20	16	63
66611406M	WSC25-6	25	6	73
66611407M	WSC25-8	25	8	73
66611408M	WSC25-10	25	10	73
66611409M	WSC25-12	25	12	73
66611410M	WSC25-16	25	16	73
66611411M	WSC25-18	25	18	73
66611412M	WSC25-20	25	20	73
66611413M	WSC32-6	32	6	79
66611414M	WSC32-8	32	8	79
66611415M	WSC32-10	32	10	79
66611416M	WSC32-12	32	12	79
66611417M	WSC32-16	32	16	79
66611418M	WSC32-18	32	18	79
66611419M	WSC32-20	32	20	79
66611420M	WSC32-25	32	25	79

Adjustable Straight Collets for Milling Chucks (Inch)



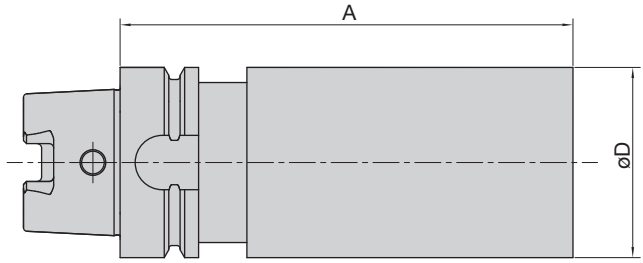
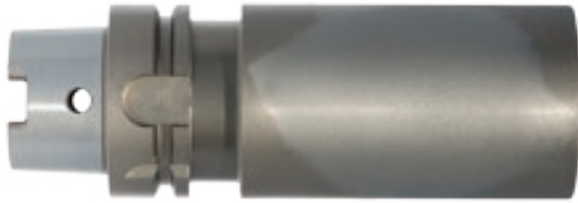
SAP No.	Designation	Dimensions (inch)		
		D	d	L
66611460M	WSC 0.750"-0.250"	0.750	0.250	2.48
66611461M	WSC 0.750"-0.312"	0.750	0.312	2.48
66611462M	WSC 0.750"-0.375"	0.750	0.375	2.48
66611463M	WSC 0.750"-0.437"	0.750	0.437	2.48
66611464M	WSC 0.750"-0.500"	0.750	0.500	2.48
66611465M	WSC 0.750"-0.562"	0.750	0.562	2.48
66611466M	WSC 0.750"-0.625"	0.750	0.625	2.48
66611467M	WSC 1.000"-0.250"	1.000	0.250	2.87
66611468M	WSC 1.000"-0.312"	1.000	0.312	2.87
66611469M	WSC 1.000"-0.375"	1.000	0.375	2.87
66611470M	WSC 1.000"-0.437"	1.000	0.437	2.87
66611471M	WSC 1.000"-0.500"	1.000	0.500	2.87
66611472M	WSC 1.000"-0.562"	1.000	0.562	2.87
66611473M	WSC 1.000"-0.625"	1.000	0.625	2.87
66611474M	WSC 1.000"-0.750"	1.000	0.750	2.87
66611475M	WSC 1.250"-0.250"	1.250	0.250	3.11
66611476M	WSC 1.250"-0.312"	1.250	0.312	3.11
66611477M	WSC 1.250"-0.375"	1.250	0.375	3.11
66611478M	WSC 1.250"-0.437"	1.250	0.437	3.11
66611479M	WSC 1.250"-0.500"	1.250	0.500	3.11
66611480M	WSC 1.250"-0.562"	1.250	0.562	3.11
66611481M	WSC 1.250"-0.625"	1.250	0.625	3.11
66611482M	WSC 1.250"-0.750"	1.250	0.750	3.11
66611483M	WSC 1.250"-0.875"	1.250	0.875	3.11
66611484M	WSC 1.250"-1.000"	1.250	1.000	3.11

Adjustable Straight Collets for Milling Chucks (Metric to Inch)



SAP No.	Designation	Dimensions		
		D	d	L
66611485M	WSC32-0.375"	32	0.375	3.11
66611486M	WSC32-0.500"	32	0.500	3.11
66611487M	WSC32-0.625"	32	0.625	3.11
66611488M	WSC32-0.750"	32	0.750	3.11
66611489M	WSC32-1.000"	32	1.000	3.11

Blank Bars

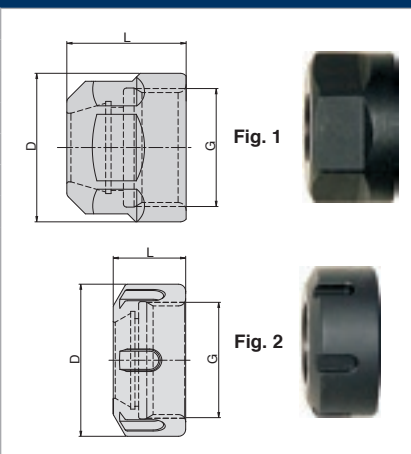


CAT, HSK, and BT Blank Bars				
SAP No.	Designation	Taper	Dimensions (inches/mm)	
			D	A
66661448M	WBBB/35-150/HSK-A32	HSK32A	1.38"/35mm	5.91"/150mm
66671226M	WBBB/40-120/HSK-A32	HSK32A	1.57"/40mm	4.72"/120mm
66671227M	WBBB/40-120/HSK-A40	HSK40A	1.57"/40mm	4.72"/120mm
66661449M	WBBB/40-150/HSK-A40	HSK40A	1.57"/40mm	5.91"/150mm
66661450M	WBBB/52-200/HSK-A40	HSK40A	2.05"/52MM	7.87"/200mm
66671228M	WBBB/50-150/HSK-A50	HSK50A	1.97"/50mm	5.91"/150mm
66661451M	WBBB/52-200/HSK-A50	HSK50A	2.05"/52MM	7.87"/200mm
66661452M	WBBB/63-200/HSK-A50	HSK50A	2.48"/63mm	7.87"/200mm
66671229M	WBBB/63-150/HSK-A63	HSK63A	2.48"/63mm	5.91"/150mm
66661458M	WBBB/63-200/HSK-A63	HSK63A	2.48"/63mm	7.87"/200mm
66671195M	WBBB/80-250/HSK-A63	HSK63A	3.15"/80mm	9.84"/250mm
66671213M	WBBB/100-200/HSK-A80	HSK80A	3.94"/100mm	7.87"/200mm
66671214M	WBBB/97.5-250/HSK-A80	HSK80A	3.84"/97.5mm	9.84"/250mm
66661446M	WBBB/63-200/HSK-A100	HSK100A	2.48"/63mm	7.87"/200mm
66661447M	WBBB/80-250/HSK-A100	HSK100A	3.15"/80mm	9.84"/250mm
66661419M	WBBB/97.5-250/HSK-A100	HSK100A	3.84"/97.5mm	9.84"/250mm
66671230M	WBBB/100-250/HSK-A100	HSK100A	3.94"/100mm	9.84"/250mm
66671158M	WBBB/63-250/BT40	BT40	2.48"/63mm	9.84"/250mm

HARDWARE ACCESSORIES GAUGING

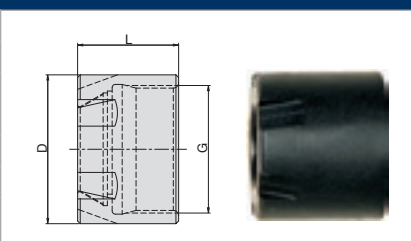


Clamping Nut – ER to DIN 6499 – Balanced



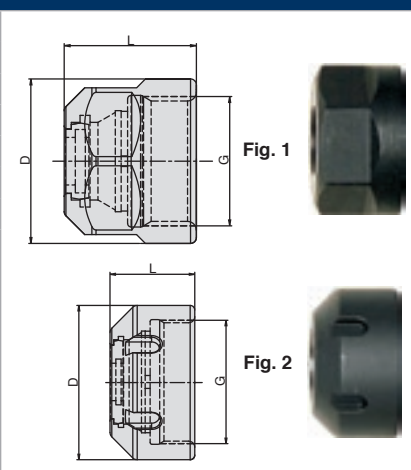
SAP No.	Designation	Dimensions				Fig
		Size	D	L	G	
66691320M	ER16 - DIN 6499	1-10	28.0	17.5	M22x1.5	1
66692123M	ER20 - DIN 6499	1-13	34.0	19.0	M25x1.5	1
66691321M	ER25 - DIN 6499	2-16	42.0	20.0	M32x1.5	2
66691322M	ER32 - DIN 6499	2-20	50.0	22.5	M40x1.5	2
66691323M	ER40 - DIN 6499	3-26	63.0	25.5	M50x1.5	2

Clamping Nut – “Mini” ER



SAP No.	Designation	Dimensions				Fig
		Size	D	L	G	
66691911M	ER11M	1-7	16.0	11.3	M13x0.75	-
66691818M	ER16M	1-10	22.0	17.0	M19x1.0	-
66692124M	ER20M	1-13	28.0	19.0	M24x1.0	-
66691819M	ER25M	2-16	35.0	20.0	M30x1.0	-

Clamping Nut – ER for Sealing Discs



SAP No.	Designation	Dimensions				Fig
		Size	D	L	G	
99971327M	ER16-IC	1-10	28.0	22.5	M22x1.5	1
66692125M	ER20-IC	1-13	34.0	24.0	M25x1.5	1
99941678M	ER25-IC	2-16	42.0	25.0	M32x1.5	2
99933897M	ER32-IC	2-20	50.0	27.5	M40x1.5	2
99979974M	ER40-IC	3-26	63.0	30.5	M50x1.5	2

CNC HOLDERS

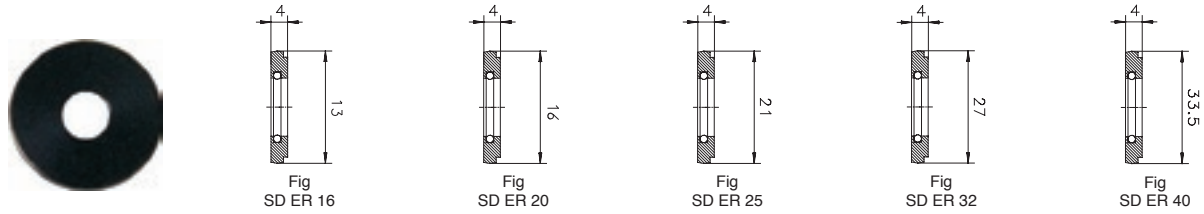
HI-POWER MILLING CHUCKS

HARDWARE

ACCESSORIES

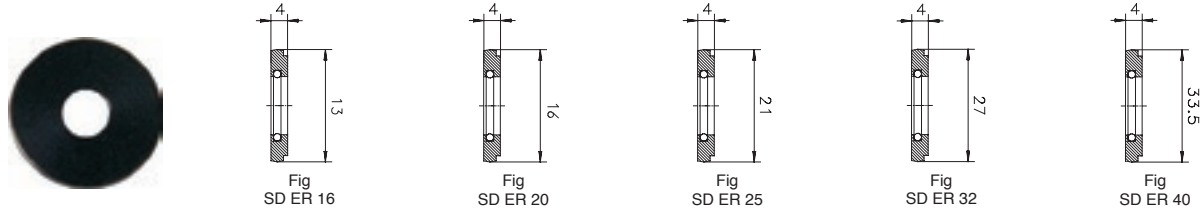
GAUGING

Sealing Discs for ER-IC Clamping Nuts



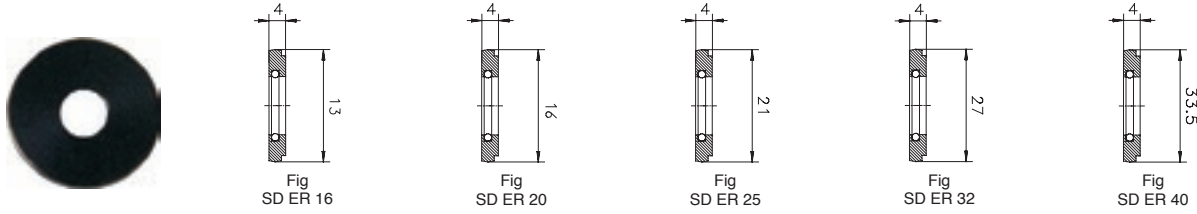
SAP No.	Designation	Dimensions	
		Sealing Capacity (mm)	Sealing Capacity (inch)
Sealing Discs for ER16-IC Clamping Nuts (Inch & Metric)			
3916.00300	DS/ER16-3.0-2.5mm	3.0-2.5	0.1181"-0.0984"
3916.00350	DS/ER16-3.5-3.0mm	3.5-3.0	0.1378"-0.1181"
3916.00400	DS/ER16-4.0-3.5mm	4.0-3.5	0.1575"-0.1378"
3916.00450	DS/ER16-4.5-4.0mm	4.5-4.0	0.1772"-0.1575"
3916.00500	DS/ER16-5.0-4.5mm	5.0-4.5	0.1969"-0.1772"
3916.00550	DS/ER16-5.5-5.0mm	5.5-5.0	0.2165"-0.1969"
3916.00600	DS/ER16-6.0-5.5mm	6.0-5.5	0.2362"-0.2160"
3916.00650	DS/ER16-6.5-6.0mm	6.5-6.0	0.2559"-0.2362"
3916.00700	DS/ER16-7.0-6.5mm	7.0-6.5	0.2756"-0.2559"
3916.00750	DS/ER16-7.5-7.0mm	7.5-7.0	0.2953"-0.2756"
3916.00800	DS/ER16-8.0-7.5mm	8.0-7.5	0.3150"-0.2953"
3916.00850	DS/ER16-8.5-8.0mm	8.5-8.0	0.3347"-0.3150"
3916.00900	DS/ER16-9.0-8.5mm	9.0-8.5	0.3543"-0.3347"
3916.00950	DS/ER16-9.5-9.0mm	9.5-9.0	0.3740"-0.3543"
3916.01000	DS/ER16-10.0-9.5mm	10.0-9.5	0.3937"-0.3740"
Sealing Discs for ER20-IC Clamping Nuts (Inch & Metric)			
3920.00300	DS/ER20-3.0-2.5mm	3.0-2.5	0.1181"-0.0984"
3920.00350	DS/ER20-3.5-3.0mm	3.5-3.0	0.1378"-0.1181"
3920.00400	DS/ER20-4.0-3.5mm	4.0-3.5	0.1575"-0.1378"
3920.00450	DS/ER20-4.5-4.0mm	4.5-4.0	0.1772"-0.1575"
3920.00500	DS/ER20-5.0-4.5mm	5.0-4.5	0.1969"-0.1772"
3920.00550	DS/ER20-5.5-5.0mm	5.5-5.0	0.2165"-0.1969"
3920.00600	DS/ER20-6.0-5.5mm	6.0-5.5	0.2362"-0.2160"
3920.00650	DS/ER20-6.5-6.0mm	6.5-6.0	0.2559"-0.2362"
3920.00700	DS/ER20-7.0-6.5mm	7.0-6.5	0.2756"-0.2559"
3920.00750	DS/ER20-7.5-7.0mm	7.5-7.0	0.2953"-0.2756"
3920.00800	DS/ER20-8.0-7.5mm	8.0-7.5	0.3150"-0.2953"
3920.00850	DS/ER20-8.5-8.0mm	8.5-8.0	0.3347"-0.3150"
3920.00900	DS/ER20-9.0-8.5mm	9.0-8.5	0.3543"-0.3347"
3920.00950	DS/ER20-9.5-8.0mm	9.5-9.0	0.3740"-0.3543"
3920.01000	DS/ER20-10.0-9.5mm	10.0-9.5	0.3937"-0.3740"
3920.01050	DS/ER20-10.5-10mm	10.5-10.0	0.4134"-0.3937"
3920.01100	DS/ER20-11.0-10.5mm	11.0-10.5	0.4330"-0.4134"
3920.01150	DS/ER20-11.5-11.0mm	11.5-11.0	0.4528"-0.4330"
3920.01200	DS/ER20-12.0-11.5mm	12.0-11.5	0.4724"-0.4528"
3920.01250	DS/ER20-12.5-12.0mm	12.5-12.0	0.4921"-0.4724"
3920.01300	DS/ER20-13.0-12.5mm	13.0-12.5	0.5118"-0.4921"
Sealing Disc for ER25-IC Clamping Nuts (Inch & Metric)			
3925.00300	DS/ER25-3.0-2.5mm	3.0-2.5	0.1181"-0.0984"
3925.00350	DS/ER25-3.5-3.0mm	3.5-3.0	0.1378"-0.1181"
3925.00400	DS/ER25-4.0-3.5mm	4.0-3.5	0.1575"-0.1378"
3925.00450	DS/ER25-4.5-4.0mm	4.5-4.0	0.1772"-0.1575"
3925.00500	DS/ER25-5.0-4.5mm	5.0-4.5	0.1969"-0.1772"
3925.00550	DS/ER25-5.5-5.0mm	5.5-5.0	0.2165"-0.1969"

Sealing Discs for ER-IC Clamping Nuts



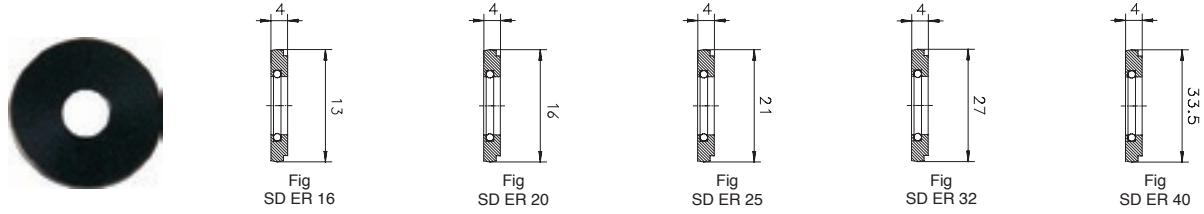
SAP No.	Designation	Dimensions	
		Sealing Capacity (mm)	Sealing Capacity (inch)
3925.00600	DS/ER25-6.0-5.5mm	6.0-5.5	0.2362"-0.2160"
3925.00650	DS/ER25-6.5-6.0mm	6.5-6.0	0.2559"-0.2362"
3925.00700	DS/ER25-7.0-6.5mm	7.0-6.5	0.2756"-0.2559"
3925.00750	DS/ER25-7.5-7.0mm	7.5-7.0	0.2953"-0.2756"
3925.00800	DS/ER25-8.0-7.5mm	8.0-7.5	0.3150"-0.2953"
3925.00850	DS/ER25-8.5-8.0mm	8.5-8.0	0.3347"-0.3150"
3925.00900	DS/ER25-9.0-8.5mm	9.0-8.5	0.3543"-0.3347"
3925.00950	DS/ER25-9.5-9.0mm	9.5-9.0	0.3740"-0.3543"
3925.01000	DS/ER25-10.0-9.5mm	10.0-9.5	0.3937"-0.3740"
3925.01050	DS/ER25-10.5-10.0mm	10.5-10.0	0.4134"-0.3937"
3925.01100	DS/ER25-11.0-10.5mm	11.0-10.5	0.4330"-0.4134"
3925.01150	DS/ER25-11.5-11.0mm	11.5-11.0	0.4528"-0.4330"
3925.01200	DS/ER25-12.0-11.5mm	12.0-11.5	0.4724"-0.4528"
3925.01250	DS/ER25-12.5-12.0mm	12.5-12.0	0.4921"-0.4724"
3925.01300	DS/ER25-13.0-12.5mm	13.0-12.5	0.5118"-0.4921"
3925.01350	DS/ER25-13.5-13.0mm	13.5-13.0	0.5315"-0.5118"
3925.01400	DS/ER25-14.0-13.5mm	14.0-13.5	0.5512"-0.5315"
3925.01450	DS/ER25-14.5-14.0mm	14.5-14.0	0.5709"-0.5512"
3925.01500	DS/ER25-15.0-14.5mm	15.0-14.5	0.5905"-0.5709"
3925.01550	DS/ER25-15.5-15.0mm	15.5-15.0	0.6102"-0.5905"
3925.01600	DS/ER25-16.0-15.5mm	16.0-15.5	0.6300"-0.6102"
Sealing Discs for ER32-IC Clamping Nuts (Inch & Metric)			
3932.00300	DS/ER32-3.0-2.5mm	3.0-2.5	0.1181"-0.0984"
3932.00350	DS/ER32-3.5-3.0mm	3.5-3.0	0.1378"-0.1181"
3932.00400	DS/ER32-4.0-3.5mm	4.0-3.5	0.1575"-0.1378"
3932.00450	DS/ER32-4.5-4.0mm	4.5-4.0	0.1772"-0.1575"
3932.00500	DS/ER32-5.0-4.5mm	5.0-4.5	0.1969"-0.1772"
3932.00550	DS/ER32-5.5-5.0mm	5.5-5.0	0.2165"-0.1969"
3932.00600	DS/ER32-6.0-5.5mm	6.0-5.5	0.2362"-0.2160"
3932.00650	DS/ER32-6.5-6.0mm	6.5-6.0	0.2559"-0.2362"
3932.00700	DS/ER32-7.0-6.5mm	7.0-6.5	0.2756"-0.2559"
3932.00750	DS/ER32-7.5-7.0mm	7.5-7.0	0.2953"-0.2756"
3932.00800	DS/ER32-8.0-7.5mm	8.0-7.5	0.3150"-0.2953"
3932.00850	DS/ER32-8.5-8.0mm	8.5-8.0	0.3347"-0.3150"
3932.00900	DS/ER32-9.0-8.5mm	9.0-8.5	0.3543"-0.3347"
3932.00950	DS/ER32-9.5-9.0mm	9.5-9.0	0.3740"-0.3543"
3932.01000	DS/ER32-10.0-9.5mm	10.0-9.5	0.3937"-0.3740"
3932.01050	DS/ER32-10.5-10.0mm	10.5-10.0	0.4134"-0.3937"
3932.01100	DS/ER32-11.0-10.5mm	11.0-10.5	0.4330"-0.4134"
3932.01150	DS/ER32-11.5-11.0mm	11.5-11.0	0.4528"-0.4330"
3932.01200	DS/ER32-12.0-11.5mm	12.0-11.5	0.4724"-0.4528"
3932.01250	DS/ER32-12.5-12.0mm	12.5-12.0	0.4921"-0.4724"
3932.01300	DS/ER32-13.0-12.5mm	13.0-12.5	0.5118"-0.4921"
3932.01350	DS/ER32-13.5-13.0mm	13.5-13.0	0.5315"-0.5118"
3932.01400	DS/ER32-14.0-13.5mm	14.0-13.5	0.5512"-0.5315"

Sealing Discs for ER-IC Clamping Nuts

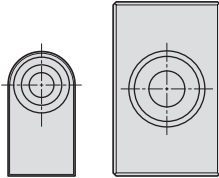


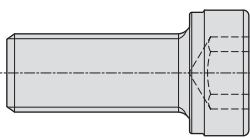
SAP No.	Designation	Dimensions	
		Sealing Capacity (mm)	Sealing Capacity (inch)
3932.01450	DS/ER32-14.5-14.0mm	14.5-14.0	0.5709"-0.5512"
3932.01500	DS/ER32-15.0-14.5mm	15.0-14.5	0.5905"-0.5709"
3932.01550	DS/ER32-15.5-15.0mm	15.5-15.0	0.6102"-0.5905"
3932.01600	DS/ER32-16.0-15.5mm	16.0-15.5	0.6300"-0.6102"
3932.01650	DS/ER32-16.5-16.0mm	16.5-16.0	0.6496"-0.6300"
3932.01700	DS/ER32-17.0-16.5mm	17.0-16.5	0.6693"-0.6496"
3932.01900	DS/ER32-19.0-18.5mm	19.0-18.5	0.7480"-0.7284"
3932.01950	DS/ER32-19.5-19.0mm	19.5-19.0	0.7677"-0.7480"
3932.02000	DS/ER32-20.0-19.5mm	20.0-19.5	0.7874"-0.7677"
Sealing Discs for ER40-IC Clamping Nuts (Inch & Metric)			
3940.00300	DS/ER40-3.0-2.5mm	3.0-2.5	0.1181"-0.0984"
3940.00350	DS/ER40-3.5-3.0mm	3.5-3.0	0.1378"-0.1181"
3940.00400	DS/ER40-4.0-3.5mm	4.0-3.5	0.1575"-0.1378"
3940.00450	DS/ER40-4.5-4.0mm	4.5-4.0	0.1772"-0.1575"
3940.00500	DS/ER40-5.0-4.5mm	5.0-4.5	0.1969"-0.1772"
3940.00550	DS/ER40-5.5-5.0mm	5.5-5.0	0.2165"-0.1969"
3940.00600	DS/ER40-6.0-5.5mm	6.0-5.5	0.2362"-0.2160"
3940.00650	DS/ER40-6.5-6.0mm	6.5-6.0	0.2559"-0.2362"
3940.00700	DS/ER40-7.0-6.5mm	7.0-6.5	0.2756"-0.2559"
3940.00750	DS/ER40-7.5-7.0mm	7.5-7.0	0.2953"-0.2756"
3940.00800	DS/ER40-8.0-7.5mm	8.0-7.5	0.3150"-0.2953"
3940.00850	DS/ER40-8.5-8.0mm	8.5-8.0	0.3347"-0.3150"
3940.00900	DS/ER40-9.0-8.5mm	9.0-8.5	0.3543"-0.3347"
3940.00950	DS/ER40-9.5-9.0mm	9.5-9.0	0.3740"-0.3543"
3940.01000	DS/ER40-10.0-9.5mm	10.0-9.5	0.3937"-0.3740"
3940.01050	DS/ER40-10.5-10.0mm	10.5-10.0	0.4134"-0.3937"
3940.01100	DS/ER40-11.0-10.5mm	11.0-10.5	0.4330"-0.4134"
3940.01150	DS/ER40-11.5-11.0mm	11.5-11.0	0.4528"-0.4330"
3940.01200	DS/ER40-12.0-11.5mm	12.0-11.5	0.4724"-0.4528"
3940.01250	DS/ER40-12.5-12.0mm	12.5-12.0	0.4921"-0.4724"
3940.01300	DS/ER40-13.0-12.5mm	13.0-12.5	0.5118"-0.4921"
3940.01350	DS/ER40-13.5-13.0mm	13.5-13.0	0.5315"-0.5118"
3940.01400	DS/ER40-14.0-13.5mm	14.0-13.5	0.5512"-0.5315"
3940.01450	DS/ER40-14.5-14.0mm	14.5-14.0	0.5709"-0.5512"
3940.01500	DS/ER40-15.0-14.5mm	15.0-14.5	0.5905"-0.5709"
3940.01550	DS/ER40-15.5-15.0mm	15.5-15.0	0.6102"-0.5905"
3940.01600	DS/ER40-16.0-15.5mm	16.0-15.5	0.6300"-0.6102"
3940.01650	DS/ER40-16.5-16.0mm	16.5-16.0	0.6496"-0.6300"
3940.01700	DS/ER40-17.0-16.5mm	17.0-16.5	0.6693"-0.6496"
3940.01750	DS/ER40-17.5-17.0mm	17.5-17.0	0.6890"-0.6693"

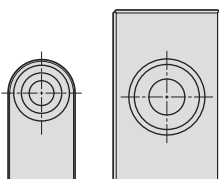
Sealing Discs for ER-IC Clamping Nuts



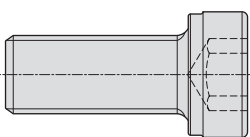
SAP No.	Designation	Dimensions	
		Sealing Capacity (mm)	Sealing Capacity (inch)
3940.01800	DS/ER40-18.0-17.5mm	18.0-17.5	0.7087"-0.6890"
3940.01850	DS/ER40-18.5-18.0mm	18.5-18.0	0.7284"-0.7087"
3940.01900	DS/ER40-19.0-18.5mm	19.0-18.5	0.7480"-0.7284"
3940.01950	DS/ER40-19.5-19.0mm	19.5-19.0	0.7677"-0.7480"
3940.02000	DS/ER40-20.0-19.5mm	20.0-19.5	0.7874"-0.7677"
3940.02050	DS/ER40-20.5-20.0mm	20.5-20.0	0.8070"-0.7874"
3940.02100	DS/ER40-21.0-20.5mm	21.0-20.5	0.8267"-0.8070"
3940.02150	DS/ER40-21.5-21.0mm	21.5-21.0	0.8464"-0.8267"
3940.02200	DS/ER40-22.0-21.5mm	22.0-21.5	0.8661"-0.8464"
3940.02250	DS/ER40-22.5-22.0mm	22.5-22.0	0.8857"-0.8661"
3940.02300	DS/ER40-23.0-22.5mm	23.0-22.5	0.9055"-0.8857"
3940.02350	DS/ER40-23.5-23.0mm	23.5-23.0	0.9251"-0.9055"
3940.02400	DS/ER40-24.0-23.5mm	24.0-23.5	0.9448"-0.9251"
3940.02450	DS/ER40-24.5-24.0mm	24.5-24.0	0.9645"-0.9448"
3940.02500	DS/ER40-25.0-24.5mm	25.0-24.5	0.9842"-0.9645"
3940.02550	DS/ER40-25.5-25.0mm	25.5-25.0	1.0039"-0.9842"
3940.02600	DS/ER40-26.0-25.5mm	26.0-25.5	1.0236"-1.0039"

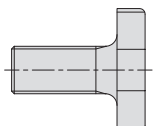
Drive Key for Inch Shell Mill Holders			
	SAP No.	Designation	For Size (inch)
	99964750M	64750	0.500"
	99964751M	64751	0.750"
	99964752M	64752	1.000"
	99964753M	64753	1.250"
	99964754M	64754	1.500"
	99964755M	64755	2.000"
	99964756M	64756	2.500"

Locking Screw for Inch Shell Mill Holders			
	SAP No.	Designation	For Size (inch)
	99964830M	64830	0.500"
	99964831M	64831	0.750"
	99964832M	64832	1.000"
	99964833M	64833	1.250"
	99964834M	64834	1.500"
	99964835M	64835	2.000"
	99964836M	64836	2.500"

Drive Key for Metric Shell Mill Holders			
	SAP No.	Designation	For Size (mm)
	99979665M	Dia 16 - 8x8x14	16
	99977351M	Dia 22 - 10x10x17	22
	99977352M	Dia 27 - 12x14x20	27
	99977353M	Dia 32 - 14x14x22	32
	66691839M	Dia 40 - 15.9x16x21	40
	66691840M	Dia 60 - 25.4x25x31	60

Locking Screw for Metric Shell Mill Holders Drive Keys			
	SAP No.	Designation	For Size (mm)
	99979663M	M 3 x 8 - DIN 912	16
	99977354M	M 4 X 8 - DIN 912	22
	99977355M	M 4 X 14 - DIN 912	27
	99979668M	M 5 X 13 - DIN 912	32
	99979650M	M 6 X 16 - DIN 912	40
	99979556M	M 12 X 25 - DIN 912	60

Locking Screw for Metric Shell Mill Holders (Small Counterbore)			
	SAP No.	Designation	For Size (mm)
	99979664M	M 8 x 20 DIN 912	16
	99977354M	M 10 x 30 DIN 912	22
	99977358M	M 12 x 35 DIN 912	27
	99977359M	M 16 x 40 DIN 912	32

Locking Screw for Metric Shell Mill Holders (Large Counterbore)			
	SAP No.	Designation	For Size (mm)
	99977777M	M 8 x 16 - DIN 6367	16
	99977757M	M 10 x 22 - DIN 6367	22
	99977755M	M 12 x 27 - DIN 6367	27
	99977771M	M 16 x 32 - DIN 6367	32
	99977371M	M 20 x 40 - DIN 6367	40

Locking Screw for End Mill Holders			
	SAP No.	Designation	For Size (inch)
	44431882M	6-32UNC-8	0.125"
	44431883M	8-32UNC-7	0.187"
	44431884M	1/4-28UNF-8	0.250"
	44431885M	5/16-24UNF-10	0.312"
	44431886M	3/8-24UNF-9	0.375"
	44431887M	7/16-20UNF-13	0.437"
	44431888M	7/16-20UNF-12	0.500"
	44431889M	1/2-20UNF-14	0.625"
	44431890M	5/8-18UNF-14	0.750" & 0.875"
	44431891M	3/4-16UNF-14	1.000"
	44431892M	3/4-16UNF-16	1.250" & 1.500"
	44431893M	1-14UNS-23	2.000"


Adjusting Screw Threaded Stud DIN 913 for End Mill Holders			
	SAP No.	Designation	For Size
	99900062M	M5x5 DIN913	CAT40/50
	99900216M	M5x6 DIN913	BT40
	99902345M	M6x10 DIN913	BT50

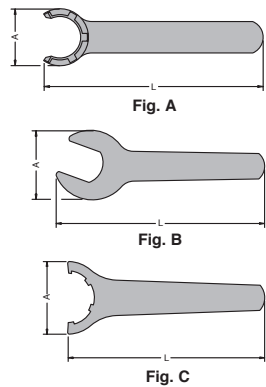
ER Collet Holders | Hardware

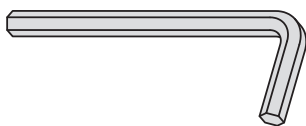
Adjusting Screw for ER Collet Chuck Holders			
	SAP No.	Designation	For Size
	66691814M	M10 x 15-001	ER16
	66691815M	M12 x 15-001	ER20
	66691816M	M16 x 15-001	ER25
	66691822M	M22 x 1.5 x 15-001	ER32 & 40

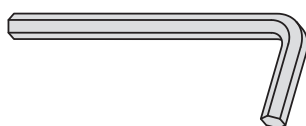
HSK Holders | Hardware

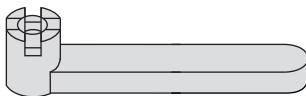
Coolant Tube for HSK Holders				
	SAP No.	P21	Designation	For Size
	66691743M	6934476	HSK 32 - 10	HSK 32
	66691744M	6934477	HSK 40 - 12	HSK 40
	66691745M	6934309	HSK 50 - 16	HSK 50
	66691746M	6934094	HSK 63 - 18	HSK 63
	66691747M	6943611	HSK 80 - 20	HSK 80
	66691748M	6934224	HSK 100 - 24	HSK 100

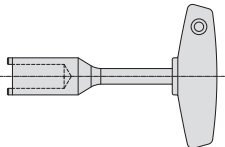
Wrenches for Milling Chucks			
	SAP No.	Designation	Size (metric & inch)
	66611451M	C-20	20 & 0.75"
	66611452M	C-25	25 & 1.000"
	66611453M	C-32	32 & 1.250"
	66611454M	C-1.5"	1.5"
	66611455M	C-2.0"	2.0"

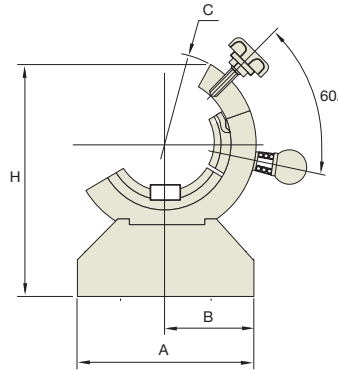
Wrenches for ER Collect Holders							
	SAP No.	Designation	For Clamping Nut	Dimensions			Fig
	A	L	G				
	99942650M	E11M	E11M	16.8	90.0	-	A
	99932510M	E16M	E16M	22.5	110.0	-	A
	66692121M	E20M	E20M	29.0	120.0	-	A
	99933989M	E25M	E25M	36.0	130.0	-	A
	99977342M	GS25(SW25)	ER16-DIN6499	42.0	140.0	-	B
	66692122M	E20	ER20-DIN6499	54.0	168.0	-	B
	99921608M	E25	ER25-DIN6499	65.0	210.0	-	C
	99921609M	E32	ER32-DIN6499	75.0	250.0	-	C
99921610M	E40	ER40-DIN6499	90.0	290.0	-	C	

Wrench for Shell Mill Holders Inch Locking Screws			
	SAP No.	Designation	For Size (inch)
	66692077M	SW 3/16" hex key	0.500
	66692078M	SW 1/4" hex key	0.750
	66692079M	SW 5/16" hex key	1.000 & 1.250
	66692080M	SW 3/8" hex key	1.500
	66692081M	SW 1/2" hex key	2.000 & 2.500

Wrench for Shell Mill Holders Metric Locking Screws (Small Counterbore)			
	SAP No.	Designation	For Size (mm)
	66692161M	SW6 hex key	16
	66692162M	SW8 hex key	22
	66692163M	SW10 hex key	27
	66692164M	SW14 hex key	32
	66692165M	SW17 hex key	40

Wrench for Shell Mill Holders Metric Locking Screws (Large Counterbore)			
	SAP No.	Designation	For Size (mm)
	66691654M	S-16 DIN 6368	16
	66691655M	S-22 DIN 6368	22
	66691656M	S-27 DIN 6368	27
	66691657M	S-32 DIN 6368	32
	66691658M	S-40 DIN 6368	40

Wrench for HSK Coolant Tubes				
	SAP No.	P21	Designation	For Size
	66691749M	6738740	HSK 32-8.5x115	HSK 32
	66691750M	6738741	HSK 40-10.5x115	HSK 40
	66691751M	6738422	HSK 50-14.5x115	HSK 50
	66691752M	6738421	HSK 63-16.5x136	HSK 63
	66691753M	6738095	HSK 80-18.5x136	HSK 80
	66691754M	6738303	HSK 100-22x136	HSK 100



Tool Clamper

- No surface damage such as abrasion and scratch around taper shank closely associated with tool runout
- Easy to assemble and disassemble pull stud bolt
- Convenient and safe when using coolant tube wrench with milling chuck or ER collet chuck

SAP No.	Taper No.	Code No.	Dimensions (mm)				Weight (kg)
			A	B	C	H	
9890048	BT30	TCP30	125	65	108	135	3.0
9890049	BT40	TCP40	160	80	138	180	7.6
9890050	BT50	TCP50	180	90	165	205	8.6
9890051	SK30	TSK30	125	65	108	135	3.0
9890052	SK40	TSK40	160	80	138	180	7.6
9890053	SK50	TSK50	180	90	165	205	8.6

Tightening Fixture and Spindle Wipe

Tightening Fixtures



SAP No.	Designation	Taper	Length
66651481M	30-HTF	30	6.2"
66651483M	40-HTF	40	6.2"
66651485M	50-HTF	50	6.2"

Spindle Wipes – Professional Series



These handy wipers quick-clean your spindles, assuring that your toolholder tapers make continuous positive contact with them for repeatable on-center performance. They're also perfect for cleaning the bores of your collet chucks and Morse Taper holders.

SAP No.	Part No.	Description
9890054	ISO30	30-Taper Spindle Clean equipped with cleaning blades
9890055	ISO30-S	W30 Standard cleaning blade set
9890056	ISO30-V	W30 Varnish removing blade set
9890057	ISO30-P	W30 Polishing blade set
9890058	ISO40	40-Taper Spindle Clean equipped with cleaning blades
9890059	ISO40-S	W40 Standard cleaning blade set
9890060	ISO40-V	W40 Varnish removing blade set
9890061	ISO40-P	W40 Polishing blade set
9890062	ISO50	50-Taper Spindle Clean equipped with cleaning blades
9890063	ISO50-S	W50 Standard cleaning blade set
9890064	ISO50-V	W50 Varnish removing blade set
9890065	ISO50-P	W50 Polishing blade set

Runout Test Arbors for HSK Spindles



Used to measure the runout present in an spindle shaft.

Part No.	Taper Size	d1	A
72.560.740.100	32A	24	180
72.565.740.100	40A	24	180
72.570.740.100	50A	32	236
72.575.740.200	63A	40	346
72.580.740.200	80A	40	346
72.585.740.200	100A	40	349
72.555.740.100	25C	20	140
72.556.740.100	25E	20	140
72.573.740.110	50E	24	150
72.579.740.200	63F	40	346

Runout Test Arbors for 7/24 Taper Spindles (Steep Taper)



Includes: Test arbor with certificate in fitted wooden case.
Runout accuracy: Taper to cylinder shaft < 0.003 mm.
Re-calibration: Please return gauge master to Diebold for annual recalibration.

Part No.	Taper Size		d1	A
72.050.740.100	SK30	DIN69871	32	204
72.060.740.100	SK40	DIN69871	40	320
72.070.740.100	SK50	DIN69871	40	320
72.005.740.100	SK30	DIN2080	32	200
72.010.740.200	SK40	DIN2080	40	327
72.015.740.200	SK50	DIN2080	40	320
72.150.740.100	BT30	JIS B6339	32	230
72.160.740.200	BT40	JIS B6339	40	320
72.170.740.200	BT50	JIS B6339	50	300

Test Arbor with Ball Probe



Test arbor for testing the RTCP (Rotation Centre Point) of 5-axis spindles. Can also be used as runout test arbor (at the ball probe).

Delivery: Test arbor with certificate in fitted wooden case.
Runout accuracy: Taper to ball probe < 0,01 mm.
Re-calibration: Please return gauge master

Part No.	Taper Size	Ball ø	A
72.560.742.100	HSK32A	30	150
72.565.742.100	HSK40A	30	150
72.570.742.100	HSK50A	30	150
72.575.742.100	HSK63A	30	150
72.575.742.200	HSK63A	30	200
72.579.742.100	HSK63F	30	150
72.579.742.200	HSK63F	30	200
72.585.742.100	HSK100A	30	150
72.585.742.200	HSK100A	30	200
72.050.742.200	SK30	30	200
72.060.742.100	SK40	30	150
72.070.742.100	SK50	30	150
72.160.742.100	BT40	30	150
72.170.742.100	BT50	30	150

Test Arbor with Ball Probe



Part No.	dxL2	d1
72.000.742	12x60	30

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