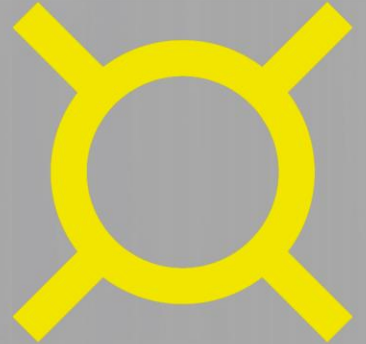


Technical Description

ZOLLER
expect great measures

Tooling Solutions



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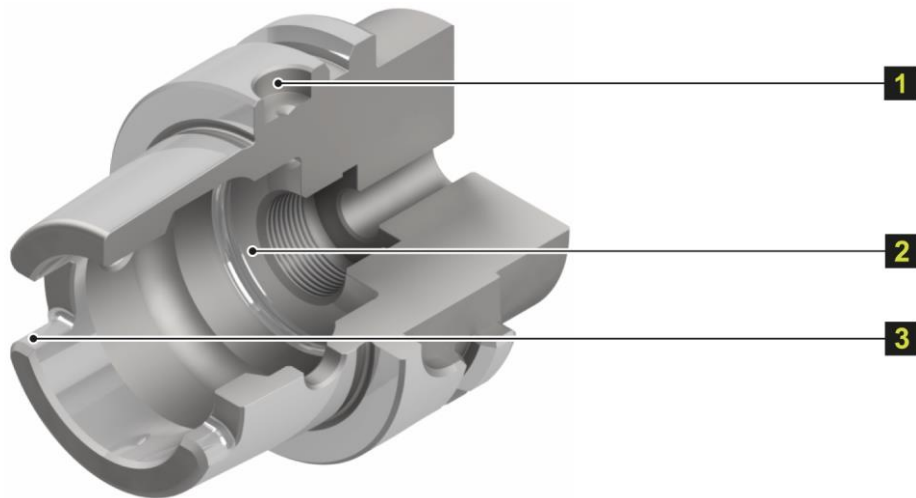
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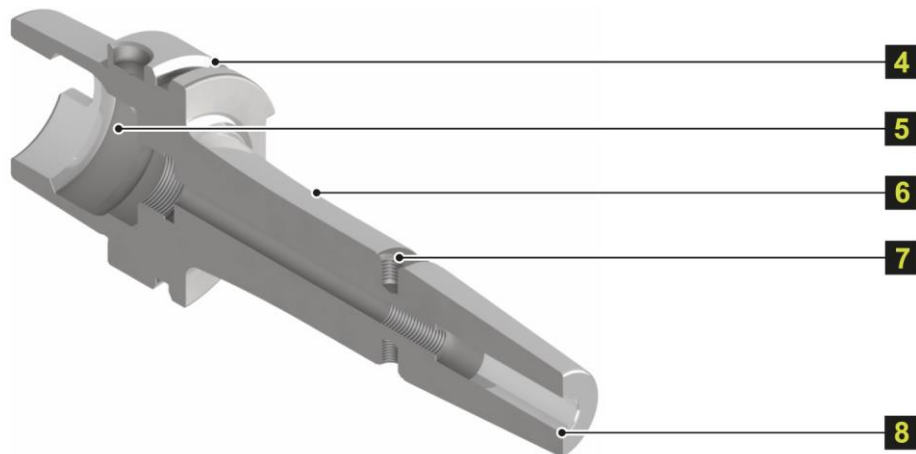
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Quality features

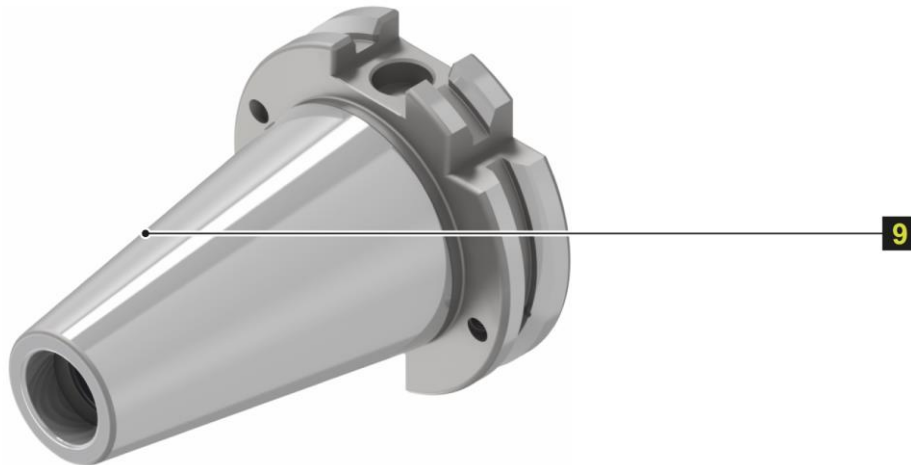


- ▶ **1 HSK-A, ISO 7388-1 and CORUM have included the bore for disk-chip as standard**
- ▶ **2 Hard reworked HSK-discharge surface guarantees:**
 - safe release of HSK at tool change
- ▶ **3 Hard reworked drive slots on HSK-taper guarantees:**
 - 100% symmetry of the HSK-slots
 - perfect seat and torque transfer in machine spindle

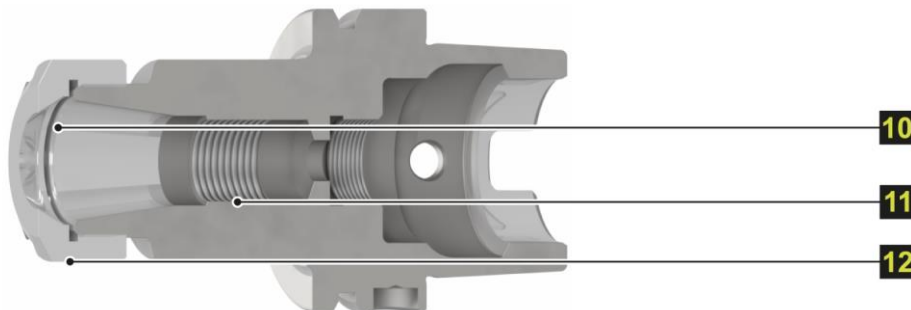


- ▶ **4 All toolholders fine balanced to G2,5 25.000 or max. unbalance ≤ 1 gmm, for:**
 - smooth and bearing protecting spindle run
 - longer spindle life cycle
 - maximum tool life
 - better milling surface

- 5 ▶ **Hard reworked HSK-shoulder guarantees:**
 - perfect runout of clamping shoulder (max. 10 : 5 times more accurate than DIN)
 - highest runout accuracy
 - maximum clamping force in spindle
 - maximum radial rigidity
- 6 ▶ **Long version with transition radius for increased radial rigidity**
- 7 ▶ **Standard shrink fit chucks with 4-threads for supplementary fine balancing**
- 8 ▶ **Long shrink fit for maximum clamping force with insertion radius only**



- 9 ▶ **All tapers in tolerance quality AT3**



- 10 ▶ **Radius transfer to ER-taper maintains accuracy of the collet**
- 11 ▶ **Big insertion depth for tools with long shank**
- 12 ▶ **Fine balanced and hardened clamping nut**



13 ► ZOLLER TITANIUM - High precision collet shrink fit holder with pull-out protection

Runout tolerance of the different toolholder types:

Toolholder type	Runout A < 160	Runout A ≥ 160
Endmill holder Weldon, Collet cuck, Shrink fit holder, Endmill holder Whistle Notch	≤ 3 μ	≤ 4 μ
Shell mill holder, Combi shell mill holder	≤ 6 μ	≤ 6 μ
Morse taper adapter	≤ 8 μ	

Identification with ZOLLER marking solution »idChip«



ZOLLER offers you the opportunity to supply our tool holders in standard size (ø 10 x 4,5 mm) with »idChip«. The following interfaces are already prepared for assembling the data chip:

▪ HSK-A	Hollow shank taper	DIN 69893 / ISO 12164
▪ SK	Steep taper	DIN 69871 / ISO 7388-1
▪ PSC (CORUM)	Polygon interface	ISO 26623-1

Various types and suppliers are available (low frequency / high frequency).

Low invest, high return

The cost of tool holders is less than 1 % of the total production costs of a workpiece and therefore nearly insignificant. But they offer enormous savings potential: because high quality in the tool holding interface enables you to:

- increase tool life significantly,
- improve machining processes in terms of productivity and workpiece quality,
- extend the life of the spindle.

As our calculation example shows, the use of high-quality ZOLLER tool holders lead to significant savings in the tool costs. Even one tool holder can reduce the cost of the tools used in it by more than 6.000 €, with an additional investment of less than 50 €. Who invests in ZOLLER, benefits from a top return!

ZOLLER – the solution for profitable, successful machining

However, the actual savings potential in relation to your entire manufacturing process is a lot higher than the 6.000 € per tool holder. Because ZOLLER quality also contributes to reducing machine and labour costs. Additional, you increase your productivity by:

- Higher machine availability due to longer spindle service life thanks to the highest balancing quality of the tool holders.
- Bigger cutting volume and thus faster processes by the optimal use of the modern HPC tools.

	«Noname»	ZOLLER
Product:	HSK-A 63 ER-collet chuck with standard collets, clamping diameter 16 mm	HSK-A 63 ER-collet chuck with high-performance nut and with precision collet, clamping diameter 16 mm
Price:	85,00 €	130,00 €
Usage time:	5 years	
Tool costs: (Solid carbide endmill, coated, Ø 16 mm)	130,00 € / tool	
Consumption:	2 milling cutters per week = 96 milling cutters per year	10 % tool life improvement: 1,8 milling cutters per week = 86 milling cutters per year
Tool costs / year:	12,480,00 €	11,180,00 €
Tool costs / 5 years:	62,400,00 €	55,900,00 €
Savings:		6500,00 € (for 45,00 € additional costs)

Possible tool cost savings: per used ZOLLER tool holder during a working life of 5 years.

Additional Information:

- ZOLLER TOOLINGS shrink fit chucks are manufactured exclusively from high-temperature tool steel. When used properly, our shrink fit chucks can be used for more than 10,000 shrinking operations without losing accuracy. This means that during each shrinking process the temperature of the ZOLLER TOOLINGS shrink fit chuck must be below 370° Celsius, which is the case with every correctly programmed and correctly adjusted shrink fit device. Only at temperatures above the tempering temperature (>550° Celsius) will there be negative joint deformation of the tool steel. In particular, it must be ensured that only a fully cooled ZOLLER TOOLINGS shrink fit chuck is used for a new shrinking process.
- Permissible transmittable torque Minimum clamping depth (for clamping of fully cylindrical shafts, tolerance h6)

Clamping diameter	Minimum clamping depth (min.)	Permissible transmissible torque
3 mm	12 mm	4 Nm
4 mm	16 mm	11 Nm
5 mm	20 mm	17 Nm
6 mm	26 mm	24 Nm
8 mm	26 mm	45 Nm
10 mm	31 mm	82 Nm
12 mm	37 mm	145 Nm
14 mm	37 mm	190 Nm
16 mm	40 mm	195 Nm
18 mm	40 mm	290 Nm
20 mm	42 mm	450 Nm
25 mm	48 mm	530 Nm
32 mm	52 mm	700 Nm

Our service: Our service: »idChip«, Procurement, assembling and additional fine balancing.

Please send your enquiries to our sales team: post@zoller.info

HSK-A 63

ER-Collet chuck

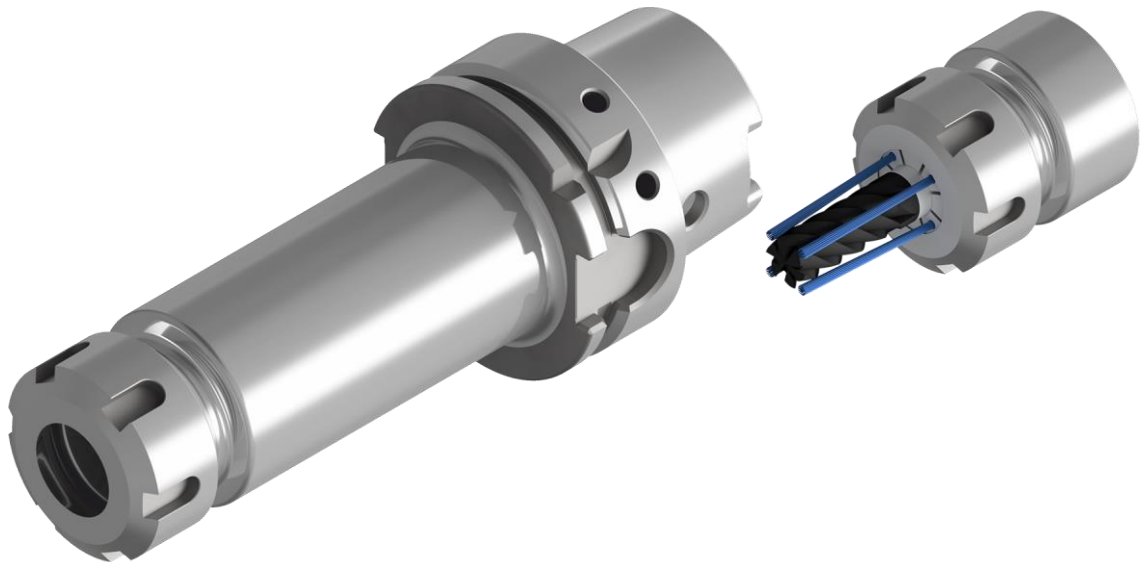


Figure: A = 130

Sealed Version

Usage:

For clamping tools with cylindrical shank in collets ER.

Type:

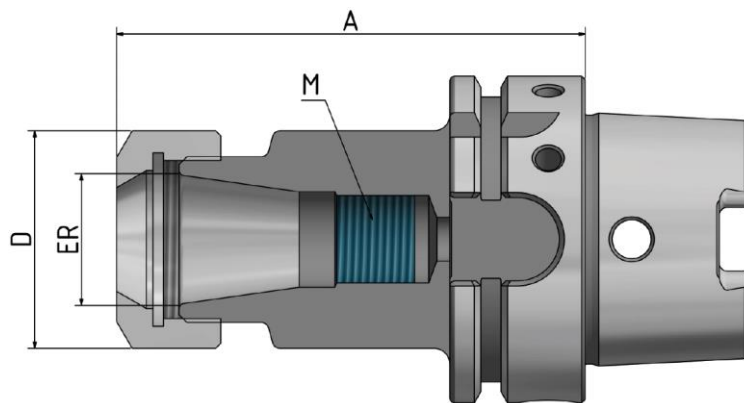
- Runout of outer taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT606302-006	63	11	20	75	1 - 7		Extra short
ZT606302-001	63	16	28	75	1 - 10		Extra short
ZT606302-002	63	25	42	75	1 - 16		Extra short
ZT606302-003	63	32	50	75	2 - 20		Extra short
ZT606302-004	63	40	63	85	4 - 26		Extra short
ZT606302-01	63	16	28	100	1 - 10	M11 x 1	Short
ZT606302-07	63	20	34	100	1 - 13	M14 x 1	Short
ZT606302-02	63	25	42	100	1 - 16	M18 x 1.5	Short
ZT606302-03	63	32	50	100	2 - 20	M24 x 1.5	Short
ZT606302-04	63	40	63	120	4 - 26	M28 x 1.5	Short
ZT606302-32	63	16	28	130	1 - 10	M11 x 1	Long
ZT606302-34	63	25	42	130	1 - 16	M18 x 1.5	Long
ZT606302-35	63	32	50	130	2 - 20	M24 x 1.5	Long
ZT606302-36	63	40	63	130	4 - 26	M28 x 1.5	Long
ZT606302-011	63	16	28	160	1 - 10	M11 x 1	Extra long
ZT606302-021	63	25	42	160	1 - 16	M18 x 1.5	Extra long
ZT606302-031	63	32	50	160	2 - 20	M24 x 1.5	Extra long
ZT606302-041	63	40	63	160	4 - 26	M28 x 1.5	Extra long
ZT606302-012	63	16	28	200	1 - 10	M11 x 1	Extra long
ZT606302-022	63	25	42	200	1 - 16	M18 x 1.5	Extra long
ZT606302-032	63	32	50	200	2 - 20	M24 x 1.5	Extra long

ER-Collet chuck «Mini»

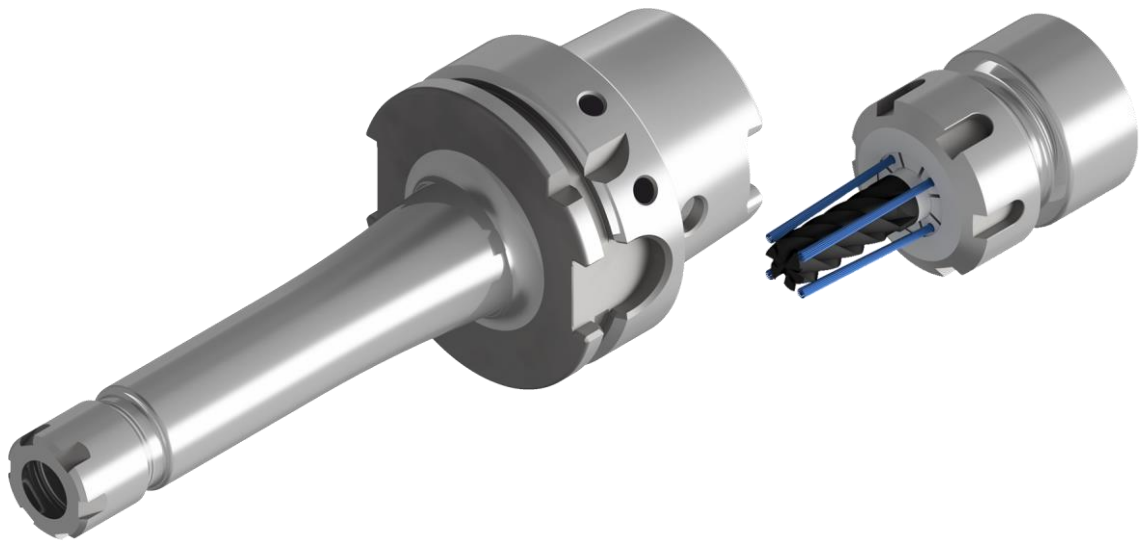


Figure: A = 130

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

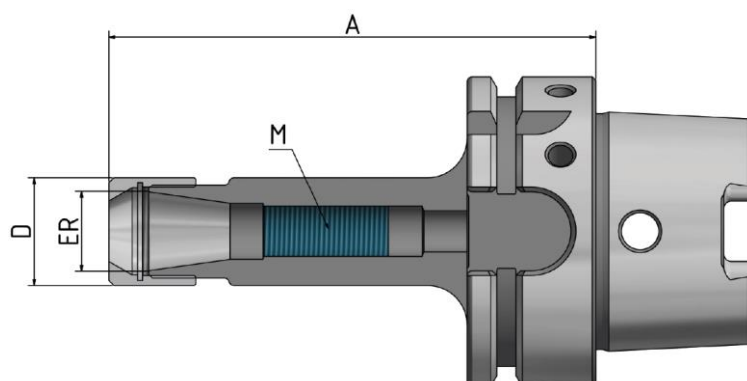
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- With clamping nut

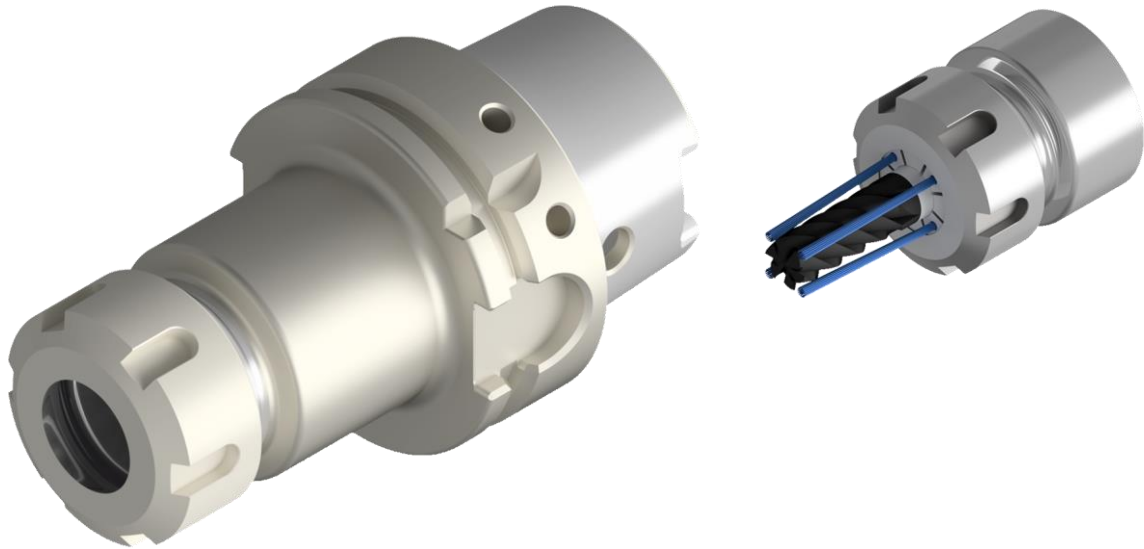
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT606302-41	63	11	16	70	1 - 7	M8 x 1	Extra short
ZT606302-43	63	16	22	70	1 - 10	M11 x 1	Extra short
ZT606302-21	63	11	16	100	1 - 7	M8 x 1	Short
ZT606302-23	63	16	22	100	1 - 10	M11 x 1	Short
ZT606302-25	63	20	28	100	1 - 13	M14 x 1	Short
ZT606302-27	63	25	35	100	1 - 16	M18 x 1.5	Short
ZT606302-51	63	11	16	130	1 - 7	M8 x 1	Long
ZT606302-52	63	16	22	130	1 - 10	M11 x 1	Long
ZT606302-53	63	20	28	130	1 - 13	M14 x 1	Long
ZT606302-54	63	25	35	130	1 - 16	M18 x 1.5	Long
ZT606302-22	63	11	16	160	1 - 7	M8 x 1	Extra long
ZT606302-24	63	16	22	160	1 - 10	M11 x 1	Extra long
ZT606302-26	63	20	28	160	1 - 13	M14 x 1	Extra long
ZT606302-28	63	25	35	160	1 - 16	M18 x 1.5	Extra long

ER-Collet chuck corrosion-resistant



corrosion protected

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

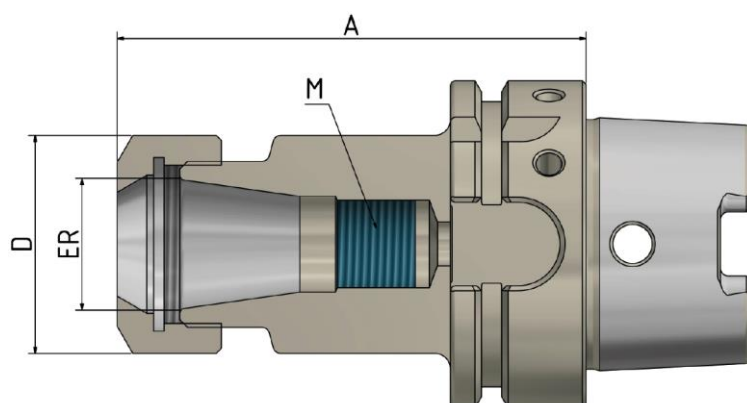
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT6063028-01	63	16	28	100	1 - 10	M11 x 1	Short
ZT6063028-02	63	25	42	100	1 - 16	M18 x 1.5	Short
ZT6063028-03	63	32	50	100	1 - 20	M24 x 1.5	Short
ZT6063028-04	63	40	63	120	4 - 26	M28 x 1.5	Short

HPC Precision ER Collet Chuck HAWK EYE® / ER «Mini»

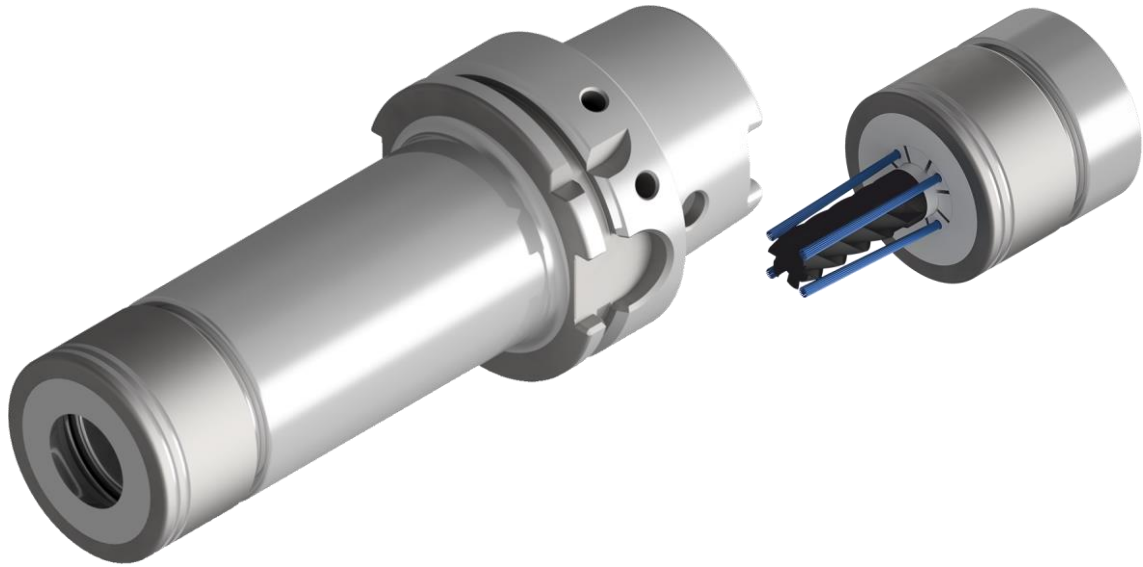


Figure: A = 130

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

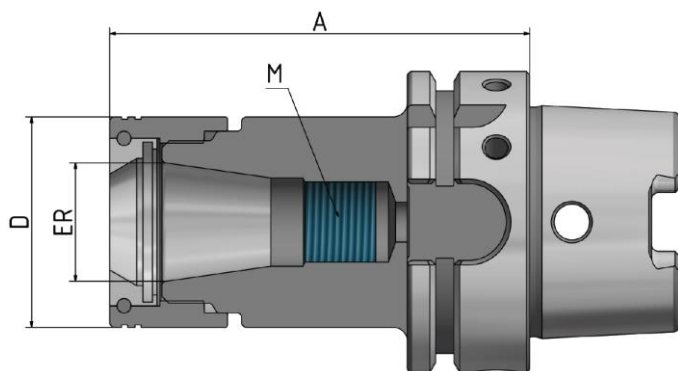
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2 μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

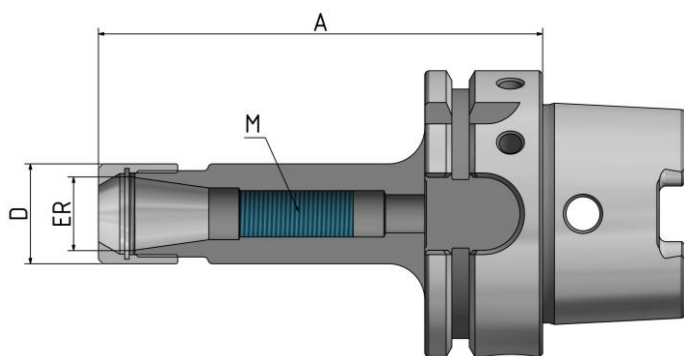
- With round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT606332-002	63	16	34	75	1 - 10	-	Extra short
ZT606332-003	63	20	38	75	1 - 13	-	Extra short
ZT606332-004	63	25	44	75	1 - 16	-	Extra short
ZT606332-005	63	32	52	75	2 - 20	-	Extra short
ZT606332-006	63	40	62	85	4 - 26	-	Extra short
ZT606332-02	63	16	34	100	1 - 10	M11 x 1	Short
ZT606332-04	63	25	44	100	1 - 16	M18 x 1.5	Short
ZT606332-05	63	32	52	100	2 - 20	M24 x 1.5	Short
ZT606332-06	63	40	62	120	4 - 26	M28 x 1.5	Short
ZT606332-52	63	16	34	130	1 - 10	M11 x 1	Long
ZT606332-54	63	25	44	130	1 - 16	M18 x 1.5	Long
ZT606332-55	63	32	52	130	2 - 20	M24 x 1.5	Long
ZT606332-62	63	16	34	160	1 - 10	M11 x 1	Extra long
ZT606332-64	63	25	44	160	1 - 16	M18 x 1.5	Extra long
ZT606332-65	63	32	52	160	2 - 20	M24 x 1.5	Extra long



HPC Precision ER Collet Chuck HAWK EYE® «Mini»

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT606334-01	63	11	16	100	1 - 7	M8 x 1	Short
ZT606334-02	63	16	24	100	1 - 10	M11 x 1	Short
ZT606334-61	63	11	16	160	1 - 7	M8 x 1	Extra long
ZT606334-62	63	16	24	160	1 - 10	M11 x 1	Extra long

Endmill holder Weldon

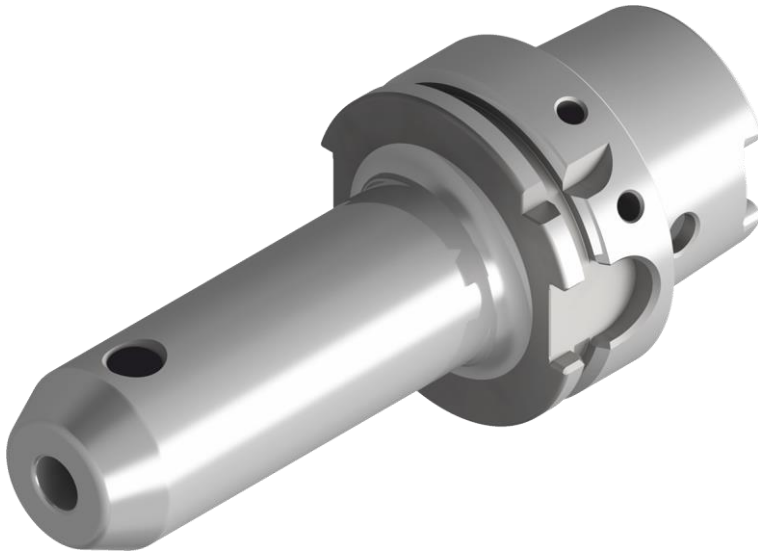


Figure: A = 120

Usage:

For clamping tools with cylindrical shank according to DIN 1835B/6359HB.

Type:

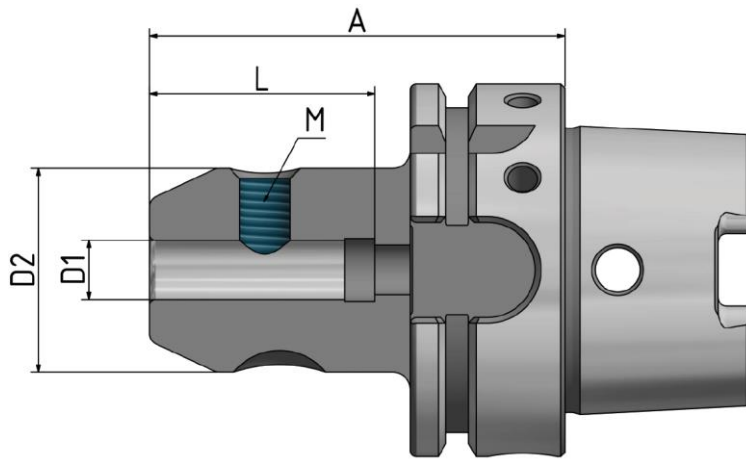
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT606304-01	63	6	65	25	35	M6	Short
ZT606304-02	63	8	65	28	35	M8	Short
ZT606304-03	63	10	65	35	41	M10	Short
ZT606304-04	63	12	80	42	48	M12	Short
ZT606304-05	63	14	80	44	48	M12	Short
ZT606304-06	63	16	80	48	51	M14	Short
ZT606304-07	63	18	80	50	51	M14	Short
ZT606304-08	63	20	80	52	53	M16	Short
ZT606304-10	63	25	110	65	60	M18 x 2	Short
ZT606304-11	63	32	110	72	64	M20 x 2	Short
ZT606304-12	63	40	125	80	80	M20 x 2	Short
ZT606304-31	63	6	120	25	35	M6	Long
ZT606304-32	63	8	120	28	35	M8	Long
ZT606304-33	63	10	120	35	41	M10	Long
ZT606304-34	63	12	120	42	48	M12	Long
ZT606304-35	63	14	120	44	48	M12	Long
ZT606304-36	63	16	120	48	51	M14	Long
ZT606304-37	63	18	120	50	51	M14	Long
ZT606304-38	63	20	120	52	53	M16	Long
ZT606304-61	63	6	160	25	35	M6	Extra Long
ZT606304-62	63	8	160	28	35	M8	Extra Long
ZT606304-63	63	10	160	35	41	M10	Extra Long
ZT606304-64	63	12	160	42	48	M12	Extra Long
ZT606304-65	63	14	160	44	48	M12	Extra Long
ZT606304-66	63	16	160	48	51	M14	Extra Long
ZT606304-67	63	18	160	50	51	M14	Extra Long
ZT606304-68	63	20	160	52	53	M16	Extra Long
ZT606304-69	63	25	160	65	60	M18 x 2	Extra Long
ZT606304-70	63	32	160	72	64	M20 x 2	Extra Long

Endmill holder Weldon «Cool Tool»

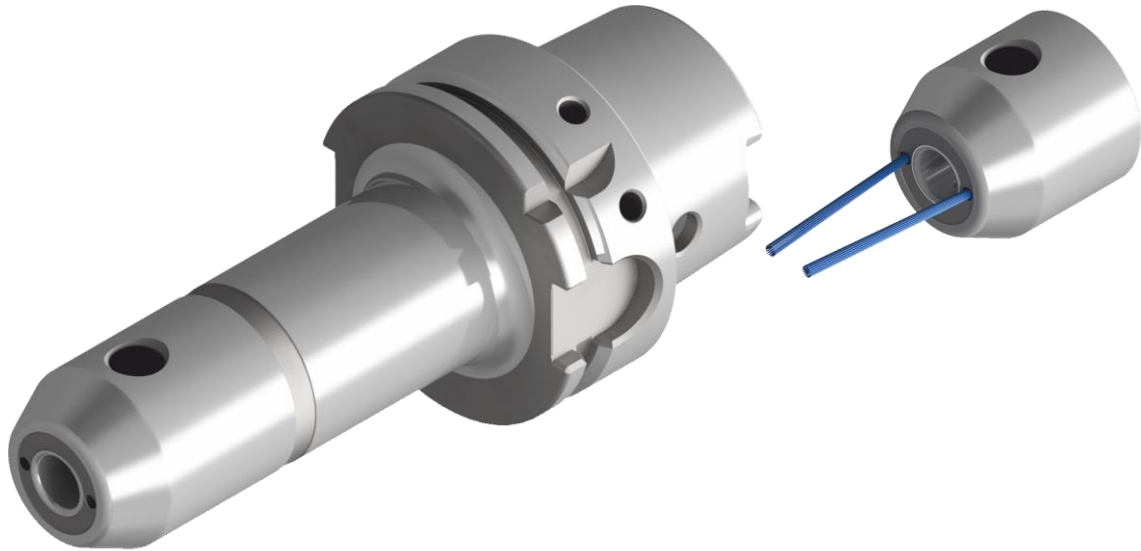


Figure: A = 120

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

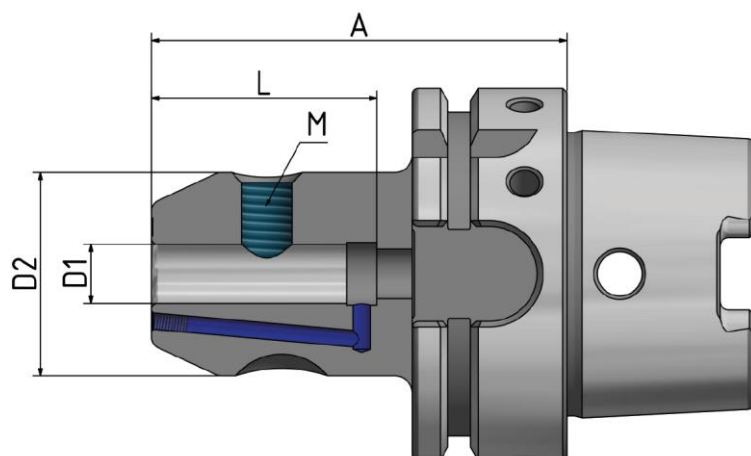
- Two holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

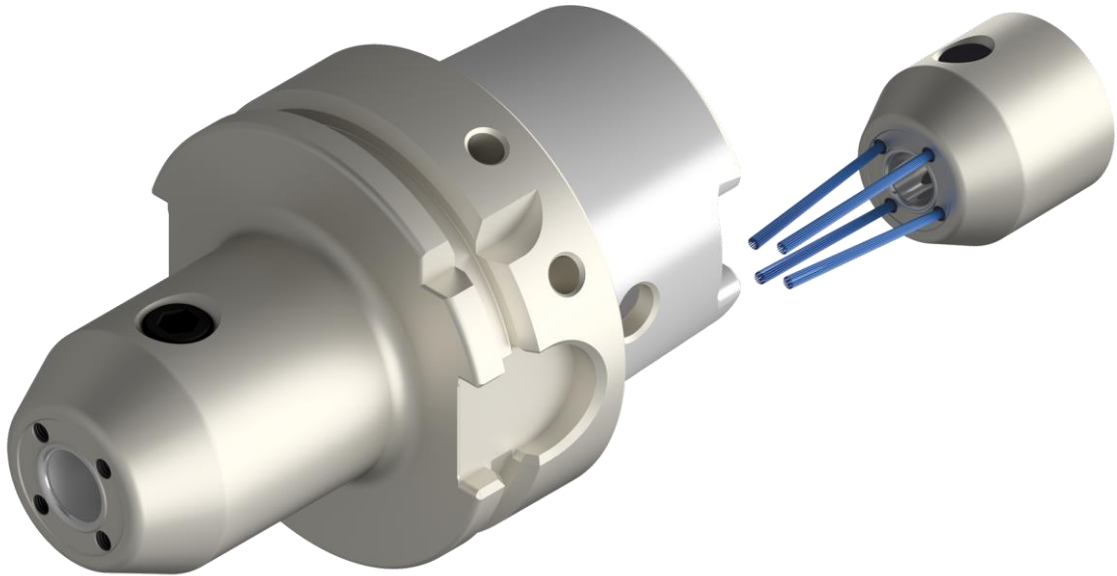
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT6063041-01	63	6	65	25	35	M6	Short
ZT6063041-02	63	8	65	28	35	M8	Short
ZT6063041-03	63	10	65	35	41	M10	Short
ZT6063041-04	63	12	80	42	48	M12	Short
ZT6063041-05	63	14	80	44	48	M12	Short
ZT6063041-06	63	16	80	48	51	M14	Short
ZT6063041-07	63	18	80	50	51	M14	Short
ZT6063041-08	63	20	80	52	53	M16	Short
ZT6063041-10	63	25	110	65	60	M18 x 2	Short
ZT6063041-11	63	32	110	72	64	M20 x 2	Short
ZT6063041-31	63	6	120	25	35	M6	Long
ZT6063041-32	63	8	120	28	35	M8	Long
ZT6063041-33	63	10	120	35	41	M10	Long
ZT6063041-34	63	12	120	42	48	M12	Long
ZT6063041-35	63	14	120	44	48	M12	Long
ZT6063041-36	63	16	120	48	51	M14	Long
ZT6063041-37	63	18	120	50	51	M14	Long
ZT6063041-38	63	20	120	52	53	M16	Long
ZT6063041-61	63	6	160	25	35	M6	Extra Long
ZT6063041-62	63	8	160	28	35	M8	Extra Long
ZT6063041-63	63	10	160	35	41	M10	Extra Long
ZT6063041-64	63	12	160	42	48	M12	Extra Long
ZT6063041-65	63	14	160	44	48	M12	Extra Long
ZT6063041-66	63	16	160	48	51	M14	Extra Long
ZT6063041-67	63	18	160	50	51	M14	Extra Long
ZT6063041-68	63	20	160	52	53	M16	Extra Long

Endmill holder Weldon with 4 x «Cool Tool» - corrosion resistant



corrosion protected

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

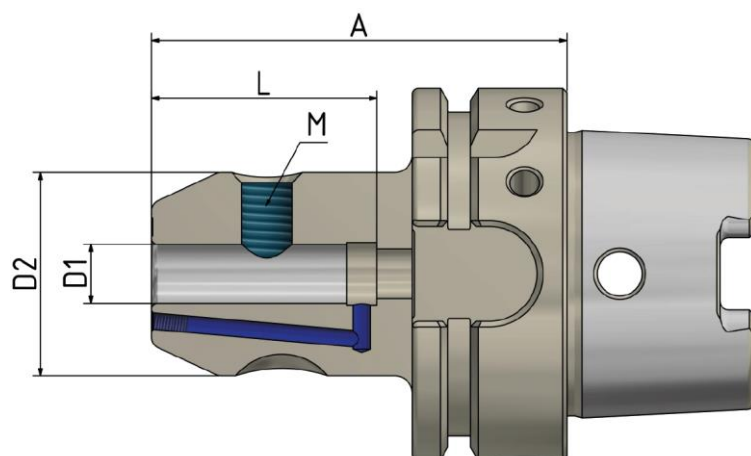
- The complete tool side of the holder is protected against corrosion.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).
- Four holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

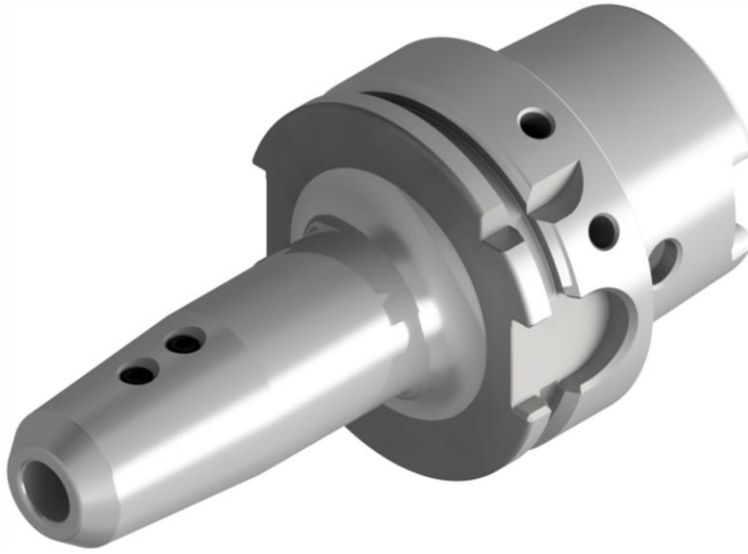
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT6063048-018	63	6	65	25	35	M6	Short
ZT6063048-028	63	8	65	28	35	M8	Short
ZT6063048-038	63	10	65	35	41	M10	Short
ZT6063048-048	63	12	80	42	48	M12	Short
ZT6063048-068	63	16	80	48	51	M14	Short
ZT6063048-088	63	20	80	52	53	M16	Short

Endmill holder Weldon - slim, long



Usage:

Combined design for clamping tools with straight shank according to DIN 1835B/6359HB and DIN 1835E/6359HE.

Type:

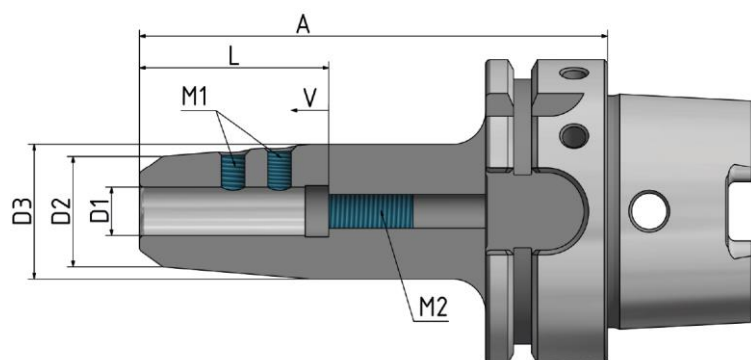
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Special clamping screw (with ball head)
- Cannulated length adjustment screw

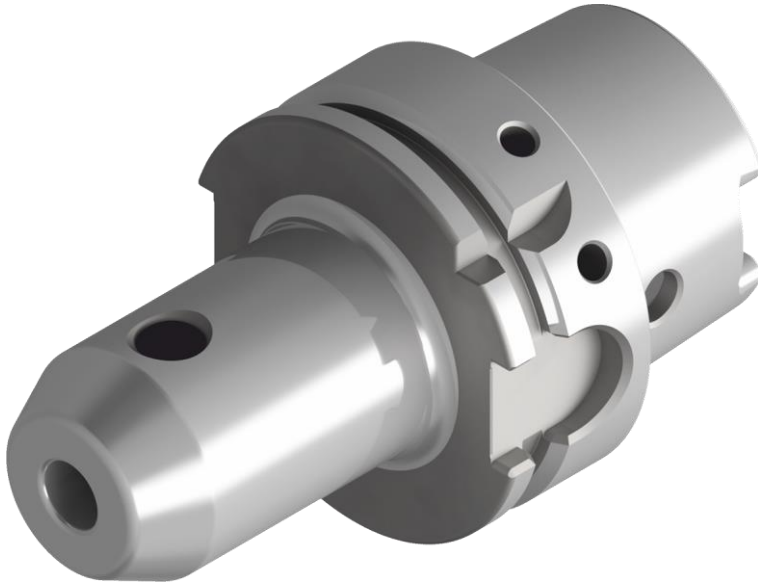
Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	D1	A	D2	D3	L	M1	M2	Version
ZT606327-01	63	6	100	13	24	35	M6	M6	Long
ZT606327-03	63	8	100	15	26	35	M6	M6	Long
ZT606327-05	63	10	100	16	28	41	M6	M8 x 1	Long
ZT606327-07	63	12	100	17	29	48	M6	M10 x 1	Long

Endmill holder Whistle-Notch



Usage:

For clamping tools with cylindrical shank according to DIN 1835E/6359HE.

Type:

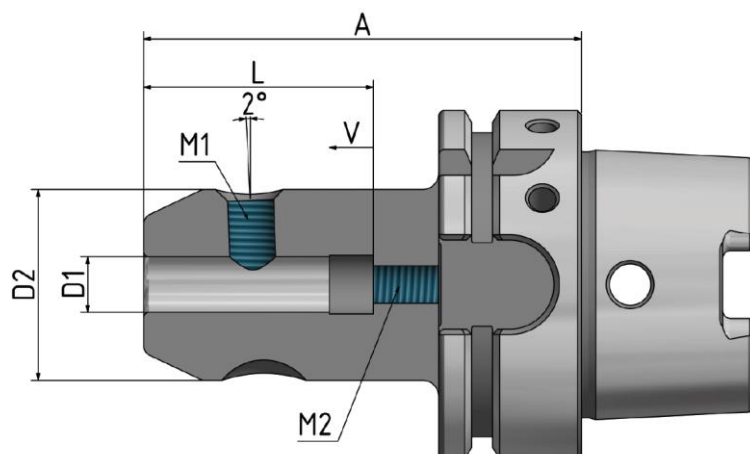
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- Built-in length adjustment screw

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	D1	A	D2	L	M1	M2	V	Version
ZT606309-01	63	6	80	25	36,5	M6	M5	10	Short
ZT606309-02	63	8	80	28	36,5	M8	M6	10	Short
ZT606309-03	63	10	80	35	40,5	M10	M8	10	Short
ZT606309-04	63	12	90	42	45,5	M12	M10	10	Short
ZT606309-05	63	14	90	44	45,5	M12	M10	10	Short
ZT606309-06	63	16	100	48	48,5	M14	M11	10	Short
ZT606309-07	63	18	100	50	48,5	M14	M12	10	Short
ZT606309-08	63	20	100	52	50,5	M16	M16	10	Short
ZT606309-10	63	25	110	65	56,5	M18 x 2	M20	10	Short
ZT606309-11	63	32	110	72	60,5	M20 x 2	M20	10	Short

Shrink fit holder 4.5°

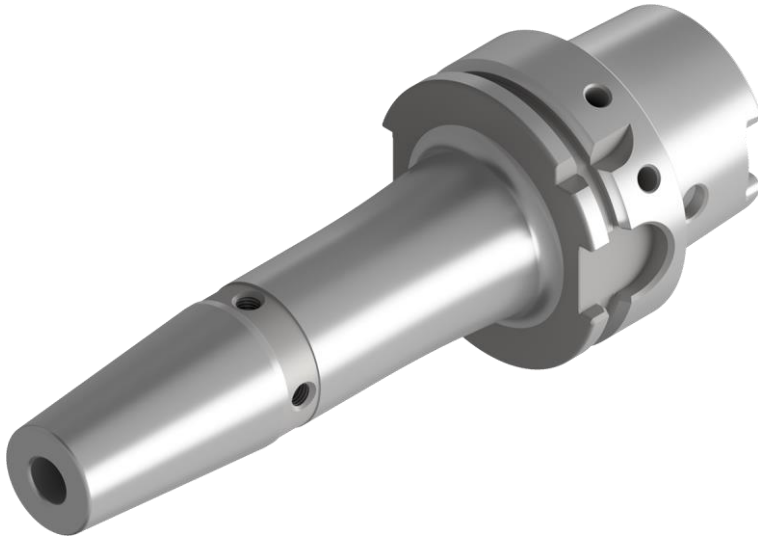


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

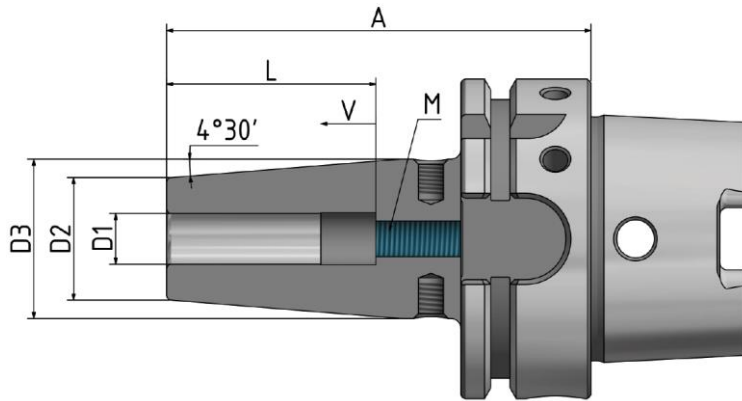
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

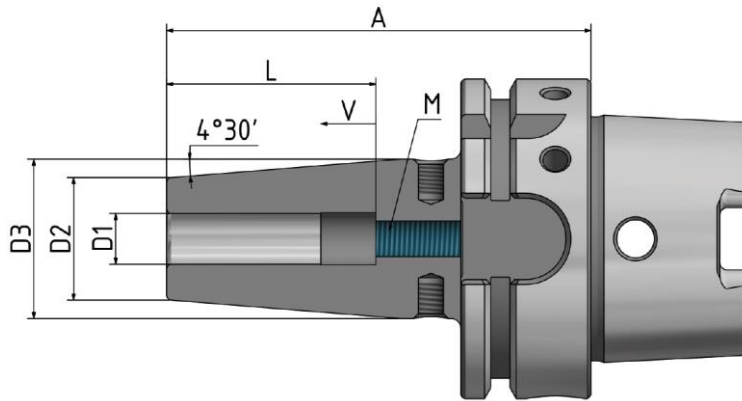
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606321-13	63	3	80	12	17	-	-	-	Short
ZT606321-14	63	4	80	12	17	-	-	-	Short
ZT606321-15	63	5	80	12	17	-	-	-	Short
ZT606321-01	63	6	80	21	27	37	M5	10	Short
ZT606321-02	63	8	80	21	27	37	M6	10	Short
ZT606321-03	63	10	85	24	32	42	M8 x 1	10	Short
ZT606321-04	63	12	90	24	32	48	M10 x 1	10	Short
ZT606321-05	63	14	90	27	34	48	M10 x 1	10	Short
ZT606321-06	63	16	95	27	34	51	M12 x 1	10	Short
ZT606321-07	63	18	95	33	42	51	M12 x 1	10	Short
ZT606321-08	63	20	100	33	42	53	M16 x 1	10	Short
ZT606321-09	63	25	115	44	53	59	M16 x 1	10	Short
ZT606321-10	63	32	120	44	53	63	M16 x 1	10	Short
ZT606321-313	63	3	120	12	17	-	-	-	Long
ZT606321-314	63	4	120	12	17	-	-	-	Long
ZT606321-315	63	5	120	12	17	-	-	-	Long
ZT606321-31	63	6	120	21	27	37	M5	10	Long
ZT606321-32	63	8	120	21	27	37	M6	10	Long
ZT606321-33	63	10	120	24	32	42	M8 x 1	10	Long
ZT606321-34	63	12	120	24	32	48	M10 x 1	10	Long
ZT606321-35	63	14	120	27	34	10	M10 x 1	10	Long
ZT606321-36	63	16	120	27	34	10	M12 x 1	10	Long
ZT606321-37	63	18	120	33	42	10	M12 x 1	10	Long
ZT606321-38	63	20	120	33	42	10	M16 x 1	10	Long
ZT606321-39	63	25	120	44	53	10	M16 x 1	10	Long
ZT606321-513	63	3	130	12	17	-	-	-	Long
ZT606321-514	63	4	130	12	17	-	-	-	Long
ZT606321-515	63	5	130	12	17	-	-	-	Long



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606321-51	63	6	130	21	27	37	M5	10	Long
ZT606321-52	63	8	130	21	27	37	M6	10	Long
ZT606321-53	63	10	130	24	32	42	M8 x 1	10	Long
ZT606321-54	63	12	130	24	32	48	M10 x 1	10	Long
ZT606321-55	63	14	130	27	34	48	M10 x 1	10	Long
ZT606321-56	63	16	130	27	34	51	M12 x 1	10	Long
ZT606321-57	63	18	130	33	42	51	M12 x 1	10	Long
ZT606321-58	63	20	130	33	42	53	M16 x 1	10	Long
ZT606321-59	63	25	130	44	53	59	M16 x 1	10	Long
ZT606321-60	63	32	130	44	53	63	M16 x 1	10	Long
ZT606321-613	63	3	160	12	17				Extra Long
ZT606321-614	63	4	160	12	17				Extra Long
ZT606321-615	63	5	160	12	17				Extra Long
ZT606321-61	63	6	160	21	27	37	M5	10	Extra Long
ZT606321-62	63	8	160	21	27	37	M6	10	Extra Long
ZT606321-63	63	10	160	24	32	42	M8 x 1	10	Extra Long
ZT606321-64	63	12	160	24	32	48	M10 x 1	10	Extra Long
ZT606321-65	63	14	160	27	34	48	M10 x 1	10	Extra Long
ZT606321-66	63	16	160	27	34	51	M12 x 1	10	Extra Long
ZT606321-67	63	18	160	33	42	51	M12 x 1	10	Extra Long
ZT606321-68	63	20	160	33	42	53	M16 x 1	10	Extra Long
ZT606321-69	63	25	160	44	53	59	M16 x 1	10	Extra Long
ZT606321-70	63	32	160	44	53	63	M16 x 1	10	Extra Long
ZT606321-81	63	6	200	21	27	37	M5	10	Extra Long
ZT606321-82	63	8	200	21	27	37	M6	10	Extra Long
ZT606321-83	63	10	200	24	32	42	M8 x 1	10	Extra Long
ZT606321-84	63	12	200	24	32	48	M10 x 1	10	Extra Long
ZT606321-85	63	14	200	27	34	48	M10 x 1	10	Extra Long
ZT606321-86	63	16	200	27	34	51	M12 x 1	10	Extra Long
ZT606321-87	63	18	200	33	42	51	M12 x 1	10	Extra Long
ZT606321-88	63	20	200	33	42	53	M16 x 1	10	Extra Long
ZT606321-89	63	25	200	44	53	59	M16 x 1	10	Extra Long

Shrink fit holder 4.5° «Cool Tool»

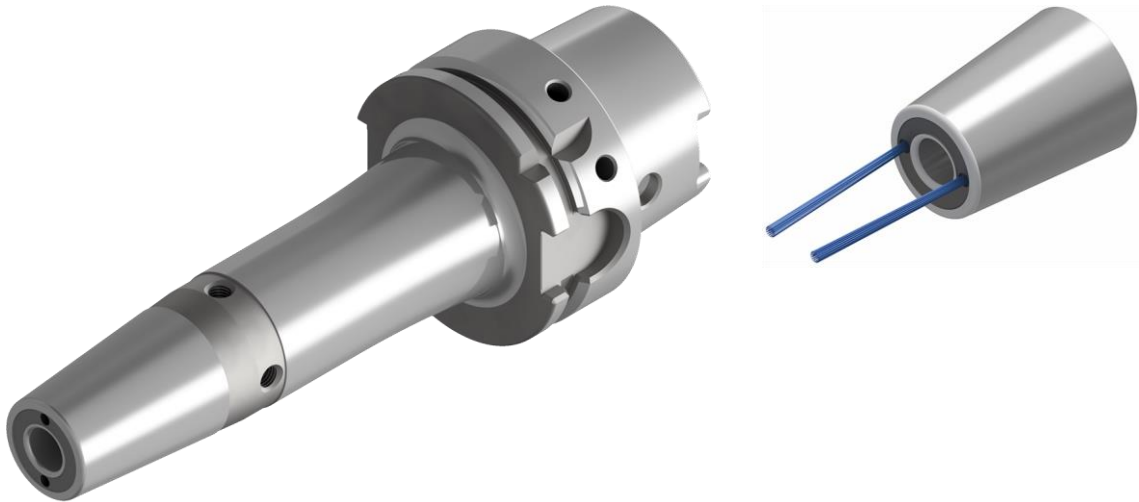


Figure: A = 130

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

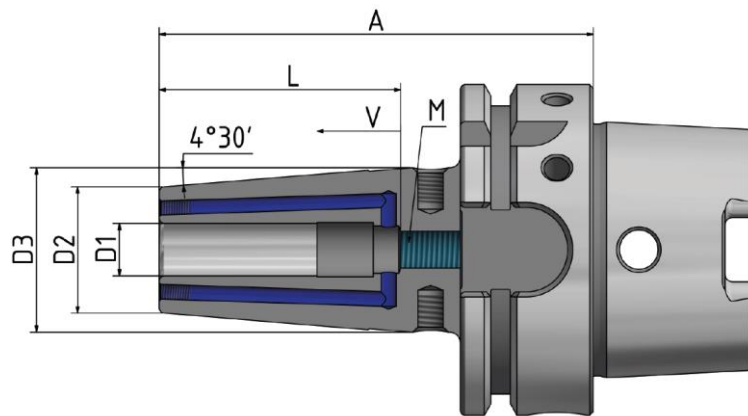
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Two holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

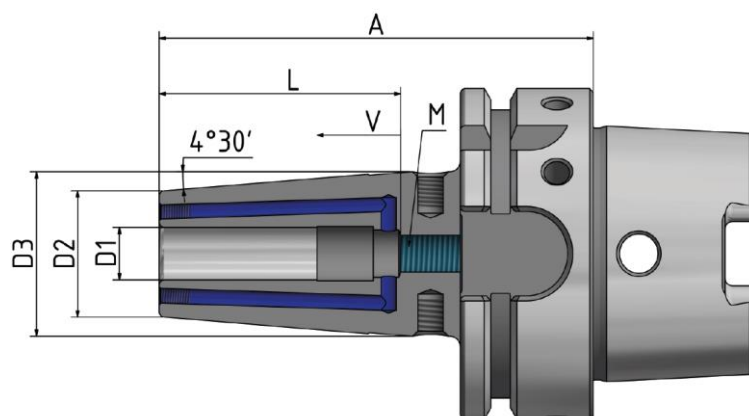
- Built-in length adjustment screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT6063219-031 ¹⁾	63	10	70	26	33	42			Extra short
ZT6063219-041 ¹⁾	63	12	70	26	33	45			Extra short
ZT6063219-061 ¹⁾	63	16	75	29	37	50			Extra short
ZT6063219-081 ¹⁾	63	20	75	35	43	50			Extra short
ZT6063219-091 ¹⁾	63	25	85	45	50	59			Extra short
ZT606321-139 ²⁾	63	3	80	12	17				Short
ZT606321-149 ²⁾	63	4	80	12	17				Short
ZT606321-159 ²⁾	63	5	80	12	17				Short
ZT606321-019	63	6	80	21	27	37	M5	10	Short
ZT606321-029	63	8	80	21	27	37	M6	10	Short
ZT606321-039	63	10	85	24	32	42	M8 x 1	10	Short
ZT606321-049	63	12	90	24	32	48	M10 x 1	10	Short
ZT606321-059	63	14	90	27	34	48	M10 x 1	10	Short
ZT606321-069	63	16	95	27	34	51	M12 x 1	10	Short
ZT606321-079	63	18	95	33	42	51	M12 x 1	10	Short
ZT606321-089	63	20	100	33	42	53	M16 x 1	10	Short
ZT606321-099	63	25	115	44	53	59	M16 x 1	10	Short
ZT606321-319	63	6	120	21	27	37	M5	10	Short
ZT606321-329	63	8	120	21	27	37	M6	10	Short
ZT606321-339	63	10	120	24	32	42	M8 x 1	10	Short
ZT606321-349	63	12	120	24	32	48	M10 x 1	10	Short
ZT606321-359	63	14	120	27	34	48	M10 x 1	10	Short
ZT606321-369	63	16	120	27	34	51	M12 x 1	10	Short
ZT606321-379	63	18	120	33	42	51	M12 x 1	10	Short
ZT606321-389	63	20	120	33	42	53	M16 x 1	10	Short
ZT606321-5139 ²⁾	63	3	130	12	17				Long
ZT606321-5149 ²⁾	63	4	130	12	17				Long
ZT606321-5159 ²⁾	63	5	130	12	17				Long

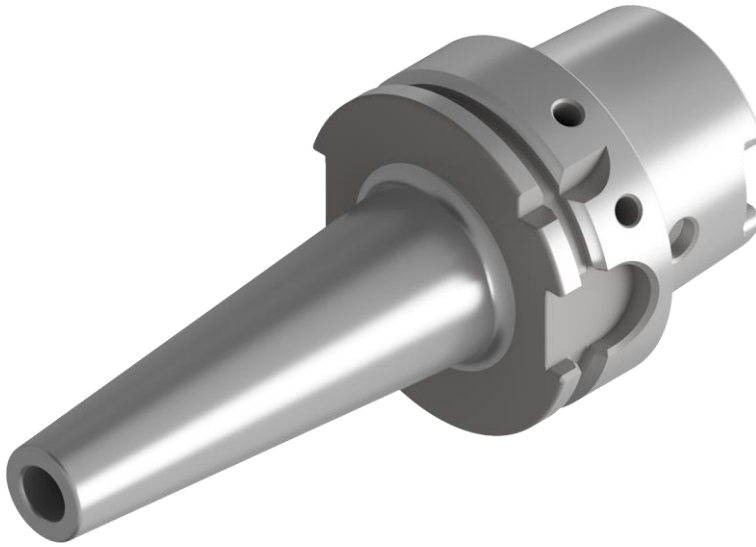


Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606321-519	63	6	130	21	27	37	M5	10	Long
ZT606321-529	63	8	130	21	27	37	M6	10	Long
ZT606321-539	63	10	130	24	32	42	M8 x 1	10	Long
ZT606321-549	63	12	130	24	32	48	M10 x 1	10	Long
ZT606321-559	63	14	130	27	34	48	M10 x 1	10	Long
ZT606321-569	63	16	130	27	34	51	M12 x 1	10	Long
ZT606321-579	63	18	130	33	42	51	M12 x 1	10	Long
ZT606321-589	63	20	130	33	42	53	M16 x 1	10	Long
ZT606321-599	63	25	130	44	53	59	M16 x 1	10	Long
ZT606321-609	63	32	130	44	53	63	M16 x 1	10	Long
ZT606321-619	63	6	160	21	27	37	M5	10	Extra Long
ZT606321-629	63	8	160	21	27	37	M6	10	Extra Long
ZT606321-639	63	10	160	24	32	42	M8 x 1	10	Extra Long
ZT606321-649	63	12	160	24	32	48	M10 x 1	10	Extra Long
ZT606321-669	63	16	160	27	34	51	M12 x 1	10	Extra Long
ZT606321-689	63	20	160	33	42	53	M12 x 1	10	Extra Long

1) Without additional balancing thread

2) «Cool Tool» hole not resealable

Shrink fit holder 4.5° long, slim



Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

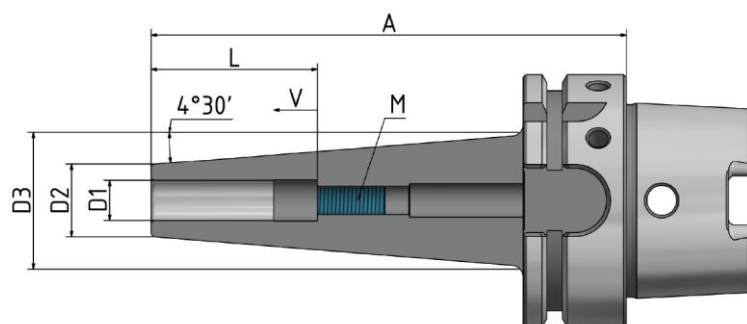
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 $\leq$ 0.003 mm.

Scope of delivery:

- Built-in length adjustment screw

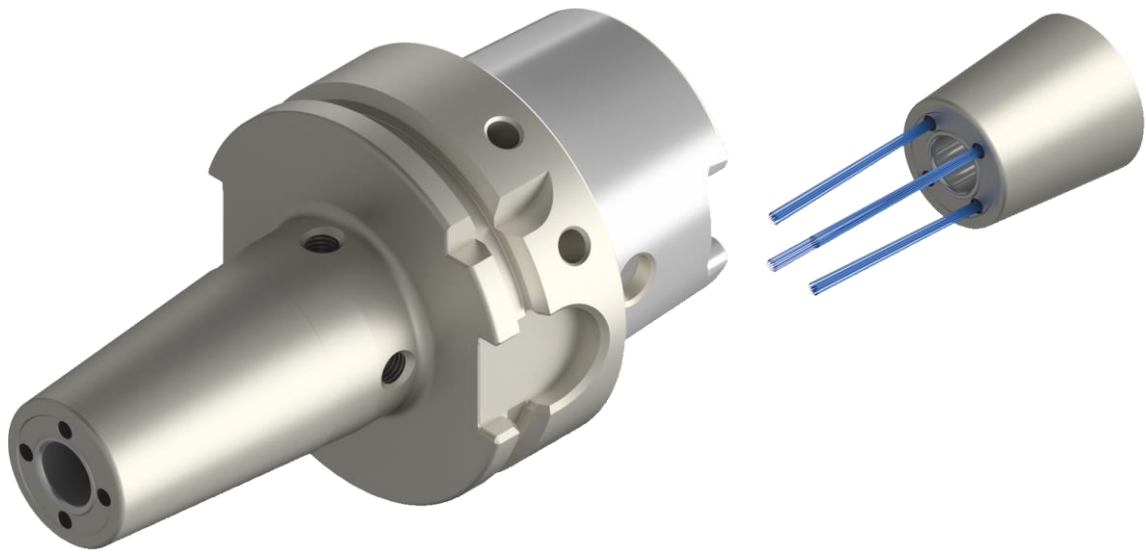
Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance $\leq$ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606321-41	63	6	120	15	30	37	M5	10	Long
ZT606321-42	63	8	120	15	30	37	M6	10	Long
ZT606321-43	63	10	120	18	33	42	M8 x 1	10	Long
ZT606321-44	63	12	120	18	33	48	M10 x 1	10	Long
Version with «Cool Tool»									
Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606321-41	63	6	120	15	30	37	M5	10	Long
ZT606321-42	63	8	120	16	31	37	M6	10	Long
ZT606321-43	63	10	120	18	33	42	M8 x 1	10	Long
ZT606321-44	63	12	120	20	35	48	M10 x 1	10	Long

Shrink fit holder 4.5° with 4 x «Cool Tool» – corrosion resistant



corrosion protected

Sealed Version

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

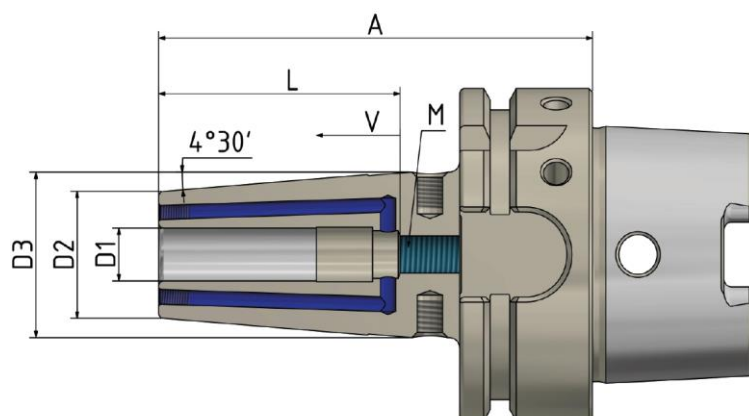
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- The tool side of the holder is protected against corrosion.
- With four additional threads on the circumference for subsequent fine balancing.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Four holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 4 x M3 screws for closing the «Cool Tool» holes, if required

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT606348-018	63	6	80	21	27	37	M5	10	Short
ZT606348-028	63	8	80	21	27	37	M6	10	Short
ZT606348-038	63	10	85	24	32	42	M8 x 1	10	Short
ZT606348-048	63	12	90	24	32	48	M10 x 1	10	Short
ZT606348-068	63	16	95	27	34	51	M12 x 1	10	Short
ZT606348-088	63	20	100	33	42	53	M16 x 1	10	Short

Shrink fit holder 3°

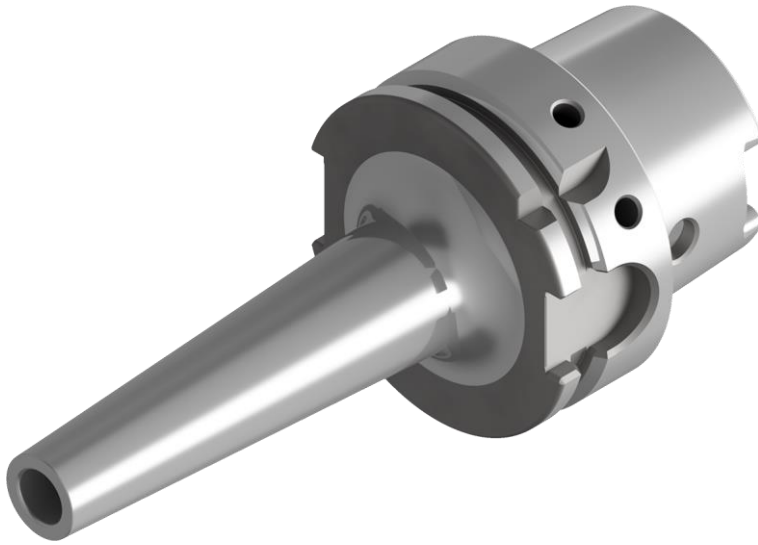


Figure: A = 120

Usage:

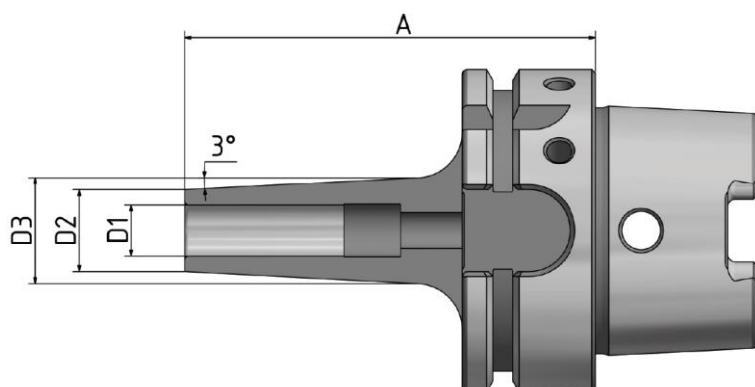
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Without balancing thread

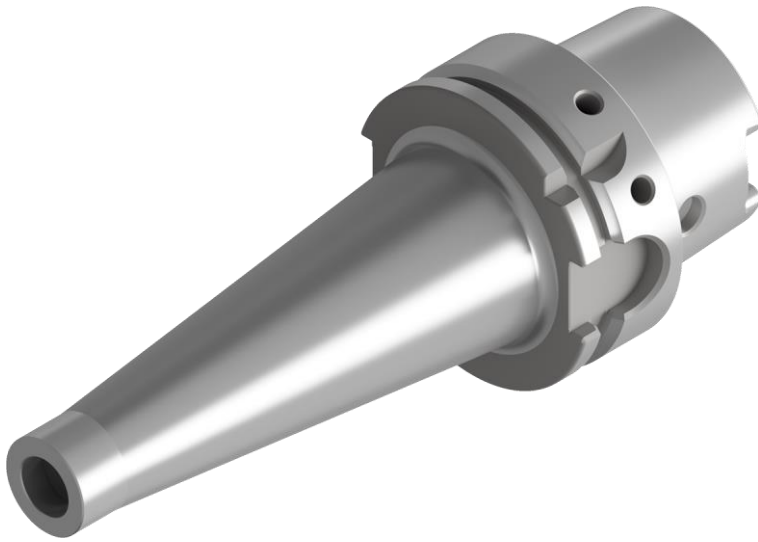
Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	Version
ZT606351-13	63	3	80	9	14	Short
ZT606351-14	63	4	80	10	15	Short
ZT606351-15	63	5	80	11	16	Short
ZT606351-01	63	6	80	12	18	Short
ZT606351-02	63	8	80	14	20	Short
ZT606351-03	63	10	80	16	22	Short
ZT606351-04	63	12	80	18	24	Short
ZT606351-313	63	3	120	9	14	Long
ZT606351-314	63	4	120	10	15	Long
ZT606351-315	63	5	120	11	16	Long
ZT606351-31	63	6	120	12	18	Long
ZT606351-32	63	8	120	14	20	Long
ZT606351-33	63	10	120	16	22	Long
ZT606351-34	63	12	120	18	24	Long

Thread shank adapter – conical form



Usage:

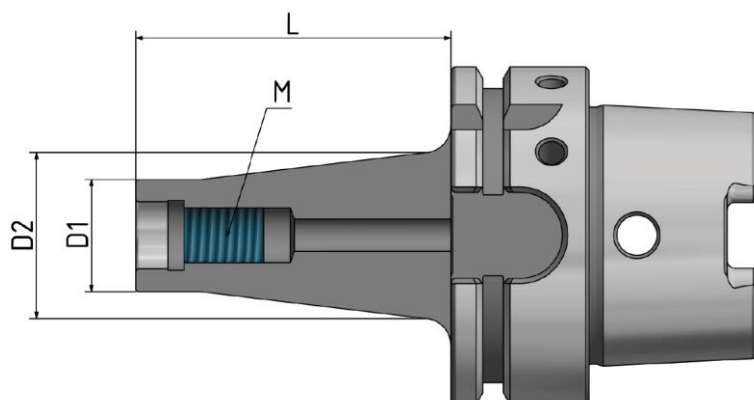
For screw-in cutters.

Type:

- Concentricity deviation of the taper to D1 ≤ 0.005 mm.

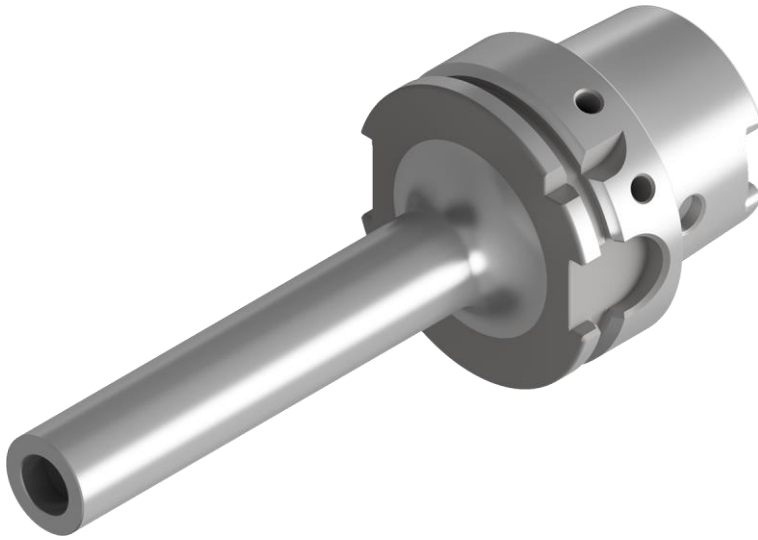
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	D2	L	M	Version
ZT606308-01	63	13	15	25	M8	Conical
ZT606308-02	63	13	23	50	M8	Conical
ZT606308-03	63	13	25	75	M8	Conical
ZT606308-04	63	13	30	100	M8	Conical
ZT606310-01	63	18	23	25	M10	Conical
ZT606310-02	63	18	25	50	M10	Conical
ZT606310-03	63	18	30	75	M10	Conical
ZT606310-04	63	18	35	100	M10	Conical
ZT606310-06	63	18	45	150	M10	Conical
ZT606312-01	63	21	24	25	M12	Conical
ZT606312-02	63	21	30	50	M12	Conical
ZT606312-03	63	21	35	75	M12	Conical
ZT606312-04	63	21	38	100	M12	Conical
ZT606312-06	63	21	45	150	M12	Conical
ZT606316-01	63	29	29	25	M16	Conical
ZT606316-02	63	29	34	50	M16	Conical
ZT606316-03	63	29	35	75	M16	Conical
ZT606316-04	63	29	40	100	M16	Conical
ZT606316-06	63	29	48	150	M16	Conical

Thread shank adapter – cylindrically form



Usage:

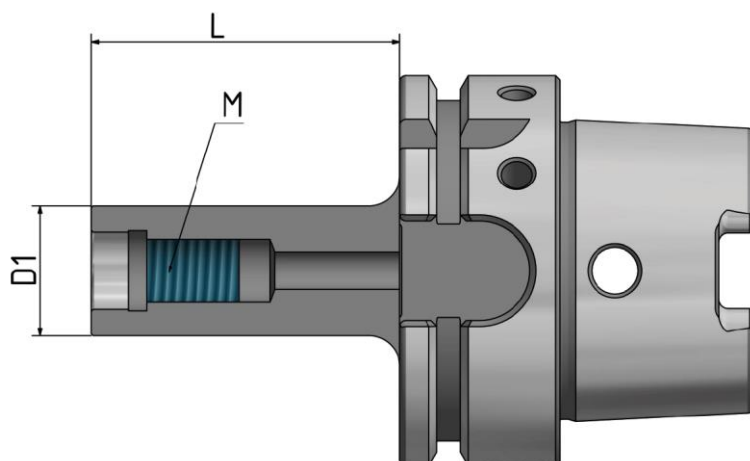
For screw-in cutters.

Type:

- Concentricity deviation of the taper to D1 ≤ 0.005 mm.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	L	M	Version
ZT6063067-01	63	10	25	M6	Cylindrical
ZT6063087-01	63	13	25	M8	Cylindrical
ZT6063087-02	63	13	50	M8	Cylindrical
ZT6063087-03	63	13	75	M8	Cylindrical
ZT6063187-04	63	13	100	M8	Cylindrical
ZT6063107-01	63	18	25	M10	Cylindrical
ZT6063107-02	63	18	50	M10	Cylindrical
ZT6063107-03	63	18	75	M10	Cylindrical
ZT6063107-04	63	18	100	M10	Cylindrical
ZT6063107-05	63	18	125	M10	Cylindrical
ZT6063107-06	63	18	150	M10	Cylindrical
ZT6063127-01	63	21	25	M12	Cylindrical
ZT6063127-02	63	21	50	M12	Cylindrical
ZT6063127-03	63	21	75	M12	Cylindrical
ZT6063127-04	63	21	100	M12	Cylindrical
ZT6063127-05	63	21	125	M12	Cylindrical
ZT6063127-06	63	21	150	M12	Cylindrical
ZT6063167-01	63	29	25	M16	Cylindrical
ZT6063167-02	63	29	50	M16	Cylindrical
ZT6063167-03	63	29	75	M16	Cylindrical
ZT6063167-04	63	29	100	M16	Cylindrical
ZT6063167-06	63	29	150	M16	Cylindrical

Shell mill holder



Figure: A = 160

Usage:

For clamping cutters with transverse slot.

Type:

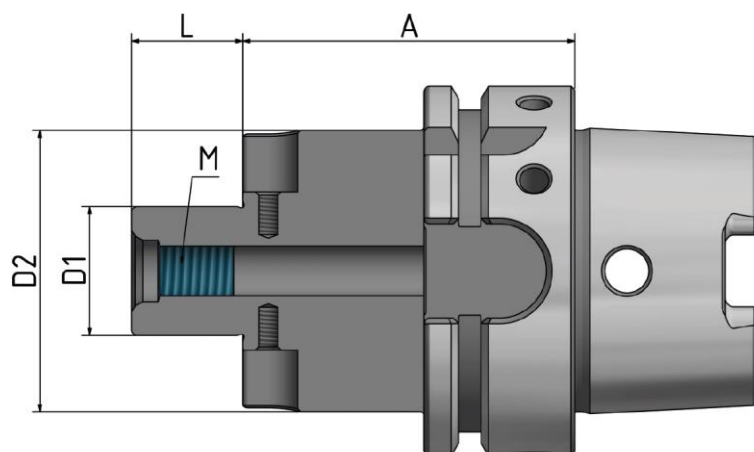
- With enlarged contact surface.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Usage:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT606305-01	63	16	50	38	17	M8	Short
ZT606305-02	63	22	50	48	19	M10	Short
ZT606305-03	63	27	60	60	21	M12	Short
ZT606305-04	63	32	60	78	24	M16	Short
ZT606305-05	63	40	60	89	27	M20	Short
ZT606305-011	63	16	100	38	17	M8	Long
ZT606305-021	63	22	100	48	19	M10	Long
ZT606305-031	63	27	100	60	21	M12	Long
ZT606305-041	63	32	100	78	24	M16	Long
ZT606305-051	63	40	100	89	27	M20	Long
ZT606305-611	63	16	160	38	17	M8	Extra Long
ZT606305-621	63	22	160	48	19	M10	Extra Long
ZT606305-631	63	27	160	60	21	M12	Extra Long
ZT606305-641	63	32	160	78	24	M16	Extra Long

Shell mill holder «Cool Tool»

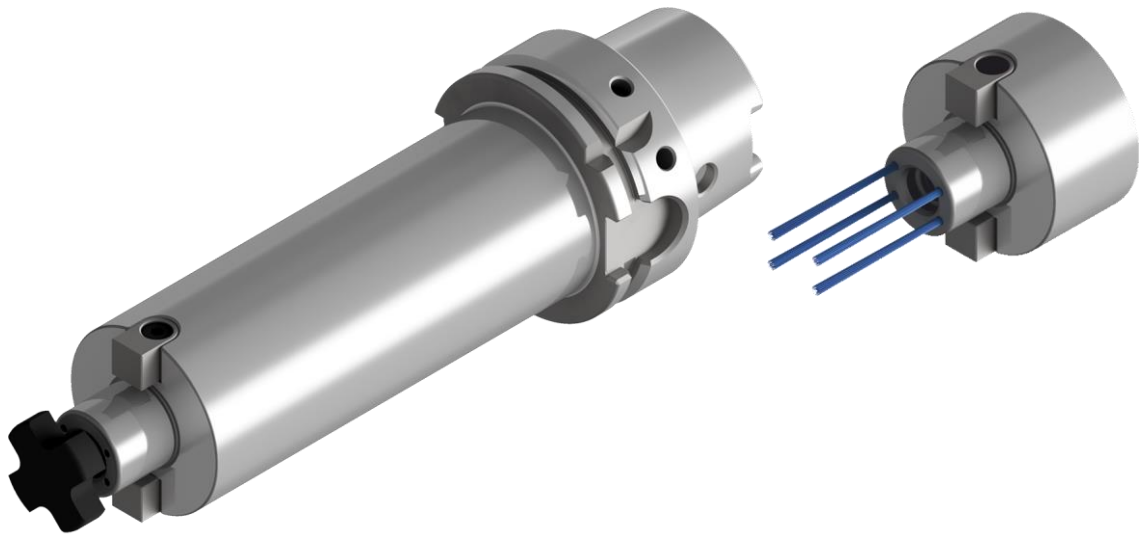


Figure: A = 160

Sealed Version

Usage:

For clamping milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

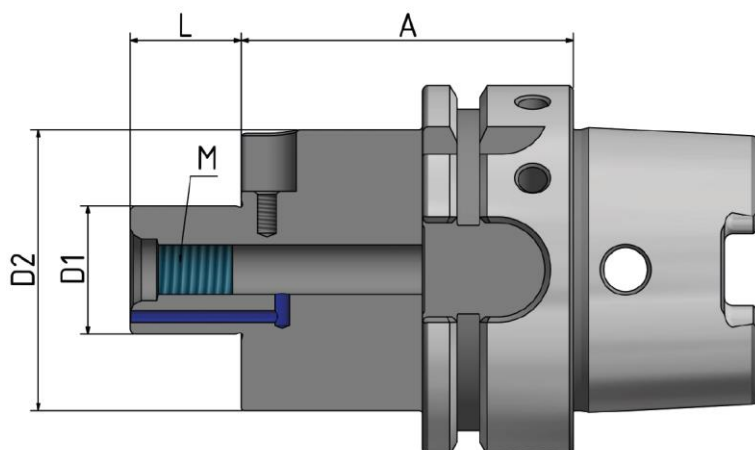
- With enlarged contact surface.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Usage:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT606305-21	63	16	50	38	17	M8	Short
ZT606305-22	63	22	50	48	19	M10	Short
ZT606305-23	63	27	60	60	21	M12	Short
ZT606305-24	63	32	60	78	24	M16	Short
ZT606305-25	63	40	60	89	27	M20	Short
ZT606305-319	63	16	75	38	17	M8	Short
ZT606305-329	63	22	75	48	19	M10	Short
ZT606305-339	63	27	80	60	21	M12	Short
ZT606305-349	63	32	80	78	24	M16	Short
ZT606305-359	63	40	80	89	27	M20	Short
ZT606305-211	63	16	100	38	17	M8	Long
ZT606305-221	63	22	100	48	19	M10	Long
ZT606305-231	63	27	100	60	21	M12	Long
ZT606305-241	63	32	100	78	24	M16	Long
ZT606305-251	63	40	100	89	27	M20	Long
ZT606305-519	63	16	130	38	17	M8	Long
ZT606305-529	63	22	130	48	19	M10	Long
ZT606305-539	63	27	130	60	21	M12	Long
ZT606305-549	63	32	130	78	24	M16	Long
ZT606305-559	63	40	130	89	27	M20	Long
ZT606305-619	63	16	160	38	17	M8	Extra Long
ZT606305-629	63	22	160	48	19	M10	Extra Long
ZT606305-639	63	27	160	60	21	M12	Extra Long
ZT606305-649	63	32	160	78	24	M16	Extra Long

Combi Shell mill holder



Figure: A = 160

Usage:

To accommodate cutters with longitudinal and transverse slots.

Type:

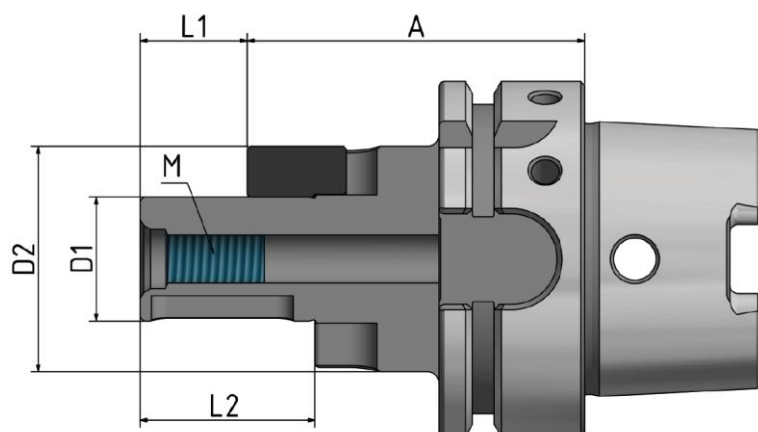
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L1	L2	M	Version
ZT606306-01	63	16	60	32	17	27	M8	Short
ZT606306-02	63	22	60	40	19	31	M10	Short
ZT606306-03	63	27	60	48	21	33	M12	Short
ZT606306-04	63	32	60	58	24	38	M16	Short
ZT606306-05	63	40	70	70	27	41	M20	Short
ZT606306-011	63	16	100	32	17	27	M8	Long
ZT606306-021	63	22	100	40	19	31	M10	Long
ZT606306-031	63	27	100	48	21	33	M12	Long
ZT606306-041	63	32	100	58	24	38	M16	Long
ZT606306-61	63	16	160	32	17	27	M8	Extra Long
ZT606306-62	63	22	160	40	19	31	M10	Extra Long
ZT606306-63	63	27	160	48	21	33	M12	Extra Long
ZT606306-64	63	32	160	58	24	38	M16	Extra Long
ZT606306-65	63	40	160	70	27	41	M20	Extra Long

Morse taper adapter according to DIN 228A

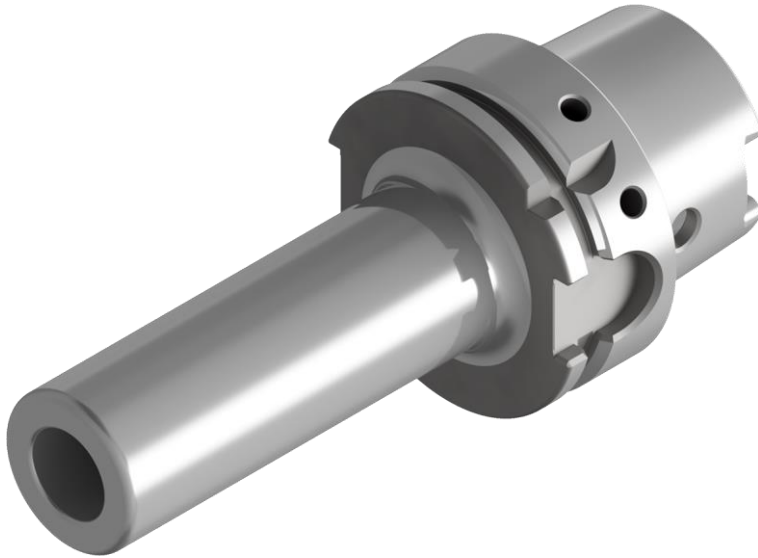


Figure: A = 120

Usage:

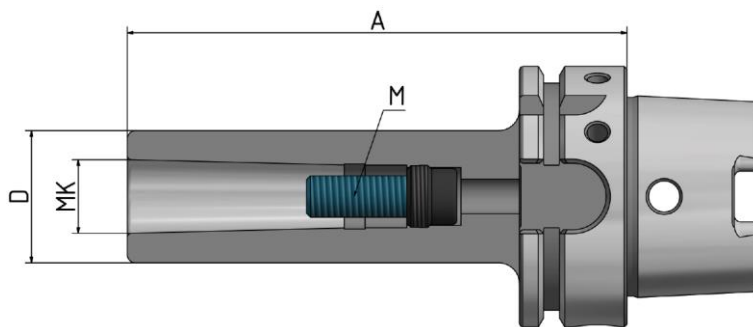
For holding Morse taper tools with tightening thread according to DIN 228A.

Type:

- Concentricity deviation of the taper to the inner taper ≤ 0.008 mm.

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	MK	D	A	M	Version
ZT606314-01	63	1	25	100	M6	Short
ZT606314-02	63	2	32	120	M10	Short
ZT606314-03	63	3	40	140	M12	Short
ZT606314-04	63	4	48	160	M16	Short

Morse taper adapter according to DIN 228B

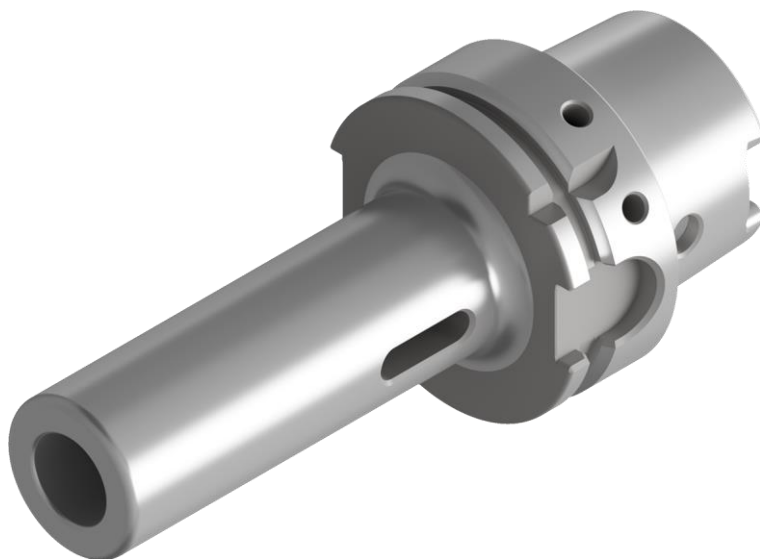


Figure: A = 120

Usage:

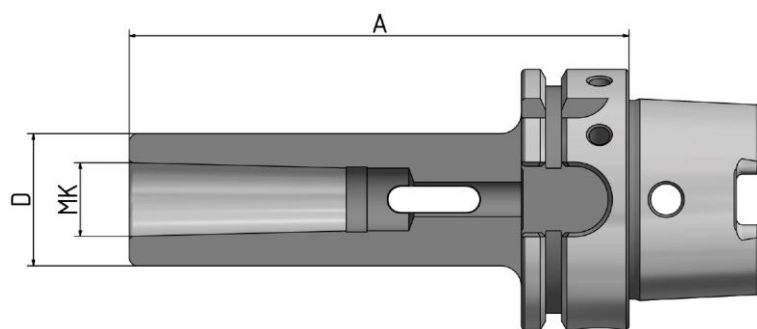
For holding Morse taper tools with tightening thread according to DIN 228B.

Type:

- Concentricity deviation of the taper to the inner taper ≤ 0.008 mm.

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	MK	D	A	Version
ZT606313-01	63	1	25	100	Short
ZT606313-02	63	2	32	120	Short
ZT606313-03	63	3	40	140	Short
ZT606313-04	63	4	48	160	Short

Short drill chuck



Figure: A = 98

Usage:

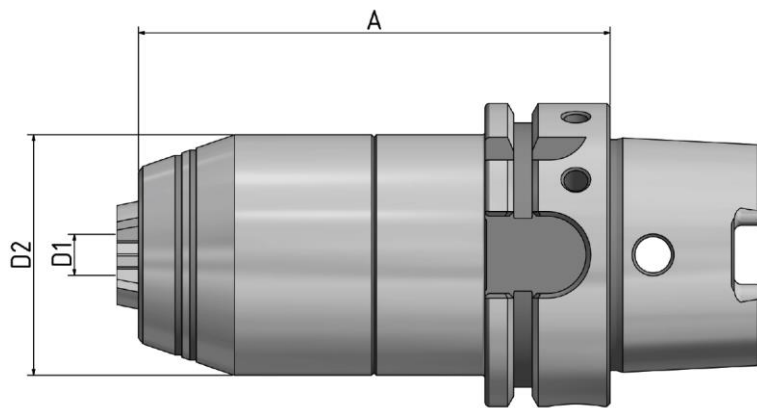
For clamping tools with cylindrical shank and suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

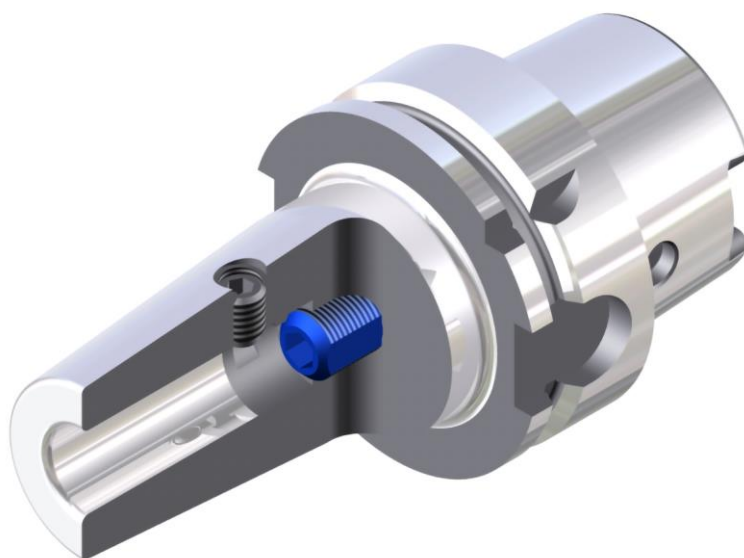
Fine balanced:

G 6.3 at 8000 min⁻¹



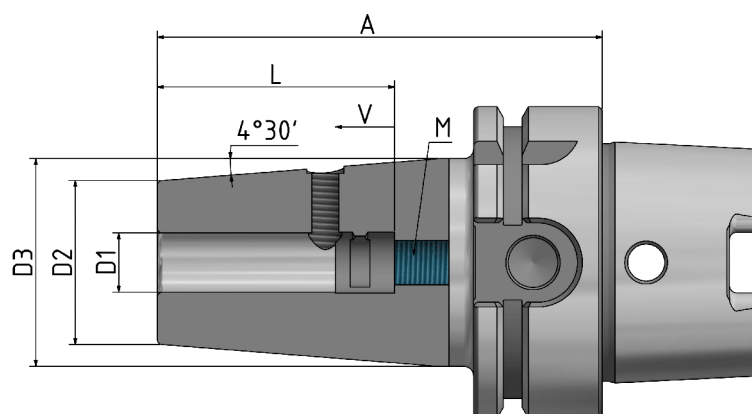
Order no.	HSK	Clamping b. D1	A	D2
ZT606395-52	63	1-16	98	50

HPC Shrink fit holder TITANIUM with pull-out protection



Fine balanced:

G 2,5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	HSK	D1	A	D2	D3	V	L	M
ZT606344-04	63	12	90	33	42	6	48	M10 x 1
ZT606344-06	63	16	95	33	42	6	51	M12 x 1
ZT606344-08	63	20	100	44	53	6	53	M16 x 1

HSK-A 80

ER-Collet chuck



Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

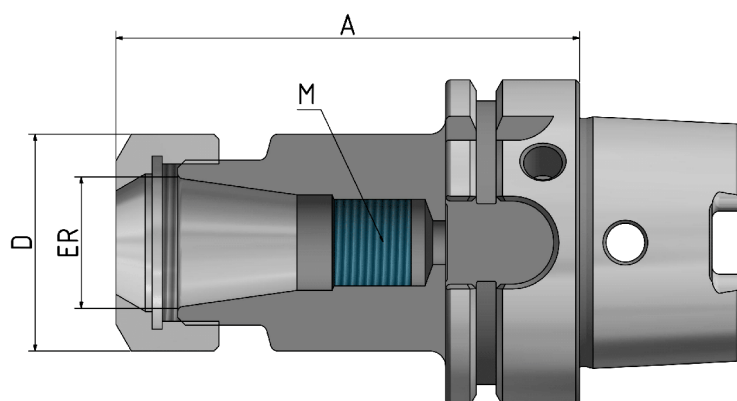
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT608002-01	80	16	28	100	1 - 10	M11 x 1	Short
ZT608002-02	80	25	42	100	1 - 16	M18 x 1.5	Short
ZT608002-03	80	32	50	100	2 - 20	M24 x 1.5	Short
ZT608002-011	80	16	28	160	1 - 10	M11 x 1	Extra Long
ZT608002-021	80	25	42	160	1 - 16	M18 x 1.5	Extra Long
ZT608002-031	80	32	50	160	2 - 20	M24 x 1.5	Extra Long

Endmill holder Weldon

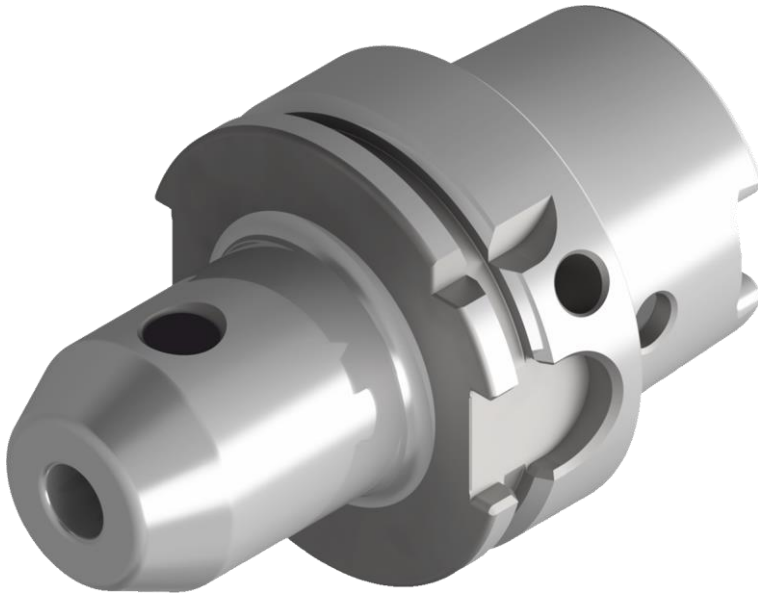


Figure: A = 100

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

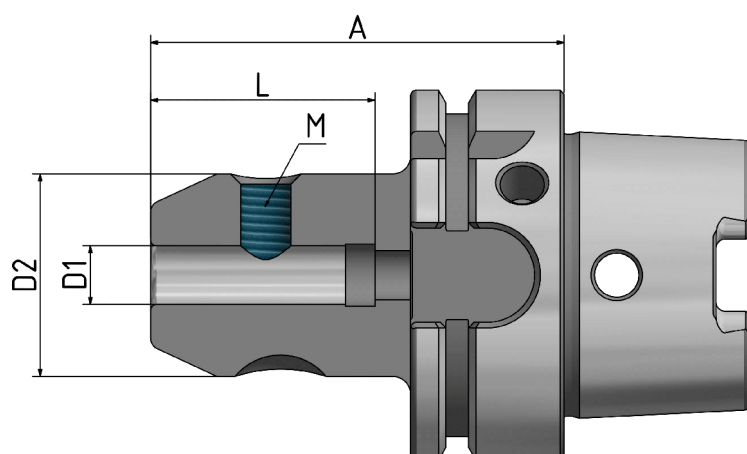
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN)

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT608004-01	80	6	80	25	35	M6	Short
ZT608004-02	80	8	80	28	35	M8	Short
ZT608004-03	80	10	80	35	41	M10	Short
ZT608004-04	80	12	80	42	48	M12	Short
ZT608004-06	80	16	100	48	51	M14	Short
ZT608004-08	80	20	100	52	53	M16	Short
ZT608004-09	80	25	130	65	60	M18 x 2	Short
ZT608004-10	80	32	110	72	64	M20 x 2	Short

Shrink fit holder 4.5°

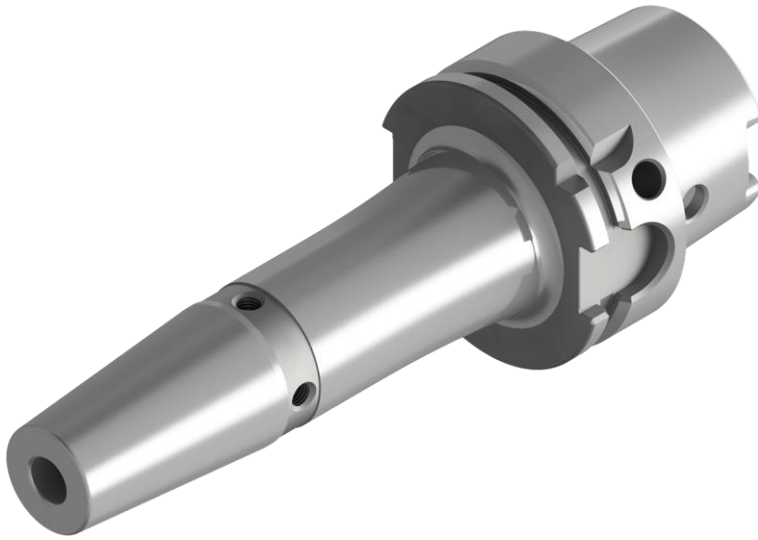


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

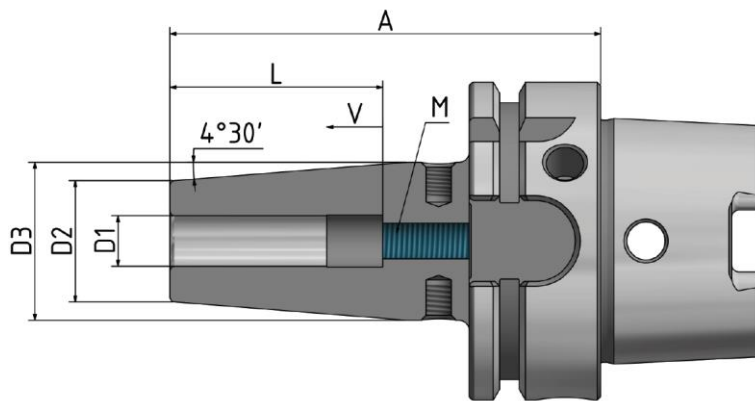
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT608021-01	80	21	85	6	27	37	10	M5	Short
ZT608021-02	80	21	85	8	27	37	10	M6	Short
ZT608021-03	80	24	90	10	32	42	10	M8 x 1	Short
ZT608021-04	80	24	95	12	32	48	10	M10 x 1	Short
ZT608021-05	80	27	95	14	34	48	10	M10 x 1	Short
ZT608021-06	80	27	100	16	34	51	10	M12 x 1	Short
ZT608021-07	80	33	100	18	42	51	10	M12 x 1	Short
ZT608021-08	80	33	105	20	42	53	10	M16 x 1	Short
ZT608021-09	80	44	115	25	53	59	10	M16 x 1	Short
ZT608021-10	80	44	120	32	53	63	10	M16 x 1	Short
ZT608021-61	80	21	160	6	27	37	10	M5	Extra Long
ZT608021-62	80	21	160	8	27	37	10	M6	Extra Long
ZT608021-63	80	24	160	10	32	42	10	M8 x 1	Extra Long
ZT608021-64	80	24	160	12	32	48	10	M10 x 1	Extra Long
ZT608021-66	80	27	160	16	34	51	10	M12 x 1	Extra Long
ZT608021-68	80	33	160	20	42	53	10	M16 x 1	Extra Long
ZT608021-69	80	44	160	25	53	59	10	M16 x 1	Extra Long

Shell mill holder

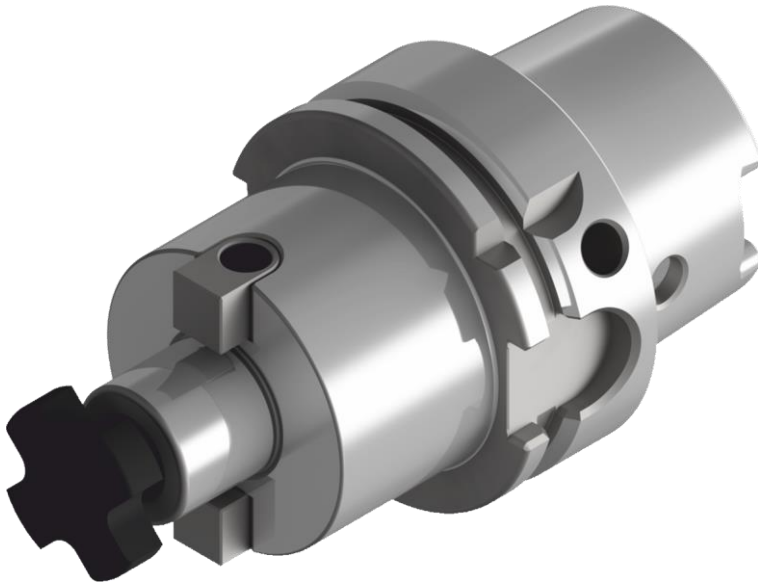


Figure: A = 60

Usage:

To accommodate cutters with transverse slots.

Type:

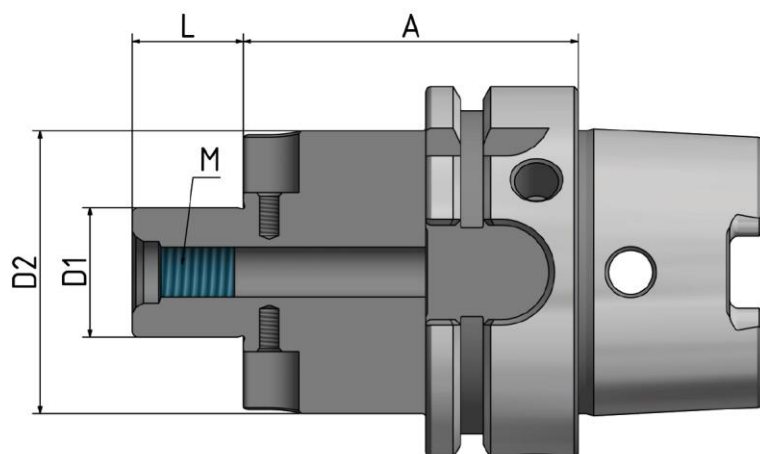
- With enlarged contact surface.
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	D2	A	L1	M	Version
ZT608005-02	80	22	48	50	19	M8	Short
ZT608005-03	80	27	60	50	21	M10	Short
ZT608005-04	80	32	78	60	24	M12	Short
ZT608005-05	80	40	89	60	27	M16	Short

HSK-A 100

ER-Collet chuck

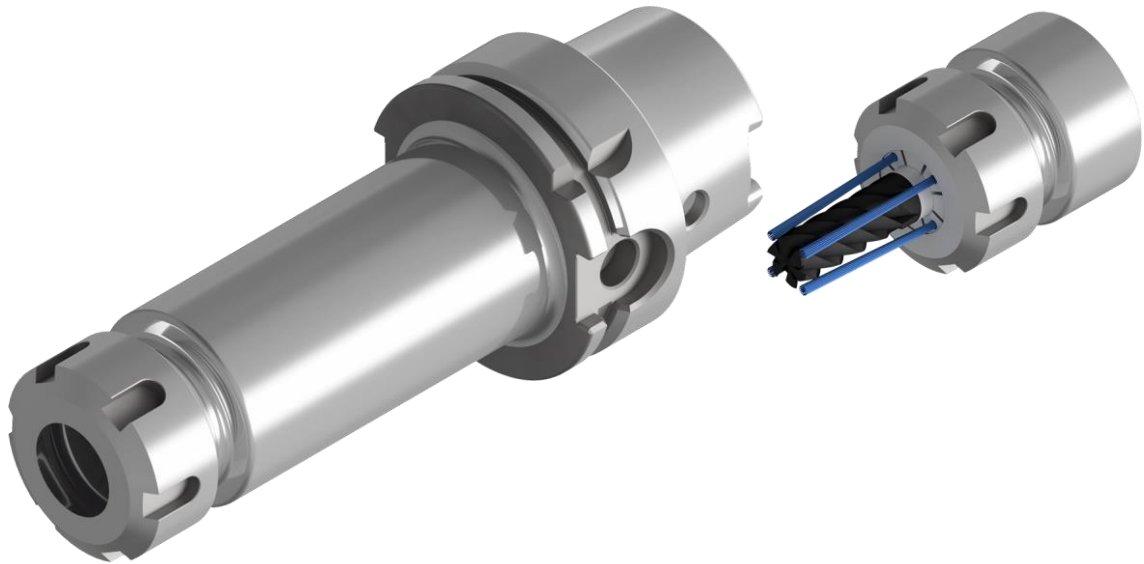


Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

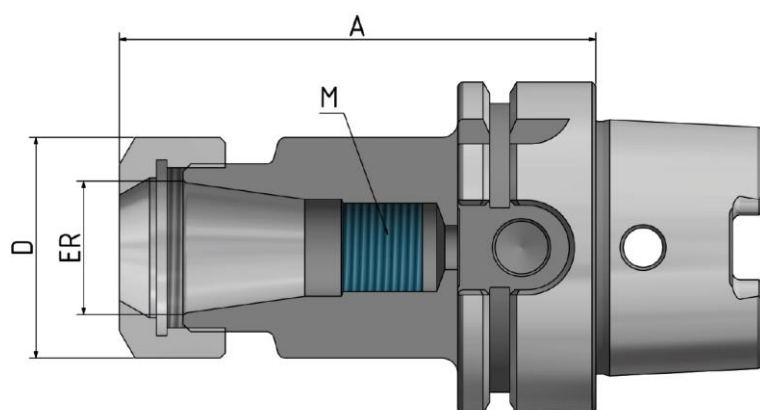
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

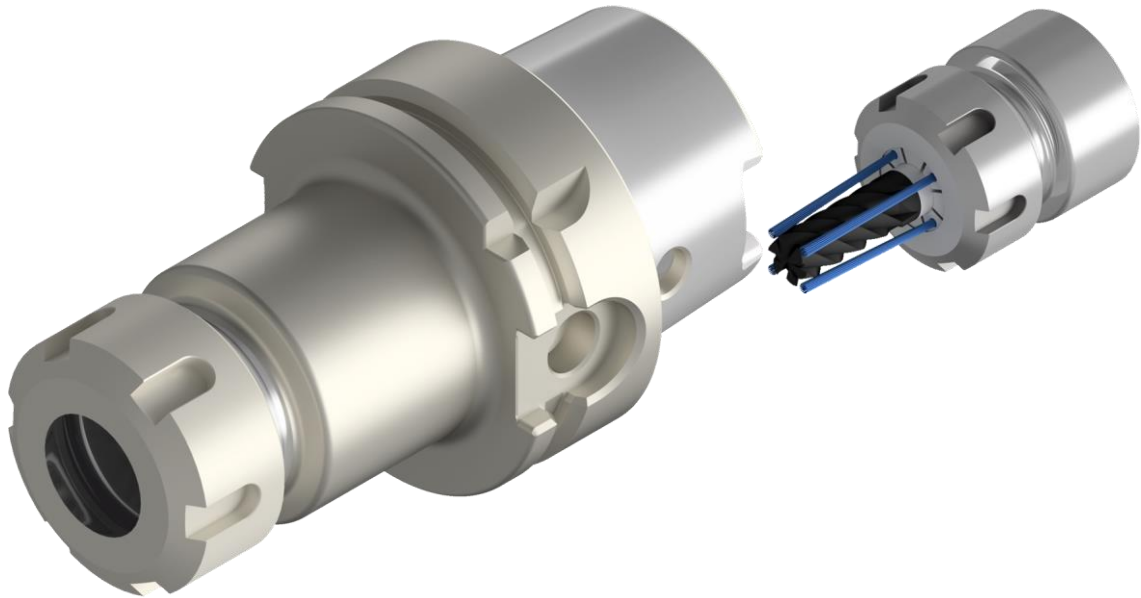
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT610002-01	100	16	28	100	1 - 10	M11 x 1	Short
ZT610002-02	100	25	42	100	1 - 16	M18 x 1.5	Short
ZT610002-03	100	32	50	100	2 - 20	M24 x 1.5	Short
ZT610002-04	100	40	63	120	4 - 26	M28 x 1.5	Short
ZT610002-51	100	16	28	130	1 - 10	M11 x 1	Long
ZT610002-52	100	25	42	130	1 - 16	M18 x 1.5	Long
ZT610002-53	100	32	50	130	2 - 20	M24 x 1.5	Long
ZT610002-54	100	40	63	130	4 - 26	M28 x 1.5	Long
ZT610002-011	100	16	28	160	1 - 10	M11 x 1	Extra Long
ZT610002-021	100	25	42	160	1 - 16	M18 x 1.5	Extra Long
ZT610002-031	100	32	50	160	2 - 20	M24 x 1.5	Extra Long
ZT610002-041	100	40	63	160	4 - 26	M28 x 1.5	Extra Long
ZT610002-012	100	16	28	200	1 - 10	M11 x 1	Extra Long
ZT610002-022	100	25	42	200	1 - 16	M18 x 1.5	Extra Long
ZT610002-032	100	32	50	200	2 - 20	M24 x 1.5	Extra Long
ZT610002-042	100	40	63	200	4 - 26	M28 x 1.5	Extra Long

ER-Collet chuck – corrosion resistant



corrosion protected

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

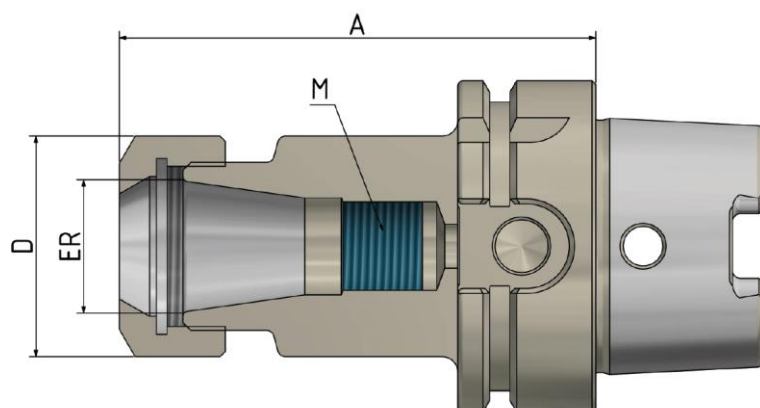
- The entire front area of the tool holder is protected against corrosion.
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping b.	M	Version
ZT6100028-01	100	16	28	100	1 - 10	M11 x 1	Short
ZT6100028-02	100	25	42	100	1 - 16	M18 x 1.5	Short
ZT6100028-03	100	32	50	100	2 - 20	M24 x 1.5	Short
ZT6100028-04	100	40	63	100	4 - 26	M28 x 1.5	Short

HPC Precision ER Collet Chuck HAWK EYE®.

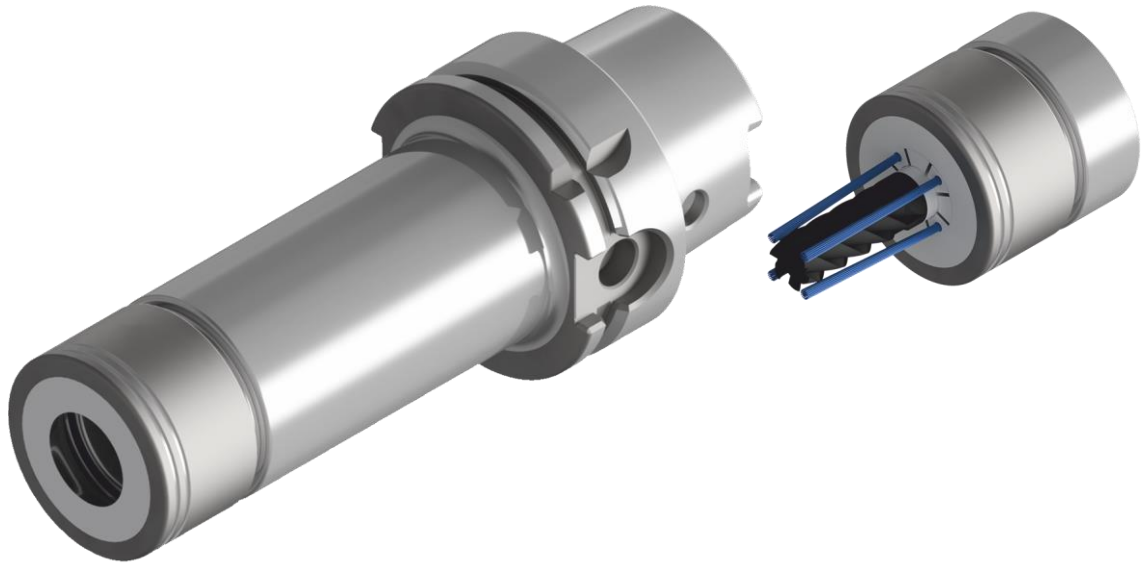


Figure: A = 130

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

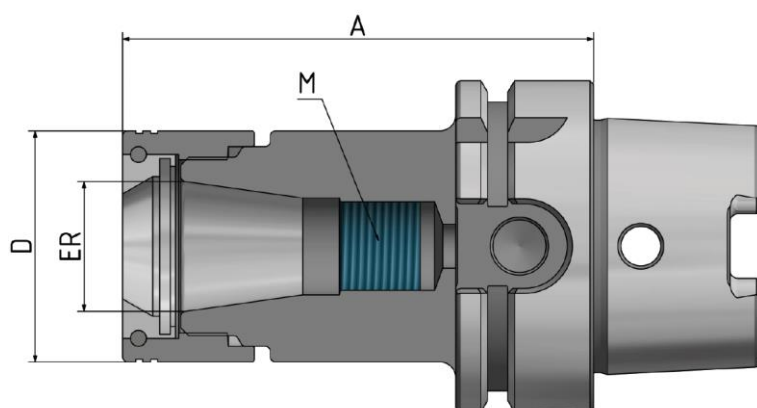
- Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	HSK	ER	D	A	Clamping b.	M	Version
ZT610032-002	100	16	34	75	1 - 10	-	Extra short
ZT610032-004	100	25	44	75	1 - 16	-	Extra short
ZT610032-005	100	32	52	75	2 - 20	-	Extra short
ZT610032-006	100	40	62	85	4 - 26	-	Extra short
ZT610032-02	100	16	34	100	1 - 10	M11 x 1	Short
ZT610032-04	100	25	44	100	1 - 16	M18 x 1.5	Short
ZT610032-05	100	32	52	100	2 - 20	M24 x 1.5	Short
ZT610032-06	100	40	62	120	4 - 26	M28 x 1.5	Short
ZT610032-52	100	16	34	130	1 - 10	M11 x 1	Long
ZT610032-54	100	25	44	130	1 - 16	M18 x 1.5	Long
ZT610032-55	100	32	52	130	2 - 20	M24 x 1.5	Long
ZT610032-56	100	40	62	130	4 - 26	M28 x 1.5	Long
ZT610032-62	100	16	34	160	1 - 10	M11 x 1	Extra Long
ZT610032-64	100	25	44	160	1 - 16	M18 x 1.5	Extra Long
ZT610032-65	100	32	52	160	2 - 20	M24 x 1.5	Extra Long
ZT610032-66	100	40	62	160	4 - 26	M28 x 1.5	Extra Long

Endmill holder Weldon

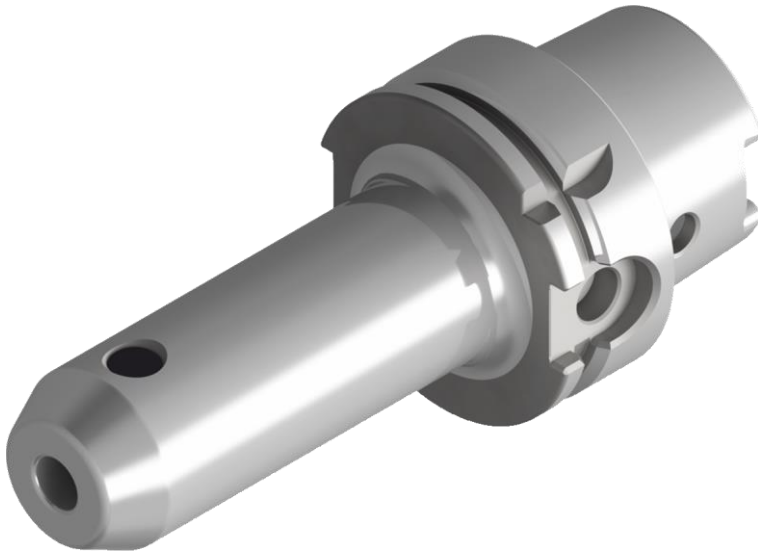


Figure: A = 160

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

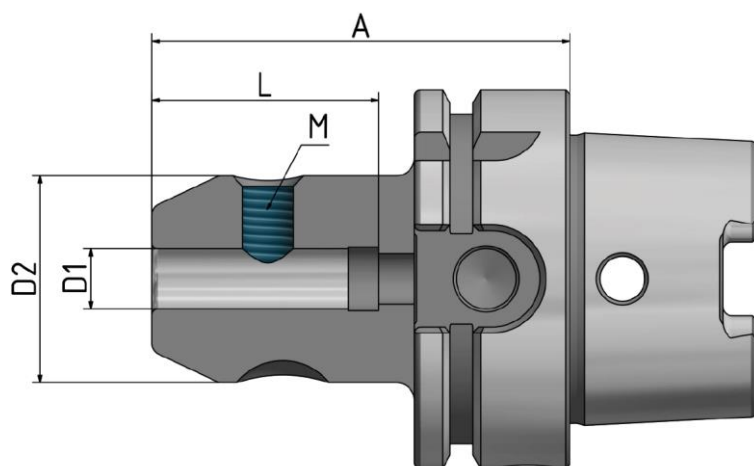
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT610004-01	100	6	80	25	35	M6	Short
ZT610004-02	100	8	80	28	35	M8	Short
ZT610004-03	100	10	80	35	41	M10	Short
ZT610004-04	100	12	80	42	48	M12	Short
ZT610004-05	100	14	80	44	48	M12	Short
ZT610004-06	100	16	100	48	51	M14	Short
ZT610004-07	100	18	100	50	51	M14	Short
ZT610004-08	100	20	100	52	53	M16	Short
ZT610004-10	100	25	100	65	60	M18 x 2	Short
ZT610004-11	100	32	100	72	64	M20 x 2	Short
ZT610004-12	100	40	120	80	74	M20 x 2	Short
ZT610004-61	100	6	160	25	35	M6	Extra Long
ZT610004-62	100	8	160	28	35	M8	Extra Long
ZT610004-63	100	10	160	35	41	M10	Extra Long
ZT610004-64	100	12	160	42	48	M12	Extra Long
ZT610004-65	100	14	160	44	48	M12	Extra Long
ZT610004-66	100	16	160	48	51	M14	Extra Long
ZT610004-67	100	18	160	50	51	M14	Extra Long
ZT610004-68	100	20	160	52	53	M16	Extra Long
ZT610004-69	100	25	160	65	60	M18 x 2	Extra Long
ZT610004-70	100	32	160	72	64	M20 x 2	Extra Long

Endmill holder Weldon «Cool Tool»

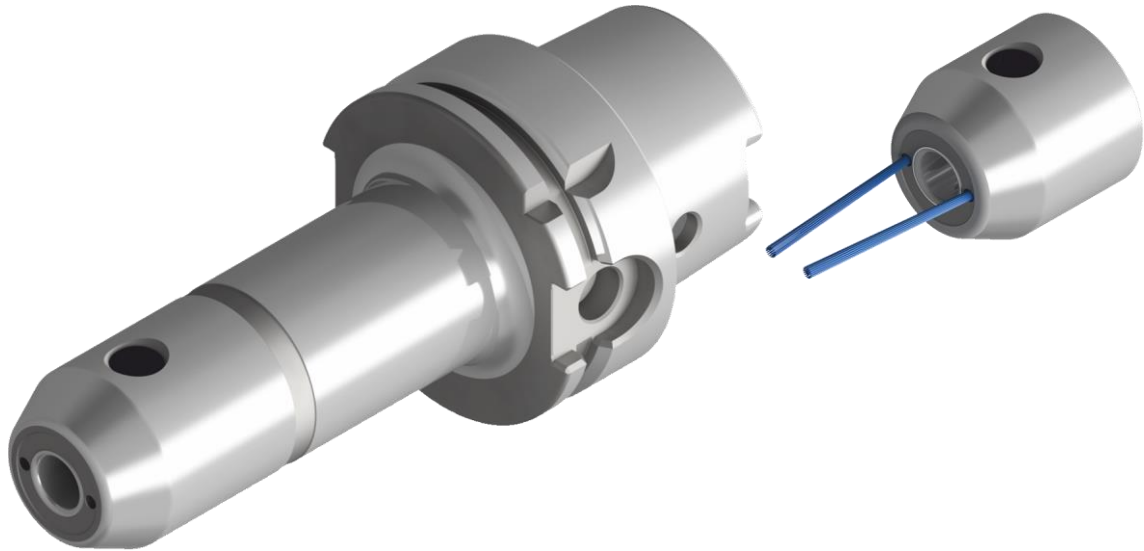


Figure: A = 160

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

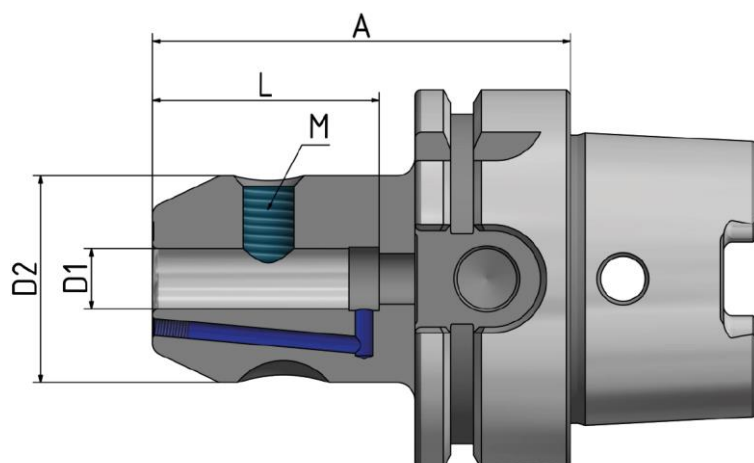
- Two holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT6100041-01	100	6	80	25	35	M6	Short
ZT6100041-02	100	8	80	28	35	M8	Short
ZT6100041-03	100	10	80	35	41	M10	Short
ZT6100041-04	100	12	80	42	48	M12	Short
ZT6100041-05	100	14	80	44	48	M12	Short
ZT6100041-06	100	16	100	48	51	M14	Short
ZT6100041-07	100	18	100	50	51	M14	Short
ZT6100041-08	100	20	100	52	53	M16	Short
ZT6100041-09	100	25	100	65	60	M18 x 2	Short
ZT6100041-10	100	32	100	72	64	M20 x 2	Short
ZT6100041-61	100	6	160	25	35	M6	Extra Long
ZT6100041-62	100	8	160	28	35	M8	Extra Long
ZT6100041-63	100	10	160	35	41	M10	Extra Long
ZT6100041-64	100	12	160	42	48	M12	Extra Long
ZT6100041-65	100	14	160	44	48	M12	Extra Long
ZT6100041-66	100	16	160	48	51	M14	Extra Long
ZT6100041-67	100	18	160	50	51	M14	Extra Long
ZT6100041-68	100	20	160	52	53	M16	Extra Long

Endmill holder Weldon with 4 x «Cool Tool» – corrosion resistant

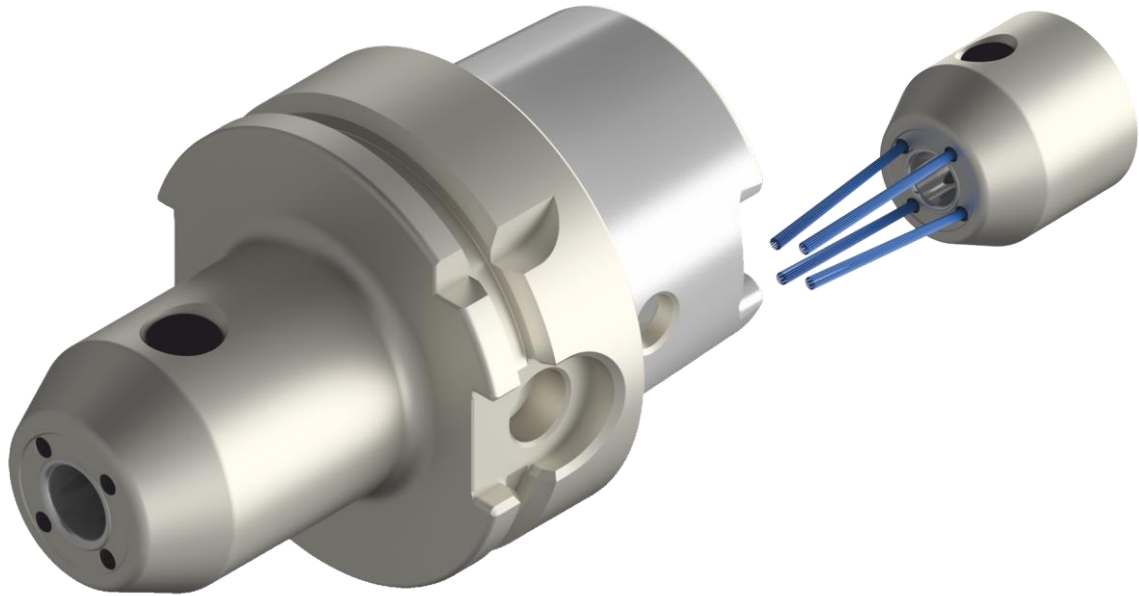


Figure: A = 95

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

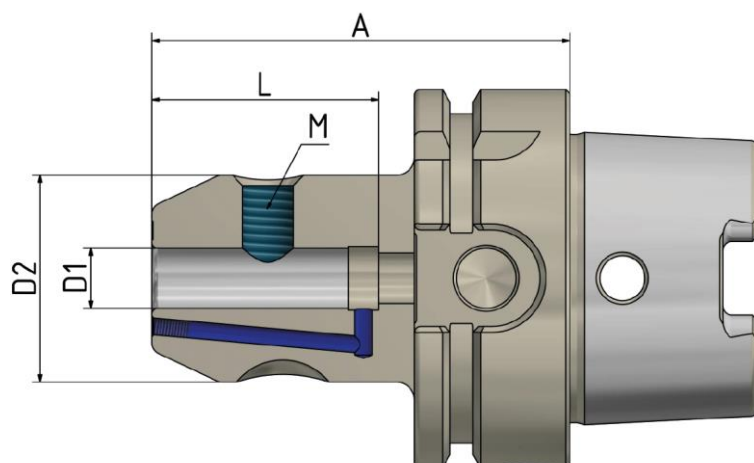
- The complete tool side of the holder is protected against corrosion.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).
- Four holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Clamping screw
- 4 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L	M	Version
ZT6100048-018	100	6	85	25	35	M6	Short
ZT6100048-028	100	8	85	28	35	M8	Short
ZT6100048-038	100	10	90	35	41	M10	Short
ZT6100048-048	100	12	95	42	48	M12	Short
ZT6100048-068	100	16	100	48	51	M14	Short
ZT6100048-088	100	20	105	52	53	M16	Short

Endmill holder Whistle-Notch

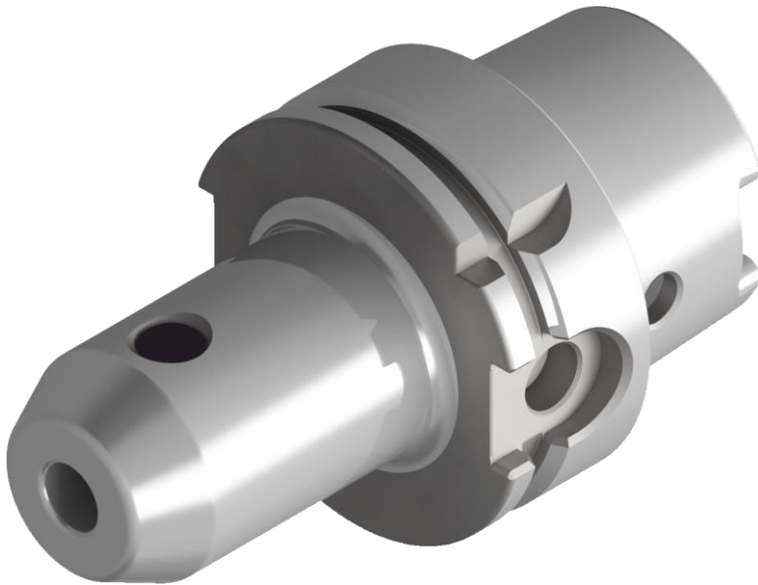


Figure: A = 60

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

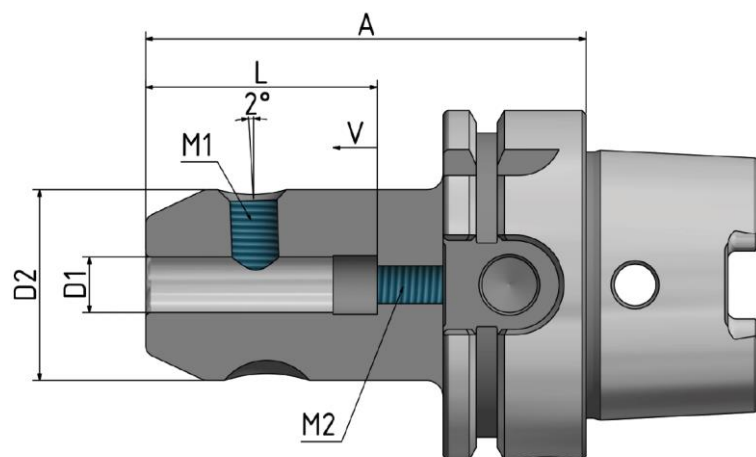
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- Built-in length adjustment screw

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	D1	A	D2	L	M1	M2	Version
ZT610009-01	100	6	90	25	36,5	M6	M5	Short
ZT610009-02	100	8	90	28	36,5	M8	M6	Short
ZT610009-03	100	10	90	35	40,5	M10	M8	Short
ZT610009-04	100	12	100	42	45,5	M12	M10	Short
ZT610009-05	100	14	100	44	45,5	M12	M10	Short
ZT610009-06	100	16	100	48	48,5	M14	M12	Short
ZT610009-07	100	18	100	50	48,5	M14	M12	Short
ZT610009-08	100	20	110	52	50,5	M16	M16	Short
ZT610009-10	100	25	120	65	56,5	M18 x 2	M20	Short
ZT610009-11	100	32	120	72	60,5	M20 x 2	M20	Short

Shrink fit holder 4.5°

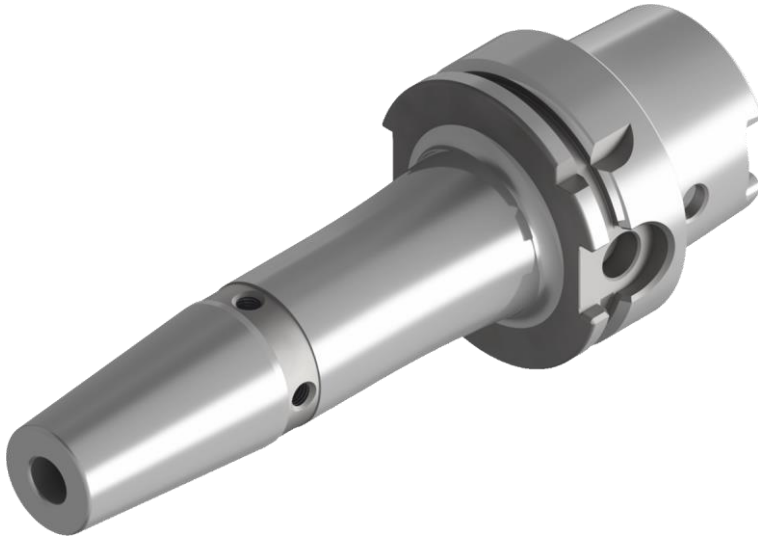


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

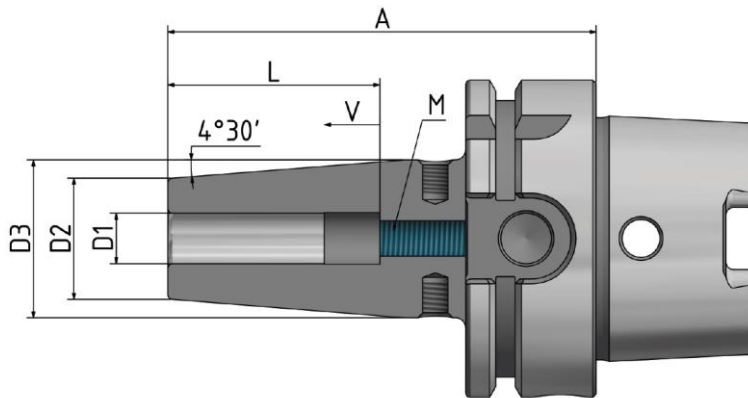
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

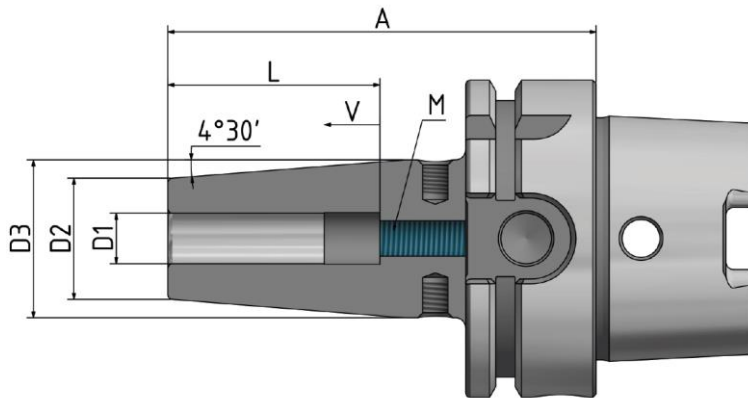
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT610021-01	100	6	85	21	27	37	M5	10	Short
ZT610021-02	100	8	85	21	27	37	M6	10	Short
ZT610021-03	100	10	90	24	32	42	M8 x 1	10	Short
ZT610021-04	100	12	95	24	32	48	M10 x 1	10	Short
ZT610021-05	100	14	95	27	34	48	M10 x 1	10	Short
ZT610021-06	100	16	100	27	34	51	M12 x 1	10	Short
ZT610021-07	100	18	100	33	42	51	M12 x 1	10	Short
ZT610021-08	100	20	105	33	42	53	M16 x 1	10	Short
ZT610021-09	100	25	115	44	53	59	M16 x 1	10	Short
ZT610021-10	100	32	120	44	53	63	M16 x 1	10	Short
ZT610021-31	100	6	120	21	27	37	M5	10	Long
ZT610021-32	100	8	120	21	27	37	M6	10	Long
ZT610021-33	100	10	120	24	32	42	M8 x 1	10	Long
ZT610021-34	100	12	120	24	32	48	M10 x 1	10	Long
ZT610021-35	100	14	120	27	34	48	M10 x 1	10	Long
ZT610021-36	100	16	120	27	34	51	M12 x 1	10	Long
ZT610021-37	100	18	120	33	42	51	M12 x 1	10	Long
ZT610021-38	100	20	120	33	42	53	M16 x 1	10	Long
ZT610021-51	100	6	130	21	27	37	M5	10	Long
ZT610021-52	100	8	130	21	27	37	M6	10	Long
ZT610021-53	100	10	130	24	32	42	M8 x 1	10	Long
ZT610021-54	100	12	130	24	32	48	M10 x 1	10	Long
ZT610021-55	100	14	130	27	34	48	M10 x 1	10	Long
ZT610021-56	100	16	130	27	34	51	M12 x 1	10	Long
ZT610021-57	100	18	130	33	42	51	M12 x 1	10	Long
ZT610021-58	100	20	130	33	42	53	M16 x 1	10	Long
ZT610021-59	100	25	130	44	53	59	M16 x 1	10	Long
ZT610021-60	100	32	130	44	53	63	M16 x 1	10	Long



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT610021-61	100	6	160	21	27	37	M5	10	Extra Long
ZT610021-62	100	8	160	21	27	37	M6	10	Extra Long
ZT610021-63	100	10	160	24	32	42	M8 x 1	10	Extra Long
ZT610021-64	100	12	160	24	32	48	M10 x 1	10	Extra Long
ZT610021-65	100	14	160	27	34	48	M10 x 1	10	Extra Long
ZT610021-66	100	16	160	27	34	51	M12 x 1	10	Extra Long
ZT610021-67	100	18	160	33	42	51	M12 x 1	10	Extra Long
ZT610021-68	100	20	160	33	42	53	M16 x 1	10	Extra Long
ZT610021-69	100	25	160	44	53	59	M16 x 1	10	Extra Long
ZT610021-70	100	32	160	44	53	63	M16 x 1	10	Extra Long
ZT610021-81	100	6	200	21	27	37	M5	10	Extra Long
ZT610021-82	100	8	200	21	27	37	M6	10	Extra Long
ZT610021-83	100	10	200	24	32	42	M8 x 1	10	Extra Long
ZT610021-84	100	12	200	24	32	48	M10 x 1	10	Extra Long
ZT610021-85	100	14	200	27	34	48	M10 x 1	10	Extra Long
ZT610021-86	100	16	200	27	34	51	M12 x 1	10	Extra Long
ZT610021-87	100	18	200	33	42	51	M12 x 1	10	Extra Long
ZT610021-88	100	20	200	33	42	53	M16 x 1	10	Extra Long
ZT610021-89	100	25	200	44	53	59	M16 x 1	10	Extra Long
ZT610021-90	100	32	200	44	53	63	M16 x 1	10	Extra Long

Shrink fit holder 4.5° «Cool Tool»

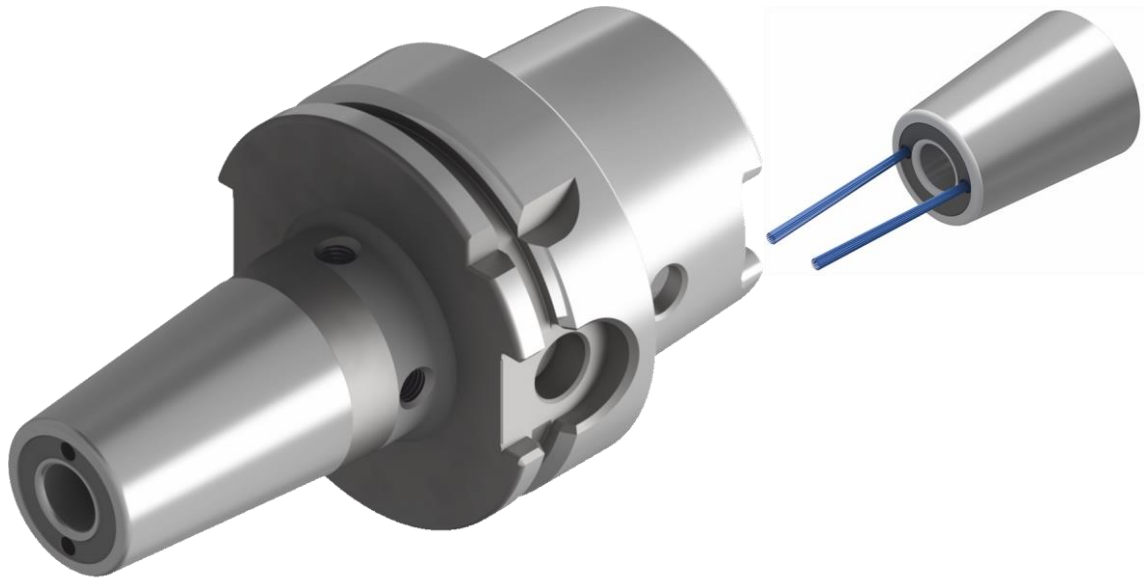


Figure: A = 95

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

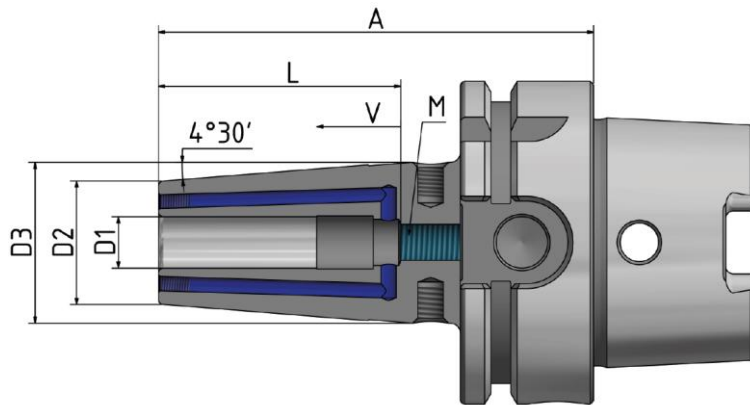
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Two holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

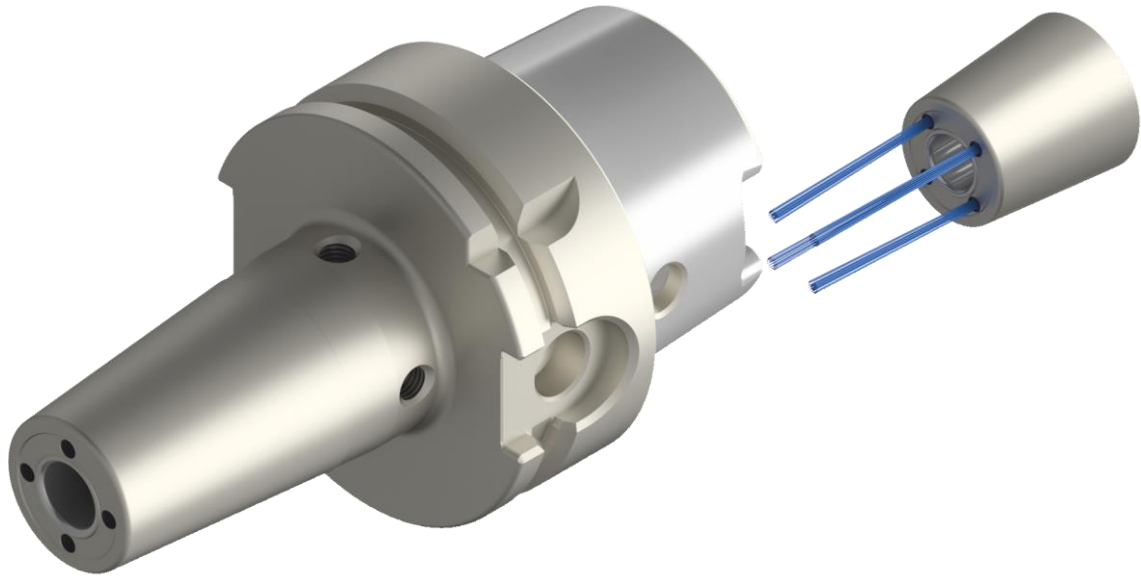
Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT610021-019	100	6	85	21	27	37	M5	10	Short
ZT610021-029	100	8	85	21	27	37	M6	10	Short
ZT610021-039	100	10	90	24	32	42	M8 x 1	10	Short
ZT610021-049	100	12	95	24	32	48	M10 x 1	10	Short
ZT610021-059	100	14	95	27	34	48	M10 x 1	10	Short
ZT610021-069	100	16	100	27	34	51	M12 x 1	10	Short
ZT610021-079	100	18	100	33	42	51	M12 x 1	10	Short
ZT610021-089	100	20	105	33	42	53	M16 x 1	10	Short
ZT610021-099	100	25	115	44	53	59	M16 x 1	10	Short
ZT610021-519	100	6	130	21	27	37	M5	10	Long
ZT610021-529	100	8	130	21	27	37	M6	10	Long
ZT610021-539	100	10	130	24	32	42	M8 x 1	10	Long
ZT610021-549	100	12	130	24	32	48	M10 x 1	10	Long
ZT610021-569	100	16	130	27	34	51	M12 x 1	10	Long
ZT610021-589	100	20	130	33	42	53	M16 x 1	10	Long
ZT610021-619	100	6	160	21	27	37	M5	10	Long
ZT610021-629	100	8	160	21	27	37	M6	10	Long
ZT610021-639	100	10	160	24	32	42	M8 x 1	10	Long
ZT610021-649	100	12	160	24	32	48	M10 x 1	10	Long
ZT610021-669	100	16	160	27	34	51	M12 x 1	10	Long
ZT610021-689	100	20	160	33	42	53	M16 x 1	10	Long

Shrink fit holder 4.5° with 4 x «Cool Tool» – corrosion resistant



corrosion protected

Sealed Version

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

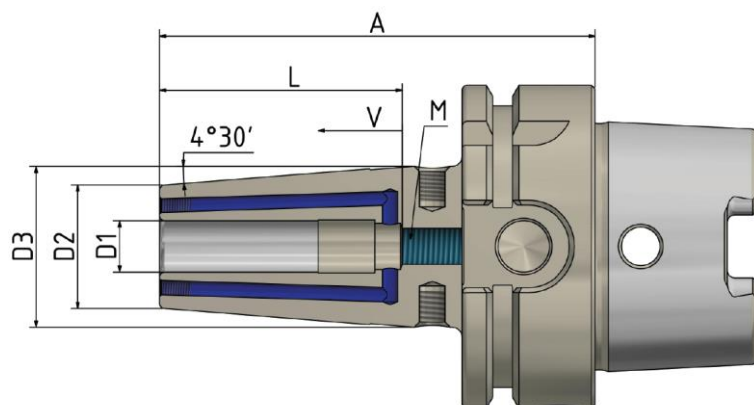
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- The tool side of the holder is protected against corrosion.
- With four additional threads on the circumference for subsequent fine balancing.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Four holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 4 x M3 screws for closing the «Cool Tool» holes, if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	L	M	V	Version
ZT610048-018	100	6	85	21	27	37	M5	10	Short
ZT610048-028	100	8	85	21	27	37	M6	10	Short
ZT610048-038	100	10	90	24	32	42	M8 x 1	10	Short
ZT610048-048	100	12	95	24	32	48	M10 x 1	10	Short
ZT610048-068	100	16	100	27	34	51	M12 x 1	10	Short
ZT610048-088	100	20	105	33	42	53	M16 x 1	10	Short

Shell mill holder



Figure: A = 160

Usage:

To accommodate cutters with transverse slot.

Type:

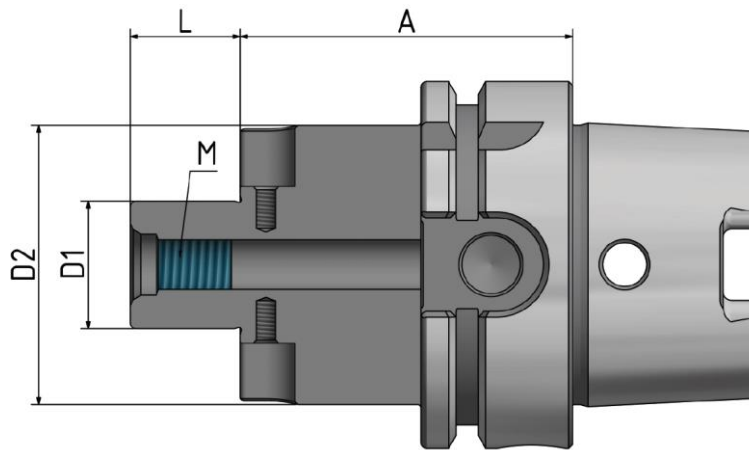
- With enlarged contact surface.
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L1	M	Version
ZT610005-01	100	16	50	38	17	M8	Short
ZT610005-02	100	22	50	48	19	M10	Short
ZT610005-03	100	27	50	60	21	M12	Short
ZT610005-04	100	32	50	78	24	M16	Short
ZT610005-05	100	40	60	89	27	M20	Short
ZT610005-07	100	60	70	140	40	M32	Short
ZT610005-011	100	16	100	38	17	M8	Long
ZT610005-021	100	22	100	48	19	M10	Long
ZT610005-031	100	27	100	60	21	M12	Long
ZT610005-041	100	32	100	78	24	M16	Long
ZT610005-051	100	40	100	89	27	M20	Long
ZT610005-611	100	16	160	38	17	M8	Extra Long
ZT610005-621	100	22	160	48	19	M10	Extra Long
ZT610005-631	100	27	160	60	21	M12	Extra Long
ZT610005-641	100	32	160	78	24	M16	Extra Long
ZT610005-651	100	40	160	89	27	M20	Extra Long

Shell mill holder «Cool Tool»

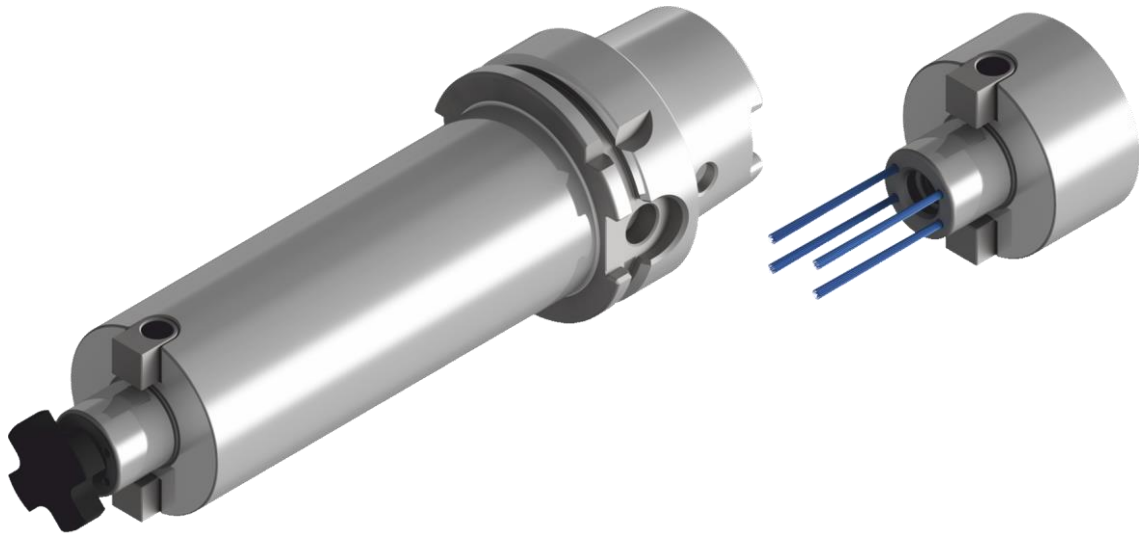


Figure: A = 60

Sealed Version

Usage:

To accommodate milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

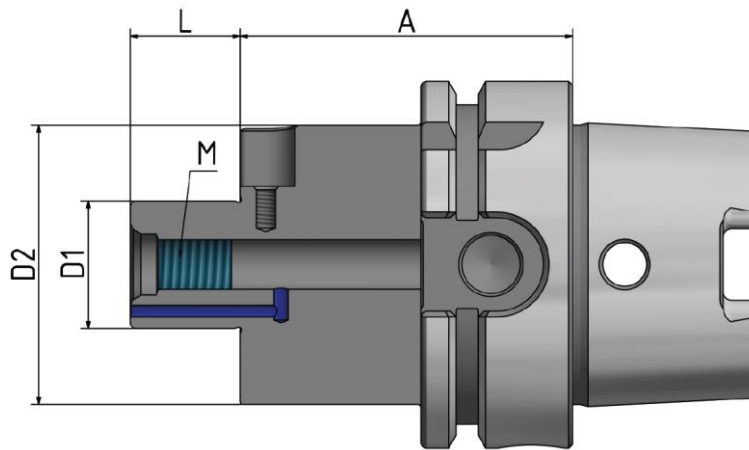
- With enlarged contact surface.
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L1	M	Version
ZT610005-21	100	16	50	38	17	M8	Short
ZT610005-22	100	22	50	48	19	M10	Short
ZT610005-23	100	27	50	60	21	M12	Short
ZT610005-24	100	32	50	78	24	M16	Short
ZT610005-25	100	40	60	89	27	M20	Short
ZT610005-27	100	60	70	140	40	M32	Short
ZT610005-211	100	16	100	38	17	M8	Long
ZT610005-221	100	22	100	48	19	M10	Long
ZT610005-231	100	27	100	60	21	M12	Long
ZT610005-241	100	32	100	78	24	M16	Long
ZT610005-251	100	40	100	89	27	M20	Long
ZT610005-519	100	16	130	38	17	M8	Long
ZT610005-529	100	22	130	48	19	M10	Long
ZT610005-539	100	27	130	60	21	M12	Long
ZT610005-549	100	32	130	78	24	M16	Long
ZT610005-559	100	40	130	89	27	M20	Long
ZT610005-619	100	16	160	38	17	M8	Extra Long
ZT610005-629	100	22	160	48	19	M10	Extra Long
ZT610005-639	100	27	160	60	21	M12	Extra Long
ZT610005-649	100	32	160	78	24	M16	Extra Long
ZT610005-659	100	40	160	89	27	M20	Extra Long

Combi shell mill holder



Figure: A = 160

Usage:

To accommodate cutters with longitudinal and transverse slots.

Type:

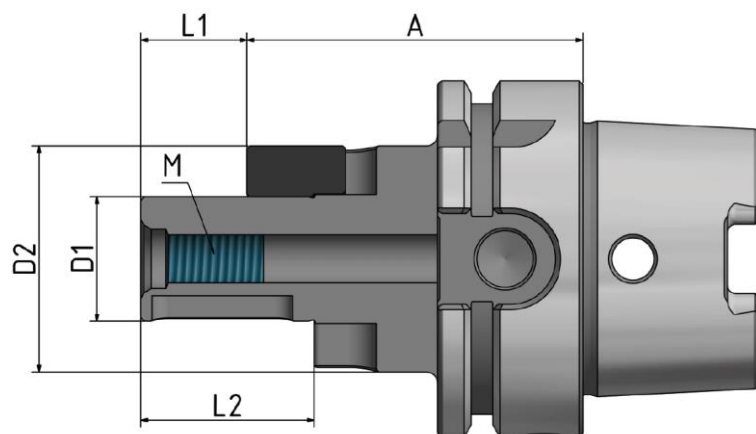
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25,000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	L1	L2	M	Version
ZT610006-01	100	16	60	32	17	27	M8	Short
ZT610006-02	100	22	60	40	19	31	M10	Short
ZT610006-03	100	27	60	48	21	33	M12	Short
ZT610006-04	100	32	60	58	24	38	M16	Short
ZT610006-05	100	40	70	70	27	41	M20	Short
ZT610006-011	100	16	100	32	17	27	M8	Long
ZT610006-021	100	22	100	40	19	31	M10	Long
ZT610006-031	100	27	100	48	21	33	M12	Long
ZT610006-041	100	32	100	58	24	38	M16	Long
ZT610006-051	100	40	100	70	27	41	M20	Long
ZT610006-61	100	16	160	32	17	27	M8	Extra Long
ZT610006-62	100	22	160	40	19	31	M10	Extra Long
ZT610006-63	100	27	160	48	21	33	M12	Extra Long
ZT610006-64	100	32	160	58	24	38	M16	Extra Long
ZT610006-65	100	40	160	70	27	41	M20	Extra Long

Morse taper adapter according to DIN 228A

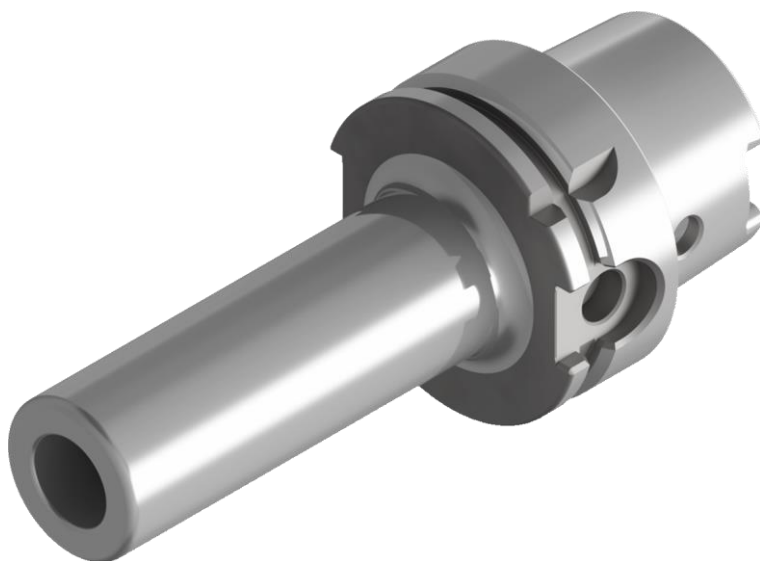


Figure: A = 120

Usage:

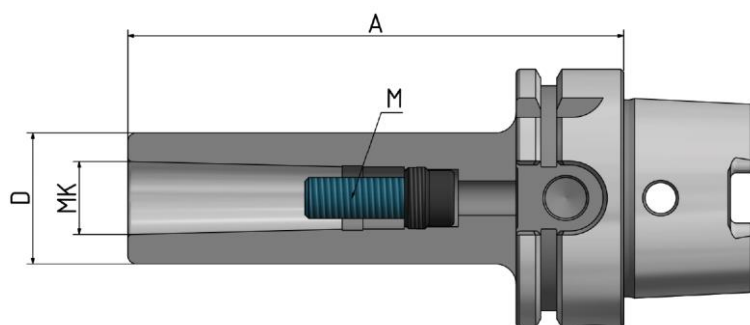
For holding Morse taper tools with tightening thread according to DIN 228A.

Type:

- Concentricity deviation of the taper to the inner taper ≤ 0.008 mm.

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	MK	D1	A	M	Version
ZT610014-02	100	2	32	120	M10	Short
ZT610014-03	100	3	40	150	M12	Short
ZT610014-04	100	4	48	170	M16	Short

Morse taper adapter according to DIN 228B

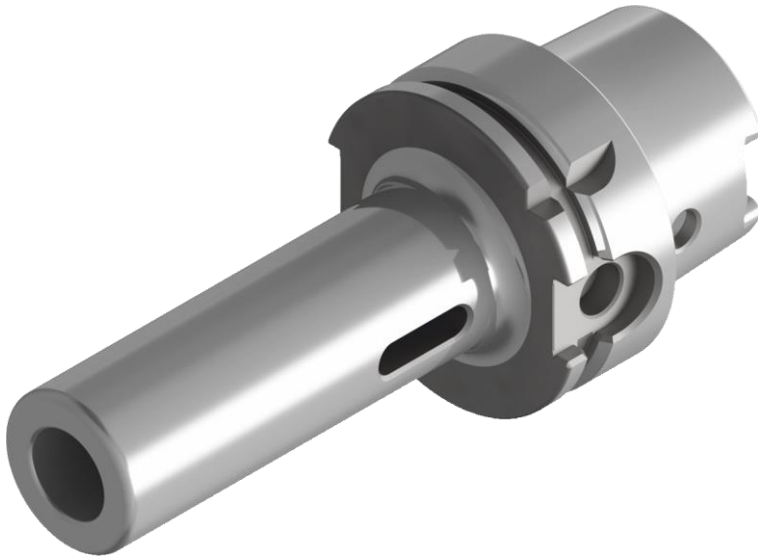


Figure: A = 60

Usage:

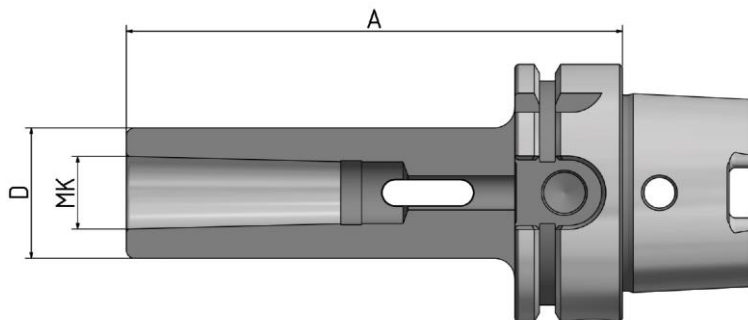
For holding Morse taper tools with tightening thread according to DIN 228B.

Type:

- Concentricity deviation of the taper to the inner taper ≤ 0.008 mm.

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	HSK	MK	D1	A	Version
ZT610013-01	100	1	25	100	Short
ZT610013-02	100	2	32	120	Short
ZT610013-03	100	3	40	150	Short
ZT610013-04	100	4	48	170	

Short drill chuck



Figure: A = 100

Usage:

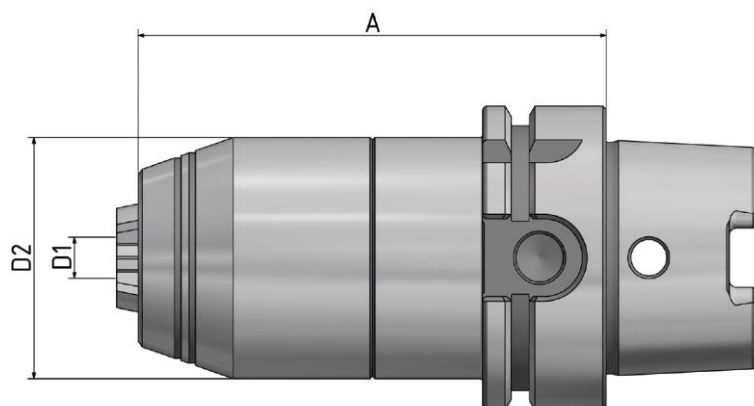
For clamping tools with cylindrical shank, suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

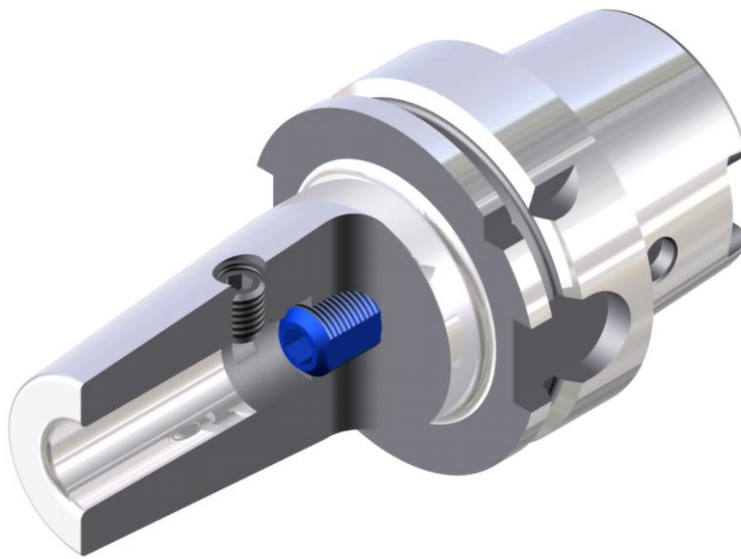
Fine balanced:

G 6.3 at 8000 min^{-1}



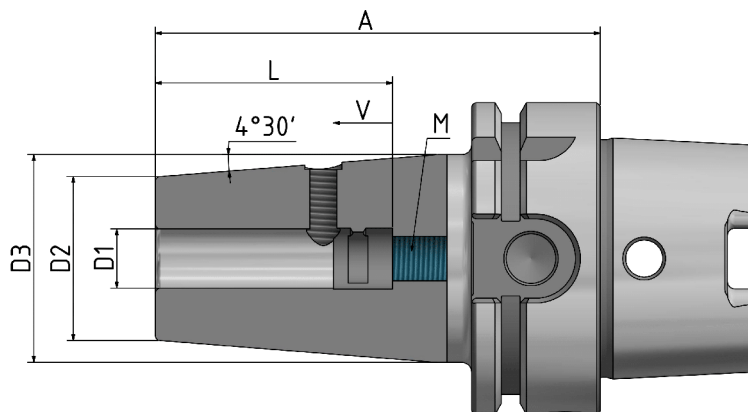
Order no.	HSK	Clamping b. D1	A	D2
ZT610095-22	100	1 - 16	104	50

HPC Shrink fit holder TITANIUM with pull-out protection



Fine balanced:

G 2,5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	HSK	D1	A	D2	D3	V	L	M
ZT610044-04	100	12	95	33	42	6	48	M10 x 1
ZT610044-06	100	16	100	33	42	6	51	M12 x 1
ZT610044-08	100	20	105	44	53	6	53	M16 x 1

HSK-A 40 + A 50

ER-Collet chuck

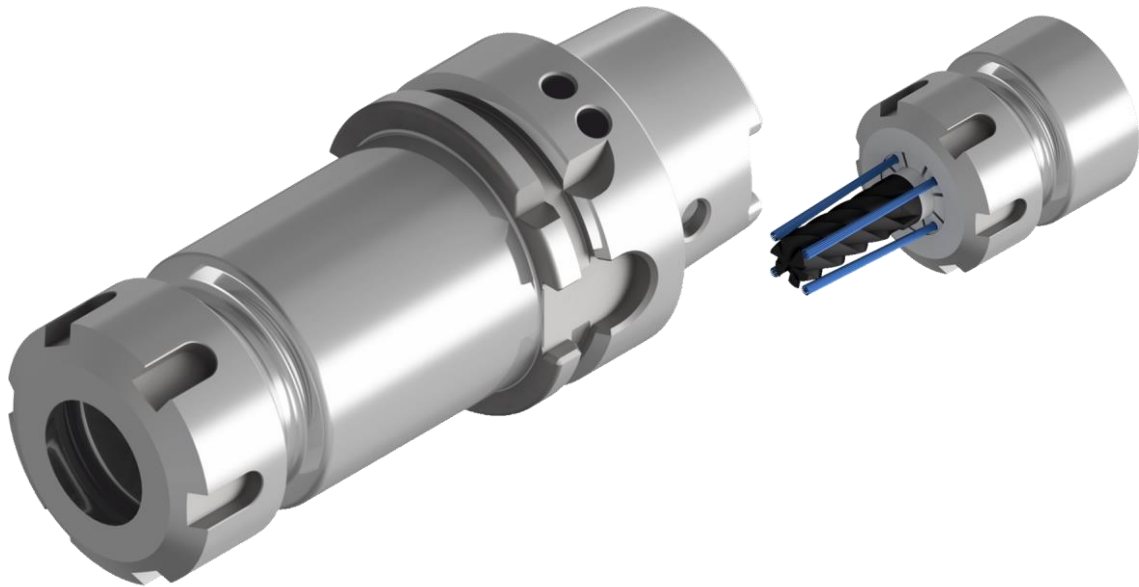


Figure: A = 80

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

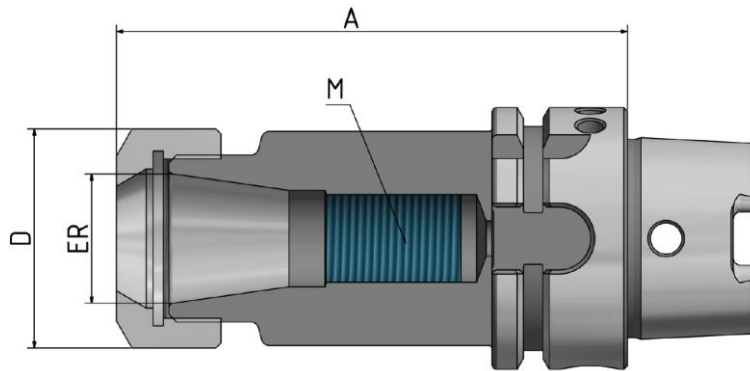
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



HSK-A 40

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT604002-001	40	16	28	60	1 - 10	-	Extra short
ZT604002-002	40	25	42	70	1 - 16	-	Extra Short
ZT604002-003	40	32	50	70	2 - 20	-	Extra Short
ZT604002-07	40	11	19	80	1 - 7	M8 x 1	Short
ZT604002-01	40	16	28	80	1 - 10	M11 x 1	Short
ZT604002-02	40	25	42	80	1 - 16	M18 x 1.5	Short
ZT604002-03	40	32	50	100	2 - 20	M24 x 1.5	Short

HSK-A 50

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT605002-001	50	16	28	60	1 - 10	-	Extra short
ZT605002-002	50	25	42	70	1 - 16	-	Extra short
ZT605002-003	50	32	50	70	2 - 20	-	Extra short
ZT605002-01	50	16	28	80	1 - 10	M8 x 1	Short
ZT605002-02	50	25	42	80	1 - 16	M11 x 1	Short
ZT605002-03	50	32	50	100	2 - 20	M24 x 1.5	Short

Endmill holder Weldon

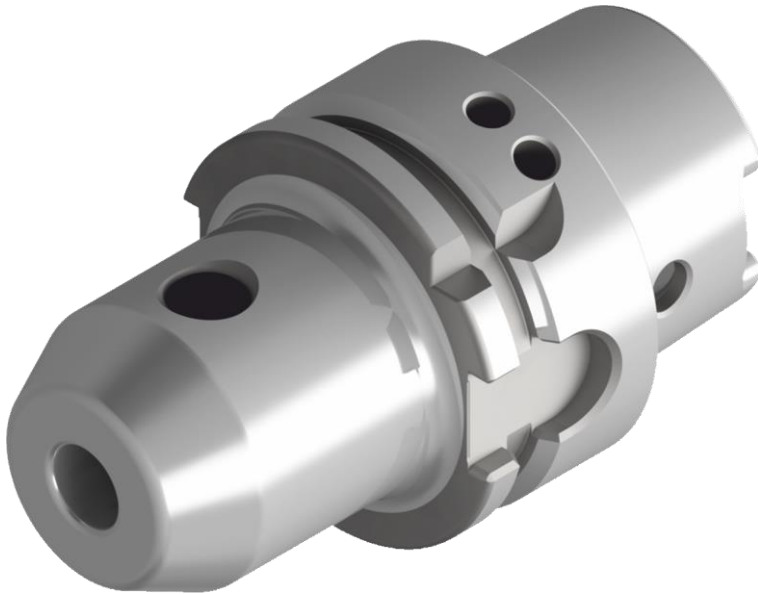


Figure: A = 75

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

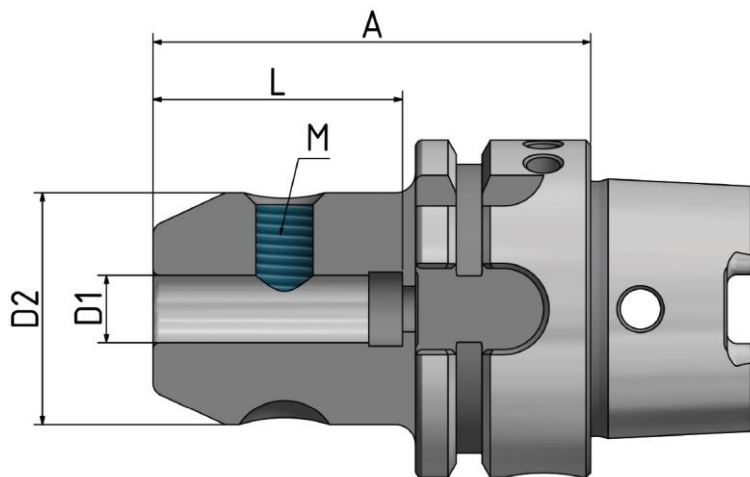
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN)

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



HSK-A 40

Order no.	HSK	D1	A	D2	L	M	Version
ZT604004-01	40	6	60	25	35	M6	Short
ZT604004-02	40	8	60	28	35	M8	Short
ZT604004-03	40	10	60	35	41	M10	Short
ZT604004-04	40	12	70	42	48	M12	Short
ZT604004-05	40	14	75	44	58	M12	Short
ZT604004-06	40	16	75	48	51	M14	Short

HSK-A 50

Order no.	HSK	D1	A	D2	L	M	Version
ZT605004-01	50	6	65	25	35	M6	Short
ZT605004-02	50	8	65	28	35	M8	Short
ZT605004-03	50	10	65	35	41	M10	Short
ZT605004-04	50	12	80	42	48	M12	Short
ZT605004-05	50	14	80	48	51	M14	Short
ZT605004-06	50	16	80	52	53	M16	Short

Shrink fit holder 4.5°

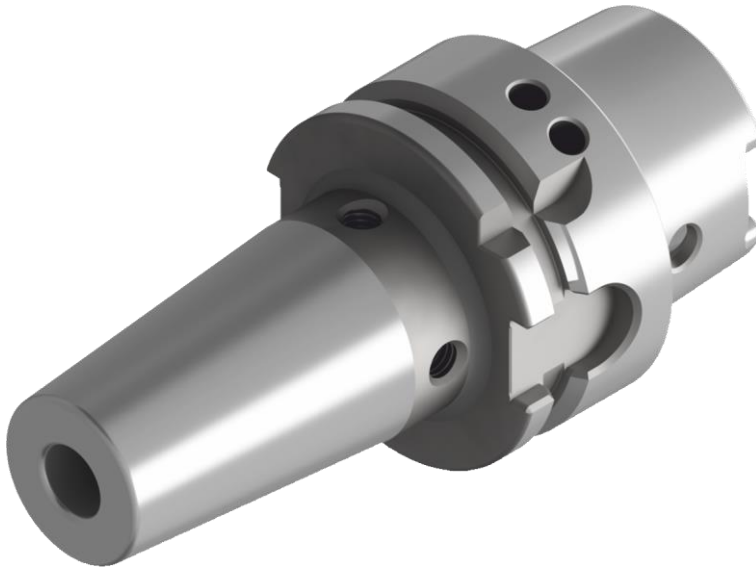


Figure: A = 90

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

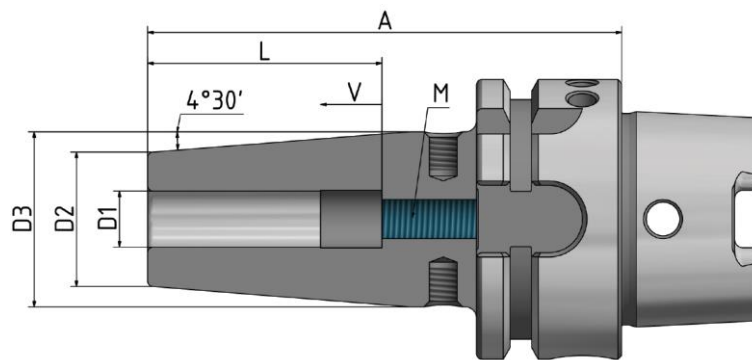
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



HSK-A 40

Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT604021-13	40	3	60	12	17	-	-	-	Short
ZT604021-14	40	4	60	12	17	-	-	-	Short
ZT604021-15	40	5	60	12	17	-	-	-	Short
ZT604021-01	40	6	80	21	27	37	10	M5	Short
ZT604021-02	40	8	80	21	27	37	10	M6	Short
ZT604021-03	40	10	80	24	32	42	10	M8 x 1	Short
ZT604021-04	40	12	90	24	32	48	10	M10 x 1	Short
ZT604021-05	40	14	90	27	34	48	10	M10 x 1	Short
ZT604021-06	40	16	90	27	34	51	10	M12 x 1	Short

HSK-A 50

Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT605021-13	50	3	60	12	17	-	-	-	Short
ZT605021-14	50	4	60	12	17	-	-	-	Short
ZT605021-15	50	5	60	12	17	-	-	-	Short
ZT605021-01	50	6	80	21	27	37	10	M5	Short
ZT605021-02	50	8	80	21	27	37	10	M6	Short
ZT605021-03	50	10	85	24	32	42	10	M8 x 1	Short
ZT605021-04	50	12	90	24	32	48	10	M10 x 1	Short
ZT605021-05	50	14	90	27	34	48	10	M10 x 1	Short
ZT605021-06	50	16	95	27	34	51	10	M12 x 1	Short
ZT605021-07	50	18	95	33	42	51	10	M12 x 1	Short
ZT605021-08	50	20	100	33	42	53	10	M16 x 1	Short

Shell mill holder

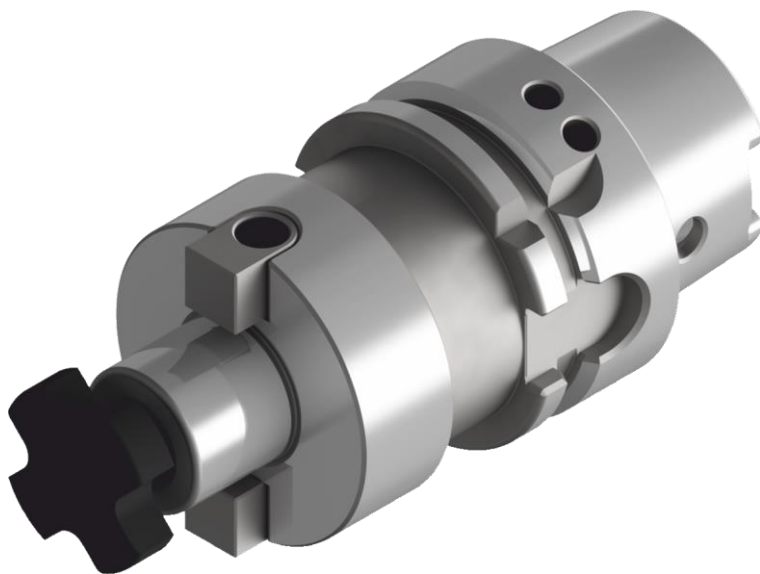


Figure: A = 50

Usage:

To accommodate cutters with transverse slot.

Type:

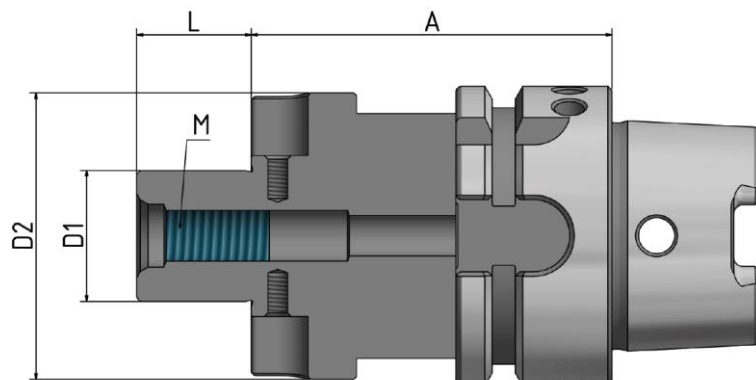
- With enlarged contact surface.
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



HSK-A 40

Order no.	HSK	D1	D2	A	L1	M	Version
ZT604005-01	40	16	38	50	17	M8	Short
ZT604005-02	40	22	48	60	19	M10	Short

HSK-A 50

Order no.	HSK	D1	D2	A	L1	M	Version
ZT605005-01	50	16	38	50	17	M8	Short
ZT605005-02	50	22	48	60	19	M10	Short
ZT605005-03	50	27	60	60	21	M12	Short

HSK-E 32, E 40 + E 50

ER-Collet chuck

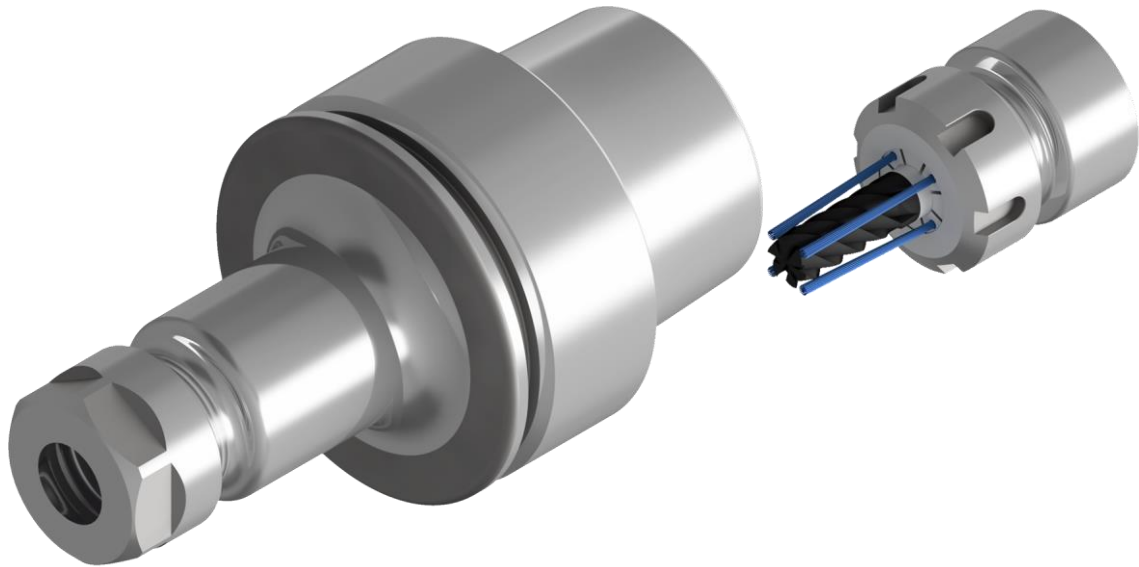


Figure: E 32 / A = 80

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

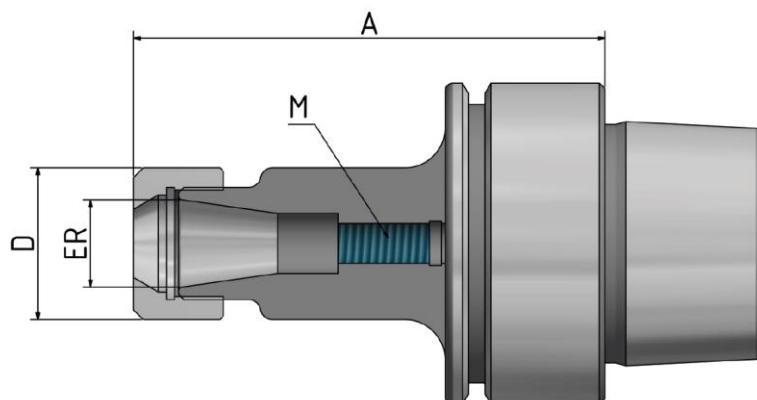
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



HSK-E 32

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT403202-02	32	16	28	80	1 - 10	M11 x 1	Short
ZT403202-04	32	25	42	80	1 - 16	M18 x 1	Short
ZT403202-32	32	16	28	100	2 - 10	M11 x 1	Long

HSK-E 40

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT404002-001	40	11	19	60	1 - 7	-	Extra short
ZT404002-002	40	16	28	60	1 - 10	-	Extra short
ZT404002-003	40	25	42	70	1 - 16	-	Extra Short
ZT604002-01	40	16	28	80	1 - 10	M11 x 1	Short
ZT604002-02	40	25	42	80	1 - 16	M18 x 1.5	Short

HSK-E 50

Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT405002-001	50	16	28	60	1 - 10	-	Extra short
ZT405002-002	50	25	42	70	1 - 16	-	Extra short
ZT405002-003	50	32	50	80	2 - 20	-	Extra short
ZT405002-01	50	16	28	100	1 - 10	M11 x 1	Short
ZT405002-03	50	25	42	100	1 - 16	M18 x 1.5	Short
ZT405002-04	50	32	50	100	2 - 20	M24 x 1.5	Short

Shrink fit holder 4.5°



Figure: E 32 / A = 70

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

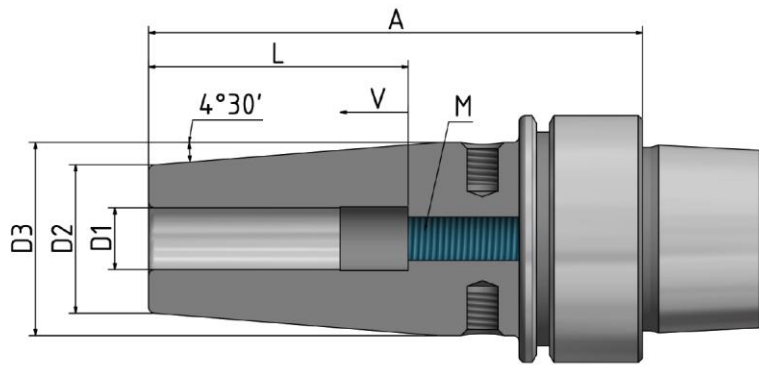
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm

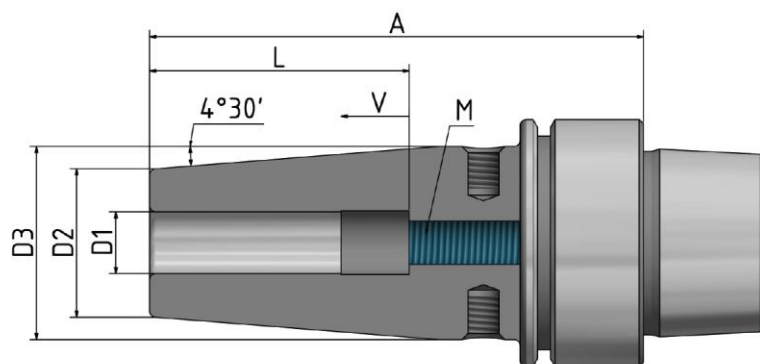


HSK-E 32

Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT403221-13	32	3	60	12	17	-	-	-	Short
ZT403221-14	32	4	60	12	17	-	-	-	Short
ZT403221-15	32	5	60	12	17	-	-	-	Short
ZT403221-01	32	6	70	21	27	37	10	M5	Short
ZT403221-02	32	8	70	21	27	37	10	M6	Short
ZT403221-03	32	10	80	24	32	42	10	M8 x 1	Short

HSK-E 40

Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT404021-141 ¹⁾	40	6	60	21	27	36	-	-	Extra short
ZT404021-151 ¹⁾	40	8	60	21	27	36	-	-	Extra short
ZT404021-011 ¹⁾	40	10	60	24	32	42	-	-	Extra short
ZT404021-022 ¹⁾	40	12	60	24	32	47	-	-	Extra short
ZT404021-032 ¹⁾	40	16	60	27	34	50	-	-	Extra short
ZT404021-13	40	3	60	27	17	-	-	-	Short
ZT404021-14	40	4	60	12	17	-	-	-	Short
ZT404021-15	40	5	60	12	17	-	-	-	Short
ZT404021-01	40	6	80	12	27	37	10	M5	Short
ZT404021-02	40	8	80	21	27	37	10	M6	Short
ZT404021-03	40	10	80	21	32	42	10	M8 x 1	Short
ZT404021-04	40	12	90	24	32	48	10	M10 x 1	Short
ZT404021-05	40	14	90	24	34	48	10	M10 x 1	Short
ZT404021-06	40	16	90	27	34	51	10	M12 x 1	Short



HSK-E 50

Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT405021-13	50	3	60	12	17	-	-	-	Short
ZT405021-14	50	4	60	12	17	-	-	-	Short
ZT405021-15	50	5	60	12	17	-	-	-	Short
ZT405021-01	50	6	80	21	27	37	10	M5	Short
ZT405021-02	50	8	80	21	27	37	10	M6	Short
ZT405021-03	50	10	85	24	32	42	10	M8 x 1	Short
ZT405021-04	50	12	90	24	32	48	10	M10 x 1	Short
ZT405021-05	50	14	90	27	34	48	10	M10 x 1	Short
ZT405021-06	50	16	95	27	34	51	10	M12 x 1	Short

1) Without additional balancing thread

2) Without balancing thread and without thread for coolant transfer unit.

HSK-E 40

Shrink fit holder 3°

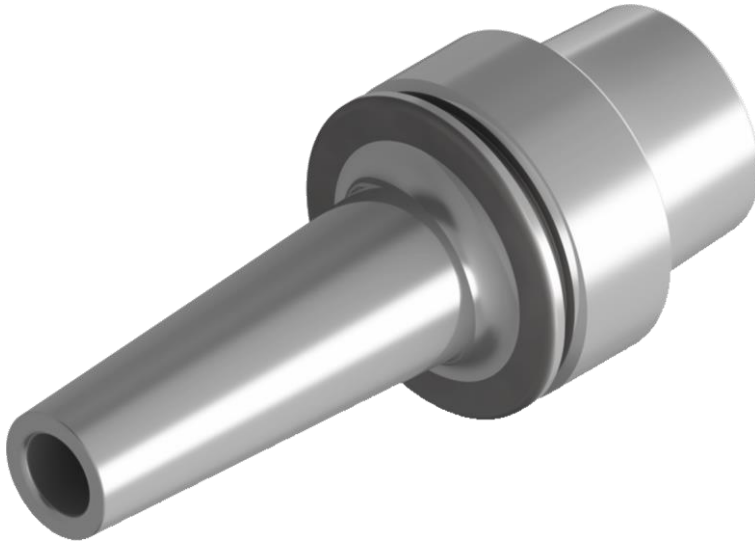


Figure: E 40 / A = 70

Usage:

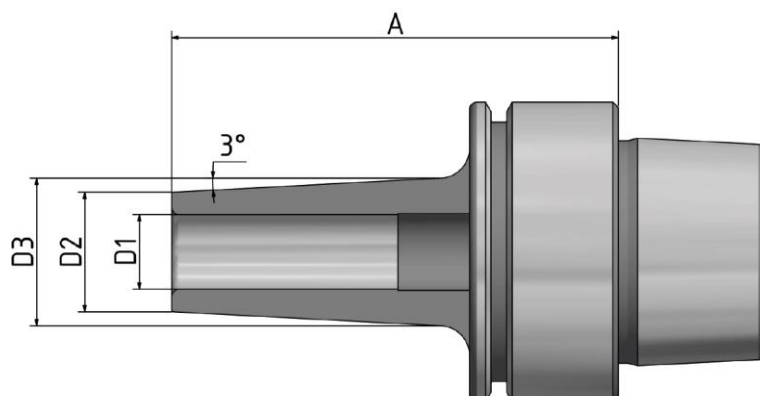
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Without balancing thread.

Fine balanced:

G 2.5 at 40000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	Version
ZT404051-13	40	3	60	9	14	Extra short
ZT404051-14	40	4	60	10	15	Extra short
ZT404051-15	40	5	60	11	16	Extra short
ZT404051-01	40	6	60	12	17	Extra short
ZT403051-02	40	8	60	14	19	Extra short
ZT404051-03	40	10	60	16	21	Extra short
ZT404051-04	40	12	60	18	23	Extra short
ZT404051-313	40	3	70	9	15	Short
ZT404051-314	40	4	70	10	16	Short
ZT404051-315	40	5	70	11	17	Short
ZT404051-31	40	6	70	12	18	Short
ZT404051-32	40	8	70	14	20	Short
ZT404051-33	40	10	70	16	22	Short
ZT404051-34	40	12	70	18	24	Short
ZT404051-513	40	3	80	0	16	Long
ZT404051-514	40	4	80	10	17	Long
ZT404051-515	40	5	80	11	18	Long
ZT404051-51	40	6	80	12	19	Long
ZT404051-52	40	8	80	14	21	Long
ZT404051-53	40	10	80	16	23	Long
ZT404051-54	40	12	80	18	25	Long

Shrink fit holder 3° - extra slim, short

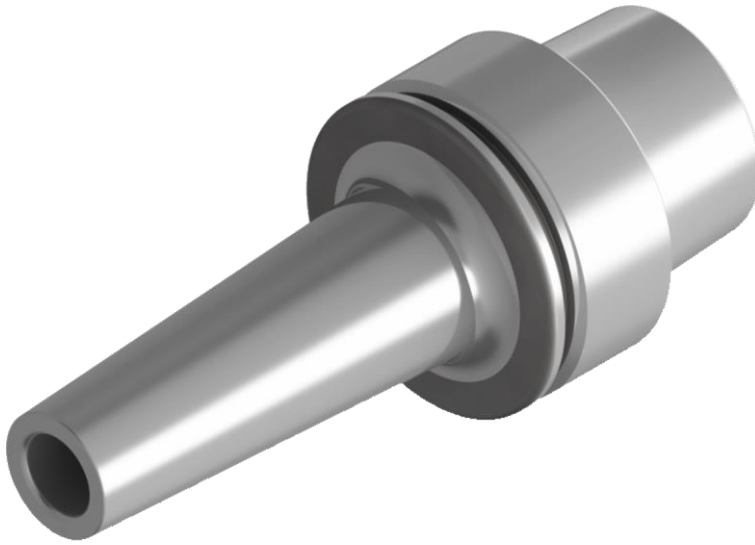


Figure: E 40 / A = 90

Usage:

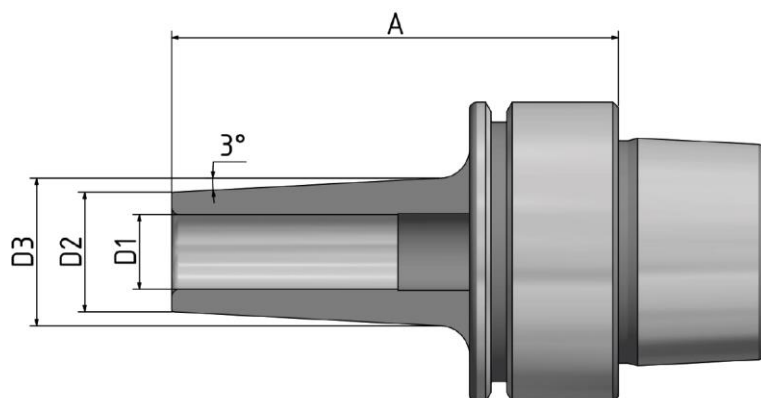
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Without balancing thread.

Fine balanced:

G 2.5 at 40000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	Version
ZT404052-13	40	3	60	6	10	Extra Slim, Short
ZT404052-14	40	4	60	7	11	Extra Slim, Short
ZT404052-15	40	5	60	8	12	Extra Slim, Short
ZT404052-01	40	6	60	9	13	Extra Slim, Short
ZT403052-02	40	8	60	11	15	Extra Slim, Short
ZT404052-03	40	10	60	13	17	Extra Slim, Short
ZT404052-04	40	12	60	15	19	Extra Slim, Short

HSK-E 50

Shrink fit holder 3°

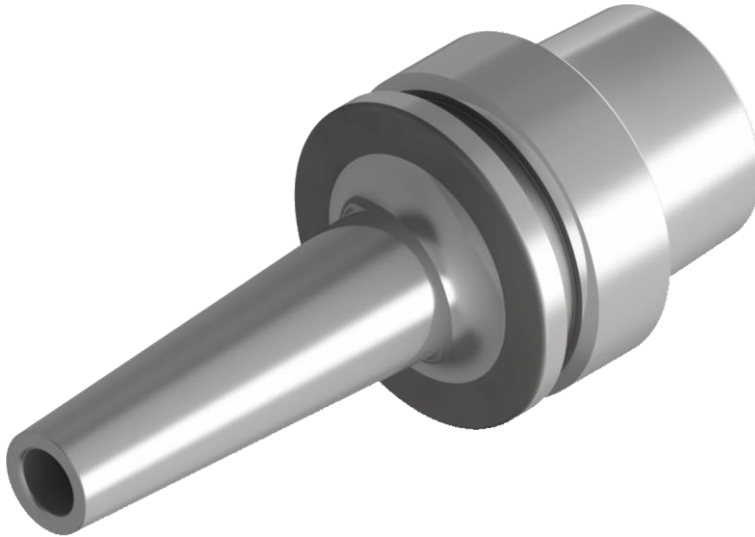


Figure: E 50 / A = 80

Usage:

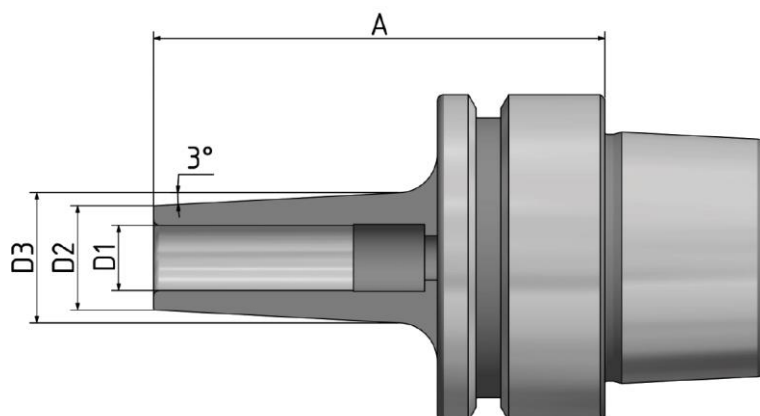
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Without balancing thread.

Fine balanced:

G 2.5 at 40000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	D1	A	D2	D3	Version
ZT405051-13	50	3	70	9	14	Extra short
ZT405051-14	50	4	70	10	15	Extra short
ZT405051-15	50	5	70	11	16	Extra short
ZT405051-01	50	6	70	12	17	Extra short
ZT405051-02	50	8	70	14	19	Extra short
ZT405051-03	50	10	70	16	21	Extra short
ZT405051-04	50	12	70	18	23	Extra short
ZT405051-313	50	3	80	9	15	Short
ZT405051-314	50	4	80	10	16	Short
ZT405051-315	50	5	80	11	17	Short
ZT405051-31	50	6	80	12	18	Short
ZT405051-32	50	8	80	14	20	Short
ZT405051-33	50	10	80	16	22	Short
ZT405051-34	50	12	80	18	24	Short
ZT405051-513	50	3	100	9	17	Long
ZT405051-514	50	4	100	10	18	Long
ZT405051-515	50	5	100	11	19	Long
ZT405051-51	50	6	100	12	20	Long
ZT405051-52	50	8	100	14	22	Long
ZT405051-53	50	10	100	16	24	Long
ZT405051-54	50	12	100	18	26	Long

HSK-F 63

ER-Collet chuck

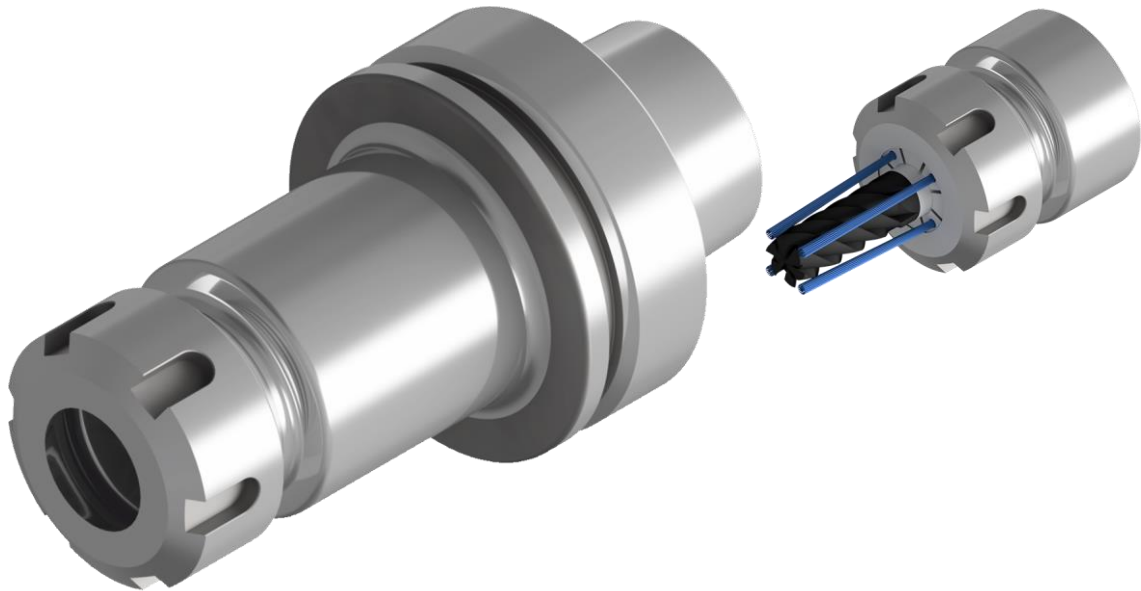


Figure: A = 75

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

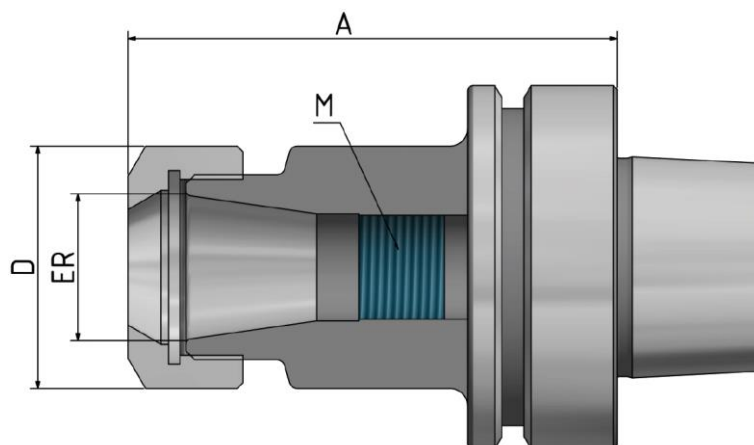
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	HSK	ER	D	A	Clamping range	M	Version
ZT206302-001	63	11	19	75	1 - 7	-	Extra short
ZT206302-002	63	16	28	75	1 - 10	-	Extra short
ZT206302-003	63	20	34	75	1 - 13	-	Extra short
ZT206302-004	63	25	42	75	1 - 16	-	Extra short
ZT206302-005	63	32	50	75	2 - 20	-	Extra short
ZT206302-006	63	40	63	75	4 - 26	-	Extra short
ZT206302-01	63	11	19	100	1 - 7	M8 x 1	Short
ZT206302-02	63	16	28	100	1 - 10	M11 x 1	Short
ZT206302-03	63	20	34	100	1 - 13	M14 x 1	Short
ZT206302-04	63	25	42	100	1 - 16	M18 x 1.5	Short
ZT206302-05	63	32	50	100	2 - 20	M24 x 1.5	Short
ZT206302-06	63	40	63	100	4 - 26	M28 x 1.5	Short

Shrink fit holder 4.5°

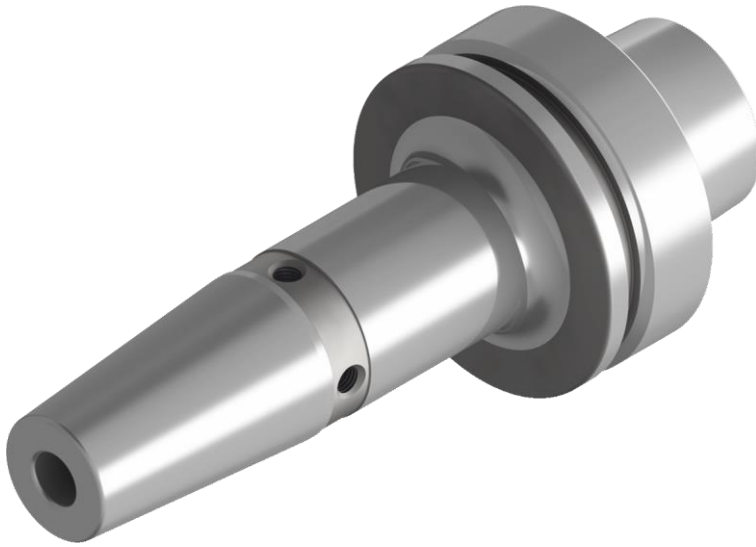


Figure: A = 90

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

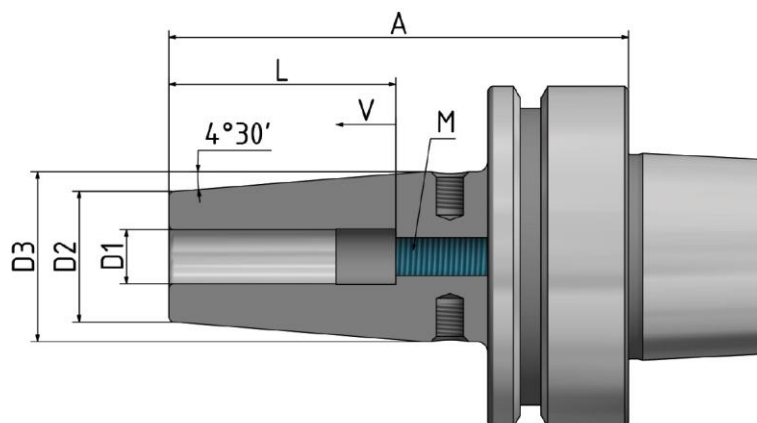
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to $D1 \leq 0.003 \text{ mm}$.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	HSK	D1	A	D2	D3	L	V	M	Version
ZT206321-13	63	3	80	12	17	-	-	-	Short
ZT206321-14	63	4	80	12	17	-	-	-	Short
ZT206321-15	63	5	80	12	17	-	-	-	Short
ZT206321-01	63	6	80	21	27	37	10	M5	Short
ZT206321-02	63	8	80	21	27	37	10	M6	Short
ZT206321-03	63	10	85	24	32	42	10	M8 x 1	Short
ZT206321-04	63	12	90	24	32	48	10	M10 x 1	Short
ZT206321-06	63	16	95	27	34	51	10	M12 x 1	Short
ZT206321-08	63	20	100	33	42	53	10	M16 x 1	Short
ZT206321-09	63	25	115	44	53	59	10	M16 x 1	Short
ZT206321-51	63	6	130	21	27	37	10	M5	Long
ZT206321-52	63	8	130	21	27	37	10	M6	Long
ZT206321-53	63	10	130	24	32	42	10	M8 x 1	Long
ZT206321-54	63	12	130	24	32	48	10	M10 x 1	Long
ZT206321-56	63	16	130	27	34	51	10	M12 x 1	Long
ZT206321-58	63	20	130	33	42	53	10	M16 x 1	Long
ZT206321-59	63	25	130	44	53	59	10	M16 x 1	Long

SK 40 ISO 7388-1Form AD/AF

ER-Collet chuck

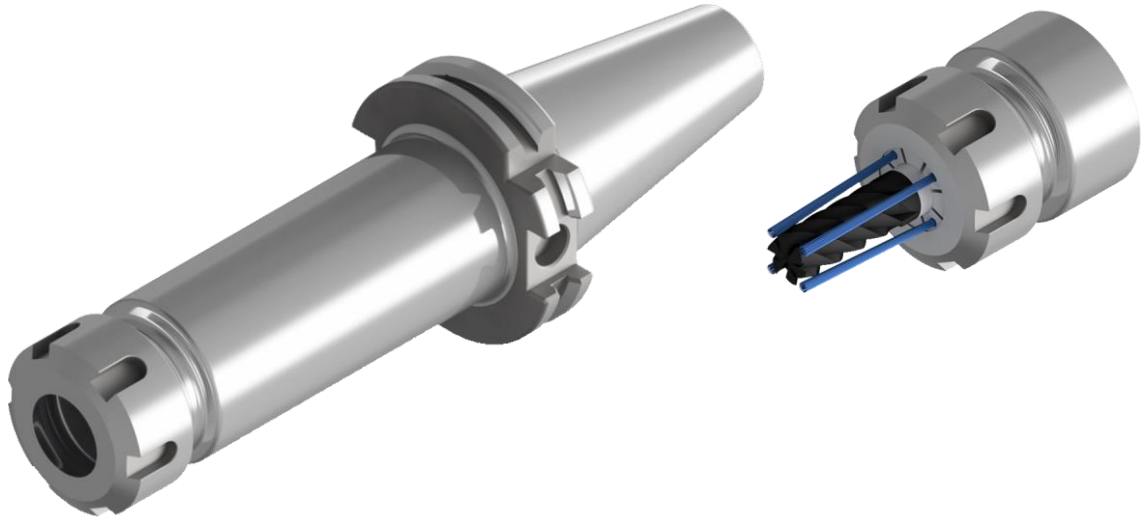


Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

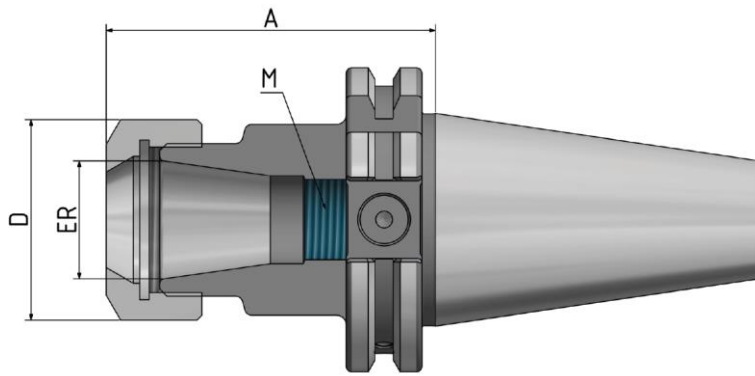
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT714002-01	40	16	1 - 10	70	28	M11 x 1	Short
ZT714002-02	40	20	1 - 13	70	34	M14 x 1	Short
ZT714002-03	40	25	1 - 16	70	42	M18 x 1,5	Short
ZT714002-04	40	32	2 - 20	70	50	M24 x 1,5	Short
ZT714002-05	40	40	4 - 26	70	63	M28 x 1,5	Short
ZT714002-31	40	16	1 - 10	100	28	M11 x 1	Long
ZT714002-32	40	20	1 - 13	100	34	M14 x 1	Long
ZT714002-33	40	25	1 - 16	100	42	M18 x 1,5	Long
ZT714002-34	40	32	2 - 20	100	50	M24 x 1,5	Long
ZT714002-35	40	40	4 - 26	100	63	M28 x 1,5	Long
ZT714002-61	40	16	1 - 10	160	28	M11 x 1	Extra Long
ZT714002-63	40	25	1 - 16	160	42	M18 x 1,5	Extra Long
ZT714002-64	40	32	2 - 20	160	50	M24 x 1,5	Extra Long
ZT714002-65	40	40	4 - 26	160	63	M28 x 1,5	Extra Long
ZT714002-81	40	16	1 - 10	200	28	M11 x 1	Extra Long
ZT714002-83	40	25	1 - 16	200	42	M18 x 1,5	Extra Long
ZT714002-84	40	32	2 - 20	200	50	M24 x 1,5	Extra Long

ER-Collet chuck «Mini»

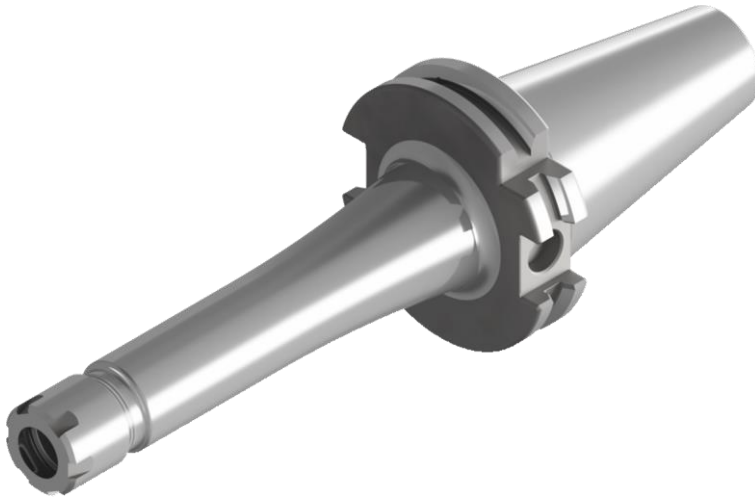


Figure: A = 160

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

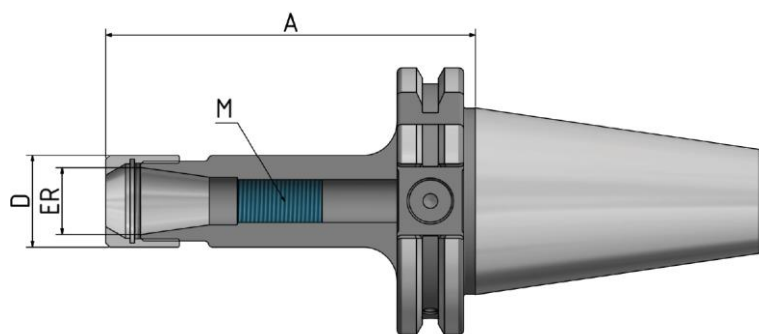
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT714002-21	40	11	1 - 7	70	16	M8 x 1	Short
ZT714002-23	40	16	1 - 10	70	22	M11 x 1	Short
ZT714002-41	40	11	1 - 7	100	16	M8 x 1	Long
ZT714002-43	40	16	1 - 10	100	22	M11 x 1	Long
ZT714002-47	40	20	1 - 13	100	28	M14 x 1	Long
ZT714002-45	40	25	1 - 16	100	35	M18 x 1,5	Long
ZT714002-51	40	11	1 - 7	130	16	M8 x 1	Long
ZT714002-52	40	16	1 - 10	130	22	M11 x 1	Long
ZT714002-53	40	20	1 - 13	130	28	M14 x 1	Long
ZT714002-54	40	25	1 - 16	130	35	M18 x 1,5	Long
ZT714002-42	40	11	1 - 7	160	16	M8 x 1	Extra Long
ZT714002-44	40	16	1 - 10	160	22	M11 x 1	Extra Long
ZT714002-48	40	20	1 - 13	160	28	M14 x 1	Extra Long
ZT714002-46	40	25	1 - 16	160	35	M18 x 1,5	Extra Long

ER-Collet chuck– corrosion resistant

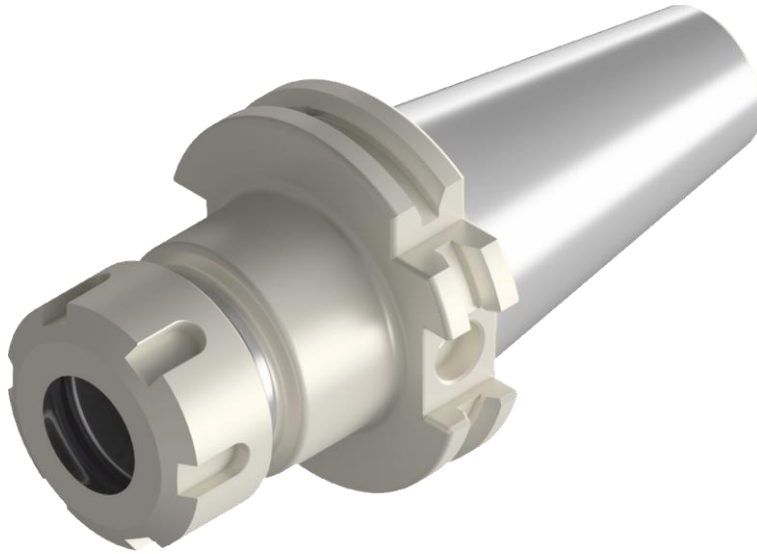


Figure: A = 70

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

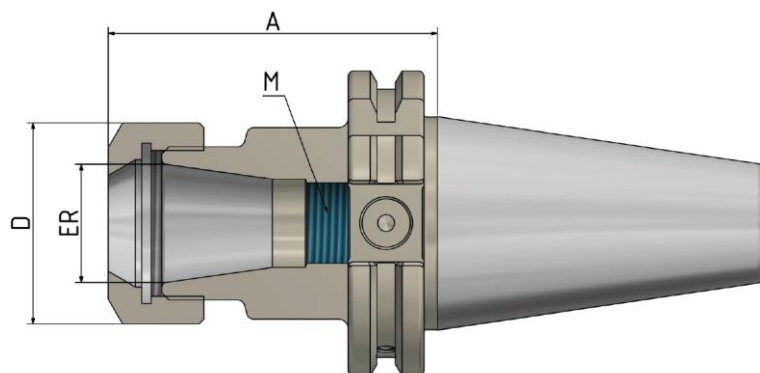
- The entire front area of the tool holder is protected against corrosion.
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT7140028-01	40	16	1 - 10	70	28	M11 x 1	Short
ZT7140028-03	40	25	1 - 16	70	42	M18 x 1,5	Short
ZT7140028-04	40	32	2 - 20	70	50	M24 x 1,5	Short
ZT7140028-05	40	40	4 - 26	70	63	M28 x 1,5	Short

HPC Precision ER Collet Chuck HAWK EYE® / ER «Mini»

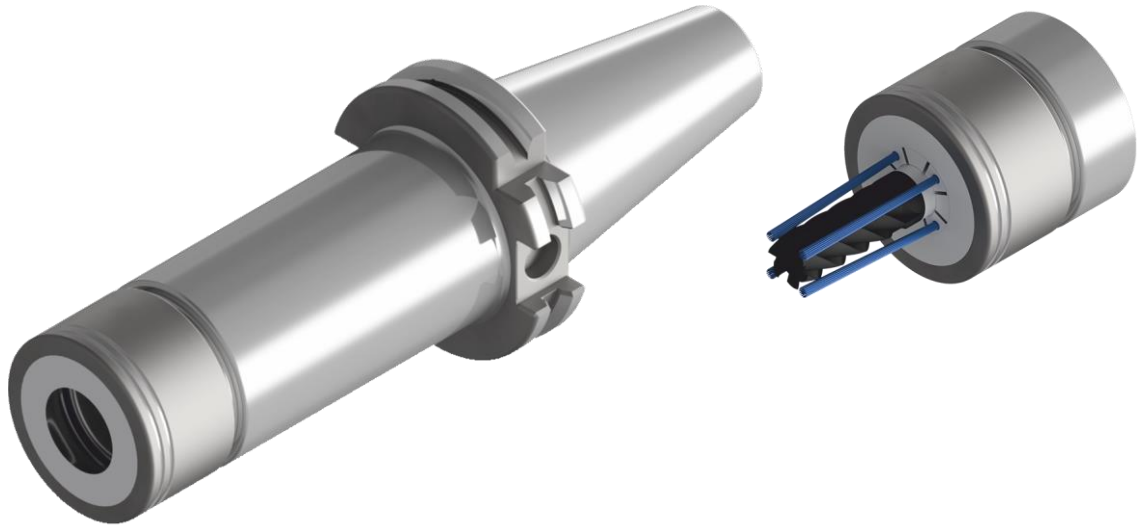


Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

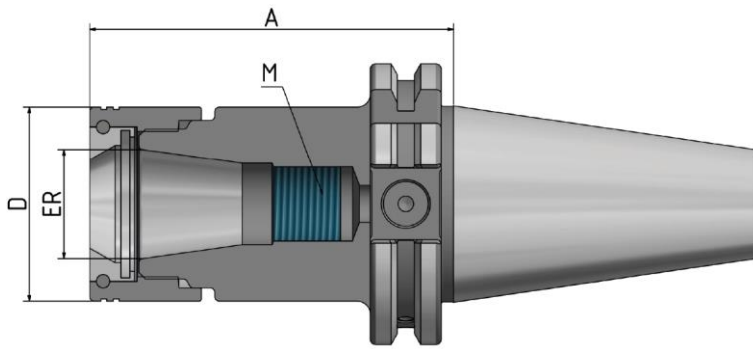
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2 μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

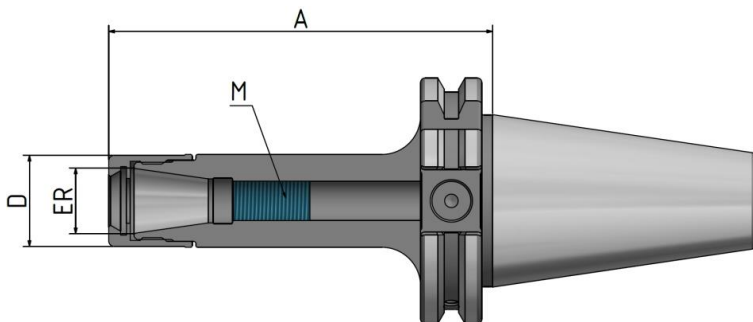
- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT714032-02	40	16	1 - 10	70	34	M11 x 1	Short
ZT714032-03	40	20	1 - 13	70	38	M14 x 1	Short
ZT714032-04	40	25	1 - 16	70	44	M18 x 1,5	Short
ZT714032-05	40	32	2 - 20	70	52	M24 x 1,5	Short
ZT714032-06	40	40	4 - 26	70	62	M28 x 1,5	Short
ZT714032-32	40	16	1 - 10	100	34	M11 x 1	Long
ZT714032-34	40	25	1 - 16	100	44	M18 x 1,5	Long
ZT714032-35	40	32	2 - 20	100	52	M24 x 1,5	Long
ZT714032-36	40	40	4 - 26	100	62	M28 x 1,5	Long
ZT714032-52	40	16	1 - 10	130	34	M11 x 1	Long
ZT714032-54	40	25	1 - 16	130	44	M18 x 1,5	Long
ZT714032-55	40	32	2 - 20	130	52	M24 x 1,5	Long
ZT714032-62	40	16	1 - 10	160	34	M11 x 1	Extra long
ZT714032-64	40	25	1 - 16	160	44	M18 x 1,5	Extra long
ZT714032-65	40	32	2 - 20	160	52	M24 x 1,5	Extra long



HPC Precision ER Collet Chuck HAWK EYE® «Mini»

Order no.	SK	ER	Clamping range	A	D	M	Version
ZT714034-31	40	11	1 - 10	100	16	M8 x 1	Short
ZT714034-32	40	16	1 - 16	100	24	M11 x 1	Short
ZT714034-61	40	11	2 - 20	160	16	M8 x 1	Extra long
ZT714034-62	40	16	4 - 26	160	24	M11 x 1	Extra long

Endmill holder Weldon

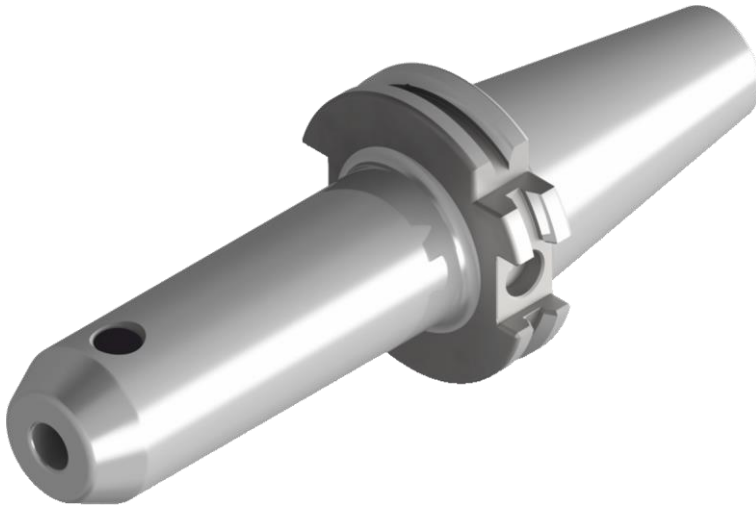


Figure: A = 160

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

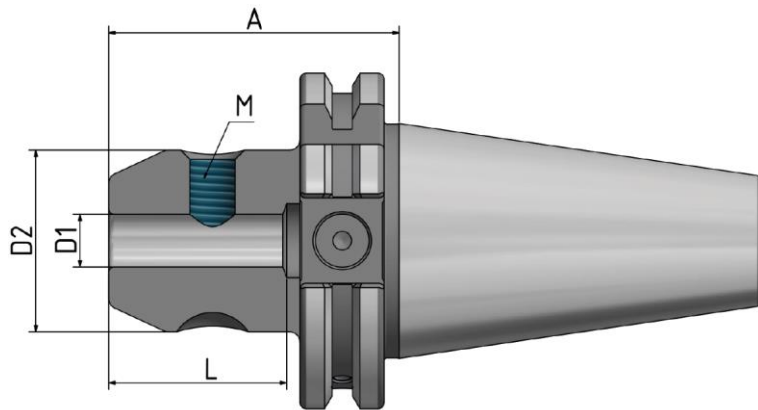
- Concentricity deviation of the taper to the D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT714004-01	40	6	50	25	35	M6	Short
ZT714004-02	40	8	50	28	35	M8	Short
ZT714004-03	40	10	50	35	41	M10	Short
ZT714004-04	40	12	50	42	48	M12	Short
ZT714004-05	40	14	50	44	48	M12	Short
ZT714004-06	40	16	63	48	51	M14	Short
ZT714004-07	40	18	63	48	51	M14	Short
ZT714004-08	40	20	63	52	53	M16	Short
ZT714004-09	40	25	100	65	60	M18 x 2	Short
ZT714004-10	40	32	100	72	64	M20 x 2	Short
ZT714004-31	40	6	100	25	35	M6	Long
ZT714004-32	40	8	100	28	35	M8	Long
ZT714004-33	40	10	100	35	41	M10	Long
ZT714004-34	40	12	100	42	48	M12	Long
ZT714004-35	40	14	100	44	48	M12	Long
ZT714004-36	40	16	100	48	51	M14	Long
ZT714004-38	40	20	100	52	53	M16	Long
ZT714004-61	40	6	160	25	35	M6	Extra long
ZT714004-62	40	8	160	28	35	M8	Extra long
ZT714004-63	40	10	160	35	41	M10	Extra long
ZT714004-64	40	12	160	42	48	M12	Extra long
ZT714004-65	40	14	160	44	48	M12	Extra long
ZT714004-66	40	16	160	48	51	M14	Extra long
ZT714004-68	40	20	160	52	53	M16	Extra long

Endmill holder Weldon «Cool Tool»

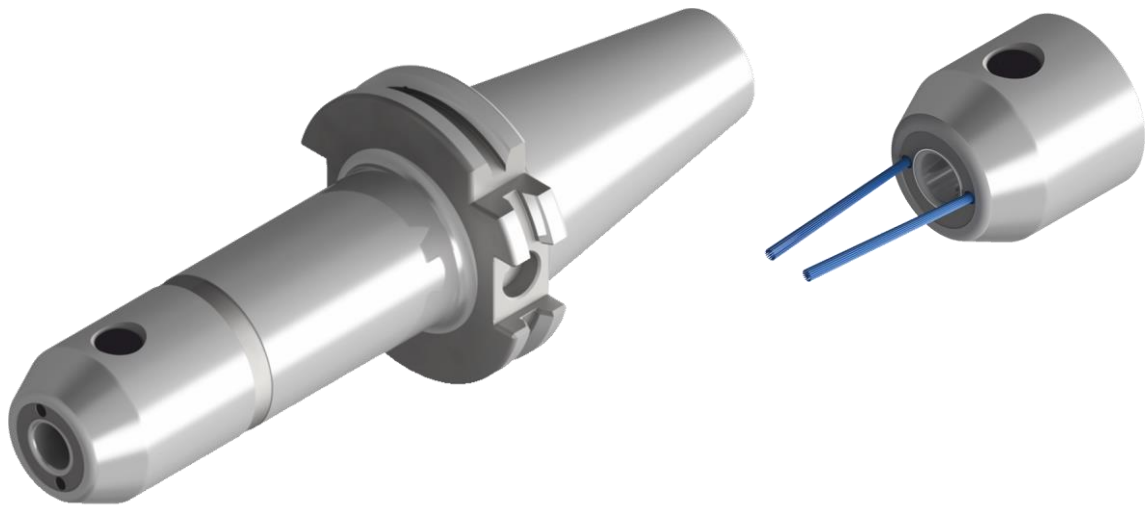


Figure: A = 100

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

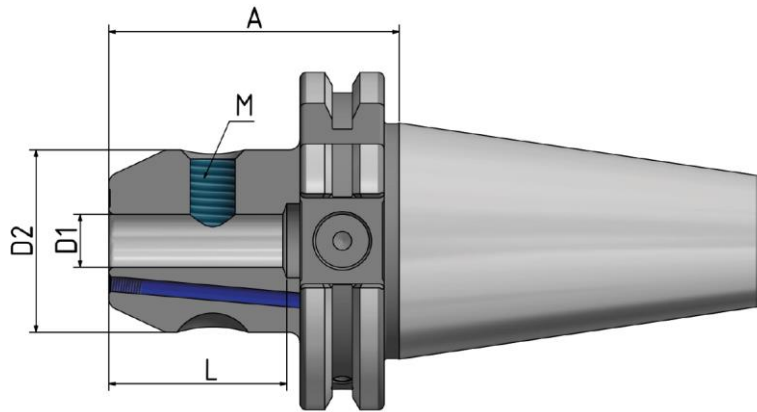
- Two holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.
- Concentricity deviation of the taper to the D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT7140041-01	40	6	50	25	35	M6	Short
ZT7140041-02	40	8	50	28	35	M8	Short
ZT7140041-03	40	10	50	35	41	M10	Short
ZT7140041-04	40	12	50	42	48	M12	Short
ZT7140041-05	40	14	50	44	48	M12	Short
ZT7140041-06	40	16	63	48	51	M14	Short
ZT7140041-08	40	20	63	52	53	M16	Short
ZT7140041-09	40	25	100	65	60	M18 x 2	Short
ZT7140041-10	40	32	100	72	64	M20 x 2	Short
ZT7140041-31	40	6	100	25	35	M6	Long
ZT7140041-32	40	8	100	28	35	M8	Long
ZT7140041-33	40	10	100	35	41	M10	Long
ZT7140041-34	40	12	100	42	48	M12	Long
ZT7140041-36	40	16	100	48	51	M14	Long
ZT7140041-38	40	20	100	52	53	M16	Long
ZT7140041-51	40	6	130	25	35	M6	Long
ZT7140041-52	40	8	130	28	35	M8	Long
ZT7140041-53	40	10	130	35	41	M10	Long
ZT7140041-54	40	12	130	42	48	M12	Long
ZT7140041-55	40	14	130	44	48	M12	Long
ZT7140041-56	40	16	130	48	51	M14	Long
ZT7140041-57	40	18	130	50	51	M14	Long
ZT7140041-58	40	20	130	52	53	M16	Long
ZT7140041-59	40	25	130	65	60	M18 x 2	Long
ZT7140041-60	40	32	130	72	64	M20 x 2	Long

Endmill holder Weldon with 4 x «Cool Tool» - corrosion resistant

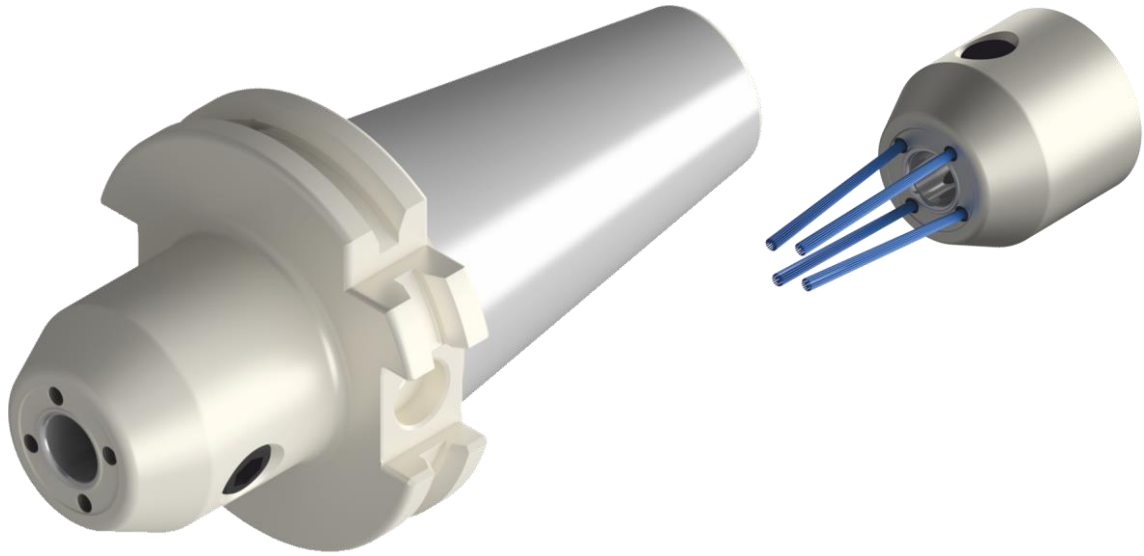


Figure: A = 63

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

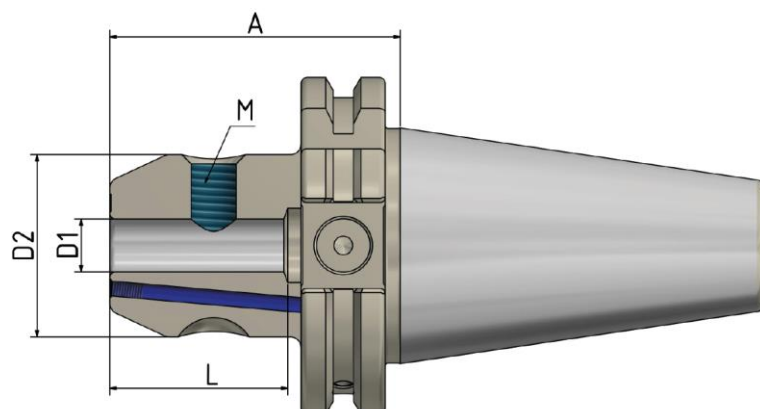
- The complete tool side of the holder is protected against corrosion.
- Four holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- 4 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT7140048-018	40	6	50	25	35	M6	Short
ZT7140048-028	40	8	50	28	35	M8	Short
ZT7140048-038	40	10	50	35	41	M10	Short
ZT7140048-048	40	12	50	42	48	M12	Short
ZT7140048-068	40	16	63	48	51	M12	Short
ZT7140048-088	40	20	63	52	53	M14	Short

Endmill holder Weldon - slim, extended version

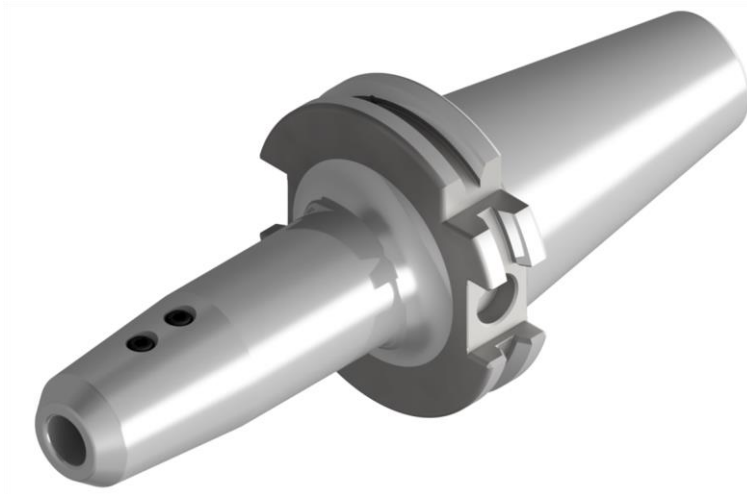


Figure: A = 100

Usage:

Combined design for clamping tools with straight shank according to DIN 1835B/6359HB and DIN 1835E/6359HE.

Type:

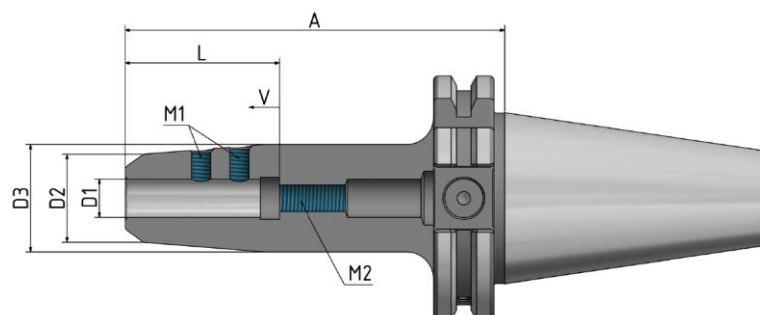
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Special clamping screw (with ball head)
- Cannulated length adjustment screw

Fine balanced:

G 6.3 at 8000 min^{-1}



Order no.	SK	D1	A	D2	D3	L	M	Version
ZT714027-01	40	6	100	13	24	36,5	M6	Long
ZT714027-03	40	8	100	15	26	36,5	M6	Long
ZT714027-05	40	10	100	16	28	40,5	M8 x 1	Long
ZT714027-07	40	12	100	17	29	45,5	M10 x 1	Long

Shrink fit holder 4.5°

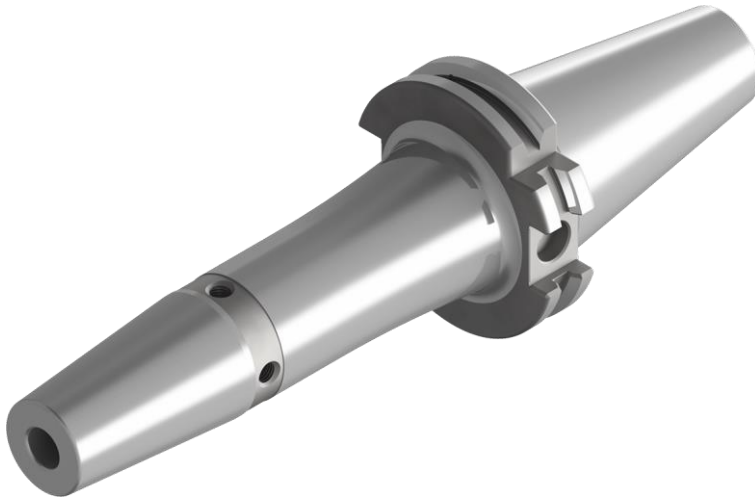


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

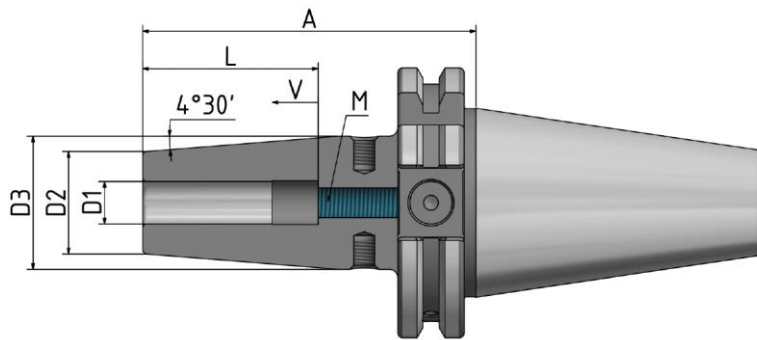
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 $\leq$ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

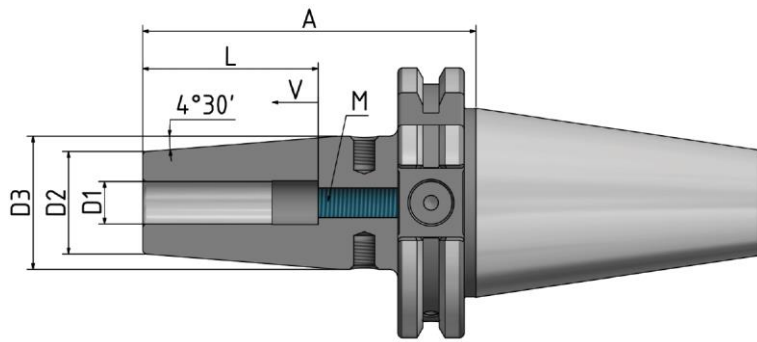
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq$ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT714021-13	40	3	80	12	17	-	-	-	Short
ZT714021-14	40	4	80	12	17	-	-	-	Short
ZT714021-15	40	5	80	12	17	-	-	-	Short
ZT714021-01	40	6	80	21	27	37	10	M5	Short
ZT714021-02	40	8	80	21	27	37	10	M6	Short
ZT714021-03	40	10	80	24	32	42	10	M8 x 1	Short
ZT714021-04	40	12	80	24	32	48	10	M10 x 1	Short
ZT714021-05	40	14	80	27	34	48	10	M10 x 1	Short
ZT714021-06	40	16	80	27	34	51	10	M12 x 1	Short
ZT714021-07	40	18	80	33	42	51	10	M12 x 1	Short
ZT714021-08	40	20	80	33	42	53	10	M16 x 1	Short
ZT714021-09	40	25	100	44	53	59	10	M16 x 1	Short
ZT714021-10	40	32	100	44	53	63	10	M16 x 1	Short
ZT714021-31	40	6	120	21	27	37	10	M5	Long
ZT714021-32	40	8	120	21	27	37	10	M6	Long
ZT714021-33	40	10	120	24	32	42	10	M8 x 1	Long
ZT714021-34	40	12	120	24	32	48	10	M10 x 1	Long
ZT714021-35	40	14	120	27	34	48	10	M10 x 1	Long
ZT714021-36	40	16	120	27	34	51	10	M12 x 1	Long
ZT714021-37	40	18	120	33	42	51	10	M12 x 1	Long
ZT714021-38	40	20	120	33	42	53	10	M16 x 1	Long
ZT714021-39	40	25	120	44	53	59	10	M16 x 1	Long



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT714021-513	40	3	130	21	27	-	-	-	Long
ZT714021-514	40	4	130	21	27	-	-	-	Long
ZT714021-515	40	5	130	24	32	-	-	-	Long
ZT714021-51	40	6	130	21	27	37	10	M5	Long
ZT714021-52	40	8	130	21	27	37	10	M6	Long
ZT714021-53	40	10	130	24	32	42	10	M8 x 1	Long
ZT714021-54	40	12	130	24	32	48	10	M10 x 1	Long
ZT714021-55	40	14	130	27	34	48	10	M10 x 1	Long
ZT714021-56	40	16	130	27	34	51	10	M12 x 1	Long
ZT714021-57	40	18	130	33	42	51	10	M12 x 1	Long
ZT714021-58	40	20	130	33	42	53	10	M16 x 1	Long
ZT714021-59	40	25	130	44	53	59	10	M16 x 1	Long
ZT714021-60	40	32	130	44	53	63	10	M16 x 1	Long
ZT714021-61	40	6	160	21	27	37	10	M5	Extra long
ZT714021-62	40	8	160	21	27	37	10	M6	Extra long
ZT714021-63	40	10	160	24	32	42	10	M8 x 1	Extra long
ZT714021-64	40	12	160	24	32	48	10	M10 x 1	Extra long
ZT714021-65	40	14	160	27	34	48	10	M10 x 1	Extra long
ZT714021-66	40	16	160	27	34	51	10	M12 x 1	Extra long
ZT714021-67	40	18	160	33	42	51	10	M12 x 1	Extra long
ZT714021-68	40	20	160	33	42	53	10	M16 x 1	Extra long
ZT714021-69	40	25	160	44	53	59	10	M16 x 1	Extra long
ZT714021-81	40	6	200	21	27	37	10	M5	Extra long
ZT714021-82	40	8	200	21	27	37	10	M6	Extra long
ZT714021-83	40	10	200	24	32	42	10	M8 x 1	Extra long
ZT714021-84	40	12	200	24	32	48	10	M10 x 1	Extra long
ZT714021-85	40	14	200	27	34	48	10	M10 x 1	Extra long
ZT714021-86	40	16	200	27	34	51	10	M12 x 1	Extra long
ZT714021-87	40	18	200	33	42	51	10	M12 x 1	Extra long
ZT714021-88	40	20	200	33	42	53	10	M16 x 1	Extra long
ZT714021-89	40	25	200	44	53	59	10	M16 x 1	Extra long

Shrink fit holder 4.5° «Cool Tool»

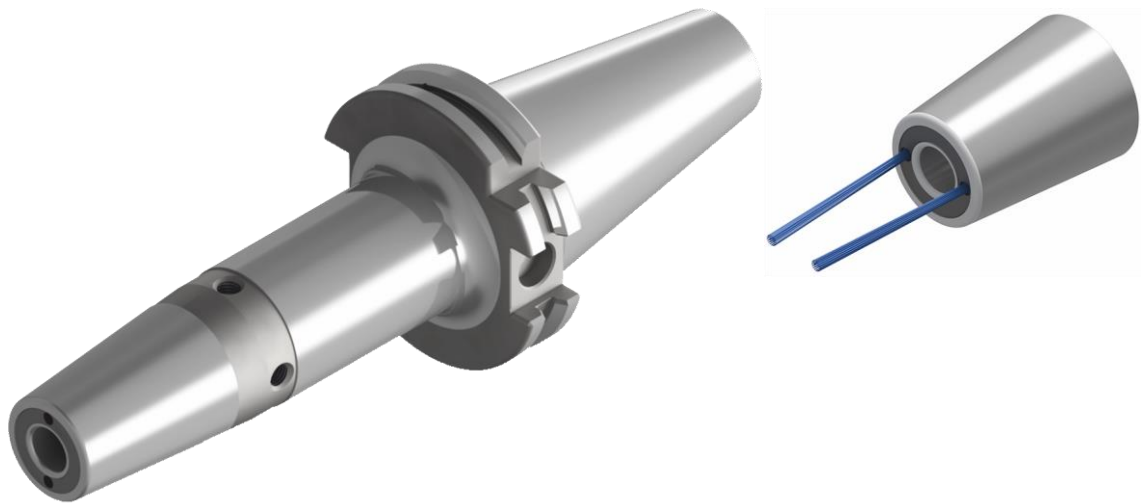


Figure: A = 130

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

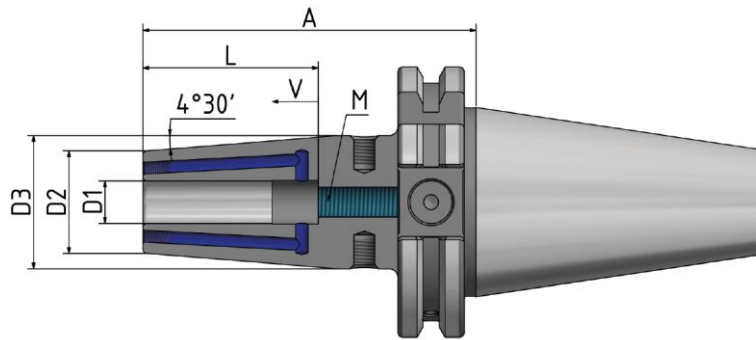
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Two holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

Fine balanced:

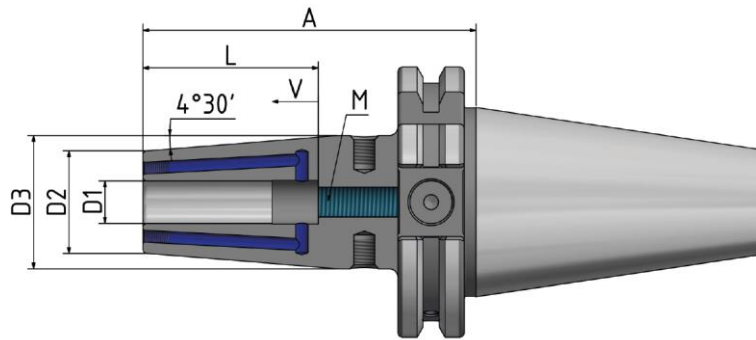
G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT7140219-03 ¹⁾	40	10	65	26	-	42	-	-	Extra short
ZT7140219-04 ¹⁾	40	12	65	26	-	48	-	-	Extra short
ZT7140219-06 ¹⁾	40	16	65	29	-	51	-	-	Extra short
ZT7140219-08 ¹⁾	40	20	65	35	-	53	-	-	Extra short
ZT7140219-09 ¹⁾	40	25	75	45	-	59	-	-	Extra short
ZT714021-139 ²⁾	40	3	80	26	-	42	-	-	Short
ZT714021-149 ²⁾	40	4	80	26	-	48	-	-	Short
ZT714021-159 ²⁾	40	5	80	29	-	51	-	-	Short
ZT714021-019	40	6	80	21	27	37	10	M5	Short
ZT714021-029	40	8	80	21	27	37	10	M6	Short
ZT714021-039	40	10	80	24	32	42	10	M8 X 1	Short
ZT714021-049	40	12	80	24	32	48	10	M10 X 1	Short
ZT714021-059	40	14	80	27	34	48	10	M10 X 1	Short
ZT714021-069	40	16	80	27	34	51	10	M12 X 1	Short
ZT714021-079	40	18	80	33	42	51	10	M12 X 1	Short
ZT714021-089	40	20	80	33	42	53	10	M16 X 1	Short
ZT714021-099	40	25	100	44	53	59	10	M16 X 1	Short
ZT714021-319	40	6	120	21	27	37	10	M5	Long
ZT714021-329	40	8	120	21	27	37	10	M6	Long
ZT714021-339	40	10	120	24	32	42	10	M8 X 1	Long
ZT714021-349	40	12	120	24	32	48	10	M10 X 1	Long
ZT714021-359	40	14	120	27	34	48	10	M10 X 1	Long
ZT714021-369	40	16	120	27	34	51	10	M12 X 1	Long
ZT714021-379	40	18	120	33	42	51	10	M12 X 1	Long
ZT714021-389	40	20	120	33	42	53	10	M16 X 1	Long

1) Without additional balancing thread

2) «Cool Tool» hole not resealable



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT714021-5139 ¹⁾	40	3	130	12	17	-	-	-	Long
ZT714021-5149 ¹⁾	40	4	130	12	17	-	-	-	Long
ZT714021-5159 ¹⁾	40	5	130	12	17	-	-	-	Long
ZT714021-519	40	6	130	21	27	37	10	M5	Long
ZT714021-529	40	8	130	21	27	37	10	M6	Long
ZT714021-539	40	10	130	24	32	42	10	M8 x 1	Long
ZT714021-549	40	12	130	24	32	48	10	M10 x 1	Long
ZT714021-559	40	14	130	27	34	48	10	M10 x 1	Long
ZT714021-569	40	16	130	27	34	51	10	M12 x 1	Long
ZT714021-579	40	18	130	33	42	51	10	M12 x 1	Long
ZT714021-589	40	20	130	33	42	53	10	M16 x 1	Long
ZT714021-599	40	25	130	44	53	59	10	M16 x 1	Long
ZT714021-609	40	32	130	44	53	63	10	M16 x 1	Long
ZT714021-619	40	6	160	21	27	37	10	M5	Extra long
ZT714021-629	40	8	160	21	27	37	10	M6	Extra long
ZT714021-639	40	10	160	24	32	42	10	M8 x 1	Extra long
ZT714021-649	40	12	160	24	32	48	10	M10 x 1	Extra long
ZT714021-669	40	16	160	27	34	51	10	M10 x 1	Extra long
ZT714021-689	40	20	160	33	42	53	10	M12 x 1	Extra long

1) «Cool Tool» hole not resealable

Shrink fit holder 4.5° - slim / «Cool Tool» version

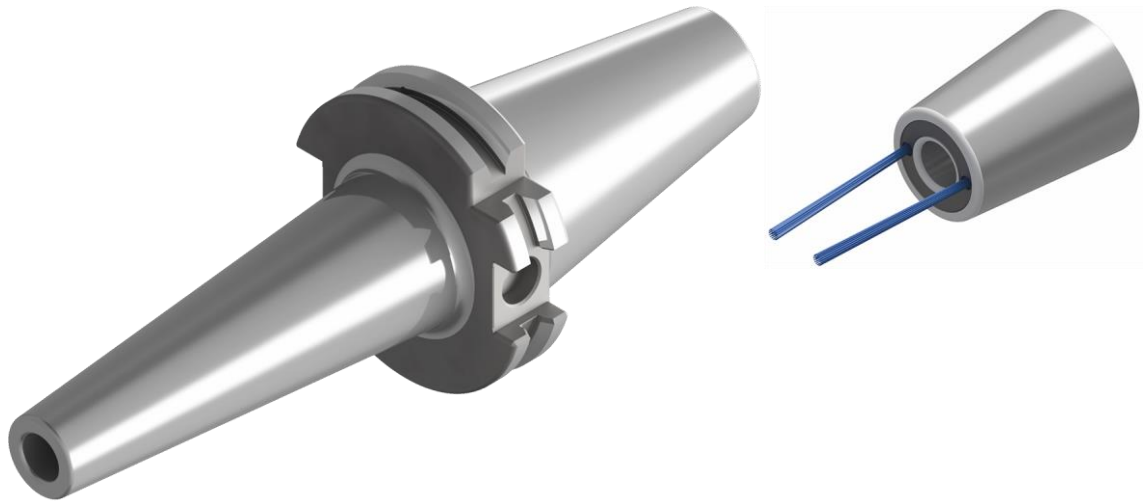


Figure: A = 120

Sealed Version

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

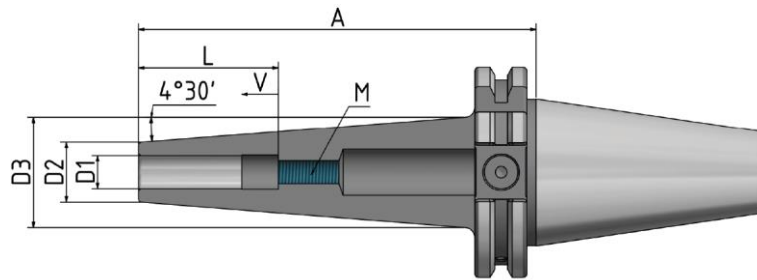
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT714021-413	40	3	120	9	25	-	-	-	Long
ZT714021-414	40	4	120	9	25	-	-	-	Long
ZT714021-415	40	5	120	9	25	-	-	-	Long
ZT714021-41	40	6	120	15	30	37	10	M5	Long
ZT714021-42	40	8	120	15	30	37	10	M6	Long
ZT714021-43	40	10	120	18	32	42	10	M8 x 1	Long
ZT714021-44	40	12	120	18	32	48	10	M10 x 1	Long
ER «Cool Tool» version									
Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT7140219-41	40	6	120	15	31	37	10	M5	Long
ZT7140219-42	40	8	120	16	32	37	10	M6	Long
ZT7140219-43	40	10	120	18	34	42	10	M8 x 1	Long
ZT7140219-44	40	12	120	20	36	48	10	M10 x 1	Long

Shrink fit holder 4.5° with 4 x «Cool Tool» - corrosion resistant

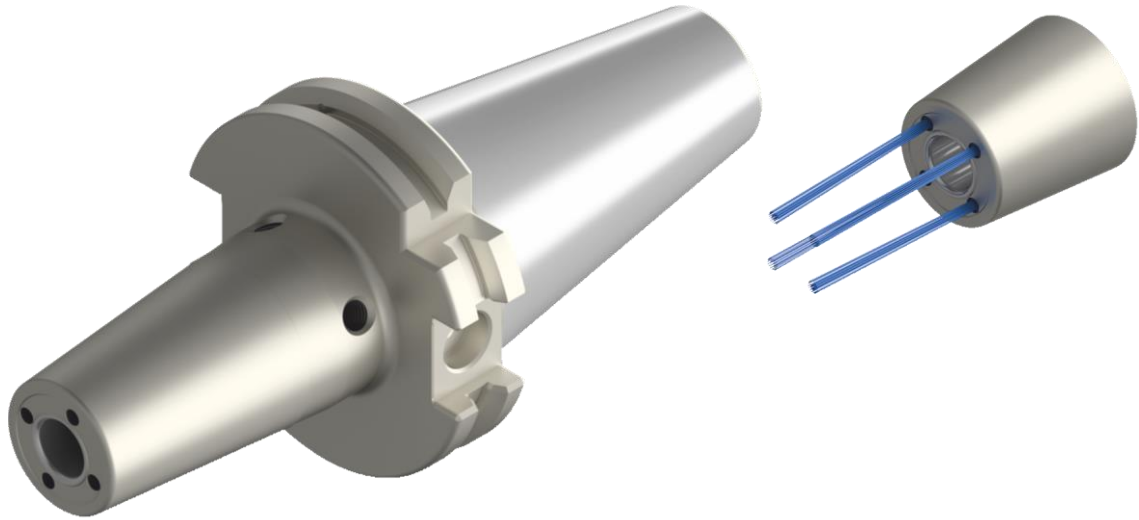


Figure: A = 80

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

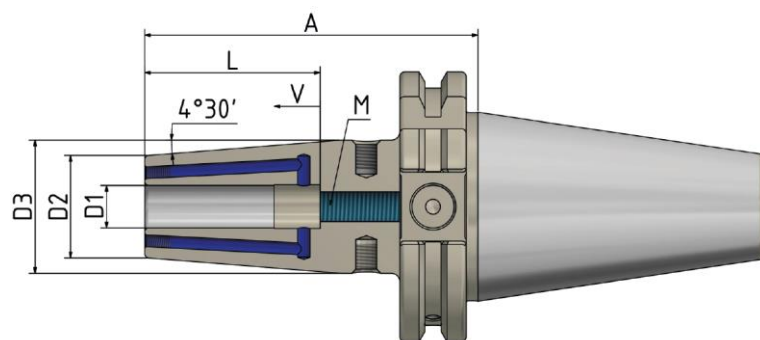
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- The complete tool side of the holder is protected against corrosion.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Four holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 4 x M3 screws to close the «Cool Tool» holes if required.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT714048-018	40	6	80	21	27	37	10	M5	Short
ZT714048-028	40	8	80	21	27	37	10	M6	Short
ZT714048-038	40	10	80	24	32	42	10	M8x1	Short
ZT714048-048	40	12	80	24	32	48	10	M10x1	Short
ZT714048-068	40	16	80	27	34	51	10	M12x1	Short
ZT714048-088	40	20	80	33	42	53	10	M16x1	Short

Shrink fit holder 3°

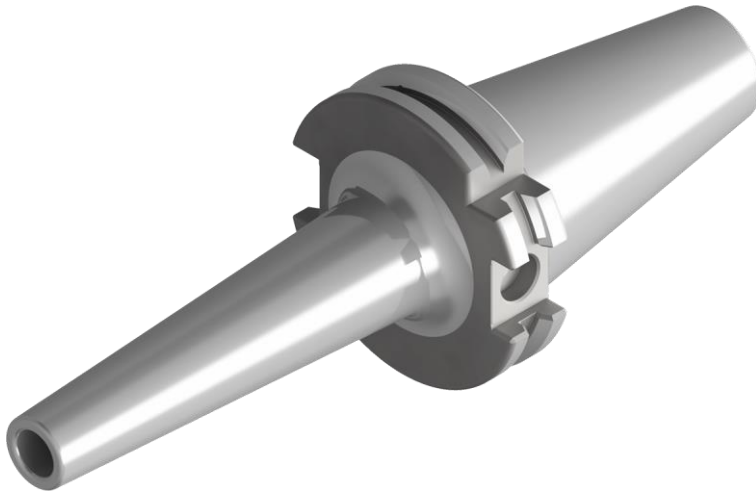


Figure: A = 120

Usage:

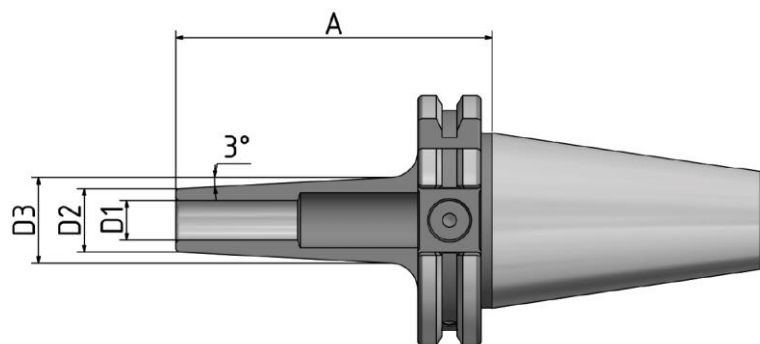
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Without balancing thread.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	Version
ZT714051-13	40	3	80	9	14	Short
ZT714051-14	40	4	80	10	15	Short
ZT714051-15	40	5	80	11	16	Short
ZT714051-01	40	6	80	12	19	Short
ZT714051-02	40	8	80	14	21	Short
ZT714051-03	40	10	80	16	23	Short
ZT714051-04	40	12	80	18	25	Short
ZT714051-313	40	3	120	9	18	Long
ZT714051-314	40	4	120	10	19	Long
ZT714051-315	40	5	120	11	20	Long
ZT714051-31	40	6	120	12	23	Long
ZT714051-32	40	8	120	14	25	Long
ZT714051-33	40	10	120	16	27	Long
ZT714051-34	40	12	120	18	29	Long

Thread shank adapter - conical form

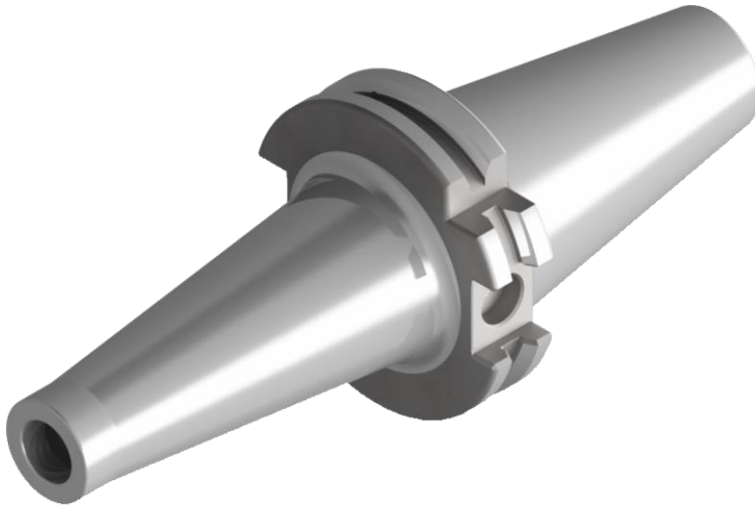


Figure: L = 50

Usage:

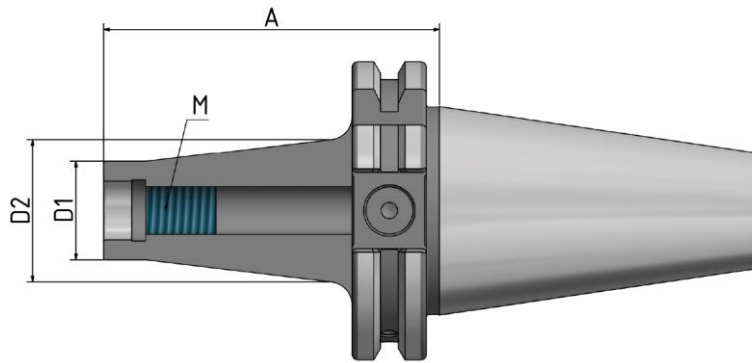
For screw-in cutters.

Type:

- Concentricity deviation of the taper to D1 ≤ 0.005 mm.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	M	L	D1	D2	Version
ZT714008-01	40	M8	25	13	15	Conical
ZT714008-02	40	M8	50	13	23	Conical
ZT714008-03	40	M8	75	13	25	Conical
ZT714010-01	40	M10	25	18	23	Conical
ZT714010-02	40	M10	50	18	25	Conical
ZT714010-03	40	M10	75	18	30	Conical
ZT714010-04	40	M10	100	18	35	Conical
ZT714010-06	40	M10	150	18	45	Conical
ZT714012-01	40	M12	25	21	24	Conical
ZT714012-02	40	M12	50	21	30	Conical
ZT714012-03	40	M12	75	21	35	Conical
ZT714012-04	40	M12	100	21	38	Conical
ZT714012-06	40	M12	150	21	48	Conical
ZT714016-01	40	M16	25	29	29	Conical
ZT714016-02	40	M16	50	29	34	Conical
ZT714016-03	40	M16	75	29	35	Conical
ZT714016-04	40	M16	100	29	40	Conical
ZT714016-06	4	M16	150	29	48	Conical

Thread shank adapter – cylindrical form

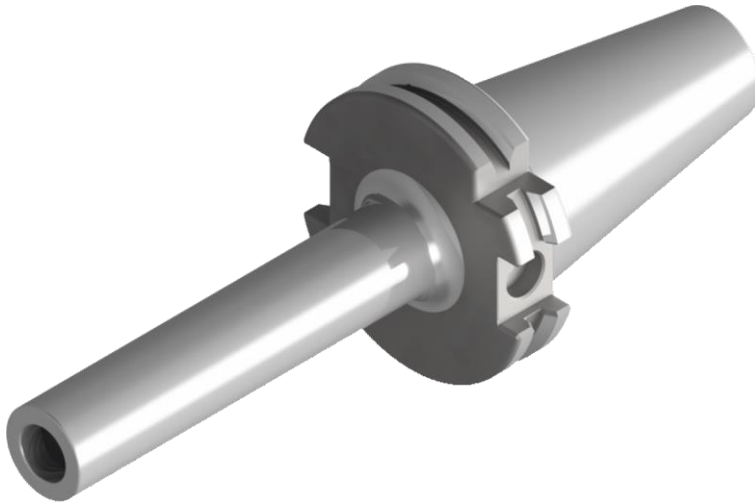


Figure: L = 50

Usage:

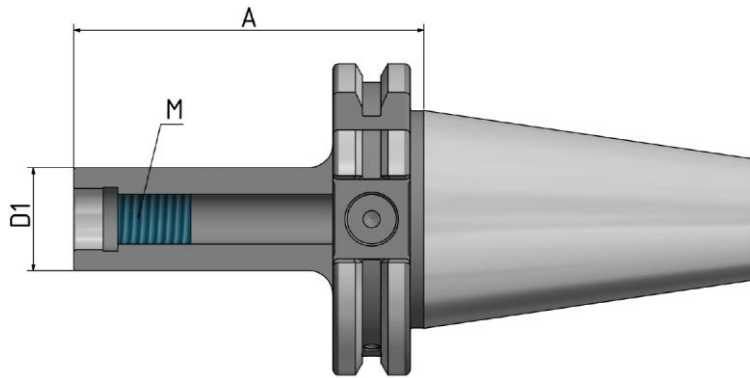
For screw-in cutters.

Type:

- Concentricity deviation of the taper to D1 ≤ 0.005 mm.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	M	L	D1	Version
7140057-01	40	M5	25	10	Cylindrical
7140067-01	40	M6	25	10	Cylindrical
7140087-01	40	M8	25	13	Cylindrical
7140087-02	40	M8	50	13	Cylindrical
7140087-03	40	M8	75	13	Cylindrical
7140107-01	40	M10	25	18	Cylindrical
7140107-02	40	M10	50	18	Cylindrical
7140107-03	40	M10	75	18	Cylindrical
7140107-04	40	M10	100	18	Cylindrical
7140107-05	40	M10	125	18	Cylindrical
7140107-06	40	M10	150	18	Cylindrical
7140127-01	40	M12	25	21	Cylindrical
7140127-02	40	M12	50	21	Cylindrical
7140127-03	40	M12	75	21	Cylindrical
7140127-04	40	M12	100	21	Cylindrical
7140127-05	40	M12	125	21	Cylindrical
7140127-06	40	M12	150	21	Cylindrical
7140167-01	40	M16	25	29	Cylindrical
7140167-02	40	M16	50	29	Cylindrical
7140167-03	40	M16	75	29	Cylindrical
7140167-04	40	M16	100	29	Cylindrical
7140167-06	40	M16	150	29	Cylindrical

Shell mill holder «Cool Tool»

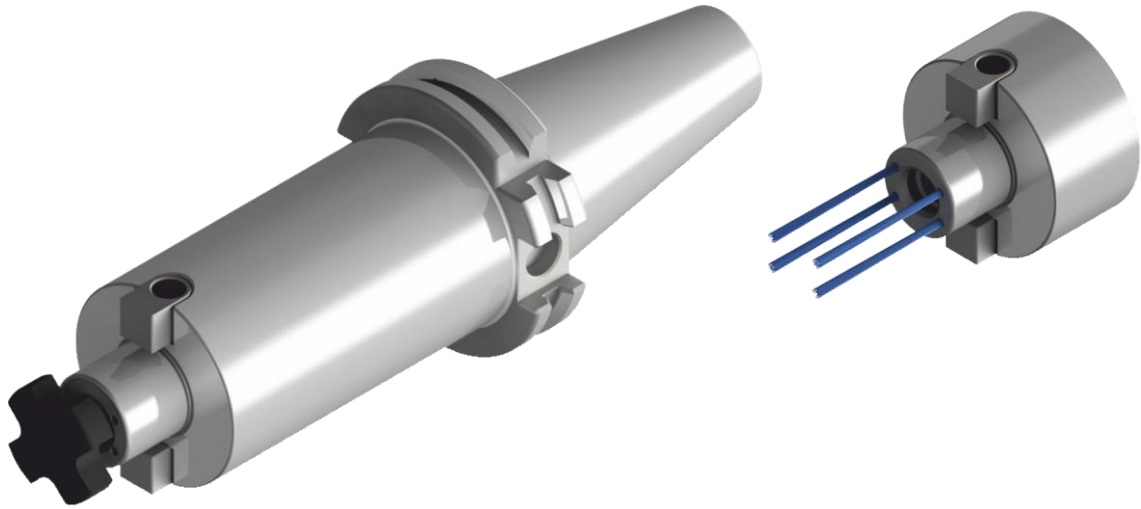


Figure: A = 160

Sealed Version

Usage:

To accommodate milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

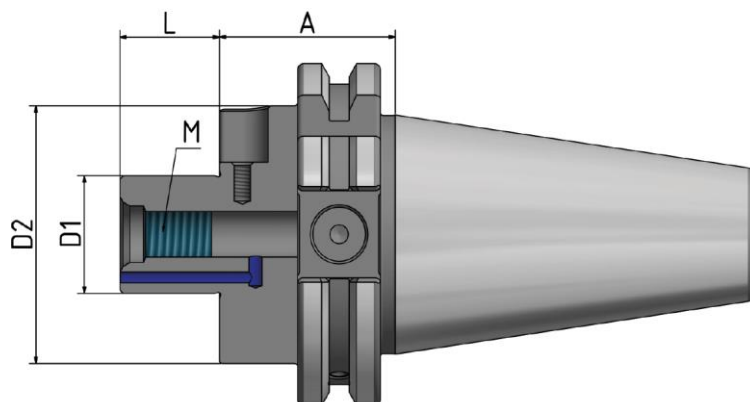
- Enlarged investment area.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT7140051-01	40	16	35	38	17	M8	Short
ZT7140051-02	40	22	35	48	19	M10	Short
ZT7140051-03	40	27	35	50	21	M12	Short
ZT7140051-04	40	32	50	78	24	M16	Short
ZT7140051-21	40	16	60	38	17	M8	Short
ZT7140051-22	40	22	60	48	19	M10	Short
ZT7140051-23	40	27	60	50	21	M12	Short
ZT7140051-24	40	32	70	78	24	M16	Short
ZT7140051-25	40	40	70	89	27	M20	Short
ZT7140051-31	40	16	100	38	17	M8	Long
ZT7140051-32	40	22	100	48	19	M10	Long
ZT7140051-33	40	27	100	50	21	M12	Long
ZT7140051-34	40	32	100	78	24	M16	Long
ZT7140051-62	40	22	160	48	19	M10	Extra long
ZT7140051-63	40	27	160	50	21	M12	Extra long
ZT7140051-64	40	32	160	78	24	M16	Extra long

Combi shell mill holder

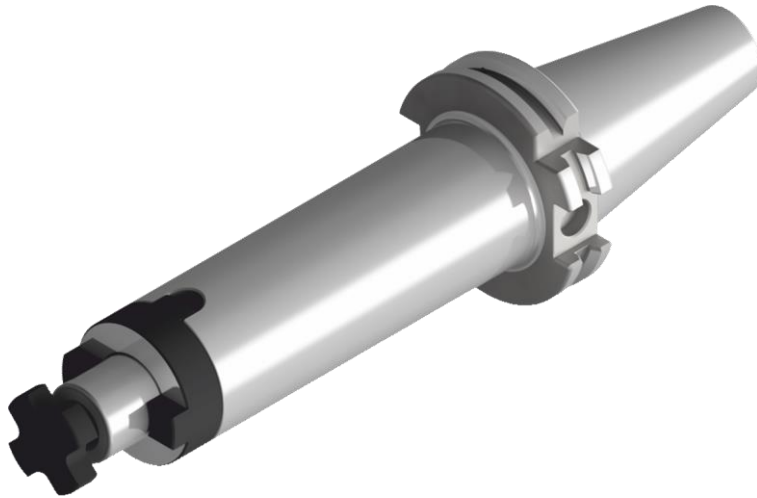


Figure: A = 160

Usage:

To accommodate cutters with longitudinal and transverse slots.

Type:

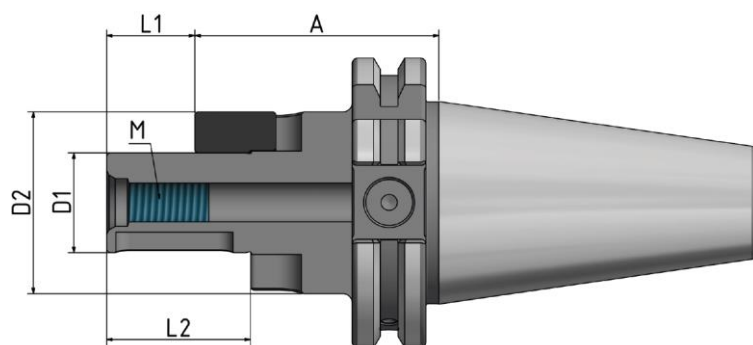
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L1	L2	M	Version
ZT714006-01	40	16	55	32	17	27	M8	Short
ZT714006-02	40	22	55	40	19	31	M10	Short
ZT714006-03	40	27	55	48	21	33	M12	Short
ZT714006-04	40	32	60	58	24	38	M16	Short
ZT714006-31	40	16	100	32	17	27	M8	Long
ZT714006-32	40	22	100	40	19	31	M10	Long
ZT714006-33	40	27	100	48	21	33	M12	Long
ZT714006-34	40	32	100	58	24	38	M16	Long
ZT714006-61	40	16	160	32	17	27	M8	Extra long
ZT714006-62	40	22	160	40	19	31	M10	Extra long
ZT714006-63	40	27	160	48	21	33	M12	Extra long
ZT714006-64	40	32	160	58	24	38	M16	Extra long

Short drill chuck



Figure: A = 80

Usage:

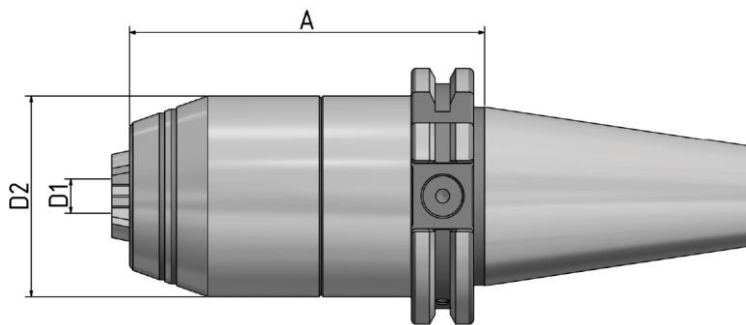
For clamping tools with cylindrical shank. Also suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

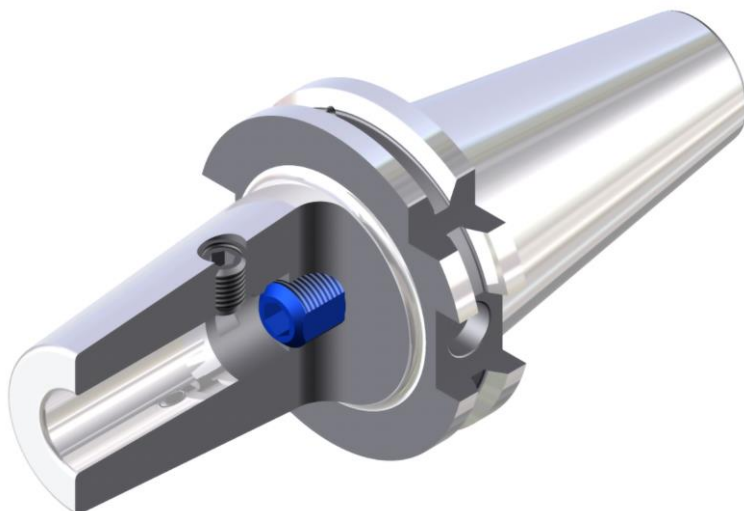
Fine balanced:

G 6.3 at 8000 min^{-1}



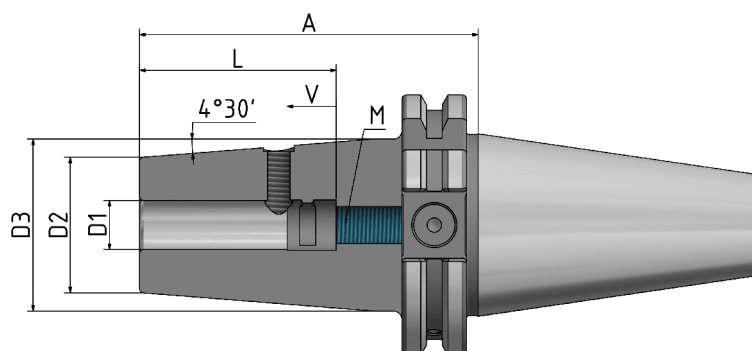
Order no.	SK	Clamping range D1	A	D2
ZT071495-52	40	1 - 16	80	50

HPC Shrink fit holder TITANIUM with pull-out protection



Fine balanced:

G 2,5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	SK	D1	A	D2	D3	V	L	M
ZT714044-04	40	12	80	33	42	6	48	M10 x 1
ZT714044-06	40	16	80	33	42	6	51	M12 x 1
ZT714044-08	40	20	80	44	53	6	53	M16 x 1

SK 50 ISO 7388-1 Form AD/AF

ER-Collet chuck

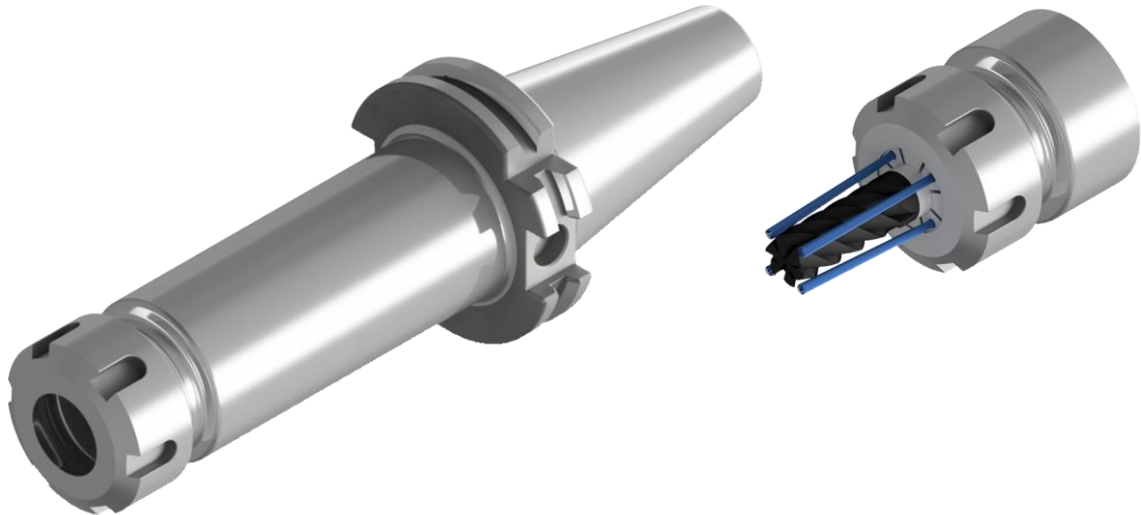


Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

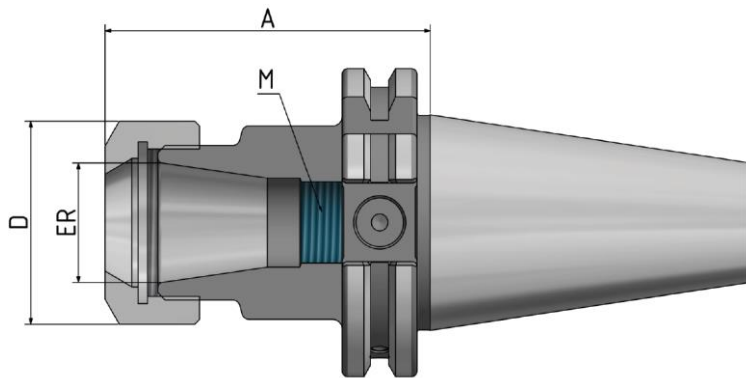
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT715002-01	50	16	1 - 10	70	28	M11 x 1	Short
ZT715002-02	50	25	1 - 16	70	42	M18 x 1,5	Short
ZT715002-03	50	32	2 - 20	70	50	M24 x 1,5	Short
ZT715002-04	50	40	4 - 26	70	63	M28 x 1,5	Short
ZT715002-31	50	16	1 - 10	100	28	M11 x 1	Long
ZT715002-32	50	25	1 - 16	100	42	M18 x 1,5	Long
ZT715002-33	50	32	2 - 20	100	50	M24 x 1,5	Long
ZT715002-34	50	40	4 - 26	100	63	M28 x 1,5	Long
ZT715002-61	50	16	1 - 10	160	28	M11 x 1	Extra Long
ZT715002-62	50	25	1 - 16	160	42	M18 x 1,5	Extra Long
ZT715002-63	50	32	2 - 20	160	50	M24 x 1,5	Extra Long
ZT715002-64	50	40	4 - 26	160	63	M28 x 1,5	Extra Long

HPC Precision ER Collet Chuck HAWK EYE®

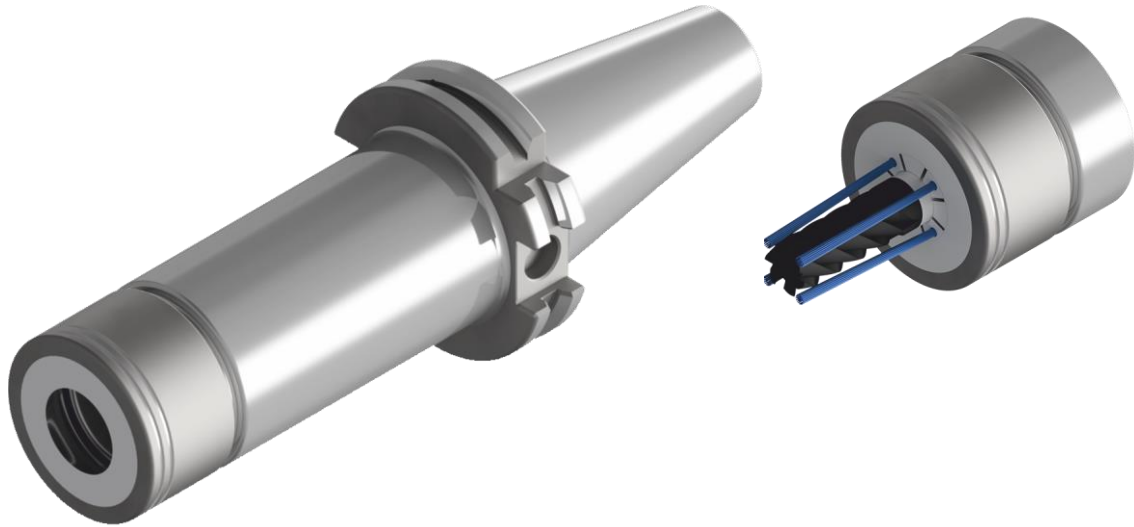


Figure: A = 160

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

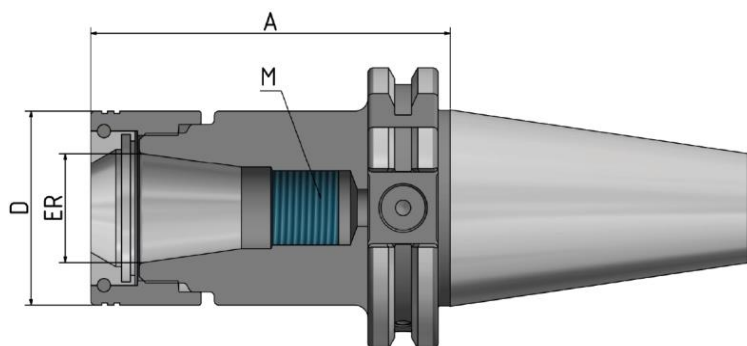
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2 μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	SK	ER	Clamping range	A	D	M	Version
ZT715032-04	50	25	1 - 16	70	44	M18 x 1,5	Short
ZT715032-05	50	32	2 - 20	70	52	M24 x 1,5	Short
ZT715032-06	50	40	4 - 26	70	62	M28 x 1,5	Short
ZT715032-34	50	25	1 - 16	100	44	M18 x 1,5	Long
ZT715032-35	50	32	2 - 20	100	52	M24 x 1,5	Long
ZT715032-36	50	40	4 - 26	100	62	M28 x 1,5	Long
ZT715032-54	50	25	1 - 16	130	44	M18 x 1,5	Long
ZT715032-55	50	32	2 - 20	130	52	M24 x 1,5	Long
ZT715032-56	50	40	4 - 26	130	62	M28 x 1,5	Long
ZT715032-64	50	25	1 - 16	160	44	M18 x 1,5	Extra Long
ZT715032-65	50	32	2 - 20	160	52	M24 x 1,5	Extra Long
ZT715032-66	50	40	4 - 26	160	62	M28 x 1,5	Extra Long

Endmill holder Weldon

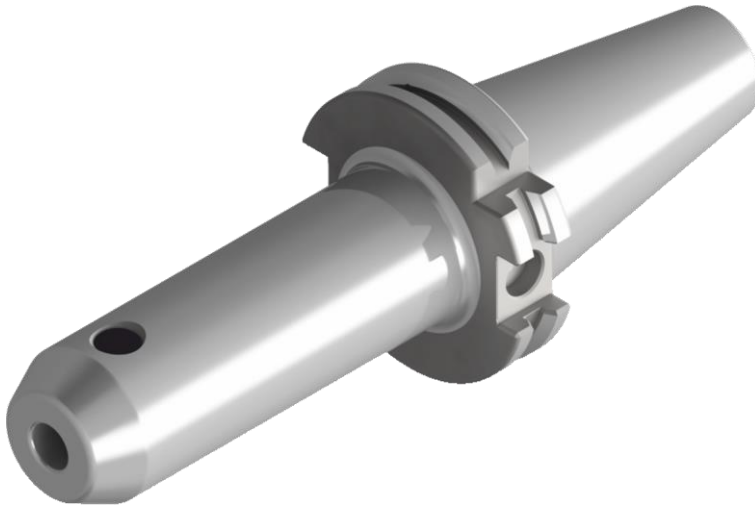


Figure: A = 160

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

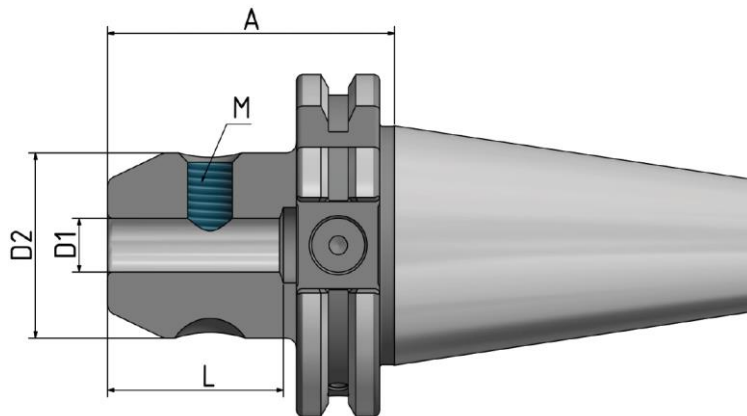
- Concentricity deviation of the taper to the D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT715004-01	50	6	63	25	35	M6	Short
ZT715004-02	50	8	63	28	35	M8	Short
ZT715004-03	50	10	63	35	41	M10	Short
ZT715004-04	50	12	63	42	48	M12	Short
ZT715004-05	50	14	63	44	48	M12	Short
ZT715004-06	50	16	63	48	51	M14	Short
ZT715004-08	50	20	63	52	53	M16	Short
ZT715004-09	50	25	80	65	60	M18 x 2	Short
ZT715004-10	50	32	100	72	64	M20 x 2	Short
ZT715004-31	50	6	100	25	35	M6	Long
ZT715004-32	50	8	100	28	35	M8	Long
ZT715004-33	50	10	100	35	41	M10	Long
ZT715004-34	50	12	100	42	48	M12	Long
ZT715004-35	50	14	100	44	48	M12	Long
ZT715004-36	50	16	100	48	51	M14	Long
ZT715004-38	50	20	100	52	53	M16	Long
ZT715004-39	50	25	100	65	60	M18 x 2	Long
ZT715004-61	50	6	160	25	35	M6	Extra long
ZT715004-62	50	8	160	28	35	M8	Extra long
ZT715004-63	50	10	160	35	41	M10	Extra long
ZT715004-64	50	12	160	42	48	M12	Extra long
ZT715004-65	50	14	160	44	48	M12	Extra long
ZT715004-66	50	16	160	48	51	M14	Extra long
ZT715004-68	50	20	160	52	53	M16	Extra long
ZT715004-69	50	25	160	65	60	M18 x 2	Extra long
ZT715004-70	50	32	160	72	64	M20 x 2	Extra long

Endmill holder Weldon «Cool Tool»

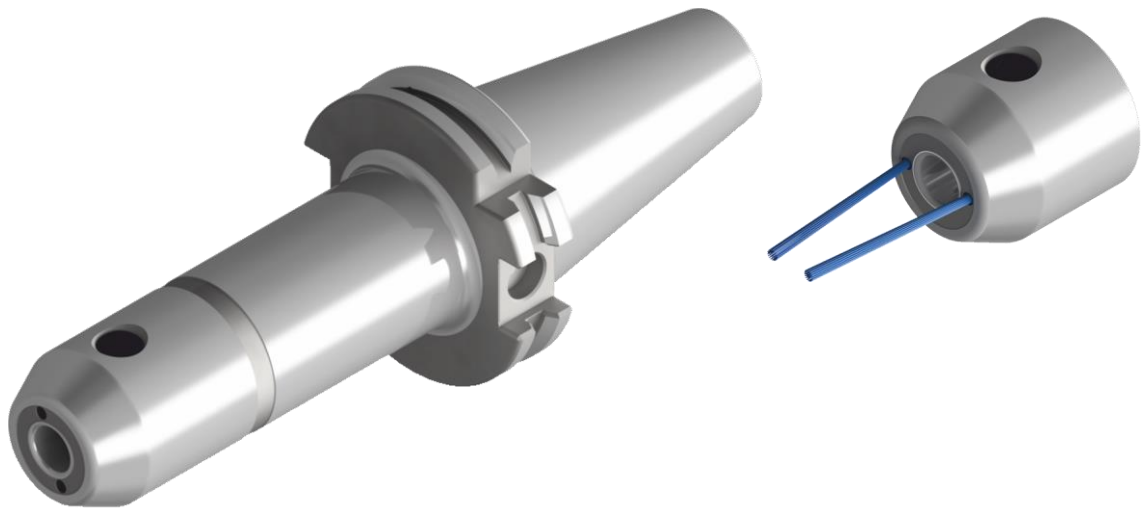


Figure: A = 100

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

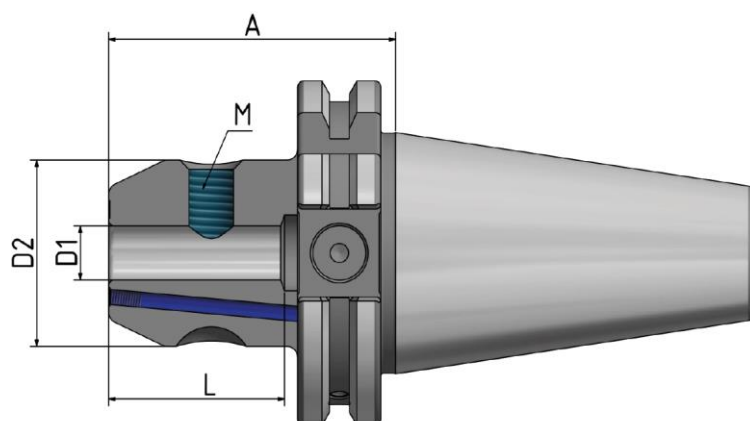
- Two holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	SK	D1	A	D2	L	M	Version
ZT7150041-01	50	6	63	25	35	M6	Short
ZT7150041-02	50	8	63	28	35	M8	Short
ZT7150041-03	50	10	63	35	41	M10	Short
ZT7150041-04	50	12	63	42	48	M12	Short
ZT7150041-05	50	14	63	44	48	M12	Short
ZT7150041-06	50	16	63	48	51	M14	Short
ZT7150041-07	50	18	63	48	51	M14	Short
ZT7150041-08	50	20	63	52	53	M16	Short
ZT7150041-09	50	25	80	65	60	M18 x 2	Short
ZT7150041-10	50	32	100	72	64	M20 x 2	Short

Shrink fit holder 4.5°

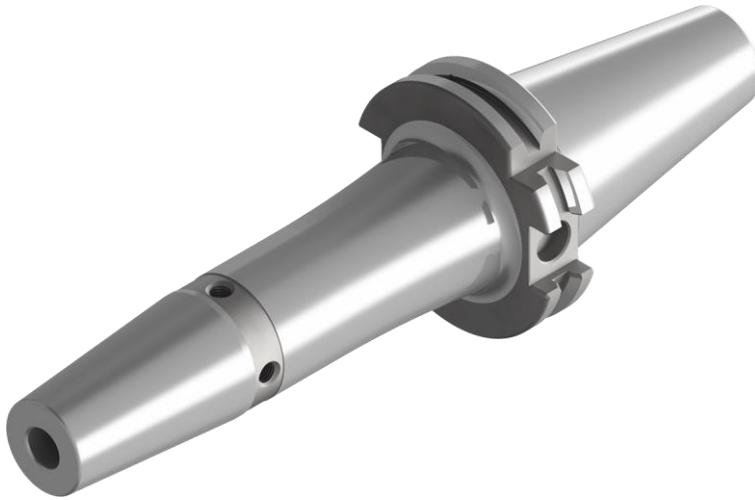


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

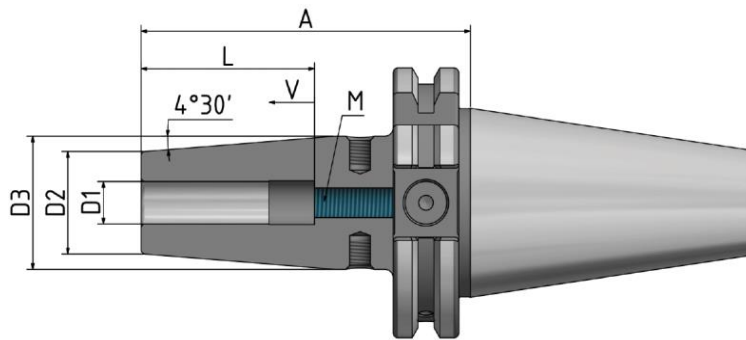
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 $\leq$ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

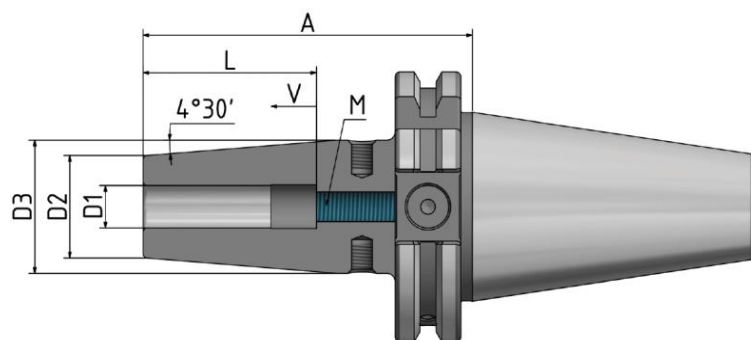
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq$ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT715021-01	50	6	80	21	27	37	10	M5	Short
ZT715021-02	50	8	80	21	27	37	10	M6	Short
ZT715021-03	50	10	80	24	32	42	10	M8 x 1	Short
ZT715021-04	50	12	80	24	32	48	10	M10 x 1	Short
ZT715021-05	50	14	80	27	34	48	10	M10 x 1	Short
ZT715021-06	50	16	80	27	34	51	10	M12 x 1	Short
ZT715021-07	50	18	80	33	42	51	10	M12 x 1	Short
ZT715021-08	50	20	80	33	42	53	10	M16 x 1	Short
ZT715021-09	50	25	100	44	53	59	10	M16 x 1	Short
ZT715021-10	50	32	100	44	53	63	10	M16 x 1	Short
ZT715021-31	50	6	120	21	27	37	10	M5	Long
ZT715021-32	50	8	120	21	27	37	10	M6	Long
ZT715021-33	50	10	120	24	32	42	10	M8 x 1	Long
ZT715021-34	50	12	120	24	32	48	10	M10 x 1	Long
ZT715021-35	50	14	120	27	34	48	10	M10 x 1	Long
ZT715021-36	50	16	120	27	34	51	10	M12 x 1	Long
ZT715021-37	50	18	120	33	42	51	10	M12 x 1	Long
ZT715021-38	50	20	120	33	42	53	10	M16 x 1	Long
ZT715021-39	50	25	120	44	53	59	10	M16 x 1	Long
ZT715021-40	50	32	120	44	53	63	10	M16 x 1	Long
ZT715021-51	50	6	130	21	27	37	10	M5	Long
ZT715021-52	50	8	130	21	27	37	10	M6	Long
ZT715021-53	50	10	130	24	32	42	10	M8 x 1	Long
ZT715021-54	50	12	130	24	32	48	10	M10 x 1	Long
ZT715021-55	50	14	130	27	34	48	10	M10 x 1	Long
ZT715021-56	50	16	130	27	34	51	10	M12 x 1	Long
ZT715021-57	50	18	130	33	42	51	10	M12 x 1	Long
ZT715021-58	50	20	130	33	42	53	10	M16 x 1	Long
ZT715021-59	50	25	130	44	53	59	10	M16 x 1	Long
ZT715021-60	50	32	130	44	53	63	10	M16 x 1	Long



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT715021-61	50	6	160	21	27	37	10	M5	Extra long
ZT715021-62	50	8	160	21	27	37	10	M6	Extra long
ZT715021-63	50	10	160	24	32	42	10	M8 x 1	Extra long
ZT715021-64	50	12	160	24	32	48	10	M10 x 1	Extra long
ZT715021-65	50	14	160	27	34	48	10	M10 x 1	Extra long
ZT715021-66	50	16	160	27	34	51	10	M12 x 1	Extra long
ZT715021-67	50	18	160	33	42	51	10	M12 x 1	Extra long
ZT715021-68	50	20	160	33	42	53	10	M16 x 1	Extra long
ZT715021-69	50	25	160	44	53	59	10	M16 x 1	Extra long
ZT715021-70	50	32	160	44	53	63	10	M16 x 1	Extra long
ZT715021-81	50	6	200	21	27	37	10	M5	Extra long
ZT715021-82	50	8	200	21	27	37	10	M6	Extra long
ZT715021-83	50	10	200	24	32	42	10	M8 x 1	Extra long
ZT715021-84	50	12	200	24	32	48	10	M10 x 1	Extra long
ZT715021-85	50	14	200	27	34	48	10	M10 x 1	Extra long
ZT715021-86	50	16	200	27	34	51	10	M12 x 1	Extra long
ZT715021-87	50	18	200	33	42	51	10	M12 x 1	Extra long
ZT715021-88	50	20	200	33	42	53	10	M16 x 1	Extra long
ZT715021-89	50	25	200	44	53	59	10	M16 x 1	Extra long
ZT715021-90	50	32	200	44	53	63	10	M16 x 1	Extra long

Shrink fit holder 4.5° «Cool Tool»

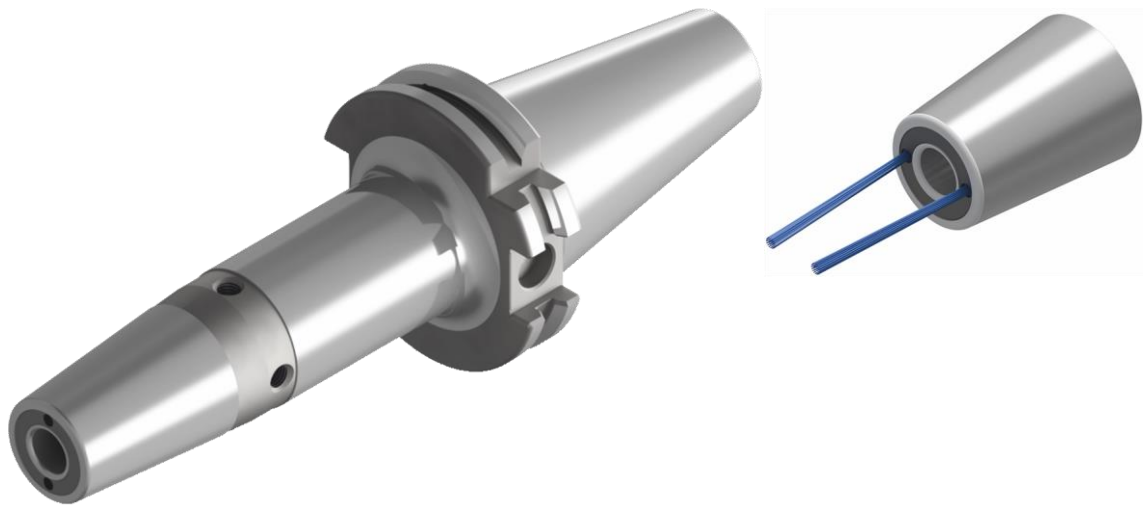


Figure: A = 130

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

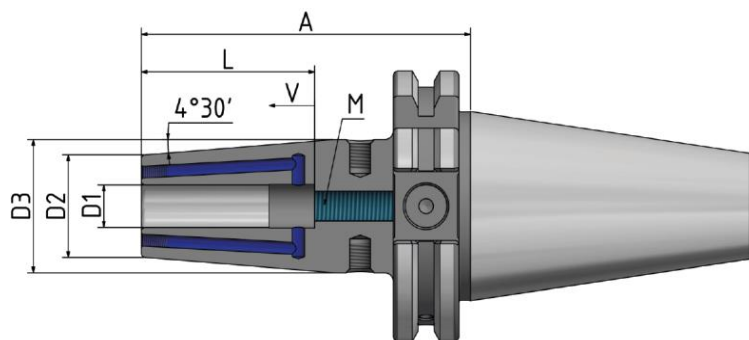
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Two holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 2 x M3 screws to close the «Cool Tool» hole if required.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT715021-019	50	6	80	21	27	37	10	M5	Long
ZT715021-029	50	8	80	21	27	37	10	M6	Long
ZT715021-039	50	10	80	24	32	42	10	M8 x 1	Long
ZT715021-049	50	12	80	24	32	48	10	M10 x 1	Long
ZT715021-059	50	14	80	27	34	48	10	M10 x 1	Long
ZT715021-069	50	16	80	27	34	51	10	M12 x 1	Long
ZT715021-079	50	18	80	33	42	51	10	M12 x 1	Long
ZT715021-089	50	20	80	33	42	53	10	M16 x 1	Long
ZT715021-099	50	25	100	44	53	59	10	M16 x 1	Long
ZT715021-109	50	32	100	44	53	63	10	M16 x 1	Long

Shrink fit holder 4.5° with 4 x «Cool Tool» - corrosion resistant

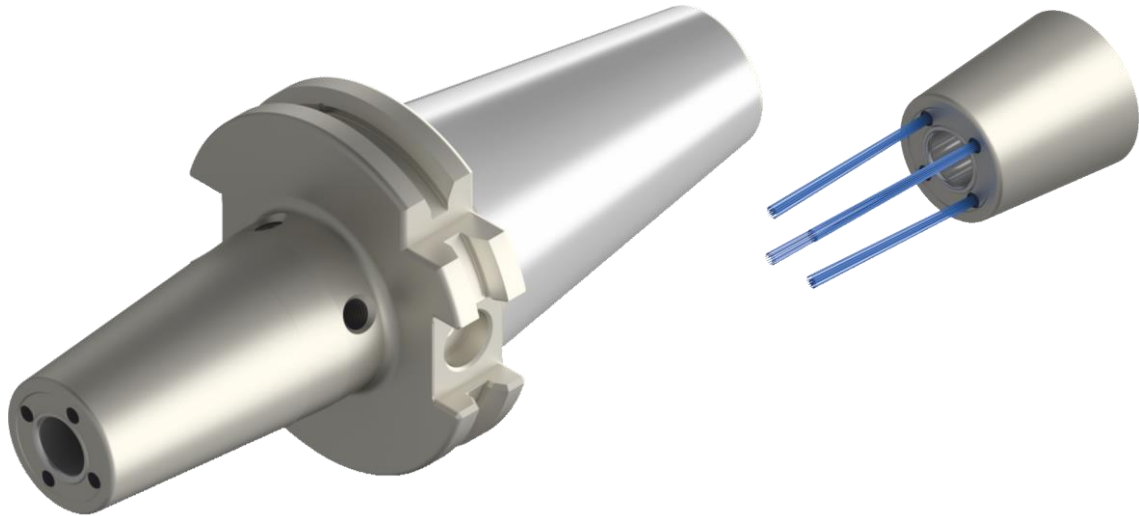


Figure: A = 80

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

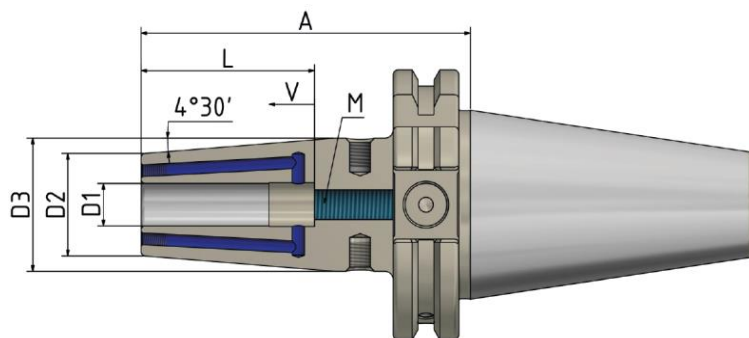
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- The complete tool side of the holder is protected against corrosion.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.
- Four holes in the wall of the shrink fit chuck direct the coolant to the cutting edge of the tool.

Scope of delivery:

- Built-in length adjustment screw
- 4 x M3 screws to close the «Cool Tool» holes if required.

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	D3	L	V	M	Version
ZT715048-018	50	6	80	21	27	37	10	M5	Short
ZT715048-028	50	8	80	21	27	37	10	M6	Short
ZT715048-038	50	10	80	24	32	42	10	M8 x 1	Short
ZT715048-048	50	12	80	24	32	48	10	M10 x 1	Short
ZT715048-068	50	16	80	27	34	51	10	M12 x 1	Short
ZT715048-088	50	20	80	33	42	53	10	M16 x 1	Short

Shell mill holder «Cool Tool»

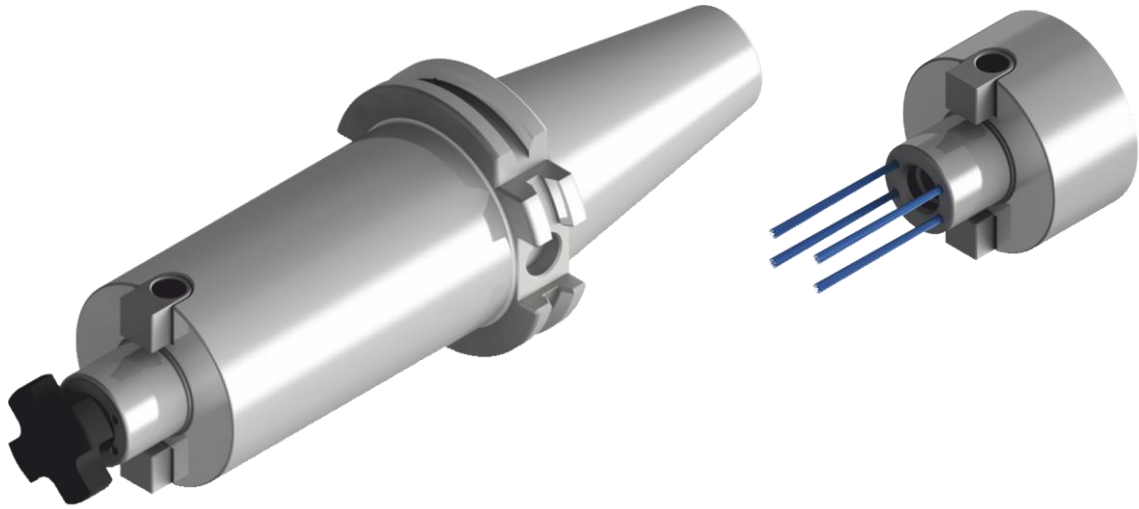


Figure: A = 160

Sealed Version

Usage:

To accommodate milling cutters with transverse slots, with coolant supply to the cutting edges.

Type:

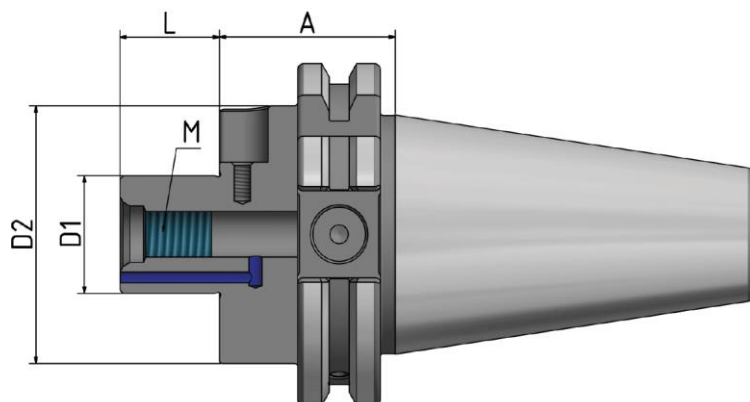
- Enlarged investment area.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L	M	Version
ZT7150051-02	50	22	35	48	19	M10	Short
ZT7150051-03	50	27	35	60	21	M12	Short
ZT7150051-04	50	32	35	78	24	M16	Short
ZT7150051-05	50	40	50	89	27	M20	Short
ZT7150051-32	50	22	100	48	19	M10	Long
ZT7150051-33	50	27	100	60	21	M12	Long
ZT7150051-34	50	32	100	78	24	M16	Long
ZT7150051-35	50	40	100	89	27	M20	Long
ZT7150051-621	50	22	160	48	19	M10	Extra long
ZT7150051-631	50	27	160	60	21	M12	Extra long
ZT7150051-641	50	32	160	78	24	M16	Extra long
ZT7150051-651	50	40	160	89	27	M20	Extra long

Combi Shell mill holder

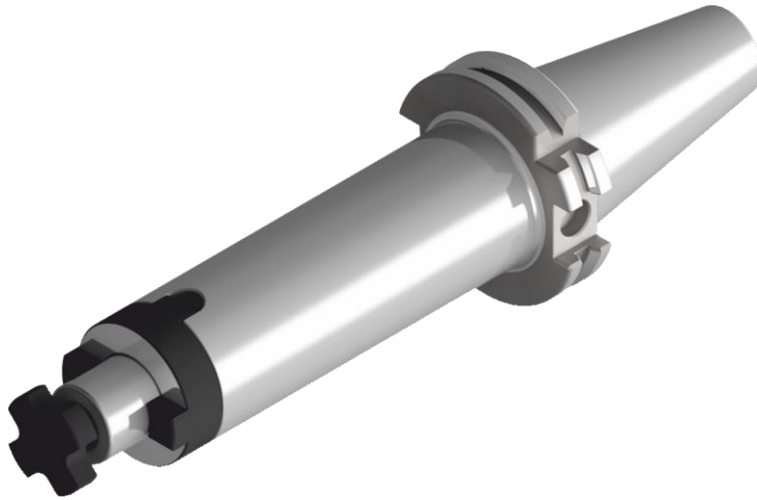


Figure: A = 160

Usage:

To accommodate cutters with longitudinal and transverse slots.

Type:

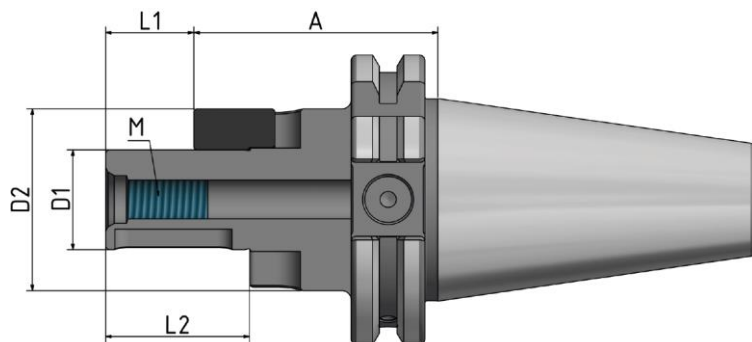
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	SK	D1	A	D2	L1	L2	M	Version
ZT715006-02	50	22	55	40	19	31	M10	Short
ZT715006-03	50	27	55	48	21	33	M12	Short
ZT715006-04	50	32	55	58	24	38	M16	Short
ZT715006-05	50	40	55	70	27	41	M20	Short
ZT715006-32	50	22	100	40	19	31	M10	Long
ZT715006-33	50	27	100	48	21	33	M12	Long
ZT5006-3471	50	32	100	58	24	38	M16	Long
ZT715006-35	50	40	100	70	27	41	M20	Long
ZT715006-62	50	22	160	40	19	31	M10	Extra long
ZT715006-63	50	27	160	48	21	33	M12	Extra long
ZT715006-64	50	32	160	58	24	38	M16	Extra long
ZT715006-65	50	40	160	70	27	41	M20	Extra long

Short drill chuck



Figure: A = 80

Usage:

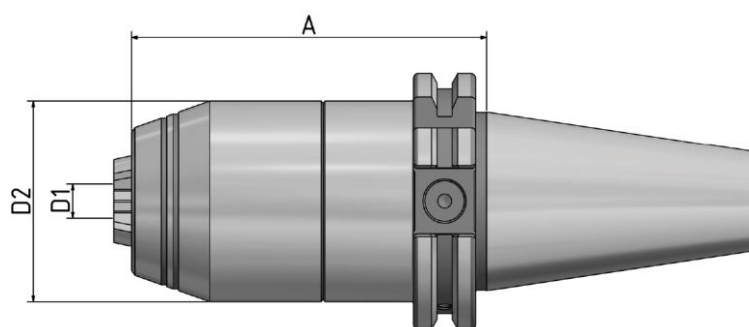
For clamping tools with cylindrical shank. Also suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

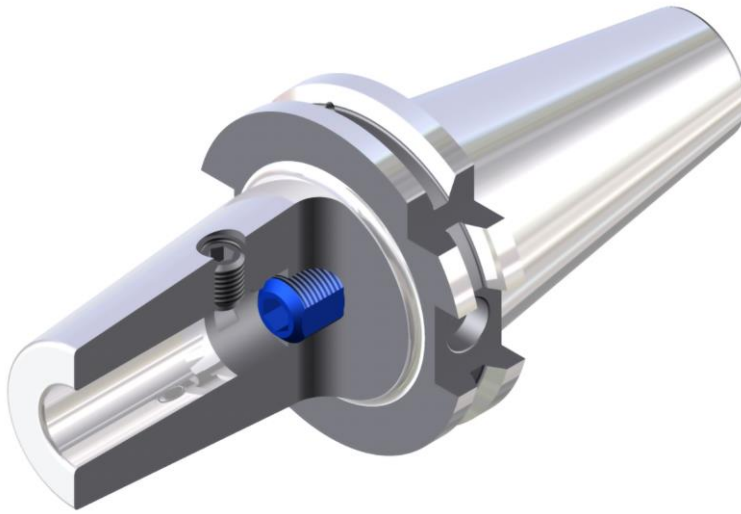
Fine balanced:

G 6.3 at 8000 min^{-1}



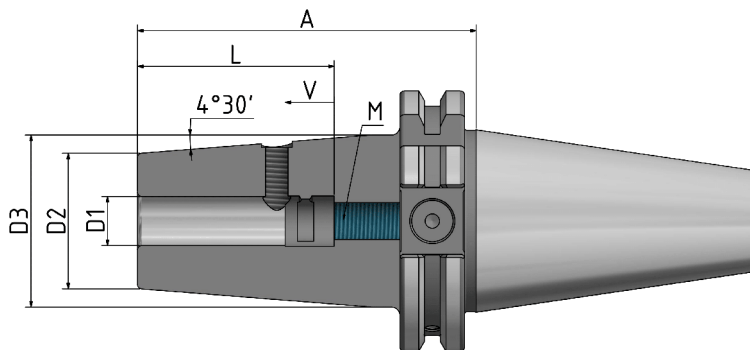
Order no.	SK	Clamping range D1	A	D2
ZT715095-52	50	1 - 16	80	50

HPC Shrink fit holder TITANIUM with pull-out protection



Fine balanced:

G 2,5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	SK	D1	A	D2	D3	V	L	M
ZT715044-04	50	12	80	33	42	6	48	M10 x 1
ZT715044-06	50	16	80	33	42	6	51	M12 x 1
ZT715044-08	50	20	80	44	53	6	53	M16 x 1

BT 30 ISO 7388-2 JD

ER-Collet chuck

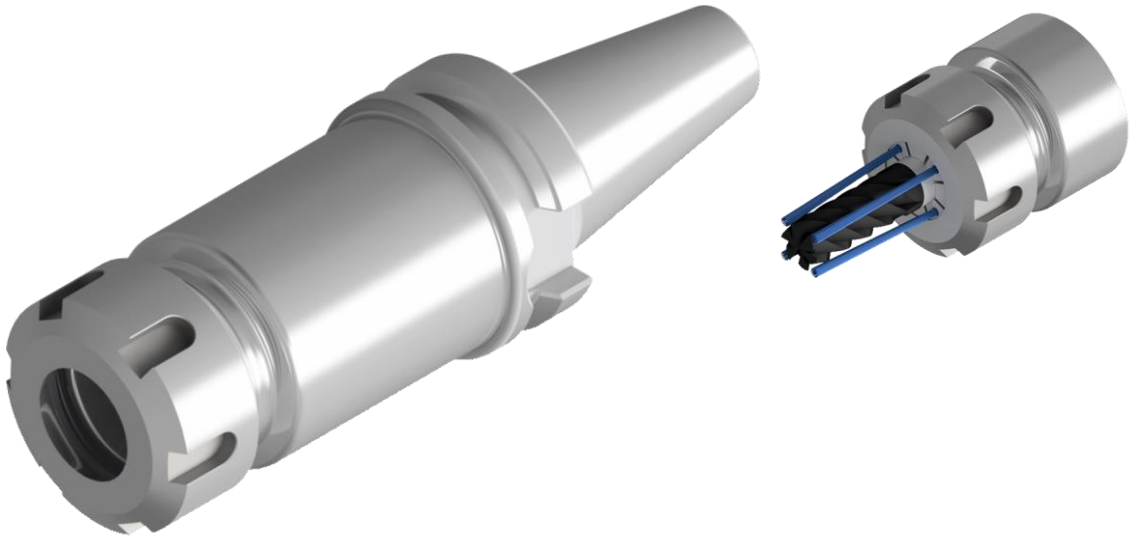


Figure: A = 80

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

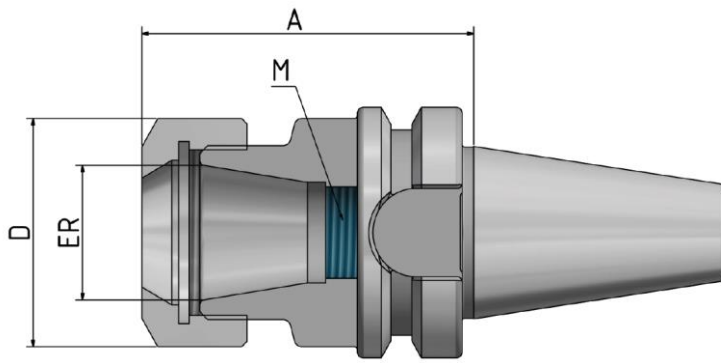
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	ER	D	A	Clamping range	M	Version
ZT753002-01	30	11	19	60	1 - 7	M8 x 1	Extra short
ZT02-027530	30	16	28	60	1 - 10	M11 x 1	Extra short
ZT753002-03	30	20	34	60	1 - 13	M14 x 1	Extra short
ZT753002-04	30	25	42	60	1 - 16	M18 x 1.5	Extra short
ZT753002-22	30	16	28	80	1 - 10	M11 x 1	Short
ZT753002-23	30	20	34	80	1 - 13	M14 x 1	Short
ZT753002-24	30	25	42	80	1 - 16	M18 x 1.5	Short
ZT753002-31	30	11	19	100	1 - 7	M8 x 1	Long
ZT753002-32	30	16	28	100	1 - 10	M11 x 1	Long
ZT753002-33	30	20	34	100	1 - 13	M14 x 1	Long
ZT753002-34	30	25	42	100	1 - 16	M18 x 1.5	Long

HPC Precision ER Collet Chuck HAWK EYE® / ER «Mini»

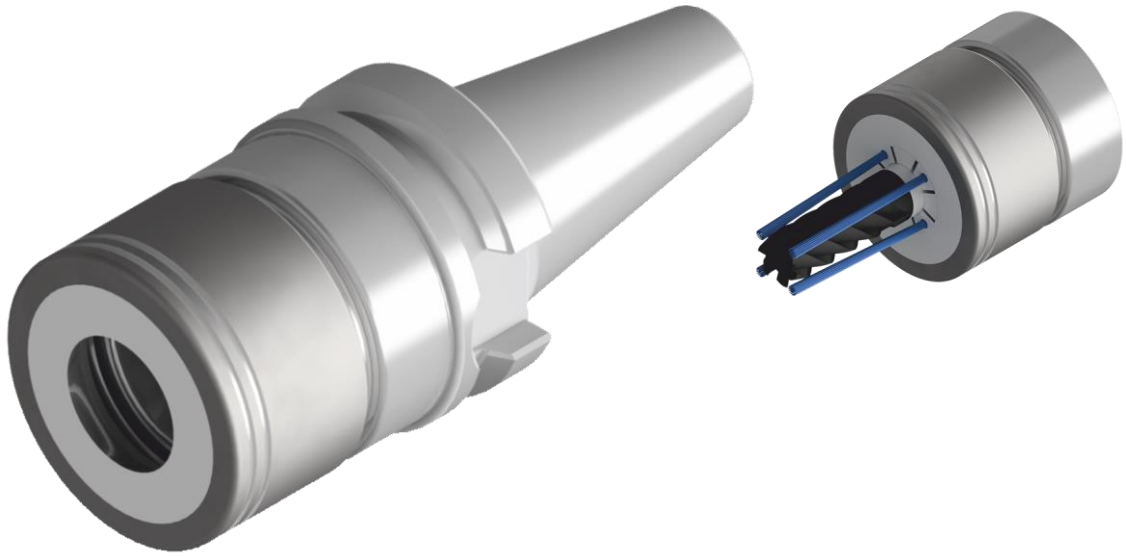


Figure: A = 160

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

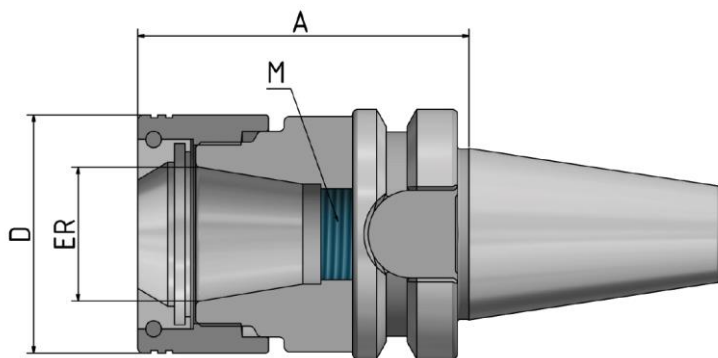
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2 μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

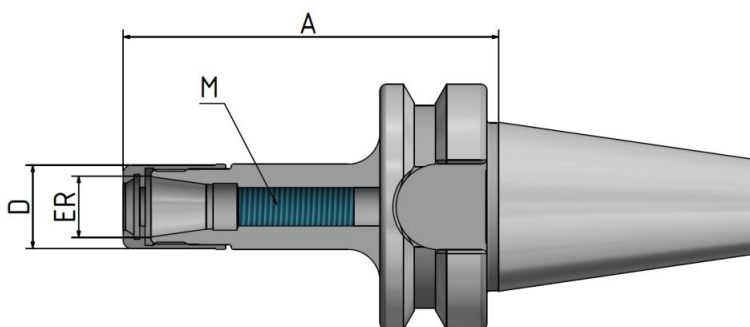
- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	BT	ER	D	A	Clamping b.	M	Version
ZT753032-02	30	16	34	60	1 - 10	M11 x 1	Extra short
ZT753032-04	30	25	44	60	1 - 16	M18 x 1.5	Extra short



HPC Precision ER Collet Chuck HAWK EYE® «Mini»

Order no.	BT	ER	D	A	Clamping b.	M	Version
ZT753034-01	30	11	16	70	1 - 7	M8 x 1	Short
ZT753034-02	30	16	24	70	1 - 10	M1 1x 1	Short

Shrink fit holder 4.5°

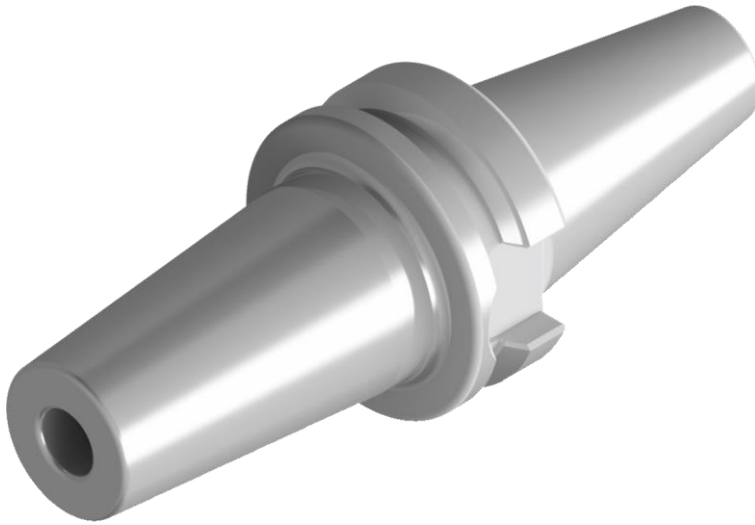


Figure: A = 130

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. Shank tolerance h6

Type:

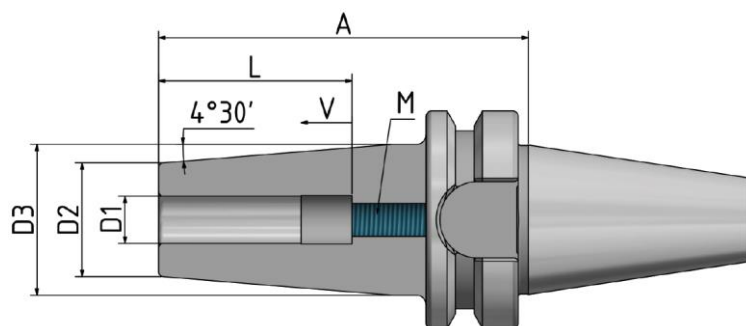
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm. Without balancing thread.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	D3	L	V	M	Version
ZT753021-13	30	3	80	12	17	-	-	-	Short
ZT753021-14	30	4	80	12	17	-	-	-	Short
ZT753021-15	30	5	80	12	17	-	-	-	Short
ZT753021-01	30	6	80	21	27	37	10	M5	Short
ZT753021-02	30	8	80	21	27	37	10	M6	Short
ZT753021-03	30	10	80	24	32	42	10	M8 x 1	Short
ZT753021-04	30	12	80	24	32	48	10	M10 x 1	Short
ZT753021-05	30	14	80	27	34	48	10	M10 x 1	Short
ZT753021-06	30	16	80	27	34	51	10	M12 x 1	Short
ZT753021-07	30	18	90	33	42	51	10	M12 x 1	Short
ZT753021-08	30	20	90	33	42	53	10	M16 x 1	Short

BT 40 ISO 7388-2 - Form JD / JF

ER-Collet chuck

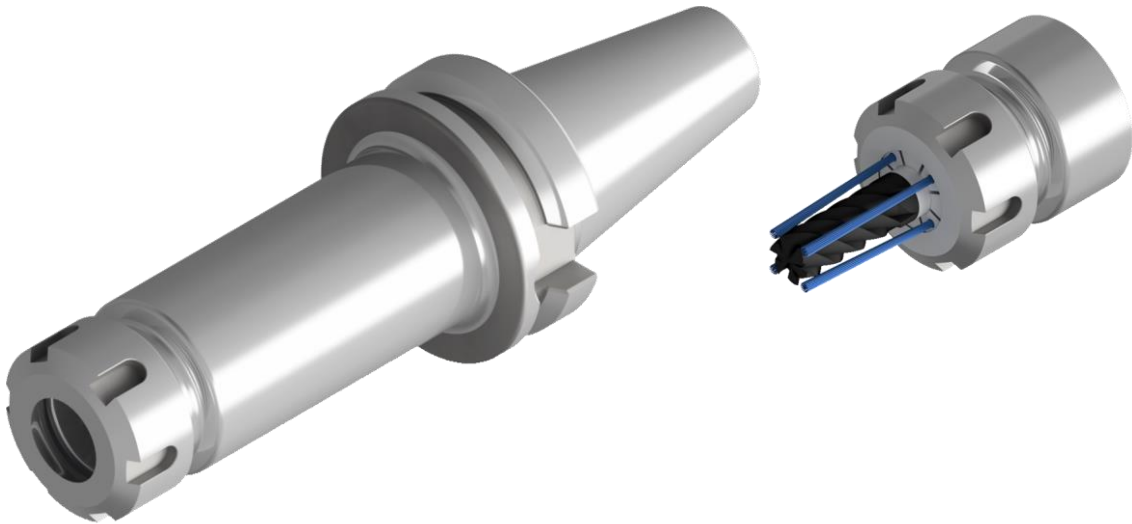


Figure: A = 160

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

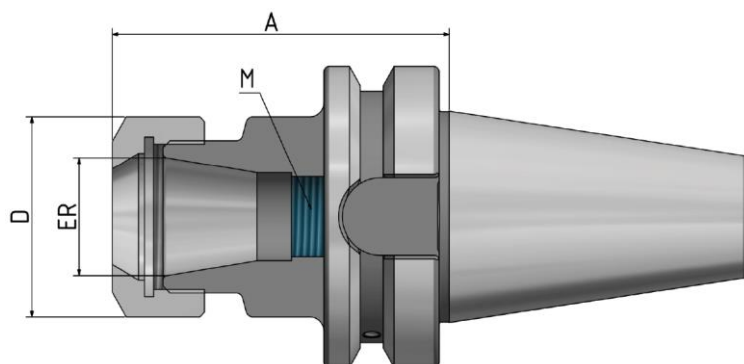
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	ER	D	A	Clamping range	M	Version
ZT754002-01	40	16	28	70	1 - 10	M11 x 1	Short
ZT754002-03	40	25	42	70	1 - 16	M18 x 1.5	Short
ZT754002-04	40	32	50	70	2 - 20	M24 x 1.5	Short
ZT754002-05	40	40	63	70	4 - 26	M28 x 1.5	Short
ZT754002-31	40	16	28	100	1 - 10	M11 x 1	Long
ZT754002-33	40	25	42	100	1 - 16	M18 x 1.5	Long
ZT754002-34	40	32	50	100	2 - 20	M24 x 1.5	Long
ZT754002-61	40	16	28	160	1 - 10	M11 x 1	Extra long
ZT754002-63	40	25	42	160	1 - 16	M18 x 1.5	Extra long
ZT754002-64	40	32	50	160	2 - 20	M24 x 1.5	Extra long

ER-Coller chuck «Mini»

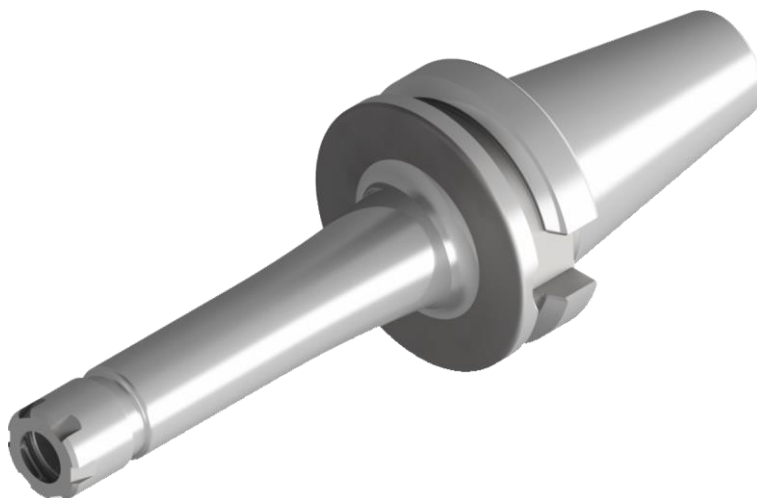


Figure: A = 160

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

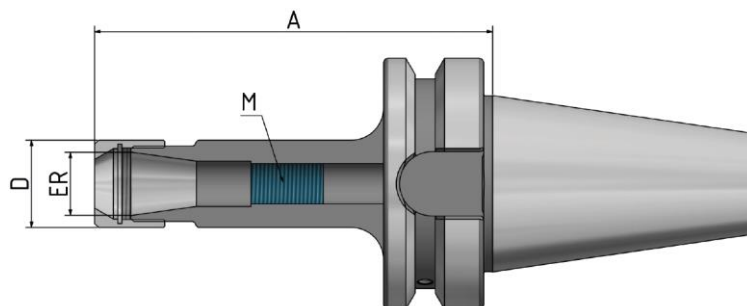
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	ER	D	A	Clamping b.	M	Version
ZT754002-41	40	11	16	100	1 - 7	M8 x 1	Long
ZT754002-43	40	16	22	100	1 - 10	M11 x 1	Long
ZT754002-45	40	25	35	100	1 - 16	M18 x 1.5	Long
ZT754002-42	40	11	16	160	1 - 7	M8 x 1	Extra long
ZT754002-44	40	16	22	160	1 - 10	M11 x 1	Extra long
ZT754002-46	40	25	35	160	1 - 16	M18 x 1.5	Extra long

HPC Precision ER Collet Chuck HAWK EYE® / ER «Mini»

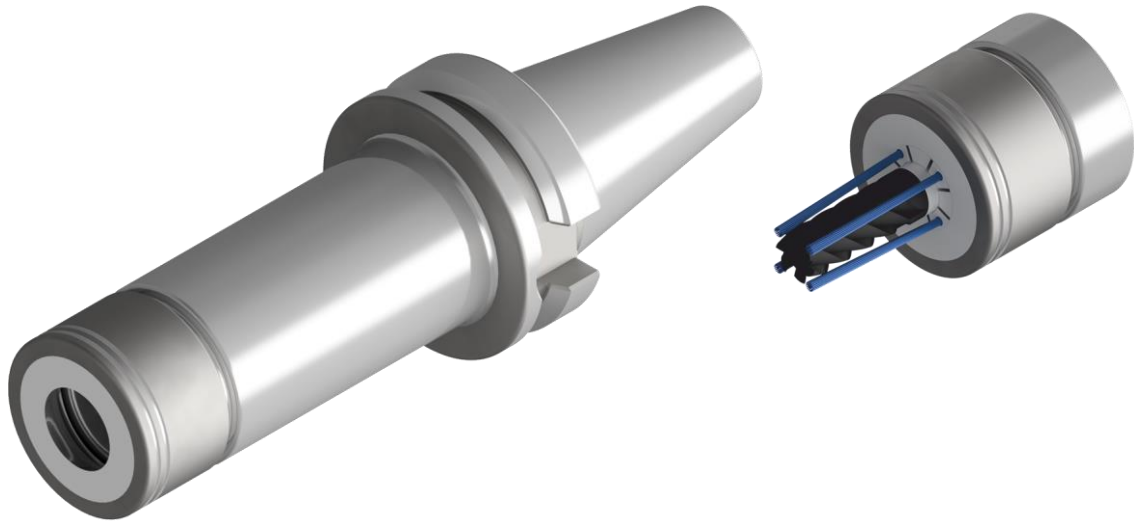


Figure: A = 160

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets

Type:

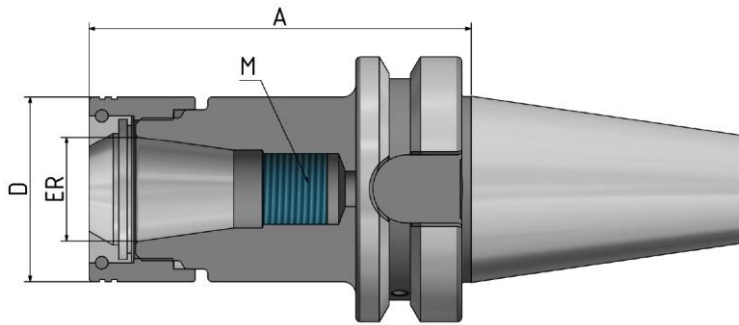
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2 μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

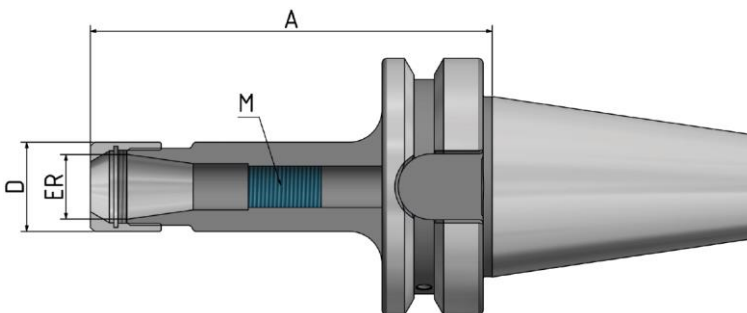
- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	BT	ER	D	A	Clamping b.	M	Version
ZT754032-02	40	16	34	70	1 - 10	M11 x 1	Short
ZT754032-03	40	20	38	70	1 - 13	M18 x 1	Short
ZT754032-04	40	25	44	70	1 - 16	M18 x 1.5	Short
ZT754032-05	40	32	52	70	2 - 20	M24 x 1.5	Short
ZT754032-06	40	40	62	70	4 - 26	M28 x 1.5	Short
ZT754032-32	40	16	34	100	1 - 10	M11 x 1	Long
ZT754032-34	40	25	44	100	1 - 16	M18 x 1.5	Long
ZT754032-35	40	32	52	100	2 - 20	M24 x 1.5	Long
ZT754032-36	40	40	62	100	4 - 26	M28 x 1.5	Long
ZT754032-52	40	16	34	130	1 - 10	M11 x 1	Long
ZT754032-54	40	25	44	130	1 - 16	M18 x 1.5	Long
ZT754032-55	40	32	52	130	2 - 20	M24 x 1.5	Long
ZT754032-62	40	16	34	160	1 - 10	M11 x 1	Extra long
ZT754032-64	40	25	44	160	1 - 16	M18 x 1.5	Extra long
ZT754032-65	40	32	52	160	2 - 20	M24 x 1.5	Extra long



HPC Precision ER Collet Chuck HAWK EYE® «Mini»

Order no.	BT	ER	D	A	Clamping b.	M	Version
ZT754034-31	40	11	16	100	1 - 7	M8 x 1	Short
ZT754034-32	40	16	24	100	1 - 10	M11 x 1	Short
ZT754034-61	40	11	16	100	1 - 7	M8 x 1	Extra long
ZT754034-62	40	16	24	100	1 - 10	M11 x 1	Extra long

Endmill holder Weldon

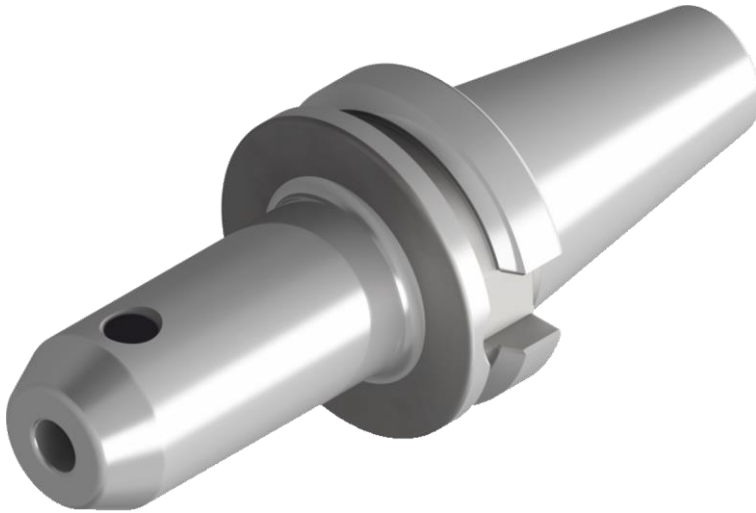


Figure: A = 100

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

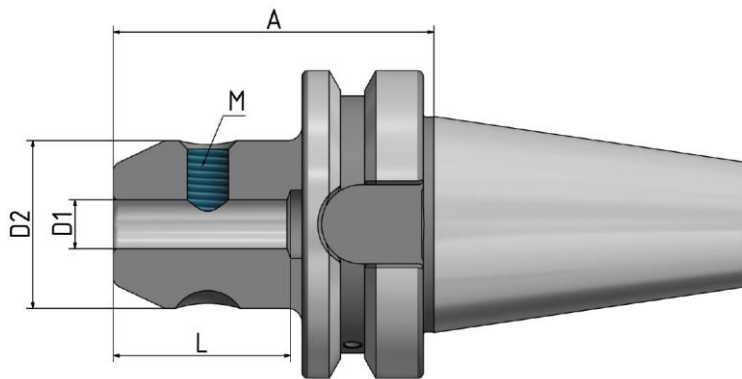
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 $\text{or}^{\text{min-1}}$ max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L	M	Version
ZT754004-01	40	6	50	25	35	M6	Short
ZT754004-02	40	8	50	28	35	M8	Short
ZT754004-03	40	10	63	35	41	M10	Short
ZT754004-04	40	12	63	42	48	M12	Short
ZT754004-05	40	14	63	44	48	M12	Short
ZT754004-06	40	16	63	48	51	M14	Short
ZT754004-07	40	18	63	48	51	M14	Short
ZT754004-08	40	20	63	52	53	M16	Short
ZT754004-09	40	25	90	65	60	M18 x 2	Short
ZT754004-10	40	32	100	72	64	M20 x 2	Short
ZT754004-31	40	6	100	25	35	M6	Long
ZT754004-32	40	8	100	28	35	M8	Long
ZT754004-33	40	10	100	35	41	M10	Long
ZT754004-34	40	12	100	42	48	M12	Long
ZT754004-36	40	16	100	48	51	M14	Long
ZT754004-38	40	20	100	52	53	M16	Long

Shrink fit holder 4.5°

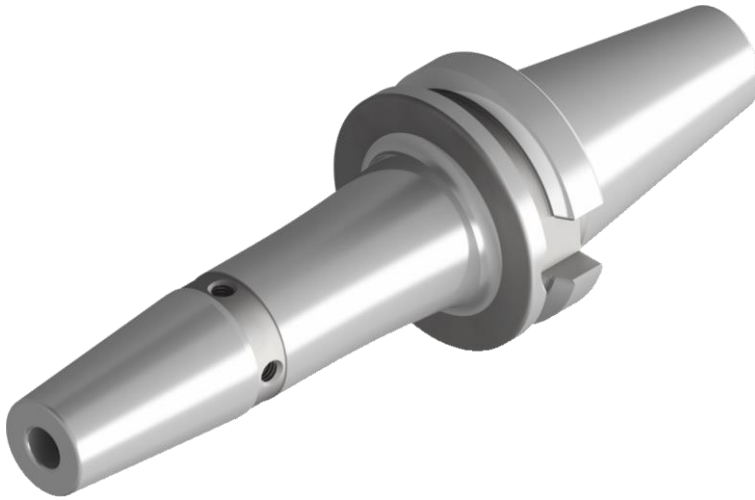


Figure: A = 160

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. Shank tolerance h6

Type:

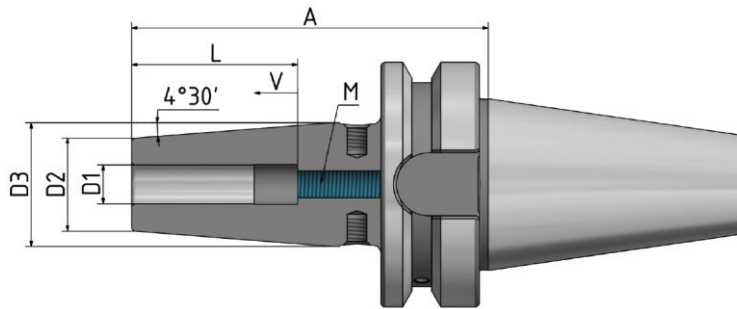
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

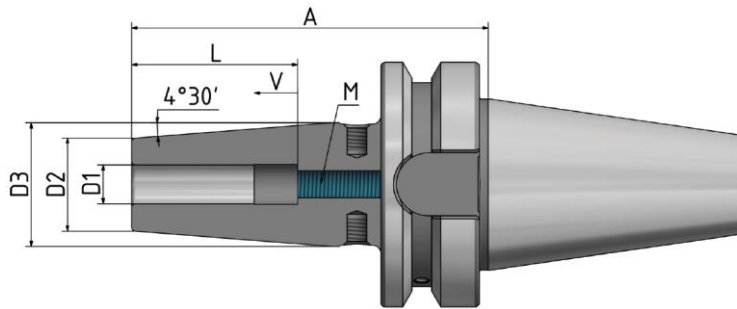
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	D3	L	V	M	Version
ZT754021-13	40	3	90	12	17	-	-	-	Short
ZT754021-14	40	4	90	12	17	-	-	-	Short
ZT754021-15	40	5	90	12	17	-	-	-	Short
ZT754021-01	40	6	90	21	27	37	10	M5	Short
ZT754021-02	40	8	90	21	27	37	10	M6	Short
ZT754021-03	40	10	90	24	32	42	10	M8 x 1	Short
ZT754021-04	40	12	90	24	32	48	10	M10 x 1	Short
ZT754021-05	40	14	90	27	34	48	10	M10 x 1	Short
ZT754021-06	40	16	90	27	34	51	10	M12 x 1	Short
ZT754021-07	40	18	90	33	42	51	10	M12 x 1	Short
ZT754021-08	40	20	90	33	42	53	10	M16 x 1	Short
ZT754021-09	40	25	100	44	53	59	10	M16 x 1	Short
ZT754021-31	40	6	120	21	27	37	10	M5	Long
ZT754021-32	40	8	120	21	27	37	10	M6	Long
ZT754021-33	40	10	120	24	32	42	10	M8 x 1	Long
ZT754021-34	40	12	120	24	32	48	10	M10 x 1	Long
ZT754021-35	40	14	120	27	34	48	10	M10 x 1	Long
ZT754021-36	40	16	120	27	34	51	10	M12 x 1	Long
ZT754021-37	40	18	120	33	42	51	10	M12 x 1	Long
ZT754021-38	40	20	120	33	42	53	10	M16 x 1	Long
ZT754021-39	40	25	120	44	53	59	10	M16 x 1	Long
ZT754021-513	40	3	130	12	17	-	-	-	Long
ZT754021-514	40	4	130	12	17	-	-	-	Long
ZT754021-515	40	5	130	12	17	-	-	-	Long



Order no.	BT	D1	A	D2	D3	L	V	M	Version
ZT754021-51	40	6	130	21	27	37	10	M5	Long
ZT754021-52	40	8	130	21	27	37	10	M6	Long
ZT754021-53	40	10	130	24	32	42	10	M8 x 1	Long
ZT754021-54	40	12	130	24	32	48	10	M10 x 1	Long
ZT754021-55	40	14	130	27	34	48	10	M10 x 1	Long
ZT754021-56	40	16	130	27	34	51	10	M12 x 1	Long
ZT754021-57	40	18	130	33	42	51	10	M12 x 1	Long
ZT754021-58	40	20	130	33	42	53	10	M16 x 1	Long
ZT754021-59	40	25	130	44	53	59	10	M16 x 1	Long
ZT754021-61	40	6	160	21	27	37	10	M5	Extra long
ZT754021-62	40	8	160	21	27	37	10	M6	Extra long
ZT754021-63	40	10	160	24	32	42	10	M8 x 1	Extra long
ZT754021-64	40	12	160	24	32	48	10	M10 x 1	Extra long
ZT754021-65	40	14	160	27	34	48	10	M10 x 1	Extra long
ZT754021-66	40	16	160	27	34	51	10	M12 x 1	Extra long
ZT754021-67	40	18	160	33	42	51	10	M12 x 1	Extra long
ZT754021-68	40	20	160	33	42	53	10	M16 x 1	Extra long
ZT754021-69	40	25	160	44	53	59	10	M16 x 1	Extra long
ZT754021-81	40	6	200	21	27	37	10	M5	Extra long
ZT754021-82	40	8	200	21	27	37	10	M6	Extra long
ZT754021-83	40	10	200	24	32	42	10	M8 x 1	Extra long
ZT754021-84	40	12	200	24	32	48	10	M10 x 1	Extra long
ZT754021-85	40	14	200	27	34	48	10	M10 x 1	Extra long
ZT754021-86	40	16	200	27	34	51	10	M12 x 1	Extra long
ZT754021-87	40	18	200	33	42	51	10	M12 x 1	Extra long
ZT754021-88	40	20	200	33	42	53	10	M16 x 1	Extra long
ZT754021-89	40	25	200	44	53	59	10	M16 x 1	Extra long

Shrink fit holder 4.5° «Cool Tool»

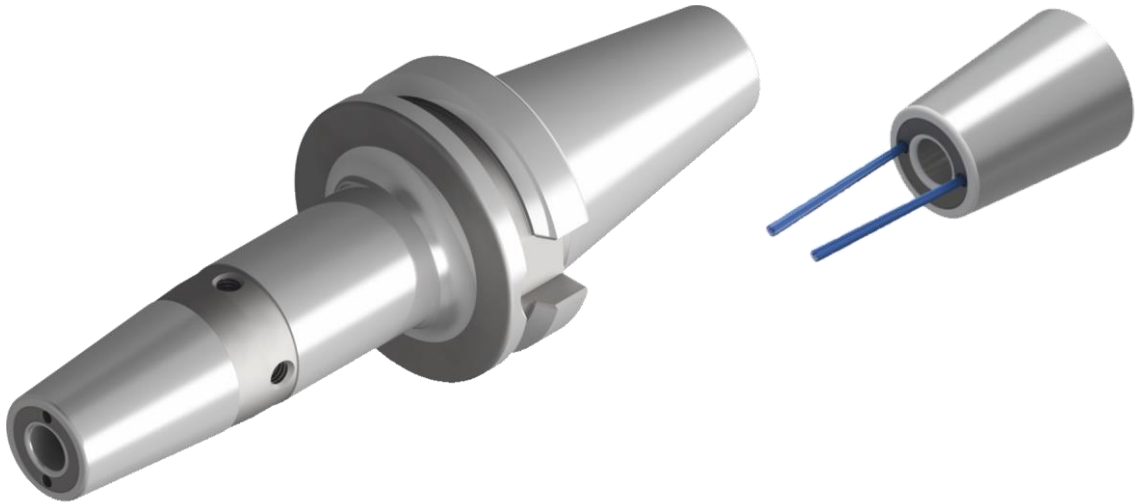


Figure: A = 130

Sealed Versions

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

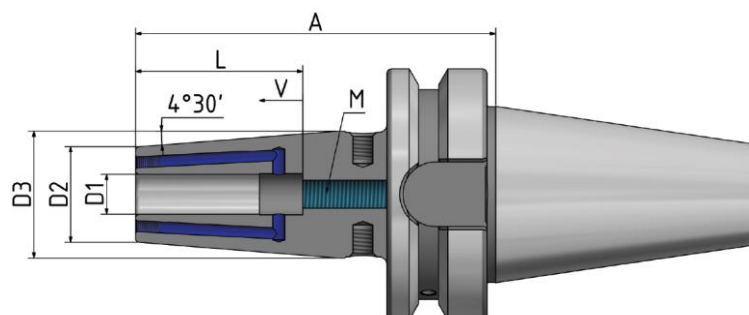
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Four additional threads on the circumference for subsequent fine balancing.
- Two holes in the wall of the shrink fit chuck direct the coolant to the mold cutting edge

Scope of delivery:

- Built-in length adjustment screw
- 2 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 or^{min-1} max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	D3	L	V	M	Version
ZT754021-019	40	6	90	21	27	37	10	M5	Short
ZT754021-029	40	8	90	21	27	37	10	M6	Short
ZT754021-039	40	10	90	24	32	42	10	M8 x 1	Short
ZT754021-049	40	12	90	24	32	48	10	M10 x 1	Short
ZT754021-059	40	14	90	27	34	48	10	M10 x 1	Short
ZT754021-069	40	16	90	27	34	51	10	M12 x 1	Short
ZT754021-079	40	18	90	33	42	51	10	M12 x 1	Short
ZT754021-089	40	20	90	33	42	53	10	M16 x 1	Short
ZT754021-099	40	25	100	44	53	59	10	M16 x 1	Short
ZT754021-519	40	6	130	21	27	37	10	M5	Long
ZT754021-529	40	8	130	21	27	37	10	M6	Long
ZT754021-539	40	10	130	24	32	42	10	M8 x 1	Long
ZT754021-549	40	12	130	24	32	48	10	M10 x 1	Long
ZT754021-559	40	14	130	27	34	48	10	M10 x 1	Long
ZT754021-569	40	16	130	27	34	51	10	M12 x 1	Long
ZT754021-579	40	18	130	33	42	51	10	M12 x 1	Long
ZT754021-589	40	20	130	33	42	53	10	M16 x 1	Long
ZT754021-599	40	25	130	44	53	59	10	M16 x 1	Long

Shrink fit holder 3°

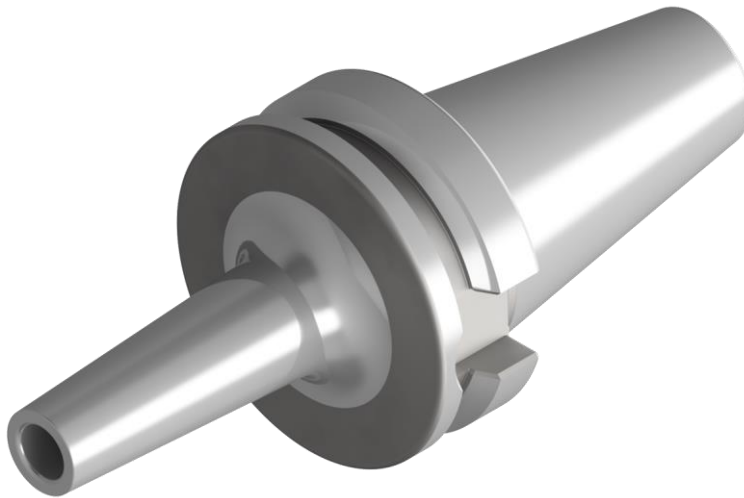


Figure: A = 160

Usage:

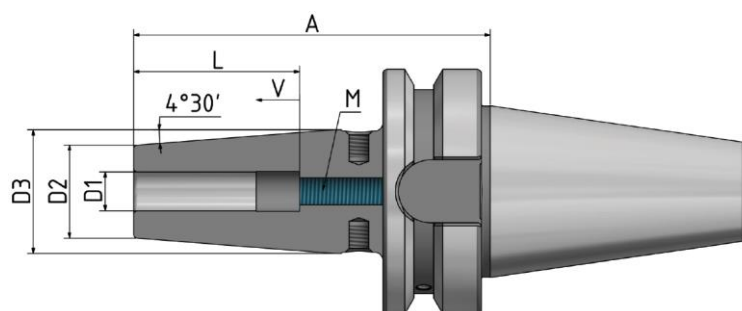
For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.

Fine balanced:

G 2.5 at 25000 $\text{or}^{\text{min-1}}$ max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	D3	Version
ZT754051-13	40	3	90	9	14	Short
ZT754051-14	40	4	90	10	15	Short
ZT754051-15	40	5	90	11	16	Short
ZT754051-01	40	6	90	12	19	Short
ZT754051-02	40	8	90	14	21	Short
ZT754051-03	40	10	90	16	23	Short
ZT754051-04	40	12	90	18	25	Short
ZT754051-513	40	3	130	12	18	Long
ZT754051-514	40	4	130	12	19	Long
ZT754051-515	40	5	130	12	20	Long
ZT754051-51	40	6	130	21	23	Long
ZT754051-52	40	8	130	21	25	Long
ZT754051-53	40	10	130	24	27	Long
ZT754051-54	40	12	130	24	29	Long

Shell mill holder «Cool Tool»

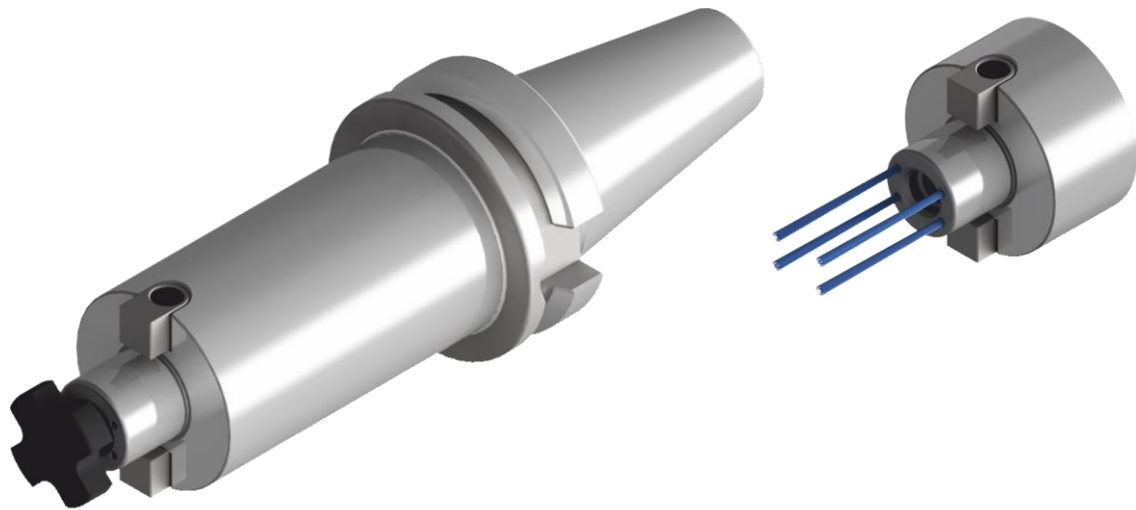


Figure: A = 100

Sealed Versions

Usage:

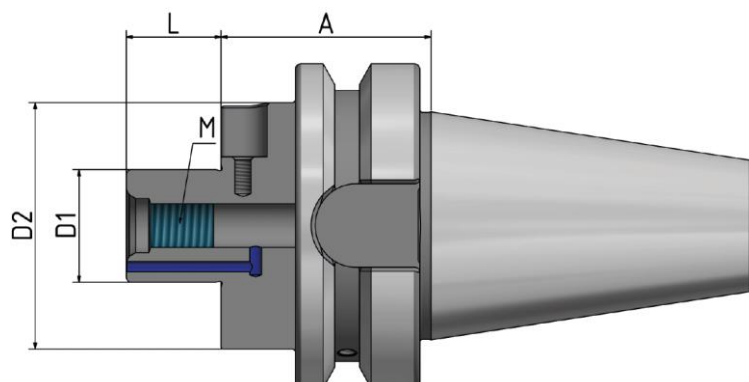
For holding cutters with transverse slot, with coolant supply to the cutting edges.

Type:

- With enlarged contact surface.
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Fine balanced:

G 2.5 at 25000 $\text{or}^{\text{min-1}}$ max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L	M	Version
ZT7540051-13	40	16	35	9	17	M8	Short
ZT7540051-14	40	22	35	10	19	M10	Short
ZT7540051-15	40	27	35	11	21	M12	Short
ZT7540051-01	40	32	50	12	24	M16	Short
ZT7540051-02	40	40	50	14	27	M20	Short
ZT7540051-03	40	16	100	16	17	M8	Long
ZT7540051-04	40	22	100	18	19	M10	Long
ZT7540051-513	40	27	100	12	21	M12	Long
ZT7540051-514	40	32	100	12	24	M16	Long

Combi Shell mill holder

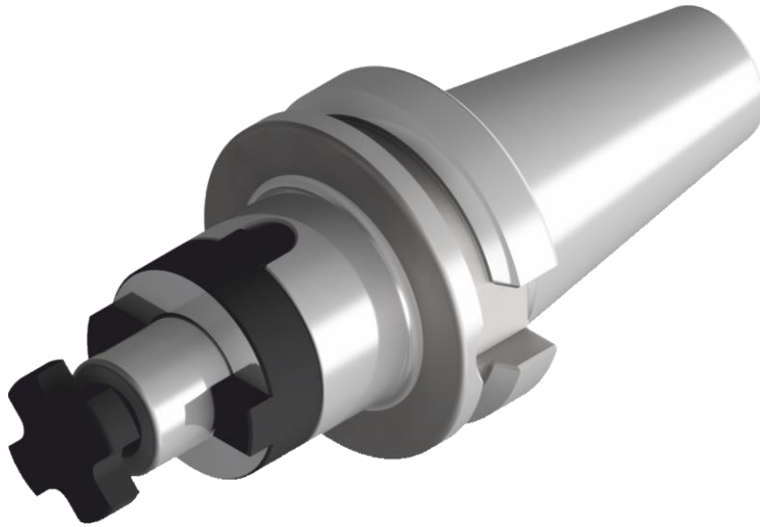


Figure: A = 100

Usage:

For holding cutters with longitudinal and transverse slots.

Type:

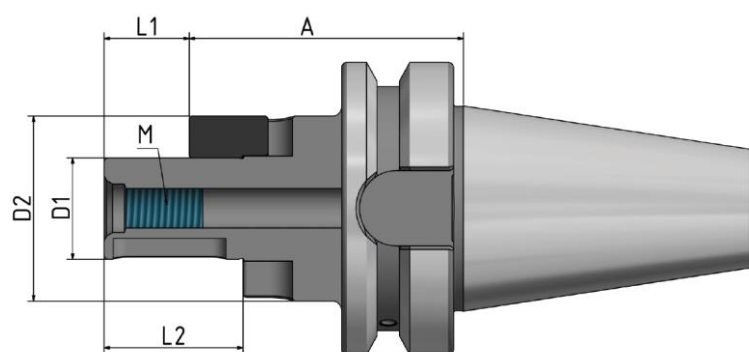
- Concentricity deviation of the taper to the mandrel ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25000 or^{min-1} max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L1	L2	M	Version
ZT754006-01	40	16	55	32	17	27	M8	Short
ZT754006-02	40	22	55	40	19	31	M10	Short
ZT754006-03	40	27	55	48	21	33	M12	Short
ZT754006-04	40	32	55	58	24	38	M16	Short

Short drill chuck

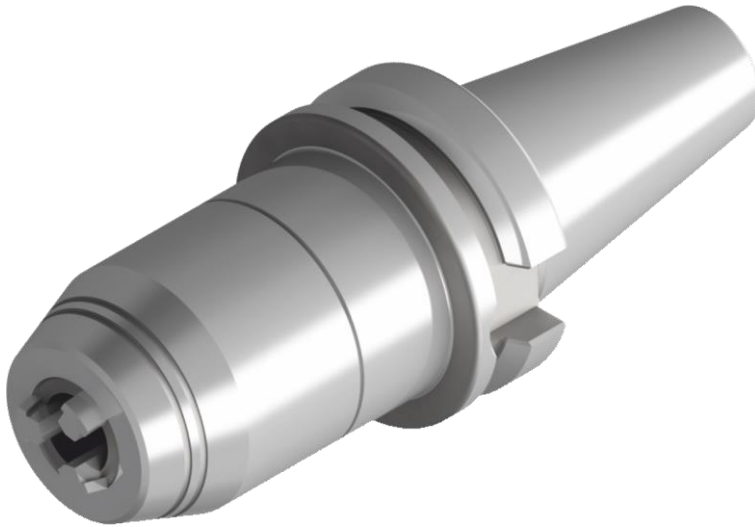


Figure: A = 100

Usage:

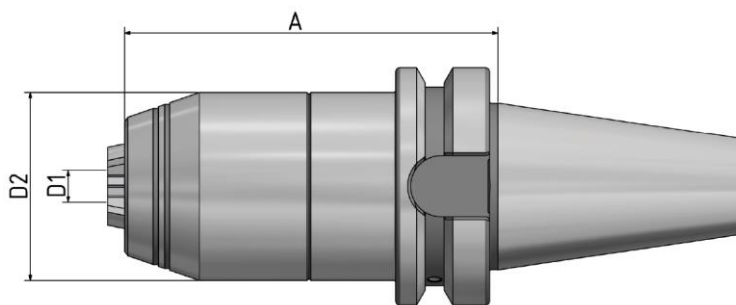
For clamping tools with cylindrical shank, suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

Fine balanced:

G 6.3 at 8000 min⁻¹



Order no.	BT	Clamping b. D1	A	D2
ZT754095-52	40	1 - 16	88	50

BT 50 ISO 7388-2 Form JD / JF

ER-Collet chuck

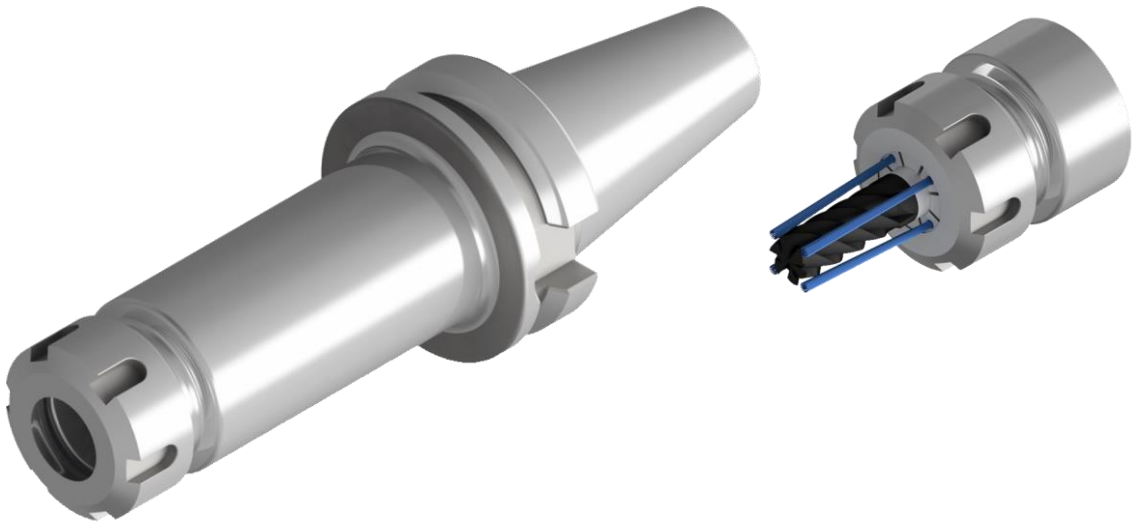


Figure: A = 160

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

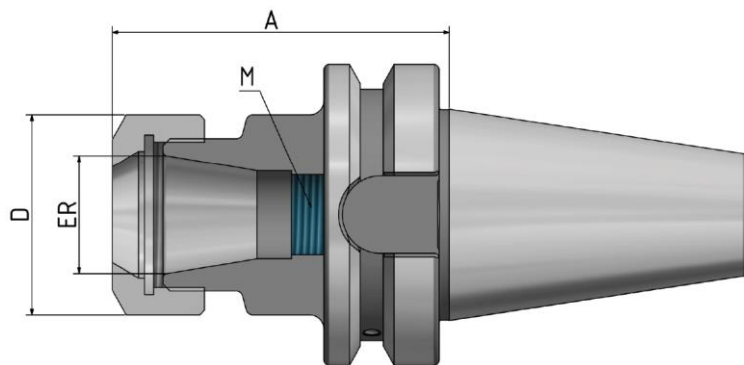
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Due to precisely matched taper tolerances of the ER inner taper and the collet taper, a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length is achieved.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	ER	D	A	Clamping range	Version
ZT755002-01	50	16	28	70	1 - 10	Short
ZT755002-02	50	25	42	70	1 - 16	Short
ZT755002-03	50	32	50	70	2 - 10	Short
ZT755002-04	50	40	63	80	4 - 26	Short
ZT755002-31	50	16	28	100	1 - 10	Long
ZT755002-32	50	25	42	100	1 - 16	Long
ZT755002-33	50	32	50	100	2 - 10	Long
ZT755002-34	50	40	63	100	4 - 26	Long
ZT755002-61	50	16	28	160	1 - 10	Extra Long
ZT755002-62	50	25	42	160	1 - 16	Extra Long
ZT755002-63	50	32	50	160	2 - 10	Extra Long
ZT755002-64	50	40	63	160	4 - 26	Extra Long

HPC Precision ER Collet Chuck HAWK EYE®.

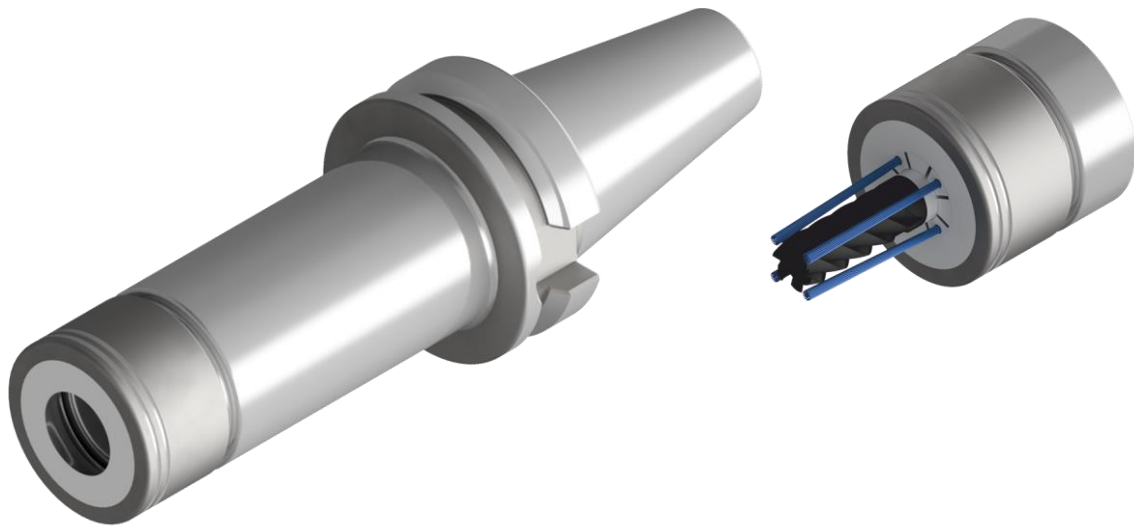


Figure: A = 160

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

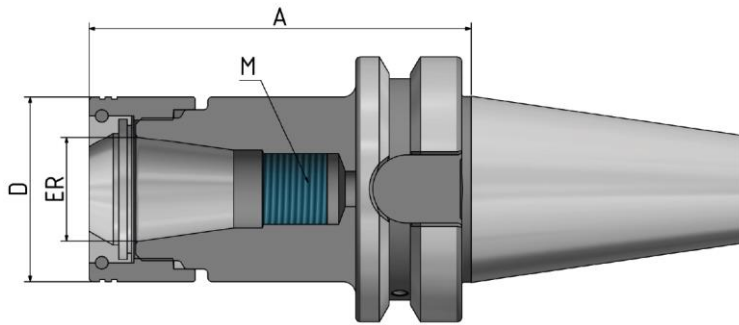
Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with the nominal diameter of the collet.

Scope of delivery:

- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$



Order no.	BT	ER	D	A	Clamping range	Version
ZT755032-04	50	25	44	70	1 - 16	Short
ZT755032-05	50	32	52	70	2 - 20	Short
ZT755032-06	50	40	62	80	4 - 26	Short
ZT755032-34	50	25	44	100	1 - 16	Long
ZT755032-35	50	32	52	100	2 - 20	Long
ZT755032-36	50	40	62	100	4 - 26	Long
ZT755032-54	50	25	44	130	1 - 16	Long
ZT755032-55	50	32	52	130	2 - 20	Long
ZT755032-56	50	40	62	130	4 - 26	Long
ZT755032-64	50	25	44	160	1 - 16	Extra Long
ZT755032-65	50	32	52	160	2 - 20	Extra Long
ZT755032-66	50	40	62	160	4 - 26	Extra Long

Endmill holder Weldon



Figure: A = 80

Usage:

For clamping tools with straight shank according to DIN 1835B / 6359HB

Type:

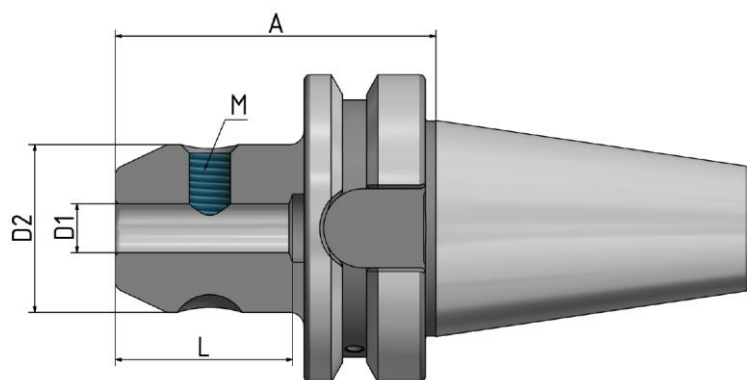
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN)

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L	M	Version
ZT755004-01	50	6	63	25	35	M6-	Short
ZT755004-02	50	8	63	28	35	M8	Short
ZT755004-03	50	10	70	35	41	M10	Short
ZT755004-04	50	12	80	42	48	M12	Short
ZT755004-06	50	16	80	48	51	M14	Short
ZT755004-08	50	20	80	52	53	M16	Short
ZT755004-09	50	25	100	65	60	M18 x 2	Short
ZT755004-10	50	32	105	72	64	M20 x 2	Short

Shrink fit holder 4.5°

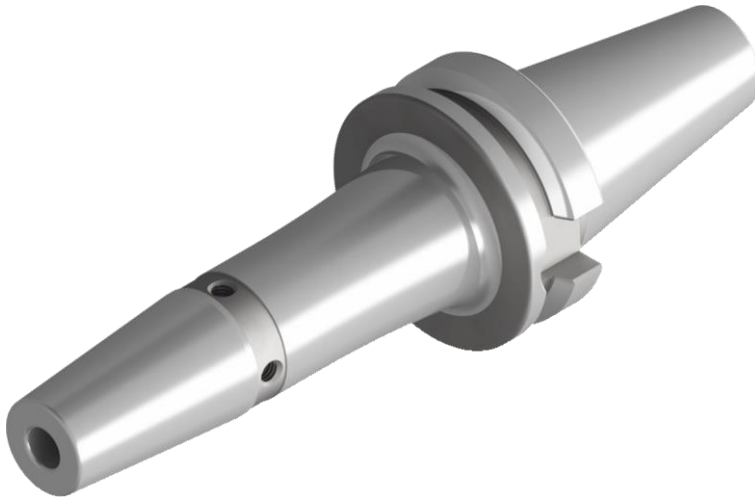


Figure: A = 200

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

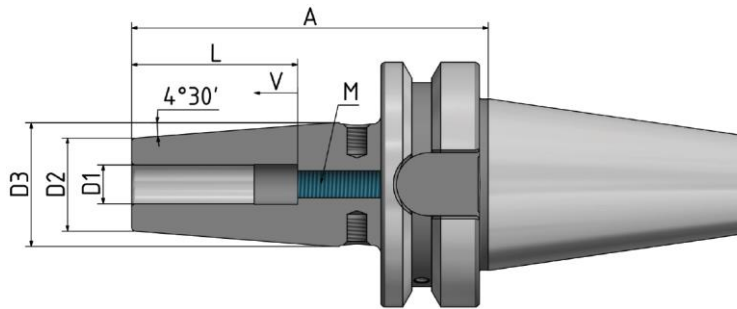
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	D3	L	M	V	Version
ZT755021-01	50	6	100	21	27	37	M5	10	Short
ZT755021-02	50	8	100	21	27	37	M6	10	Short
ZT755021-03	50	10	100	24	32	42	M8 x 1	10	Short
ZT755021-04	50	12	100	24	32	48	M10 x 1	10	Short
ZT755021-05	50	14	100	27	34	48	M10 x 1	10	Short
ZT755021-06	50	16	100	27	34	51	M12 x 1	10	Short
ZT755021-07	50	18	100	33	42	51	M12 x 1	10	Short
ZT755021-08	50	20	100	33	42	53	M16 x 1	10	Short
ZT755021-09	50	25	100	44	53	59	M16 x 1	10	Short
ZT755021-10	50	32	100	44	53	63	M16 x 1	10	Short
ZT755021-51	50	6	130	21	27	37	M5	10	Long
ZT755021-52	50	8	130	21	27	37	M6	10	Long
ZT755021-53	50	10	130	24	32	42	M8 x 1	10	Long
ZT755021-54	50	12	130	24	32	48	M10 x 1	10	Long
ZT755021-55	50	14	130	27	34	48	M10 x 1	10	Long
ZT755021-56	50	16	130	27	34	51	M12 x 1	10	Long
ZT755021-57	50	18	130	33	42	51	M12 x 1	10	Long
ZT755021-58	50	20	130	33	42	53	M16 x 1	10	Long
ZT755021-59	50	25	130	44	53	59	M16 x 1	10	Long
ZT755021-60	50	32	130	44	53	63	M16 x 1	10	Long
ZT755021-61	50	6	160	21	27	37	M5	10	Long
ZT755021-62	50	8	160	21	27	37	M6	10	Long
ZT755021-63	50	10	160	24	32	42	M8 x 1	10	Long
ZT755021-64	50	12	160	24	32	48	M10 x 1	10	Long
ZT755021-65	50	14	160	27	34	48	M10 x 1	10	Long
ZT755021-66	50	16	160	27	34	51	M12 x 1	10	Long
ZT755021-67	50	18	160	33	42	51	M12 x 1	10	Long
ZT755021-68	50	20	160	33	42	53	M16 x 1	10	Long
ZT755021-69	50	25	160	44	53	59	M16 x 1	10	Long
ZT755021-70	50	32	160	44	53	63	M16 x 1	10	Long

Order no.	BT	D1	A	D2	D3	L	M	V	Version
ZT606321-81	50	6	200	21	27	37	M5	10	Extra Long
ZT606321-82	50	8	200	21	27	37	M6	10	Extra Long
ZT606321-83	50	10	200	24	32	42	M8 x 1	10	Extra Long
ZT606321-84	50	12	200	24	32	48	M10 x 1	10	Extra Long
ZT606321-85	50	14	200	27	34	48	M10 x 1	10	Extra Long
ZT606321-86	50	16	200	27	34	51	M12 x 1	10	Extra Long
ZT606321-87	50	18	200	33	42	51	M12 x 1	10	Extra Long
ZT606321-88	50	20	200	33	42	53	M16 x 1	10	Extra Long
ZT606321-89	50	25	200	44	53	59	M16 x 1	10	Extra Long
ZT606321-90	50	32	200	44	53	63	M16 x 1	10	Extra Long

Shell mill holder «Cool Tool»

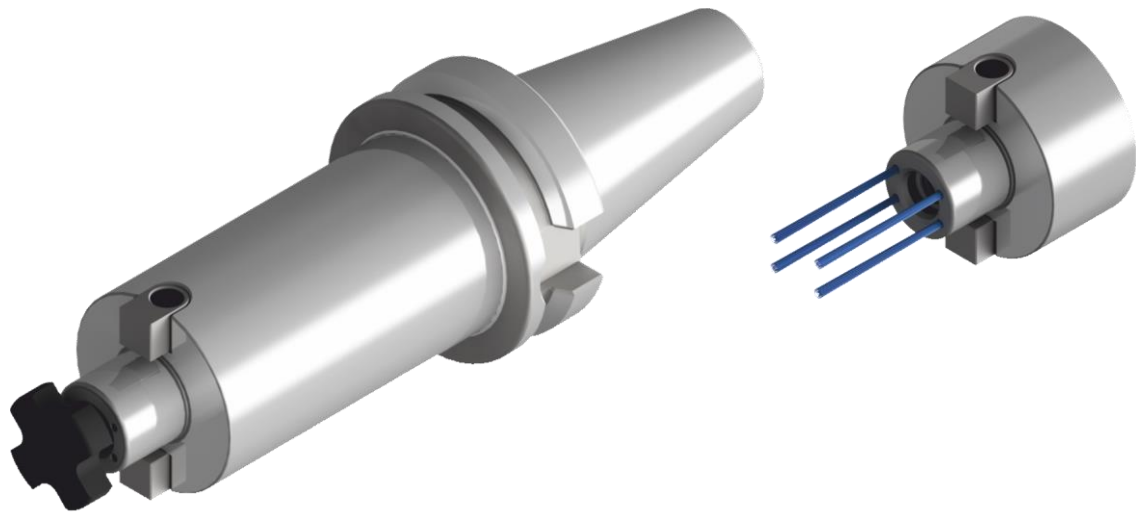


Figure: A = 100

Sealed Versions

Usage:

To accommodate milling cutters with transverse slots, with coolant supply to the cutting edges.

Type:

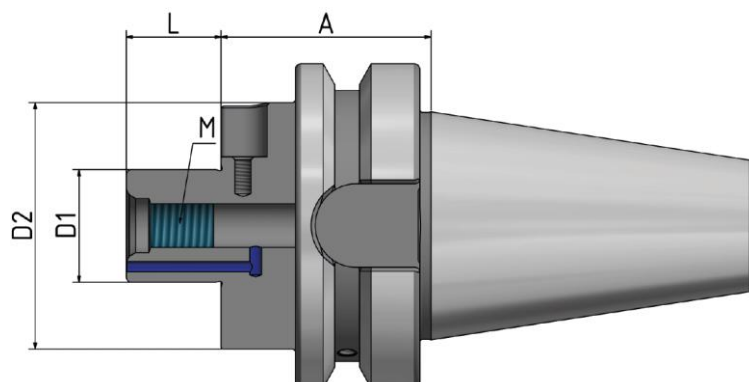
- With enlarged contact surface.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L1	M	Version
ZT7550051-02	50	22	55	48	19	M8	Short
ZT7550051-03	50	27	55	60	21	M10	Short
ZT7550051-04	50	32	55	78	24	M12	Short
ZT7550051-05	50	40	55	89	27	M16	Short
ZT7550051-32	50	22	100	48	19	M8	Long
ZT7550051-33	50	27	100	60	21	M10	Long
ZT7550051-34	50	32	100	78	24	M12	Long

Combi Shell mill holder

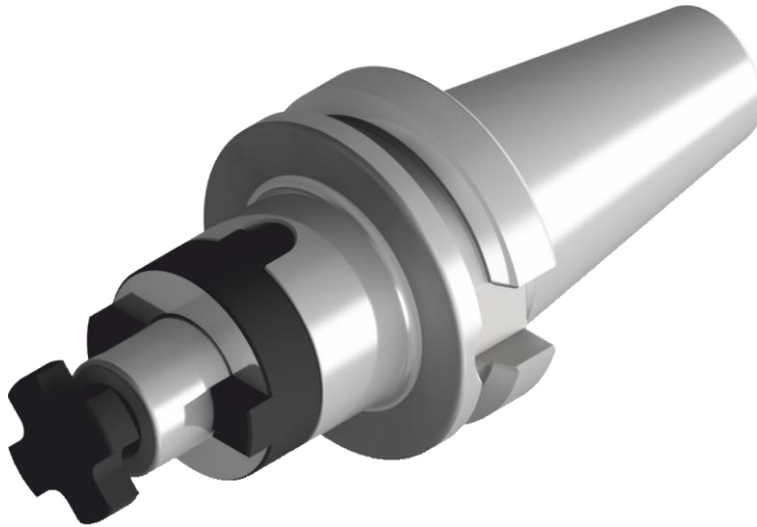


Figure: A = 70

Usage:

To accommodate cutters with longitudinal and transverse slots.

Type:

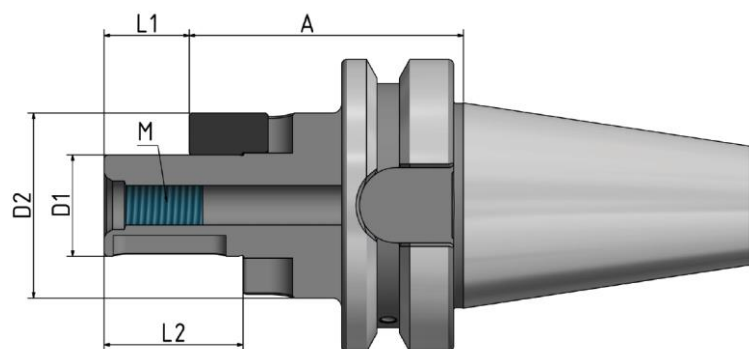
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Driving ring
- Parallel key

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BT	D1	A	D2	L1	M	Version
ZT755006-02	50	22	70	40	19	M8	Short
ZT755006-03	50	27	70	48	21	M10	Short
ZT755006-04	50	32	70	58	24	M12	Short
ZT755006-05	50	40	70	70	27	M16	Short

Short drill chuck

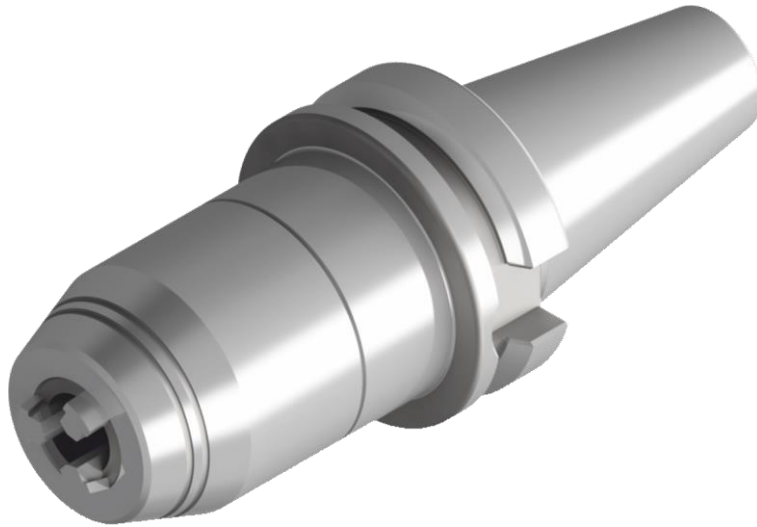


Figure: A = 99

Usage:

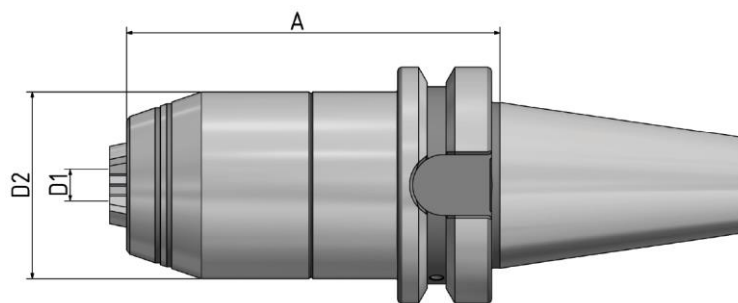
For clamping tools with cylindrical shank, suitable for tools with internal coolant supply.

Scope of delivery:

- Clamping wrench

Fine balanced:

G 6.3 at 8000 min⁻¹



Order no.	BT	Clamping b. D1	A	D2
ZT755095-52	50	22	99	50

BTD 30 Form JD

ER-Collet chuck - BT double contact - BTD

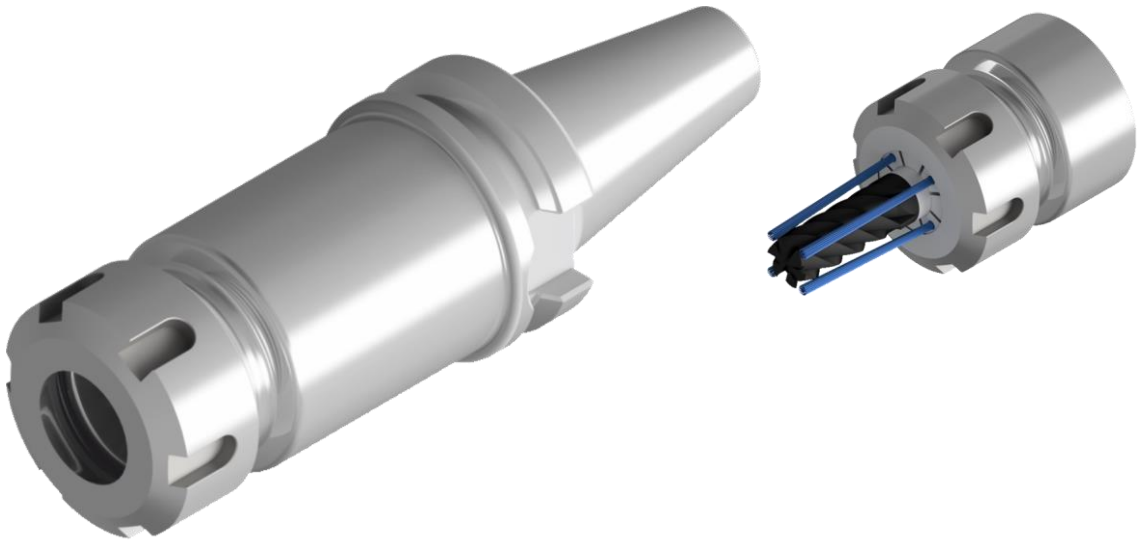


Figure: A = 100

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

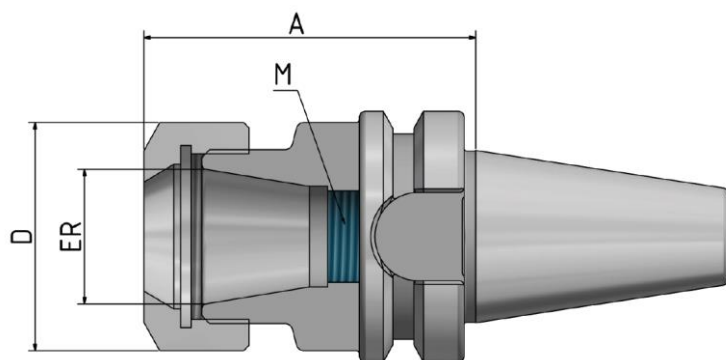
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Due to precisely matched taper tolerances of the ER inner taper and the collet taper, a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length is achieved.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	ER	D	A	Clamping range	M	Version
ZT755002-01	30	16	19	60	1 - 10	M8 x 1	Extra short
ZT755002-02	30	20	28	60	1 - 13	M11 x 1	Extra short
ZT755002-03	30	25	34	60	1 - 16	M14 x 1	Extra Short
ZT755002-04	30	32	42	60	2 - 20	M18 x 1.5	Extra Short
ZT755002-31	30	16	19	100	1 - 10	M8 x 1	Long
ZT755002-32	30	20	28	100	1 - 13	M11 x 1	Long
ZT755002-33	30	25	34	100	1 - 16	M14 x 1	Long
ZT755002-34	30	32	42	100	2 - 20	M18 x 1.5	Long

Shrink fit holder 4.5° - BT double contact - BTD

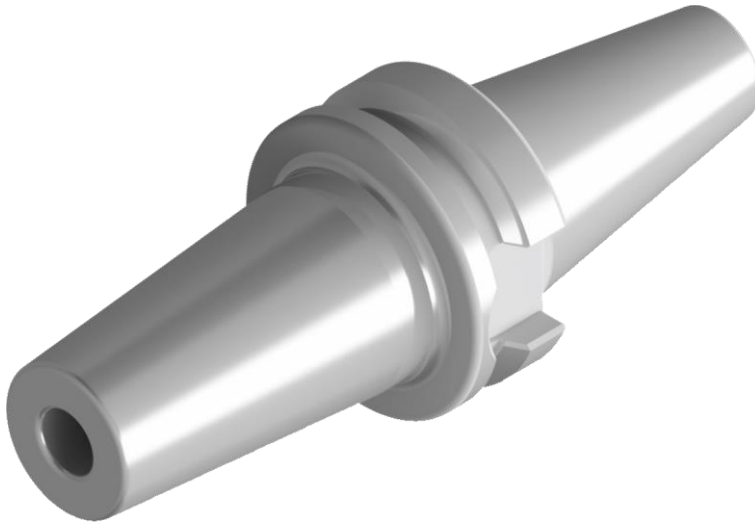


Figure: A = 80

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

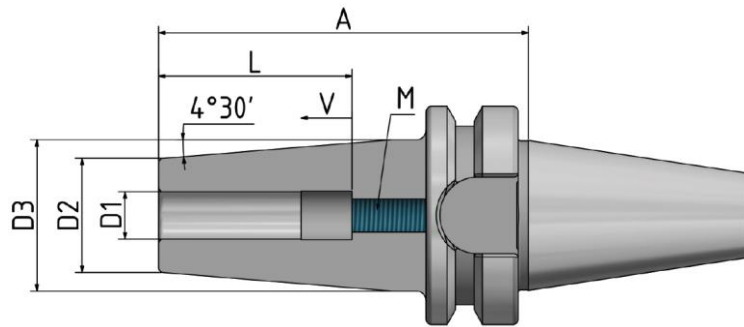
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	D1	A	D2	D3	L	M	V	Version
ZT773021-13	30	3	80	12	17	-	-	-	Short
ZT773021-14	30	4	80	12	17	-	-	-	Short
ZT773021-15	30	5	80	12	17	-	-	-	Short
ZT773021-01	30	6	80	21	27	37	M5	10	Short
ZT773021-02	30	8	80	21	27	37	M6	10	Short
ZT773021-03	30	10	80	24	32	42	M8 x 1	10	Short
ZT773021-04	30	12	80	24	32	48	M10 x 1	10	Short
ZT773021-06	30	16	80	27	34	51	M12 x 1	10	Short
ZT773021-08	30	20	90	33	42	53	M16 x 1	10	Short

Shell mill holder «Cool Tool» - BT double contact - BTD

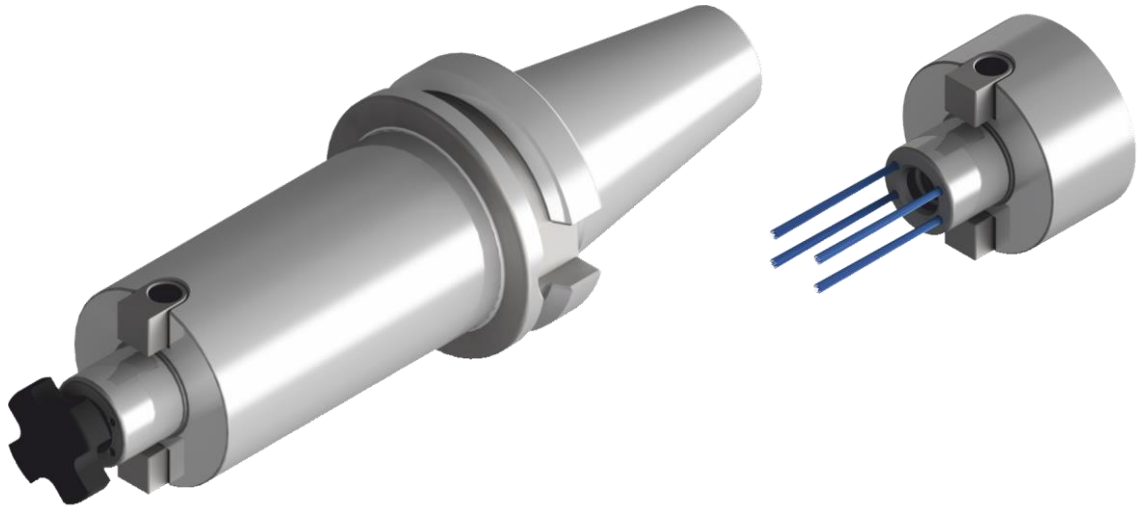


Figure: A = 35

Sealed Versions

Usage:

To accommodate milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

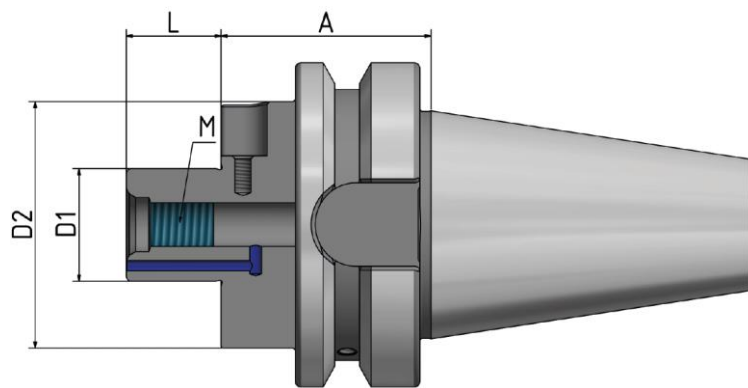
- With enlarged contact surface.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw

Fine balanced:

- G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	D1	A	D2	L1	M	Version
ZT7730051-02	30	22	35	48	19	M10	Short
ZT7730051-03	30	27	35	60	21	M12	Short

BTD 40 Form JD

ER-Collet chuck - BT double contact - BTD

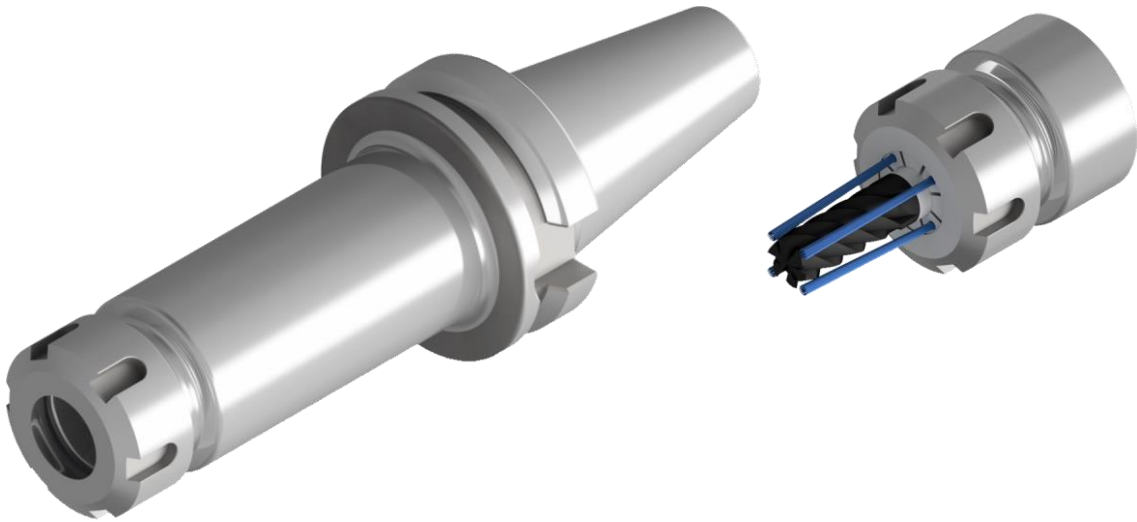


Figure: A = 70

Sealed Versions

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

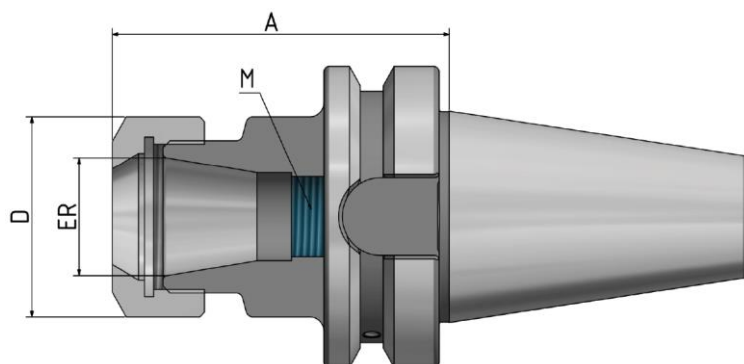
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	ER	D	A	Clamping range	M	Version
ZT774002-01	40	16	28	70	1 - 10	M11 x 1	Short
ZT774002-02	40	20	42	70	1 - 13	M18 x 1.5	Short
ZT774002-03	40	25	50	70	1 - 16	M24 x 1.5	Short
ZT774002-04	40	32	63	70	2 - 20	M28 x 1.5	Short
ZT774002-31	40	16	28	100	1 - 10	M11 x 1	Long
ZT774002-32	40	20	42	100	1 - 13	M18 x 1.5	Long
ZT774002-33	40	25	50	100	1 - 16	M24 x 1.5	Long
ZT774002-34	40	32	63	100	2 - 20	M28 x 1.5	Long

Endmill holder Weldon - BT double contact - BTD

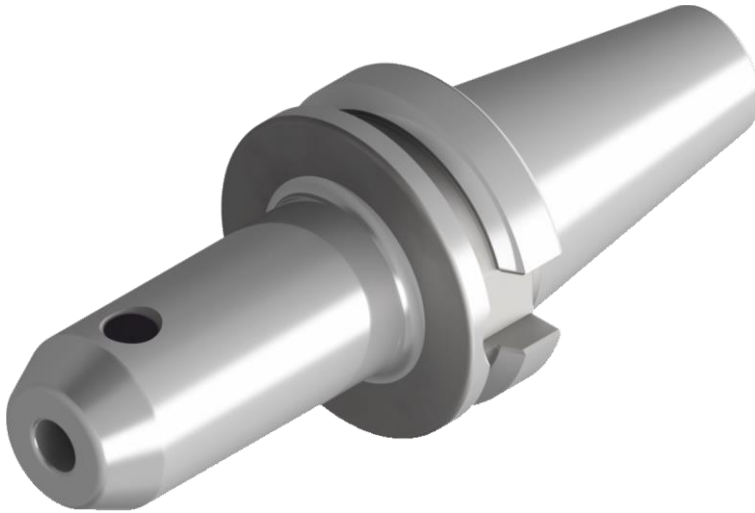


Figure: A = 63

Usage:

For clamping tools with straight shank according to DIN 1835B / 6359HB

Type:

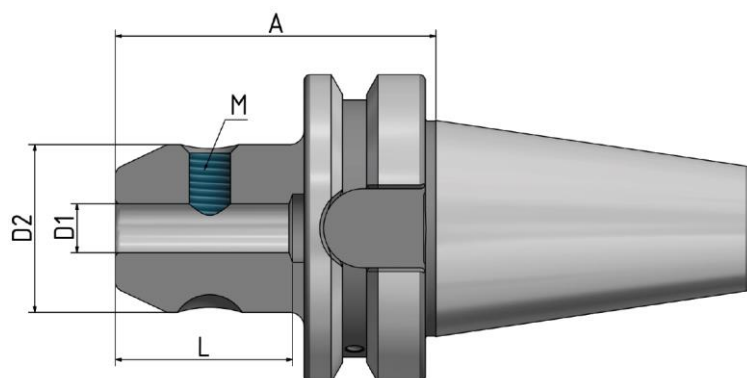
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN)

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	D1	A	D2	L	M	Version
ZT774004-01	40	6	50	25	35	M6	Short
ZT774004-02	40	8	50	28	35	M8	Short
ZT774004-03	40	10	63	35	41	M10	Short
ZT774004-04	40	12	63	42	48	M12	Short
ZT774004-06	40	16	63	48	51	M14	Short
ZT774004-08	40	20	63	52	53	M16	Short
ZT774004-09	40	25	90	65	60	M18 x 2	Short
ZT774004-10	40	32	100	72	64	M20 x 2	Short

Shrink fit holder 4.5° - BT double contact - BTD

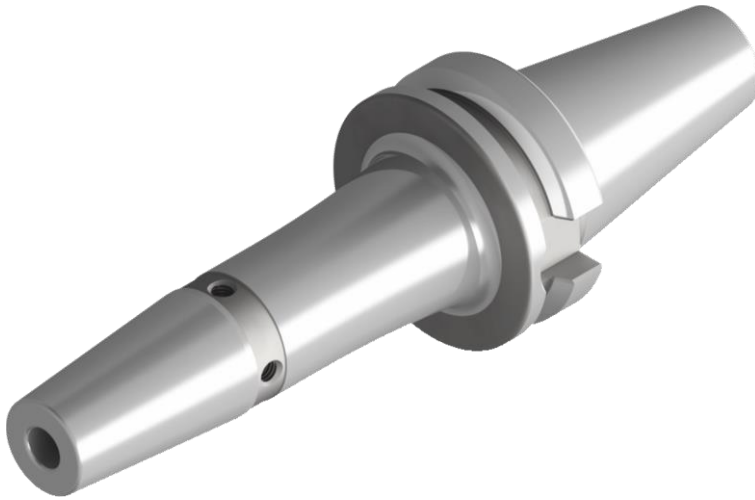


Figure: A = 90

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

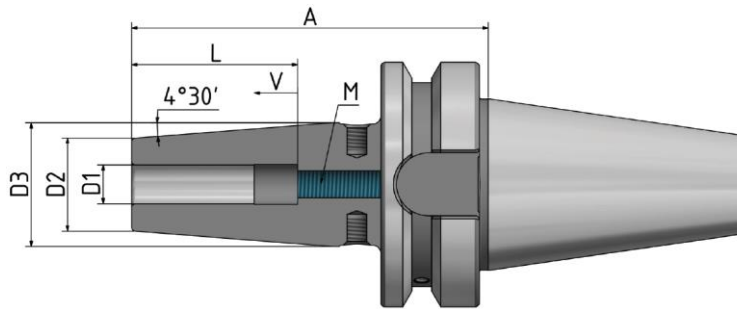
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads at the beginning for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	D1	A	D2	D3	L	M	V	Version
ZT774021-13	40	3	80	12	17	-	-	-	Short
ZT774021-14	40	4	80	12	17	-	-	-	Short
ZT774021-15	40	5	80	12	17	-	-	-	Short
ZT774021-01	40	6	80	21	27	37	M5	10	Short
ZT774021-02	40	8	80	21	27	37	M6	10	Short
ZT774021-03	40	10	80	24	32	42	M8 x 1	10	Short
ZT774021-04	40	12	80	24	32	48	M10 x 1	10	Short
ZT774021-06	40	16	80	27	34	51	M12 x 1	10	Short
ZT774021-08	40	20	90	33	42	53	M16 x 1	10	Short
ZT774021-09	40	25	100	44	53	59	M16 x 1	10	Short

Shell mill holder «Cool Tool» - BT double contact - BTD

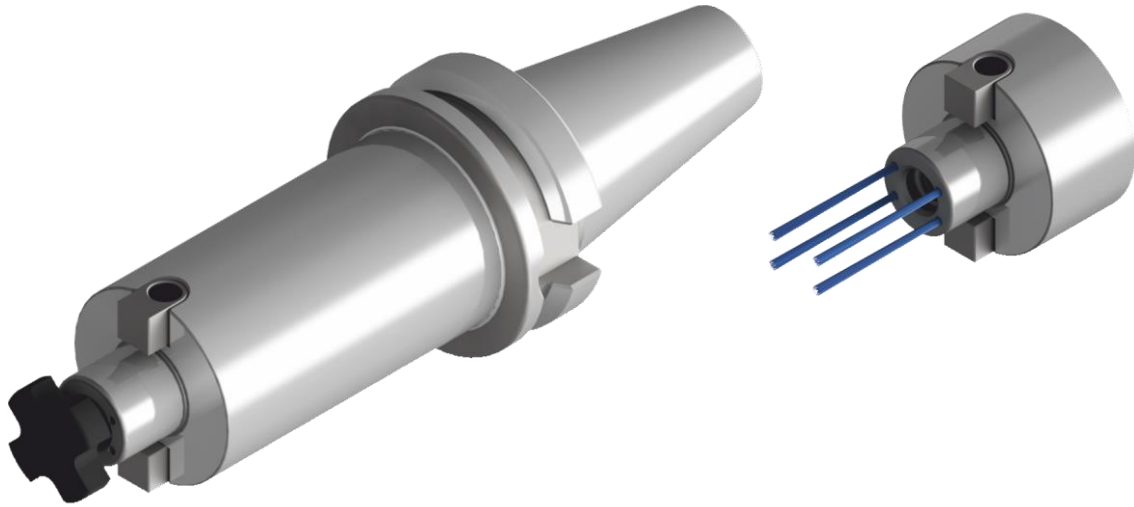


Figure: A = 35

Sealed Versions

Usage:

To accommodate milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

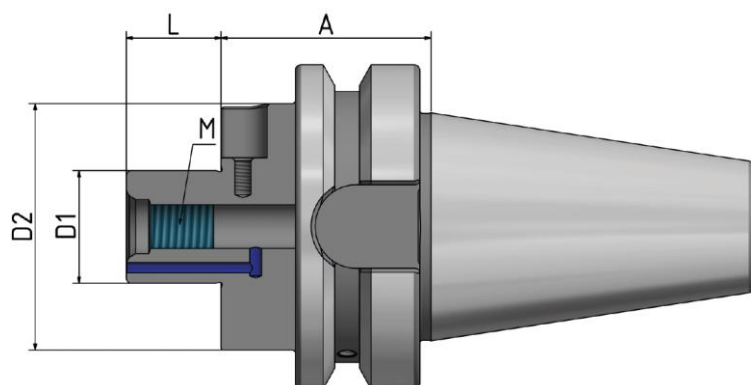
- With enlarged contact surface.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys
- 4 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



Order no.	BTD	D1	A	D2	L1	M	Version
ZT7740051-02	40	22	35	48	19	M10	Short
ZT7740051-03	40	27	35	60	21	M12	Short
ZT7740051-03	40	32	50	78	24	M16	Short

Polygon shank taper CORUM

ER-Collet chuck



Figure: A = 130

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

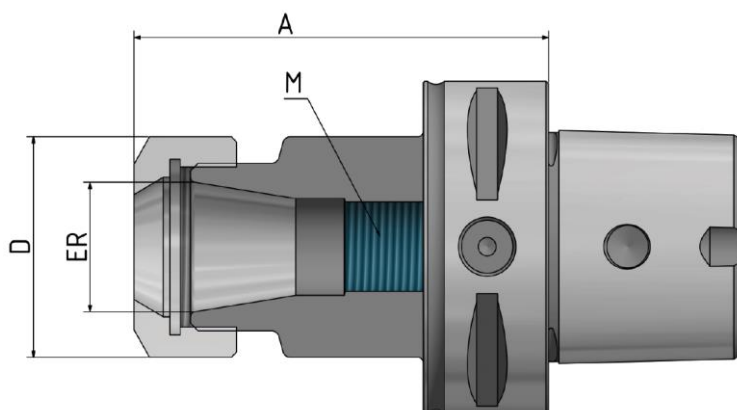
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



CORUM C4

Order no.	C	ER	A	D	Clamping range	M	Version
ZT304002-01	4	16	70	28	1 - 10	-	Short
ZT304002-02	4	25	55	42	1 - 16	-	Short
ZT304002-03	4	32	55	50	2 - 20	-	Short

CORUM C5

Order no.	C	ER	A	D	Clamping range	M	Version
ZT305002-01	5	16	55	28	1 - 10	-	Short
ZT305002-02	5	25	55	42	1 - 16	-	Short
ZT305002-03	5	32	60	50	2 - 20	-	Short

CORUM C6

Order no.	C	ER	A	D	Clamping range	M	Version
ZT306302-01	6	16	60	28	1 - 10	-	Short
ZT306302-02	6	25	60	42	1 - 16	-	Short
ZT306302-03	6	32	60	50	2 - 20	-	Short
ZT306302-04	6	40	65	63	4 - 26	-	Short
ZT306302-31	6	16	100	28	1 - 10	M11 x 1	Long
ZT306302-32	6	25	100	42	1 - 16	M18 x 1,5	Long
ZT306302-33	6	32	100	50	2 - 20	M24 x 1,5	Long
ZT306302-34	6	40	100	63	4 - 26	M28 x 1,5	Long
ZT306302-52	6	25	130	42	1 - 16	M18 x 1,5	Long
ZT306302-53	6	32	130	50	2 - 20	M24 x 1,5	Long
ZT306302-61	6	16	160	28	1 - 10	M11 x 1	Extra long
ZT306302-62	6	25	160	42	1 - 16	M18 x 1,5	Extra long
ZT306302-63	6	32	160	50	2 - 20	M24 x 1,5	Extra long

CORUM C8

Order no.	C	ER	A	D	Clamping range	M	Version
ZT308002-01	8	16	65	28	1 - 10	-	Short
ZT308002-02	8	25	70	42	1 - 16	-	Short
ZT308002-03	8	32	70	50	2 - 20	-	Short
ZT308002-04	8	40	70	63	4 - 26	-	Short

ER-Collet chuck «Mini»

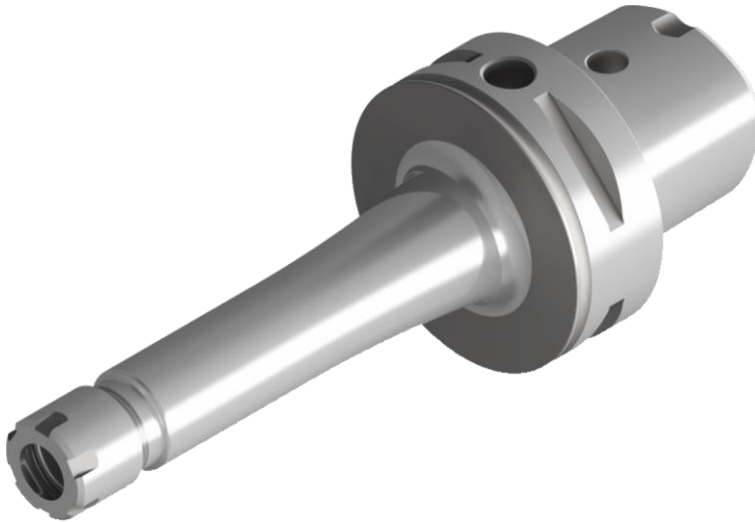


Figure: A = 100

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

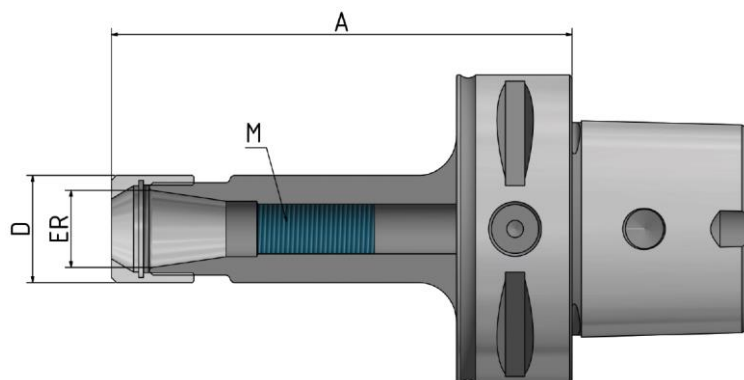
- Concentricity deviation of the taper to the inner taper ≤ 0.003 mm.
- Precisely matched taper tolerances of the ER inner taper and the collet taper achieve a concentricity of $\leq 8 \mu$ at $2.5 \times D$ unclamping length.

Scope of delivery:

- Clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm

**CORUM C6**

Order no.	C	ER	A	D	Clamping range	M	Version
ZT306302-21	6	11	100	16	1 - 7	M8 x 1	Long
ZT306302-22	6	16	100	22	1 - 10	M11 x 1	Long
ZT306302-23	6	11	160	16	1 - 7	M8 x 1	Extra Long
ZT306302-24	6	16	160	22	1 - 10	M11 x 1	Extra Long

HPC Precision ER Collet Chuck HAWK EYE®

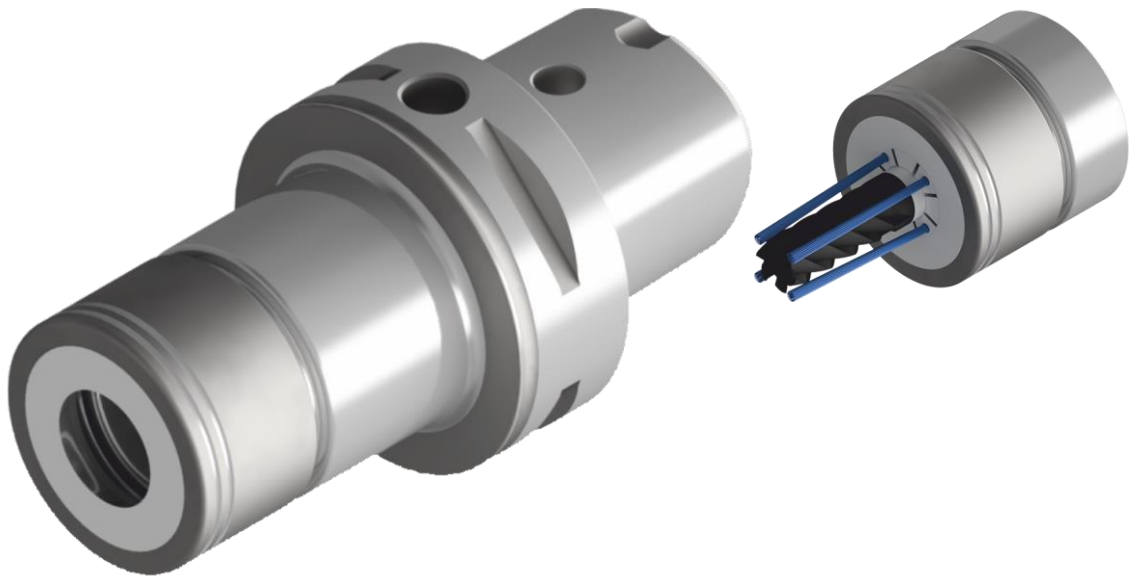


Figure: A = 100

Sealed Version

Usage:

For clamping tools with cylindrical shank in ER collets.

Type:

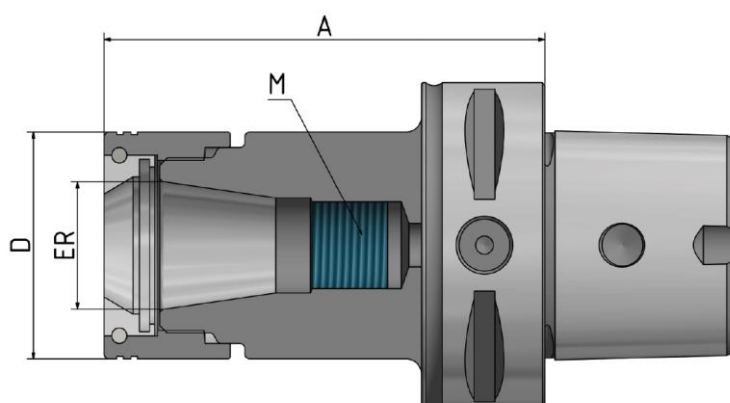
- Highly accurate taper tolerances of the ER inner taper and the collet taper achieve a runout accuracy of $\leq 3 \mu$ at 2.5 D chucking length - when using our 2μ collets. Due to the deep seat of the collet, the use of a ball bearing, and coated collet nut; the HAWK EYE collet chuck achieves more than twice the holding force compared to standard ER tool holders. In addition, the reinforced chuck body contributes to significantly higher radial rigidity. HAWK EYE can only clamp tool shanks with nominal collet diameter

Scope of delivery:

- Round clamping nut

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance $\leq 1 \text{ gmm}$

**CORUM C6**

Order no.	C	ER	A	D	Clamping range	M	Version
ZT306332-31	6	16	100	34	1 - 10	M11 x 1	Long
ZT306332-32	6	25	100	44	1 - 16	M18 x 1,5	Long
ZT306332-33	6	32	100	52	2 - 20	M24 x 1,5	Long

Endmill holder Weldon

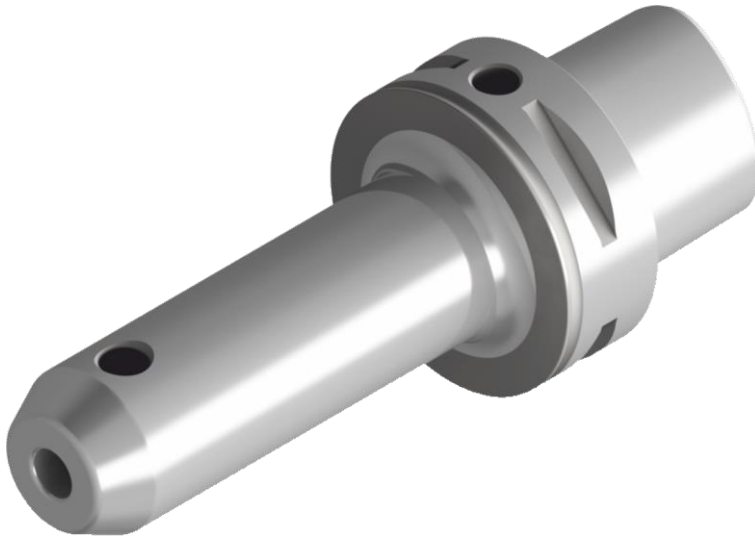


Figure: A = 100

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

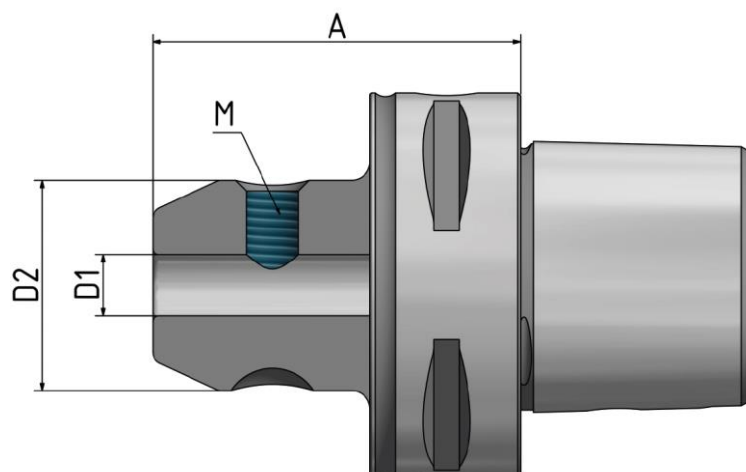
- Concentricity deviation of the taper to the D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm

**CORUM C4**

Order no.	C	D1	A	D2	M	Version
ZT304004-01	4	6	50	25	M6	Short
ZT304004-02	4	8	50	28	M8	Short
ZT304004-03	4	10	50	35	M10	Short
ZT304004-04	4	12	55	42	M12	Short
ZT304004-05	4	14	55	44	M12	Short
ZT304004-06	4	16	55	48	M14	Short

CORUM C5

Order no.	C	D1	A	D2	M	Version
ZT305004-01	5	6	50	25	M6	Short
ZT305004-02	5	8	50	28	M8	Short
ZT305004-03	5	10	55	35	M10	Short
ZT305004-04	5	12	60	42	M12	Short
ZT305004-05	5	14	60	44	M12	Short
ZT305004-06	5	16	60	48	M14	Short
ZT305004-07	5	18	60	50	M14	Short
ZT305004-08	5	20	60	52	M16	Short
ZT305004-09	5	25	80	65	M18 x 2	Short

CORUM C6

Order no.	C	D1	A	D2	M	Version
ZT306304-01	6	6	55	25	M6	Short
ZT306304-02	6	8	55	28	M8	Short
ZT306304-03	6	10	60	35	M10	Short
ZT306304-04	6	12	60	42	M12	Short
ZT306304-05	6	14	60	44	M12	Short
ZT306304-06	6	16	65	48	M14	Short
ZT306304-07	6	18	65	50	M14	Short
ZT306304-08	6	20	65	52	M16	Short
ZT306304-09	6	25	80	65	M18 x 2	Short
ZT306304-10	6	32	90	72	M20 x 2	Short
ZT306304-31	6	6	100	25	M6	Long
ZT306304-32	6	8	100	28	M8	Long
ZT306304-33	6	10	100	35	M10	Long
ZT306304-34	6	12	100	42	M12	Long
ZT306304-35	6	14	100	44	M12	Long
ZT306304-36	6	16	100	48	M14	Long
ZT306304-37	6	18	100	50	M14	Long
ZT306304-38	6	20	100	52	M16	Long
ZT306304-51	6	6	130	25	M6	Long
ZT306304-52	6	8	130	28	M8	Long
ZT306304-53	6	10	130	35	M10	Long
ZT306304-54	6	12	130	42	M12	Long
ZT306304-56	6	16	130	48	M14	Long
ZT306304-58	6	20	130	52	M16	Long

CORUM C8

Order no.	C	D1	A	D2	M	Version
ZT308004-01	8	6	70	25	M6	Short
ZT308004-02	8	8	70	28	M8	Short
ZT308004-03	8	10	70	35	M10	Short
ZT308004-04	8	12	70	42	M12	Short
ZT308004-05	8	14	70	44	M12	Short
ZT308004-06	8	16	70	48	M14	Short
ZT308004-07	8	18	70	50	M14	Short
ZT308004-08	8	20	70	52	M16	Short
ZT308004-09	8	25	80	65	M18 x 2	Short
ZT308004-10	8	32	80	72	M20 x 2	Short

Endmill holder Weldon «Cool Tool»

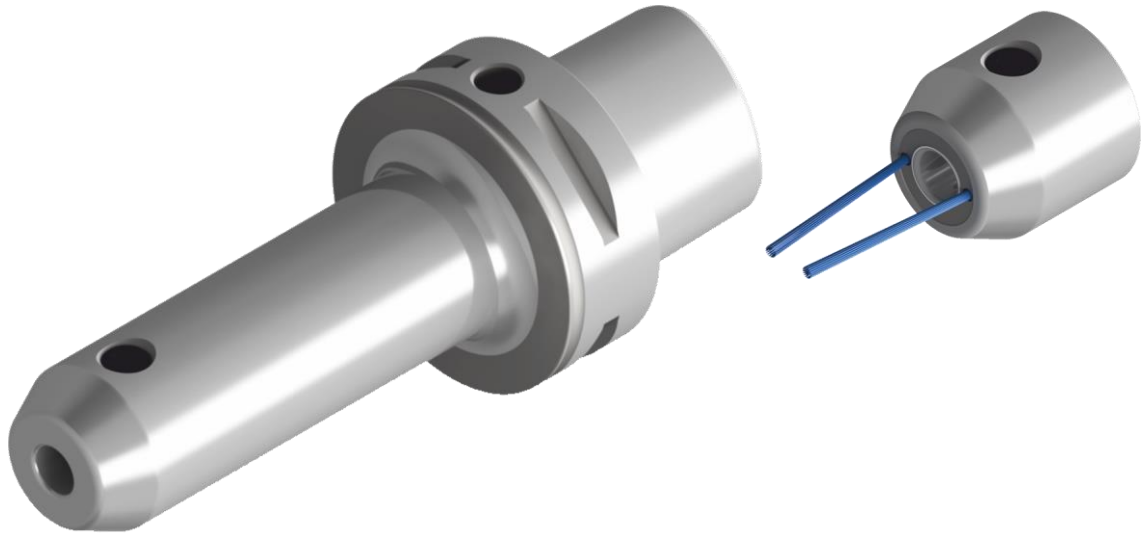


Figure: A = 100

Sealed Version

Usage:

Ideally suited for use with tools that do not have an internal coolant supply and for machining in awkward locations with poor chip evacuation.

Type:

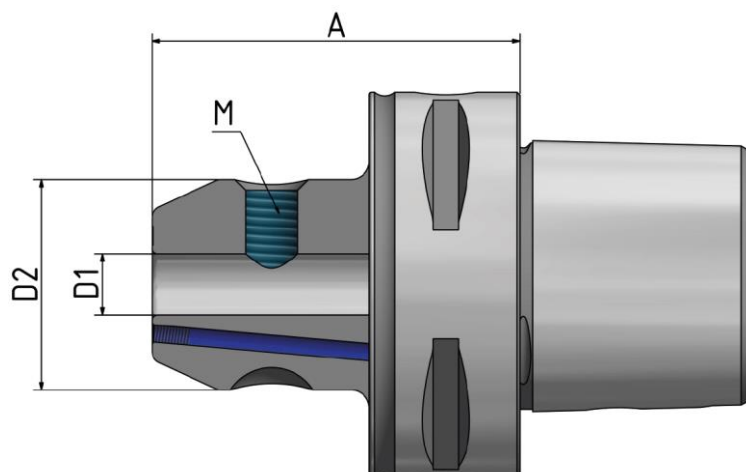
- Two holes in the wall of the Weldon holder direct the coolant to the cutting edge of the tool.
- Concentricity deviation of the taper to the D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- 2 x M3 screws to close the «Cool Tool» holes if required

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



CORUM C6

Order no.	C	D1	A	D2	M	Version
ZT3063041-01	6	6	55	25	M6	Short
ZT3063041-02	6	8	55	28	M8	Short
ZT3063041-03	6	10	60	35	M10	Short
ZT3063041-04	6	12	60	42	M12	Short
ZT3063041-05	6	14	60	44	M12	Short
ZT3063041-06	6	16	65	48	M14	Short
ZT3063041-07	6	18	65	50	M14	Short
ZT3063041-08	6	20	65	52	M16	Short
ZT3063041-09	6	25	80	65	M18 x 2	Short
ZT3063041-10	6	32	90	72	M20 x 2	Short
ZT3063041-31	6	6	100	25	M6	Long
ZT3063041-32	6	8	100	28	M8	Long
ZT3063041-33	6	10	100	35	M10	Long
ZT3063041-34	6	12	100	42	M12	Long
ZT3063041-36	6	16	100	48	M14	Long
ZT3063041-38	6	20	100	52	M16	Long

Endmill holder Whistle-Notch



Figure: A = 63

Usage:

For clamping tools with cylindrical shank according to DIN 1835B / 6359HB.

Type:

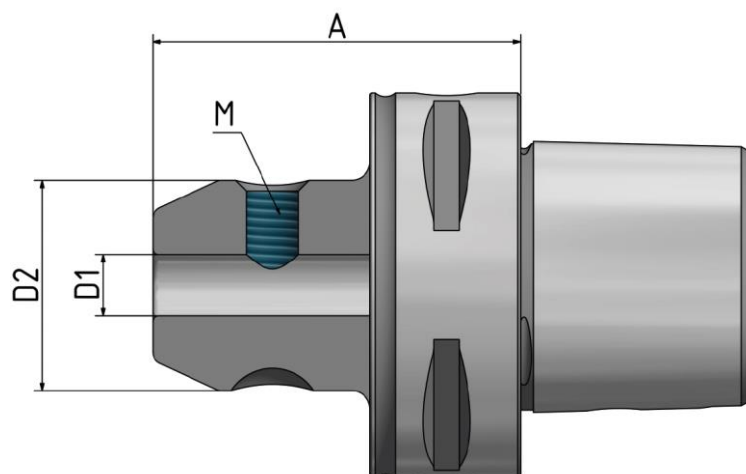
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- Bore tolerance H4 (more accurate than DIN).

Scope of delivery:

- Clamping screw
- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm


CORUM C6

Order no.	C	D	A	D2	L	M1	M2	Version
ZT306309-01	6	6	75	25	36,5	M6	M5	Short
ZT306309-02	6	8	75	28	36,5	M8	M6	Short
ZT306309-03	6	10	75	35	40,5	M10	M8	Short
ZT306309-04	6	12	80	42	45,5	M12	M10	Short
ZT306309-05	6	14	80	44	45,5	M12	M10	Short
ZT306309-06	6	16	80	49	48,5	M14	M12	Short
ZT306309-07	6	18	80	50	48,5	M14	M12	Short
ZT306309-08	6	20	85	52	50,5	M16	M16	Short
ZT306309-09	6	25	90	65	56,5	M18 x 2	M20	Short
ZT306309-10	6	32	95	72	60,5	M20 x 2	M20	Short

Shrink fit holder 4.5°



Figure: A = 100

Usage:

For clamping tools with cylindrical shank made of carbide or HSS. The shank tolerance is h6.

Type:

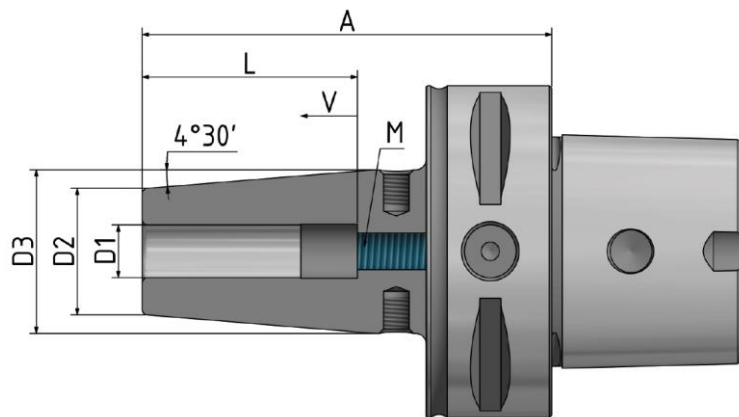
- Made of special heat-resistant steel.
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the taper to D1 ≤ 0.003 mm.
- With four additional threads on the circumference for subsequent fine balancing.

Scope of delivery:

- Built-in length adjustment screw

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



CORUM C4

Order no.	C	D1	A	D2	D3	L	V	M	Version
ZT304021-01	4	6	75	21	27	36	10	M5	Short
ZT304021-02	4	8	75	21	27	36	10	M6	Short
ZT304021-03	4	10	75	24	32	42	10	M8x1	Short
ZT304021-04	4	12	75	24	32	47	10	M10 x 1	Short
ZT304021-05	4	14	80	27	34	47	10	M10 x 1	Short
ZT304021-06	4	16	80	27	34	50	10	M12 x 1	Short
ZT304021-07	4	18	80	33	42	50	10	M12 x 1	Short
ZT304021-08	4	20	85	33	42	52	10	M16 x 1	Short

CORUM C5

Order no.	C	D1	A	D2	D3	L	V	M	Version
ZT305021-01	5	6	75	21	27	36	10	M5	Short
ZT305021-02	5	8	75	21	27	36	10	M6	Short
ZT305021-03	5	10	75	24	32	42	10	M8 x 1	Short
ZT305021-04	5	12	75	24	32	47	10	M10 x 1	Short
ZT305021-05	5	14	80	27	34	47	10	M10 x 1	Short
ZT305021-06	5	16	80	27	34	50	10	M12 x 1	Short
ZT305021-07	5	18	80	33	42	50	10	M12 x 1	Short
ZT305021-08	5	20	85	33	42	52	10	M16 x 1	Short
ZT305021-09	5	25	90	44	53	58	10	M16 x 1	Short

CORUM C6

Order no.	C	D1	A	D2	D3	L	V	M	Version
ZT306321-13	6	3	80	12	17	-	-	-	Short
ZT306321-14	6	4	80	12	17	-	-	-	Short
ZT306321-15	6	5	80	12	17	-	-	-	Short
ZT306321-01	6	6	80	21	27	36	10	M5	Short
ZT306321-02	6	8	80	21	27	36	10	M6	Short
ZT306321-03	6	10	80	24	32	42	10	M8 x 1	Short
ZT306321-04	6	12	80	24	32	47	10	M10 x 1	Short
ZT306321-05	6	14	85	27	34	47	10	M10 x 1	Short
ZT306321-06	6	16	85	27	34	50	10	M12 x 1	Short
ZT306321-07	6	18	85	33	42	50	10	M12 x 1	Short
ZT306321-08	6	20	85	33	42	52	10	M16 x 1	Short
ZT306321-09	6	25	90	44	52	58	10	M16 x 1	Short
ZT306321-10	6	32	95	44	53	62	10	M16 x 1	Short
ZT306321-31	6	6	120	21	27	36	10	M5	Long
ZT306321-32	6	8	120	21	27	36	10	M6	Long
ZT306321-33	6	10	120	24	32	42	10	M8 x 1	Long
ZT306321-34	6	12	120	24	32	47	10	M10 x 1	Long
ZT306321-35	6	14	120	27	34	47	10	M10 x 1	Long
ZT306321-36	6	16	120	27	34	50	10	M12 x 1	Long
ZT306321-37	6	18	120	33	42	50	10	M12 x 1	Long
ZT306321-38	6	20	120	33	42	52	10	M16 x 1	Long
ZT306321-39	6	25	120	44	53	58	10	M16 x 1	Long
ZT306321-40	6	32	120	44	53	58	10	M16 x 1	Long
ZT306321-61	6	6	160	21	27	36	10	M5	Extra long
ZT306321-62	6	8	160	21	27	36	10	M6	Extra long
ZT306321-63	6	10	160	24	32	42	10	M8 x 1	Extra long
ZT306321-64	6	12	160	24	32	47	10	M10x 1	Extra long
ZT306321-65	6	14	160	27	34	47	10	M10 x 1	Extra long
ZT306321-66	6	16	160	27	34	50	10	M12 x 1	Extra long
ZT306321-67	6	18	160	42	44	50	10	M12 x 1	Extra long
ZT306321-68	6	20	160	42	44	52	10	M16 x 1	Extra long
ZT306321-69	6	25	160	44	53	58	10	M16 x 1	Extra long
ZT306321-70	6	32	160	44	53	58	10	M16 x 1	Extra long

CORUM C6 «Cool Tool» version

Order no.	C	D1	A	D2	D3	L	V	M	Version
ZT306321-019	6	6	80	21	27	36	10	M5	Short
ZT306321-029	6	8	80	21	27	36	10	M6	Short
ZT306321-039	6	10	80	24	32	42	10	M8x1	Short
ZT306321-049	6	12	80	24	32	47	10	M10 x 1	Short
ZT306321-059	6	14	85	27	34	47	10	M10 x 1	Short
ZT306321-069	6	16	85	27	34	50	10	M12 x 1	Short
ZT306321-079	6	18	85	33	42	50	10	M12 x 1	Short
ZT306321-089	6	20	85	33	42	52	10	M16 x 1	Short
ZT306321-319	6	6	120	21	27	36	10	M5	Long
ZT306321-329	6	8	120	21	27	36	10	M6	Long
ZT306321-339	6	10	120	24	32	42	10	M8 x 1	Long
ZT306321-349	6	12	120	24	32	47	10	M10 x 1	Long
ZT306321-369	6	16	120	27	34	50	10	M12 x 1	Long
ZT306321-389	6	20	120	33	42	52	10	M16 x 1	Long

CORUM C8

Order no.	C	D1	A	D2	D3	L	V	M	Version
ZT308021-01	8	6	80	21	27	36	10	M5	Short
ZT308021-02	8	8	80	21	27	36	10	M6	Short
ZT308021-03	8	10	80	24	32	42	10	M8x1	Short
ZT308021-04	8	12	80	24	32	47	10	M10 x 1	Short
ZT308021-05	8	14	85	27	34	47	10	M10 x 1	Short
ZT308021-06	8	16	85	27	34	50	10	M12 x 1	Short
ZT308021-07	8	18	85	42	44	50	10	M12 x 1	Short
ZT308021-08	8	20	85	42	44	52	10	M16 x 1	Short
ZT308021-09	8	25	90	44	53	58	10	M16 x 1	Short
ZT308021-10	8	32	95	44	53	58	10	M16 x 1	Short

Shell mill holder «Cool Tool»

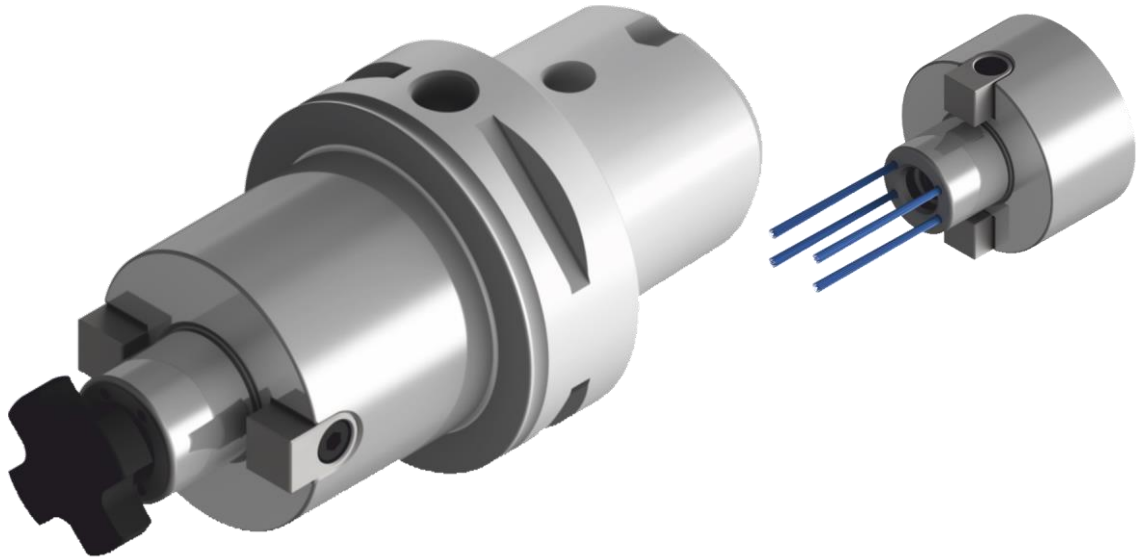


Figure: A = 40

Sealed Version

Usage:

To accommodate milling cutters with transverse slot, with coolant supply to the cutting edges.

Type:

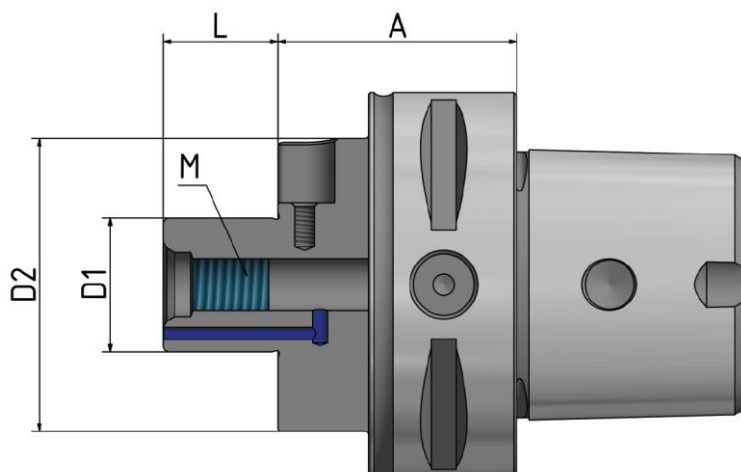
- Enlarged investment area.
- Concentricity deviation of the taper to D1 ≤ 0.006 mm.

Scope of delivery:

- Clamping screw
- Fixed driver keys

Fine balanced:

G 2.5 at 25000 min^{-1} or max. residual unbalance ≤ 1 gmm



CORUM C4

Order no.	C	D1	A	D2	L	M	Version
ZT304005-21	4	16	32	38	17	M8	Short
ZT304005-22	4	22	25	48	19	M10	Short

CORUM C5

Order no.	C	D1	A	D2	L	M	Version
ZT305005-21	5	16	35	38	17	M8	Short
ZT305005-22	5	22	25	48	19	M10	Short
ZT305005-23	5	27	25	60	21	M12	Short
ZT305005-24	5	32	40	63	24	M16	Short

CORUM C6

Order no.	C	D1	A	D2	L	M	Version
ZT306305-21	6	16	40	38	17	M8	Short
ZT306305-22	6	22	25	48	19	M10	Short
ZT306305-23	6	27	25	60	21	M12	Short
ZT306305-24	6	32	25	63	24	M16	Short
ZT306305-211	6	16	65	38	17	M8	Short
ZT306305-221	6	22	65	48	19	M10	Short
ZT306305-231	6	27	65	60	21	M12	Short
ZT306305-241	6	32	65	63	24	M16	Short

CORUM C8

Order no.	C	D1	A	D2	L	M	Version
ZT308005-21	8	16	50	38	17	M8	Short
ZT308005-22	8	22	50	48	19	M10	Short
ZT308005-23	8	27	50	60	21	M12	Short
ZT308005-24	8	32	60	63	24	M16	Short
ZT308005-25	8	40	60	89	27	M20	Short

ZOLLER marking solution »idChip«



Usage:

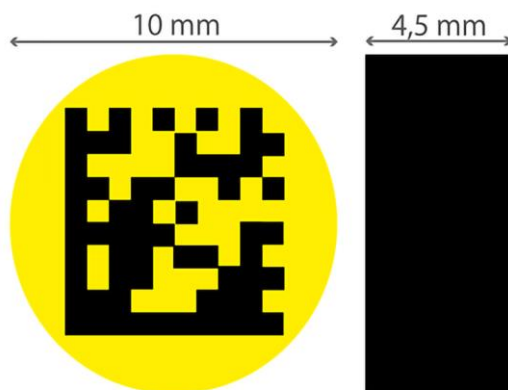
- For identifying a tool by reading the DataMatrix code via scanner. The inventory number on the chip can be assigned to a tool in the »pilot« image processing software or ZOLLER TMS Tool Management Solutions.

Type:

- UV-resistant
- High abrasion resistance
- Resistance to oil lubricants and emulsion-based lubricants

Scope of delivery:

- »idChip« in ZOLLER standard format (number of pieces freely selectable)

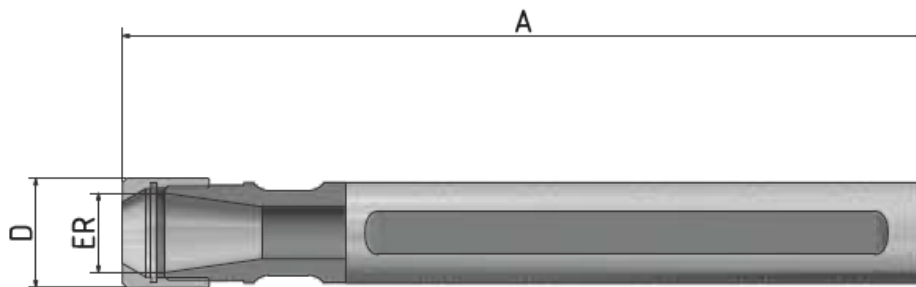


Order no.

WZV1000-030

Collet extensions

Collet chuck extensions «Mini»



Usage:

For the extension of tool holders. The cylindrical shank can be clamped in Weldon chuck or collet chuck.

Type:

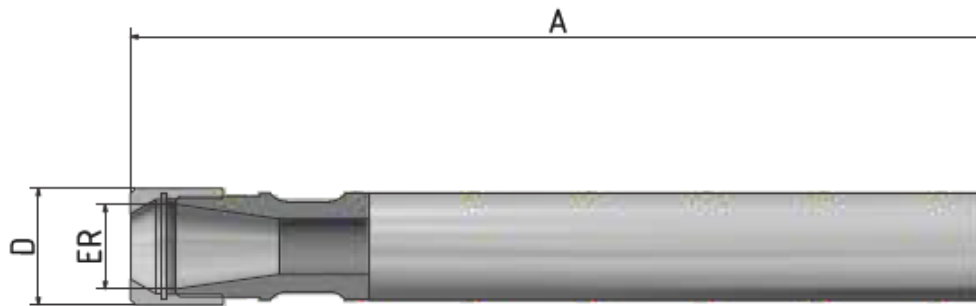
- Concentricity deviation of the inner taper to the shank $D \leq 0.005 \text{ mm}$.

Scope of delivery:

- Clamping nut

Order no.	ER	D	A
ZT119-49	11	16	169
ZT119-50	16	20	163
ZT119-51	20	25	164

Collet extensions «Mini» - without clamping surface (cylindrical)



Usage:

For the extension of tool holders.

Type:

- Concentricity deviation of the inner taper to the shank $D \leq 0.005 \text{ mm}$.

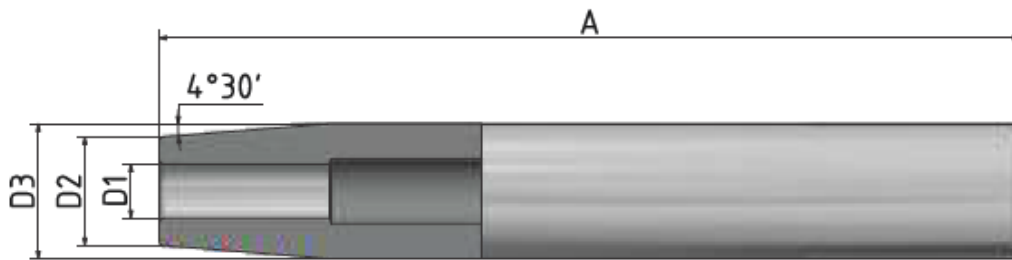
Scope of delivery:

- Clamping nut

Order no.	ER	D	A
ZT119-69	11	16	169
ZT119-70	16	20	163
ZT119-71	20	25	164

Shrink fit extensions

Shrink fit extensions without length adjustment screw

**Usage:**

For the extension of tool holders. The cylindrical shank can be clamped in the shrink fit chuck or collet chuck.

Type:

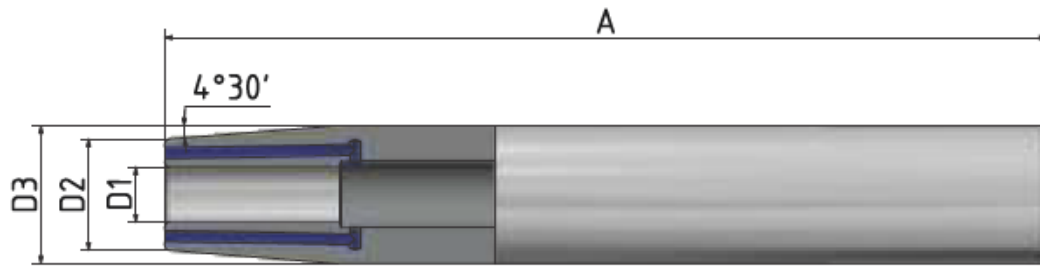
- Made of special, heat-resistant steel-
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the inner taper to the shank $D \leq 0.005 \text{ mm}$.

Scope of delivery:

- Clamping nut

Order no.	D3	D1	D2	A
ZT2112-13	12	3	8	160
ZT2112-14	12	4	8	160
ZT2116-13	16	3	10	160
ZT2116-14	16	4	10	160
ZT2116-15	16	5	10	160
ZT2116-01	16	6	10	160
ZT2116-02	16	8	14	160
ZT2120-15	20	5	14	160
ZT2120-01	20	6	14	160
ZT2120-02	20	8	14	160
ZT2125-02	25	8	19	160
ZT2125-03	25	10	20	160
ZT2125-04	25	12	20	160
ZT2125-05	25	14	20	160
ZT2125-06	25	16	22	160
ZT2132-03	32	10	24	160
ZT2132-04	32	12	24	160
ZT2132-05	32	14	27	160
ZT2132-06	32	16	27	160
ZT2132-07	32	18	27	160
ZT2132-08	32	20	27	160
Order no.	D3	D1	D2	A
ZT2112-313	12	3	8	210
ZT2112-314	12	4	8	210
ZT2116-313	16	3	10	210
ZT2116-314	16	4	10	210
ZT2116-31	16	6	10	210
ZT2120-31	20	6	14	210
ZT2120-32	20	8	14	210
ZT2120-61	20	6	14	300
ZT2120-62	20	8	14	300
ZT2125-62	25	8	19	300
ZT2125-63	25	10	20	300
ZT2125-64	25	12	20	300
ZT2125-65	25	14	20	300
ZT2125-66	25	16	22	300
ZT2132-63	32	10	24	300
ZT2132-64	32	12	24	300
ZT2132-65	32	14	27	300
ZT2132-66	32	16	27	300
ZT2132-68	32	20	27	300

Shrink fit extensions «Cool Tool» without length adjustment screw



Usage:

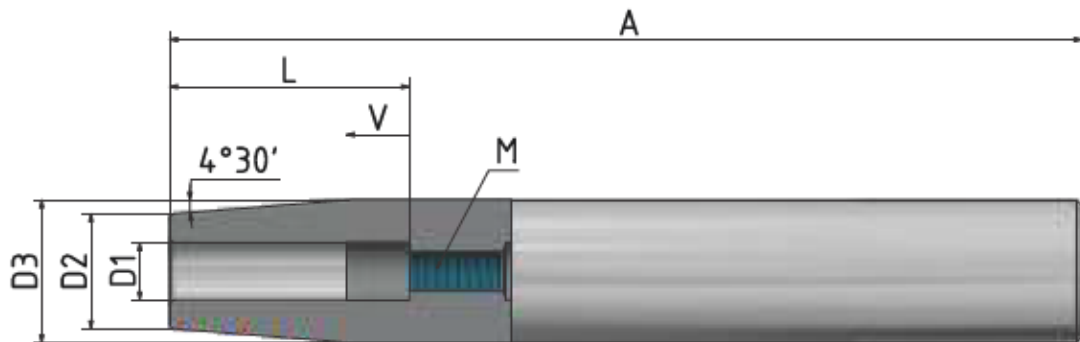
For the extension of tool holders. The cylindrical shank can be clamped in the shrink fit chuck or collet chuck.

Type:

- Made of special, heat-resistant steel-
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the inner taper to the shank $D \leq 0.005 \text{ mm}$.

Order no.	D3	D1	D2	A
ZT2120-019	20	6	14	160
ZT2125-029	25	8	19	160
ZT2125-039	25	10	20	160
ZT2132-039	32	10	24	160
ZT2132-049	32	12	24	160
ZT2132-059	32	14	27	160
ZT2132-069	32	16	27	160

Shrink fit extensions with length adjustment screw



Usage:

For the extension of tool holders. The cylindrical shank can be clamped in the shrink fit chuck or collet chuck.

Type:

- Made of special, heat-resistant steel-
- Suitable for inductive shrink fit devices.
- Concentricity deviation of the inner taper to the shank $D \leq 0.003$ mm.

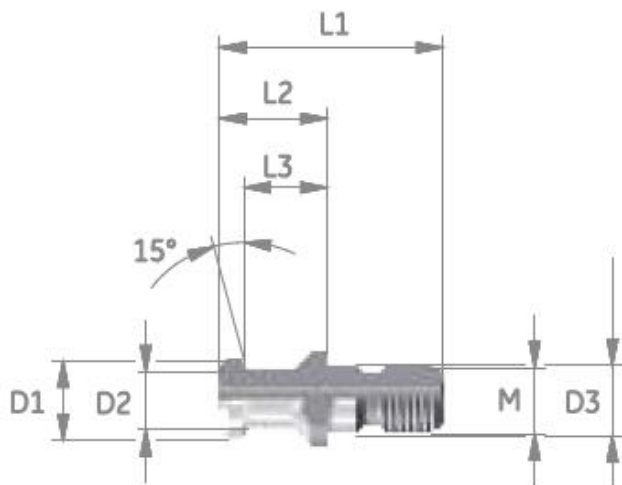
Scope of delivery:

- Length adjustment screw

Order no.	D3	D1	D2	A	V	L	M
ZT211621-01	16	6	10	160	10	37	M5
ZT212021-01	20	6	14	160	10	37	M5
ZT212021-02	20	8	14	160	10	37	M6
ZT212521-02	25	8	19	160	10	37	M6
ZT212521-03	25	10	20	160	10	42	M8 x 1
ZT212521-04	25	12	20	160	10	48	M10 x 1
ZT212521-05	25	14	20	160	10	48	M10 x 1
ZT212521-06	25	16	22	160	10	51	M12 x 1
ZT213221-03	32	10	24	160	10	42	M8 x 1
ZT213221-04	32	12	24	160	10	48	M10 x 1
ZT213221-05	32	14	27	160	10	48	M10 x 1
ZT213221-06	32	16	27	160	10	51	M12 x 1
ZT213221-07	32	18	27	160	10	51	M12 x 1
ZT213221-08	32	20	27	160	10	53	M16 x 1

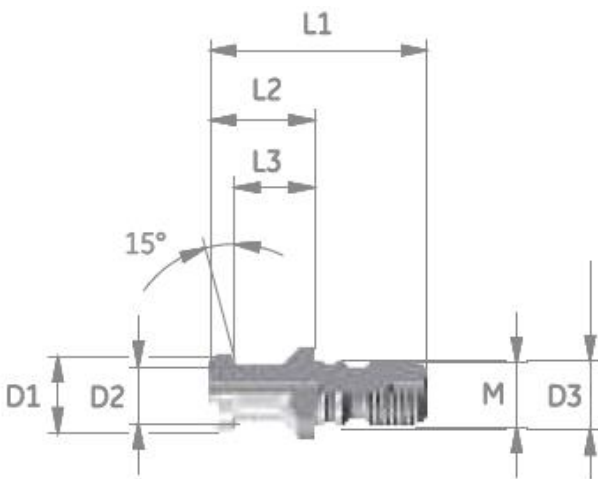
Pull Stud

Pull stud DIN 69872 form A, with through hole



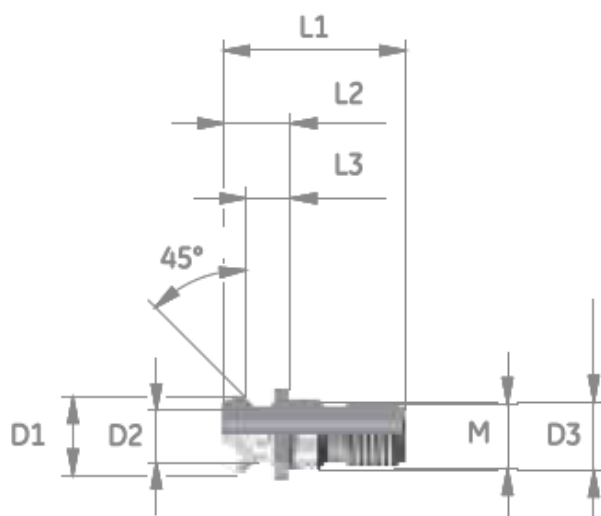
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7124-01	40	19	14	17	54	26	20	M16
ZT7124-21	50	28	21	25	74	34	25	M24

Pull Stud DIN 69872 form B, without through hole, with O-ring on the collar



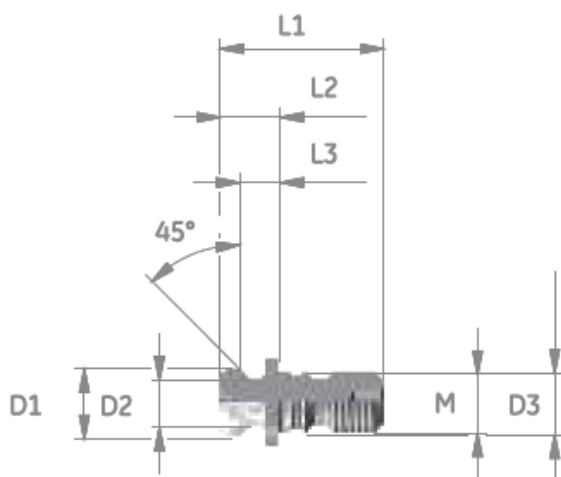
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7124-01B	40	19	14	17	54	26	20	M16
ZT7124-21B	50	28	21	25	74	34	25	M24

Pull Stud ISO 7388 B with through hole



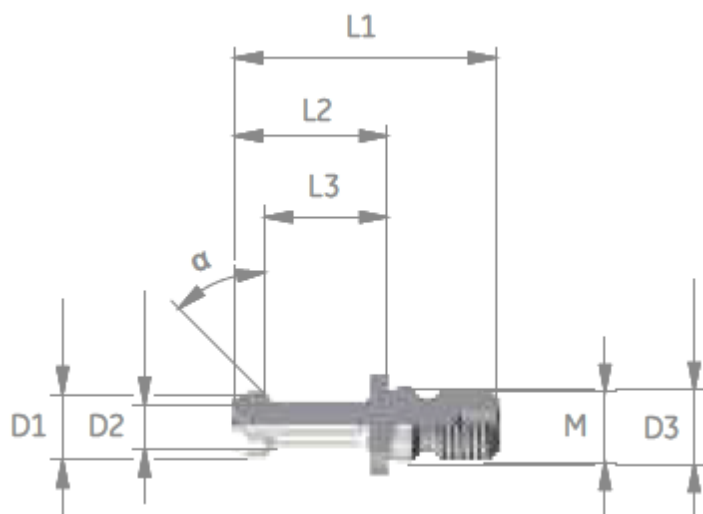
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7425-11	40	18,95	12,95	17	44,5	16,4	11,5	M16
ZT7425-31	50	29,1	19,6	25	65,5	25,55	17,95	M24

Pull Stud ISO 7388 B, without through hole, with O-ring on collar



Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7425-11B	40	18,95	12,95	17	44,5	16,4	11,5	M16
ZT7425-31B	50	29,1	19,6	25	65,5	25,55	17,95	M24

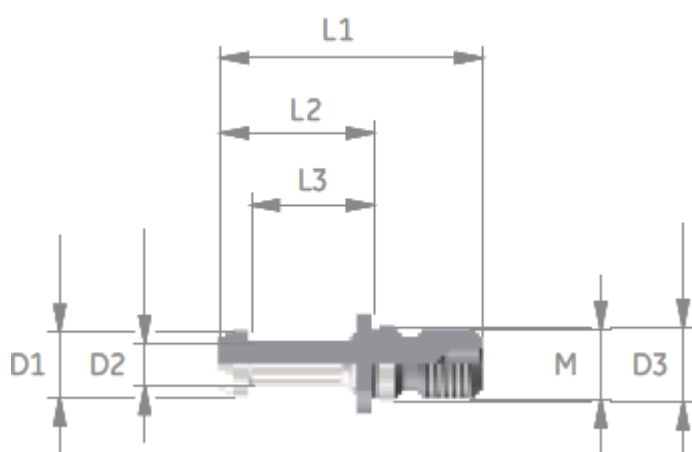
Pull Stud MAS 403 30° and 45°



Order no.	BT	Degree	D1	D2	D3	L1	L2	L3	M
ZT7525-51	30	30	11	7	12,5	43	23	18	M12
ZT7524-11	40	45	15	10	17	60	35	28	M16
ZT7524-011 ¹⁾	40	45	15	10	17	57,2	32,2	25,2	M16
ZT7525-11	40	30	15	10	17	60	35	28	M16
ZT7524-31	50	45	23	17	25	85	45	35	M24
ZT7525-31	50	30	23	17	25	85	45	35	M24

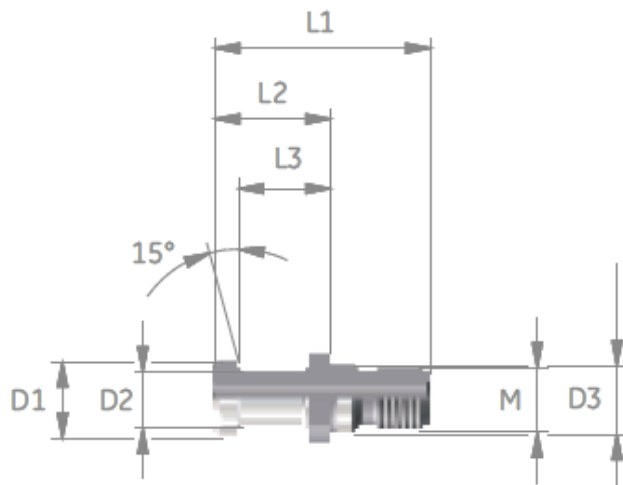
1) BT 40 45° 3 mm shortened

Pull Stud Mori-Seiki MAS 90°



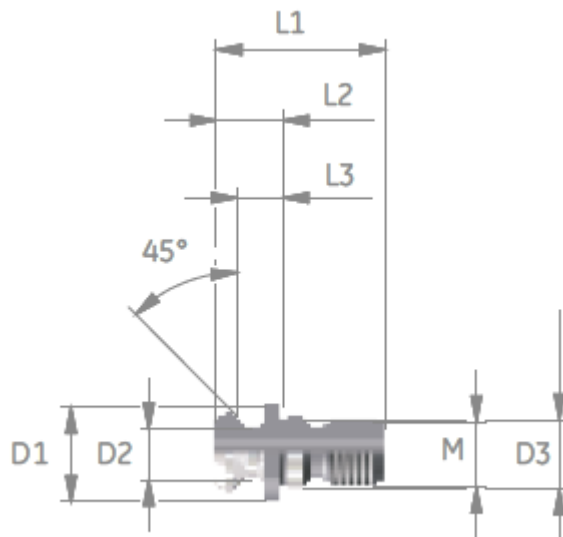
Order no.	BT	D1	D2	D3	L1	L2	L3	M
ZT7526-11	40	15	10	17	60	35	28	M16
ZT7526-31	50	23	17	25	85	45	35	M24

Pull Stud JIS B 6339 with through hole



Order no.	BT	D1	D2	D3	L1	L2	L3	M
ZT7528-11	40	19	14	17	54	29	23	M16
ZT7528-31	50	28	21	25	74	34	25	M24

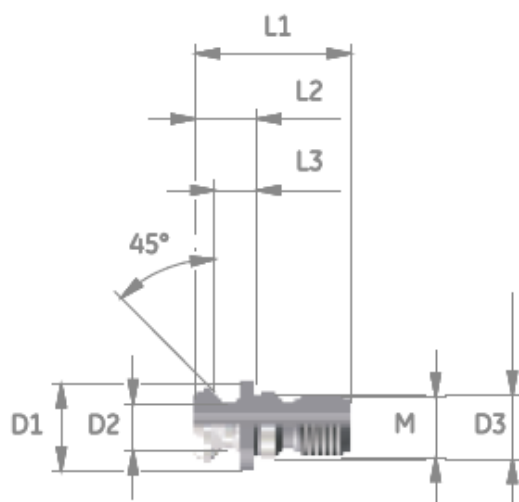
Pull Stud ANSI-CAT 40 (Mazak) with through hole and sealing on front side



Order no.	BT	D1	D2	D3	L1	L2	L3	M
ZT7424-62	40	18,796	12,446	17	41,3	16,3	11,2	M16
ZT7424-611 ¹⁾	40	18,796	12,446	17	44,5	19,3	14,03	M16

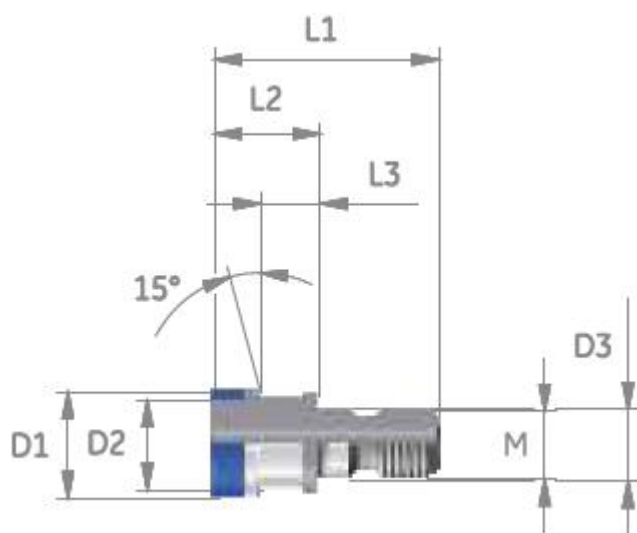
1) 3 mm extended

Pull stud ANSI-CAT 50 (Mazak) with through hole and recess for O-ring



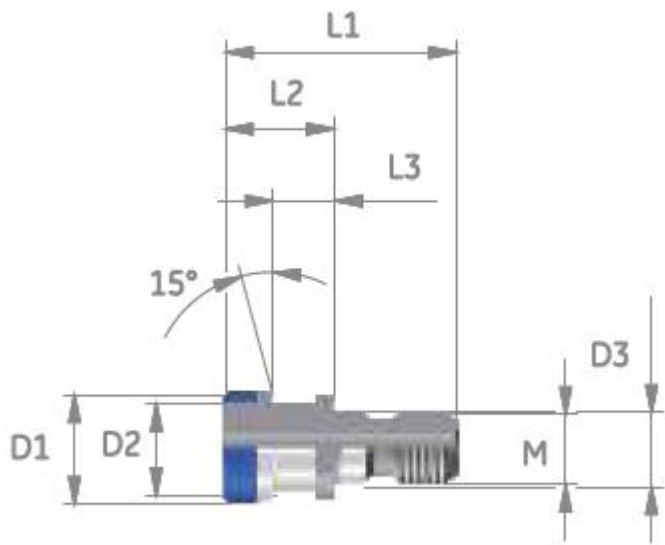
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7424-31	50	28,95	20,82	25	65,4	25,4	17,78	M24

Pull Stud Ott ring groove with through hole



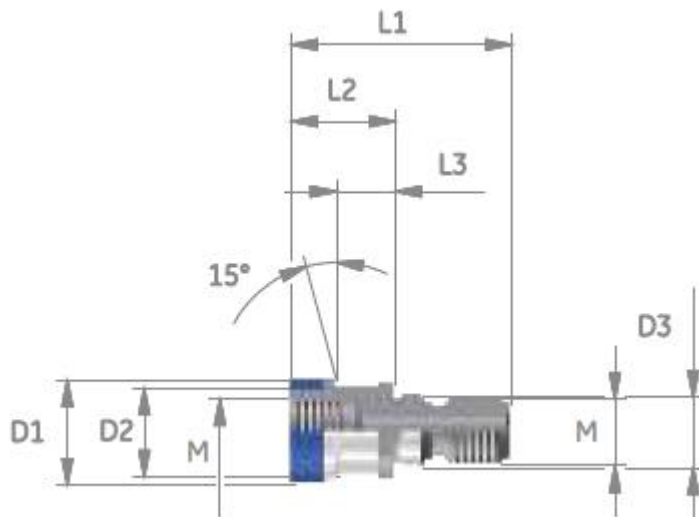
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7125-41	40	25	21,1	17	53	25	13,6	M16
ZT7124-42	50	39,3	32	25	65	25	13,35	M24

Pull Stud Ott ring groove without through hole, sealed



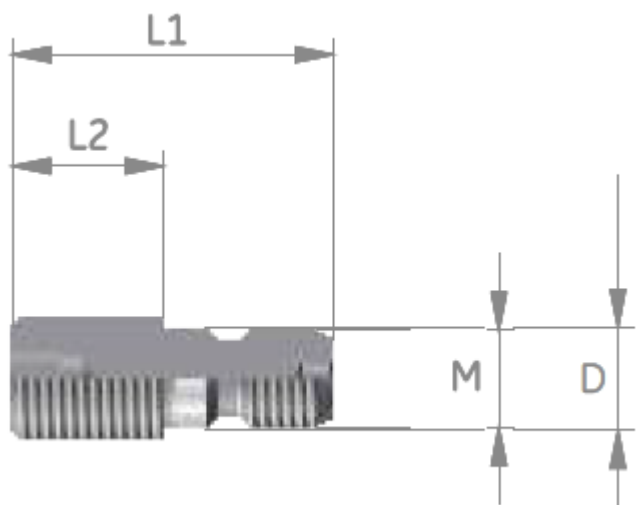
Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7125-46	40	25	21,1	17	53	25	13,6	M16
ZT7124-47	50	39,3	32	25	65	25	13,35	M24

Pull Stud Ott ring groove with internal thread



Order no.	SK	D1	D2	D3	L1	L2	L3	M
ZT7125-11	40	25	21,1	17	53	25	13,6	M16
ZT7124-12	50	39,3	32	25	65	25	13,35	M24

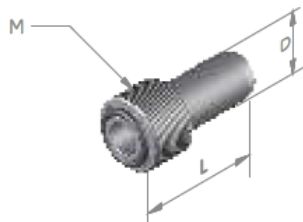
Pull Stud with saw thread S20X2



Order no.	SK	D	L1	L2	M
ZT7428-01	40	17	41,3	16,3	M16

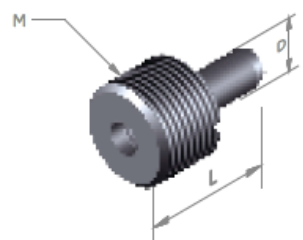
Accessories

HSK coolant pipe



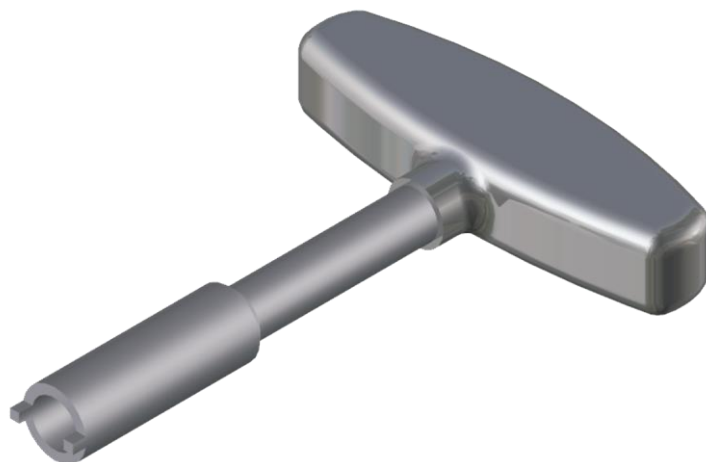
Order no.	HSK	D	L	M
ZT603224	32	6	26	M10 x 1
ZT604024	40	8	29	M12 x 1
ZT605024	50	10	33	M16 x 1
ZT606324	63	12	36,5	M18 x 1
ZT608024	80	14	39,5	M20 x 1,5
ZT610024	100	16	43,5	M24 x 1,5

PSC coolant tube CORUM



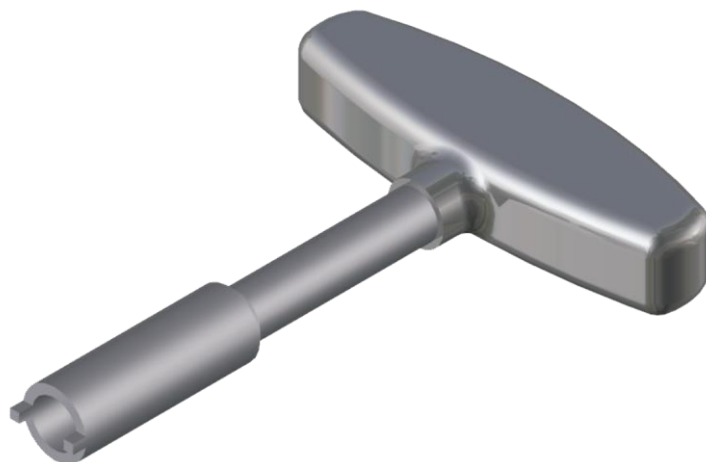
Order no.	C	D	L	M
ZT304024	4	6	25,2	M14 x 1,5
ZT305024	5	7	28,3	M16 x 1,5
ZT306024	6	8	31,0	M20 x 2
ZT308024	8	10	31,5	M20 x 2

Assembly wrench for HSK coolant pipe



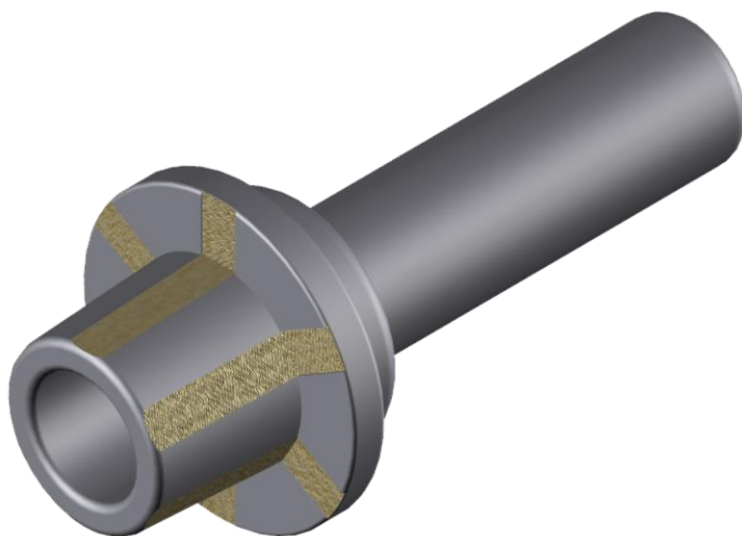
Order no.	HSK
ZT603225	32
ZT604025	40
ZT605025	50
ZT606325	63
ZT608025	80
ZT610025	100

Assembly wrench for coolant pipe CORUM



Order no.	C
ZT304025	4
ZT305025	5
ZT306025	6
ZT308025	8

Cone wiper



Order no.	HSK
ZT228032	32
ZT228040	40
ZT228050	50
ZT228063	63
ZT228080	80
ZT228100	100

Collets ER, 5 μ repeat accuracy

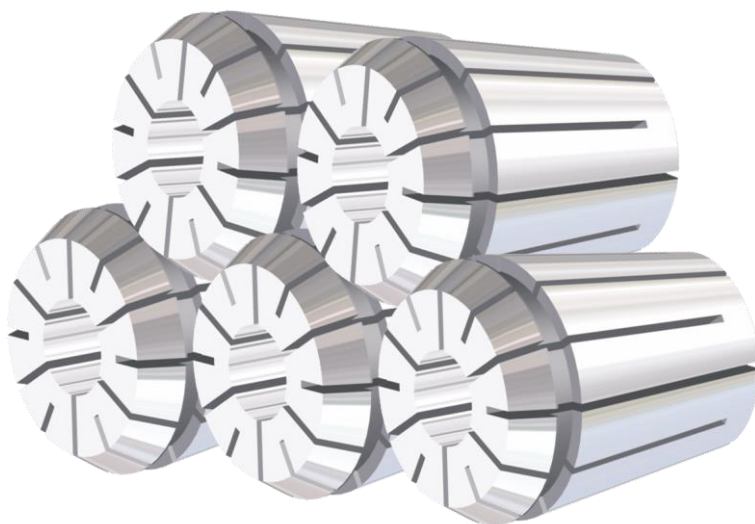


- High precision design with 5 μ concentricity and repeatability!
- All longitudinal edges deburred and additionally rounded. This protects the inner taper of the chuck and ensures consistently high concentricity!
- Increased holding forces and stiffness due to super finish!

Order no. ¹⁾	ER	Diameter	rising
ZT124-0xxx	11	1,0 - 7,0	0,5
ZT124-1xxx	16	1,0 - 10,0	0,5
ZT124-xxx2	20	1,0 - 13,0	0,5
ZT124-3xxx	25	1,0 - 16,0 17,0	0,5 1
ZT124-4xxx	32	2,0 - 21,0 22,0	0,5 1
ZT124-5xxx	40	3,0 - 26,0 27,0 - 30,0	0,5 1

1) Please add the respective diameter of the collet to the order no., e.g. ER 16 with $\varnothing$ 2.5 = 124-1025.

Collet set ER, 5 µ repeat accuracy



Order no. ¹⁾	ER	Diameter	rising	Piece/Set
ZT124-0S	11	1,0 - 7,0	0,5	13
ZT124-1S	16	1,0 - 10,0	1	10
ZT124-2S	20	2,0 - 13,0	1	12
ZT124-3S	25	2,0 - 16,0	1	15
ZT124-4S	32	3,0 - 20,0	1	18
ZT124-5S	40	4,0 - 26,0	1	23

1) Please add the respective diameter of the collet to the order no., e.g. ER 16 with Ø 2.5 = 124-1025.

ER-Collets, repeatable accuracy 2μ

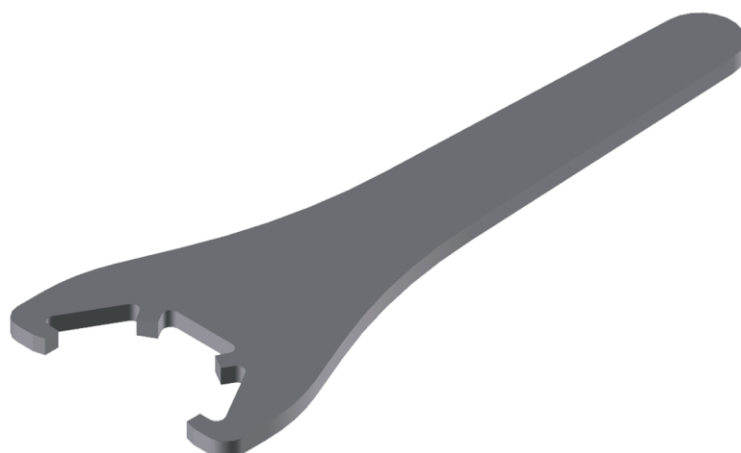


- High precision design with 2 μ concentricity and repeatability!
- All longitudinal edges deburred and additionally rounded. This protects the inner taper of the chuck and ensures consistently high concentricity!
- Increased holding forces and stiffness due to super finish!

Order no. ¹⁾	ER	Diameter	rising
ZT131-0xxx	11	1,0 - 6,0	1
ZT131-1xxx	16	1,0 - 6,0	1
		8,0 + 10,0	1
ZT131-3xxx	25	1,0 - 6,0	1
		8,0 + 10,0	1
		12,0 + 14,0 + 16,0	1
ZT131-4xxx	32	2,0 - 6,0	1
		8,0 + 10,0	1
		12,0 + 14,0	1
		16,0 + 18,0	1
		20,0	1

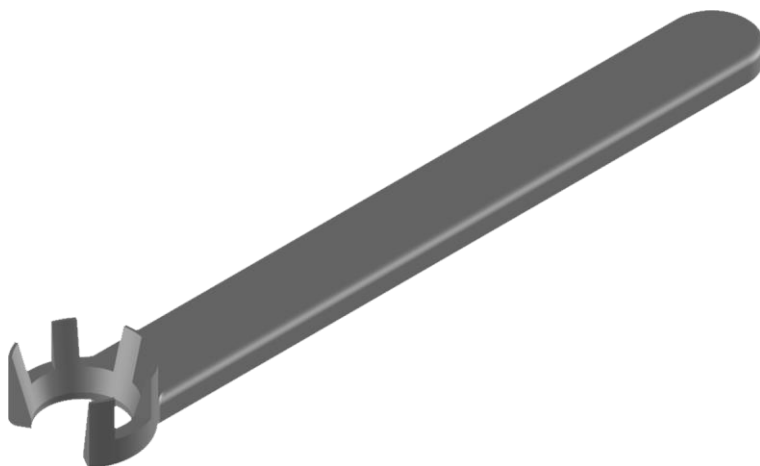
1) Please add the respective diameter of the collet to the order no., e.g. ER 16 with Ø 6.0 = 131-106.

ER-Clamping wrench



Order no.	ER	SW
ZT162-02	11	17
ZT162-03	16	25
ZT162-04	20	30
ZT162-05	25	-
ZT162-06	32	-
ZT162-07	40	-

ER-Clamping wrench «Mini»



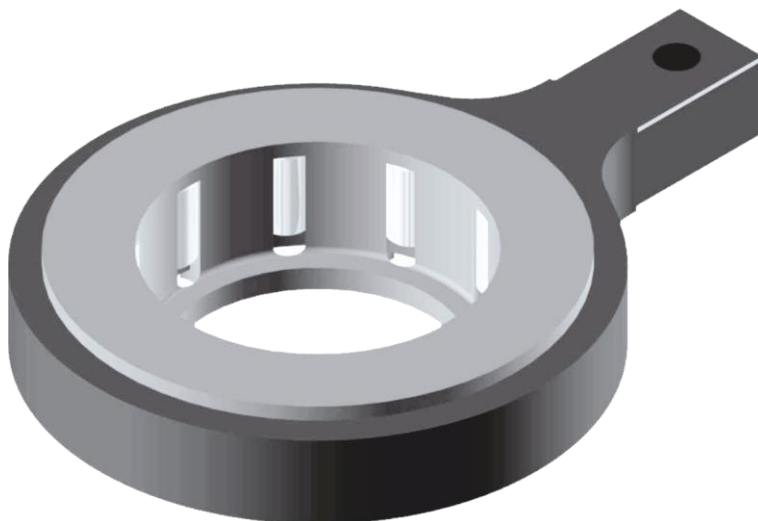
Order no.	ER
ZT162-22	11
ZT162-23	16
ZT162-24	20
ZT62-251	25

ER Roller wrench Hawk Eye® one-piece



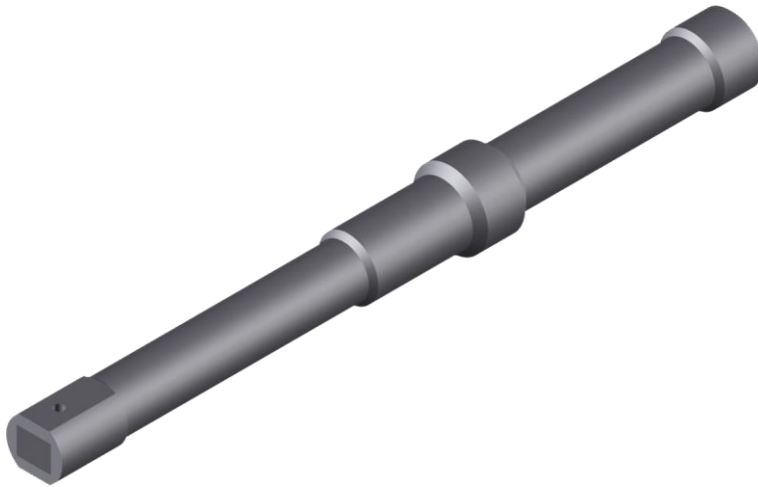
Order no.	ER
ZT163-12	16
ZT163-14	25
ZT163-15	32
ZT163-16	40

ER Roller Wrench Attachment Hawk Eye® Square Shank



Order no.	ER	VK
ZT163-42	16	9 x 12
ZT163-44	25	14 x 18
ZT163-45	32	14 x 18
ZT163-46	40	14 x 18

Torque wrench for roller wrench attachment



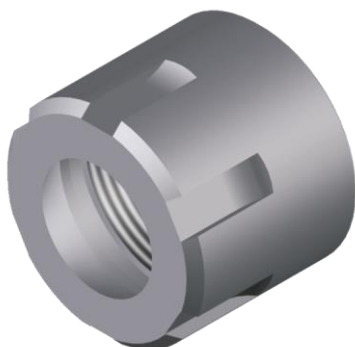
Order no.	VK
ZT163-83	9 x 12
ZT163-85	14 x 18

ER Clamping nuts



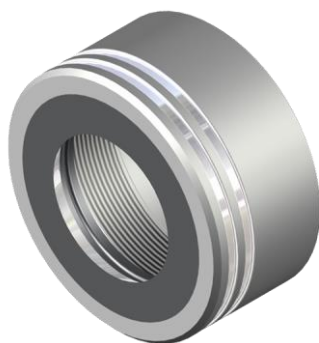
Order no.	ER	SW	Image
ZT107-10	11	17	1
ZT107-20	16	25	1
ZT107-30	20	30	1
ZT107-40	25	-	2
ZT107-50	32	-	2
ZT107-60	40	-	2

ER-Clamping nuts «Mini»



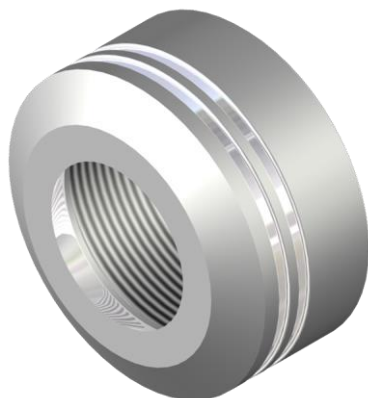
Order no.	ER
ZT107-10M	11
ZT107-20M	16
ZT107-30M	20
ZT107-40M	25

Hawk Eye® clamping nuts with ball bearings



Order no.	ER
ZT137-02R	16
ZT137-04R	25
ZT137-05R	32
ZT137-06R	40

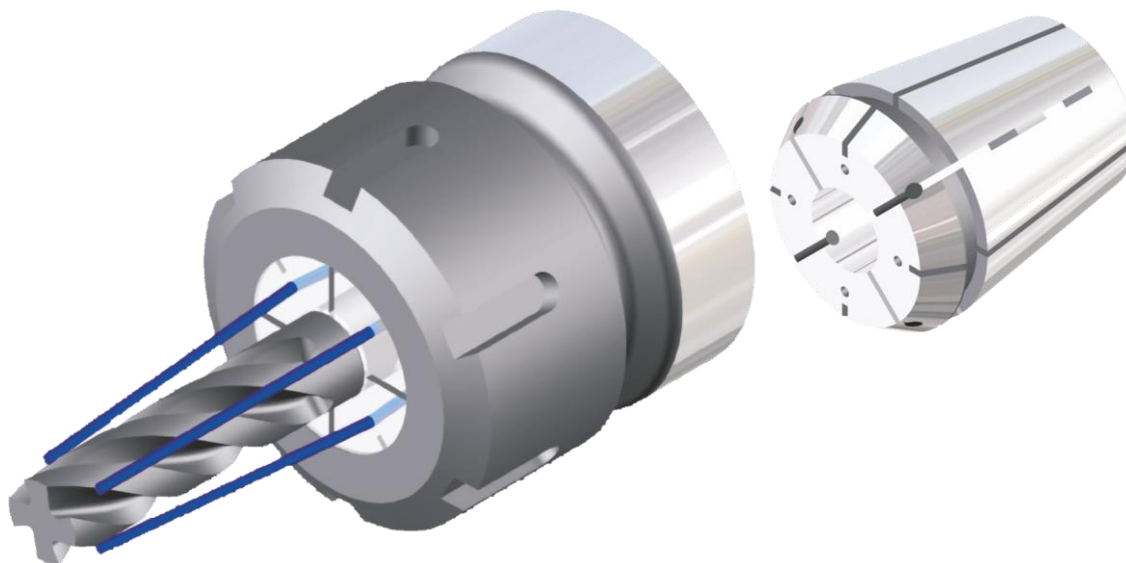
Clamping nuts Hawk Eye® one-piece



Order no.	ER
ZT137-42R	16
ZT137-44R	25
ZT137-45R	32
ZT137-46R	40
ZT137-01M1 ¹⁾	11
ZT137-02M1 ¹⁾	16

1) Clamping nut "Hawk Eye" - ER "Mini"

Sealed ER-collets with «Cool Tool» nozzles - Repeatability 2μ

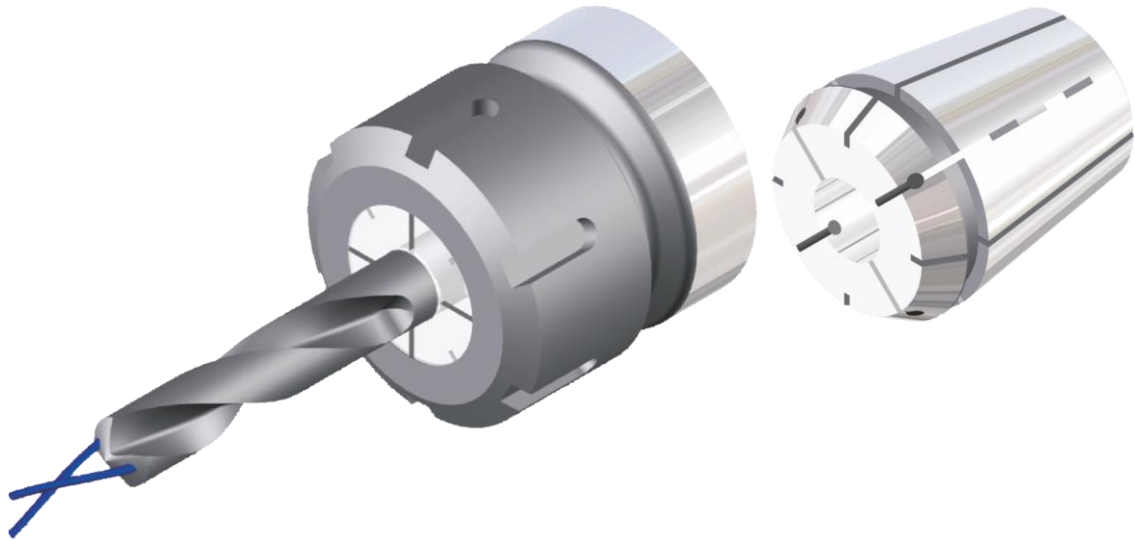


- Highest concentricity combined with effective cooling and best chip removal.
- applicable up to 120 bar.
- Only nominal dimensions can be clamped, shank tolerance h8.
- Tools with lateral clamping surface can only be used to a limited extent. This means that the surface must be behind the sealing plugs, otherwise the coolant escapes along the shank.

Order no. ¹⁾	ER	Diameter
ZT129-1xx	16	3 - 10
ZT129-2xx	20	3 - 13
ZT129-3xx	25	6 - 16
ZT129-4xx	32	6 - 20
ZT129-5xx	40	6 + 8 + 10 - 26

1) Please add the respective diameter of the collet to the order no., e.g. ER 25 with Ø 8 = 129-308.

Sealed ER-collets - Repeatability 5μ

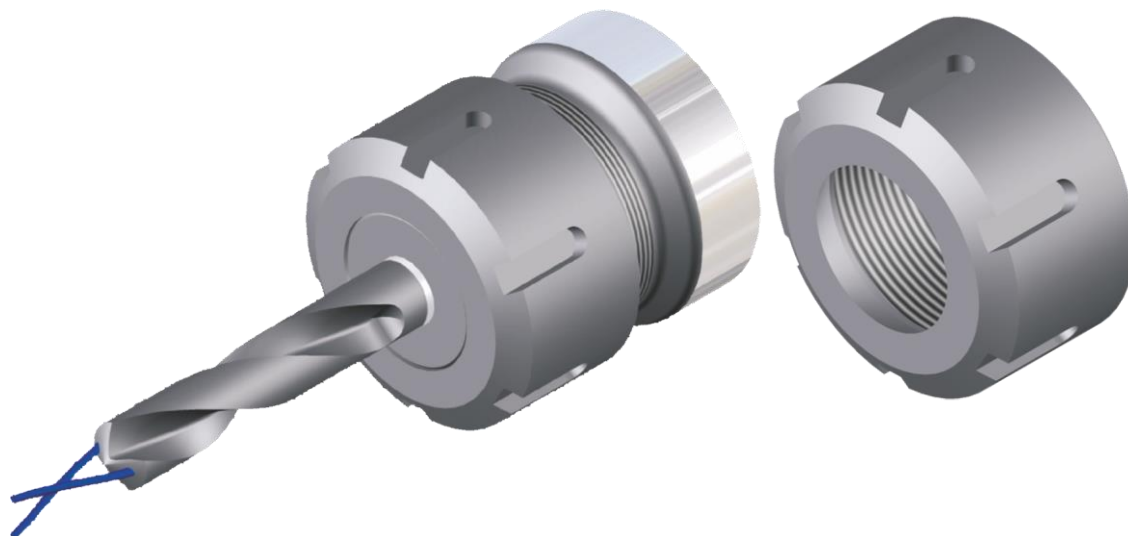


- For tools with internal cooling up to 120 bar!
- Only nominal dimensions can be clamped, shank tolerance h8.
- Tools with lateral clamping surface can only be used to a limited extent. This means that the surface must be behind the sealing plugs, otherwise the coolant escapes along the shank.

Order no. ¹⁾	ER	Diameter
128-0xx	11	3 - 7
128-1xx	16	3 - 10
128-2xx	20	3 - 13
128-3xx	25	6 - 16
128-4xx	32	6 - 20
128-5xx	40	6 + 8 - 26

1) Please add the respective diameter of the collet to the order no., e.g. ER 25 with Ø 10 = 128-310.

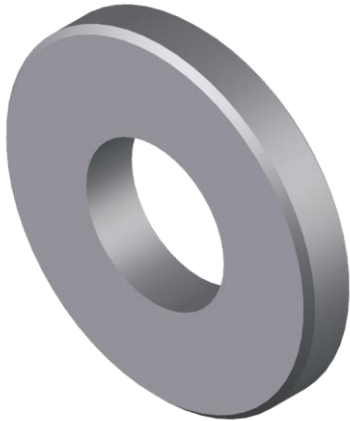
Sealable ER clamping nuts



- **ATTENTION:** Sealable clamping nuts are 5 mm longer than standard nuts. This also increases the overall length of the chuck by 5 mm!
- For use with sealing washers, to seal conventional ER collets.
- For tools with internal cooling up to 100 bar!

Order no.	ER	SW
ZT107-21	16	25
ZT107-31	20	30
ZT107-41	25	-
ZT107-51	32	-
ZT107-61	40	-

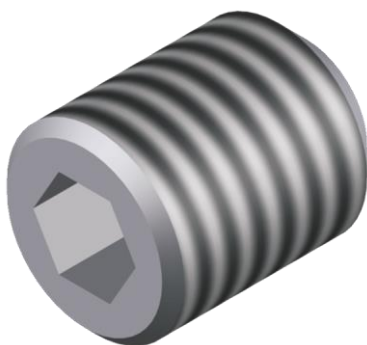
Sealing washers for sealable clamping nuts



- **ATTENTION:** For high pressure of 100 bar can only be clamped with the nominal diameter.
- The sealing washers are available in 0.5 mm increments, i.e. they bridge 0.4 mm, from the nominal dimension to the smaller diameter. Thus, for a drill with D 5.7, a sealing washer with nominal dimension 6 mm is used.
- Please complete the order no. with the respective diameter of the sealing washer:
 - Example: Sealing washer for ER 25 with diameter 5.5 = 107-41055
 - Example: Sealing washer for ER 32 with diameter 12 = 107-5112

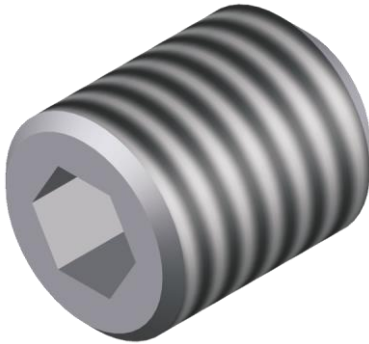
Order no.	ER
ZT107-21xxx	16
ZT107-31xxx	20
ZT107-41xxx	25
ZT107-51xxx	32
ZT107-61xxx	40

Clamping screws for Endmill holder Weldon DIN 1835B



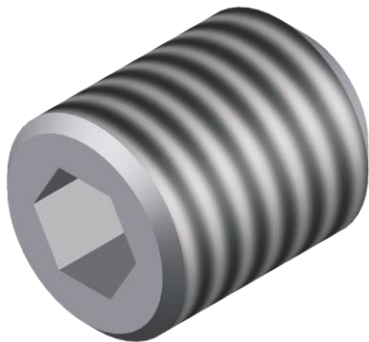
Order no.	Diameter	Thread
ZT235-02	6	M6
ZT235-03	8	M8
ZT235-04	10	M10
ZT235-05	12 + 14	M12
ZT235-06	16 + 18	M14
ZT235-07	20	M16
ZT235-08	25	M18 x 2
ZT235-09	32	M20 x 2

Clamping screws for whistle notch mountings according to DIN 1835E



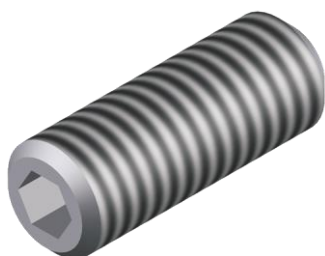
Order no.	Diameter	Thread
ZT235-02	6	M6
ZT235-03	8	M8
ZT235-04	10	M10
ZT235-05	12 + 14	M12
ZT235-06	16 + 18	M14
ZT235-07	20	M16
ZT235-08	25	M18 x 2
ZT235-09	32	M20 x 2

Screw plug for «Cool Tool» hole



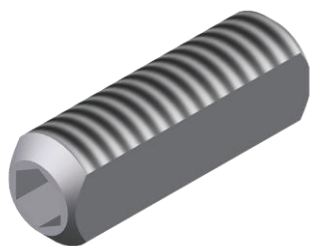
Order no.	Diameter	Thread
ZT242-01	6 - 32	M3

Length adjustment screws for whistle-notch holders (for internal coolant)



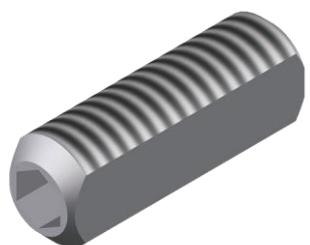
Order no.	Diameter	Thread
ZT237-01	6	M5
ZT237-02	8	M6
ZT237-03	10	M8
ZT237-04	12	M10
ZT237-05	14	M10
ZT237-06	16	M12
ZT237-07	18	M12
ZT237-08	20	M16
ZT237-09	25 + 32	M20

Length adjustment screws for shrink fit chucks (for internal coolant)



Order no.	Diameter	Thread
ZT238-01	6	M5
ZT238-02	8	M6
ZT238-03	10	M8 x 1
ZT238-04	12 + 14	M10 x 1
ZT238-06	16 + 18	M12 x 1
ZT238-08	20 + 25 + 32	M16 x 1

Length adjustment screws for shrink fit chuck «Cool Tool», (for internal coolant)



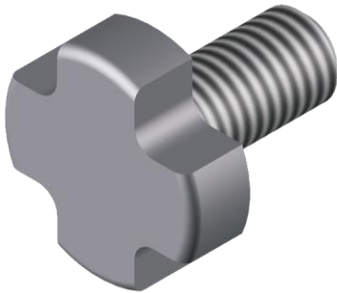
Order no.	Diameter	Thread
ZT238-11	6	M5
ZT-12382	8	M6
ZT238-13	10	M8 x 1
ZT238-14	12 + 14	M10 x 1
ZT238-16	16 + 18	M12 x 1
ZT238-18	20 + 25 + 32	M16 x 1

Shell mill holder wrench



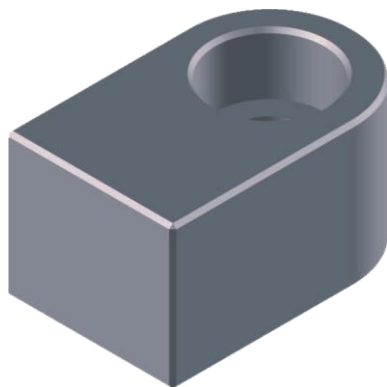
Order no.	Diameter
ZT226-03	16
ZT226-04	22
ZT226-05	27
ZT226-06	32
ZT226-07	40
ZT226-08	50
ZT226-09	60

Shell mill holder screw



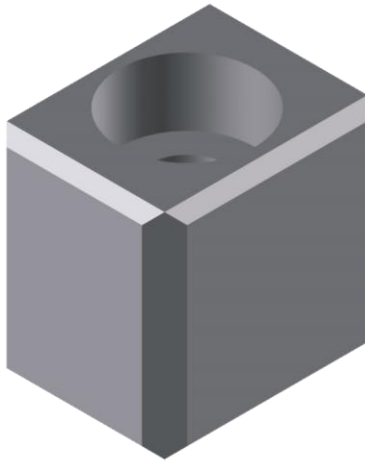
Order no.	Diameter	Thread
ZT225-03	16	M8
ZT225-04	22	M10
ZT225-05	27	M12
ZT225-06	32	M16
ZT225-07	40	M20
ZT225-08	50	M24
ZT225-09	60	M30

Drive key - half-round



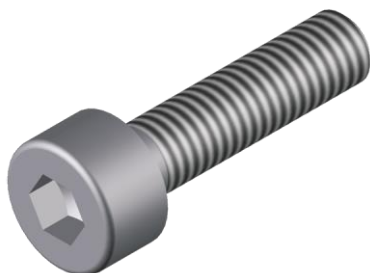
Order no.	Diameter
ZT240-51	16
ZT240-52	22
ZT240-53	27
ZT240-54	32
ZT240-55	40

Drive key for shell mill holder



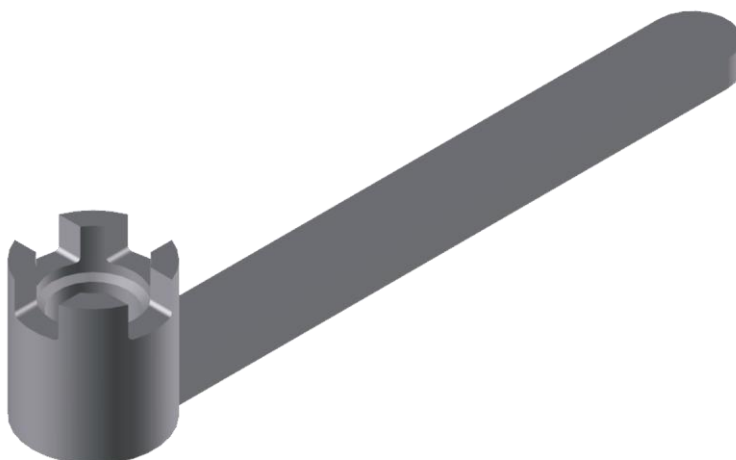
Order no.	Diameter
ZT240-01	16
ZT240-02	22
ZT240-03	27
ZT240-04	32
ZT240-05	40
ZT240-06	50
ZT240-07	60

Drive key screws



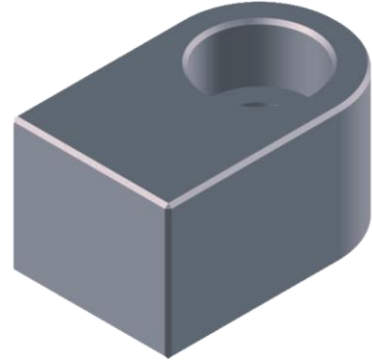
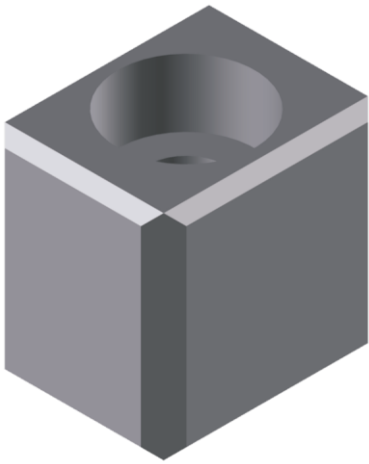
Order no.	Diameter
ZT240-31	16
ZT240-32	22
ZT240-33	27
ZT240-34	32
ZT240-35	40
ZT240-36	50
ZT240-37	60

Shell mill holder wrench



Order no.	Diameter
ZT226-03	16
ZT226-04	22
ZT226-05	27
ZT226-06	32
ZT226-07	40

Drive key for shell mill holder CORUM



C4

Order no.	Diameter
ZT240-01	16
ZT240-42	22

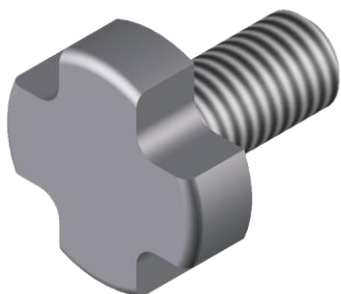
C5, C6

Order no.	Diameter
ZT240-01	16
ZT240-02	22
ZT240-43	27
ZT240-44	32

C8

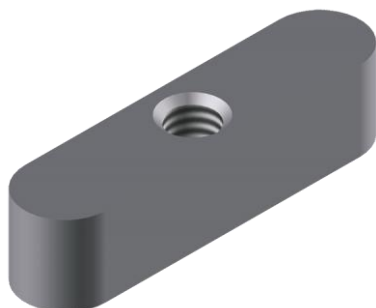
Order no.	Diameter
ZT240-51	16
ZT240-52	22
ZT240-53	27
ZT240-54	32

Clamping screw for combi shell mill holder



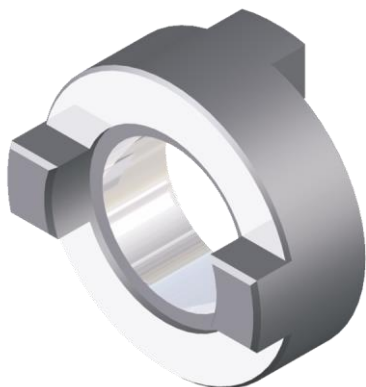
Order no.	Diameter	Thread
ZT225-03	16	M8
ZT225-04	22	M10
ZT225-05	27	M12
ZT225-06	32	M16
ZT225-07	40	M20

Adjustment spring



Order no.	Diameter
ZT223-02	16
ZT223-03	22
ZT223-04	27
ZT223-05	32
ZT223-06	40

Drive key for combi shell mill holder



Order no.	Diameter
ZT224-03	16
ZT224-04	22
ZT224-05	27
ZT224-06	32
ZT224-07	40



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