



# Hoffmann Group



CLAMPING TECHNOLOGY

Europe's leading system partner for quality tools

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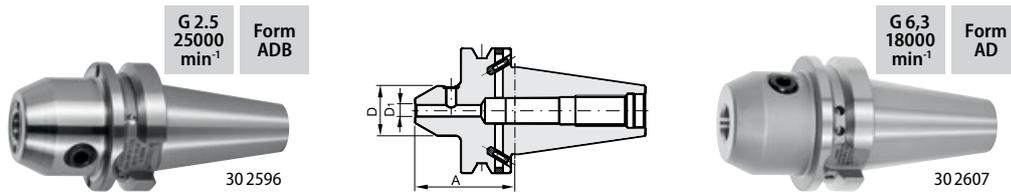
### MAS-BT - Side lock arbors Weldon – JIS B 6339

30 2593/2596/2606/2650/2655 – All shanks hard turned (for smooth running). Balancing quality G2.5 / 25,000 rpm. **With coolant supply holes that can be plugged.**  
 30 2597/2607/2617/2657/2667 – All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm.  
 30 2605/2615/2665 –Coolant channel bore can be plugged with an O-ring.

**Application:** For clamping tools with side flats to DIN 1835 B and DIN 6535 HB.

**Optional extras:** Pull studs (PS) No. 308760 – 308806. Pull stud wrenches No. 308820; 308835.

#### Side lock arbors, Weldon



Clamping Ø D <sub>1</sub>		mm											
		6	8	10	12	14	16	18	20	25	32		
31A	<b>30 2593</b> <b>Garant</b> Side lock arbor Form AD with cooling channel bores	BT 30 short		•	•	•	•	•	•	•	•	–	–
32A	<b>30 2597</b> <b>HOLEX</b> Side lock arbors Form AD	BT 30 short		•	•	•	•	–	•	–	•	–	–
31A	<b>30 2596</b> <b>Garant</b> Side lock arbor Form ADB with cooling channel bores	BT 40 short		•	•	•	•	•	•	•	•	•	•
32A	<b>30 2607</b> <b>HOLEX</b> Side lock arbor Form AD	BT 40 short		•	•	•	•	–	•	–	•	•	•
31A	<b>30 2606</b> <b>Garant</b> Side lock arbor Form ADB with cooling channel bores	BT 40 A = 100		•	•	•	•	•	•	•	•	–	–
<b>NEW</b> 32A	<b>30 2617</b> <b>HOLEX</b> Side lock arbor Form AD	BT 40 A = 100		•	•	•	•	–	•	–	•	–	–
31A	<b>30 2650</b> <b>Garant</b> Side lock arbor Form ADB with cooling channel bores	BT 50 short		•	•	•	•	–	•	–	•	•	•
32A	<b>30 2657</b> <b>HOLEX</b> Side lock arbor Form AD	BT 50 short		•	•	•	•	–	•	–	•	•	•
31A	<b>30 2655</b> <b>Garant</b> Side lock arbors Form ADB with cooling channel bores	BT 50 A = 100		•	•	•	•	•	•	•	•	–	–
<b>NEW</b> 32A	<b>30 2667</b> <b>HOLEX</b> Side lock arbor Form AD	BT 50 A = 100		•	•	•	•	–	•	–	•	–	–
Dimension A (30 2593, 30 2597)		mm		50	50	50	55	55	63	63	70	–	–
Dimension A (30 2596, 30 2607)		mm		50	50	63	63	63	63	63	63	90	100
Dimension A (30 2650, 30 2657)		mm		63	63	70	80	–	80	–	80	100	105
Ø D		mm		25	28	35	42	44	48	50	52	65	72
Spare clamping screw 309900				6	8	10	12	12	16	16	20	25	32

ISO 7388-2	JIS B6339		HSC
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### MAS-BT - ER collet chuck – JIS B6339

External and internal taper ground.

30 2745/2755/2765/2818/2828 – • All shanks hard turned (for smooth running!).  
Balancing quality G2.5/25,000 rpm.

- Clamping nut balanced for HSM (G2.5/25,000 rpm).
- Optimum wear characteristics and torque transmission due to the coated precision clamping nut.

30 2747/2757/2767/2817/2827 – • All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm.

- High-quality precision clamping nut.

**Application:** For clamping tools with parallel shank in collets to **DIN 6499 Form A and B.**

**Supplied with:** ER clamping nut.

**Optional extras:** ER collets No. 308881 – 309434, ER chuck key No. 309680 – 309720.  
Pull studs (PS) No. 308760 – 308806. Pull stud wrenches No. 308820; 308835.

**Note:** Matching clamping nut No. 309580 or 309610.

G 2.5  
25000  
min<sup>-1</sup>

Form  
AD



30 2745

G 2.5  
25000  
min<sup>-1</sup>

Form  
ADB



30 2755

G 2.5  
25000  
min<sup>-1</sup>

Form  
ADB



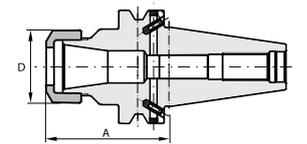
30 2818

G 6,3  
18000  
min<sup>-1</sup>

Form  
AD



30 2757



NEW

NEW

for ER collets			ER	16	20	25	32	40
31A	<b>30 2745</b>	<b>Garant</b> ER collet chuck Form AD	BT 30 A = 60	•	•	•	•	–
32A	<b>30 2747</b>	<b>HOLEX</b> ER collet chuck Form AD	BT 30 A = 60	•	•	•	–	–
31A	<b>30 2755</b>	<b>Garant</b> ER collet chuck Form ADB	BT 40 short	•	•	•	•	•
32A	<b>30 2757</b>	<b>HOLEX</b> ER collet chuck Form AD	BT 40 short	•	–	•	•	•
31A	<b>30 2765</b>	<b>Garant</b> ER collet chuck Form AD	BT 40 A = 100	•	•	•	•	•
32A	<b>30 2767</b>	<b>HOLEX</b> ER collet chuck Form AD	BT 40 A = 100	•	–	•	•	•
30E	<b>30 2800</b>	<b>Garant</b> ER collet chuck Form ADB	BT 40 A = 160	•	–	•	•	•
31A	<b>30 2818</b>	<b>Garant</b> ER collet chuck Form ADB	BT 50 short	•	•	•	•	•
32A	<b>30 2817</b>	<b>HOLEX</b> ER collet chuck Form AD	BT 50 short	•	–	•	•	•
30E	<b>30 2820</b>	<b>Garant</b> ER collet chuck Form ADB	BT 50 short	•	–	•	•	•
31A	<b>30 2828</b>	<b>Garant</b> ER collet chuck Form ADB	BT 50 A = 100	•	•	•	•	•
32A	<b>30 2827</b>	<b>HOLEX</b> ER collet chuck Form AD	BT 50 A = 100	•	–	•	•	•
Clamping range			mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Dimension A (30 2755, 30 2757, 30 2820)			mm	70	70	70	70	80
Dimension A (30 2818, 30 2817)			mm			80		
Ø D			mm	28	34	42	50	63
Spare ER clamping nut (30 9580)				16	20	25	32	40
ER chuck key (30 9680)				16	20	25	32	40

ISO 7388-2	JIS B6339	Form AD	G 2.5 25000 min <sup>-1</sup>		HSC
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### Garant ER collet chuck, ultra-short – JIS B6339 (MAS-BT)

Taper ground internally and externally. **Ultra-short type with internal precision clamping nut.**  
Best suited to working in restricted working areas, with higher stability.

**Application:** For clamping tools with parallel shank in collets to DIN 6499 – Form A and B.

**Supplied with:** ER clamping nut (internal).

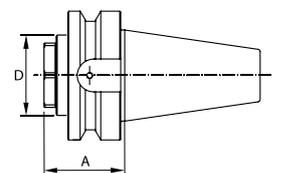
**Optional extras:** ER collets No. 308881 – 309434, pull studs (PS) No. 308760 – 308806,  
PS wrenches No. 308820 – 308835.

**Note:** Matching clamping nut No. 309621.

for ER collets			ER	25	32
31A	<b>30 2875</b>	ER collet chuck, ultra-short	BT 40	•	•
31A	<b>30 2876</b>		BT 50	–	–
Dimension A (30 2875)			mm	33	38
Dimension A (30 2876)			mm	–	40
Ø D			mm	27	40



30 2875



ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min <sup>-1</sup>	$\leq 3\mu\text{m}$	HPC	HSC
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**Garant MAS-BT - HiRunER Precision ER collet chuck – JIS B6339**

External and internal tapers are ground. All shanks are hard turned for a smooth cutting action. Including Balluffchip bore, high-performance clamping nut (up to 25000 rpm).

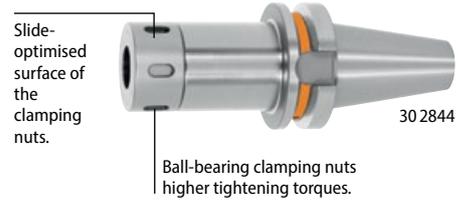
- Advantage:**
- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3µm radial run-out with a 2µm collet, 6µm radial run-out with a 5µm collet.
  - **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
  - **Vibration reduction effect** due to 2-part clamping nut.

**Application:** For clamping tools with plain shank in collets to DIN 6499 – Form A and B.

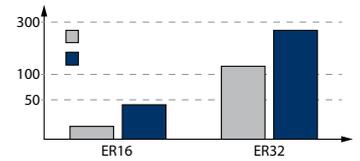
**Supplied with:** Precision clamping nut.

**Optional extras:** Pull studs (PS) No. 308760 – 308806, PS wrenches No. 308820 – 308835, ER collets No. 308881 – 309434, Fahrion ER collets 308901 - 309434, ER clamping wrenches No. 309748 – 309749.

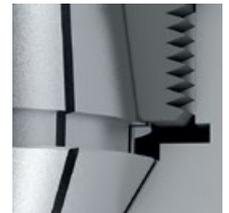
- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
  - Do not use the clamping nut in combination with a sealing washer.
  - Use it in only combination with Fahrion collets.



Mini – size 11M/ 16M (extremely slim design).



for ER collets		ER	11M	16M	16	20	25	32	40
3/A	<b>30 2839</b>	BT 30 A = 60	•	•	•	–	•	–	–
3/A	<b>30 2843</b>	HiRunER precision ER collet chuck BT 40 A = 70	–	–	•	•	•	•	•
3/A	<b>30 2844</b>	BT 40 A = 100	•	•	•	–	–	–	•
Clamping range		mm	1 – 7	1 – 10	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Ø D		mm	16	24	34	38	44	52	62
Spare ER clamping nut			309618 11M	309618 16M	–	–	–	–	–
Spare ER clamping nut 309617			–	–	16	20	25	32	40



HiRunER -> the full surface of the collet is seated in the chuck -> higher retention forces! -> better concentricity.



Standard ER chuck -> Collets are not inserted 100 % into the chuck.

ISO 7388-2	JIS B6339	Form AD	G 6.3 15000 min <sup>-1</sup>		HPC
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## MAS-BT - Heavy-duty chuck – JIS B6339

- Low friction due to needle bearings.
- Protected with anti-corrosion coating.
- Dust-tight and watertight.
- Very high clamping force prolongs tool life and improves surface quality.
- Flexible clamping range by means of collets.
  - 30 2879 – **Clamping force up to 150 Nm at Ø 12, up to 300 Nm at Ø 16 and up to 400 Nm at Ø 20.**
  - 30 2865/2870 – **Clamping force up to 1000 Nm.**

**Advantage:**

30 2879 – Low interference contour due to slim design.

**Application:** For clamping tools with plain shanks.

**Supplied with:** Clamping nut

**Optional extras:** C wrench No. 628400.  
Pull studs No. 308760 – 308795.

30 2879 – Collets No. 309581 – 309582, tightening wrench No. 309447.

30 2861/2862 – Collets No. 309575 – 309576.

30 2865/2870 – Collets No. 309566 – 309570.



30 2865

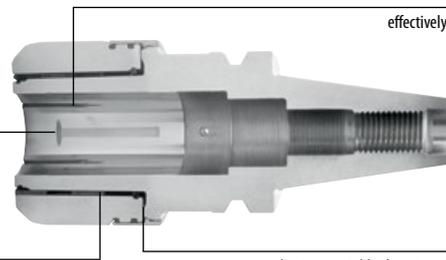


30 2879

**Internal axial recesses**  
effectively prevent the tool slipping.

**T-slots**

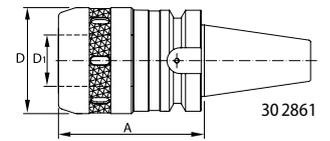
take up the oil and grease so that reliable torque transmission is achieved.



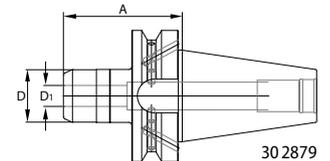
**Absolutely smooth running of the clamping nut.**

**High radial stiffness**

due to repeatable clamping accuracy against a flat face, which prevents misalignment and ensures highly accurate machining coupled with long tool life.



30 2861



30 2879

Ø D,			mm	12	16	20	32
32A	<b>30 2865</b>	<b>HOLEX</b>	<b>BT 40</b>	–	–	•	•
32A	<b>30 2870</b>	<b>HOLEX</b>	<b>BT 50</b>	–	–	•	•
32A	<b>30 2879</b>	<b>HOLEX</b>	<b>BT 40</b>	•	•	•	–
Dimension A			mm	70	70	90	105
Ø D (30 2861, 30 2862)			mm	–	–	52	73
Ø D (30 2865, 30 2870)			mm	–	–	52	66
Ø D (30 2879)			mm	30	38	44	–
suitable hook spanner 628400 (30 2861, 30 2862, 30 2865, 30 2870)				–	–	52 / 55	68 / 75
suitable tightening wrench 309747 (30 2879)				S10	S16	S20	–

**Garant**

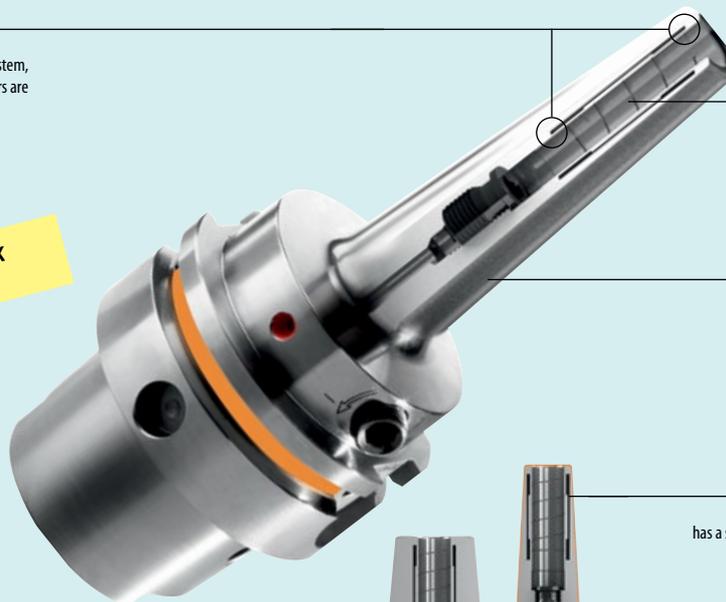
**Hydraulic chucks**



**Temperature-resistant**

Due to the sintered structure and the resulting enclosed system, no soldered pressure chambers are necessary, which enables use of the chuck up to 120 °C.

Available as BT/SK, HSK and BT arbors



**For reliable**

clamping of tool shanks forms HA, HB and HE.



HA-HB-HE

**High precision**

Concentricity ≤ 3 µm.



µm

**Exceptionally slim**

The GARANT hydraulic chuck has a significantly more streamlined design than the standard hydraulic chuck.



mm

DIN  
6357

### MAS-BT - Face mill adapter – JIS B 6339

30 3007/3017/3027/3037 –

All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm. Form A.

30 3010–3015/3025/3035 –

All shanks hard turned (for smooth running!). Balancing quality G2.5 / 25,000 rpm. Form ADB. With 4 cooling channel bores.

**Supplied with:** Lock screw.

G 2.5  
25000  
min<sup>-1</sup>



30 3015

G 2.5  
25000  
min<sup>-1</sup>



30 3025

G 6,3  
18000  
min<sup>-1</sup>

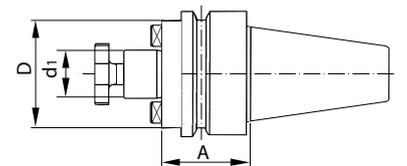


30 3017

G 2.5  
25000  
min<sup>-1</sup>



30 3035



Spigot Ø d <sub>1</sub>				mm	16	22	27	32	40
31A	<b>30 3010</b>	<b>Garant</b>	Face mill arbor with cooling channel bore form ADB	BT 30 short	•	•	•	–	–
32A	<b>30 3007</b>	<b>HOLEX</b>	Face mill arbor Form A	BT 30 short	•	•	•	–	–
31A	<b>30 3015</b>	<b>Garant</b>	Face mill arbor with cooling channel bore form ADB	BT 40 short	•	•	•	•	•
32A	<b>30 3017</b>	<b>HOLEX</b>	Face mill arbor Form A	BT 40 short	•	•	•	•	•
31A	<b>30 3025</b>	<b>Garant</b>	Face mill arbor with cooling channel bore form ADB	BT 40 A = 100	•	•	•	•	•
32A	<b>30 3027</b>	<b>HOLEX</b>	Face mill arbor Form A	BT 40 A = 100	•	•	•	•	–
31A	<b>30 3035</b>	<b>Garant</b>	Face mill arbor with cooling channel bore form ADB	BT 50 A = 100	–	•	•	•	•
32A	<b>30 3037</b>	<b>HOLEX</b>	Face mill arbor Form A	BT 50 A = 100	–	•	•	•	•
Dimension A (30 3010, 30 3007, 30 3020)				mm	35	40	40	50	50
Dimension A (30 3015, 30 3017)				mm	35	35	35	50	50
Ø D (30 3010, 30 3007, 30 3015, 30 3017, 30 3025, 30 3027)				mm	38	48	50	78	89
Ø D (30 3020, 30 3045)				mm	–	48	58	78	88
Ø D (30 3035, 30 3037)				mm	–	48	60	78	89
Spare milling cutter lock screw 309860					16	22	27	32	40
suitable special toggle spanner 309840					16	22	27	32	40

NEW

DIN 6357	DIN 69882-3	DIN 69893	ISO 12164-1	Form A	G 6.3 8000 min <sup>-1</sup>	≤6μm	HPC	
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**Garant MAS-BT - Face mill arbors, vibration damped**

- Plain shank.
- Taper shank, spigot, and all contact surfaces are ground at the collar.
- With Balluffchip bore.
- Larger collar contact face..
- **Vibration damped version, arbor with vibration-damping core.**

**Advantage:** Significantly lower tendency to vibrate. Considerable increase in feed rate.

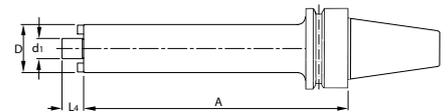
**Supplied with:** Cutter lock screw and drive dog.

**Optional extras:** Special toggle spanner No. 309840.

**Note:** Further sizes on request.



Spigot Ø d <sub>1</sub>		mm	16	22	27	32
31A 30 3050	Face mill arbor vibration damped	BT 40 A = 200	•	•	•	—
31A 30 3051		BT 40 A = 300	•	•	—	—
31A 30 3054		BT 50 A = 200	•	•	•	—
31A 30 3055		BT 50 A = 300	•	•	•	•
31A 30 3056		BT 50 A = 400	•	•	•	—
Ø D			mm	38	48	58
L <sub>4</sub>		mm	17	19	21	24



DIN 6383	ISO 7388-2	JIS B6339	G 6.3 15000 min <sup>-1</sup>	≤8μm
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**HOLEX MAS-BT - Reducing adapters for tools with MT shank – JIS B 6339**

Ground internally and externally.

**Application:** For clamping tools with MT shank.

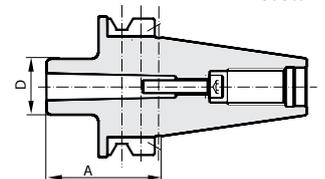
**Optional extras:** Pull studs (PS) No. 308760 – 308806.

**For MT tools with tang to DIN 228-B**

MT internal			1	2	3	4
32A 30 3082	Reducing adapter SK / MT for tangs, form AD	BT 40	•	•	•	•
32A 30 3087		BT 50	•	•	•	•
Dimension A (30 3082)		mm	50	50	70	95
Dimension A (30 3087)		mm	45	60	65	95
Ø D		mm	25	32	40	48

**For MT tools with draw thread to DIN 228-A**

MT internal			2	3	4
32A 30 3092	Reducing adapter SK / MT for locking threads, form A	BT 40	•	•	•
32A 30 3097		BT 50	•	•	•
Dimension A (30 3092)		mm	50	70	95
Dimension A (30 3097)		mm	60	65	70
Ø D		mm	32	40	48



ISO 7388-2 JIS B6339

### MAS-BT - Short drill chucks – with chuck key operation – JIS B6339

For clockwise and anticlockwise rotation.

- 30 3165–3172 – Slim design.
  - Specific coolant transfer to tools with IC.
  - Optimum holding torques at the tool.
- 30 3171–3176 – Concentricity  $\leq 20 \mu\text{m}$ .

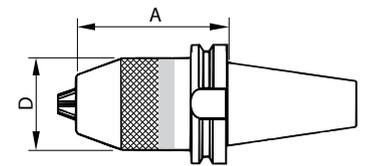
Supplied with: **Clamping wrench.**

Optional extras: Pull studs (PS) No. 308760 – 308806. Pull stud wrenches No. 308820; 308835.

Form ADB  $\leq 50 \text{ bar}$  G 2.5 25000  $\text{min}^{-1}$   $\leq 20 \mu\text{m}$



Form A G 6.3 12000  $\text{min}^{-1}$   $\leq 50 \mu\text{m}$   $\leq 14 \text{ Nm}$



Form AD  $\leq 50 \text{ bar}$  G 2.5 25000  $\text{min}^{-1}$   $\leq 20 \mu\text{m}$   $\leq 14 \text{ Nm}$



Clamping range		mm	0,3-10	0,5-13	0,5-16	1-16	2,5-16
31B	<b>30 3171</b> Garant Short drill chuck Form AD	BT 40	–	•	–	•	–
31B	<b>30 3172</b> Garant Short drill chuck Form ADB	BT 50	–	–	–	•	–
31B	<b>30 3175</b> Garant Short drill chuck Form ADB	BT 40	•	–	•	–	–
31B	<b>30 3176</b> Garant Short drill chuck Form A	BT 50	–	–	•	–	–
32K	<b>30 3165</b> HOLEX Short drill chuck Form A	BT 40	–	–	–	–	•
32K	<b>30 3166</b> HOLEX Short drill chuck Form A	BT 50	–	–	–	–	•
Dimension A (30 3171, 30 3175, 30 3165)		mm	73	92	98	95	95
Dimension A (30 3172, 30 3176, 30 3166)		mm	–	–	110	106	106
$\varnothing D$		mm	38	43	57	50	50
Spare Torx® screwdriver 625220			–	TX25	–	TX25	TX25
Spare hexagon screwdriver 627425			4 AF	–	6 AF	–	–

ISO 7388-2 JIS B6339 Form ADB G 2.5 25000  $\text{min}^{-1}$  HPC

### Garant Arbor for indexable drill - JIS B 6339 (MAS-BT)

- All shanks hard turned.
- Position of the grub screw for countersinking in the indexable drill offset by 0.4 mm.
- When tightening** the increased contact face  $\varnothing$  is clamped against the front face of the arbor.
- Better support**, allowing **higher feed rates**.
- High concentricity** thanks to the mating surface being ground flat to  $3 \mu\text{m}$ .

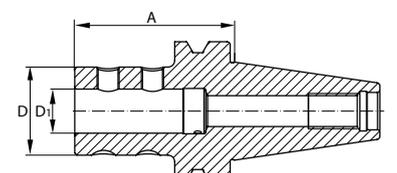
Suitable for: All indexable drills with parallel shank to DIN 6595, Part 1.

Application: For mounting all standard indexable drills to DIN 6595, Part 1.

Optional extras: Pull studs (PS) No. 308760 – 308806.



for shank $\varnothing D_1$		mm	20	25	32	40
31A	<b>30 3128</b> Arbor for indexable drills Form ADB	BT 40	•	•	•	•
31A	<b>30 3129</b> Arbor for indexable drills Form ADB	BT 50	•	•	•	•
Dimension A (30 3128)		mm	72	76	80	100
Dimension A (30 3129)		mm	90	90	90	100
$\varnothing D$		mm	40	45	52	60



ISO 7388-2	JIS B6339	G 2.5 25000 min <sup>-1</sup>		HSC	HPC
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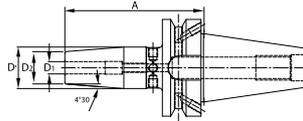
**Garant MAS-BT - Shrink-fit chucks 4.5° – JIS B6339**

- Integral tool length adjustment, range 10 mm (from Ø 6).
- Size 3-5 for carbide, from size 6 for HSS and carbide.

**Standard:** Similar to E-DIN 69882-8, form G.

**Application:** For clamping tools with parallel shank to h6 tolerance.

**Optional extras:** Pull studs (PS), No. 308760 – 308806, shrink-fit chuck extension No. 302410 – 302417, shrink-fit units No. 354210 – 354400.



Clamping range Ø D <sub>1</sub>		mm	3	4	5	6	8	10	12	14	16	18	20	25
31A	<b>303405</b>	Shrink-fit chuck Form AD	BT 30 short	•	•	•	•	•	•	•	•	•	•	–
<b>NEW</b>	31A <b>303407</b>	Shrink-fit chuck Form AD with cooling channel bores	BT 30 short	–	–	–	•	•	•	–	•	–	•	–
31A	<b>303410</b>	Shrink-fit chuck Form ADB	BT 40 short	•	•	•	•	•	•	•	•	•	•	•
31A	<b>303415</b>	Shrink-fit chuck, Form ADB with cooling channel bore	BT 40 short	–	–	–	•	•	•	•	•	•	•	•
31A	<b>303425</b>	Shrink-fit chuck Form ADB	BT 40 A = 120	–	–	–	•	•	•	•	•	•	•	•
31A	<b>303427</b>		BT 40 A = 130	•	•	•	•	•	•	•	•	•	•	•
31A	<b>303428</b>	Shrink-fit chucks Form ADB with cooling channel bore	BT 40 A = 130	–	–	–	•	•	•	•	•	•	•	–
31A	<b>303430</b>	Shrink-fit chuck Form ADB	BT 40 A = 160	–	–	–	•	•	•	•	•	•	•	•
31A	<b>303445</b>		BT 50 A = 100	–	–	–	•	•	•	•	•	•	•	•
Dimension A (303405, 303407)		mm	80	80	80	80	80	80	80	80	90	90	–	–
Dimension A (303410, 303415)		mm	90	90	90	90	90	90	90	90	90	90	100	100
Ø D		mm	17	17	17	27	27	32	32	34	34	42	42	53
Ø D <sub>2</sub>		mm	12	12	12	21	21	24	24	27	27	33	33	44

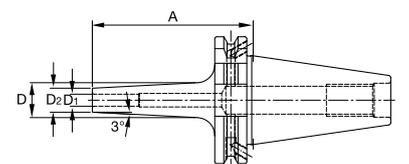
ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min <sup>-1</sup>		HSC	HPC
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**Garant MAS-BT - Shrink-fit chucks 3° (for tool-making and mould-making) – JIS B6339**

- All shanks hard turned.
  - **Extra slim design (3° contour).**
- Application:**
- Especially for tool and mould making.
  - Wherever reduced interference contours are required.
  - For clamping tools with shank tolerance h6.

**Optional extras:** Pull studs (PS) No. 308760 – 308806, shrink-fit chuck extensions No. 302410, sizes 12/3 and 12/4, shrink-fit units No. 354210 – 304450, PS wrenches No. 308820 – 308835.

**Note:** No length adjustment available!



Clamping range Ø D <sub>1</sub>		mm	3	4	5	6	8	10	12
31A	<b>303443</b>	Shrink-fit chuck 3°	BT 40 A = 90	•	•	•	•	•	•
Ø D		mm	14	15	16	19	21	23	25
Ø D <sub>2</sub>		mm	9	10	11	12	14	16	18

ISO 7388-2	JIS B6339	Form AD	G 2.5 25000 min <sup>-1</sup>		HPC	HSC
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### Garant MAS-BT - Slim hydraulic chuck 3° – JIS B6339

- Extremely slim design (3° contour).
- Ideal damping characteristics.
- Axial length adjustment facility.
- Shanks hard turned.

**Application:**

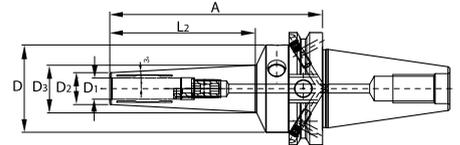
- Especially for tool and mould making.
- **Wherever reduced interference contours are required.**
- For drilling, reaming and milling.
- For clamping tools with shank tolerance h6.

**Supplied with:** Hexagon socket drive with T-handle.

**Optional extras:** Pull studs (PS) No. 308760 – 308806, Slotted reducing sleeves No. 302135 – 302180.



30 3465



Clamping $\varnothing D_1$	mm	3	4	5	6	8	10	12	16	20	
31A 30 3446	BT 30 A = 85	•	•	•	•	•	•	•	–	–	
31A 30 3465	BT 40 A = 120	•	•	•	•	•	•	•	•	•	
31A 30 3467	BT 40 A = 160	–	–	–	•	•	•	•	–	–	
31A 30 3468	BT 40 A = 200	–	–	–	•	•	•	•	–	–	
$\varnothing D_2$ (30 3446)	mm	10	12	13	14	16	18	20	–	–	
$\varnothing D_2$ (30 3465)	mm	9	10	11	12	14	16	18	24	28	
$\varnothing D_2$ (30 3467, 30 3468)	mm	–	–	–	16	18	20	22	–	–	
$\varnothing D_3$ (30 3446)	mm	14.7	16.7	17.7	18.8	20.8	22.9	24.9	–	–	
$\varnothing D_3$ (30 3465)	mm	16.5	17.5	18.5	19.5	21.5	23.7	25.8	31.4	35.5	
$\varnothing D_3$ (30 3467)	mm	–	–	–	33.5	34.6	36.3	37.9	–	–	
$\varnothing D_3$ (30 3468)	mm	–	–	–	37.9	38.9	40.6	42.2	–	–	
$\varnothing D$ (30 3446)	mm	40	40	40	40	40	40	40	–	–	
$\varnothing D$ (30 3465, 30 3467, 30 3468)	mm					49.5				–	–
$L_1$ (30 3446)	mm	45	45	45	46	46	47	47	–	–	
$L_1$ (30 3465)	mm	71	71	71	73	74	74	75	79	80	
$L_1$ (30 3467)	mm	–	–	–	111	111.5	113	114	–	–	
$L_1$ (30 3468)	mm	–	–	–	152.5	152.5	154	155	–	–	

ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min <sup>-1</sup>		HSC	HPC
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### MAS-BT - Hydraulic chuck – version HT (High Torque) – JIS B6339

- Very high overall stiffness due to optimised design.
- Axial length adjustment, adjustment travel 10 mm.

**Advantage:**

- **Maximum transmissible torque 550 Nm**, version HT (High Torque), for high process reliability.
- **Ideal damping characteristics**, resulting in optimum surface finishes, increased tool life and spindle protection.
- **Temperature resistance up to 120 °C.**

**Application:** Especially for heavy-duty milling.

**Supplied with:** Hexagon cross-bar wrench.

**Optional extras:** Pull studs (PS) No. 308760 – 308806.



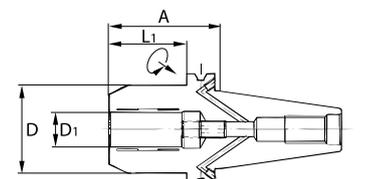
30 3450



30 3451

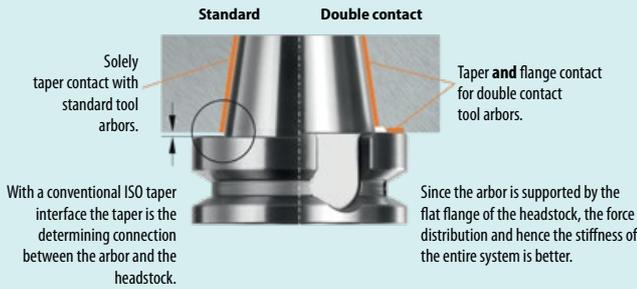


30 3452



Clamping range $\varnothing D_1$	mm	12	16	20	32
31H 30 3450	Garant HT chuck	•	–	•	–
31H 30 3451	Garant HT chuck with cooling channel bores	•	•	•	–
32A 30 3459	HOLEX	–	–	•	–
31H 30 3452	Garant HT chuck	–	–	•	•
32A 30 3469	HOLEX	–	–	•	–
Dimension A (30 3450, 30 3451, 30 3459)	mm	58	72.5	72.5	–
Dimension A (30 3452, 30 3469)	mm	–	–	83.5	90
$\varnothing D$ (30 3450, 30 3451, 30 3452)	mm	42	46	49	72
$\varnothing D$ (30 3459, 30 3469)	mm	–	–	49.25	–
$L_1$ (30 3450, 30 3459)	mm	31	–	45	–
$L_1$ (30 3451, 30 3452, 30 3469)	mm	31	45.5	45.5	52
suitable reducing adapter		302140 / 302135	–	302160 / 302155	302180 / 302175

**Garant MAS-BT - Tool arbors JIS B 6339 with double contact**



The double contact between the taper and the flat flange creates a more stable and precise clamping situation.

**The result:**

- Better surface quality.
- Longer tool life times.
- Consistent seating in the headstock, even at high speeds.
- Smaller radial run-out.



Send us your enquiry or ask your contact person.

DIN 6359 ISO 7388-2 JIS B6339 Form AD G 2.5 25000 min<sup>-1</sup> ≤3µm HPC BT-DC

**Garant MAS-BT - Side lock arbor (Weldon) – JIS B6339 with double contact**

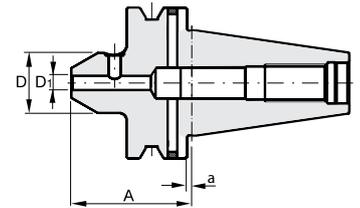
All shanks hard turned (for smooth running!). With Balluffchip bore.

**Application:** For clamping tools with side flats to DIN 1835 B and DIN 6535 HB.

**Optional extras:** Pull studs (PS) No. 308760 – 308806. Pull stud wrenches No. 308820; 308835.



30 3640



Clamping range Ø D,	mm	6	8	10	12	16	20	25
31A 30 3610	BT 30 short	•	•	•	•	•	•	–
31A 30 3640	BT 40 short	•	•	•	•	•	•	•
31A 30 3670	BT 50 short	•	•	•	•	•	•	•
Dimension A (30 3610)	mm	50	50	50	55	63	70	–
Dimension A (30 3640)	mm	50	50	63	63	63	63	90
Dimension A (30 3670)	mm	63	63	70	80	80	80	100
a (30 3610, 30 3640)	mm	1						
a (30 3670)	mm	1.5						
Ø D	mm	25	28	35	42	48	52	65
Spare clamping screw 309900		6	8	10	12	16	20	25

ISO 7388-2 JIS B6339 Form AD G 2.5 25000 min<sup>-1</sup> ≤3µm HSC BT-DC

**Garant MAS-BT - ER collet chuck – JIS B6339 with double contact**

Taper ground internally and externally. All shanks hard turned (for smooth running!). With Balluffchip bore.

- High-quality precision clamping nut.
- Clamping nut balanced for HSM (G2.5/25,000 rpm).
- Optimum wear characteristics and torque transmission due to the coated precision clamping nut.

**Application:** For clamping tools with parallel shank in collets to DIN 6499 Form A and B.

**Supplied with:** ER clamping nut.

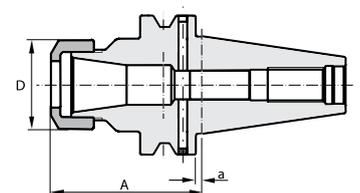
**Optional extras:** ER collets No. 308881 – 309434, ER chuck key No. 309680 – 309720.

Pull studs (PS) No. 308760 – 308806. Pull stud wrenches No. 308820; 308835.

**Note:** Matching clamping nut No. 309580 or 309610.



30 3710



for ER collets	ER	16	20	25	32	40
31A 30 3690	BT 30 short	•	•	•	•	–
31A 30 3710	BT 40 short	•	–	•	•	•
31A 30 3740	BT 50 short	•	–	•	•	•
Clamping range	mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Dimension A (30 3690)	mm	60	60	60	70	–
Dimension A (30 3710)	mm	70	–	70	70	80
Dimension A (30 3740)	mm	80	–	80	80	80
a (30 3690, 30 3710)	mm	1				
a (30 3740)	mm	1.5	–	1.5	1.5	1.5
Ø D	mm	28	34	42	50	63
Spare ER clamping nut 309580		16	20	25	32	40
ER clamping wrench 309680		16	20	25	32	40

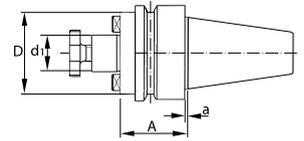


**Garant** MAS-BT - Face mill arbors – JIS B6339 with double contact

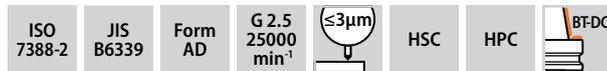
All shanks hard turned (for smooth running!). With Balluffchip bore and coolant duct bores.

**Supplied with:** Lock screw.

**Optional extras:** Pull studs (PS) No. 308760 – 308806. Special toggle spanner No. 309840.



Spigot Ø d <sub>1</sub>	mm	16	22	27	32	
31A <b>303780</b>	Face mill arbor Form AD	BT 30 short	•	•	•	–
31A <b>303800</b>		BT 40 short	•	•	•	•
Dimension A (303780)	mm	35	40	40	–	
Dimension A (303800)	mm	35	35	35	50	
a	mm	1				
Ø D	mm	38	48	50	78	
Spare milling cutter lock screw 309860		16	22	27	32	
suitable special toggle spanner 309840		16	22	27	32	



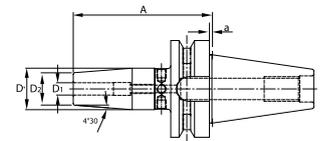
**Garant** MAS-BT - Shrink-fit chucks 4.5° – JIS B6339 with double contact

- High-temperature steel.
- Integral tool length adjustment, adjustment track 10 mm.
- Suitable for shrink fitting of HSS and carbide tools.
- All shanks hard turned (for smooth running!).
- With Balluffchip bore.

**Standard:** Similar to E-DIN 69882-8, form G.

**Application:** For clamping tools with parallel shank to h6 tolerance.

**Optional extras:** Pull studs (PS), No. 308760 – 308806,  
Shrink-fit chuck extension No. 302410 – 302417,  
Shrink-fit units No. 354210 – 354400.



Clamping range Ø D <sub>1</sub>	mm	6	8	10	12	16	20	25
31A <b>303830</b>	Shrink-fit chuck Form AD	BT 30 short	•	•	•	•	•	–
31A <b>303850</b>		BT 40 short	•	•	•	•	•	•
Dimension A (303830)	mm	80	80	80	80	80	90	–
Dimension A (303850)	mm	90	90	90	90	90	90	100
a	mm	1						
Ø D	mm	27	27	32	32	34	42	53
Ø D <sub>2</sub>	mm	21	21	24	24	27	33	44



## HSK - ER collet holder for extending the reach of side lock arbors or collet chucks

30 0682 – Fahrion CENTRO P cylindrical holder **without clamping nuts**.

30 0684 – Cylindrical holder with ER nut.

30 0683/0685 – Cylindrical holder with Weldon shank and ER nut.

**Optional extras:**

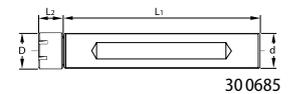
30 0682 – ER collets No. 309365 – 309372, Spare ER mini nuts No. 309655; 309665.

30 0683–0685 – ER collets No. 308878 – 309434, Spare ER nuts No. 309580; 309650.

**Note:** 30 0682/0684 Size 8 – No length adjustment available.



30 0685



30 0685



30 0682

Please order clamping nuts separately!



30 0683



30 0684

for ER collets		ER	8	11	16	20	25	32	40
31A	<b>30 0685</b> <b>Garant</b> ER mini collet holder cylindrical	–	•	•	•	–	–	–	–
33F	<b>30 0682</b> <b>FAHRION</b> CENTRO P ER collet holder cylindrical	•	•	•	–	–	–	–	–
32A	<b>30 0683</b> ER collet holder cylindrical	–	–	–	•	•	•	•	•
32A	<b>30 0684</b> <b>HOLEX</b> ER mini collet holder cylindrical	•	•	•	•	–	–	–	–
Ø d (30 0682, 30 0683)		mm	10	16	16	25	25	32	40
Clamping range		mm	1–5	0.5–7	0.5–10	1–13	1–16	2–20	3–26
Ø D (30 0685, 30 0682, 30 0683)		mm	10	16	22	28	42	50	63
Ø D (30 0684)		mm	12	16	22	28	–	–	–
Ø d (30 0685)		mm	–	16	20	25	–	–	–
Ø d (30 0684)		mm	12	16	20	20	–	–	–
L <sub>1</sub> (30 0685)		mm	–	150	140	140	–	–	–
L <sub>1</sub> (30 0682, 30 0683)		mm	138	133	117	60	65	70	75
L <sub>1</sub> (30 0684)		mm	70	140	140	140	–	–	–
L <sub>1</sub> (30 0685)		mm	–	19	23	24	–	–	–
L <sub>1</sub> (30 0682, 30 0683)		mm	10	17	33	24	28	32	40
L <sub>1</sub> (30 0684)		mm	15.6	19	23	29.5	–	–	–



## Garant HSK - ER collet chuck, ultra-short – DIN 69871

Taper ground internally and externally. **Ultra-short type with internal precision clamping nut.** Best suited to working in restricted working areas, with higher stability.

**Application:** For clamping tools with parallel shank in collets to DIN 6499 Form A and B.

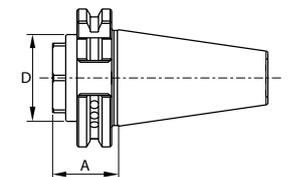
**Supplied with:** ER clamping nut (internal).

**Optional extras:** ER collets No. 308941 – 309448, Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820 – 308835.

**Note:** Matching clamping nut No. 309621.



30 0445



for ER collets		ER	25	32
31A	<b>30 0445</b> ER collet chuck, ultra-short	SK 40	•	•
31A	<b>30 0446</b>	SK 50	–	•
Dimension A		mm	25	30
Ø D		mm	32	40



## Garant HSK - OZ collet chuck – DIN 69871

External and internal taper ground.

**Ball-bearing power-clamping nut.** For higher clamping force and improved radial run-out.

**GARANT –**

With Balluffchip bore. All shanks hard turned (for smooth running!). Clamping nut balanced (G 2.5 / 25,000 rpm).

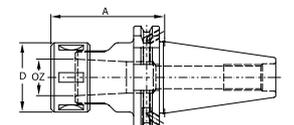
**Application:** For clamping tools with plain shank in collets to DIN 6388 - Form A and B.

**Supplied with:** Clamping nut

**Optional extras:** Pull studs (PS) No. 308600 – 308806, PS wrench No. 308820; 308835, OZ collets No. 309540 – 309565, Hook spanner No. 628400.



30 0695



Clamping range		mm	2-16	2-25
31A	<b>30 0695</b> OZ collet chuck Form ADB	SK 40 A = 70	•	•
Ø D		mm	43	60
Spare clamping nut 309670			2–16	2–25
suitable hook spanner 628400			40 / 42	58 / 62

ISO 12164-1	DIN 69882-4	DIN 69893		HSC	HPC
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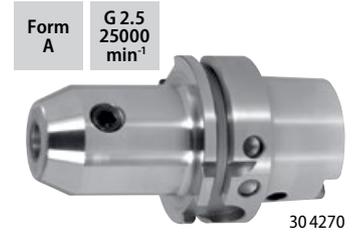
### HSK - Side lock arbor – ISO 12164 (DIN 69893)

- With Balluffchip bore.
  - HSK mating faces machined.
- 30 4272/4305/4328/4336/4392/4402/4411 –  
 With **coolant hole bores** tapped for plugging.
- 30 4270/4272/4305/4306/4315/4328/4335/4336/4390/4392/4402/4410/4411 –  
**GARANT:** All shanks hard turned (for smooth running!).
- 30 4272/4392 – Special nickel plating.

**Application:** For clamping tools with Weldon shank to DIN 1835 Form B and DIN 6535 Form HB.

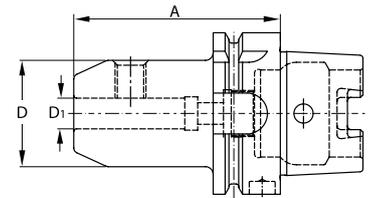
**Optional extras:** Coolant pipe No. 309880, coolant pipe wrench No. 309890

**Note:** HSK 40 and 50, Form A and E available ex works by the manufacturer.



**Optimised cooling concept**

4 cooling channel bores instead of 2.  
 Different approach angles of the cooling channel bores.



Clamping range Ø D <sub>1</sub>			mm	6	8	10	12	14	16	18	20	25	32	40
31A	<b>30 4270</b>	<b>Garant</b>	Side lock arbor	HSK-A 63 short	•	•	•	•	•	•	•	•	•	•
32A	<b>30 4277</b>	<b>HOLEX</b>	Side lock arbor	HSK-A 63 short	•	•	•	•	•	•	•	•	•	•
32A	<b>30 4278</b>	<b>HOLEX</b>	Side lock arbor with cooling channel bore	HSK-A 63 short	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4272</b>	<b>Garant</b>	Side lock arbor Nickel-plated, with cooling channel bore	HSK-A 63 short	•	•	•	–	•	–	•	–	–	–
31A	<b>30 4305</b>	<b>Garant</b>	Side lock arbor with cooling channel bore	HSK-A 63 short	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4306</b>	<b>Garant</b>	Side lock arbor	HSK-F 63 short	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4315</b>	<b>Garant</b>	Side lock arbor	HSK-A 63 A = 120	•	•	•	•	•	•	•	–	–	–
32A	<b>30 4317</b>	<b>HOLEX</b>	Side lock arbor	HSK-A 63 A = 120	•	•	•	•	•	•	•	–	–	–
31A	<b>30 4328</b>	<b>Garant</b>	Side lock arbor with cooling channel bore	HSK-A 63 A = 120	•	•	•	•	•	•	•	–	–	–
31A	<b>30 4335</b>	<b>Garant</b>	Side lock arbor	HSK-A 63 A = 160	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4336</b>	<b>Garant</b>	Side lock arbor with cooling channel bore	HSK-A 63 A = 160	•	•	•	•	•	•	•	–	–	–
31A	<b>30 4390</b>	<b>Garant</b>	Side lock arbor	HSK-A 100 short	•	•	•	•	•	•	•	•	•	•
32A	<b>30 4397</b>	<b>HOLEX</b>	Side lock arbor	HSK-A 100 short	•	•	•	•	•	•	•	•	•	•
32A	<b>30 4398</b>	<b>HOLEX</b>	Side lock arbor with cooling channel bore	HSK-A 100 short	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4392</b>	<b>Garant</b>	Side lock arbor Nickel-plated, with cooling channel bore	HSK-A 100 short	•	•	•	–	•	–	•	–	–	–
31A	<b>30 4402</b>	<b>Garant</b>	Side lock arbor with cooling channel bore	HSK-A 100 short	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4410</b>	<b>Garant</b>	Side lock arbor	HSK-A 100 A = 160	•	•	•	•	•	•	•	•	•	–
31A	<b>30 4411</b>	<b>Garant</b>	Side lock arbor with cooling channel bore	HSK-A 100 A = 160	•	•	•	•	•	•	•	–	–	–
Dimension A (30 4270, 30 4277, 30 4278, 30 4272, 30 4305, 30 4306)			mm	65	65	65	80	80	80	80	80	110	110	125
Dimension A (30 4390, 30 4397, 30 4398, 30 4392, 30 4402)			mm	80	80	80	80	80	100	100	100	100	100	120
Ø D			mm	25	28	35	42	44	48	50	52	65	72	80
Spare clamping screw 309900				6	8	10	12	12	16	16	20	25	32	32

## HSK - ER collet chuck and ER set – ISO 12164 (DIN 69893)

ISO 12164-1	DIN 69882-6	DIN 69893	$\leq 3\mu\text{m}$	HSC
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- All shanks hard turned (for smooth running!).
  - Through bored (without adjustment screw).
  - HSK mating faces machined.
- 305390/305391/305394/305397/305425/305426/305435/305436/305437/305438/305485/  
305486/305487/305488/305515/ – With Balluffchip bore.
- 30 5394/5486 – Nickel-plated to prevent corrosion.

**Application:** For clamping tools with plain shanks in ER collets to DIN 6499 – Form A and B.

**Supplied with:** Coated high-speed clamping nut.

**Optional extras:** Coolant pipe No. 309880, Coolant pipe plug-in socket No. 309890, ER collets No. 308881 – 309434, ER clamping wrenches No. 309680 – 309740.

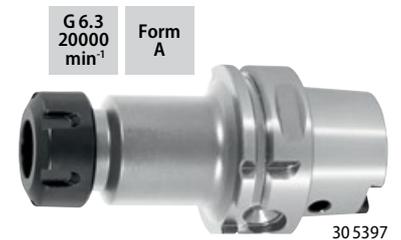
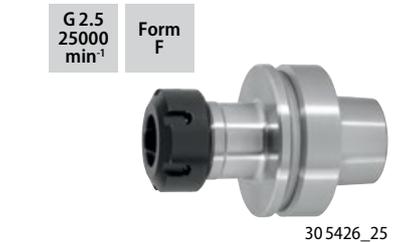
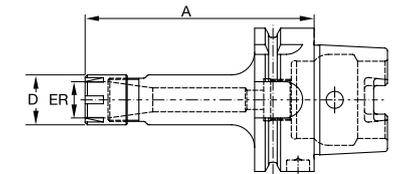
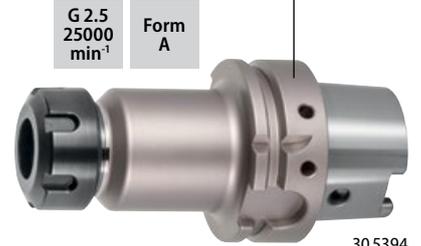
**Note:**

30 5391/5426/5436 – Without a thread for the coolant pipe.

for ER collets		ER	11	16	20	25	32	40	
31A	<b>30 5150</b> <b>Garant</b>	ER collet chuck	HSK-E 40 short	•	•	–	•	–	
31A	<b>30 5100</b> <b>Garant</b>		HSK-A 40 A = 80	•	•	–	•	–	
31A	<b>30 5425</b> <b>Garant</b>		HSK-A 63 ultra short	–	•	–	•	•	
32A	<b>30 5427</b> <b>HOLEX</b>		HSK-A 63 ultra short	–	•	–	•	•	
31A	<b>30 5426</b> <b>Garant</b>		HSK-F 63 ultra short	–	•	–	•	•	
31A	<b>30 5390</b> <b>Garant</b>		HSK-A 63 long	–	•	•	•	•	
31A	<b>30 5394</b> <b>Garant</b>	ER collet chuck nickel-plated	HSK-A 63 long	–	•	–	•	•	
32A	<b>30 5397</b> <b>HOLEX</b>	ER collet chuck	HSK-A 63 long	–	•	–	•	•	
31A	<b>30 5391</b> <b>Garant</b>		HSK-F 63 A = 100	–	•	–	•	•	
31A	<b>30 5437</b> <b>Garant</b>		HSK-A 63 A = 130	–	•	–	•	•	
31A	<b>30 5435</b> <b>Garant</b>		HSK-A 63 A = 160	–	•	–	•	•	
32A	<b>30 5439</b> <b>HOLEX</b>		HSK-A 63 A = 160	–	•	–	•	•	
31A	<b>30 5436</b> <b>Garant</b>		HSK-F 63 A = 160	–	•	–	•	•	
31A	<b>30 5438</b> <b>Garant</b>		HSK-A 63 A = 200	–	•	–	•	–	
31A	<b>30 5485</b> <b>Garant</b>		HSK-A 100 long	–	•	–	•	•	
31A	<b>30 5486</b> <b>Garant</b>		ER collet chuck nickel-plated	HSK-A 100 long	–	•	–	•	•
32A	<b>30 5487</b> <b>HOLEX</b>		HSK-A 100 long	–	•	–	•	•	
31A	<b>30 5488</b> <b>Garant</b>	ER collet chuck	HSK-A 100 A = 130	–	•	–	•	•	
31A	<b>30 5515</b> <b>Garant</b>		HSK-A 100 A = 160	–	•	–	•	•	
32A	<b>30 5517</b> <b>HOLEX</b>		HSK-A 100 A = 160	–	•	–	•	•	
Clamping range		mm	0.5 – 7	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26	
Dimension A (30 5150)		mm	60	60	–	80	–	–	
Dimension A (30 5425, 30 5427)		mm	–	75	–	75	75	85	
Dimension A (30 5426)		mm	–	60	–	75	75	75	
Dimension A (30 5390, 30 5394, 30 5397, 30 5485, 30 5486, 30 5487)		mm	–	100	100	100	100	120	
Ø D		mm	19	28	34	42	50	63	

**Corrosion protection**

due to special surface treatment.



## HSK - ER collet chuck sets – A63

**Advantage:** Longer working life due to system run-out  $\leq 10 \mu\text{m}$ .

**Supplied with:** ER chuck (with nut) No. 305390, including a plastic case.

Size 16 – ER lock wrench No. 613300 size 25, ER collets No. 308901  
**ER 16** (426 E): D = 2, 3, 4, 5, 6, 7, 8, 9 and 10 mm.

Size 25 – ER lock wrench No. 628400 size 16/20, ER collet No. 308941  
**ER 25** (430 E): D = 3, 4, 5, 6, 8, 10, 12, 14 and 16 mm.

Size 32 – ER lock wrench No. 309680 – 32, ER collet No. 308981  
**ER 32** (470 E): D = 4, 6, 8, 10, 12, 14, 16, 18 and 20 mm.

for ER collets		ER	16	25	32
37D	<b>30 5450</b> ER collet chuck set	HSK-A 63	•	•	•

## Maximum system accuracy



DIN 69882-4	DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min <sup>-1</sup>		HPC	HSC
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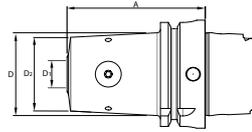
### Garant HSK - Performance milling chuck – ISO 12164 (DIN 69893-1)

- With Balluffchip bore.
- All shanks hard turned.
- Supplied with 4 cooling channel bores.

- Advantage:**
- No risk of the cutter being pulled out, not even a tug.
  - Optimised external contour – vibration-damping behaviour.
  - Pleasant handling thanks to the differential thread.
  - Breakage of the milling cutter shank is improbable.
  - Precision version.

**Application:** For clamping tools with side drive flats to DIN 1835 Form B and DIN 6535 Form HB. Best suited for TPC milling or high feed rate applications. No risk of the cutter being pulled out, more precise radial run-out, **process reliability!**

**Optional extras:** Coolant pipe No. 309880, coolant pipe wrench No. 309890



30 4450

Clamping Ø D <sub>1</sub>	mm	6	8	10	12	16	20
31A 30 4450	Performance milling chuck with cooling channel bore	HSK-A 63 short	•	•	•	•	•
31A 30 4460		HSK-A 100 short	•	•	•	•	•
Dimension A (30 4450)	mm	65	65	70	80	80	80
Dimension A (30 4460)	mm	80	80	80	85	100	100
Ø D (30 4450)	mm	26.5	29	36.5	43	48.5	52
Ø D (30 4460)	mm	27.5	30	37	43	50	53.5
Ø D <sub>2</sub>	mm	22.5	25	32	37.5	43	46.5



- Spring in the base body presses the milling cutter or HB shank into the correct position.
- Contact piece on the tightening screw holds the milling cutter in the HB face.

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min <sup>-1</sup>		HPC	HSC
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### Garant HSK - HiRunER Precision ER collet chuck – ISO 12164 (DIN 69893)

External and internal tapers are ground. All shanks are hard turned for a smooth cutting action. Including Balluffchip bore, high-performance clamping nut up to 25000 rpm.

- Advantage:**
- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3µm radial run-out with a 2µm collet, 6µm radial run-out with a 5µm collet.
  - **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
  - **Vibration reduction effect** due to 2-part clamping nuts.

**Application:** For clamping tools with plain shank in collets to DIN 6499 - Form A and B.

**Supplied with:** Precision clamping nut.

**Optional extras:** Coolant pipe No. 309880, coolant pipe plug-in socket No. 309890, ER clamping wrenches No. 309748 / 309749 Fahrion ER collets 308901 – 309434.

- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
  - Do not use the clamping nut in combination with a sealing washer.
  - Use the precision collet chuck always in conjunction with the precision clamping nut No. 309617; 309618.
  - Use in combination with Fahrion collets.



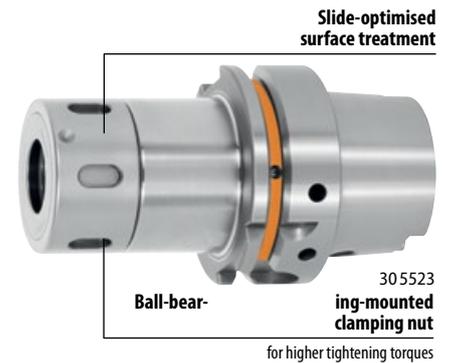
HiRunER

- Collet is fully seated in the chuck
- higher clamping forces!
- improved radial run-out!



Standard ER chuck

- Collet is not inserted 100 % in the chuck.



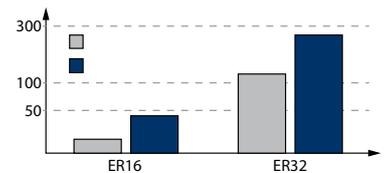
Slide-optimised surface treatment

Ball-bearing

ing-mounted clamping nut

for higher tightening torques

for ER collets	ER	11M	16M	16	25	32	40
31A 30 5518	HSK-E 40 short	•	•	•	•	–	–
31A 30 5523	HSK-A 63 short	–	–	•	•	•	•
31A 30 5524	HiRunER precision ER collet chuck HSK-A 63 medium	•	•	•	•	•	•
31A 30 5531	HSK-A 100 short	–	–	–	•	•	•
31A 30 5532	HSK-A 100 A = 100	–	–	–	•	•	•
Clamping range	mm	1 – 7	1 – 10	0.5 – 10	1 – 16	2 – 20	3 – 26
Dimension A (30 5518)	mm	70	70	60	65	–	–
Dimension A (30 5523, 30 5531)	mm	–	–	75	75	75	85
Dimension A (30 5524)	mm	100	100	100	100	100	120
Ø D	mm	16	24	34	44	52	62
Spare ER clamping nut 309617		–	–	16	25	32	40
Spare ER clamping nut 309618		11M	16M	–	–	–	–



Mini – size 11M/ 16M (extremely slim design).

30 5524

ISO 12164-1	DIN 69893	Form A	G 6.3 15000 min <sup>-1</sup>		HPC
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### HSK - Heavy-duty chuck – ISO 12164-1 (DIN 69893-1)

- Low friction due to needle bearings.
- Protected with anti-corrosion coating.
- Dust-tight and watertight.
- Very high clamping force prolongs tool life and improves surface quality.  
30 5539 – **Clamping force up to 150 Nm at Ø 12, 300 Nm at Ø 16 and 400 Nm at Ø 20.**  
30 5525/5528 – **Clamping force up to 900 Nm.**

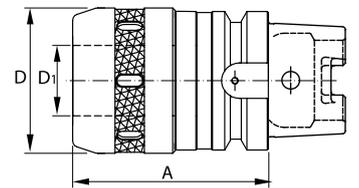
**Advantage:**

- 30 5539 – Low interference contour due to slim design.
- 30 5535/5538 – Long tool life. Vibration damping properties. High stability due to strengthened clamping nut.

**Application:** For clamping tools with plain shanks.

**Supplied with:** Clamping nut

**Optional extras:** Coolant tube No. 309880, collets No. 309566 – 309570 and No. 309575 – 309576, wrench No. 309747 for No. 305539.



Ø D			mm	12	16	20	32
32A	<b>30 5525</b>	Heavy-duty chuck	HSK-A 63	–	–	•	•
32A	<b>30 5528</b>		HSK-A 100	–	–	•	•
32A	<b>30 5539</b>	Heavy-duty chuck slim	HSK-A 63	•	•	•	–
Dimension A (30 5535, 30 5538)			mm	–	–	105	105
Dimension A (30 5525, 30 5539)			mm	90	90	90	135
Dimension A (30 5528)			mm	–	–	100	135
Ø D (30 5535, 30 5538)			mm	–	–	52	73
Ø D (30 5525, 30 5528)			mm	–	–	52	66
Ø D (30 5539)			mm	30	38	44	–
suitable hook spanner 628400 (30 5535, 30 5538, 30 5525, 30 5528)				–	–	52 / 55	68 / 75
suitable tightening wrench 309747 (30 5539)				S10	S16	S20	–

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min <sup>-1</sup>		HPC
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### Garant HSK - Heavy-duty chuck with security function – ISO 12164-1 (DIN 69893-1)

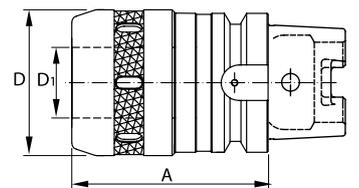
- Shanks hard turned (smooth cutting action).
- Very high clamping force prolongs tool life and improves surface quality.
- Centred tool clamping with optimum concentricity.
- Integral length adjustment screw.
- Internal coolant feed.

**Advantage:** HB (Weldon) flat provides quick and easy protection against the milling cutter pulling out. Positive connection between the milling cutter and arbor. Compact vibration-optimised contour.

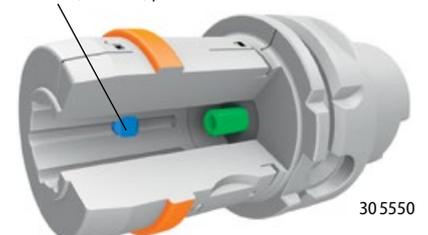
**Application:** For clamping tools with parallel shank and HB flat. Ideally suited for heavy-duty machining (HPC, TPC).

**Supplied with:** Clamping nut.

**Optional extras:** Coolant tube No. 309880.



Pressure (retention) piece.



Ø D			mm	12	16	20
31A	<b>30 5550</b>	Heavy-duty chuck with security function	HSK-A 63	•	•	•
31A	<b>30 5560</b>		HSK-A 100	•	•	•
Dimension A (30 5550)			mm	80	83	86
Dimension A (30 5560)			mm	99	102	105
Ø D			mm	40	45	50
Clamping force up to			N-m	430	520	900
suitable hook spanner 628400				40/42	45/50	45/50

ISO 12164-1	DIN 69882-3	DIN 69893		HPC
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### HSK - Face mill arbor – ISO 12164 (DIN 69893)

- Spigot Ø 40 with 4 tapped holes for face mills to DIN 2079.
- With Balluffchip bore.
- Increased collar contact surface.
- HSK mating faces machined.

30 6541/6530/6537/6531 – With **cooling channel bores.**

**Application:** For clamping shell end mills and milling cutter heads.

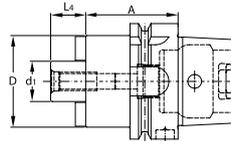
**Supplied with:** Lock screw



30 6510



30 6537



Spigot Ø d <sub>1</sub>			mm	16	22	27	32	40
31A	<b>30 6510</b>	<b>Garant</b> Face mill arbor	<b>HSK-A 63 short</b>	•	•	•	•	•
31A	<b>30 6530</b>	<b>Garant</b>	<b>HSK-A 63 short</b>	•	•	•	•	•
32A	<b>30 6537</b>	<b>HOLEX</b> Face mill arbor	<b>HSK-A 63 short</b>	•	•	•	•	•
31A	<b>30 6531</b>	<b>Garant</b> Face mill arbor with cooling channel bore	<b>HSK-F 63 short</b>	•	•	•	•	•
31A	<b>30 6541</b>	<b>Garant</b>	<b>HSK-A 63 medium</b>	•	•	•	•	•
Dimension A (30 6510, 30 6530, 30 6537)			mm	50	50	60	60	60
Dimension A (30 6531)			mm	45	50	55	60	65
Dimension A (30 6541)			mm	75	75	80	80	80
Ø D (30 6510, 30 6530)			mm	38	48	60	78	88
Ø D (30 6537)			mm	35	50	60	78	88
Ø D (30 6531)			mm	38	48	58	78	88
Ø D (30 6541)			mm	38	48	60	78	89
L <sub>4</sub>			mm	17	19	21	24	27
Spare milling cutter lock screw 309860				16	22	27	32	40
suitable special toggle spanner 309840				16	22	27	32	40

ISO 12164-1	DIN 69882-3	DIN 69893		HPC
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### HSK - Face mill arbor – ISO 12164 (DIN 69893)

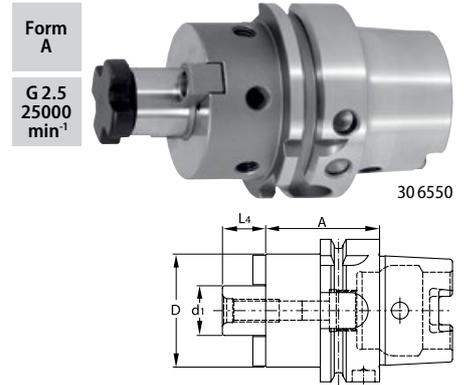
- Spigot  $\varnothing$  40 with 4 tapped holes for face mills to DIN 2079.
- With Balluffchip bore.
- Increased collar contact surface.
- HSK mating faces machined.

30 6562–6566/6575/6675/6677/6684/6686/6687/6691 – With **cooling channel bores**.

**Application:** For clamping shell end mills and milling cutter heads.

**Supplied with:** Lock screw.

**Optional extras:** Coolant tube No. 309880, socket wrench for coolant tubes No. 309890, toggle spanner No. 309840.



Spigot $\varnothing$ d <sub>1</sub>		mm	16	22	27	32	40	50	60
31A	<b>30 6550</b>	Face mill arbor	HSK-A 63 A = 100	•	•	•	•	–	–
31A	<b>30 6562</b>		HSK-A 63 A = 100	•	•	•	•	–	–
31A	<b>30 6563</b>	Face mill arbor with cooling channel bore	HSK-F 63 A = 100	•	•	•	•	–	–
31A	<b>30 6566</b>	<b>Garant</b>	HSK-A 63 A = 130	•	•	•	•	–	–
31A	<b>30 6570</b>	Face mill arbor	HSK-A 63 A = 160	•	•	•	•	–	–
31A	<b>30 6575</b>		HSK-A 63 A = 160	•	•	•	•	–	–
31A	<b>30 6675</b>	Face mill arbor with cooling channel bore	HSK-A 100 short	•	•	•	•	•	•
32A	<b>30 6677</b>	<b>HOLEX</b>	HSK-A 100 short	•	•	•	•	•	–
31A	<b>30 6678</b>	<b>Garant</b>	HSK-A 100 A = 100	•	•	•	•	•	–
32A	<b>30 6687</b>	<b>HOLEX</b>	HSK-A 100 A = 100	•	•	•	•	•	–
31A	<b>30 6684</b>	Face mill arbor with cooling channel bore	HSK-A 100 A = 100	•	•	•	•	•	–
31A	<b>30 6686</b>		HSK-A 100 A = 130	•	•	•	•	•	–
31A	<b>30 6690</b>	<b>Garant</b>	HSK-A 100 A = 160	•	•	•	•	•	–
<b>NEW</b> 31A	<b>30 6691</b>	Face mill arbor with cooling channel bore	HSK-A 100 A = 160	•	•	•	•	•	–
Dimension A (30 6675, 30 6677)		mm	50	50	50	50	60	70	70
$\varnothing$ D (30 6550, 30 6562, 30 6566, 30 6570, 30 6575, 30 6675, 30 6678, 30 6684, 30 6686, 30 6690, 30 6691)		mm	38	48	60	78	89	120	140
$\varnothing$ D (30 6563)		mm	38	48	58	78	88	–	–
$\varnothing$ D (30 6677, 30 6687)		mm	38	50	60	78	89	120	–
L <sub>4</sub>		mm	17	19	21	24	27	30	40
Spare milling cutter lock screw 309860			16	22	27	32	40	50	60
suitable special toggle spanner 309840			16	22	27	32	40	50	60

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min <sup>-1</sup>	$\leq 3\mu\text{m}$	HPC	HSC
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**Garant** HSK - Slim hydraulic chuck 3° – ISO 121641 (DIN 69893-1)

- **Extremely slim design** (3°-contour).
- With Balluffchip bore.
- Axial length adjustment facility.
- Shanks hard turned.

**Advantage:**

- **Temperature-resistant** due to completely enclosed system, i.e. no soldered pressure chambers.
- Ideal damping characteristics.
- High transmissible torques, providing high process reliability.

**Application:** Especially in operations in toolmaking and mould making.  
**Wherever reduced interference contours are required.**  
 For drilling, reaming and milling  
 For clamping tools with shank tolerance h6.

**Supplied with:** Hexagon socket drive with T-handle.

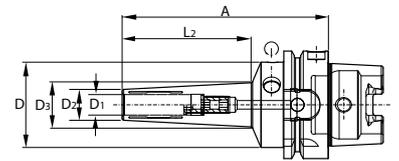
**Optional extras:** Reducing sleeves No. 302135 – 302180.



307533



307537



Clamping $\varnothing D_1$	mm	3	4	5	6	8	10	12	16	20
31A 307526	HSK-E 40 A = 85	•	•	•	•	•	•	•	–	–
31A 307528	HSK-E 50 A = 70	–	•	•	•	•	•	•	–	–
31A 307531	HSK-A 63	–	•	•	•	•	•	•	•	•
31A 307533	HSK-A 63 A = 120	•	•	•	•	•	•	•	•	•
31A 307536	HSK-A 63 A = 160	–	–	–	•	•	•	•	–	–
31A 307537	HSK-A 63 A = 200	–	–	–	•	•	•	•	–	–
31A 307543	HSK-A 100 A = 120	–	–	–	•	•	•	•	•	•
Dimension A (307531)	mm	–	80	80	80	80	85	90	95	100
$\varnothing D_2$ (307526, 307528, 307531, 307533, 307543)	mm	9	10	11	12	14	16	18	24	28
$\varnothing D_2$ (307536, 307537)	mm	–	–	–	16	18	20	22	–	–
$\varnothing D_3$ (307526)	mm	13.7	14.7	15.7	16.8	18.8	20.9	22.9	–	–
$\varnothing D_3$ (307528)	mm	–	13.88	14.88	15.99	17.99	20.1	20.1	–	–
$\varnothing D_3$ (307531)	mm	–	13.46	14.46	15.57	17.57	20.1	22.72	28.93	33.45
$\varnothing D_3$ (307533)	mm	16.7	17.7	18.7	20.4	22.4	24.5	26.6	31.5	35.5
$\varnothing D_3$ (307536)	mm	–	–	–	27.63	29.63	31.84	33.84	–	–
$\varnothing D_3$ (307537)	mm	–	–	–	31.93	33.93	36.14	38.14	–	–
$\varnothing D_3$ (307543)	mm	–	–	–	19.34	21.45	23.45	25.55	31.13	35.24
$\varnothing D$ (307526)	mm	34	34	34	34	34	34	34	–	–
$\varnothing D$ (307528)	mm	–	42	42	42	42	42	42	–	–
$\varnothing D$ (307531, 307533, 307536, 307537, 307543)	mm	–	–	–	–	50	–	–	–	–
$L_2$ (307526)	mm	45	45	45	46	46	47	47	–	–
$L_2$ (307528)	mm	–	37	37	38	38	39	39	–	–
$L_2$ (307531)	mm	–	33	33	34	34	39	45	47	52
$L_2$ (307533)	mm	73	73	73	73	74	74	75	71.5	72
$L_2$ (307536)	mm	–	–	–	111	111	113	113	–	–
$L_2$ (307537)	mm	–	–	–	152	152	154	154	–	–
$L_2$ (307543)	mm	–	–	–	70	71	71	72	68	69

ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min <sup>-1</sup>		HSC	HPC
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## HSK - Hydraulic chuck – version HT (High Torque) – ISO 12164-1 (DIN 69893-1)

- Very high total rigidity due to optimised design.
- With Balluffchip bore.
- Axial length adjustment available, adjustment travel 10 mm.
- Flexible due to the use of reducing sleeves.

- Advantage:**
- **Very high transmitted torque (550 Nm)**, providing high process reliability.
  - **Ideal damping characteristics**, resulting in optimum surface finishes, increased tool life and spindle protection.

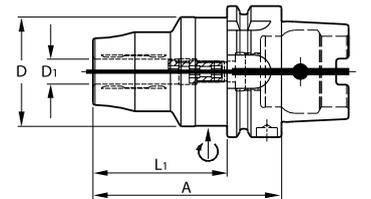
- Application:**
- **Especially for heavy-duty milling.**
  - For clamping tools with shank tolerance h6.

**Supplied with:** Hexagon cross-bar wrench.

**Optional extras:** Coolant pipe No. 309880, coolant pipe wrench No. 309890



Clamping range Ø D,		mm	12	16	20	32		
31H	<b>30 7550</b>	<b>Garant</b>	HT chuck		<b>HSK-A 63 short</b>	•	–	
32A	<b>30 7552</b>	<b>HOLEX</b>	HT chuck		<b>HSK-A 63 short</b>	–	–	<b>NEW</b>
31H	<b>30 7553</b>	<b>Garant</b>	HT chuck with cooling channel bores		<b>HSK-A 63 short</b>	•	•	
31H	<b>30 7555</b>		HT chuck		<b>HSK-A 100 short</b>	•	–	
32A	<b>30 7557</b>	<b>HOLEX</b>	HT chuck		<b>HSK-A 100 short</b>	–	–	<b>NEW</b>
Dimension A (30 7550, 30 7552, 30 7553)		mm	80	80	80	–		
Dimension A (30 7555)		mm	85	–	85	100		
Dimension A (30 7557)		mm	–	–	90	–		
Ø D		mm	52.5	52.5	52.5	72		
L <sub>1</sub> (30 7550, 30 7552, 30 7553)		mm	54	54	54	–		
L <sub>1</sub> (30 7555, 30 7557)		mm	56	–	56	71		
suitable reducing adapter			302140 / 302135	–	302160 / 302155	302180 / 302175		



ISO 12164-1	DIN 69893	G 2.5 25000 min <sup>-1</sup>	≤3μm	HSC	HPC
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### HSK - Shrink-fit chucks 4.5° – ISO 12164-1 (DIN 69893-1)

- High-temperature steel.
- Size 3 – 5 for carbide, from size 6 for HSS and carbide.
- With Balluffchip bores.

30 8165 – **Ultra short:** More stability and stiffness, less vibration. This ensures longer tool life and better surface quality. No length adjustment available.

30 8170–8294 – Integral length adjustment of the tool from clamping  $\varnothing D_1$  6 mm (adjustment travel 10 mm).

30 8165/8187/8192/8206/8277/8283/8284 – With **cooling channel bores** tapped for plugging.

30 8165/8170/8172/8187/8189/8192/8195/8196/8205/8206/8235/8265/8267/

8277/8282/8283/8284/8285/8286/8294 –

From clamping  $\varnothing D_1$  6 mm with tapped holes for balancing screws.

30 8165/8170/8172/8184/8187/8189/8192/8193/8195/8196/8205/8206/8235/8265/8267/8277/8282/8283/8284/8285/8286/8294 –

**GARANT:** HSK mating faces machined. **All shanks hard turned (for smooth running!).**

30 8172/8267 – Premium version:

Nickel plated version with 4 pluggable **cooling channel bores**.

30 8184/8193 – Without tapped holes for balancing screws.

30 8196/8286 – With **cooling channel bores** tapped for plugging.  $\varnothing D_1$ : 3 mm, 4 mm, 5 mm cannot be plugged.

- Application:**
- For holding end mills and drills with parallel shank to h6 tolerance.
  - Suitable for inductive, contact and hot air shrink-fit units.

**Supplied with:** For chucks with length adjustment incl. a length adjustment screw (from clamping  $\varnothing D_1$  6 mm).

**Optional extras:** Coolant tube No. 309880, socket wrench No. 309890, shrink-fit chuck extension No. 302410 – 302419, shrink-fit units No. 354210 – 354450, balancing screw set No. 309906 180.



Form A



30 8165



Form A



30 8170



Form A



30 8191



Form F



30 8193

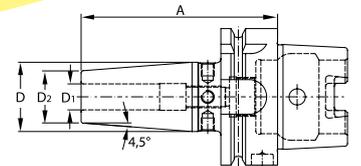
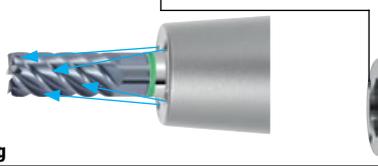
#### Different setting angles

of the cooling channel holes: Improved tool life thanks to optimised cooling and washing of the various chip flutes.

#### No corrosion

due to special surface coating (HSK ground)

Premium version



#### Perfect cooling

by four cooling channel holes which can be plugged

Clamping range $\varnothing D_1$		mm	3	4	5	6	8	10	12	14	16	18	20	25	32
31A	30 8165	Shrink-fit chuck with cooling channel bore	HSK-A 63 ultra short	–	–	–	–	•	•	–	•	–	•	•	–
31A	30 8170	<b>Garant</b> Shrink-fit chuck	HSK-A 63 short	•	•	•	•	•	•	•	•	•	•	•	–
31A	30 8172	Shrink-fit chuck with cooling channel bore, nickel plated	HSK-A 63 short	–	–	–	•	•	•	–	•	–	•	–	–
31A	30 8184	Shrink-fit chuck	HSK-F 63 short	•	•	•	•	•	•	•	•	•	•	–	–
31A	30 8187	<b>Garant</b> Shrink-fit chuck with cooling channel bore	HSK-A 63 short	•	•	•	•	•	•	•	•	•	•	•	–
31A	30 8189	Shrink-fit chuck	HSK-A 63 A = 120	•	•	•	•	•	•	•	•	•	•	•	–
31A	30 8192	Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 120	–	–	–	•	•	•	•	•	•	•	–	–
31A	30 8193	Shrink-fit chuck	HSK-F 63 A = 120	•	•	•	•	•	•	•	•	•	•	•	•
Dimension A (30 8165)		mm	–	–	–	–	–	70	70	–	75	–	75	85	–
Dimension A (30 8170, 30 8172, 30 8183, 30 8184, 30 8187)		mm	80	80	80	80	80	85	90	90	95	95	100	115	120
$\varnothing D$ (30 8165)		mm	–	–	–	–	–	33	33	–	37	–	43	50	–
$\varnothing D$ (30 8170, 30 8172, 30 8187, 30 8189, 30 8192)		mm	17	17	17	27	27	32	32	34	34	42	42	53	–
$\varnothing D$ (30 8184, 30 8193)		mm	20	22	22	27	27	31	31	34	34	40	40	53	53
$\varnothing D_1$ (30 8165)		mm	–	–	–	–	–	26	26	–	29	–	35	45	–
$\varnothing D_2$ (30 8170, 30 8172, 30 8187, 30 8189, 30 8192)		mm	12	12	12	21	21	24	24	27	27	33	33	44	–
$\varnothing D_2$ (30 8183, 30 8191)		mm	10	15	15	21	21	24	24	27	27	33	33	44	44
$\varnothing D_2$ (30 8184, 30 8193)		mm	10	15	15	20	20	24	24	27	27	33	33	44	44

Clamping range $\varnothing D_1$			mm	3	4	5	6	8	10	12	14	16	18	20	25	32
31A	30 8195	Shrink-fit chuck	HSK-A 63 A = 130	•	•	•	•	•	•	•	•	•	•	•	•	•
31A	30 8196	Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 130	•	•	•	•	•	•	•	•	•	•	•	•	•
31A	30 8205	Shrink-fit chuck	HSK-A 63 A = 160	•	•	•	•	•	•	•	•	•	•	•	•	–
31A	30 8206	Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 160	–	–	–	•	•	•	•	–	•	–	•	–	–
31A	30 8235	Shrink-fit chuck	HSK-A 63 A = 200	–	–	–	•	•	•	•	•	•	•	•	•	–
31A	30 8267	Shrink-fit chuck with cooling channel bore, nickel plated	HSK-A 100 short	–	–	–	•	•	•	•	–	•	–	•	–	–
31A	30 8265	Shrink-fit chuck	HSK-A 100 short	–	–	–	•	•	•	•	•	•	•	•	•	•
31A	30 8277	Shrink-fit chucks with cooling channel bore	HSK-A 100 short	–	–	–	•	•	•	•	•	•	•	•	•	•
31A	30 8282	Shrink-fit chuck	HSK-A 100 A = 120	–	–	–	•	•	•	•	•	•	•	•	•	–
31A	30 8285		HSK-A 100 A = 160	–	–	–	•	•	•	•	•	•	•	•	•	•
31A	30 8283	Shrink-fit chucks with cooling channel bore	HSK-A 100 A = 120	–	–	–	•	•	•	•	•	•	•	•	•	–
31A	30 8284		HSK-A 100 A = 130	–	–	–	•	•	•	•	•	•	•	•	•	–
31A	30 8286		HSK-A 100 A = 160	–	–	–	•	•	•	•	–	•	–	•	•	–
31A	30 8294		HSK-A 100 A = 200	–	–	–	•	•	•	•	•	•	•	•	•	•
Dimension A (30 8267, 30 8265, 30 8268, 30 8277)			mm	–	–	–	85	85	90	95	95	100	100	105	115	120
$\varnothing D$ (30 8195, 30 8196, 30 8205, 30 8206, 30 8235, 30 8267, 30 8265, 30 8277, 30 8282, 30 8285, 30 8283, 30 8284, 30 8286, 30 8294)			mm	17	17	17	27	27	32	32	34	34	42	42	53	53
$\varnothing D$ (30 8208)			mm	20	22	22	27	27	32	32	34	34	42	42	53	–
$\varnothing D$ (30 8268)			mm	–	–	–	27	27	34	34	36	36	44	44	53	53
$\varnothing D_1$ (30 8195, 30 8196, 30 8205, 30 8206, 30 8235, 30 8267, 30 8265, 30 8268, 30 8277, 30 8282, 30 8285, 30 8283, 30 8284, 30 8286, 30 8294)			mm	12	12	12	21	21	24	24	27	27	33	33	44	44
$\varnothing D_2$ (30 8208)			mm	10	15	15	21	21	24	24	27	27	33	33	44	–

## Garant Performance milling chuck



**Specially developed milling chuck for the most demanding applications, ideally suited to TPC milling and high feed rate applications. Milling cutter will not be pulled out, more precise radial run-out, good process reliability!**

**GARANT Performance -milling chucks ensure the following advantages:**

- No risk of the cutter being pulled out, even when suddenly jerked.
- Precision version.
- Optimised external contour – vibration-damping behaviour.
- Thread self-locking, even when subjected to micro-vibrations.
- Nasty surprises in the form of shank breakages when opening the chuck and virtually completed excluded.
- Pleasant handling thanks to the differential thread.

These can be found at:

SK: 30 0395 or 30 0398.

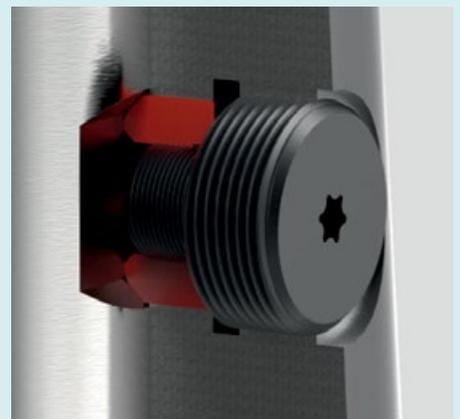
HSK: 30 4450 or 30 4460.



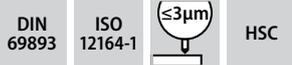
Spring in the base body presses the milling cutter or HB shank into the correct position.



Contact piece on the tightening screw holds the milling cutter in the HB face.



Differential thread on the tightening screw. Less manual force required to achieve the desired tightening torque.



**Garant** HSK - Shrink-fit chucks 3° (for tool and mould making) – ISO 12164-1 (DIN 69893-1)

- All shanks hard turned (for smooth running!).
- HSK mating faces machined.
- **Slim design (3° contour).**  
30 8321 – Extra-slim style.

30 8302–8314/8321 – **Balancing quality 2.5 / 40,000 rpm.**  
30 8316/8318 – **Balancing quality 2.5 / 25,000 rpm.** With Balluffchip bore.

**Application:** • **Especially in tool and mould making.**  
• For clamping tools with shank tolerance h6.

**Optional extras:** Coolant feed pipe No. 309880. Socket No. 309890.  
Shrink-fit chuck extensions No. 302410 sizes 12/3 and 12/4.  
Shrink-fit units No. 354210 – 354450.  
Balancing screw set No. 309906 180.

G 2.5  
40000  
min<sup>-1</sup> Form E



30 8321

G 2.5  
40000  
min<sup>-1</sup> Form E

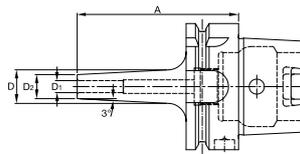


30 8302

G 2.5  
25000  
min<sup>-1</sup> Form A



30 8318



Clamping Ø D <sub>1</sub>		mm	3	4	5	6	8	10	12	
31A	<b>30 8321</b>	Shrink-fit chuck 3°, extra slim	HSK-E 40 A = 60	•	•	•	•	•	•	
31A	<b>30 8302</b>	Shrink-fit chuck 3°	HSK-E 40 A = 60	•	•	•	•	•	•	
31A	<b>30 8304</b>		HSK-E 40 A = 70	•	•	•	•	•	•	
31A	<b>30 8306</b>		HSK-E 40 A = 80	•	•	•	•	•	•	
31A	<b>30 8308</b>		HSK-E 50 A = 70	•	•	•	•	•	•	
31A	<b>30 8312</b>		HSK-E 50 A = 80	•	•	•	•	•	•	
31A	<b>30 8314</b>		HSK-E 50 A = 100	•	•	•	•	•	•	
31A	<b>30 8316</b>		HSK-A 63 A = 80	•	•	•	•	•	•	
31A	<b>30 8318</b>		HSK-A 63 A = 120	•	•	•	•	•	•	
	Ø D (30 8321)		mm	10	11	12	13	15	17	19
	Ø D (30 8302, 30 8308)		mm	14	15	16	17	19	21	23
	Ø D (30 8304, 30 8312, 30 8316)	mm	15	16	17	18	20	22	24	
	Ø D (30 8306)	mm	16	17	18	19	21	23	25	
	Ø D (30 8314)	mm	17	18	19	20	22	24	26	
	Ø D (30 8318)	mm	19	20	21	22	24	26	28	
	Ø D <sub>2</sub> (30 8321)	mm	6	7	8	9	11	13	15	
	Ø D <sub>2</sub> (30 8302, 30 8304, 30 8306, 30 8308, 30 8312, 30 8314, 30 8316, 30 8318)	mm	9	10	11	12	14	16	18	



**Garant** HSK - Shrink-fit chucks 4.5°, long version – ISO 12164-1 (DIN 69893-1)

- External taper 4°30'.
- With Balluffchip bore.
- HSK mating faces machined.

30 8329/8337 – With **cooling channel bores.**

**Application:** • **For working in places where access is particularly difficult.**  
• For clamping tools with parallel shank to h6 tolerance.

**Optional extras:** Coolant pipe No. 309880, Plug-in socket No. 309890,  
Shrink-fit extension No. 302410 size 12/3 and 12/4.  
Shrink-fit units No. 354210 – 354450.  
Balancing screw set No. 309906 180.



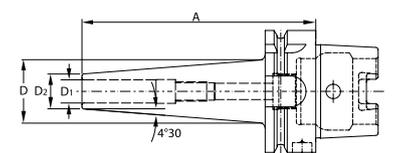
30 8328



30 8329

Clamping range Ø D <sub>1</sub>		mm	6	8	10	12
31A	<b>30 8328</b>	Shrink-fit chuck 4°30'	HSK-A 63 A = 120	•	•	•
31A	<b>30 8329</b>	Shrink-fit chuck 4°30', with cooling channel bores	HSK-A 63 A = 120	•	•	•
31A	<b>30 8334</b>	Shrink-fit chuck 4°30'	HSK-A 63 A = 160	•	•	•
31A	<b>30 8337</b>	Shrink-fit chuck 4°30', with cooling channel bores	HSK-A 63 A = 160	•	•	•
	Ø D	mm	30	30	33	33
	Ø D <sub>2</sub>	mm	15	15	18	18

NEW

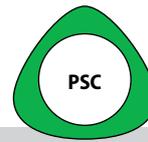


ISO 26623-1  G 2.5 25000 min<sup>-1</sup>  ≤3µm HSC HPC

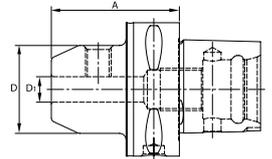
**Garant** PSC - Tool arbors with polygonal shank – ISO 26623-1

- With Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

**Optional extras:** Coolant pipe No. 309885, coolant pipe wrench No. 309893.



30 8502



**Sidelock arbors (Weldon)**

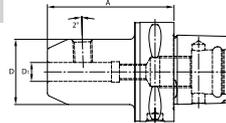
**Application:** For clamping tools with Weldon shank to DIN 1835 Form B and DIN 6535 Form HB.

**Note:** Suitable reduction of PSC 63 to PSC 40 or PSC 50 No. 318892.  
 Suitable reducing adapter from SK 40 and HSK 63 to PSC 40 or PSC 50 No. 301275 and No. 306975.  
 Suitable reducing adapter for SK 50 and HSK 100 to PSC 63 or PSC 80 No. 301276 and No. 306976.  
 Suitable extensions see No. 318894, No. 318895 and No. 318896.

Clamping range Ø D <sub>1</sub>		mm	6	8	10	12	14	16	18	20	25	32
31C 30 8499		PSC 40 short	•	•	•	•	•	•	–	–	–	–
31C 30 8501	Side lock arbor	PSC 50 short	•	•	•	•	•	•	•	•	•	–
31C 30 8502		PSC 63 short	•	•	•	•	•	•	•	•	•	•
31C 30 8506	Side lock arbor with cooling channel bores	PSC 63 short	•	•	•	•	•	•	•	•	•	•
31C 30 8504	Side lock arbor	PSC 63 A = 100	•	•	•	•	•	•	•	–	–	–
31C 30 8509	Side clamping chuck with cooling channel bores	PSC 63 A = 100	•	•	•	•	–	•	–	•	–	–
31C 30 8508	Side clamping chuck	PSC 63 A = 130	•	•	•	•	–	•	–	•	–	–
31C 30 8503		PSC 80 short	•	•	•	•	•	•	•	•	•	•
Dimension A (30 8499)		mm	50	50	50	55	55	55	–	–	–	–
Dimension A (30 8501)		mm	50	50	55	60	60	60	60	60	80	–
Dimension A (30 8502, 30 8506)		mm	55	55	60	60	60	65	65	65	80	90
Dimension A (30 8503)		mm	70	70	70	70	70	70	70	70	80	80
Ø D		mm	25	28	35	42	44	48	50	52	65	72

**Whistle-Notch**

**Application:** For clamping tools with suitable clamping flat (2°) to DIN 1835 Form E and DIN 6535 Form HE (= Whistle Notch).



30 8510

Clamping range Ø D <sub>1</sub>		mm	6	8	10	12	14	16	18	20	25	32
31C 30 8510	Whistle-Notch arbor	PSC 63 short	•	•	•	•	•	•	•	•	•	•
Dimension A		mm	75	75	75	80	80	80	80	85	90	95
Ø D		mm	25	28	35	42	44	48	50	52	65	72

ISO 26623-1  G 2.5 25000 min<sup>-1</sup>  ≤3µm HPC HSC

**Garant** PSC - HiRunER precision ER collet chuck - ISO26623-1

External and internal tapers are ground. All shanks are turned for a smooth cutting action. Including Balluffchip bore, high-performance clamping nut up to 25000 rpm.

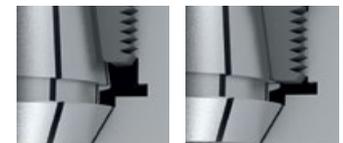
- Advantage:**
- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3 µm radial run-out with a 2 µm clamping nut, 6 µm radial run-out with a 5 µm clamping nut.
  - **Extremely strong holding force** (up to factor 2 better than the standard ER chuck).
  - **Vibration reduction effect** due to 2-part clamping nuts.

**Application:** For clamping tools with plain shank in collets to DIN 6499 – Form A and B.

**Supplied with:** Supplied with precision clamping nut.

**Optional extras:** Coolant pipe No. 309885, Coolant pipe plug-in socket No. 309893, ER collets No. 308901 – 309434, ER clamping wrenches No. 309748 / 309749.

- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
  - Do not use the clamping nut in combination with a sealing washer.
  - Use the precision collet chuck always in conjunction with the precision clamping nut No. 309617.
  - Use in combination with Fahrion collets.



Standard ER chuck -> Collets are not inserted 100 % into the chuck.  
 HiRunER -> the full surface of the collet is seated in the chuck -> higher retention forces! -> reduced radial run-out!



30 8542

for ER collets		ER	16	25	32
31C 30 8542	HiRunER precision ER collet chuck	PSC 63 A = 100	•	•	•
Clamping range	mm		1 – 10	1 – 16	2 – 19
Ø D	mm		34	44	52
Spare ER clamping nut 309617			16	25	32

ISO 26623-1 G 2.5 25000 min<sup>-1</sup>

## Garant PSC - Tool arbors with polygonal shank – ISO 26623-1

- With Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

**Optional extras:** Coolant pipe and plug-in socket No. 309885 / 9893.

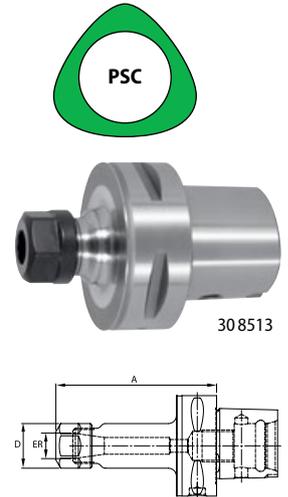
### ER collet chuck



**Application:** For clamping tools with plain shank in ER collets to DIN 6499 Form A and B.

**Supplied with:** Coated high-speed clamping nut.

**Optional extras:** ER collets No. 308881 – 309434. ER chuck keys No. 309680 – 309740.



for ER collets		ER	16	25	32	40
31C 308513	ER collet chuck	PSC 40 short	•	•	•	–
31C 308514		PSC 50 short	•	•	•	–
31C 308515		PSC 63 short	•	•	•	•
31C 308522		PSC 63 A = 100	•	•	•	•
31C 308530		PSC 63 A = 130	–	•	•	–
31C 308535		PSC 63 A = 160	•	•	–	–
31C 308539		PSC 80 short	•	•	•	•
Clamping range	mm	0.5 – 10	1 – 16	2 – 20	3 – 26	
Dimension A (308513)	mm	70	55	55	–	
Dimension A (308514)	mm	55	55	60	–	
Dimension A (308515)	mm	60	60	60	65	
Dimension A (308539)	mm	65	70	70	70	
∅ D	mm	28	42	50	63	
Spare high-speed nut GARANT No. 309610		16	25	32	40	

### Face mill arbors

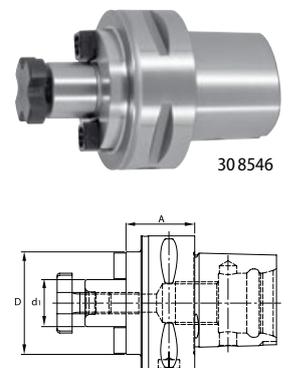


**Application:** For holding shell end mills and face mills with cross keyway.

**Supplied with:** Lock screw.

**Optional extras:** Toggle spanner No. 309840, cutter lock screw No. 309860.

Spigot ∅ d,		mm	16	22	27	32	40
NEW 31A 308543	Face mill arbor with cooling channel bores	PSC-40 short	•	•	–	–	–
NEW 31A 308544		PSC-50 short	•	•	•	–	–
31C 308546		BT 63 ultra short	•	•	•	•	–
31C 308547		PSC 63 A = 65	•	•	•	•	–
31C 308551		PSC 80 short	•	•	•	•	•
Dimension A (308543)	mm	32	25	–	–	–	
Dimension A (308544)	mm	35	25	25	–	–	
Dimension A (308546)	mm	40	25	25	25	–	
Dimension A (308551)	mm	50	50	50	60	60	
∅ D (308543, 308544, 308546, 308547)	mm	38	48	60	63	–	
∅ D (308551)	mm	38	48	60	78	88	



ISO 26623-1 G 2.5 25000 min<sup>-1</sup> ≤3µm HPC HSC

## Garant PSC - Hydraulic chucks, version HT (High Torque) - ISO26623-1

- With Balluffchip bore.
- Axial length adjustment (adjustment 10 mm) available.
- Flexible due to use of reducing sleeves.

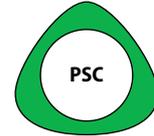
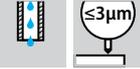
**Application:** • Maximum transmissible torque **550 Nm**, version HT (High Torque).

**Optional extras:** • Slotted reducing adapters No. 302155 and No. 302160.



Clamping ∅ D1	mm	20
31C 308556	HD chuck HD chuck short, version HT	PSC 63
Dimension A	mm	80
∅ D	mm	49
L <sub>1</sub>	mm	41

ISO 26623-1



**Garant** PSC - Tool arbors with polygonal shank – ISO 26623-1

- With Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

**Optional extras:** Coolant pipe and plug-in socket No. 309885 / 9893.

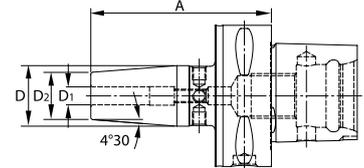
**Shrink-fit chucks 4° 30'**

G 2.5  
25000  
min<sup>-1</sup>    HSC    HPC

**Application:** For clamping tools with shank tolerance h6.

**Optional extras:** Shrink-fit chuck extensions No. 302410 – 302417. Shrink-fit units No. 354210 – 354450.

**Note:**  
30 8568 Size 3–5 – No length adjustment available.



Clamping range Ø D <sub>1</sub>	mm	3	4	5	6	8	10	12	14	16	18	20	25	32
<sup>31C</sup> 30 8566	Shrink-fit chuck	PSC 40 short	–	–	–	•	•	•	•	•	•	•	–	–
<sup>31C</sup> 30 8567		PSC 50 short	–	–	–	•	•	•	•	•	•	•	•	–
<sup>31C</sup> 30 8568		PSC 63 short	•	•	•	•	•	•	•	•	•	•	•	•
<sup>31C</sup> 30 8571		PSC 63 A = 120	–	–	–	•	•	•	•	•	•	•	–	–
<sup>31C</sup> 30 8573	Shrink-fit chuck with cooling channel bore	PSC 63 short	–	–	–	•	•	•	–	•	–	•	–	–
<sup>31C</sup> 30 8574		PSC 63 A = 120	–	–	–	•	•	•	–	•	–	•	–	–
<sup>31C</sup> 30 8575	Shrink-fit chuck	PSC 80 short	–	–	–	•	•	•	•	•	•	•	•	•
Dimension A (30 8566, 30 8567)	mm	–	–	–	75	75	75	75	80	80	80	85	90	–
Dimension A (30 8568, 30 8573, 30 8575)	mm	80	80	80	80	80	80	80	85	85	85	85	90	95
Ø D	mm	17	17	17	27	27	32	32	34	34	42	42	53	53
Ø D <sub>2</sub>	mm	12	12	12	21	21	24	24	27	27	33	33	44	44

**PSC - Precision short drill chucks with polygonal shank**

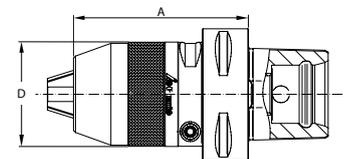
G 2.5  
18000  
min<sup>-1</sup>    ≤14 Nm

- For clockwise and anticlockwise rotation.
- Sand-blasted.

**Supplied with:**

30 8587 – **Clamping wrench.**

30 8595 – **Torx® clamping wrench.**



Clamping range	mm	0,3-10	1-16
<sup>31B</sup> <sup>31B</sup> 30 8587	Short drill chuck	PSC 40	•
<sup>31B</sup> 30 8595		PSC 63	–
Dimension A	mm	74	93.1
Ø D	mm	36	50
Spare Torx® screwdriver 625220		–	TX25
Spare hexagon screwdriver 627425		4 AF	–

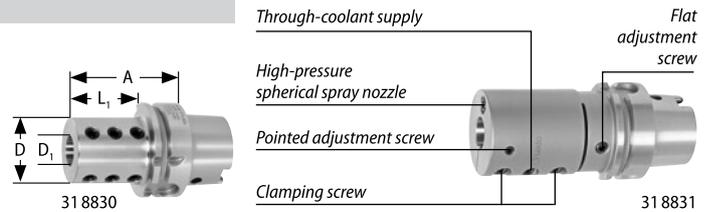
## PSC/HSK - Turning Toolholders – for Boring bars / Parting-off / Blanks / Square Shanks

### Boring bar holders



31 8831 – **GARANT** – more stability and vibration damping effect due to wrapping around the boring bar.

**Application:** For mounting boring bars.



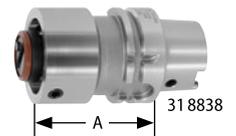
Clamping range $\varnothing D_1$	mm	6	8	10	12	16	20	25	32	40
<sup>36D</sup> <b>31 8829</b> <b>SWISS TOOLS</b> Boring bar holder	<b>HSK-T 40</b>	•	•	•	•	•	–	–	–	–
<sup>36D</sup> <b>31 8830</b> <b>SWISS TOOLS</b> Boring bar holder	<b>HSK-T 63</b>	•	•	•	•	•	•	•	•	•
<sup>31G</sup> <b>31 8831</b> <b>GARANT</b> Boring bar holder slotted	<b>HSK-T 63</b>	–	–	•	•	•	•	•	–	–
Dimension A (31 8829)	mm	55	55	55	55	70	–	–	–	–
Dimension A (31 8830)	mm	60	60	60	60	75	75	75	90	90
Dimension A (31 8831)	mm	–	–	105	105	105	105	105	–	–
$\varnothing D$ (31 8829, 31 8830)	mm	34	34	34	36	40	44	50	56	63
$\varnothing D$ (31 8831)	mm	–	–	45	45	45	55	55	–	–
$L_1$ (31 8829)	mm	35	35	35	35	50	–	–	–	–
$L_1$ (31 8830)	mm	34	34	34	34	49	49	49	64	64
$L_1$ (31 8831)	mm	–	–	79.05	79.05	79.05	79.05	79.05	–	–

### Extensions



**Application:** For extension of HSK interfaces.

A dimension	mm	80	120
<sup>36D</sup> <b>31 8838</b> <b>SWISS TOOLS</b> Extension HSK-T63 / HSK-T63	<b>HSK-T 63</b>	•	•
Dimension A	mm	80	120

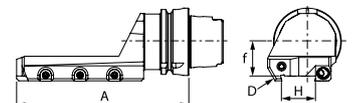
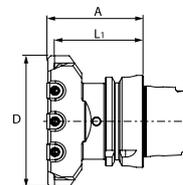


### Parting-off toolholder



**Application:** To take parting-off blades with coolant delivery from all popular manufacturers. Transfer holes not used can be closed off using the screws supplied. Supplied with ball spray nozzle.

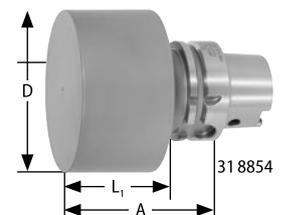
for blade height H	mm	32
<sup>36D</sup> <b>31 8843</b> eco radial parting-off toolholder	<b>HSK-T 63</b>	•
<sup>36D</sup> <b>31 8844</b> <b>GARANT</b> eco axial parting-off toolholder, right-hand	<b>HSK-T 63</b>	•
<sup>36D</sup> <b>31 8845</b> eco axial parting-off toolholder, left-hand	<b>HSK-T 63</b>	•
Dimension A (31 8843)	mm	65
Dimension A (31 8844, 31 8845)	mm	160
$L_1$ (31 8843)	mm	60
$\varnothing D$ (31 8843)	mm	90
$\varnothing D$ (31 8844, 31 8845)	mm	75
f (31 8844, 31 8845)	mm	32



### Blanks

**Application:** For making special tools.

$\varnothing D \times A$ dimension	mm	54×55	63×200	102×100
<sup>36D</sup> <b>31 8853</b> <b>SWISS TOOLS</b> Blank	<b>HSK-T 40</b>	•	–	–
<sup>36D</sup> <b>31 8854</b> <b>SWISS TOOLS</b> Blank	<b>HSK-T 63</b>	–	•	•
$L_1$	mm	35	174	74



### Blanking plug

**Application:** For closing off unused HSK clamping units.

HSK-T	40	63	
<sup>36D</sup> <b>31 8858</b> <b>SWISS TOOLS</b> HSK-T - blanking plug	•	•	
Adapter	<b>HSK-T 40</b>	<b>HSK-T 63</b>	
$\varnothing D$	mm	40	63
$L_1$	mm	20	26

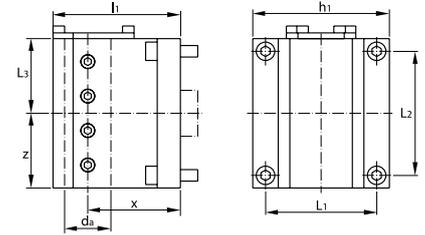


**Boring bar / combination holder**

For internal and external cooling.

**Application:** For internal machining with boring bar holder or indexable drills.

BMT		40	60	55/E	55/D	68
31V	<b>31 9888</b> Boring bar holder	●	●	●	●	●
Z	mm	65	70	58	60	64
x	mm	100	80	85	60	95
l <sub>1</sub>	mm	125	110	115	90	123
d <sub>a</sub>	mm	32	40	32	40	32
L <sub>1</sub>	mm	70	94	64	64	110
L <sub>2</sub>	mm	62	84	64	64	68
L <sub>3</sub>	mm	10	30	22	45	21
h <sub>1</sub>	mm	78	108	85	85	76
Suitable machines		Mori NZ, Mori NT, CTX310-BMT	Mori NL, Mori NT	Emag VL, Emag VT	Doosan Lynx, Doosan Puma, Hwacheon	Mazak: QT Smart, QT Kompakt



**Toolholder with hollow taper shank (HSK) – Form T for turning / milling centres**

ISO 12164-3

**Application:** For use on lathes and milling centres.

**Toolholder for toolholders with square shanks**



With adjustable cooling nozzle with internal thread.

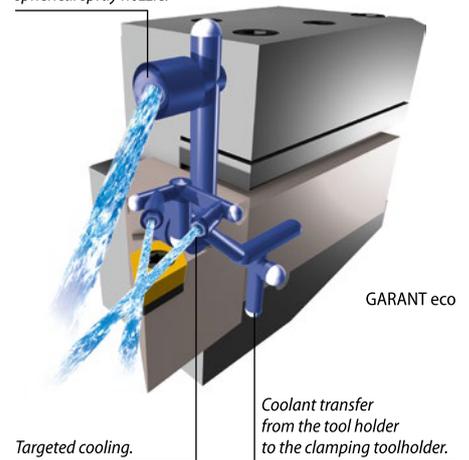
31 8620–8628 – **GARANT** - Optimisation of tool life, better surface finishes, increased process reliability and increased productivity due to GARANT eco.

**Application:** For mounting ISO toolholders with square shanks.

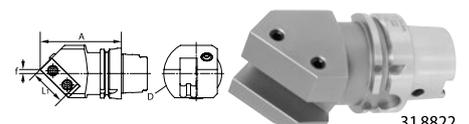
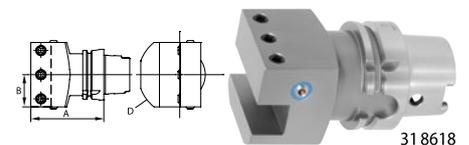
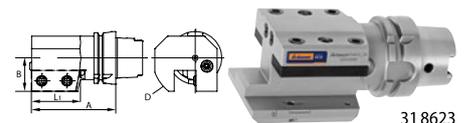
for toolholder square		mm	20	25
36D	<b>31 8602</b>	Toolholder axial, single, right-hand	●	–
36D	<b>31 8606</b>	Toolholder axial, single, left-hand	●	–
36D	<b>31 8618</b>	Toolholder radial	●	–
31G	<b>31 8620</b>	eco toolholder axial single, right-hand	–	●
31G	<b>31 8621</b>	eco toolholder axial single, left-hand	–	●
36D	<b>31 8802</b>	Toolholder axial, single, right-hand	●	●
36D	<b>31 8806</b>	Toolholder axial, single, left-hand	●	●
31G	<b>31 8623</b>	eco toolholder axial double, right-hand	–	●
36D	<b>31 8811</b>	Toolholder axial, double, right-hand	●	●
36D	<b>31 8814</b>	Toolholder axial, triple, right-hand	●	●
31G	<b>31 8625</b>	eco toolholder radial	–	●
36D	<b>31 8818</b>	Toolholder radial	●	●
31G	<b>31 8627</b>	eco toolholder diagonal 45°, right-hand	–	●
31G	<b>31 8628</b>	eco toolholder diagonal 45°, left-hand	–	●
36D	<b>31 8822</b>	Toolholder diagonal 45°, right-hand	●	●
36D	<b>31 8826</b>	Toolholder diagonal 45°, left-hand	●	●
Dimension A (31 8602, 31 8606, 31 8620, 31 8621, 31 8623)	mm	80	130	
Dimension A (31 8618, 31 8625)	mm	75	90	
Dimension A (31 8802, 31 8806, 31 8811, 31 8814)	mm	90	100	
Dimension A (31 8818)	mm	90		
Dimension A (31 8627, 31 8628)	mm	–	112.7	
Dimension A (31 8822, 31 8826)	mm	100		
L <sub>1</sub> (31 8602, 31 8606, 31 8620, 31 8621, 31 8623, 31 8625)	mm	45	88	
L <sub>1</sub> (31 8802, 31 8806, 31 8811, 31 8814, 31 8822, 31 8826)	mm	45	58	
L <sub>1</sub> (31 8627, 31 8628)	mm	–	80	
B (31 8602, 31 8606, 31 8618, 31 8620, 31 8621, 31 8802, 31 8806, 31 8623, 31 8811, 31 8814, 31 8818, 31 8627, 31 8628, 31 8822, 31 8826)	mm	30	40	
B (31 8625)	mm	–	55	
∅ D (31 8602, 31 8606, 31 8618, 31 8620, 31 8621, 31 8802, 31 8806, 31 8623, 31 8811, 31 8625, 31 8818, 31 8822, 31 8826)	mm	80	102	
∅ D (31 8814)	mm	90	102	
∅ D (31 8627, 31 8628)	mm	–	94	
f (31 8627, 31 8628)	mm	–	12.7	
f (31 8822, 31 8826)	mm	15		



Additional cooling using a high-pressure spherical spray nozzle.



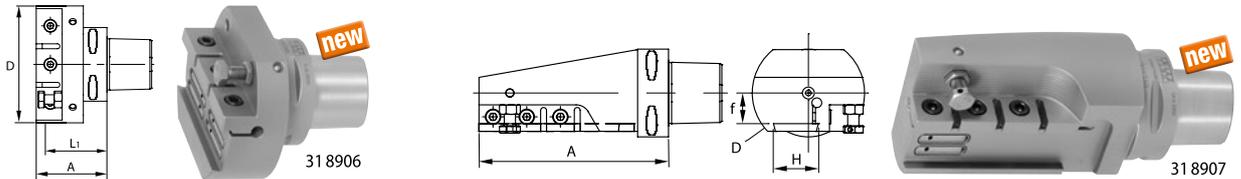
With pass-through shim. Suitable for toolholders with shank 20 and 25 mm.



**Parting-off toolholder**



**Application:** To take parting-off blades with coolant delivery from all popular manufacturers. Transfer holes not used can be closed off using the screws supplied. Supplied with ball spray nozzle.

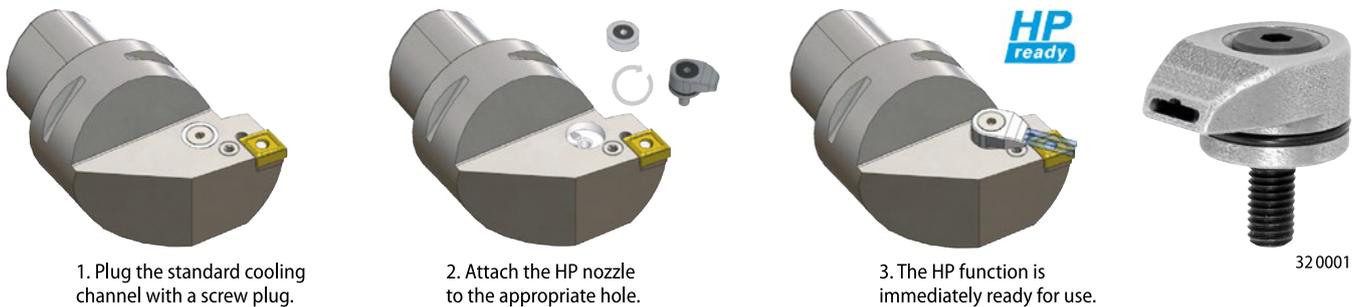


for blade height H		mm	32
360 <b>31 8906</b>	eco radial parting-off toolholder	PSC 63	•
360 <b>31 8907</b>	eco axial parting-off toolholder, right-hand	PSC 63	•
360 <b>31 8909</b>	eco axial parting-off toolholder, left-hand	PSC 63	•
Dimension A (31 8906)		mm	50
Dimension A (31 8907, 31 8909)		mm	160
L <sub>1</sub> (31 8906)		mm	45.5
∅ D (31 8906)		mm	107
∅ D (31 8907, 31 8909)		mm	96
f (31 8907, 31 8909)		mm	32.5

**SWISS TOOLS High-pressure cooling nozzle (HP) for screw-on toolholders**

Optimum cooling using a High Pressure (HP) cooling nozzle.

**Application:** Attachment to a screw-on toolholder with a HP channel.  
**Supplied with:** 1 attachment screw, O-ring, plug screw for the standard cooling channel.



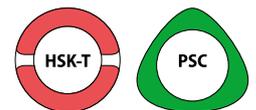
Type		63
360 <b>32 0001</b>	High-pressure cooling nozzle (HP)	•



**SWISS TOOLS PSC/HSK - Turning Toolholders – for Indexable inserts**

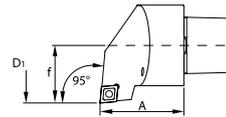
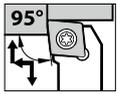
**Note:** Order the suitable **HP nozzle** No. 320001 separately. Spare parts No. 320610 – 320626 can be found in the spare parts list. PSC clamping stud on request.

**PWLN R/L 95° lever-lock toolholder for WN..0804..**



Shank ∅ / insert size	360 <b>32 0005</b>	360 <b>32 0006</b>	360 <b>32 0305</b>	360 <b>32 0306</b>	Dimension A		∅ D <sub>1</sub> min	f	suitable indexable insert	Spare part
	Lever-lock toolholder				32 0005	32 0305				
mm	right-hand	left-hand	right-hand	left-hand	mm	mm				
40/08HP	•	•	•	•	55	50	50	27	WN..0804..	P04
50/08HP	–	–	•	•	–	60	63	35	WN..0804..	P04
63/08HP	•	•	•	•	70	65	80	45	WN..0804..	P04

**SCLC R/L 95° screw-on toolholder for CC..1204..**



ISO 12164-3



320010

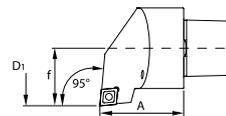
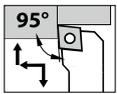
ISO 26623-1



320010

Shank Ø / insert size	Screw-on toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	360	360	360	360	32 0010	32 0310				
	right-hand	left-hand	right-hand	left-hand	32 0011	32 0311				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/12HP	•	•	•	•	55	50	50	27	CC..1204..	S01
50/12HP	—	—	•	•	—	60	63	35	CC..1204..	S01
63/12HP	•	•	•	•	70	65	80	45	CC..1204..	S01

**PCLN R / L 95° lever-lock toolholder for CN..**



ISO 12164-3



320315

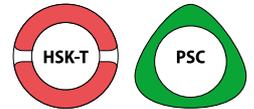
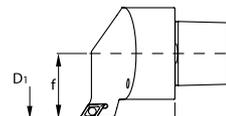
ISO 26623-1



320015

Shank Ø / insert size	Lever-lock toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	360	360	360	360	32 0015	32 0315				
	right-hand	left-hand	right-hand	left-hand	32 0016	32 0316				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/12HP	•	•	•	•	55	50	50	27	CN..1204..	P01
50/12HP	—	—	•	•	—	60	63	35	CN..1204..	P01
63/12HP	•	•	•	•	70	65	80	45	CN..1204..	P01
63/16HP	•	•	•	•	70	65	80	45	CN..1606..	P02

**SDJC R / L 93° screw-on toolholder for DC..11T3..**



ISO 12164-3



320030

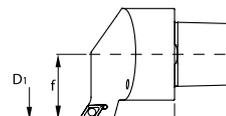
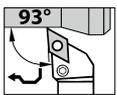
ISO 26623-1



320030

Shank Ø / insert size	Screw-on toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	360	360	360	360	32 0030	32 0330				
	right-hand	left-hand	right-hand	left-hand	32 0031	32 0331				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/11HP	•	•	•	•	55	50	50	27	DC..11T3..	S05
50/11HP	—	—	•	•	—	60	63	35	DC..11T3..	S05
63/11HP	•	•	•	•	70	65	80	45	DC..11T3..	S05

**PDJN R / L 93° lever-lock toolholder for DN..1506..**



ISO 12164-3



320035

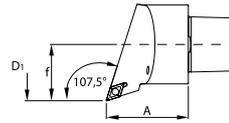
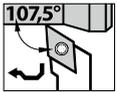
ISO 26623-1



320335

Shank Ø / insert size	Lever-lock toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	360	360	360	360	32 0035	32 0335				
	right-hand	left-hand	right-hand	left-hand	32 0036	32 0336				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/15HP	•	•	•	•	55	50	50	27	DN..1506..	P05
50/15HP	—	—	•	•	—	60	63	35	DN..1506..	P05
63/15HP	•	•	•	•	70	65	80	45	DN..1506..	P05

**SDHC R / L 107.5° screw-on toolholder for DC..11T3..**



ISO 12164-3



32 0040

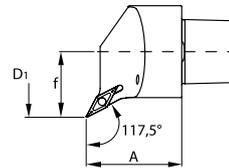
ISO 26623-1



32 0040

Shank Ø / insert size	Screw-on toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	right-hand	left-hand	right-hand	left-hand	32 0040	32 0340				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/11HP	●	●	●	●	55	50	50	27	DC..11T3..	S05
50/11HP	—	—	●	●	—	60	63	35	DC..11T3..	S05
63/11HP	●	●	●	●	70	65	80	45	DC..11T3..	S05

**SVPB R / L 117.5° screw-on toolholder for VB..1604..**



ISO 12164-3



32 0350

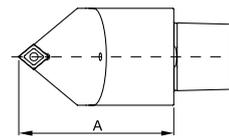
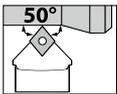
ISO 26623-1



32 0050

Shank Ø / insert size	Screw-on toolholder				Dimension A		Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	right-hand	left-hand	right-hand	left-hand	32 0050	32 0350				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/16HP	●	●	●	●	55	50	50	27	VB..1604..	S07
50/16HP	—	—	●	●	—	60	63	35	VB..1604..	S07
63/16HP	●	●	●	●	70	65	80	45	VB..1604..	S07

**PCMN N 50° lever-lock toolholder for CN..**



ISO 12164-3



32 0065

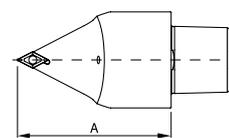
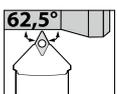
ISO 26623-1



32 0365

Shank Ø / insert size — A dimension	Lever-lock toolholder neutral		Dimension A	suitable indexable insert	Spare part
	HSK-T	PSC			
mm			mm		
4012-80HP	●	—	80	CN..1204..	P01
6312-100HP	●	●	100	CN..1204..	P01
6312-130HP	●	●	130	CN..1204..	P01
6316-100HP	●	●	100	CN..1606..	P02
6316-130HP	●	●	130	CN..1606..	P02

**SDNC N 62.5° screw-on toolholder for DC..11T3**



ISO 12164-3



32 0070

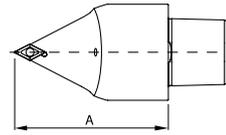
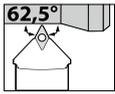
ISO 26623-1



32 0370

Shank Ø / insert size — A dimension	Screw-on toolholder neutral		Dimension A	suitable indexable insert	Spare part
	HSK-T	PSC			
mm			mm		
4011-80HP	●	—	80	DC..11T3..	S05
6311-130HP	●	●	130	DC..11T3..	S05
6311-100HP	●	●	100	DC..11T3..	S05

**PDNN N 62.5° lever-lock toolholder for DN..1506..**



ISO 12164-3



32 0075

ISO 26623-1



32 0375

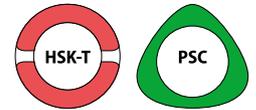
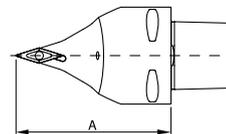
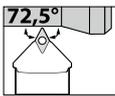
Shank Ø / insert size – A dimension	360		360		Dimension A	suitable indexable insert	Spare part
	32 0075	32 0375	Lever-lock toolholder neutral				
mm	HSK-T	PSC			mm		
4015-80HP	•	–			80	DN..1506..	P06
6315-100HP	•	•			100	DN..1506..	P06
6315-130HP	•	•			130	DN..1506..	P06



**SWISS TOOLS Toolholder / boring bars for indexable inserts**

**Note:** Appropriate spare parts No. 320610 – 320626 can be found in the spare parts list.

**SVVB N 72.5° screw-on toolholder for VB..1604..**



ISO 12164-3



32 0380

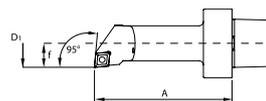
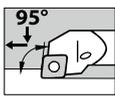
ISO 26623-1



32 0080

Shank Ø / insert size – A dimension	360		360		Dimension A	suitable indexable insert	Spare part
	32 0080	32 0380	Screw-on toolholder neutral				
mm	HSK-T	PSC			mm		
4016-80HP	•	–			80	VB..1604..	S07
6316-100HP	•	•			100	VB..1604..	S07
6316-130HP	•	•			130	VB..1604..	S07

**SCLC R / L 95° boring bar for CC..1204..**



ISO 12164-3



32 0385

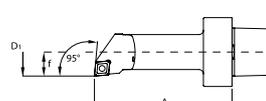
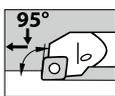
ISO 26623-1



32 0085

Shank Ø / insert size – A dimension	360				Dimension A	Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	32 0085	32 0086	32 0385	32 0386					
	right-hand HSK-T	left-hand HSK-T	right-hand PSC	left-hand PSC					
40/12-90	–	–	•	•	90	32	17	CC..1204..	S01
40/12-110	•	•	•	•	110	40	22	CC..1204..	S01
40/12-140	•	•	–	–	140	32	17	CC..1204..	S01
50/12-90	–	–	•	•	90	32	17	CC..1204..	S01
50/12-110	–	–	•	•	110	40	22	CC..1204..	S01
63/12-125	•	•	•	•	125	40	22	CC..1204..	S01
63/12-140	•	•	•	•	140	50	27	CC..1204..	S01
63/12-160	•	•	•	•	160	40	22	CC..1204..	S01
63/12-180	•	•	•	•	180	50	27	CC..1204..	S01

**PCLN R / L 95° boring bar for CN..1204..**



ISO 12164-3



32 0390

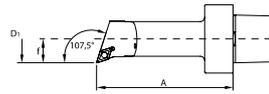
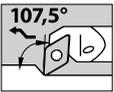
ISO 26623-1



32 0090

Shank Ø / insert size – A dimension	360				Dimension A	Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	32 0090	32 0091	32 0390	32 0391					
	right-hand HSK-T	left-hand HSK-T	right-hand PSC	left-hand PSC					
40/12-110	–	–	•	•	110	40	22	CN..1204..	P01
50/12-110	–	–	•	•	110	40	22	CN..1204..	P01
63/12-140	•	•	•	•	140	50	27	CN..1204..	P01
63/12-180	•	•	•	•	180	50	27	CN..1204..	P01

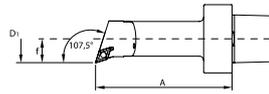
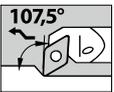
**SDQC R / L 107.5° boring bar for DC..11T3..**



Shank Ø / insert size – A dimension	Screw-on boring bar				Dimension A	Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	36D 32 0095	36D 32 0096	36D 32 0395	36D 32 0396					
mm	right-hand HSK-T	left-hand HSK-T	right-hand PSC	left-hand PSC	mm	mm	mm		
40/11-90	–	–	•	•	90	32	17	DC..11T3..	S05
40/11-110	•	•	•	•	110	40	22	DC..11T3..	S05
40/11-140	•	•	–	–	140	32	17	DC..11T3..	S05
50/11-90	–	–	•	•	90	32	17	DC..11T3..	S05
50/11-110	–	–	•	•	110	40	22	DC..11T3..	S05
63/11-125	•	•	•	•	125	40	22	DC..11T3..	S05
63/11-140	•	•	•	•	140	50	27	DC..11T3..	S05
63/11-160	•	•	•	•	160	40	22	DC..11T3..	S05
63/11-180	•	•	•	•	180	50	27	DC..11T3..	S05



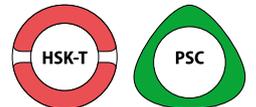
**PDQN R / L 107.5° boring bar for DN..1506..**



Shank Ø / insert size – A dimension	Lever-lock boring bar				Dimension A	Ø D <sub>1</sub> min	f	suitable indexable insert	Spare part
	36D 32 0100	36D 32 0101	36D 32 0405	36D 32 0406					
mm	right-hand HSK-T	left-hand HSK-T	right-hand PSC	left-hand PSC	mm	mm	mm		
40/15-110	–	–	•	•	110	40	22	DN..1506..	P05
50/15-110	–	–	•	•	110	40	22	DN..1506..	P05
63/15-140	•	•	•	•	140	50	27	DN..1506..	P05
63/15-180	•	•	•	•	180	50	27	DN..1506..	P05



ISO 26623-1 ISO 12164-3

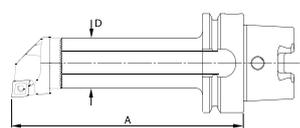
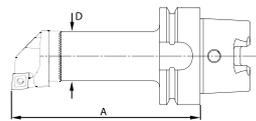


**SWISS TOOLS ST boring bar shanks for exchangeable heads**

- For efficient turning.
- For left-hand and right-hand turning.

**Application:** For mounting exchangeable cutting heads.

**Note:** For suitable interchangeable heads see No. 264826 – 264827.



**Boring bar shanks for HP ready**

Shank Ø / Ø D – A dimension	Boring bar shank	
	36D 32 0102	36D 32 0407
mm	HSK-T	PSC
40/25-90	•	•
40/25-110	•	–
40/32-110	•	•
40/32-115	•	–
40/40-120	•	•
50/25-90	–	•
50/32-110	–	•
50/40-140	–	•
63/25-100	–	•
63/25-105	•	–
63/32-125	•	•
63/32-160	•	•
63/40-140	•	•
63/40-180	•	•

Ø D – A dimension	36D 32 0410
mm	Plain boring bar shank
25-200	•
32-218	•
40-283	•



Shank Ø / Ø D – A dimension	Boring bar shank vibration-damped	
	36D 32 0103	36D 32 0408
mm	HSK-T	PSC
63/25-150	•	•
63/32-185	•	•
63/40-225	•	•

## Recommended tightening torque (MA) ER collet



Code letter	Shank [mm]	MA [Nm]						
ER 11	1.0-2.5	7	3.0-7.0	10	—	—	—	—
ER 16	1.0	10	1.5-3.5	25-30	4.0-10.0	50-55	—	—
ER 20	1.0-3.0	15-20	3.0-5.5	30-35	6.0-9.0	50-55	9.5-13.0	70-75
ER 25	1.0-3.0	25-30	3.5-6.5	35-40	7.0-10.0	55-60	10.5-16.0	80-90
ER 32	2.0-3.0	30-35	3.5-6.5	55-60	7.0-15.5	110-120	16.0-20.0	130-140
ER 40	3.0-7.0	60-70	8.0-11.0	100-110	12.0-17.0	140-150	18.0-26.0	190-200

30 9014/9018/9022/9026 – With seal.

**Supplied with:**

30 9008/9010 – In a wooden box, 0.5 mm increments.

30 9012–9021/9024/9028 – In a wooden box, 1 mm increments.

30 9022/9026 – In a wooden box, 2 mm increments.



39Y	30 9008	39Y	30 9010	39Y	30 9012	39Y	30 9014	39Y	30 9016	39Y	30 9018	39Y	30 9021	39Y	30 9022	39Y	30 9024	39Y	30 9026	39Y	30 9028
	ER collet set 9 pieces 1–5 mm		ER collet set 13 pieces 1–7 mm		ER collet set 10 pieces 1–10 mm		ER collet set 6 pieces, 3, 4, 5, 6, 8, 10 mm  with seal		ER collet set 12 pieces 2–13 mm		ER collet set 7 pieces 3, 4, 5, 6, 8, 10, 12 mm  with seal		ER collet set 15 pieces 2–16 mm		ER collet set 7 pieces 4–16 mm  with seal		ER collet set 18 pieces 3–20 mm		ER collet set 8 pieces 4–16, 20 mm  with seal		ER collet set 23 pieces 4–26 mm
	ER 8		ER 11		ER 16		ER 16		ER 20		ER 20		ER 25		ER 25		ER 32		ER 32		ER 40



## **HOLEX** Accessories - ER collets – for ER collet chucks

Through hardened and ground. Polished.

30 8922/8962/9002 – Sealed versions with spray nozzles only for nominal  $\varnothing$ .

**Note:**

30 8920/8930/8960/9000/9040 – The **collet clamping  $\varnothing$  range is always up to 1 mm less than nominal**, e.g.  $\varnothing$  10 – 9 mm, **except for  $\varnothing$  1, 1.5 and 2 (where it is only 0.5 mm)**.

30 8920/8960/9000 – Collets ER16, ER25 and ER32 without a seal also available in inch sizes via the eShop.



Nominal clamping $\varnothing$ d	32Z	30 8918	32Z	30 8920	32Z	30 8922	32Z	30 8930	32Z	30 8960	32Z	30 8962	32Z	30 9000	32Z	30 9002	32Z	30 9040
				with seal and spray nozzles				ER collet			with seal and spray nozzles				with seal and spray nozzles			
mm		ER 11		ER 16		ER 16		ER 20		ER 25		ER 25		ER 32		ER 32		ER 40
1	•		•		–		•		–		–		–		–		–	
2	•		•		–		•		–		–		–		–		–	
3	•		•		•		•		•		•		•		•		•	
4	•		•		•		•		•		•		•		•		•	
5	•		•		•		•		•		•		•		•		•	
6	•		•		•		•		•		•		•		•		•	
7	•		•		•		•		•		•		•		•		•	
8	–		•		•		•		•		•		•		•		•	
9	–		•		•		•		•		•		•		•		•	
10	–		•		•		•		•		•		•		•		•	
11	–		•		•		•		•		•		•		•		•	
12	–		•		•		•		•		•		•		•		•	
13	–		•		•		•		•		•		•		•		•	
14	–		•		•		•		•		•		•		•		•	
15	–		•		•		•		•		•		•		•		•	
16	–		•		•		•		•		•		•		•		•	
17	–		•		•		•		•		•		•		•		•	
18	–		•		•		•		•		•		•		•		•	
19	–		•		•		•		•		•		•		•		•	
20	–		•		•		•		•		•		•		•		•	
21	–		•		•		•		•		•		•		•		•	
22	–		•		•		•		•		•		•		•		•	
23	–		•		•		•		•		•		•		•		•	
24	–		•		•		•		•		•		•		•		•	
25	–		•		•		•		•		•		•		•		•	
26	–		•		•		•		•		•		•		•		•	
Type		4008E		426 E		425 E		428 E		430 E		429 E		470 E		469 E		472 E
$\varnothing$ D mm		11.3		17		17		21		26		26		33		33		41
L mm		18		27.5		27.5		31.5		34		34		40		40		46



**HOLEX** Accessories - ER collet set

Through hardened and ground. Polished.

30 9165 –  $\varnothing$  1 mm and 2 mm are without spray nozzles and are not sealed.

30 9245 –  $\varnothing$  2 mm without spray nozzles and not sealed.

30 9165/9245/9285 – Sealed versions with spray nozzles only for nominal  $\varnothing$ .

**Supplied with:**

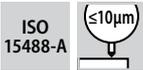
30 9165 – In a case with rigid foam inlay, 1 mm increments.

30 9155–9160/9200–9320 – In a case with rigid foam inlay, 1 mm increments.



30 9280

32Z	30 9155	32Z	30 9160	32Z	30 9165	32Z	30 9200	32Z	30 9240	32Z	30 9245	32Z	30 9280	32Z	30 9285	32Z	30 9320
	ER collet set 7 pieces 1–7 mm		ER collet set 10 pieces 1–10 mm		ER collet set 12 pieces 2–13 mm		ER collet set 15 pieces 2–16 mm		ER collet set 18 pieces 3–20 mm		ER collet set 23 pieces 4–26 mm						
					with seal and spray nozzles				with seal and spray nozzles				with seal and spray nozzles				
	ER 11		ER 16		ER 16		ER 20		ER 25		ER 25		ER 32		ER 32		ER 40



**HOLEX** Accessories - ER collets, sealed - for ER collet chucks

$\varnothing$  2 mm without seal.

30 9164 –  $\varnothing$  1 mm and 2 mm are without seal.

30 9244 –  $\varnothing$  2 mm without seal.

**Supplied with:**

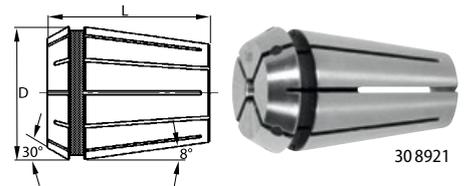
30 9164–9284 – In a case with rigid foam inlay, 1 mm increments.

**Note:** Collets ER16, ER25 and ER32 with seal also available in inch sizes via the eShop.



Sealed variant, no sealing washer necessary.

Nominal clamping $\varnothing$ d	32Z	30 8921	32Z	30 8959	32Z	30 9001
mm		ER16		ER collet with seal ER25		ER32
3		•		•		•
4		•		•		•
5		•		•		•
6		•		•		•
7		•		•		•
8		•		•		•
9		•		•		•
10		•		•		•
11		-		•		•
12		-		•		•
13		-		•		•
14		-		•		•
15		-		•		•
16		-		•		•
17		-		-		•
18		-		-		•
19		-		-		•
20		-		-		•
Type		425 E		429 E		469 E
$\varnothing$ D	mm	17		26		33
L	mm	27.5		34		40



30 9001

32Z	30 9164	32Z	30 9244	32Z	30 9284
	ER collet set 10 pieces 1–10 mm		ER collet set 15 pieces 2–16 mm		ER collet set 18 pieces 3–20 mm
	with seal		with seal		with seal
	ER16		ER25		ER32



30 9164



**FAHRION** PRAZISION Accessories - Precision ER collets – for ER collet chucks

Through hardened and ground.

**Corrosion protection:** Collets fully coated with FAHRION Protect, including the functional faces.

**Advantage:** The coating increases the service life of the collet and ensures full functionality and precision.



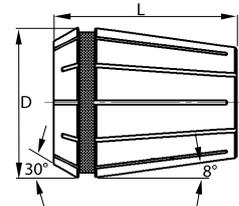
ISO 15488-A



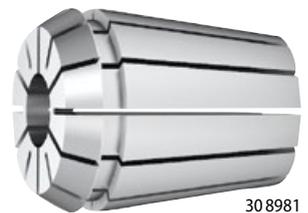
308906



Sealed variant, no sealing washer necessary.



ISO 15488-B



308981

**Note:**  
 308878–8881/8901/8911/8941/8981/8990 – The **collet clamping  $\varnothing$  range** is always up to 1 mm less than nominal, e.g.  $\varnothing$  10 – 9 mm, **except for  $\varnothing$  1, 1.5 and 2 (where it is only 0.5 mm)**.  
 308882/8906/8916/8946/8986/8992 – With **seal** for through-coolant (for use up to 100 bar); only the nominal size can be clamped. **Similar to ISO 15488-A**.

Nominal clamping $\varnothing$ d	39Y 30 8878	39Y 30 8881	39Y 30 8882	39Y 30 8901	39Y 30 8906	39Y 30 8911	39Y 30 8916
	ER collet						
mm	ER 8	ER 11	with seal ER 11	ER 16	with seal ER 16	ER 20	with seal ER 20
1	•	•	–	•	–	•	–
1,5	•	•	–	•	–	•	–
2	•	•	–	•	–	•	–
2,5	•	•	–	•	–	•	–
3	•	•	•	•	•	•	•
3,5	•	•	–	–	–	–	–
4	•	•	•	•	•	•	•
4,5	•	•	–	–	–	–	–
5	•	•	•	•	•	•	•
5,5	–	•	–	–	–	–	–
6	–	•	•	•	•	•	•
6,5	–	•	–	–	–	–	–
7	–	•	–	•	•	•	•
8	–	–	–	•	•	•	•
9	–	–	–	•	•	•	•
10	–	–	–	•	•	•	•
11	–	–	–	–	–	•	•
12	–	–	–	–	–	•	•
13	–	–	–	–	–	•	–
Type	4004 E	4008 E	4012 E	426 E	425 E	428 E	427 E
$\varnothing$ D	mm 8.5	mm 11.3	mm 11.2	mm 17	mm 16.7	mm 21	mm 20.7
L	mm 13.6	mm 18	mm 18	mm 27.5	mm 27.5	mm 31.5	mm 31.5

Nominal clamping $\varnothing$ d	39Y 30 8941	39Y 30 8946	39Y 30 8981	39Y 30 8986	39Y 30 8990	39Y 30 8992
	ER collet					
mm	ER 25	with seal ER 25	ER 32	with seal ER 32	ER 40	with seal ER 40
2	•	–	–	–	–	–
2,5	•	–	–	–	–	–
3	•	•	•	•	–	–
4	•	•	•	•	–	–
5	•	•	•	•	•	–
6	•	•	•	•	•	•
7	•	•	•	•	•	•
8	•	•	•	•	•	•
9	•	•	•	•	•	•
10	•	•	•	•	•	•
11	•	•	•	•	•	•
12	•	•	•	•	•	•
13	•	•	•	•	•	•
14	•	•	•	•	•	•
15	•	•	•	•	•	•
16	•	•	•	•	•	•
17	–	–	•	•	•	–
18	–	–	•	•	•	•
19	–	–	•	•	•	–
20	–	–	•	•	•	•
21	–	–	–	–	•	–
22	–	–	–	–	•	•
23	–	–	–	–	•	–
24	–	–	–	–	•	–
25	–	–	–	–	•	•
26	–	–	–	–	•	–
Type	430 E	429 E	470 E	469 E	472 E	471 E
$\varnothing$ D	mm 26	mm 25.7	mm 33	mm 32.7	mm 41	mm 40.7
L	mm 34	mm 34	mm 40	mm 40	mm 46	mm 46

## Accessories - Toolholders – ER clamping nuts

### ER clamping nuts

DIN 6499 D

Thread and taper ground in a single setup for highest concentricity.

- 30 9612 – With plain bearings, delivering lower friction and higher clamping force.
- 30 9617 – Surface smoothly coated, ball-bearing mounted. Low coefficient of friction, high clamping forces.
- 30 9618 – Slim, symmetrical design.
- 30 9619 – 6 screws allow the radial run-out to be reduced to zero.
- 30 9621 – Internal clamping nut with an external thread.

30 9580 Size 25–40 – **With slots.**

30 9610 Size 11 – **With hexagon 17 AF.**

30 9610/9615 – Nut coated for: lower friction and **increased clamping force** coupled with high wear resistance and corrosion resistance.

30 9615/9621 – Sealing rings No. 309625 / 9630 / 9635 / 9645.

30 9580 Size 16; 20 – **With hexagon 25 AF.**

#### Suitable for:

- 30 9617 – Precision ER mini collet chuck, see No. 300642 / 0643 / 2843 / 2844 / 5523 / 5524.
- 30 9618 – Precision ER collet chuck, see No. 300643 / 2839 / 2844 / 5518 / 5524.
- 30 9619 – Ideally suitable for lathes, both for stationary and driven tools.
- 30 9621 – ER collet chucks with internal thread.

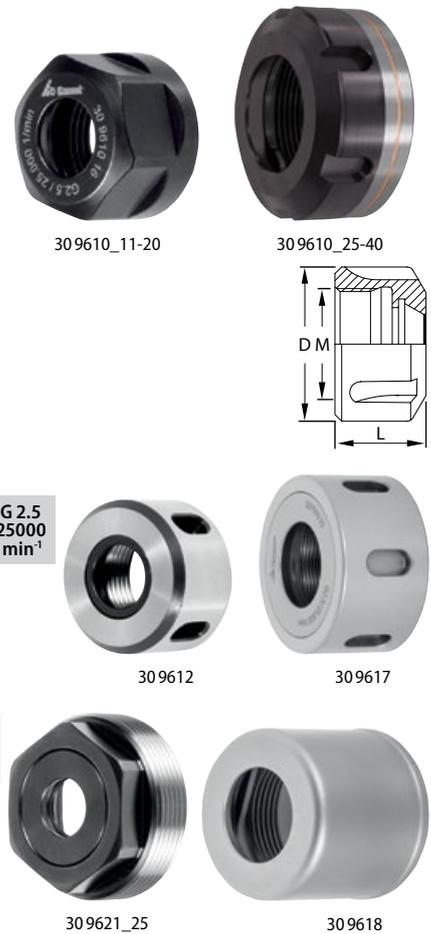
30 9580–9615/9619 – All standard ER collet chucks.

#### Optional extras:

309580/309610/309612/309615/309617/309619/309621/ – ER clamping wrench, No. 309680 – 309740. Single open ended spanner (for size 16), No. 613300 size 25.

30 9618 – ER chuck key No. 309757 / 9758.

**Note:** Collet chuck and clamping nut are balanced separately!  
30 9619 – Up to 6000 rpm.



G 2.5  
25000  
min<sup>-1</sup>

G 6.3  
15000  
min<sup>-1</sup>

for ER			11	11M	16	16M	20	25	32	40	
3Z	<b>30 9580</b>	<b>HOLEX</b> ER clamping nut	–	–	•	–	•	•	•	•	
3Z	<b>30 9610</b>	ER clamping nut <b>High Speed</b>	•	–	•	–	–	•	•	•	
3Z	<b>30 9612</b>	ER plain bearing clamping nut	–	–	•	–	–	•	•	•	
3Z	<b>30 9617</b>	ER clamping nut <b>for precision collet chucks</b>	–	–	•	–	–	•	•	•	
3Z	<b>30 9618</b>	ER mini mono-nut <b>for precision collet chucks</b>	–	•	–	•	–	–	–	–	
3Z	<b>30 9621</b>	ER clamping nut <b>Internal</b>	–	–	•	–	–	•	•	•	
L (30 9580, 30 9610, 30 9618)			mm	12	19.1	18	21.6	19.5	21	23	26
L (30 9612)			mm	–	–	18	–	–	20.5	23	26
L (30 9617)			mm	–	–	20.6	–	–	24	26	29
L (30 9621)			mm	–	–	11	–	–	14.5	17.5	20
Ø D (30 9580, 30 9610, 30 9618)			mm	19	16	28	24	34	42	50	63
Ø D (30 9612)			mm	–	–	32	–	–	42	50	63
Ø D (30 9617)			mm	–	–	33.5	–	–	44	51.8	61.9
Ø D (30 9621)			mm	–	–	24	–	–	32	40	50
Thread (30 9580, 30 9610, 30 9612, 30 9618)				M14×0.75	M20×1	M22×1.5	M24×0.75	M25×1.5	M32×1.5	M40×1.5	M50×1.5
Thread (30 9621)				–	–	M24×1	–	–	M32×1.5	M40×1.5	M50×1.5
maximum tightening torque (30 9580, 30 9610, 30 9612, 30 9618)			N-m	40	20	80	30	110	140	180	240
maximum tightening torque (30 9617)			N-m	–	–	54	–	–	101	136	169
maximum tightening torque (30 9621)			N-m	–	–	40	–	–	55	70	120

### **HOLEX** Accessories - Wrench for heavy-duty chuck, slim

**Suitable for:** Heavy-duty chucks, slim, No. 300788, 302879 and 305539.



30 9747

Type	S10	S16	S20
3ZA <b>30 9747</b> Wrench	•	•	•
Ø D	mm 30	38	44

## Accessories - Arbors – ER special collets

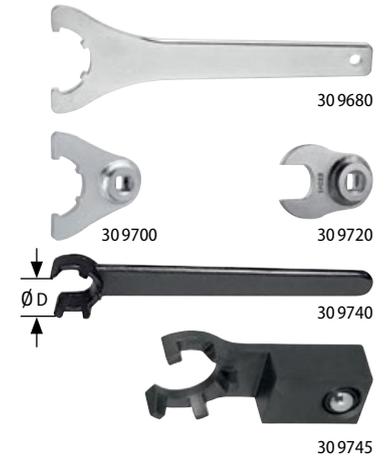
### Chuck key for ER collet chucks

Standard

30 9680/9740 – For an **uncontrolled** tightening torque.

30 9700/9720/9745 – For a **controlled** tightening torque using a torque wrench (14×18 / 1/2 inch or 9×12)

for ER collet chuck		8	11	16	20	25	32	40
35A <b>30 9680</b>	ER chuck key	–	–	•	–	•	•	•
35A <b>30 9700</b>	ER chuck key 1/2 inch socket	–	–	•	–	•	•	•
35A <b>30 9720</b>	ER chuck key 1/2 inch 25AF	–	–	•	–	–	–	–
33F <b>30 9740</b>	Wrench for ER Mini nuts	•	•	•	•	•	–	–
39Z <b>30 9745</b>	Torque insert for ER mini-nuts	•	•	•	•	•	–	–
overall length (30 9680)	mm	–	–	163	–	203	253	285.5
Ø D (30 9740)	mm	13	17	22.5	28	36	–	–
suitable torque wrench 656050 (30 9700, 30 9720)		–	–	200	–	200	200	200
Plug-in shank □ (30 9745)	mm	9×12	9×12	9×12	9×12	9×12	–	–



### Clamping wrench for precision ER collet chucks

Special clamping wrench.

For **standard** nuts No. 309655 / 9665 size 16, 25, 32 and 16DI, 25DI, 32DI.

**Suitable for:** 30 9754/9756 – **FAHRION** ER collet chuck CENTRO P.  
30 9754/9756 Size 16C – ER clamping nut CP No. 309655 size 16C and 16M.  
30 9757/9758 – HiRunER Mini GARANT precision collet chuck.

**Note:** Size M for the mini version.



Type		8M	11M	16M	16MS	16C	16	25	32	40
34F <b>30 9754</b>	CP roller bearing wrench	•	•	–	•	•	•	•	•	•
34F <b>30 9756</b>	CP roller bearing wrench for torque wrenches	–	•	–	•	•	•	•	•	•
<b>NEW</b> 31T <b>30 9757</b>	HiRunER roller bearing wrench	–	•	•	–	–	–	–	–	–
<b>NEW</b> 31A <b>30 9758</b>	HiRunER roller bearing wrench for torque wrench	–	•	•	–	–	–	–	–	–
Plug-in shank □ (30 9756, 30 9758)	mm	–	9×12	9×12	9×12	9×12	14×18	14×18	14×18	14×18
suitable torque wrench 656055 (30 9756, 30 9758)		–	60	60	60	60	200	200	200	200

### Clamping wrench for precision ER collet chucks HiRunER

HiRunER

Special clamping wrench. For precision collet chucks No. 309617 size 16, 25, 32 and 40.

**Suitable for:** GARANT HiRunER precision ER collet chuck.



Type		16	25	32	40
31A <b>30 9748</b>	HiRunER clamping wrench	•	•	•	•
31A <b>30 9749</b>	HiRunER clamping wrench for torque wrench	•	•	•	•
Plug-in shank □ (30 9749)	inch	1/2			
suitable torque wrench 656050 (30 9749)		60-1/2	200	200	200

## Accessories - Wrench for pull studs

Single-piece wrench.

**Advantage:** Unlike conventional clamping wrenches it cannot slip, no risk of injury!

**Application:** For safe tightening of pull studs.

**Note:** See pages 861–862 for suitable pull studs.

suitable for steep tapers	SK	30	40	50
37D <b>30 8820</b>	Pull stud wrench for Pull studs to DIN 69872	–	•	•
31Z <b>30 8825</b>	<b>Garant</b> Pull stud wrench for Pull studs to ISO 7388	–	•	•
37D <b>30 8830</b>	Pull stud wrench for Pull studs to ISO 7388	–	•	•
31Z <b>30 8835</b>	<b>Garant</b> Pull stud wrench for Pull studs to ISO 7388	•	•	–
Width across flats AF (30 8820, 30 8825)	mm	–	19	30
Width across flats AF (30 8830, 30 8835)	mm	13	18	30



## Accessories - Pull studs (PS) for tool arbors

- Application:**
- For tools with taper shanks see also **DIN 69871 and JIS B 6339** (MAS-BT).
  - In machining centres (machines **with** automatic tool changers).
  - In NC machines (machines **without** automatic tool changers).

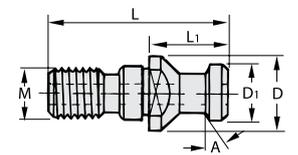
**Note:** Look in the eShop - you will find the right clamping wrench for every job.

### Pull studs

DIN 69872

suitable for steep tapers

				30	40	50
31Z	<b>30 8600</b>	<b>Garant</b>	Pull stud <b>Form A</b> with bore	—	•	•
31Z	<b>30 8605</b>	<b>Garant</b>	Pull stud, 18CrNiMo7 <b>Form A</b> with bore	—	•	•
32Z	<b>30 8610</b>	<b>HOLEX</b>	Pull stud <b>stud sealed, form A</b> with bore	•	•	•
31Z	<b>30 8615</b>	<b>Garant</b>	Pull stud, 18CrNiMo7 <b>sealed, form B</b> without bore	—	•	•
31Z	<b>30 8620</b>	<b>Garant</b>	Pull stud <b>sealed, form B</b> without bore	—	•	•
32Z	<b>30 8625</b>	<b>HOLEX</b>	Pull stud <b>Mori-Seiki, sealed, form A</b> with bore $\varnothing$ 7 mm	—	•	—
32Z	<b>30 8630</b>	<b>HOLEX</b>	Pull stud <b>Mori-Seiki, sealed, form A</b> with bore $\varnothing$ 7 mm	—	•	—
$\varnothing$ D			mm	17	23	36
$\varnothing$ D <sub>1</sub>			mm	13	19	28
L			mm	44	54	74
L <sub>1</sub> (30 8600, 30 8605, 30 8610, 30 8615, 30 8620, 30 8625)			mm	24	26	34
L <sub>1</sub> (30 8630)			mm	—	29	—
M				M12	M16	M24
Angle A (30 8625, 30 8630)			degrees	—	15	—
maximum tightening torque			N-m	20	50	150
suitable for taper arbors with colour code				■	■	■

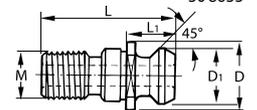


### Suitable for:

30 8635 – FADAL, similar to ISO 7388, 3 mm, extended.

suitable for steep tapers

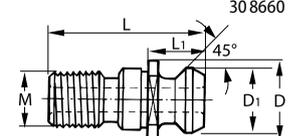
				40
32Z	<b>30 8635</b>	<b>HOLEX</b>	Pull stud <b>sealed</b> with bore	•
$\varnothing$ D			mm	22
$\varnothing$ D <sub>1</sub>			mm	18.95
L			mm	47.5
L <sub>1</sub>			mm	19.25
M				M16
maximum tightening torque			N-m	50
suitable for taper arbors with colour code				■



suitable for steep tapers

				40	50
31Z	<b>30 8640</b>	<b>Garant</b>	Pull stud <b>Form B</b> with bore	•	•
32Z	<b>30 8650</b>	<b>HOLEX</b>	Pull stud <b>sealed, form B</b> with bore	•	•
31Z	<b>30 8660</b>	<b>Garant</b>	Pull stud <b>sealed</b> without bore	•	•
$\varnothing$ D			mm	22.5	36
$\varnothing$ D <sub>1</sub>			mm	18.95	29.1
L			mm	44.5	65.5
L <sub>1</sub>			mm	16.25	25.55
M				M16	M24
maximum tightening torque			N-m	50	150
suitable for taper arbors with colour code				■	■

ISO 7388



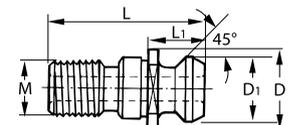
### Pull studs - Mazak (with end face ground flat)

CAT

- End face turned flat.

suitable for steep tapers

				40M	40M7
32Z	<b>30 8670</b>	<b>HOLEX</b>	Pull stud <b>Mazak sealed, form A</b> with bore	•	•
$\varnothing$ D			mm	21.8	—
$\varnothing$ D <sub>1</sub>			mm	18.79	—
L			mm	41.25	—
L <sub>1</sub>			mm	16.25	—
M				M16	—
maximum tightening torque			N-m	50	—
suitable for taper arbors with colour code				■	■
Bore $\varnothing$			mm	6	7



**Colour code:** ■ SK 30 ■ SK 40 ■ SK 50

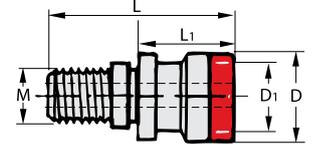
**HOLEX** Accessories - Pull studs (PS) for tool arbors

**Note:** Look in the eShop - you will find the right clamping wrench for every job.

**Special pull stud with snap ring groove**

**Application:** For tools with taper shanks see also **DIN 69871 / ISO 7388-1**.

suitable for steep tapers		40	50
32Z	<b>30 8700</b> Special pull stud with no internal thread <b>sealed</b> <b>without bore</b>	•	—
32Z	<b>30 8720</b> Special pull stud with no internal thread <b>sealed</b> <b>with bore</b>	•	•
32Z	<b>30 8740</b> Special pull stud with internal thread <b>with bore</b>	•	•
∅ D	mm	25.1	39.3
∅ D <sub>1</sub>	mm	21.1	32
L	mm	53	65
L <sub>1</sub>	mm	25.1	
M		M16	M24
Internal thread (30 8740)		M16	M24
Internal thread depth (30 8740)	mm	17	17.5
maximum tightening torque	N-m	50	150
suitable for taper arbors with colour code		■	■

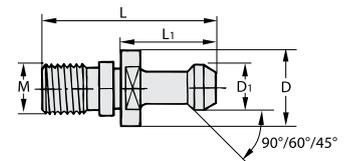


**Pull studs 45°, 60°, 90°**

**Application:** For tools with taper shanks see also **JIS B 6339 (MAS-BT) / ISO 7388-2**.

MAS 403

suitable for steep tapers		30	40	50
32Z	<b>30 8760</b> Pull stud 45° <b>without bore</b>	•	•	•
32Z	<b>30 8765</b> Pull stud 45° <b>sealed</b> <b>with bore</b>	•	•	•
32Z	<b>30 8785</b> Pull stud 60° <b>sealed</b> <b>with bore</b>	•	•	•
32Z	<b>30 8790</b> Pull stud 90° <b>without bore</b>	—	•	•
32Z	<b>30 8795</b> Pull stud 90° <b>sealed</b> <b>with bore</b>	—	•	•
∅ D	mm	16.5	23	38
∅ D <sub>1</sub>	mm	11	15	23
L	mm	43	60	85
L <sub>1</sub>	mm	23	35	45
M		M12	M16	M24
maximum tightening torque	N-m	20	50	150
suitable for taper arbors with colour code		■	■	■



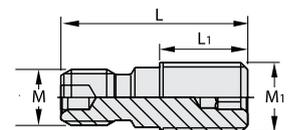
**Application:** For tools with taper shanks see also **DIN 69871 / ISO 7388-1**.

suitable for steep tapers		40
32Z	<b>30 8801</b> Pull stud Hurco 45° with bore and fit <b>sealed</b>	•
32Z	<b>30 8802</b> Pull stud Hurco 45° with fit <b>sealed</b>	•
32Z	<b>30 8806</b> Pull stud Hurco 90° with fit <b>sealed</b>	•
32Z	<b>30 8680</b> Pull stud Haas-Mikron R 3 / 45° with bore and fit <b>sealed</b>	•
32Z	<b>30 8685</b> Pull stud Haas-Mikron R 3 / 45° without bore <b>sealed</b>	•
∅ D	mm	23
∅ D <sub>1</sub>	mm	15
L (30 8801, 30 8802, 30 8806)	mm	57.15
L (30 8680, 30 8685)	mm	57
L <sub>1</sub>	mm	32
M		M16
maximum tightening torque	N-m	50
suitable for taper arbors with colour code		■



**Pull studs with buttress thread S20x2**

suitable for steep tapers		40
32Z	<b>30 8800</b> Special pull stud <b>S20x2</b>	•
L	mm	53
L <sub>1</sub>	mm	25
M		M16
M <sub>1</sub>		S20x2
maximum tightening torque	N-m	50
suitable for taper arbors with colour code		■



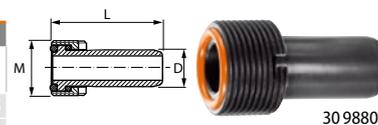
**Colour code:** ■ SK 40 ■ SK 50 ■ SK 30

## Accessories for arbors – for combination mandrels, HSK

### HSK – Coolant tube and socket wrench

30 9880 – Special O-ring up to 120 bar, angular movement from  $\pm 1^\circ$ , polished, with 2 sealing rings.  
Coolant-resistant Viton® seals.

for HSK	25	32	40	50	63	80	100
<b>39Z 30 9880</b> <b>Garant</b> HSK coolant tube	●	●	●	●	●	●	●
Thread M	M8×1	M10×1	M12×1	M16×1	M18×1	M20×1.5	M24×1.5
∅ D	mm 5	6	8	10	12	14	16
L	mm 16.8	26	29	33	36.5	39.5	39.5



30 9880

for HSK	25	32	40	50	63	80	100
<b>39Z 30 9890</b> Socket wrench for coolant tubes	●	●	●	●	●	●	●



30 9890

### Garant Cleaning propeller - cleaning the machine space and the workpiece

- Robust design.
- Opening and closing the vane by the speed of the spindle.
- **Marked ends to the vanes**, for optimum visibility.
- For installation in any toolholder with through-coolant capability.

- Advantage:**
- Efficient cleaning of clamping equipment, workpieces and work tables.
  - Removal of accumulated chips and blowing out pockets of water.
  - Perfect complement to the automated work process.

**Optional extras:** Spare cleaning propeller No. 358951.

Blade ∅		260
<b>31E 35 8950</b> Cleaning propeller		●
Shank ∅	mm	20
Speed range	rpm	5000 – 8000



35 8950

### Spare cleaning propeller

**Suitable for:** Cleaning propeller No. 358950.

**Supplied with:** Supplied with spring, positioning pin and retainer pin.

Type	1	4
<b>31E 35 8951</b> Spare cleaning propeller	●	●
maximum speed	rpm	8000
Number of vanes	pcs.	4



35 8951\_4

### Tool fitting aid

- Aluminium housing.
- Interchangeable toolholders.

**Suitable for:** Type SK – for DIN 69871, DIN 2080, JIS B6339, and ANSI.

35 8500 – Toolholders No. 358550 – 358625.

35 8660 – Toolholders No. 358665 – 358668.

**Feature:** All adapters with a clamping screw.

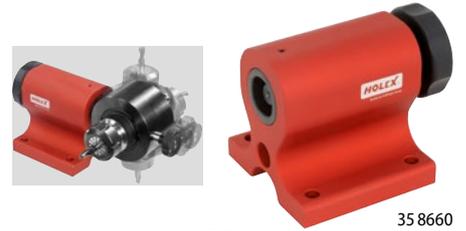
35 8500 – Indexable toolholders 8×45°.

35 8660 – Indexable toolholders 4×90°.

**Advantage:** Clamping without damaging the taper.



35 8500



35 8660

38D	<b>35 8500</b>	<b>FIB+</b>	Base unit Tool Boy	●
32B	<b>35 8660</b>	<b>HOLEX</b>	Tool fitting aid base unit	●



for arbor size	32B	38D	32B	38D	32B	38D	32B	38D	38D
	<b>35 8665</b>	<b>35 8550</b>	<b>35 8666</b>	<b>35 8570</b>	<b>35 8667</b>	<b>35 8620</b>	<b>35 8668</b>	<b>35 8625</b>	
	<b>HOLEX</b>	<b>FIB+</b>	<b>HOLEX</b>	<b>FIB+</b>	<b>HOLEX</b>	<b>FIB+</b>	<b>HOLEX</b>	<b>FIB+</b>	
	Toolholder for tool fitting aid	Toolholder for Tool Boy base unit	Toolholder for tool fitting aid	Toolholder for Tool Boy base unit	Toolholder for tool fitting aid	Toolholder for Tool Boy base unit	Toolholder for tool fitting aid	Toolholder for Tool Boy base unit	
	<b>SK</b>	<b>SK</b>	<b>HSK-A</b>	<b>HSK-A</b>	<b>VDI</b>	<b>VDI</b>	<b>PSC</b>	<b>PSC</b>	
20	—	—	—	—	●	●	—	—	—
25	—	—	—	—	●	●	—	—	—
30	●	●	—	—	●	●	—	—	—
32	—	—	●	—	—	—	—	—	—
40	●	●	●	●	●	●	●	●	●
50	●	●	●	●	●	●	●	●	●
63	—	—	●	●	—	—	●	●	●
80	—	—	●	●	—	—	—	—	●
100	—	—	●	●	—	—	—	—	—

### Assembly boy

- Fibre-reinforced polyamide for high stability.
- For horizontal and vertical tool mounting.
- Very easy to operate.
- **10 years warranty against breakage and cracking.**
- **With 4 retainer magnets in the horizontal socket (security!)**

**Suitable for:** ISO taper arbor SK40.

**Advantage:** No risk of damage to expensive tools.

**Application:** For assembly at the workbench.

For efficient setting up and stripping down of cutting tools and pull studs on tool arbors.

for arbor size			<b>40</b>
38D	<b>35 8690</b>	Assembly boy	<b>SK</b>
			●
Length		mm	120
Width		mm	150
Height		mm	120
Weight		kg	0.55
suitable for arbor			SK 40



35 8690

### HOLEX Fitting aid

- Robust metal frame.
- **One mounting taper for mounting tools.**
- **One mounting taper for attaching the pull stud.**
- Fixing the mountings by fixed or pivoting Tee-nuts.

**Suitable for:**

Size 30 – Type **BT 30**.

Size 40 – Type **BT 40** and **SK 40**.

**Advantage:** No risk of damage to expensive tools.

**Application:** For assembly at the workbench.

for arbor size			<b>30</b>	<b>40</b>
32B	<b>35 8685</b>	Fitting aid	<b>SK, BT</b>	
			●	●
Length		mm	200	253
Width		mm	120	140
Height		mm	148	167



35 8685\_40

## Quick-change tapping chuck for right-hand and left-hand rotation

### With Morse taper (MT) to DIN

Morse taper DIN 228 B.

Tapping range			M3-12	M6-20
32P	<b>33 4644</b>	Quick-change tapping chuck	•	—
32P	<b>33 4645</b>		•	•
32P	<b>33 4646</b>		—	•
	Length compensation by compression	mm	7.5	12.5
	Length compensation by tension	mm	7.5	12.5
	External Ø D	mm	38	55
	Ø D <sub>1</sub>	mm	19	31
	Dimension A	mm	46	70



33 4644

### With hollow shank taper (HSK) / polygonal shank (PSC) to DIN

With ball bearing-mounted sleeve for smooth no-play length compensation.

Optional extras: Socket No. 309890.

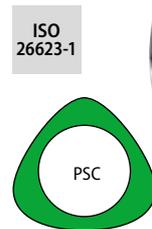
ISO 12164-1  
DIN 69893

Tapping range			M3-12	M6-20	M14-33
31P	<b>33 4652</b>	Quick-change tapping chuck	•	•	•
31P	<b>33 4656</b>		•	•	•
	Length compensation by compression	mm	7.5	10	17.5
	Length compensation by tension	mm	7.5	12.5	17.5
	External Ø D	mm	41	60	86
	Ø D <sub>1</sub>	mm	19	31	48
	Dimension A (33 4652)	mm	72	110	141
	Dimension A (33 4656)	mm	80	100	144



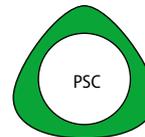
33 4652

Tapping range			M3-12	M6-20
31M	<b>33 4660</b>	Quick-change tapping chuck	•	•
			•	•
	Length compensation by compression	mm	7.5	10
	Length compensation by tension	mm	7.5	10
	External Ø D	mm	41	60
	Ø D <sub>1</sub>	mm	19	31
	Dimension A	mm	73	97



33 4660

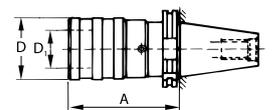
ISO 26623-1



ISO 7388-2  
JIS B6339

Optional extras: Pull studs (PS) No. 308600 – 308806.  
Pull stud wrenches No. 308820; 308835.

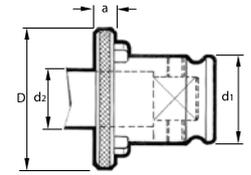
Tapping range			M3-12	M6-20	M14-33
31M	<b>33 4662</b>	Quick-change tapping head	•	—	—
31M	<b>33 4663</b>		•	•	—
32P	<b>33 4665</b>		•	•	•
32P	<b>33 4670</b>		•	•	•
	Length compensation by compression	mm	7.5	12.5	20
	Length compensation by tension	mm	7.5	12.5	20
	External Ø D	mm	38	55	78
	Ø D <sub>1</sub>	mm	19	31	48
	Dimension A (33 4662)	mm	63	—	—
	Dimension A (33 4663)	mm	68	93	—
	Dimension A (33 4665)	mm	60	100	162.5
	Dimension A (33 4670)	mm	62	83	141



33 4665

**HOLEX** Reducer for quick-change inserts

**Application:** For reducing large tapping heads of sizes M6 – 20 or M14 – 33 to smaller M3 – 12 or M6 – 20 quick-change inserts.

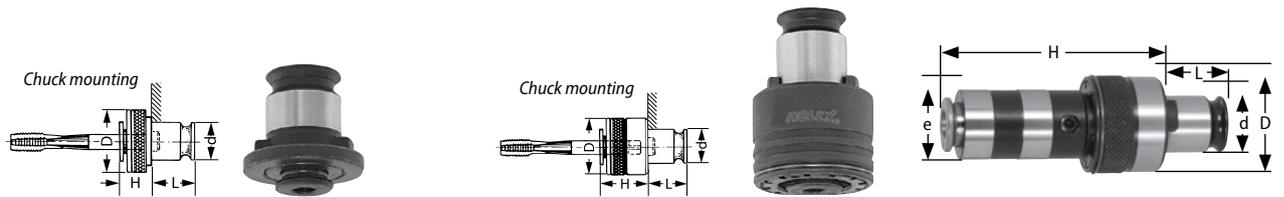


Reducer $\varnothing d_1 / \varnothing d_2$	mm	31/19	48/19	48/31
<sup>32P</sup> 33 5665 Reducer quick-change inserts		•	•	•
$\varnothing D$	mm	46	68	68
a	mm	4.75	8.3	8.3
for thread insert ( $d_1$ )		M3 – M12	M3 – M12	M6 – 20
for check size ( $d_1$ )		M6 – 20	M14 – 33	M14 – 33

**Rigid quick-change tapping collet with or without safety slip clutch**

**Application:**  
 33 5420–5440 – For use with disengaging tapping head.  
 33 5610/5620/5640/5650/5660 – For blind holes.  
 33 5645/5647 – For Garant intermediate sections No. 338140 – 8142.

**Note:** Inserts with slip clutch are supplied with the torque setting for machining steel ( $R_m$  600 – 800 N/mm<sup>2</sup>). The setting can be modified as required by adjusting the nut.



Tap shank $\varnothing$	<sup>32H</sup> 33 5420	<sup>32H</sup> 33 5430	<sup>32H</sup> 33 5440	<sup>32H</sup> 33 5610	<sup>32H</sup> 33 5620	<sup>32H</sup> 33 5640	<sup>31M</sup> 33 5645	<sup>31M</sup> 33 5647	Shank square
	<b>HOLEX</b>						<b>Garant</b>		
	Quick-change collet without safety slip clutch			Quick-change insert with safety slip clutch			Base extension with safety slip clutch		
mm	M3 – 12	M6 – M20	M14 – M33	M3 – 12	M6 – 20	M14 – 33	M3 – 12	M6 – 20	mm
3,5	•	–	–	•	–	–	•	–	2.7
4,5	•	–	–	•	–	–	•	–	3.4
6	•	•	–	•	•	–	•	•	4.9
7	•	•	–	•	•	–	•	–	5.5
8	•	•	–	•	•	–	•	•	6.2
9	•	•	–	•	•	–	•	•	7
10	•	•	–	•	•	–	•	•	8
11	•	•	–	•	•	–	•	–	9
12	–	•	•	–	•	•	–	•	9
14	–	•	•	–	•	•	–	–	11
16	–	•	•	–	•	•	–	•	12
18	–	–	•	–	–	•	–	–	14.5
20	–	–	•	–	–	•	–	–	16
22	–	–	•	–	–	•	–	–	18
25	–	–	•	–	–	•	–	–	20
28	–	–	•	–	–	•	–	–	22
$\varnothing D$	mm	30	46	68	32	50	72	32	
$\varnothing d$	mm	19	31	48	19	31	48	19	
L	mm	21.5	35	55.5	21.5	35	55.5	21.5	
H	mm	7	11	14	25	34	45	70	
$\varnothing e$	mm	–	–	–	–	–	23	34.5	

<sup>32H</sup> 33 5460	<sup>32H</sup> 33 5470	<sup>32H</sup> 33 5650	<sup>32H</sup> 33 5660
<b>HOLEX</b>			
Quick-change collet set without safety slip clutch, 8 pieces	Quick-change collet set without safety slip clutch, 9 pieces	Quick-change collet set with safety slip clutch, 8 pieces	Quick-change collet set with safety slip clutch, 9 pieces
M3 – 12	M6 – 20	M3 – 12	M6 – 20



33 5460

33 5650

**FAHRION®** Quick-change chuck

When the ring is moved down, the steel balls snap back into place in the sleeve.

**Application:** For quick change of subsequent tools.

**Optional extras:** Drill sleeves No. 336820.

Bore $\varnothing D_1$ / mounting shank	mm / MT	26MK2	34MK3	46MK4
<b>33F 33 6800</b> Quick-change chuck		•	•	•
Chuck outside $\varnothing D$	mm	48	61	86
Overall length	mm	150	176	222
Length from the machine spindle	mm	75.5	82.5	104.3

**Drill sleeves for quick-change chucks**

**Suitable for:** Quick-change chuck No. 336800.

**Application:** For tools with Morse taper and with tang such as twist drills, countersinks etc.  
For tools with plain shanks, use the Morse taper clamping sleeve No. 345000.

Plug-in $\varnothing d$ / internal taper	mm / MT	26MK1	26MK2	34MK1	34MK2	34MK3	46MK1	46MK2	46MK3	46MK4
<b>33F 33 6820</b> Drill sleeve		•	•	•	•	•	•	•	•	•
L	mm	78	90	80	91	108	102	98.5	109	135
Length from chuck	mm	18	30	15	26	43	20	16.5	27	53
Length from the machine spindle	mm	93.5	105.5	97.5	108.5	125.5	124.3	120.8	131.3	157.3



**Garant** Synchro insert with ER collet base body

- Tapping and thread forming on machines with synchronised spindles.
- Minimum Length Adjustment: +0.5mm / -0.2 mm.
- Compensation for synchronisation errors, hence better thread quality and clear increase in tool life.
- For collet chucks and driven tools to ISO 15488 (DIN 6499).
- Suitable for left-hand and right-hand threads.

**Synchro collet**

**Suitable for:** ER collet chuck.

for ER collets	16	25	32
<b>31P 33 8180</b> Synchro collet	•	•	•

**Synchro tool heads**

**Suitable for:** ER synchro collet No. 338180.

Tap shank $\varnothing d_2$	31P 33 8183	31P 33 8185	31P 33 8186	for tap shank $\varnothing d_2$ DIN 371	for tap shank $\varnothing d_2$ DIN 374/376	$L_1$			Shank square
	Synchro tool head					33 8183	33 8185	33 8186	
mm	for ER16	for ER25	for ER32			mm	mm	mm	mm
3,5	•	—	—	M3	M5	24	—	—	2.7
4,5	•	—	—	M4	M6	24	—	—	3.4
5	•	—	—	M4	M5	24	—	—	4
6	•	•	•	M5-6	M8	32	27	8	4.9
7	—	•	•	M7	M9-10	—	30	19	5.5
8	—	•	•	M8	M11	—	30	37	6.2
9	—	•	•	M9	M12	—	40	37	7
10	—	•	•	M10	—	—	41	37	8
11	—	—	•	—	M14	—	—	37	9
12	—	—	•	M12	M16	—	—	37	9
$\varnothing D_2$ mm	12.7	19	25						

Optimum damping

Suitable for through-coolant up to 50 bar

ER base body offers great flexibility

Quick-change adapters ensure short change-over times

Slender design, ideal where headstock clearances are limited



**Synchro ER collet adapter**

**Application:** For use on ER collets for the synchronous arbor No. 338180 size 25.

ER external / internal	ER	25/16
<b>31P 33 8188</b> ER adapter		•



# Expand your scope and discover new dimensions.

**THE NEW XPENT GARANT 5-AXIS VICE OFFERS YOU UNEXPECTED POSSIBILITIES.**

## Quick adjustment of the clamping range

- GARANT Xpent size 0:  
More than 80 mm travel without changeover.  
Ideal for components from 6 – 168 mm.
- GARANT Xpent sizes 1 and 2:  
More than 100 mm travel without changeover.  
Ideal for components from 6 – 208 mm.

## Spindle Quick Change (SQC) system

- The spindle can be taken out in seconds.
- Further details on page 14.

## QR code to call up important information

- Instruction Manual
- Accessories/maintenance

- Very good accessibility.
- Perfectly symmetrical.
- All functional faces hardened and ground.
- Variable clamping and adjustment range.
- Quick to use and intuitive in operation.
- Optimum for 5-face machining.
- Made in Germany.



## Workpiece programming from the centre

- Interference contours identical on each side.



**VIDEO**

GARANT Xpent in action:  
[www.ho7.eu/xpent](http://www.ho7.eu/xpent)



CENT

### Intelligent jaw system

- Extremely diverse range.
- Top jaws (from page 24) with attachment holes for front jaws, with a 2-step concept (from page 27).
- The front jaws are mounted from the outside, meaning it is quicker and easier to change the jaws.

### Spindle

- Individual extensions available up to 1000 mm.
- The spindle does not project beyond the clamping modules in any clamping situation.

### Quick release of the fixed clamping module

- Both clamping modules can be moved.
- Clamping via 2 screws exclusively on the fixed clamping module.

### Scaling

- Navigation aid for central alignment of the clamping modules.

### Optimum flow of chips

- No rat's nests of chips.

# Xcellent centric: Discover the advantages of the unique centring capability.

**PERFECTLY ALIGN MULTIPLE VICES TO EACH OTHER – THIS HAS NEVER BEEN SO EASY.**

## XPRESS

- Click system for quick and easy inter-change of jaws.
- No tools required for changing jaws.

## XCELLENT CENTRIC

- Adjustment of the clamping centre in the  $\mu$  range, especially for clamping components using multiple XTRIC vices.

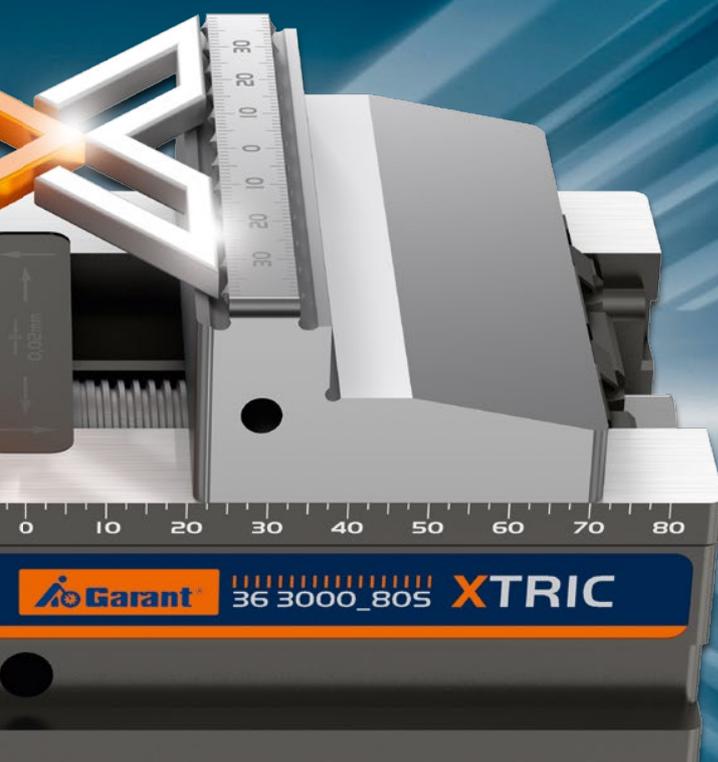
## XACTLY PRECISE

- Minimal and uniform lifting of the jaws and the component.
- Suitable for clamping finished parts (see Page 9).





VIDEO  
 GARANT XTRIC in Action:  
<http://ho7.eu/XTRIC>



### XTRA STRONG

- 25 kN clamping force.
- Special GARANT tooth form saves time – no pre-indentation necessary.
- Chromium-plated spindle.

### XTREMELY VARIABLE

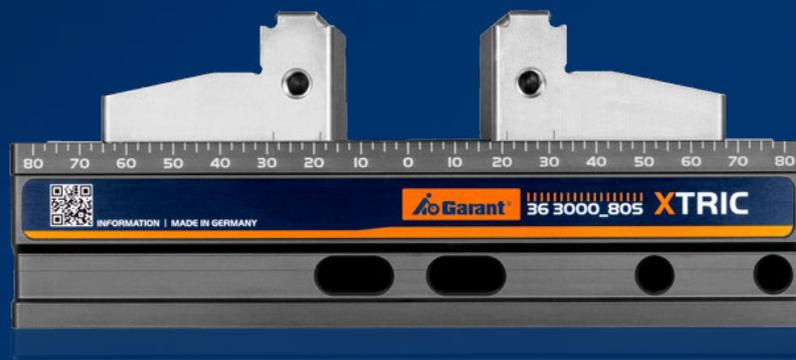
- Compatible with all zero point clamping systems.
- Directly adaptable on the positioning system „LANG“ .

### XCLUSIVE

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