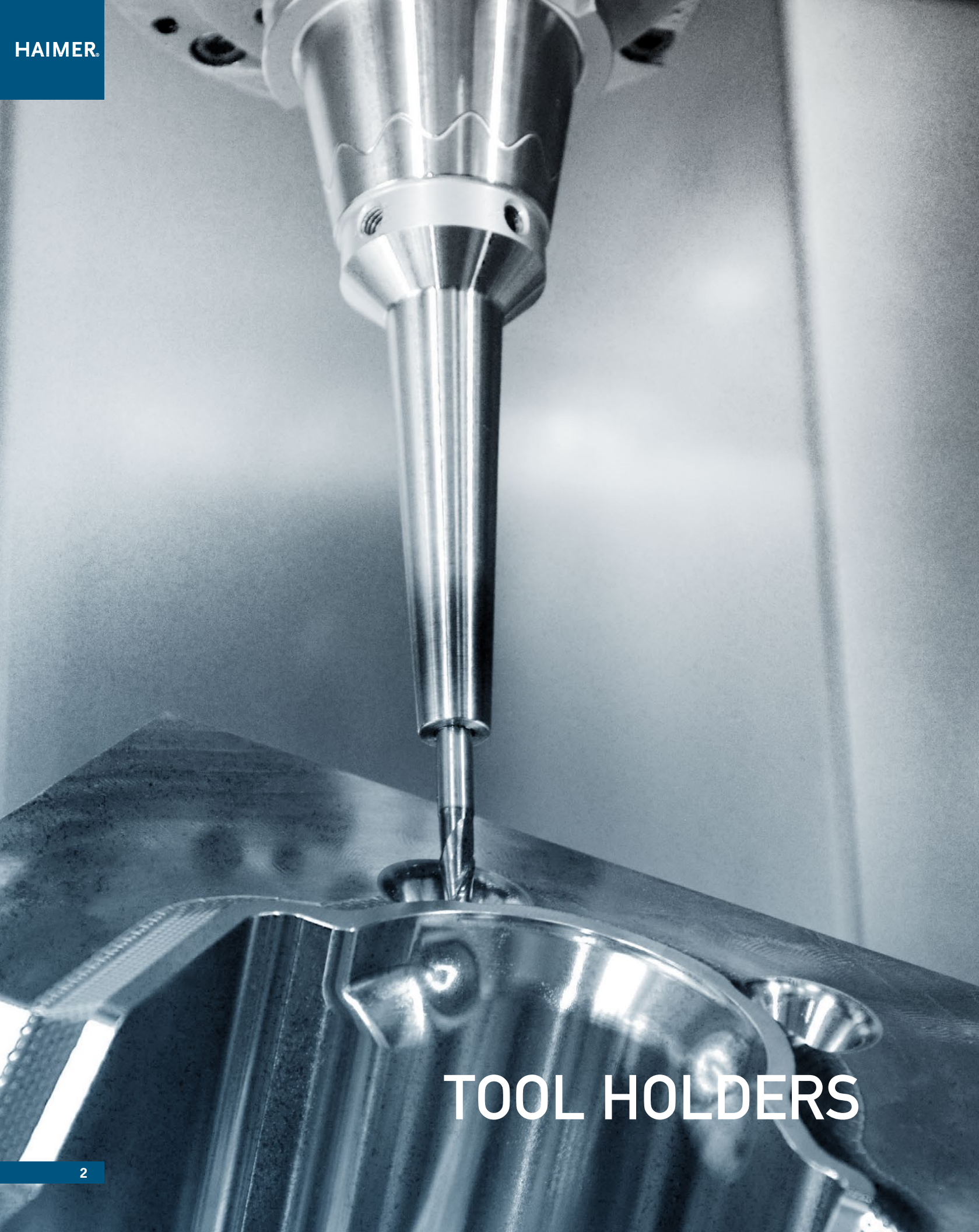
HAIMER®
Quality Wins.

TOOL HOLDERS

100%
Made by HAIMER
Made in Germany

www.haimer-usa.com



TOOL HOLDERS

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THE SUITABLE CLAMPING TECHNIQUE FOR ALL TYPES OF MACHINING APPLICATIONS

Every industry has its specific requirements for tool holding. The range of applications varies from high speed cutting of aluminum to heavy machining of titanium.

For each industry with its typical machining applications HAIMER offers the right clamping technology. To find the suitable product for your specific application, please choose your industry.

Industry

Die and mold and medical engineering

Automotive engineering

General mechanical engineering

Aerospace industry

Heavy machinery industry

Requirements to tool holding	Suitable tool holder
– High Speed Cutting (HSC) – Slim tooling – Long protruding lengths for deep cavities – Mostly low cutting forces at high rpm – Vibration dampening features – 5-axis machining – High flexibility in tool clamping – Modular system with shrink fit extensions	– Mini Shrink – Power Mini Shrink Chuck – Shrink Fit Chuck standard and extensions – Power Collet Chuck – High-Precision Chuck – ER Collet Chuck
– Process reliability in the series production – Machining of deep bores – Pull out protection for cutting tools with Safe-Lock – Consistent high quality in the procurement of spare parts	– Shrink Fit Chuck standard and extensions – Power Shrink Chuck – ER Collet Chuck
– High flexibility of tool clamping – Tool holders for universal usage – Vibration-free machining – Modular system with shrink fit extensions	– Shrink Fit Chuck standard and extensions – Power Shrink Chuck – ER Collet Chuck – High-Precision Chuck and extensions – Power Collet Chuck
– Low vibrations at high speed for aluminum cutting – High cutting capacity (High Performance Cutting, HPC) – Extreme rigidity and clamping force for titanium machining – Pull out protection for cutting tools with Safe-Lock	– Shrink Fit Chuck standard and extensions – Power Shrink Chuck – Heavy Duty Chuck and extensions – Power Collet Chuck – High-Precision Chuck and extensions – ER Collet Chuck
– Machining of large steel and cast parts (e.g. gear housings) – High cutting forces at low to medium rpm – High rigidity, even at long protruding lengths	– Shrink Fit Chuck standard – Power Shrink Chuck – Heavy Duty Chuck and extensions – ER Collet Chuck – Power Collet Chuck

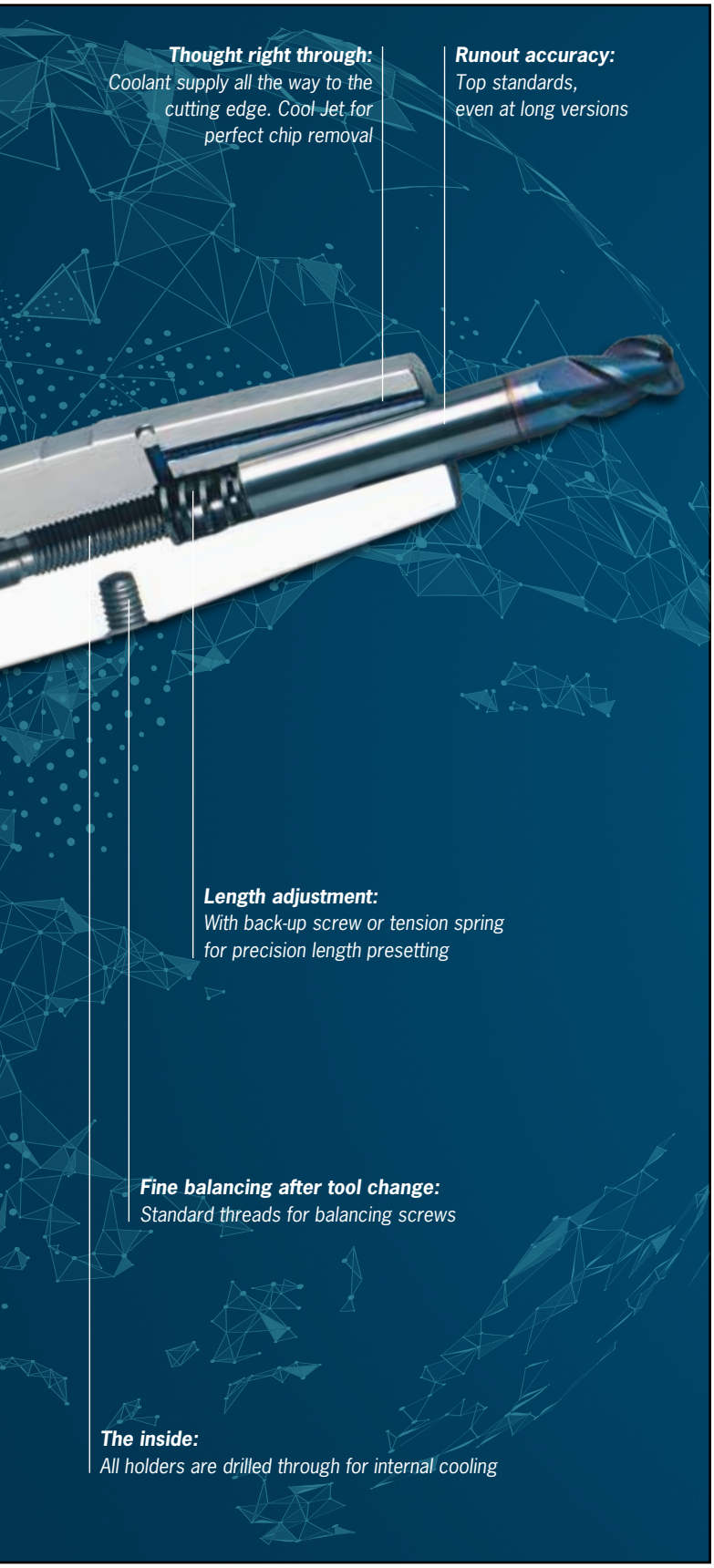
ARE YOU READY FOR THE NEXT GENERATION OF MACHINING EFFICIENCY?

All shrink fit holders are not created equal.
Choose Haimer holders for best results.

Total quality control
- All made at HAIMER in Germany
- Consistent material
- High-temperature resistant special steel
- High clamping force
- Long clamping bore
- Best runout accuracy
- TIR within 0.00012” at 3 times diameter
- Patented back-up screw
- Prebalanced to G2.5 @ 25,000 RPM
- Fine balancing with set-screws possible
- Cool Jet and Cool Flash coolant delivery available
- Bore for the data chip standard
- “DIN-B”standard
- AT3 taper or better on steep taper
- HSK specialists
- Many tapers available

Shrinking holders from HAIMER
- Power Shrink
- Mini Shrink
- Heavy Duty Shrink
- Safe-Lock
- Extensions

Tapers
- CAT40/CAT50
- BT30/BT40/BT50
- SK30/SK40/SK50
- BT30/40 with face contact
- HSK-32A/E
- HSK-40A/E
- HSK-50A/E
- HSK-63A/E/F
- HSK-80A
- HSK-100A
- HSK-80F Makino
- HSK-25E
- HSK-125A
- PSC 63



Are you saving costs at the right place?

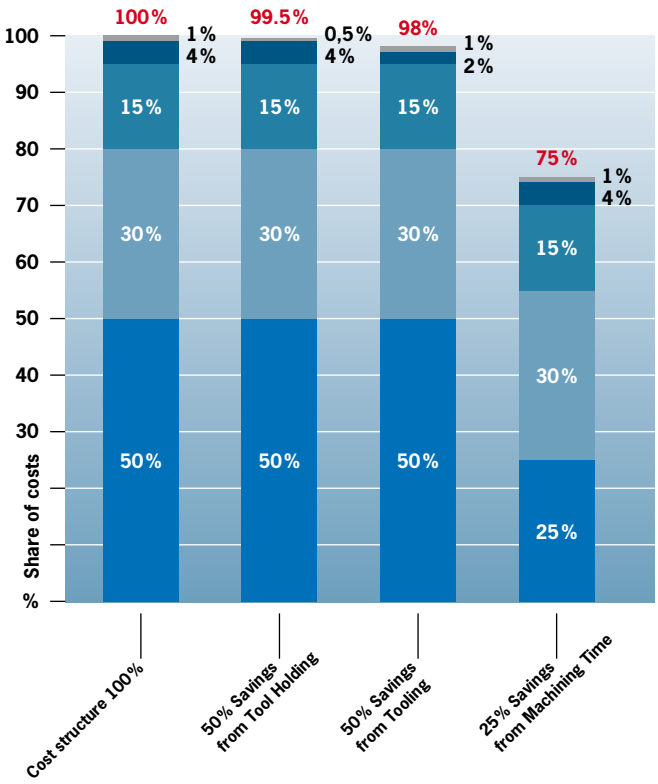
For machining efficiently, potential savings must be explored. But where are these potential savings?

Roughly, the costs of a work piece are composed of the following:

Machine costs with operator (machining time and idle time)	approx. 50 %
General costs	approx. 30 %
Raw material	approx. 15 %
Tooling	approx. 4 %
Tool holder	approx. 1 %

Assume you could save 50% on tool holders, tooling and machining time.

The resulting potential savings are as follows:



The result: The costs for tooling and tool holders are nearly meaningless. Even with savings of 50%, the total costs remain nearly the same.

Essential savings can be reached by minimizing the machining time. This potential only can be exploited when the cutting process is optimized.

Tool holders from HAIMER for more efficiency at high speed machining:

– Higher cutting capacity
– Extended tool life
– Shorter machining times
– High runout accuracy
– Better surface finish
– High reliability of the whole process

THE EVOLUTION OF SHRINK FIT TECHNOLOGY

Starting with the **Standard Shrink Fit Chuck** which is suitable for a broad range of applications, in close cooperation with customers of the aerospace industry has led to the development of the **Power Shrink Chuck.**

Thus a much higher metal removal rate and significant tool life increase (e.g. at aluminum machining) could be achieved. With the Power Shrink Chucks, the area of applications for shrinking technology is extended to roughing (still with a runout accuracy of < 0.00012" (0.003 mm) and vibration resistance due to optimized outer geometry).

The extremely rigid outer geometry and the reinforced wall thickness at the clamping bore make the **Heavy Duty Chuck** a profitable chuck for highest performances (e.g. for titanium machining) in the aerospace and heavy machining industry.

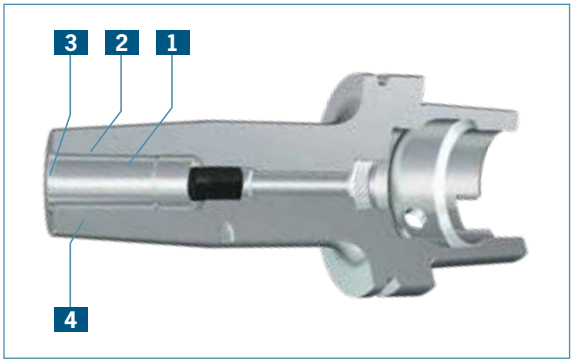
Power Shrink and Heavy Duty Shrink Chucks can be equipped with Safe-Lock from diam. ¼" (6 mm) and with the cooling system Cool Flash from diam. ¼" to 1" (6 mm to 25 mm) (optional).

Power
Shrink Chuck

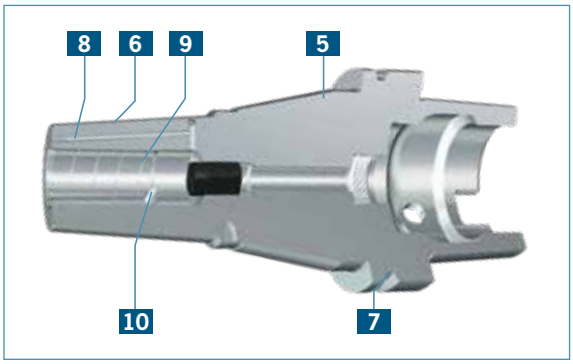
Standard
Shrink Fit Chuck

The most important features

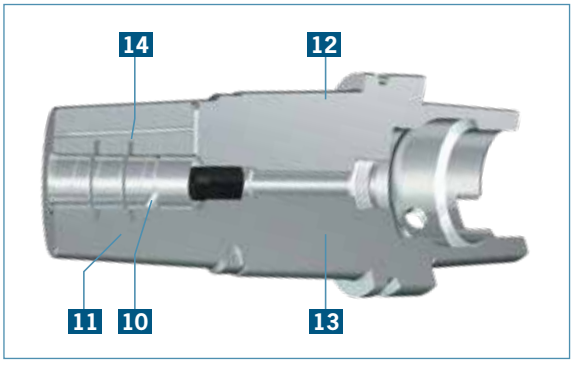
1. High runout accuracy
2. Extreme clamping torque
3. Short chamfer
4. Cool Jet available upon request
5. Low tendency towards vibrations
6. Slim design at the top
7. Very rigid shank
8. Standard with Cool Jet, Cool Flash optional
9. Oil groove in the clamping bore
10. Mounting of Safe-Lock possible
11. Reinforced wall thickness
12. Extremely rigid outer geometry
13. High rigidity
14. Expansion grooves in the clamping bore



HAIMER Standard Shrink Fit Chuck



HAIMER Power Shrink Chuck



HAIMER Heavy Duty Chuck

Heavy Duty Chuck

THE EVOLUTION OF COLLET CHUCK TECHNOLOGY

HAIMER has developed the existing technology of collet chucks further.

The Power Collet Chucks are collet chucks designed for high speed cutting (HSC) – an alternative to the reinforced shrink fit chucks of the Power Series. **Power Collet Chucks** offer a reinforced wall thickness and extra rigid outer contour and are therefore stable and resistant to vibrations. The chucks achieve maximum performance with even more precision with < 0.00012" (0.003 mm) runout accuracy and higher cutting capacity when using the specifically developed HAIMER high-precision collets.

The Power Collets can optionally be equipped with Safe-Lock and Cool Jet.

With the **High Precision Collet Chuck**, a new standard has been set, especially for micro and fine machining. It is featured by the highest runout accuracy of less than 0.00012" (0.003 mm) providing the best surface finish at high rpm.

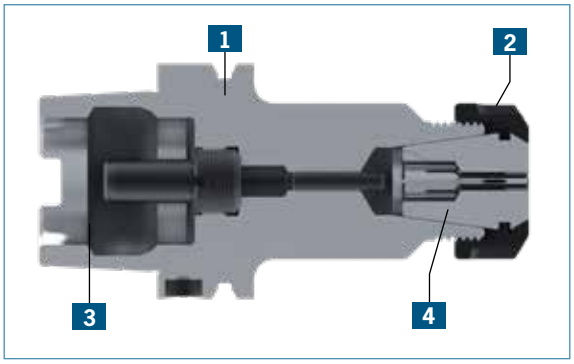
The specially coated locknuts (fine balanced to < 1 gmm) guarantee vibration dampening and noise-reducing features in high speed cutting (e.g. in the watchmaking or medical industry).

Standard
Collet Chuck

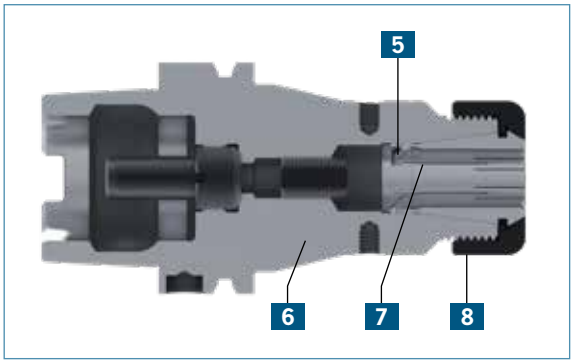
Power
Collet Chuck

The most important features

1. Fine balanced to G 2.5 at 25,000 rpm
2. Fine balanced clamping nut
3. All functional surfaces ground
4. High runout accuracy (< 0.00012" / 0.003 mm)
5. Safe-Lock in the high precision collet (optional)
6. Low tendency towards vibrations by a rigid shank
7. High precision collet
8. Fine balanced Power Collet clamping nut
9. High precision collet with Cool Jet bores (optional)
10. Chuck body fine balanced to G 2.5 at 30,000 rpm or U < 1 gmm
11. Thread for balancing screws
12. With specially coated locknut fine balanced < 1 gmm

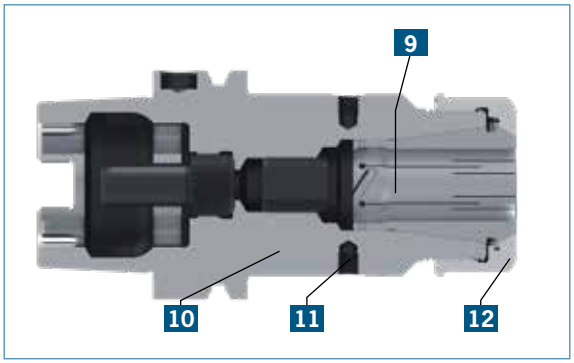


HAIMER Standard Collet Chuck



HAIMER Power Collet Chuck

High Precision Collet Chuck



HAIMER High Precision Collet Chuck

HAIMER

OVERVIEW OF TOOL HOLDER TECHNOLOGY

Tool Holding Systems For Cylindrical Shank Cutting Tools

Application Areas	Shrink Fit Technology					Mechanical
	Shrink Fit Chuck Standard	Power Shrink Chuck	Heavy Duty Shrink Chuck	Power Mini Shrink Chuck	Mini Shrink Chuck	ER Collet Chuck
						
Application						
Drilling	•	•		•	•	•
Finishing	•	•		•	•	•
High Speed Cutting	◐	•	◐	•	•	
Roughing		•	•			
Clamping Range [mm]	3 - 32	6 - 32	16 - 50	3 - 16	3 - 12	0.5 - 25
Runout [mm] at 3xD	0.003 mm	0.003 mm	0.003 mm	0.003 mm	0.003 mm	0.02 mm
Max. RPM	up to 50,000	up to 50,000	up to 50,000	up to 80,000	up to 80,000	up to 15,000
Balancing Grade G	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM
Outer Contour	slim	shank reinforced	clamping area and shank reinforced	very slim, shank reinforced	very slim	medium
Tool Changing Time	60 s	60 s	120 s	60 s	60 s	180 s
Pullout Protection	Safe-Lock	Safe-Lock	Safe-Lock			
Maintenance / Care	none / remove oil	none / remove oil	none / remove oil	none / remove oil	none / remove oil	check collet / cleaning

*HAIMER Standard • applicable ◐ applicable to limited extent

HAIMER Tool Holder Program

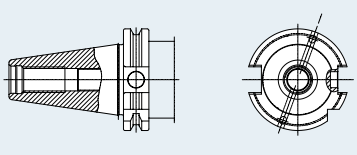
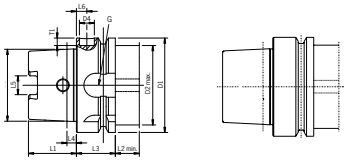
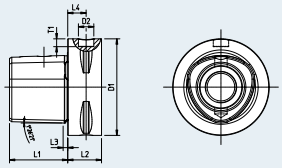
Program Diversity	CAT		BT			BT with Face Contact		HSK													PSC
	40	50	30	40	50	30	40	A32	A40	A50	A63	A63/80	A80	A100	A125	E25	E32	E40	E50	F63	F80M	63
Shrink Fit Chuck Standard	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
Power Shrink Chuck	•	•		•	•		•				•	•	•	•	•							•
Heavy Duty Shrink Chuck		•			•						•			•	•							
Power Mini Shrink Chuck	•		•	•		•	•				•	•										
Mini Shrink Chuck											•					•		•	•			
ER Collet Chuck	•	•	•	•	•			•	•	•	•		•	•		•	•	•	•	•	•	•
Power Collet Chuck	•	•	•	•	•			•	•	•	•	•		•	•	•	•	•	•			•
High Precision Collet Chuck			•	•	•			•	•	•	•			•			•	•	•			•
HG-Chuck				•	•						•			•								
Weldon Chuck				•	•			•	•	•	•		•	•					•			•
Whistle-Notch											•			•								
Face Mill Arbor	•	•	•	•	•				•	•	•	•		•	•				•	•		•
Combo Shell Endmill Arbor				•	•				•	•	•			•								

Tool Holders

Power Collet Chuck	High Precision Collet Chuck	HG-Chuck	Weldon Chuck	Whistle-Notch	Hydraulic Chuck**	Milling Chuck**
						
●	●	●			●	
●	●	●			●	
●	●	◐				
●	●		●	●		●
2 - 20	2 - 20	2 - 20	6 - 40	6 - 40	3 - 25	6 - 50
0.003 mm	0.003 mm	0.003 mm	0.03 mm	0.03 mm	0.003 mm	0.01 mm
up to 25,000	up to 40,000	up to 50,000	up to 15,000	up to 15,000	up to 40,000	up to 15,000
*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 25,000 RPM	*2.5 @ 22,000 RPM	*6.3 @ 8,000 RPM	2.5 @ 25,000 RPM	partially fine balanced
shank reinforced	shank reinforced	medium	medium	medium	very massive	large interference contour
180 s	180 s	60 s	60 s	120 s	60 s	120 s
Safe-Lock	Safe-Lock		●	●		
check collet / cleaning	check collet / cleaning	check collet / cleaning	check clamping screw / remove oil	check clamping screw / remove oil	yearly membrane check / daily test for leaks	accurate and sensitive cleaning necessary

**not in the HAIMER delivery program

Interfaces

	Steep taper CAT, BT, SK	HSK-A/E	PSC Polygon Shank Coupling
Standard	ASME B5.50, JIS B6339, DIN 69871	DIN 69893-1, DIN 69893-5	ISO 26623
Drawing			
Info	Traditional interface for milling spindles. Very robust. Also applicable for heavy duty machining. Clamping always with additional pull stud. Centering only via taper surface, without face contact. Therefore limited accuracy. For applications up to 12,000 rpm.	HSK-A: Standard for new machining centers. High precision centering and positioning by taper with face contact. Torque transmission by taper drive keys. For applications up to 35,000 rpm. HSK-E: No drive keys but symmetrical design. Mainly used for high speed machining.	Widespread at multitask (mill-turn centers) machines. Torque transmission and centering due to polygon taper. Exact positioning by face contact. Very high static stiffness.
Quality	HAIMER: 3,000 measuring points guarantee highest taper tolerance of AT3, i.e. all surface tolerances are within 1.5 µm (applies for SK 40). HAIMER pull studs from highly precise in-house production made of impact-resistant steel are specially case hardened. For highest breakage and process security.	HAIMER: All functional surfaces at and in the taper (clamping shoulder, wings of drive keys, etc.) fine finished after hardening. For equal axial pull-in, highest runout accuracy and max. rigidity.	Complete ground inner taper for optimal clamping and centering accuracy.

Explanation article code

Example of article:

Taper size/Type of taper	Clamping system
40.	84
CAT40	Shrink fit chuck

40.

Taper size and type of taper

30	SK/BT
30P	BT with face contact
40	CAT/BT/SK
40P	BT with face contact
50	CAT/BT/SK
A32	HSK-A32
A40	HSK-A40
A50	HSK-A50
A63	HSK-A63
A63/80	HSK-A63/80
A80	HSK-A80
A10	HSK-A100
A125	HSK-A125
E25	HSK-E25
E32	HSK-E32
E40	HSK-E40
E50	HSK-E50
F63	HSK-F63
F80M	HSK-F80M
CC6	PSC 63

84

Clamping system – Key number

SK	BT	CAT	HSK	PSC 63	Clamping system
30	50	70	00	00	Weldon
32	52	72	02	02	ER Collet Chuck
33	53		03		Whistle Notch
34	54	74	04		Combination Shell Endmill Arbor
35	55	75	05	05	Face Mill Arbor
37	57		07		Quick Change Tapping Chuck
38	58		08		Adapter for Morse Taper with Tang
39	59		09		Blank Adapter
42	62	82	12		HG Chuck
43	63		13		Adapter for Morse Taper with Thread
44	64	84	14	14	Shrink Fit Chuck
45	65	85	15		Shrink Fit Chuck Type S
47	48	88	17		Mini Shrink extra slim
48	68		18		Mini Shrink standard

	Length	Size/Clamping diameter	Version
	0.	1Z	.4
	short	1"	with Cool Jet

	0.	1Z		.4
	Length	Size/Clamping diameter		Version
		INCH	METRIC	
	0. short	.1/8Z Ø 1/8"	.02 Ø 2 mm	.1 Telescope, without slits
	1. long	.3/16Z Ø 3/16"	.03 Ø 3 mm	.2 with Cool Jet
	2. oversize	.1/4Z Ø ¼"	.04 Ø 4 mm	.26 with Cool Flash
	4. ZG130 (130 mm long)	.5/16Z Ø 5/16"	.05 Ø 5 mm	.3 Power Chuck
	5. ultra short	.3/8Z Ø 3/8"	.06 Ø 6 mm	.36 Power Chuck with Cool Flash
	6. ZG200 (200 mm long)	.7/16Z Ø 7/16"	.07 Ø 7 mm	.37 Power Chuck with Safe-Lock
	7. ZG120 (120 mm long)	.1/2Z Ø ½"	.08 Ø 8 mm	.38 Power Chuck with Safe-Lock & Cool Flash
		.5/8Z Ø 5/8"	.10 Ø 10 mm	.3.HP High Precision Collet Chuck
		.3/4Z Ø ¾"	.12 Ø 12 mm	.4 with Cool Jet bores that can be sealed
		.7/8Z Ø 7/8"	.14 Ø 14 mm	.47 with Cool Jet and Safe-Lock
		.1Z Ø 1"	.16 Ø 16 mm	.6 Heavy Duty Chuck
		.1 1/4Z Ø 1 ¼"	.18 Ø 18 mm	.66 Heavy Duty Chuck with Cool Flash
		.1 1/2Z Ø 1 ½"	.20 Ø 20 mm	.67 Heavy Duty Chuck with Safe-Lock
		.2Z Ø 2"	.25 Ø 25 mm	.68 Heavy Duty Chuck with Safe-Lock & Cool Flash
			.32 Ø 32 mm	.7 Safe-Lock
			.40 Ø 40 mm	.8 Power Mini Shrink
			.50 Ø 50 mm	.KKB with Coolant Exit bores

Tight tolerances and high quality demands leave no room for compromises. Where quality is concerned, we trust ourselves first and foremost. Not only do we manufacture all our products in-house, the fixtures and vices on our machines are also made by HAIMER. We do so because we know that only **Quality wins.**

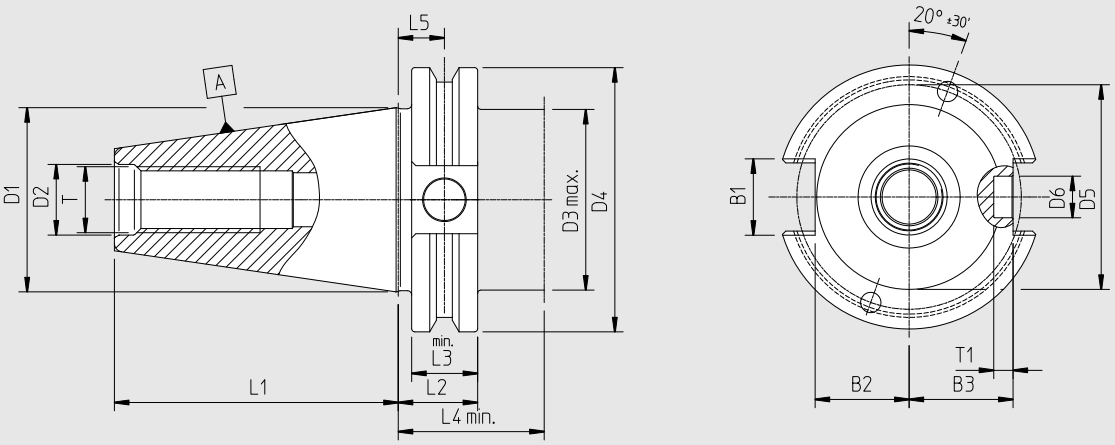
100% Made by HAIMER Made in Germany

ASME B5.50
CAT40 / CAT50

STEEP TAPER
ASME B5.50 · CAT40 / CAT50

Design:
– Tool holders case-hardened 60 – 2 HRC
– Tensile strength in the core at least 950 N/mm²
– Taper in tolerance quality AT3
– Form ADB: interior coolant supply through center (form AD) and through the collar (form B), see page 231
– Incl. bore for data chip Ø 10 mm

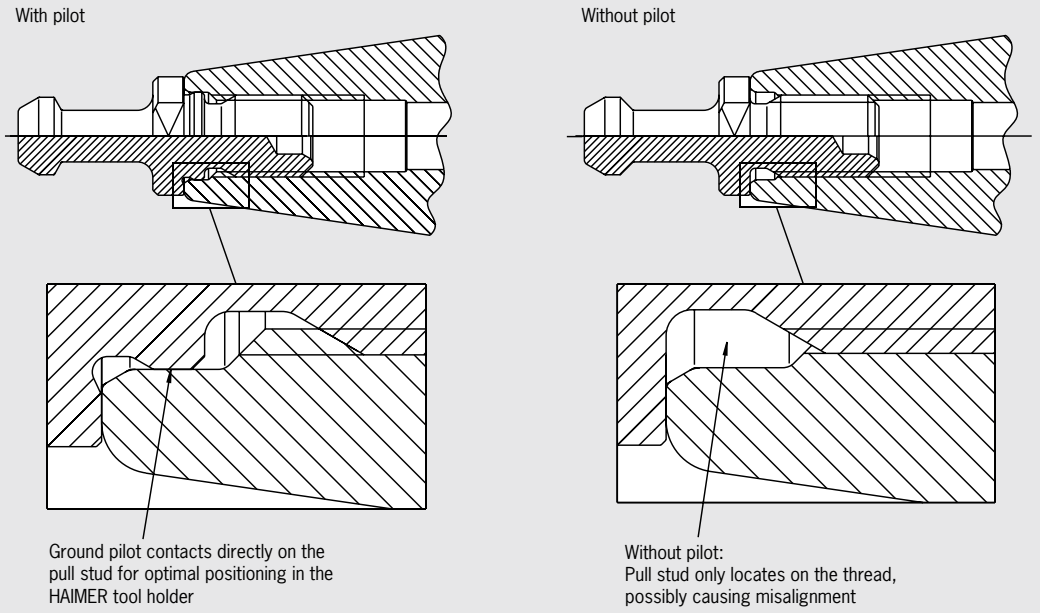
CAT40 / CAT50



CAT40	D1	D2	D3 max.	D4	D5	D6	L1	L2	L3	L4 min.	L5	T	T1	B1	B2	B3
inch	1.75	0.669	1.71	2.5	2.126	0.39	2.687	0.75	0.625	1.38	0.44	5/8"–11	0.18	0.646	0.89	0.984

CAT50	D1	D2	D3 max.	D4	D5	D6	L1	L2	L3	L4 min.	L5	T	T1	B1	B2	B3
inch	2.75	1.063	2.71	3.875	3.307	0.39	4.0	0.75	0.625	1.38	0.44	1"–8	0.18	1.02	1.39	1.484

STEEP TAPER
ASME B5.50 · CAT40 / CAT50

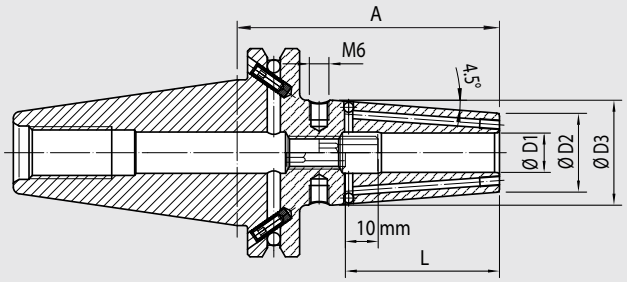


HAIMER goes far beyond the requirements of CAT tooling. Our experience with tool holders and balancing have merged together to successfully create far superior CAT tapered tooling.

In addition to our unsurpassed taper contact and 100% inspection process of our tapers, HAIMER has developed a special feature to greatly increase your tool holder balance repeatability and your machine tool spindle draw mechanism repeatability.

We have added a ground pilot in the rear of all our CAT tool holders. This ground pilot fits perfectly with the special HAIMER pull stud to maximize your tool holder to machine tool connection. The ground pilot is larger than the standard ANSI dimension, so you can easily use any pull stud from any manufacturer. However, for those serious about balance and machine tool spindle draw repeatability, HAIMER has the answer for you with our special pull-stud/pilot connection!

SHRINK FIT CHUCK
CAT40 · ASME B5.50



CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

CAT40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

Optional:
– Cooling with Cool Flash from ¼"–1" for an extra charge (See pages 214/215)
– Safe-Lock pull out protection (See pages 216–220)

Standard version, similar to DIN 69882-8

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/4
	Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.30	1.73	1.73
	Ø D3 [inch]			1.06	1.06	1.26	1.26	1.26	1.34	1.65	1.65	2.09	2.09
	L [inch]	0.35	0.47	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.05	2.28	2.28
Gage length A [inch]	short	3.15[1]	3.15[1]	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.94	3.94
Standard Order No.	**40.840...**	**.1/8Z**	**.3/16Z**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	ZG130	–	–	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.	**40.844...**			**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	oversize	–	–	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.	**40.842...**			**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	44	44
	Ø D3 [mm]				27	27	32	32	34	34	42	53	53
	L [mm]	09	12	15	36	36	42	47	47	50	52	58	58
Gage length A [mm]	short	80[1]	80[1]	80[1]	80	80	80	80	80	80	80	100	100
Order No.	**40.840...**	**.03**	**.04**	**.05**	**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**	**.20.4**	**.25.4**	**.32.4**
Gage length A [mm]	ZG130	–	–	–	130	130	130	130	130	130	130	130	130
Order No.	**40.844...**				**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**	**.20.4**	**.25.4**	**.32.4**
Gage length A [mm]	oversize	–	–	–	160	160	160	160	160	160	160	160	–
Order No.	**40.842...**				**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**	**.20.4**	**.25.4**	

Standard version with Safe-Lock and M3 seal screw installed

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]	0.83	0.83	0.94	0.94	1.06	1.30	1.73	1.73
	Ø D3 [inch]	1.06	1.06	1.26	1.26	1.34	1.65	2.09	2.09
	L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	short	3.15	3.15	3.15	3.15	3.15	3.15	3.94	3.94
Order No.	**40.840...**	**.1/4Z.47**	**.5/16Z.47**	**.3/8Z.47**	**.1/2Z.47**	**.5/8Z.47**	**.3/4Z.47**	**.1Z.47**	**.1 1/4Z.47**

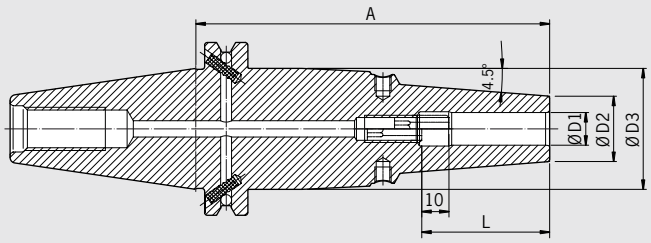
METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	53	53
	L [mm]	36	36	42	47	47	50	52	58	58
Gage length A [mm]	short	80	80	80	80	80	80	80	100	100
Order No.	**40.840...**	**.06.47**	**.08.47**	**.10.47**	**.12.47**	**.14.47**	**.16.47**	**.20.47**	**.25.47**	**.32.47**

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool

POWER SHRINK CHUCK
CAT40 · ASME B5.50

CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed



The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

The long versions with slim tips are especially versatile to use.

– High rigidity, slim at the tip, dampen vibrations
– Higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

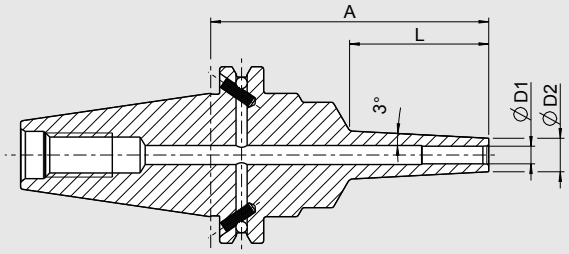
Optional:

– Cooling with Cool Flash for an extra charge
– Safe-Lock pull out protection (See pages 216–220)

INCH	Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch] ultra short	0.87	0.87	1.04	1.04	1.16	1.40	1.79
	Ø D3 [inch] ultra short	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	L [inch] ultra short	1.42	1.42	1.65	1.85	1.97	2.05	2.28
Gage length A [inch]	ultra short	2.56	2.56	2.56	2.56	2.56	2.56	2.95
Standard Order No.	**40.845...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**
Safe-Lock Order No.	**40.845...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**
	Ø D2 [inch] ZG130/oversize	0.83	0.83	0.94	0.94	1.06	1.30	—
	Ø D3 [inch] ZG130/oversize	1.75	1.75	1.75	1.75	1.75	1.75	—
	L [inch] ZG130/oversize	1.42	1.42	1.65	1.85	1.97	2.05	—
Gage length A [inch]	ZG130	5.12	5.12	5.12	5.12	5.12	5.12	—
Standard Order No.	**40.844...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	
Safe-Lock Order No.	**40.844...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	
Gage length A [inch]	oversize	6.30	6.30	6.30	6.30	6.30	6.30	—
Standard Order No.	**40.842.**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	
Safe-Lock Order No.	**40.842...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	

METRIC	Ø D1 [mm]	6	8	10	12	16	20	25
	Ø D2 [mm] ultra short	22	22	26.5	26.5	29.5	35.5	45.5
	L [mm] ultra short	36	36	42	47	50	52	58
Gage length A [mm]	ultra short	65	65	65	65	65	65	75
Standard Order No.	**40.845...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.16.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**40.845...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.16.37**	**.20.37**	**.25.37**
	Ø D2 [mm] ZG130/oversize	21	21	24	24	27	33	—
	Ø D3 [mm] ZG130/oversize	44.45	44.45	44.45	44.45	44.45	44.45	—
	L [mm] ZG130/oversize	36	36	42	47	50	52	—
Gage length A [mm]	ZG130	130	130	130	130	130	130	—
Standard Order No.	**40.844...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.16.3**	**.20.3**	
Safe-Lock Order No.	**40.844...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.16.37**	**.20.37**	
Gage length A [mm]	oversize	160	160	160	160	160	160	—
Order No.	**40.842...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.16.3**	**.20.3**	
Safe-Lock Order No.	**40.842...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.16.37**	**.20.37**	

POWER MINI SHRINK CHUCK
CAT40 · ASME B5.50



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U< 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. This allows for efficient milling with an angled tool, even at long protruding lengths.

- Extremely slim design
- No disturbing edges
- TIR less than 0.00012" (3 µm)
- Ideal for the HAIMER Power Clamp
- For all solid carbide tools with shank tolerance h6
- With 3° slope for dies and molds
- **Attention: Heating and cooling only with shrink and cooling sleeves (See accessories)**

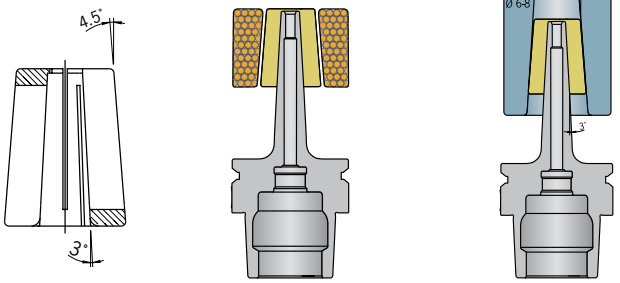
INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	3/8	1/2
	Ø D2 [inch]	0.35	0.43	0.47	0.63	0.81
	L [inch]	1.97	1.97	1.97	1.97	1.42
Gage length A [inch]		3.94	3.94	3.94	3.94	3.15
Order No.	**40.889...**	**.1/8z.0002**	**.3/16z.0002**	**.1/4z.0001**	**.3/8z.0001**	**.1/2z.0001**
Suitable Shrink and cooling sleeves						
Order No.	**80.105.14...**	**.2.04**	**.2.05**	**.2.09**	**.2.11**	**–**

METRIC	Clamping Ø D1 [mm]	04	06
	Ø D2 [mm]	10	12
	L [mm]	50	50
Gage length A [mm]		100	100
Order No.	**40.889...**	**.04.8.1001**	**.06.8.1002**[1)]
Suitable Shrink and cooling sleeves			
Order No.	**80.105.14...**	**.2.08**	**.2.09**

1) With EDM slits

Shrink and cooling sleeve
- Protects Mini Shrink chucks from overheating
- Extends lifetime of shrink fit chucks
- Secure and user friendly handling
- Only one parameter setting needed for all Mini Shrink chucks
- Cooling with standard cooling body

Function

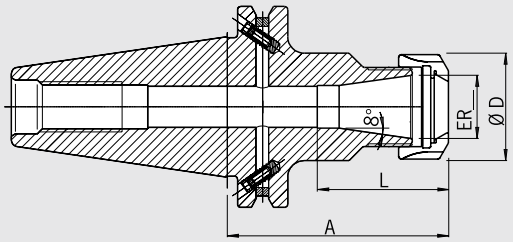


Heat up
With shrink and cooling sleeve

Cool down
With shrink and cooling sleeve and cooling body Ø 6–8 mm

ER COLLET CHUCK
CAT40 · ASME B5.50

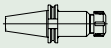
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

CAT40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Balanced collet nuts with special slide coating for low friction and higher clamping forces
– Included in delivery: ER collet chuck with pre-balanced collet nut

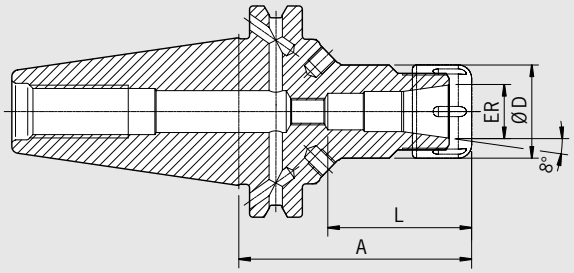
INCH	Ø ER		ER11	ER16	ER20	ER25	ER32	ER40
	Ø D [inch]		0.75	1.1	1.34	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.28	0.02–0.39	0.04–0.51	0.04–0.63	0.04–0.79	0.08–1.02
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.0–13.0	1.0–16.0	1.0–20.0	2.0–26.0
L [inch]			–	2)	1.63	2.44	2.52	2.87
Gage length A [inch]	short		–	2.76	2.76	2.76	2.76	2.76
Order No.	**40.720...**			**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			2)	2)	1.63	2.24	2.52	2.87
Gage length A [inch]	long		3.94	3.94	3.94	3.94	3.94	3.94
Order No.	**40.721...**		**.11**	**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			–	2)	1.63	2.24	2.52	2.87
Gage length A [inch]	oversize		–	6.30	6.30	6.30	6.30	6.30
Order No.	**40.722...**			**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			–	2)	1.63	2.24	2.52	–
Gage length A [inch]	ZG200		–	7.87	7.87	7.87	7.87	–
Order No.	**40.726...**			**.16**	**.20**	**.25**	**.32**	

Accessories See accessories (pg. 169)

Collet nut, pre-balanced								
Ø ER			ER11	ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**		**.11**	**.16**	**.20**	**.25**	**.32**	**.40**
Collet nut HS (High Speed), fine-balanced								
Ø ER				ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**			**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Wrench								
Ø ER			ER11	ER16	ER20	–	–	–
Order No.	**84.200...**			**.11**	**.16**	**.20**		
Wrench								
Ø ER			–	–	–	ER25	ER32	ER40
Order No.	**84.200...**					**.25**	**.32**	**.40**
Balancing index rings								
Ø ER			ER11	ER16	ER20	ER25	ER32	ER40[1]
Order No.	**79.350...**		**.19**	**.28**	**.34**	**.42**	**.1.71Z**	**.50**
Collet								See page 180
Pull Studs								See page 196

1) Not for 40.720.40 2) Drilled through

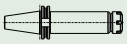
POWER COLLET CHUCK
CAT40 · ASME B5.50



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine-machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch] short		1.69	2.42	2.44
Gage length A [inch]	short		2.76	2.76	2.76
Order No.	**40.720...**		**.16.3**	**.25.3**	**.32.3**
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	long		3.94	3.94	3.94
Order No.	**40.721...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**40.722...**		**.16.3**	**.25.3**	**.32.3**

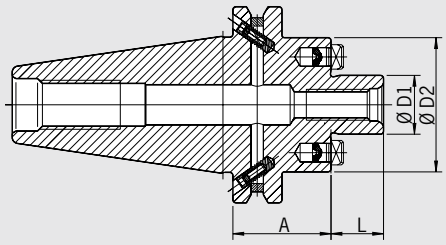
Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER 32	
Order No. 83.914...		**.16**	**.25**	**.32**	
Power Collet Clamping wrench					See page 191
					
Torque Master torque wrench					See page 190
Order No. 84.600.00					
Power Collets					See page 186
Power Collets with Safe-Lock					See page 188
Cool Jet bores for Power Collets					See page 189
Order No. 91.100.27					
Shrink Fit Collets					See page 175

FACE MILL ARBOR
CAT40 · ASME B5.50

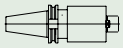
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
For clamping face-mill cutters

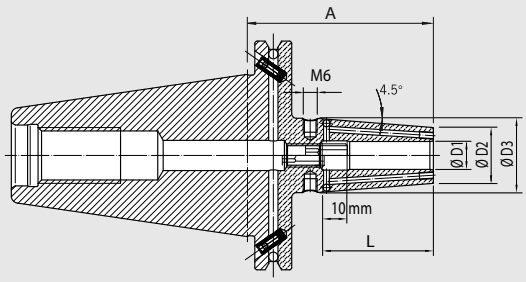
CAT40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Included in delivery: Face Mill Arbor and clamping screw

INCH	Ø D1 [inch]		3/4	1	1 1/4	1 1/2
	L [inch]		0.67	0.67	0.67	0.94
	Ø D2 [inch]		1.71	2.17	2.75	3.78
Gage length A [inch]	short		1.38	1.97	1.97	1.97
Order No.	**40.750...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**
Gage length A [inch]	long		3.94	3.94	–	
Order No.	**40.751...**		**.3/4Z**	**.1Z**	**–**	

Accessories					See accessories (pg. 169)	
Clamping Screw						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**85.300...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Wrench						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**84.400...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Balancing index rings						
ØD1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**79.350...**		**.1.71Z**	**.55**	**.70**	**.96**
Pull Stud						See page 196
Coolant bores						
Order No.	**91.100.03**					

SHRINK FIT CHUCK
CAT50 · ASME B5.50



CERTIFICATE OF QUALITY

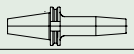
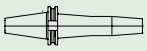
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

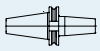
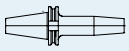
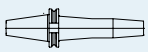
Use:
Shrink fit chuck suitable for use with all available shrink fit units.

CAT50 FORM ADB
Form ADB means: central coolant supply and coolant channels through the flange which can be sealed again

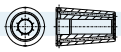
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

Optional:
– Cooling with Cool Flash for an extra charge

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/4
	Ø D2 [inch]	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.30	1.73	1.73
	Ø D3 [inch]	1.06	1.06	1.26	1.26	1.26	1.34	1.65	1.65	2.09	2.09
	L [inch]	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.05	2.28	2.28
Gage length A [inch]	short 	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.94	3.94
Order No.	**50.840...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	ZG130 	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.	**50.844...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	oversize 	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.	**50.842...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short 	80	80	80	80	80	80	80	80	100	100
Order No.	**50.840...**	**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**	**.18.4**	**.20.4**	**.25.4**	**.32.4**
Gage length A [mm]	ZG130 	130	130	130	130	130	130	130	130	130	130
Order No.	**50.844...**	**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**	**.18.4**	**.20.4**	**.25.4**	**.32.4**
Gage length A [mm]	oversize 	160	160	160	160	160	160		160	160	160
Order No.	**50.842...**	**.06.4**	**.08.4**	**.10.4**	**.12.4**	**.14.4**	**.16.4**		**.20.4**	**.25.4**	**.32.4**

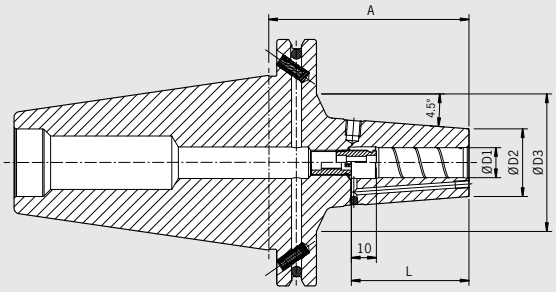
Accessories

Cool Flash		**Order No. 91.100.40**	See pages 214/215

POWER SHRINK CHUCK
CAT50 · ASME B5.50

CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed



The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

The long versions (A=160 and 200) with slim tips are especially versatile to use.

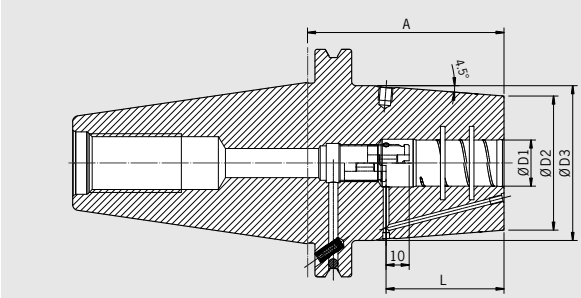
– High rigidity, slim at the tip, dampen vibrations
– Higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

Optional:
– Cooling with Cool Flash for an extra charge
– Safe-Lock pull out protection

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch] short	0.83	0.83	1.06	1.06	1.31	1.76	1.73
	Ø D3 [inch] short	2.68	2.68	2.17	2.17	—	—	—
	L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28
Gage length A [inch]	short	3.15	3.15	3.15	3.15	3.15	3.15	3.94
Order No.	**50.840...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**
Safe-Lock Order No.	**50.840...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**
	Ø D2 [inch] oversize/ZG200	0.83	0.83	1.06	1.06	1.30	1.73	1.73
	Ø D3 [inch] oversize/ZG200	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Gage length A [inch]	oversize	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.	**50.842...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**
Safe-Lock Order No.	**50.840...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**
Gage length A [inch]	ZG200	7.87	7.87	7.87	7.87	7.87	7.87	7.87
Order No.	**50.846...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**
Safe-Lock Order No.	**50.846...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**

METRIC	Ø D1 [mm]	06	08	10	12	14	16	18	20	25
	Ø D2 [mm] short	21	21	27	27	33.3	33.3	44.7	44.7	44
	Ø D3 [mm] short	68	68	55	55	—	—	—	—	—
	L [mm]	36	36	42	47	47	50	50	52	58
Gage length A [mm]	short	80	80	80	80	80	80	80	80	100
Order No.	**50.840...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.840...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**
	Ø D2 [mm] oversize/ZG200	21	21	27	27	33	33	44	44	44.7
	Ø D3 [mm] oversize/ZG200	69.85	69.85	69.85	69.85	69.85	69.85	69.85	69.85	69.85
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160	160
Order No.	**50.842...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.842...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**
Gage length A [mm]	ZG200	200	200	200	200	200	200	200	200	200
Order No.	**50.846...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.846...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**

HEAVY DUTY CHUCK
CAT50 · ASME B5.50



CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

Finally there is a holder for heavy machining that can replace the Weldon tool holder. The Heavy Duty Chuck is a shrink fit chuck designed for extreme cases. The contour is optimized for highest rigidity and clamping force.

– Smooth clamping of the tool shank
– TIR less than 0.00012" (3 µm)
– Reinforced outer contour
– To shrink with high performance shrink fit unit HAIMER Power Clamp Profi Plus (20 kW)
– With internal groove in the clamping bore
– Cool Jet coolant bores that can be sealed included
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Flash from 5/8"–1" for an extra charge
– Safe-Lock pull out protection

INCH	Clamping Ø D1 [inch]	5/8	3/4	1	1 1/4	1 1/2	2
	Ø D2 [inch]	2.01	2.28	2.48	2.76	3.23	3.23
	Ø D3 [inch]	—	2.64	—	3.07	3.54	3.70
	L [inch]	1.97	2.05	2.28	2.40	3.46	3.46
Gage length A [inch]	short	3.15	3.35	3.54	3.54	3.94	5.51
Order No.	**50.850...**	**.5/8z.6**	**.3/4z.6**	**.1z.6**	**.11/4z.6**	**.11/2z.6**	**.2z.6**
Safe-Lock Order No.	**50.850...**	**.5/8z.67**	**.3/4z.67**	**.1z.67**	**.11/4z.67**	**.11/2z.67**	**.2z.67**

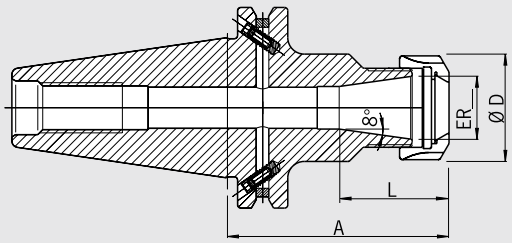
METRIC	Clamping Ø D1 [mm]	16	20	25	32	40	50
	Ø D2 [mm]	51	58	63	70	82	82
	Ø D3 [mm] short	—	67	—	78	90	94
	L [mm]	50	52	58	61	88	88
Gage length A [mm]	short	80	85	90	90	100	140
Order No.	**50.850...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.850...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
	Ø D3 [mm] oversize/ZG200	69.85	69.85	78	85	94	94
Gage length A [mm]	oversize	160	160	160	160	160	160
Order No.	**50.852...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.852...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	ZG200	200	200	200	200	200	200
Order No.	**50.856...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.856...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**

Accessories

Cool Flash **Order No. 91.100.40** See pages 214/215

ER COLLET CHUCK
CAT50 · ASME B5.50

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

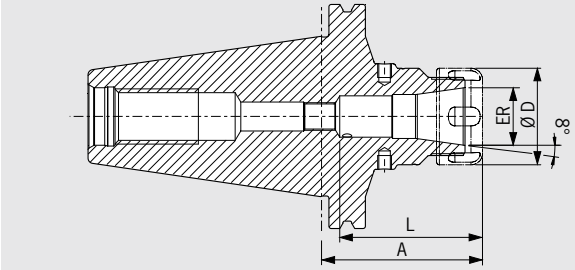
CAT50 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again
– Balanced collet nuts with special slide coating for low friction and higher clamping forces
– Included in delivery: ER collet chuck with pre-balanced collet nut

INCH	ER	ER16	ER20	ER25	ER32	ER40
	Ø D [inch]	1.1	1.34	1.65	1.97	2.48
	Clamping range [inch]	0.02–0.39	0.04–0.51	0.04–0.63	0.04–0.79	0.08–1.02
	Clamping range [mm]	0.5–10.0	1.0–13.0	1.0–16.0	1.5–20.0	2.5–26.0
L [inch]		[4]	1.63	2.44	2.52	2.87
Gage length A [inch]	short	2.76	2.76	2.76	2.76	2.76
Order No.	**50.720...**	**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]		[4]	1.63	2.24	2.52	2.87
Gage length A [inch]	long	3.94	3.94	3.94	3.94	3.94
Order No.	**50.721...**	**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]		[4]	1.63	2.24	2.52	2.87
Gage length A [inch]	oversize	6.30	6.30	6.30	6.30	6.30
Order No.	**50.722...**	**.16**	**.20**	**.25**	**.32**	**.40**

Accessories						See accessories (pg. 169)
Collet nut, pre-balanced						
Ø ER		ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**	**.16**	**.20**	**.25**	**.32**	**.40**
Collet nut HS (Highspeed), fine-balanced						
Ø ER		ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**	**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Wrench						
Ø ER		ER16	ER20	–	–	–
Order No.	**84.200...**	**.16**	**.20**			
Wrench						
Ø ER		–	–	ER25	ER32	ER40
Order No.	**84.200...**			**.25**	**.32**	**.40**
Balancing index rings						
Ø ER		ER16	ER20	ER25[1]	ER32[2]	ER40[3]
Order No.	**79.350...**	**.28**	**.34**	**.42**	**.48**	**.63**
Collet						See page 180
Pull Studs						See page 196

1) Not for 50.720.25 2) Not for 50.720.32 3) Not for 50.720.40 4) Drilled through

POWER COLLET CHUCK
CAT50 · ASME B5.50

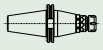
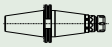


CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine-machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

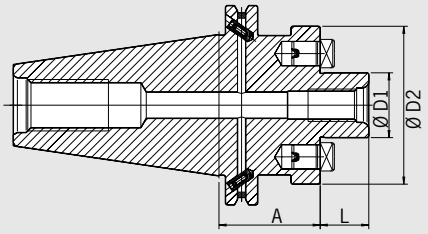
INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch] short		1.69	2.44	2.46
Gage length A [inch]	short		2.76	2.76	2.76
Order No.	**50.720...**		**.16.3**	**.25.3**	**.32.3**
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	long		3.94	3.94	3.94
Order No.	**50.721...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	ZG130		5.12	5.12	5.12
Order No.	**50.724...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**50.722...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)				
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**
Power Collet Clamping wrench				See page 191
				
Torque Master torque wrench				See page 190
Order No. 84.600.00				
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				
Shrink Fit Collets				See page 175

FACE MILL ARBOR
CAT50 · ASME B5.50

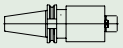
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
For clamping face-mill cutters

CAT50 FORM ADB
Form ADB means: central coolant supply and coolant channels through the flange which can be sealed again

– Included in delivery: Face Mill Arbor and clamping screw

INCH	Ø D1 [inch]		3/4	1	1 1/4	1 1/2
	L [inch]		0.67	0.67	0.67	0.94
	Ø D2 [inch]		1.71	2.17	2.71	3.78
Gage length A [inch]	short		1.38	1.38	1.38	2.36
Order No.	**50.750...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**
Gage length A [inch]	long		3.94	3.94	—	—
Order No.	**50.751...**		**.3/4Z**	**.1Z**		

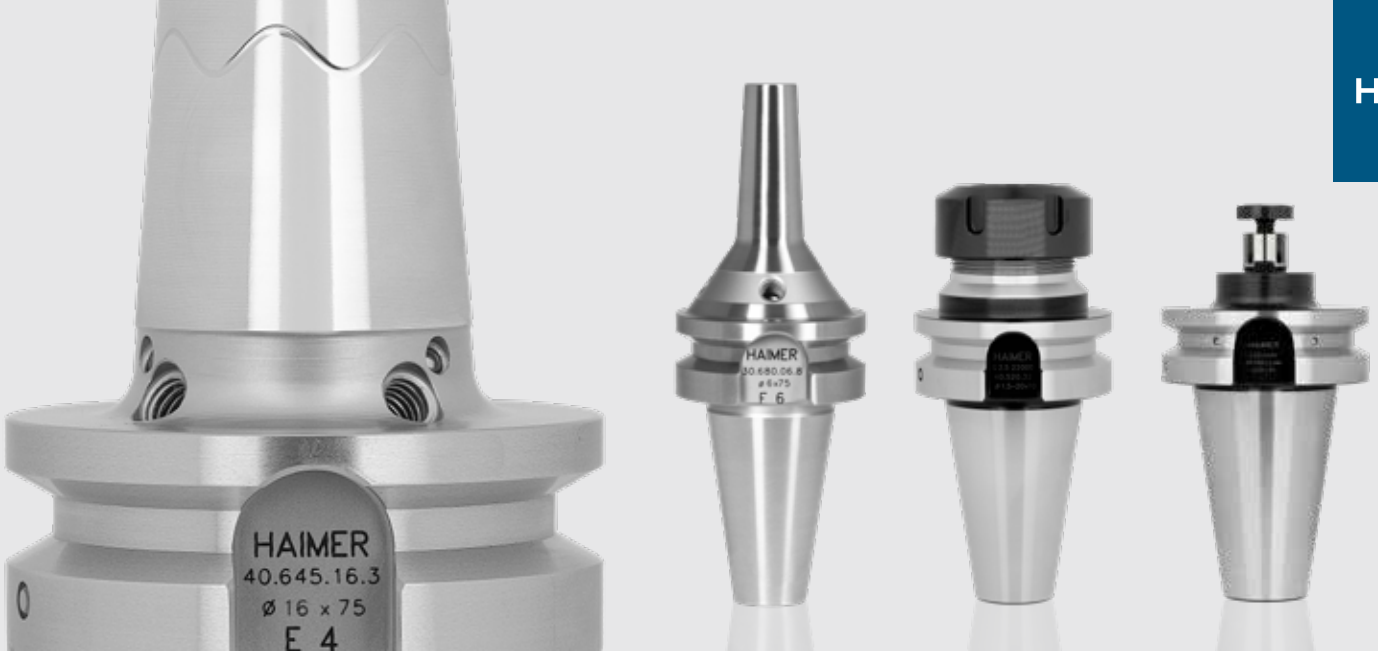
Accessories						See accessories (pg. 169)
Clamping Screw						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**85.300...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Wrench						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**84.400...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Balancing index rings						
Ø D1 [inch]			3/4	1	–	–
Order No.	**79.350...**		**.1.71Z**	**.55**		
Pull Studs						See page 196
Coolant bores						
Order No.	**91.100.03**					

HAIMER®

JIS B 6339

HAIMER Power Series

For highest precision and maximum productivity in milling applications



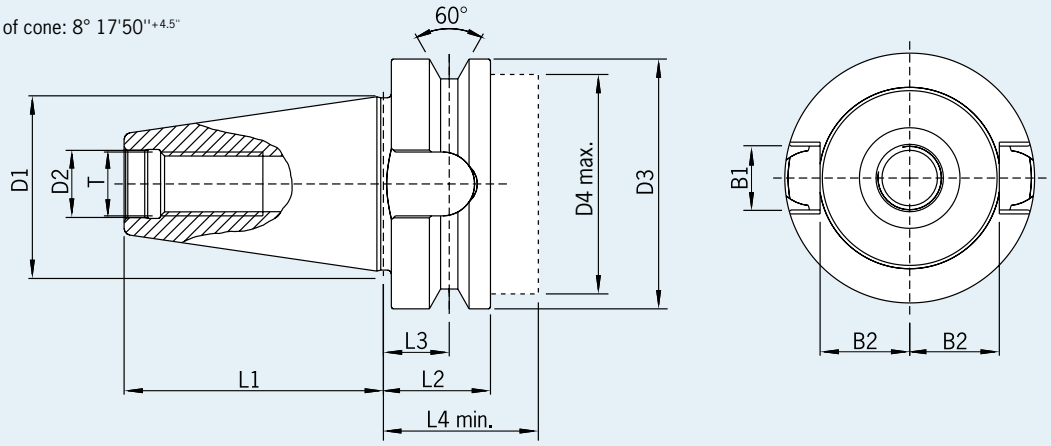
JIS B 6339 (MAS 403) BT30 / BT40 / BT50

STEEP TAPER
JIS B 6339 · BT30/BT40

Design:
– Tool holders case-hardened 60–2 HRC
– Tensile strength in the core at least 950 N/mm²
– Taper in tolerance quality AT3
– Form ADB: interior coolant supply through center (form AD) and through the collar (form B)
– Without bore for data chip

BT30

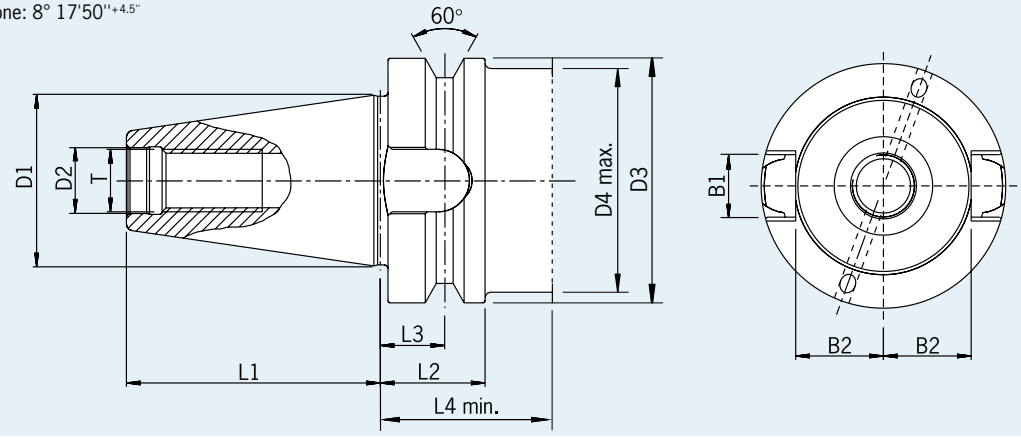
– Angle of cone: 8° 17'50"$^{+4.5"}$



[mm]	D1	D2	D3	D4	L1	L2	L3	L4	T	B1	B2
BT30	31.75	12.5	46	42	48.4	22	13.6	34.5	M12	16.1	16.3

BT40

– Angle of cone: 8° 17'50"$^{+4.5"}$



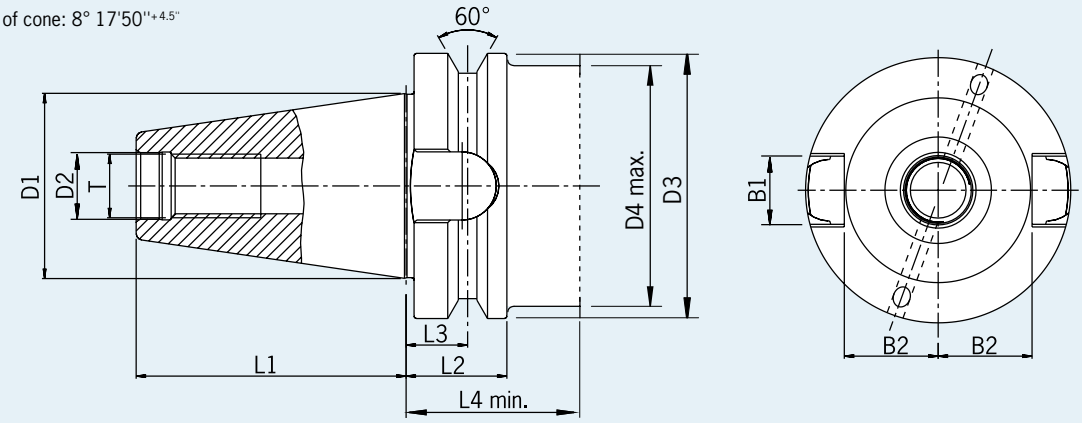
[mm]	D1	D2	D3	D4	L1	L2	L3	L4	T	B1	B2
BT40	44.45	17	63	59	65.4	27	16.6	45	M16	16.1	22.6

STEEP TAPER
JIS B 6339 · BT50

Design:
– Tool holders case-hardened 60–2 HRC
– Tensile strength in the core at least 950 N/mm²
– Taper in tolerance quality AT3
– Form ADB: interior coolant supply through center (form AD) and through the collar (form B)
– Without bore for data chip

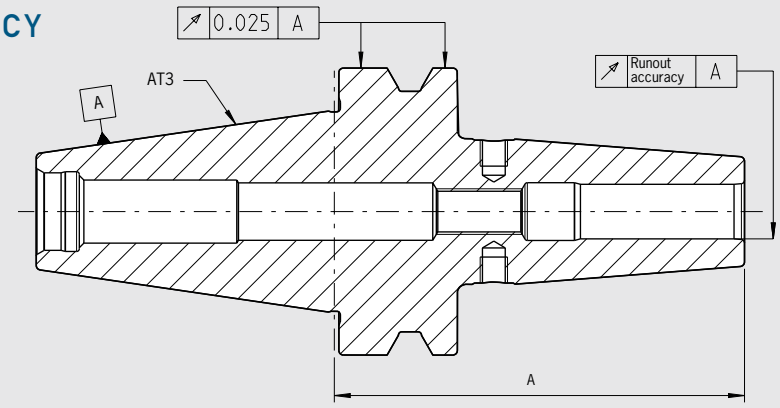
BT50

– Angle of cone: 8° 17'50"$^{+4.5"}$



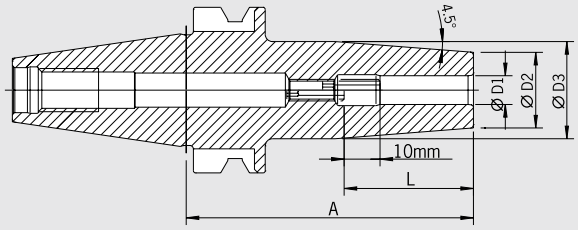
[mm]	D1	D2	D3	D4	L1	L2	L3	L4	T	B1	B2
BT50	69.85	25	100	95.5	101.8	38	23.2	51	M24	25.7	35.4

RUNOUT ACCURACY JIS B 6339



Gage length	A < 160	A ≥ 160
max. runout tolerance in mm		
Shrink fit chuck	0.003	0.004
Collet chuck ER	0.003	0.004
Power Collet Chuck	0.003	0.004
High Precision Collet Chuck	0.003	0.003
High precision chuck	0.003	0.003
Face mill arbor	0.006	0.006
Adapter for Morse taper	0.008	—

SHRINK FIT CHUCK
BT30 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

JIS B 6339 BT30 FORM AD

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Included in delivery: with back-up screw
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Jet and Cool Flash for an extra charge (See pages 214/215)

Short

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
	Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	0.94	1.06	1.30
	Ø D3 [inch]	—	—	1.06	1.06	1.26	1.26	1.26	1.34	1.65
	L [inch]	0.35	0.59	1.42	1.42	1.65	1.65	1.85	1.97	2.05
Gage Length A [inch]	short	3.15[1]	3.15[1]	3.15	3.15	3.15	3.15	3.15	3.15	3.54
Order No.	**30.640...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.5/16Z**	**.3/8Z**	**.7/16Z**	**.1/2Z**	**.5/8Z**	**.3/4Z**

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	33
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	40.5	40.5
	L [mm]	09	12	15	36	36	42	47	47	50	50	52
Gage Length A [mm]	short	80[1]	80[1]	80[1]	80	80	80	80	80	80	90	90
Order No.	**30.640...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**

Ultra Short

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
	Ø D2 [inch]	0.39	0.39	0.91	0.91	1.06	1.06	1.06	1.18	1.39
	L [inch]	0.35	0.59	1.42	1.42	1.65	1.65	1.85	1.97	2.05
Gage Length A [inch]	ultra short	2.36[1]	2.36[1]	2.36	2.36	2.36	2.36	2.36	2.56	2.75
Order No.	**30.645...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.5/16Z**	**.3/8Z**	**.7/16Z**	**.1/2Z**	**.5/8Z**	**.3/4Z**

Ultra Short

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20
	Ø D2 [mm]	10	10	10	23	23	27	27	30	30	35.5	35.5
	Ø D3 [mm]	—	—	—	—	—	—	—	—	—	40.5	40.5
	L [mm]	09	12	15	36	36	42	47	47	50	50	52
Gage Length A [mm]	ultra short	60[1]	60[1]	60[1]	60[2]	60[2]	60[2]	60[2]	65[2]	65[2]	70[2]	70[2]
Order No.	**30.645...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**

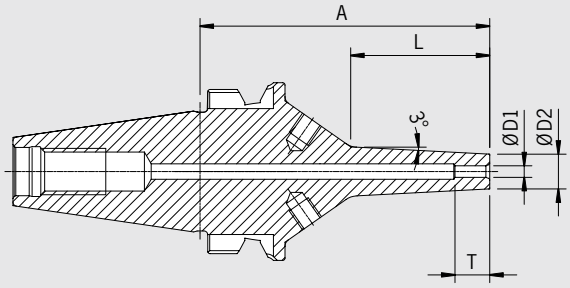
Accessories

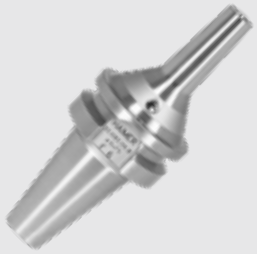
Cool Flash	**Order No. 91.100.40**	See pages 214/215

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
2) Without threads for balancing screws

POWER MINI SHRINK CHUCK
BT30 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

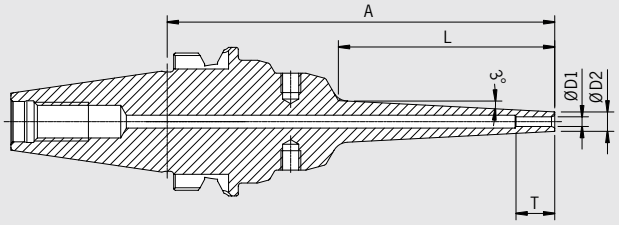




Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and in the medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. This allows for efficient milling with an angled tool, even at long protruding lengths.

– 3° slope at the top
– With threaded holes for balancing screws
– For solid carbide tools with shank tolerance h6
– **Attention: Shrinking only with shrink and cooling sleeves**

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

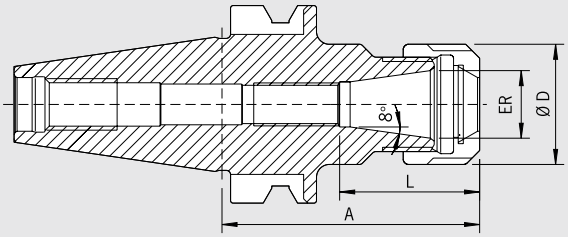


METRIC	Clamping Ø D1 [mm]	03	04	06	08	10	12
	T [mm]	—	—	—	—	68	75
	Ø D2 [mm] short	09	10	12	14	16	18
	L [mm] short	36	36	36	36	36	36
Gage Length A [mm]	short	75	75	75	75	75	75
Order No.	**30.680...**	**.03.8**	**.04.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**
	Ø D2 [mm] ZG95	06	07	09	—	—	—
	L [mm] ZG95	42	42	42	—	—	—
Gage Length A [mm]	ZG95	95	95	95			
Order No.	**30.671...**	**.03.8**	**.04.8**	**.06.8**	—	—	—
	Ø D2 [mm] ZG120	06	07	09	—	—	—
	L [mm] ZG120	67	67	67	—	—	—
Gage Length A [mm]	ZG120	120	120	120			
Order No.	**30.677...**	**.03.8**	**.04.8**	**.06.8**	—	—	—

Accessories

Shrink and cooling adapter for Mini Shrink See page 203

ER COLLET CHUCK
BT30 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

JIS B 6339 BT 30
– Included in delivery: Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces)
– Increasing size L possible upon request

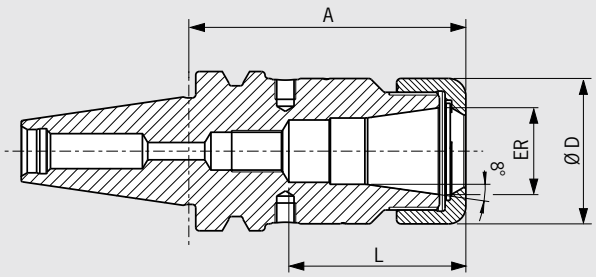
INCH	ER		11	16	20	25	32
	Ø D [inch]		0.75	1.10	1.34	1.65	1.97
	Clamping range [inch]		0.02–0.28	0.02–0.39	0.04–0.51	0.04–0.63	0.06–0.79
	L [inch]		1.04	1.28	1.51	1.61	2.05
Gage Length A [inch]	ultra short		1.97	1.97	1.97		2.36
Order No.	**30.525...**		**.11**	**.16**	**.20**	**—**	**.32**
Gage Length A [inch]	short		2.36	2.36	2.36	2.36	
Order No.	**30.520...**		**.11**	**.16**	**.20**	**.25**	**—**
Gage Length A [inch]	ZG80			3.15	3.15	3.15	
Order No.	**30.523...**		**—**	**.16**	**.20**	**.25**	**—**
Gage Length A [inch]	ZG90			3.54	3.54	3.54	
Order No.	**30.528...**		**—**	**.16**	**.20**	**.25**	**—**
Gage Length A [inch]	long		3.94	3.94	3.94	3.94	
Order No.	**30.521...**		**.11**	**.16**	**.20**	**.25**	**—**

Accessories

Collets ER							See page 180
Shrink Fit Collets							See page 174
Locknut (pre-balanced)							
Size			ER 11	ER 16	ER 20	ER 25	ER 32
Order No.	**83.912...**		**.11**	**.16**	**.20**	**.25**	**.32**
Locknut HS (fine-balanced)							
Size			—	ER 16	ER 20	ER 25	ER 32
Order No.	**83.912...**			**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**
Fork wrench							
Size			ER 11	ER 16	ER 20	—	—
Order No.	**84.200...**		**.11**	**.16**	**.20**		
Clamping wrench							
Size			—	—	—	ER 25	ER 32
Order No.	**84.200...**					**.25**	**.32**
Balancing index rings							
Size	long/oversize		ER 11	ER 16	ER 20	ER 25	ER 32
Order No.	**79.350...**		**.19**	**.28**	**.34**	**.42**	**.48**
Pull studs							See page 196
Shrink fit extensions							See page 170

POWER COLLET CHUCK
BT30 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
(Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.69	2.01	2.08
Gage length A [inch]	ultra short		2.16[1)]	2.16[1)]	2.16[1)]
Order No.	**30.525...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	short		3.15	3.15	3.15
Order No.	**30.520...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**

Power Collet Clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00

Power Collets See page 186

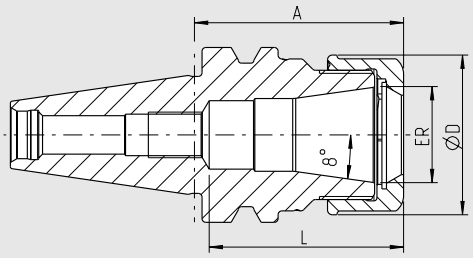
Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets See page 175

1) Without threaded holes

HIGH PRECISION COLLET CHUCK
BT30 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

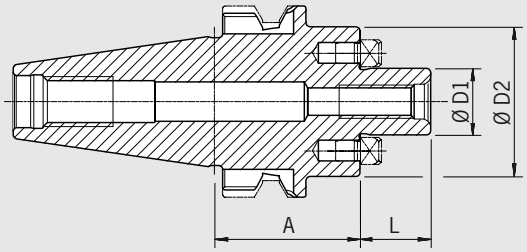
METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	43	51	53
Length A [mm]	ultra short	55[1)]	55[1)]	55[1)]
Order No.	**30.525...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	short	80	80	80
Order No.	**30.520...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

FACE MILL ARBOR
BT30 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3



Use:
For holding face mill cutters and milling cutters with radial driving slot DIN 1880.
With coolant exit bores on the end face for milling cutters with central cooling.

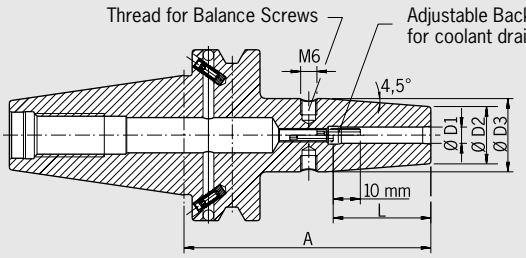
Similar to DIN 6357 with taper **JIS B 6339 BT30 form AD.**

– Included in delivery: complete with tightening bolt

METRIC	Clamping Ø D1 [mm]	16	22	27
	Ø D2 [mm]	36	42	42
	L [mm]	17	19	21
Gage length A [mm]	short	35	35	35
Order No.	**30.550...**	**.16.KKB**	**.22.KKB**	**.27.KKB**

Accessories				
Tightening bolt				
Size D1		16	22	27
Order No.	**85.300...**	**.16**	**.22**	**.27**
Wrench				
Size D1		16	22	27
Order No.	**84.400...**	**.16**	**.22**	**.27**
Pull studs				See page 196
Coolant bores				
Order No.	**91.100.03**			

SHRINK FIT CHUCK
BT40 · JIS B 6339
INCH VERSION



CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

JIS B 6339 **BT 40 FORM ADB**
Form ADB means: central coolant supply and coolant channels through the flange which can be sealed again

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Included in delivery: Shrink fit chuck with back-up screw
– With threaded holes for balancing screws
– Cool Jet bores that can be sealed included

Optional:
– Cooling with Cool Flash from ¼"–1" for an extra charge (See pages 214/215)

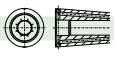
Standard version

INCH	Clamping	Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/4
		Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.30	1.73	1.73
		Ø D3 [inch]	–	–	1.06	1.06	1.26	1.26	1.26	1.34	1.65	1.65	2.09	2.09
		L [inch]	0.35	0.47	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.05	2.28	2.28
Gage length A [inch]		short	3.54[1]	3.54[1]	3.54	3.54	3.54	3.54	3.54	3.54	3.54	3.54	3.94	3.94
Order No.		**40.640...**	**.1/8Z**	**.3/16Z**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]		ZG130	–	–	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.		**40.644...**			**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]		oversize	–	–	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.		**40.642...**			**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**	**.1Z.4**	**.1 1/4Z.4**

Standard version with Safe-Lock and M3 seal screw installed

INCH	Clamping	Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1	1 1/4
		Ø D2 [inch]	0.83	0.83	0.94	0.94	1.06	1.30	1.73	1.73
		Ø D3 [inch]	1.06	1.06	1.26	1.26	1.34	1.65	2.09	2.09
		L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]		short	3.54[2]	3.54[2]	3.54[2]	3.54[2]	3.54[2]	3.54[2]	3.94[2]	3.94[2]
Order No.		**40.640...**	**.1/4Z.47**	**.5/16Z.47**	**.3/8Z.47**	**.1/2Z.47**	**.5/8Z.47**	**.3/4Z.47**	**.1Z.47**	**.1 1/4Z.47**

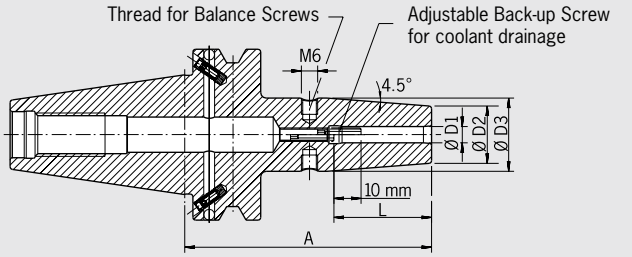
Accessories

Shrink fit extensions			See page 170
Balance screws			See page 194
Pull studs			See page 196
Reduction sleeves			See page 199
Back-up screws			See page 204
Cool Flash		**Order No. 91.100.40**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool
2) With tension spring

SHRINK FIT CHUCK
BT40 · JIS B 6339
METRIC VERSION

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
Shrink fit chuck suitable for use with all available shrink fit units.

JIS B 6339 **BT 40 FORM ADB**
Form ADB means: central coolant supply and coolant channels through the flange which can be sealed again

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Included in delivery: Shrink fit chuck with back-up screw
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Jet for an extra charge
– Cooling with Cool Flash for an extra charge

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	42	53	53
	L [mm]	9	12	15	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short	90[1]	90[1]	90[1]	90	90	90	90	90	90	90	90	100	100
Order No.	**40.640...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	ZG130	—	—	—	130	130	130	130	130	130	130	130	130	—
Order No.	**40.644...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	
Gage length A [mm]	extralong	—	—	—	160	160	160	160	160	160	160	160	160	—
Order No.	**40.642...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	
Gage length A [mm]	ZG200	—	—	—	200	200	200	200	200	200	200	200	200	—
Order No.	**40.646...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	

Standard version, with Cool Jet (Ø 3–5 mm Cooling with slits)

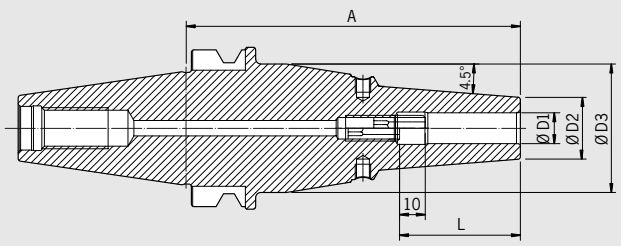
METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	20	25
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	53
	L [mm]	9	12	15	36	36	42	47	47	50	52	58
Gage length A [mm]	short	90[2]	90[2]	90[2]	90	90	90	90	90	90	90	100
Order No.	**40.640...**	**.03**	**.04**	**.05**	**.06.2**	**.08.2**	**.10.2**	**.12.2**	**.14.2**	**.16.2**	**.20.2**	**.25.2**

Standard version, with Safe-Lock pull out protection

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short	90[3]	90[3]	90[3]	90[3]	90[3]	90[3]	90[3]	90[3]	100[3]	100[3]
Order No.	**40.640...**	**.06.7**	**.08.7**	**.10.7**	**.12.7**	**.14.7**	**.16.7**	**.18.7**	**.20.7**	**.25.7**	**.32.7**

1) Without back-up screw, without threads for balancing screws, without slits along the clamping bore for cooling from outside
2) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
3) With tension spring

POWER SHRINK CHUCK
BT40 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.
- – Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- – Shorter cycle times
- – Quieter running, therefore better surface quality and protection of tools, spindles and machines
- – Higher machining accuracy
- – With threaded holes for balancing screws
- – Cool Jet coolant bores that can be sealed included

The long versions (A=130 and 160) with slim tips are especially versatile to use.
- – High rigidity
- – Slim at the tip
- – Dampen vibrations
- – Higher clamping forces
- – Equally suited to High Speed manufacturing and heavy milling
- – Universal usage, saves space in tool magazine

Optional:
- – Cooling with Cool Flash from 1/4"–1" for an extra charge (See pages 214/215)
- – Safe-Lock pull out protection

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]	0.87	0.87	1.04	1.04	1.16	1.39	1.79	1.79
	L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	ultra short	2.76	2.76	2.76	2.76	2.95	2.95	3.35	3.35
Order No.	**40.645...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**	**.1 1/4z.3**
Safe-Lock Order No.	**40.645...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**	**.1 1/4z.37**

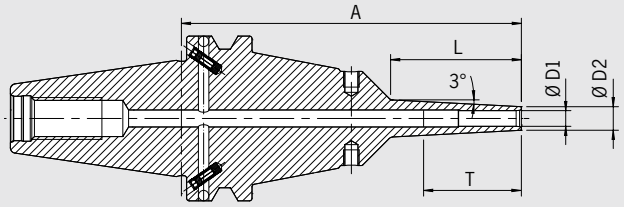
METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm] ultra short	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45.5	45.5
	L [mm] ultra short	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	ultra short	70	70	70	70	75	75	75	75	85	85
Order No.	**40.645...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**40.645...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**	**.32.37**
	Ø D2 [mm] ZG130/oversize	21	21	24	24	27	27	33	33		
	Ø D3 [mm] ZG130/oversize	50	50	50	50	50	50	50	50		
	L [mm]	36	36	42	47	47	50	50	52		
Gage length A [mm]	ZG130	130	130	130	130	130	130	130	130		
Order No.	**40.644...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**		
Safe-Lock Order No.	**40.644...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**		
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160		
Order No.	**40.642...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**		
Safe-Lock Order No.	**40.642...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**		

Accessories

Cool Flash	**Order No. 91.100.40**	See pages 214/215

POWER MINI SHRINK CHUCK
BT40 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

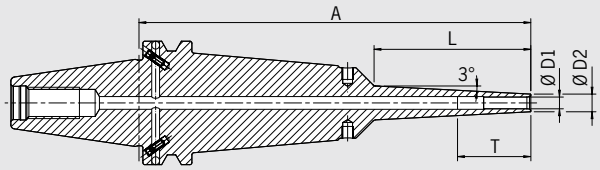


Drawing shows standard version

Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and in the medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. This allows for efficient milling with an angled tool, even at long protruding lengths.

- 2 types: Standard (3 mm wall thickness) and extra slim (1.5 mm wall thickness)
- 3° slope at the top
- With threaded holes for balancing screws
- For solid carbide tools with shank tolerance h6
- **Attention: Shrinking only with shrink and cooling adapter**

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



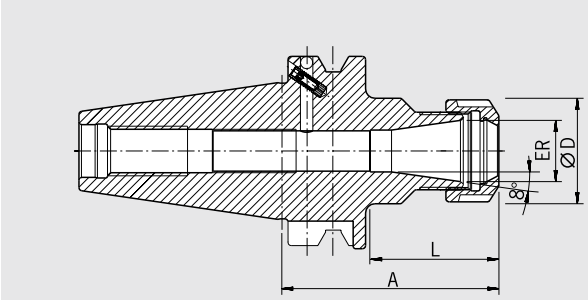
Drawing shows extra slim version

METRIC	Clamping Ø D1 [mm]		03	04	05	06	08	10	12	16
	Ø D2 [mm] standard		09	10	11	12	14	16	18	24
	Ø D2 [mm] extra slim		06	07	08	09	11	13	15	—
	T [mm]		—	—	—	—	—	68	75	75
	L [mm] ZG130		50	50	50	50	50	50	50	50
Gage length A [mm]	ZG130		130	130	130	130	130	130	130	130
Order No.	standard	**40.684...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**40.674...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**
	L [mm]		**80**	**80**	**80**	**80**	**80**	**80**	**80**	**80**
Gage length A [mm]	oversize		160	160	160	160	160	160	160	160
Order No.	standard	**40.682...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**40.672...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**
Gage length A [mm]	ZG200		200	200	200	200	200	200	200	200
Order No.	standard	**40.686...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**40.676...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**

Accessories

Shrink and cooling adapter for Mini Shrink **See page 203**

ER COLLET CHUCK
BT40 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

BT 40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Included in delivery: Locknut (balanced, with slide coating for higher clamping forces)
– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces) for an extra charge
– Increasing size L possible upon request

INCH	ER		16	20	25	32	40
	Ø D [inch]		1.1	1.34	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.39	0.04–0.51	0.04–0.63	0.04–0.79	0.08–1.02
	Clamping range [mm]		0.5–10.5	1.5–13.0	1.0–16.0	1.5–20.0	2.5–26.0
L [inch]			[1]	1.63	2.24	2.52	2.83
Gage length A [inch]	short		2.76	2.76	2.76	2.76	2.76
Order No.	**40.520…**		**.16**	**.20**	**.25**	**.32**	**.40**[2]
L [inch]			[1]	1.63	2.24	2.52	2.87
Gage length A [inch]	long		3.94	3.94	3.94	3.94	3.94
Order No.	**40.521…**		**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			[1]	1.63	2.24	2.52	2.87
Gage length A [inch]	oversize		6.30	6.30	6.30	6.30	6.30
Order No.	**40.522…**		**.16**	**.20**	**.25**	**.32**	**.40**

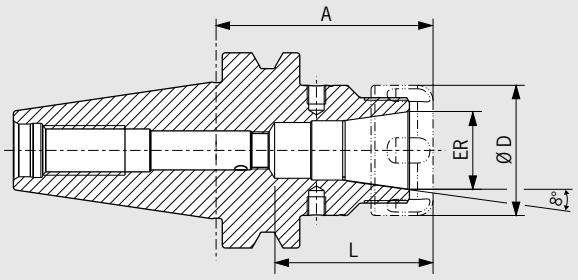
Accessories

Collets ER							See page 180
Shrink Fit Collets							See page 175
Locknut (pre-balanced)							
Size			ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**83.912…**		**.16**	**.20**	**.25**	**.32**	**.40**
Locknut HS (fine-balanced)							
Size			ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**83.912…**		**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Fork wrench							
Size			ER 16	ER 20	—	—	—
Order No.	**84.200…**		**.16**	**.20**			
Clamping wrench							
Size			—	—	ER 25	ER 32	ER 40
Order No.	**84.200…**				**.25**	**.32**	**.40**
Balancing index rings							
Size	long/oversize		ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**79.350…**		**.28**	**.34**	**.42**	**.48**	**.52**
Pull studs							See page 196
Shrink fit extensions							See page 170

1) Drilled through

POWER COLLET CHUCK
BT40 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine-machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

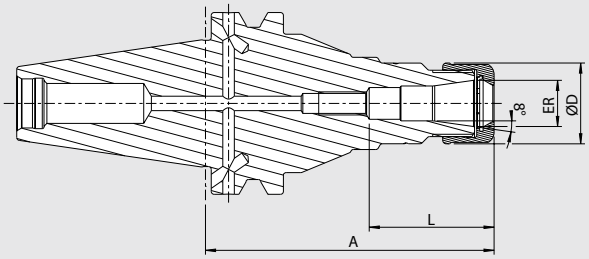
INCH	ER	16	25	32
	Ø D [inch]	1.1	1.65	1.97
	Clamping range [inch]	1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]	1.69	2.01	2.09
Gage length A [inch]	short	2.76	2.76	2.76 (L=2.52 inch)
Order No.	**40.520...**	**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	long	3.94	3.94	3.94
Order No.	**40.521...**	**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize	6.30	6.30	6.30
Order No.	**40.522...**	**.16.3**	**.25.3**	**.32.3**

METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	43	51	53
Gage length A [mm]	short	70	70	70 (L=64mm)
Order No.	**40.520...**	**.16.3**	**.25.3**	**.32.3**
Gage length A [mm]	long	100	100	100
Order No.	**40.521...**	**.16.3**	**.25.3**	**.32.3**
Gage length A [mm]	oversize	160	160	160
Order No.	**40.522...**	**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)			See page 192
Size	ER 16	ER 25	ER 32
Order No. 83.914...	**.16**	**.25**	**.32**
Power Collet clamping wrench			See page 192
Order No. 84.650...	**.16**	**.25**	**.32**
Torque Master torque wrench for Power Collet Chucks			See page 158
Order No. 84.600.00			
Shrink Fit Collets			See page 175
Power Collets			See page 186
Power Collets with Safe-Lock			See page 188
Cool Jet bores for Power Collets			See page 189
Order No. 91.100.27			

HIGH PRECISION COLLET CHUCK
BT40 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 30,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools.

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

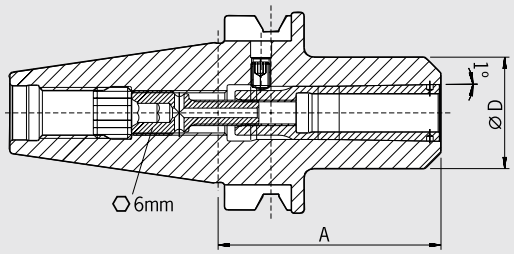
METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	43	51	53
Length A [mm]	short	70	70	70 (L=64mm)
Order No.	**40.520...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	long	100	100	100
Order No.	**40.521...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	oversize	160	160	160
Order No.	**40.522...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650... .16.1		**.25.1**	**.32.1**	
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

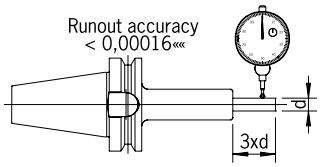
HG COLLET CHUCK
BT40 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
For highly precise clamping of tools with cylindrical shank with special collets. Also for shanks with clamping flats. Very useful for High Speed machining.

BT 40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again



– Included in delivery: high-precision chuck with clamping screw and pull-out hook without collet
– Shank tolerance h6
– Extensions available for High-Precision Chuck
– Optional: Cool Jet bores on HG Collets from Ø 1/4"

INCH	HG	01	02	03
	Ø D [inch]	1.18	1.38	1.89
	Clamping Ø shank tolerance h6 [inch]	0.08–0.35	0.39–0.57	0.63–0.79
Gage length A [inch]	short	2.56	2.76	2.95
Order No.	**40.620...**	**.01**	**.02**	**.03**
Gage length A [inch]	long	3.94	3.94	3.94
Order No.	**40.621...**	**.01**	**.02**	**.03**

Accessories

Clamping screw

Collets HG See page 193

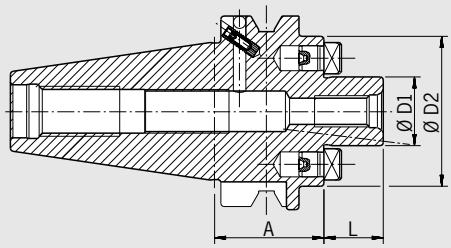
		Ø 02	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	—	—	—	—	—	—
HG 01 **Order No.**	**82.510...**	**.02**	**.03**	**.04**	**.05**	**.06**	**.08**						
HG 02 **Order No.**	**82.520...**	—	—	—	—	—	—	Ø 10 **.10**	Ø 12 **.12**	Ø 14 **.14**	—	—	—
HG 03 **Order No.**	**82.530...**	—	—	—	—	—	—	—	—	—	Ø 16 **.16**	Ø 18 **.18**	Ø 20 **.20**
Pull-out hook													
HG **Order No.**	**82.570...**	HG 01 **.00**						HG 02 **.00**			HG 03 **.00**		
Balancing index rings													
HG **Order No.**	**79.350...**	HG 01 **.30**						HG 02 **.35**			HG 03 **.48**		

Pull studs See page 196

Shrink fit extensions See page 170

Cool Jet bores See page 213
Order No. **91.100.24**

FACE MILL ARBOR
BT 40 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

Use:
For holding face mill cutters and milling cutters with radial driving slot DIN 1880 and exceeding Ø 40 clamping according to DIN 2079 (4 additional tapped holes).
Metric sizes:
With coolant exit bores on the end face for milling cutters with central cooling

BT 40 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Included in delivery: complete with tightening bolt
– Coolant bores on front side for an extra charge (Inch sizes)

INCH	Clamping Ø D1 [inch]		3/4	1	1 1/4
	Ø D2 [inch]		1.71	2.17	2.75
	L [inch]		0.67	0.67	0.67
Gage length A [inch]	short		1.38	1.97	2.36
Order No.	**40.550...**		**.3/4Z**	**.1Z**	**.1 1/4Z**

METRIC	Clamping Ø D1 [mm]		16	22	27	32	40
	Ø D2 [mm]		36	48	59	78	87
	L [mm]		17	19	21	24	27
Length A [mm]	short		35	35	35[1)]	65	70
Order No.	**40.550...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Length A [mm]	long		—	100	100	—	—
Order No.	**40.551...**			**.22.KKB**	**.27.KKB**		

Accessories

Clamping Screw							
Ø D1 [inch]			3/4	1	1 1/4		
Order No.	**85.300...**		**.3/4Z**	**.1Z**	**.11/4Z**		
Wrench							See page 191
Ø D1 [inch]			3/4	1	1 1/4		
Order No.	**84.400...**		**.3/4Z**	**.1Z**	**.11/4Z**		
Balancing index rings							See page 194
Ø D1 [inch]			3/4	1	–		
Order No.	**79.350...**		**.1.71Z**	**.55**			
Pull Studs							See page 196
Coolant bores							
Order No.	**91.100.03**						

Accessories

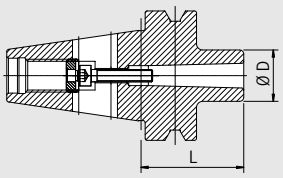
Tightening bolt							
Size D1			16	22	27	32	40
Order No.	**85.300...**		**.16**	**.22**	**.27**	**.32**	**.40**
Wrench							See page 191
Size D1			16	22	27	32	40
Order No.	**84.400...**		**.16**	**.22**	**.27**	**.32**	**.40**
Balancing index rings							See page 194
Size D1	short		—	—	—	32	40
Order No.	**79.350...**					**.78**	**.87**
Pull studs							See page 196

1) ØD2 = 48 mm

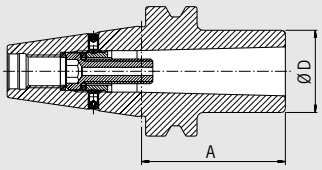
ADAPTER FOR MORSE TAPER WITH THREAD
BT40 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Type 1



Type 2



Use:
For clamping tools with Morse taper and thread according to DIN 228-1 form A.

Similar to DIN 6383 with taper **JIS B 6339 BT40 form AD.**

– Included in delivery: tightening bolt
– Fine-balancing for an extra charge

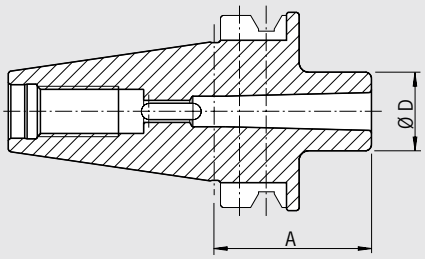
MK3 and MK4 without bore for tang Form AD

Type			1	1	2	2
MK			01	02	03	04
Ø D [mm]			25	32	40	48
Gage Length A [mm]	short		50	50	70	95
Order No.	**40.630...**		**.01**	**.02**	**.03**	**.04**

Accessories

Balancing index rings						
MK			01	02	03	04
Order No.	**79.350...**		**.25**	**.32**	**.40**	**.48**
Pull studs						See page 196

ADAPTER FOR MORSE TAPER WITH TANG
BT40 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Use:
For holding tools with Morse tapers and tang according to DIN 228-11 form B.

Similar to DIN 6383 with taper **JIS B 6339 BT40 form AD.**

– Fine-balancing for an extra charge

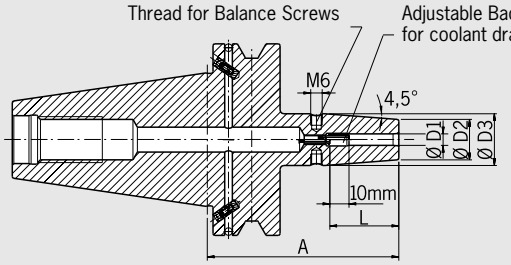
MK			01	02	03	04
Ø D [mm]			25	32	40	48
Gage Length A [mm]	short		50	50	70	95
Order No.	**40.580...**		**.01**	**.02**	**.03**	**.04**

Accessories

Balancing index rings						See page 194
MK			01	02	03	04
Order No.	**79.350...**		**.25**	**.32**	**.40**	**.48**
Pull studs						See page 196

SHRINK FIT CHUCK
BT50 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



Use:
Shrink fit chuck suitable for use with all available shrink fit units.

JIS B 6339 **BT 50 FORM ADB**
Form ADB means: central coolant supply and coolant channels through the flange which can be sealed again

– Heat resistant hot-working steel
– Hardened 54 – 2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Included in delivery: Shrink fit chuck with back-up screw
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Jet for an extra charge
– Cooling with Cool Flash from diam. 6 mm – 25 mm for an extra charge
(See pages 214/215)

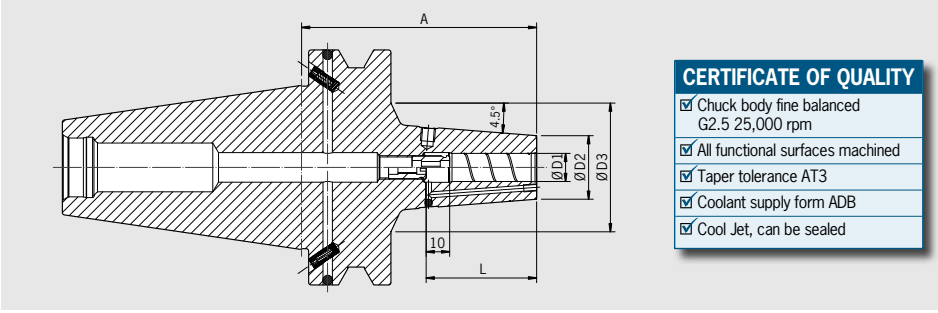
Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short	100	100	100	100	100	100	100	100	100	100
Order No.	**50.640...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	ZG130	130	130	130	130	130	130	130	130	130	130
Order No.	**50.644...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160	160	160
Order No.	**50.642...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	ZG200	200	200	200	200	200	200	200	200	200	200
Order No.	**50.646...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**

Accessories

Shrink fit extensions			See page 170
Balance screws			See page 194
Pull studs			See page 196
Reduction sleeves			See page 199
Back-up screws			See page 204
Cool Jet bores			See page 213
Cool Flash		**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet		**Order No. 91.100.41**	See page 214

POWER SHRINK CHUCK
BT50 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed

The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

The oversize and ZG200 versions (A=160 and 200) with slim tips are especially versatile to use.

– High rigidity, slim at the tip, dampen vibrations
– Higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

Optional:
– Cooling with Cool Flash for an extra charge

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch]	0.83	0.83	1.06	1.06	1.31	1.76	1.76
	Ø D3 [inch]	2.76	2.76	2.17	2.17	–	–	–
	L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28
Gage length A [inch]	short	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Order No.	**50.640...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**
Safe-Lock Order No.	**50.640...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25
	Ø D2 [mm] short	21	21	27	27	33.3	33.3	44.7	44.7	44.7
	Ø D3 [mm] short	70	70	55	55	–	–	–	–	–
	L [mm]	36	36	42	47	47	50	50	52	58
Gage length A [mm]	short	100	100	100	100	100	100	100	100	100
Order No.	**50.640...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.640...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**
	Ø D2 [mm] oversize/ZG200	21	21	27	27	33	33	44	44	44
	Ø D3 [mm] oversize/ZG200	83	83	83	83	83	83	83	83	83
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160	160
Order No.	**50.642...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.642...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**
Gage length A [mm]	ZG200	200	200	200	200	200	200	200	200	200
Order No.	**50.646...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**50.646...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**

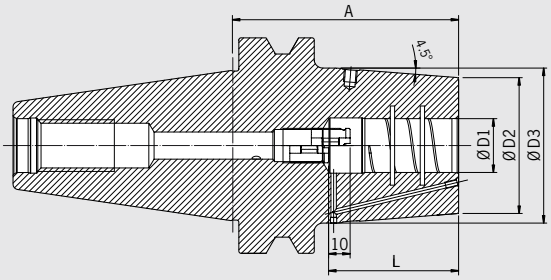
Accessories

Cool Flash	**Order No. 91.100.40**	See pages 214/215

HEAVY DUTY CHUCK
BT50 · JIS B 6339

CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB
- ☑ Cool Jet, can be sealed



Finally there is a holder for heavy machining that can replace the Weldon tool holder. The Heavy Duty Chuck is a shrink fit chuck designed for extreme cases. The contour is optimized for highest rigidity and clamping force.

- Smooth clamping of the tool shank
- No deformation at the tool shank after shrink process
- TIR less than 0.00012" (3 µm)
- Reinforced outer contour
- To shrink with 13 kW HD-Coil or with high performance shrink fit unit HAIMER Power Clamp Profi Plus (20 kW)
- With internal groove in the clamping bore
- With threaded holes for balancing screws
- Cool Jet coolant bores that can be sealed included

Optional:
- Cooling with Cool Flash from 5/8"–1" for an extra charge (See pages 214/215)

INCH	Clamping Ø D1 [inch]	5/8	3/4	1	1 1/4	1 1/2	2
	Ø D2 [inch]	2.01	2.28	2.48	2.76	3.24	3.24
	Ø D3 [inch]	—	2.63	2.83	3.07	—	—
	L [inch]	1.97	2.05	2.28	2.40	3.46	3.46
Gage length A [inch]	short	3.94	3.94	4.13	4.13	4.53	4.72
Order No.	**50.650...**	**.5/8z.6**	**.3/4z.6**	**.1z.6**	**.11/4z.6**	**.11/2z.6**	**.2z.6**
Safe-Lock Order No.	**50.650...**	**.5/8z.67**	**.3/4z.67**	**.1z.67**	**.11/4z.67**	**.11/2z.67**	**.2z.67**

METRIC	Clamping Ø D1 [mm]	16	20	25	32	40	50
	Ø D2 [mm]	51	58	63	70	82	82
	Ø D3 [mm] short	—	67	72	78	—	—
	L [mm]	50	52	58	61	88	88
Gage length A [mm]	short	100	100	105	105	115[1)]	120
Order No.	**50.650...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.650...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
	Ø D3 [mm] oversize/ZG200	85	85	85	85	94	94
Gage length A [mm]	oversize	160	160	160	160	160	160
Order No.	**50.652...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.652...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	ZG200	200	200	200	200	200	200
Order No.	**50.656...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**50.656...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**

Heavy Duty Chuck – For 13 kW shrink fit machine

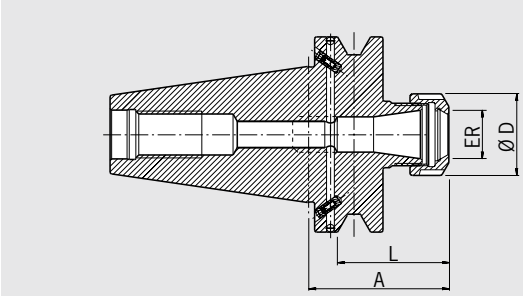
Clamping	Ø D1 [mm]	16
	Ø D2 [mm]	46
	L [mm]	50
Gage length A [mm]	short	100
Order No.	**50.640...**	**.16.6**
Safe-Lock Order No.	**50.640...**	**.16.67**

Accessories

Cool Flash	**Order No. 91.100.40**	See pages 214/215

1) Clamping diam. D2 = 82.3 mm

ER COLLET CHUCK
BT50 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488 (formerly DIN 6499).

BT 50 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

– Included in delivery: ER collet chuck with pre-balanced collet nut
– Balanced Collet nuts HS with special slide coating for low friction and higher clamping forces
  Enlarging of size L on request

INCH	ER		ER16	ER20	ER25	ER32	ER40
	Ø D [inch]		1.1	1.33	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.39	0.05–0.51	0.04–0.63	0.04–0.79	0.08–1.02
	L [inch]		[1]	1.63	2.24	2.52	2.87
Gage length A [inch]	short		2.76	2.76	2.76	2.76	3.15
Order No.	**50.520...**		**.16**	**.20**	**.25**	**.32**	**.40**
Gage length A [inch]	long		3.94	3.94	3.94	3.94	3.94
Order No.	**50.521...**		**.16**	**.20**	**.25**	**.32**	**.40**
Gage length A [inch]	oversize		6.30		6.30	6.30	6.30
Order No.	**50.522...**		**.16**	**–**	**.25**	**.32**	**.40**

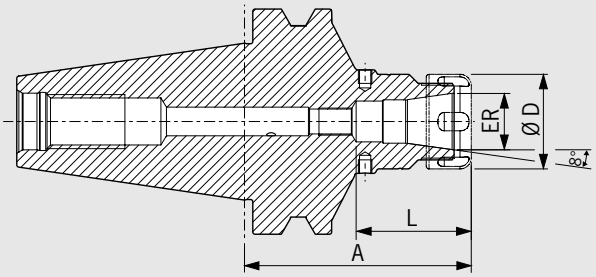
Accessories							See accessories (pg. 169)
Collet nut, pre-balanced							
Ø ER			ER16	–	ER25	ER32	ER40
Order No.	**83.912...**		**.16**		**.25**	**.32**	**.40**
Collet nut HS (Highspeed), fine-balanced							
Ø ER			ER16	–	ER25	ER32	ER40
Order No.	**83.912...**		**.16.HS**		**.25.HS**	**.32.HS**	**.40.HS**
Wrench							
Ø ER			ER16	–	–	–	–
Order No.	**84.200...**		**.16**				
Wrench							
Ø ER			–	–	ER25	ER32	ER40
Order No.	**84.200...**				**.25**	**.32**	**.40**
Balancing index rings							
Ø ER long/oversize			ER16	–	ER25	ER32	ER40
Order No.	**79.350...**		**.28**		**.42**	**.48**	**.52**
Collet							

Pull Stud		See page 196

1) Drilled through

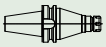
POWER COLLET CHUCK
BT50 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine-machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	short		3.94	3.94	3.94
Order No.	**50.520...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	ZG130		5.12	5.12	5.12
Order No.	**50.524...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**50.522...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**

Power Collet Clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00

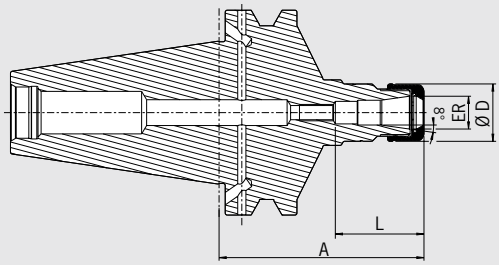
Power Collets See page 186

Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets See page 175

HIGH PRECISION COLLET CHUCK
BT50 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools.

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

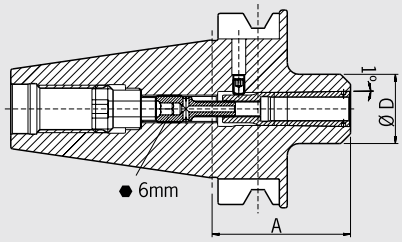
METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	43	51	53
Length A [mm]	short	100	100	100
Order No.	**50.520…**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	ZG130	130	130	130
Order No.	**50.524…**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	oversize	160	160	160
Order No.	**50.522…**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914…		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650…		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

HG COLLET CHUCK
BT50 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

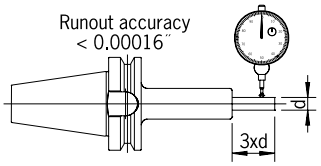


Use:
For highly precise clamping of tools with cylindrical shank with special collets. Very useful for High Speed machining.

BT 50 FORM ADB
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again

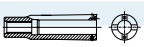
– Included in delivery: high-precision chuck with clamping screw and pull-out hook without collet

– Shank tolerance h6
– Extensions available for High-Precision Chuck

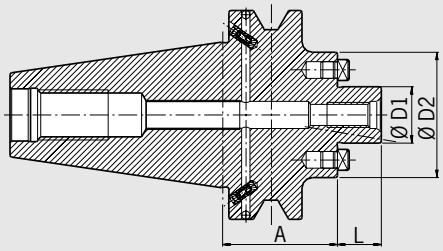


METRIC	HG		01						02			03		
	Ø D [mm]		30						35			48		
	Clamping diameter D		2	3	4	5	6	8	10	12	14	16	18	20
Length A [mm]	short		—						70			75		
Order No.	**50.620...**								**.02**			**.03**		
Length A [mm]	long		—						100			—		
Order No.	**50.621...**								**.02**					
Length A [mm]	oversize		160						160			—		
Order No.	**50.622...**		**.01**						**.02**					

Accessories

Clamping screw														
Collets HG														See page 193
HG 01			Ø 02	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	—	—	—	—	—	—
Order No.	**82.510...**		**.02**	**.03**	**.04**	**.05**	**.06**	**.08**						
HG 02			—	—	—	—	—	—	Ø 10	Ø 12	Ø 14	—	—	—
Order No.	**82.520...**								**.10**	**.12**	**.14**			
HG 03			—	—	—	—	—	—	—	—	—	Ø 16	Ø 18	Ø 20
Order No.	**82.530...**											**.16**	**.18**	**.20**
Pull-out hook														
HG			HG 01						HG 02			HG 03		
Order No.	**82.570...**		**.00**						**.00**			**.00**		
Balancing index rings														
HG			HG 01						HG 02			HG 03		
Order No.	**79.350...**		**.30**						**.35**			**.48**		
Pull studs														See page 196
Shrink fit extensions														See page 170
Cool Jet bores														See page 213
Order No.	**91.100.24**													

FACE MILL ARBOR
BT50 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 22,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form ADB

Use:
For holding face mill cutters and milling cutters with radial driving slot DIN 1880 and exceeding Ø 40 clamping according to DIN 2079 (4 additional tapped holes).
With coolant exit bores on the end face for milling cutters with central cooling.

Similar to DIN 6357 with taper **JIS B 6339 BT50 form ADB.**
Form ADB means: central-coolant supply and coolant channels through the flange which can be sealed again.

– Included in delivery: complete with tightening bolt

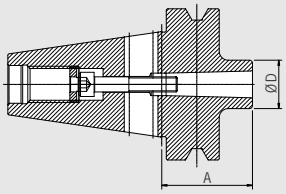
METRIC	Clamping Ø D1 [mm]		22	27	32	40
	Ø D2 [mm]		48	60	78	89
	L [mm]		19	21	24	27
Gage length A [mm]	short		55	55	55	55
Order No.	**50.550…**		**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Gage length A [mm]	long		100	100	100	—
Order No.	**50.551…**		**.22.KKB**	**.27.KKB**	**.32.KKB**	

Accessories						
Tightening bolt						
Size D1			22	27	32	40
Order No.	**85.300…**		**.22**	**.27**	**.32**	**.40**
Wrench						
Size D1			22	27	32	40
Order No.	**84.400…**		**.22**	**.27**	**.32**	**.40**
Balancing index rings						
Size D1	short		—	—	32	40
Order No.	**79.350…**				**.78**	**.89**
Size D1	long		22	27	32	40
Order No.	**79.350…**		**.48**	**.60**	**.78**	**.89**
Pull studs						See page 196

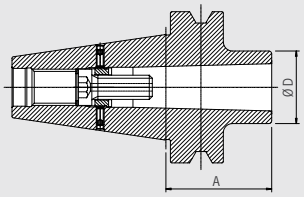
ADAPTER FOR MORSE TAPER WITH THREAD
BT50 · JIS B 6339

CERTIFICATE OF QUALITY
- ☑ Chuck body balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Type 1



Type 2



Use:
For clamping tools with Morse taper with drawbar thread according to DIN 228-1 form A.

Similar to DIN 6383 with taper **JIS B 6339 BT50 form A.**

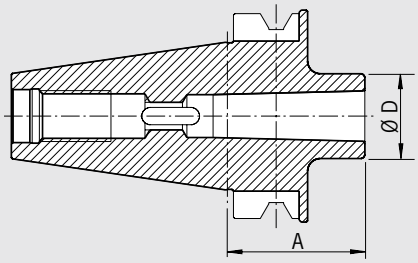
– Included in delivery: tightening bolt
– Fine-balancing for an extra charge

MK3 and MK4 without bore for tang form AD

METRIC	Type		1	1	2
	MK		02	03	04
	Ø D [mm]		32	40	48
Gage length A [mm]	short		60	65	70
Order No.	**50.630...**		**.02**	**.03**	**.04**

Accessories					
Balancing index rings					
MK			02	03	04
Order No.	**79.350...**		**.32**	**.40**	**.48**
Pull studs					

ADAPTER FOR MORSE TAPER WITH TANG
BT50 · JIS B 6339



CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Use:
For holding tools with Morse tapers and tang according to DIN 228-11 form B.

Similar to DIN 6383 with taper **JIS B 6339 BT50 Form AD.**

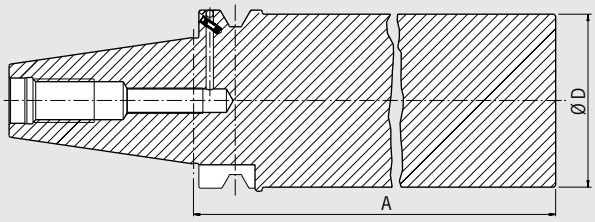
– Fine-balancing for an extra charge

METRIC	MK		02	03	04
	Ø D [mm]		32	40	48
Gage Length A [mm]			60	65	95
Order No.	**50.580...**		**.02**	**.03**	**.04**

Accessories					
Balancing index rings					
MK			02	03	04
Order No.	**79.350...**		**.32**	**.40**	**.48**
Pull studs					See page 196

BLANK ADAPTER
BT50 · JIS B 6339

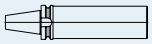
CERTIFICATE OF QUALITY
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3



Use:
For manufacturing special tools in your factory.

Design:
Taper and groove are hardened and ground, the cylindrical part is soft.

With taper **JIS B 6339 BT50 Form ADB.**
Form ADB means: central coolant supply and coolant channels on the collar which can be sealed again.

METRIC	Ø D [mm]		95.5
Gage Length A [mm]			315
Order No.	**50.590...**		**.95**

Accessories

Pull studs		See page 196

HAIMER

JIS B 6339

Tooling Technology

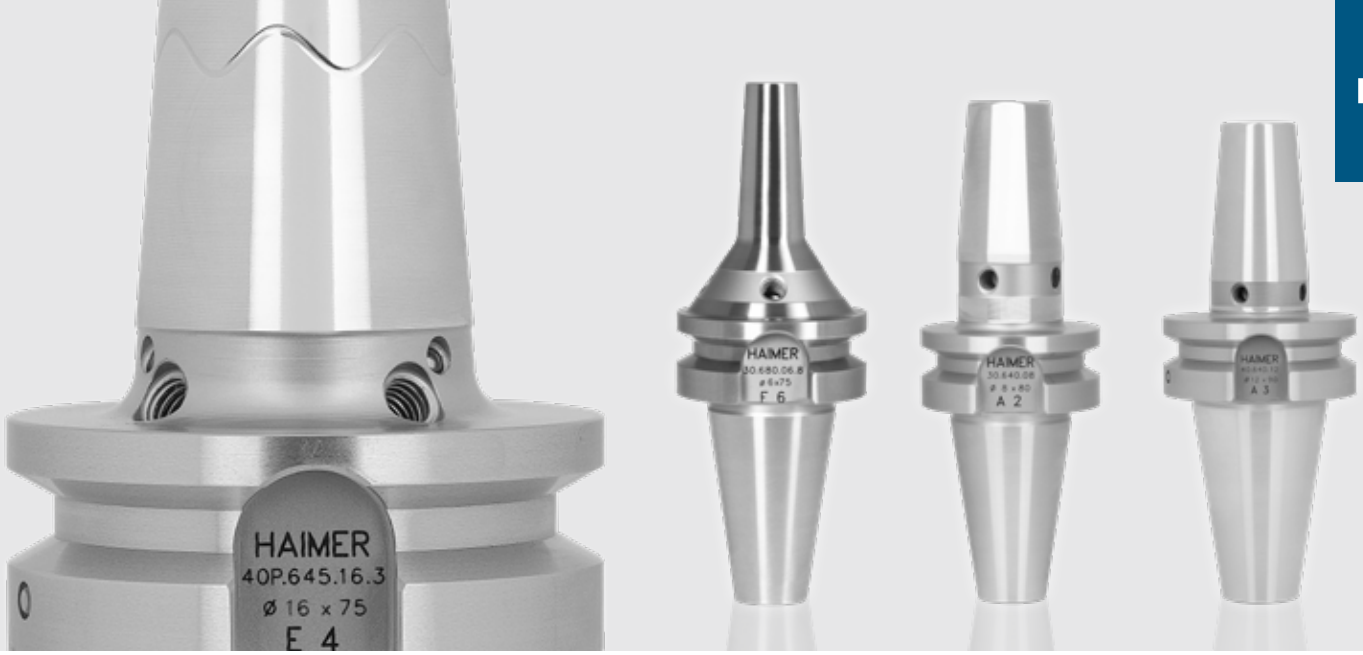
Shrinking Technology

Balancing Technology

Measuring and Presetting Technology

HAIMER SAFE-LOCK®

For reliable roughing and trochoidal milling processes, combined with the highest precision and without any risk of tool pull out



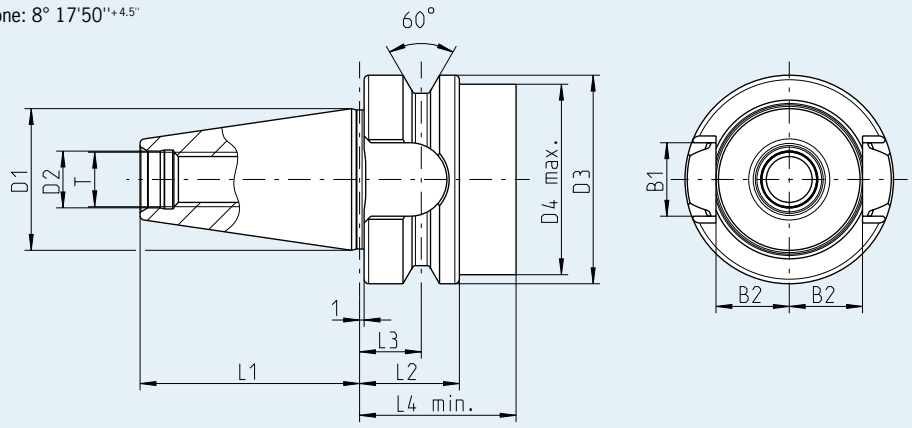
Similar JIS B 6339
BT with Face Contact

STEEP TAPER
SIMILAR JIS B 6339 · BT WITH FACE CONTACT

Design:
– Additional support on the flange surface for more rigidity
– Tool holders case-hardened 60 – 2 HRC
– Tensile strength in the core at least 950 N/mm²
– Taper in tolerance quality AT3
– Form AD: interior coolant supply through center
– Without bore for data chip

BT30 with face contact

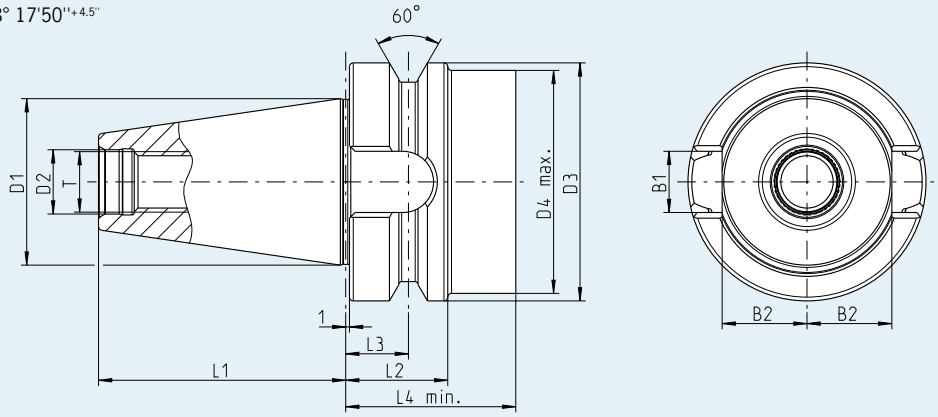
– Angle of cone: 8° 17'50''$^{+4.5''}$



[mm]	D1	D2	D3	D4	L1	L2	L3	L4	T	B1	B2
BT30 with face contact	31.75	12.5	46	42	48.4	22	13.6	34.5	M12	16.1	16.3

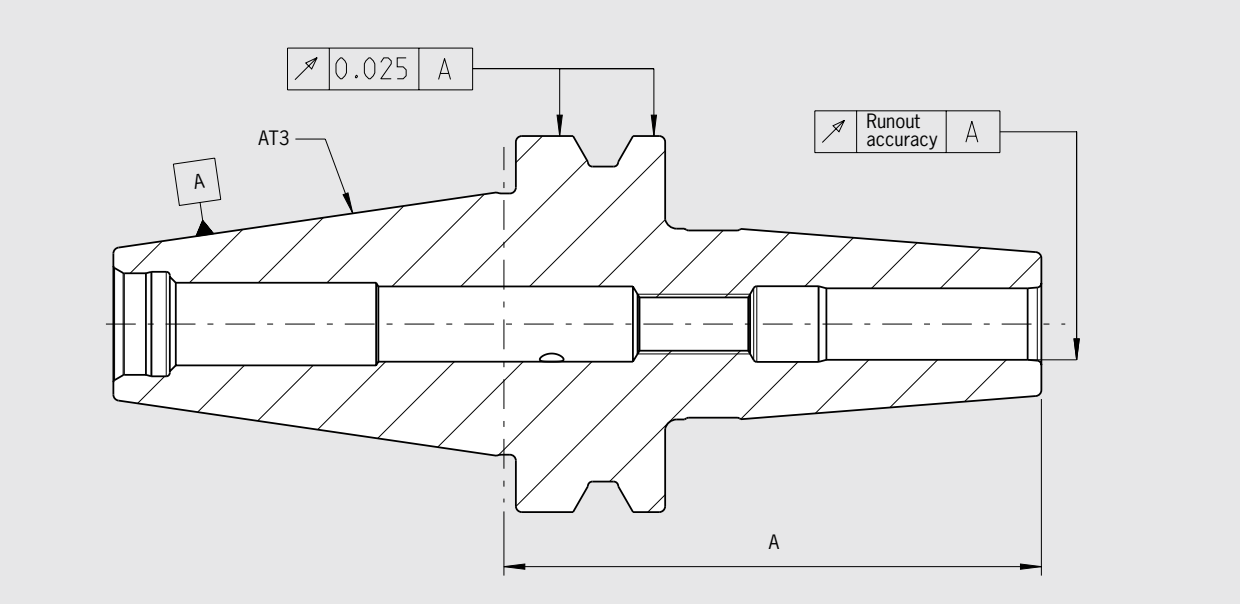
BT40 with face contact

– Angle of cone: 8° 17'50''$^{+4.5''}$



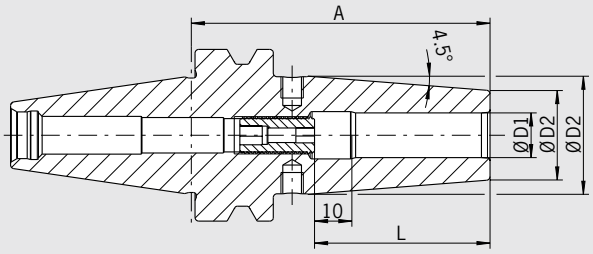
[mm]	D1	D2	D3	D4	L1	L2	L3	L4	T	B1	B2
BT40 with face contact	44.45	17	63	59	65.4	27	16.6	45	M16	16.1	22.6

RUNOUT ACCURACY
SIMILAR JIS B 6339 · BT WITH FACE CONTACT



Gage length A [mm]	A < 160	A ≥ 160
max. runout tolerance in mm		
Shrink Fit Chuck	0.003	0.004
Collet Chuck ER	0.003	0.004
Power Mini Shrink Chuck	0.003	0.004

SHRINK FIT CHUCK
SIMILAR JIS B 6339 · BT30 WITH FACE CONTACT



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3

Use:
Suitable for all inductive, contact and hot air shrink fit units.

Similar JIS B 6339 BT30 with face contact form AD
– Additional support on the flange surface for more rigidity
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Included in delivery: with back-up screw
– With threaded holes in order to balance with balancing screws
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge (See pages 214/215)

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	16	20
	Ø D2 [mm]	10	10	10	21	21	24	24	27	33
	Ø D3 [mm]	—	—	—	27	27	32	32	34	40.5
	L [mm]	09	12	15	36	36	42	47	50	52
Length A [mm]	short	80[1]	80[1]	80[1]	80	80	80	80	80	90
Order No.	**30P.640...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.16**	**.20**

Ultra short version

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	16	20
	Ø D2 [mm]	10	10	10	23	23	27	27	30	35.5
	Ø D3 [mm]	—	—	—	—	—	—	—	—	40,5
	L [mm]	09	12	15	36	36	42	47	50	52
Length A [mm]	ultra short	60[1]	60[1]	60[1]	60[2]	60[2]	60[2]	60[2]	65[2]	70[2]
Order No.	**30P.645...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.16**	**.20**

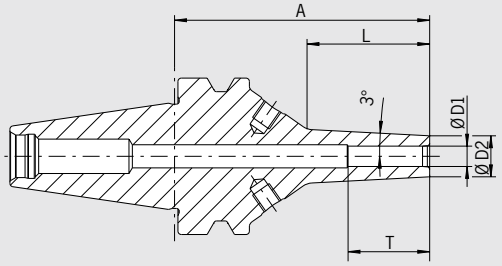
Accessories

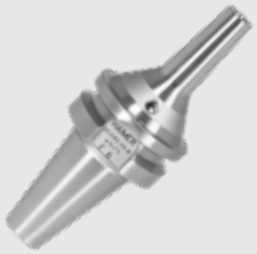
Shrink fit extensions		See page 170
Balance screws		See page 194
Pull studs		See page 196
Reduction sleeves		See page 199
Back-up screws		See page 204
Cool Jet bores		See page 213
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
2) With back-up screw, without threads for balancing screws

POWER MINI SHRINK CHUCK
SIMILAR JIS B 6339 · BT30 WITH FACE CONTACT

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

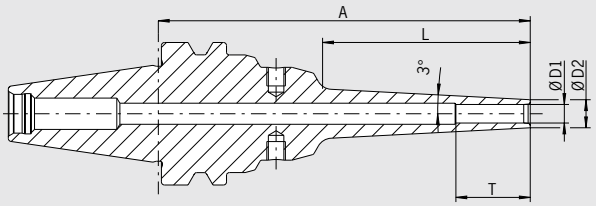


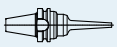


Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and in the medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. Therefore efficient milling is possible with an angled tool, even at long protruding lengths.

– Additional support on the flange surface for more rigidity
– 3° slope at the top
– With threaded holes in order to balance with balancing screws
– For solid carbide tools with shank tolerance h6
– **Attention: Shrinking only with shrink and cooling sleeves**

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

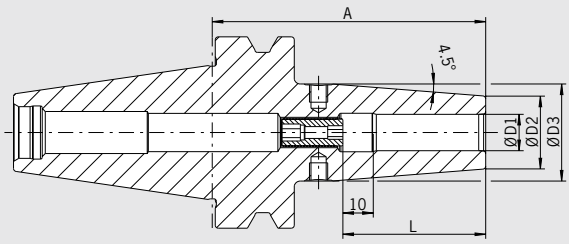


METRIC	Clamping Ø D1 [mm]	03	04	06	08	10	12
	T [mm]	—	—	—	—	68	75
	Ø D2 [mm] short	09	10	12	14	16	18
	L [mm] short	36	36	36	36	36	36
Length A [mm]	short 	75	75	75	75	75	75
Order No.	**30P.680...**	**.03.8**	**.04.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**
	Ø D2 [mm] ZG95	06	07	09			
	L [mm] ZG95	42	42	42			
Length A [mm]	ZG95 	95	95	95			
Order No.	**30P.671...**	**.03.8**	**.04.8**	**.06.8**			
	Ø D2 [mm] ZG120	06	07	09			
	L [mm] ZG120	67	67	67			
Length A [mm]	ZG120 	120	120	120			
Order No.	**30P.677...**	**.03.8**	**.04.8**	**.06.8**			

Accessories

Shrink and cooling adapter for Mini Shrink See page 203

SHRINK FIT CHUCK
SIMILAR JIS B 6339 · BT40 WITH FACE CONTACT



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

Use:
Suitable for all shrinking units.

Similar JIS B 6339 BT40 with face contact form AD
– Additional support on the flange surface for more rigidity
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes in order to balance with balancing screws
– Included in delivery: Shrink fit chuck with back-up screw
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge (See pages 214/215)

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	16	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	33	44	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	42	53	53
	L [mm]	9	12	15	36	36	42	47	50	52	58	58
Length A [mm]	short	90[1]	90[1]	90[1]	90	90	90	90	90	90	100	100
Order No.	**40P.640...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**	**.16**	**.20**	**.25**	**.32**
Length A [mm]	ZG130	—	—		130	130	130	130	130	130	130	—
Order No.	**40P.644...**				**.06**	**.08**	**.10**	**.12**	**.16**	**.20**	**.25**	
Length A [mm]	extralong	—	—		160	160	160	160	160	160	160	—
Order No.	**40P.642...**				**.06**	**.08**	**.10**	**.12**	**.16**	**.20**	**.25**	

Standard version, with Cool Jet (Ø 3–5 mm Cooling with slits)

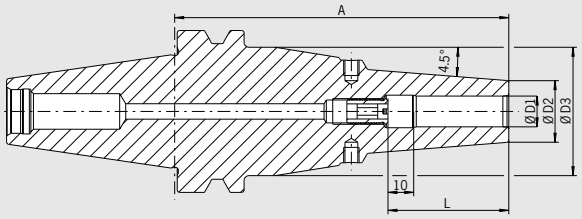
METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	20	25
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	53
	L [mm]	9	12	15	36	36	42	47	47	50	52	58
Length A [mm]	short	90[2]	90[2]	90[2]	90	90	90	90	90	90	90	100
Order No.	**40P.640...**	**.03**	**.04**	**.05**	**.06.2**	**.08.2**	**.10.2**	**.12.2**	**.14.2**	**.16.2**	**.20.2**	**.25.2**

1) Without back-up screw, without threads for balancing screws, without slits along the clamping bore for cooling from outside
2) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside

POWER SHRINK CHUCK
SIMILAR JIS B 6339 · BT40 WITH FACE CONTACT

CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD
- ☑ Cool Jet, can be sealed



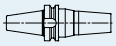
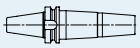
The Power Shrink Chuck is the shrink fit chuck for highest machining capacity in High Speed manufacturing. The optimized design combines high rigidity with dampening vibrations, therefore giving more protection to machines, spindles and tools.

– Additional support on the flange surface for more rigidity
– Increased machining capacity due to higher spindle speed, higher feed and larger cutting depth
– Shorter processing times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes in order to balance with balancing screws
– Cool Jet bores that can be sealed included
– Cooling with Cool Flash for an extra charge (See pages 214/215)

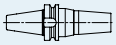
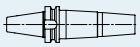
The long versions (A=130 and 160) with slim tips are especially versatile to use.

– High rigidity, slim at the tip, dampen vibrations
– High clamping force
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

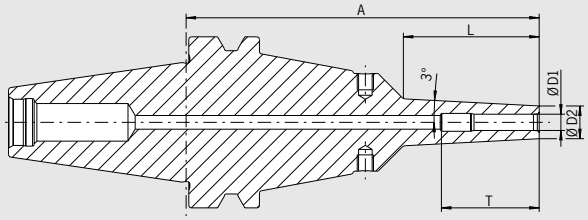
BT40 with face contact

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm] ultra short	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45.5	45.5
	L [mm] ultra short	36	36	42	47	47	50	50	52	58	58
Length A [mm]	ultra short 	70	70	70	70	75	75	75	75	85	85
Order No.	**40P.645...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
	Ø D2 [mm]	21	21	24	24	27	27	33	33		
	Ø D3 [mm]	50	50	50	50	50	50	50	50		
	L [mm]	36	36	42	47	47	50	50	52		
Length A [mm]	ZG130 	130	130	130	130	130	130	130	130		
Order No.	**40P.644...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**		
Length A [mm]	oversize 	160	160	160	160	160	160	160	160		
Order No.	**40P.642...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**		

Power Shrink Chuck with Safe-Lock

METRIC	Clamping Ø D1 [mm]	12	16	20	25	32
	Ø D2 [mm] ultra short	26.5	29.5	35.5	45.5	45.5
	L [mm] ultra short	47	50	52	58	58
Length A [mm]	ultra short 	70	75	75	85	85
Order No.	**40P.645...**	**.12.37**	**.16.37**	**.20.37**	**.25.37**	**.32.37**
	Ø D2 [mm]	24	27	33		
	Ø D3 [mm]	50	50	50		
	L [mm]	47	50	52		
Length A [mm]	ZG130 	130	130	130		
Order No.	**40P.644...**	**.12.37**	**.16.37**	**.20.37**		
Length A [mm]	oversize 	160	160	160		
Order No.	**40P.642...**	**.12.37**	**.16.37**	**.20.37**		

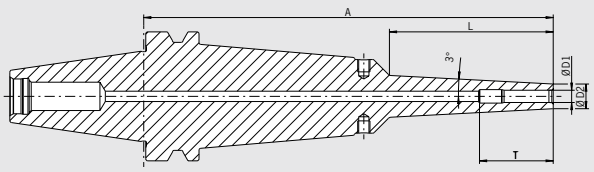
POWER MINI SHRINK CHUCK
SIMILAR JIS B 6339 · BT40 WITH FACE CONTACT



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and in the medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. Therefore efficient milling is possible with an angled tool, even at long protruding lengths.

– Additional support on the flange surface for more rigidity
– 2 types: Standard (3 mm wall thickness) and extra slim (1.5 mm wall thickness)
– 3° slope at the top
– With threaded holes in order to balance with balancing screws
– For solid carbide tools with shank tolerance h6
– **Attention: Shrinking only with shrink and cooling adapter**



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ Taper tolerance AT3
- ☑ Coolant supply form AD

BT40 with face contact

Clamping	Ø D1 [mm]		03	04	05	06	08	10	12	16
	Ø D2 [mm] standard		09	10	11	12	14	16	18	24
	Ø D2 [mm] extra slim		06	07	08	09	11	13	15	—
	T [mm]		—	—	—	—	—	68	75	75
	L [mm] ZG130		50	50	50	50	50	50	50	50
Length A [mm]	ZG130		130	130	130	130	130	130	130	130
Order No.	standard	**40P.684...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**40P.674...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**
	L [mm]		**80**	**80**	**80**	**80**	**80**	**80**	**80**	**80**
Length A [mm]	oversize		160	160	160	160	160	160	160	160
Order No.	standard	**40P.682...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**40P.672...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**

Accessories

Shrink and cooling adapter for Mini Shrink See page 203

DIN 69893
HSK-A / HSK-E / HSK-F

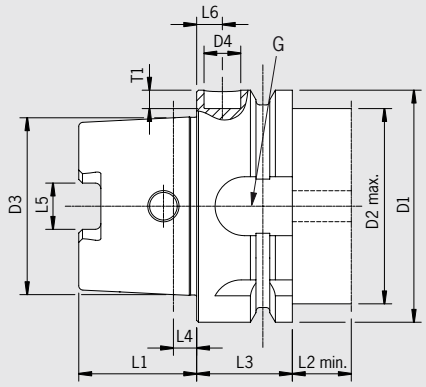
HSK-A/HSK-E/HSK-F
DIN 69893

Compared to the steep taper the HSK has the following advantages:

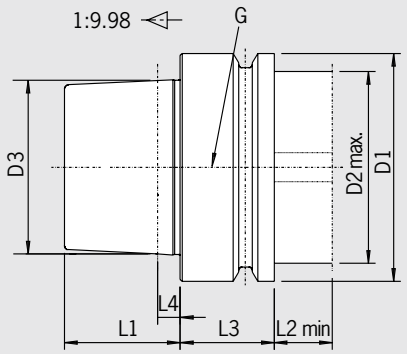
– High repetition accuracy when clamping tools into spindle
– Fix axial positioning by flat contact surface
– Suitable for high speed cutting
– No pull stud necessary
– Incl. bore for data chip (only HSK-A)

Material:
– Special case-hardening steel for highly stressed parts
– Surface hardness: 58–2 HRC
– **Tensile strength in core min. 1000 N/mm²**

HSK-A

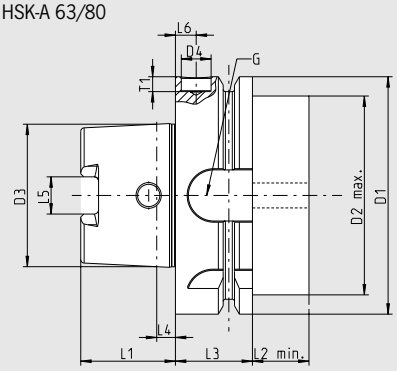


HSK-E

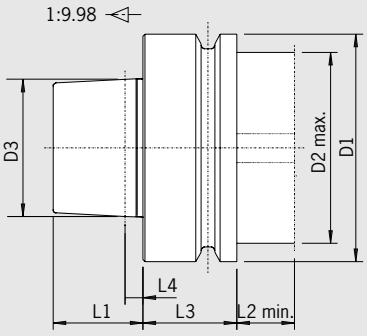


Length [mm]	D1	D2 max.	D3	D4	L1	L2 min.	L3	L4	L5	L6	G	T1
HSK-E 25	25	20	19.006	–/–	13	10	10	2.5	—	—	M8x1	–/–
HSK-A/E 32	32	26	24.007	10/–	16	15	20	3.2	7.05	7	M10x1	5.4/–
HSK-A/E 40	40	34	30.007	10/–	20	15	20	4	8.05	7	M12x1	5.3/–
HSK-A/E 50	50	42	38.009	10/–	25	16	26	5	10.54	7	M16x1	5.2/–
HSK-A 63	63	53	48.010	10/–	32	16	26	6.3	12.54	7	M18x1	5/–
HSK-A 80	80	67	60.012	10/–	40	16	26	8	16.04	7	M20x1.5	5/–
HSK-A 100	100	85	75.013	10/–	50	16	29	10	20.02	7	M24x1.5	4.9/–
HSK-A 125	125	111	95.016	10/–	63	16	29	12.5	25.02	7	M30x1.5	4.8/–

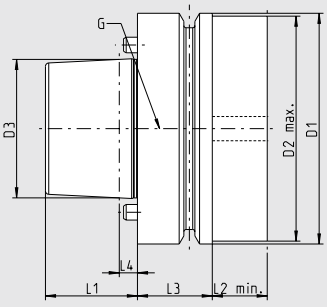
HSK-A 63/80



HSK-F

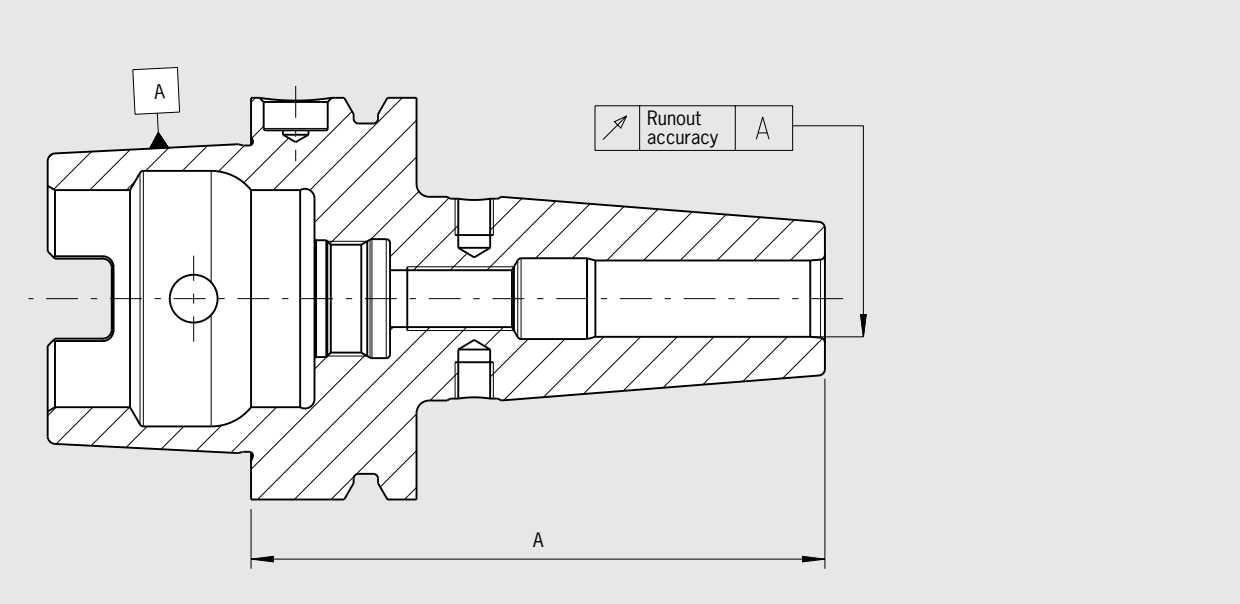


HSK-F 80M



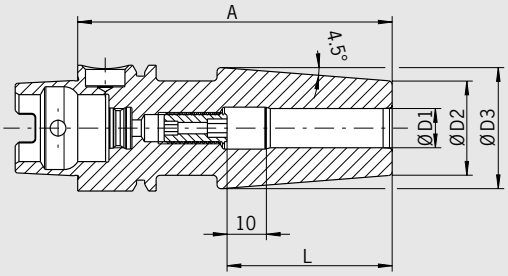
Length [mm]	D1	D2 max.	D3	D4	L1	L2 min.	L3	L4	L5	L6	G	T1
HSK-A 63/80	80	67	48.010	10/–	32	16	26	6.3	12.54	7	M18x1	5/–
HSK-F 63	63	53	38.009	—	25	16	26	5	—	—	—	—
HSK-F 80M	80	78	48.010	—	32	16	26	6.3	—	—	M18x1	—

RUNOUT ACCURACY
DIN 69893



Gage length A [mm]	A < 160	A ≥ 160
max. runout tolerance in mm		
Shrink fit chuck	0.003	0.004
Mini Shrink	0.003	0.004
Collet chuck ER	0.003	0.004
Power Collet Chuck	0.003	0.004
High Precision Collet Chuck	0.003	0.003
High precision chuck	0.003	0.003
Face mill arbor	0.006	0.006
Whistle Notch tool holder	0.003	0.004
Adapter for Morse taper	0.008	—

SHRINK FIT CHUCK
HSK-A32 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

DIN 69893-1
– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash from diam. 6 mm for an extra charge (See pages 214/215)

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10
	Ø D2 [mm]	10	10	10	21	21	24
	Ø D3 [mm]	—	—	—	27	27	32
	L [mm]	09	12	15	36	36	42
Length A [mm]	short	60[1]	60[1]	60[1]	70[2]	70[2]	80[2]
Order No.	**A32.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**

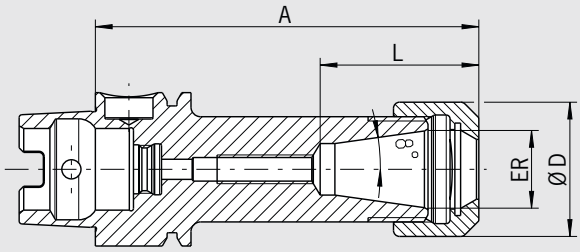
Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Coolant tube	**Order No. 85.700.32**	
Reduction sleeves		See page 199
Back-up screws		See page 204
Cool Jet bores		See page 213
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
2) Without threads for balancing screws

ER COLLET CHUCK
HSK-A32 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For clamping tools with cylindrical shank in collets according to ISO 15488 (formerly DIN 6499).

DIN 69882-6

– Hardened 54 – 2 HRC

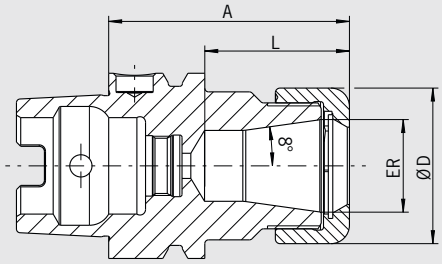
Included in delivery:
– Locknut type HS (High-Speed, fine balanced, with slide coating for higher clamping forces)
– Enlarging of size L upon request

METRIC	ER		16	25
	Ø D [mm]		28	42
	Clamping range [mm]		0.5–10.0	1.0–16.0
	L [mm]		32.5	41
Length A [mm]	ultra short		55[1)]	—
Order No.	**A32.025...**		**.16**	**.25**
Length A [mm]	short		80	80
Order No.	**A32.020...**		**.16**	**.25**

Accessories				
Collets ER				See page 180
Shrink Fit Collets				See page 175
Locknut (pre-balanced)				
Size			ER 16	ER 25
Order No.	**83.912...**		**.16**	**.25**
Chuck nut HS (fine-balanced)				
Size			ER 16	ER 25
Order No.	**83.912...**		**.16.HS**	**.25.HS**
Fork wrench				
Size			ER 16	—
Order No.	**84.200...**		**.16**	
Clamping wrench				
Size			—	ER 25
Order No.	**84.200...**			**.25**
Balancing index rings				
Size	long/oversize		ER 16	ER 25
Order No.	**79.350...**		**.22**	**.32**
Adjusting screw				
Size			ER 16	ER 25
Order No.	**85.800...**		**.34**	**.34**
Coolant Tube				
Order No.	**85.700.32**			
Shrink fit extensions				See page 170

1) Without thread for back-up screw

POWER COLLET CHUCK
HSK-A32 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
(Attention: By using standard collet ER length A will increase)
– High rigidity
– Hardened 54-2 HRC
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

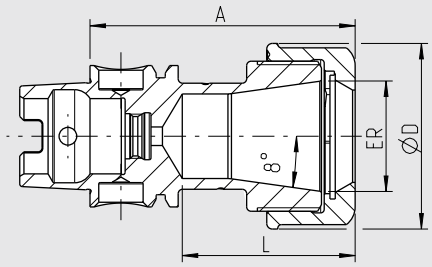
INCH	ER	16	25
	Ø D [inch]	1.1	1.65
	Clamping range [inch]	1/8–3/8	1/8–5/8
	L [inch]	1.26	1.53
Gage length A [inch]	ultra short	1.97	2.36
Order No.	**A32.025...**	**.16.3**	**.25.3**

Accessories

Locknut (fine-balanced)			
Size		ER 16	ER 25
Order No. 83.914...		**.16**	**.25**
Power Collet Clamping wrench			See page 191
Torque Master torque wrench			See page 190
Order No. 84.600.00			
Power Collets			See page 186
Power Collets with Safe-Lock			See page 188
Cool Jet bores for Power Collets			See page 189
Order No. 91.100.27			
Shrink Fit Collets			See page 175

HIGH PRECISION COLLET CHUCK
HSK-A32 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

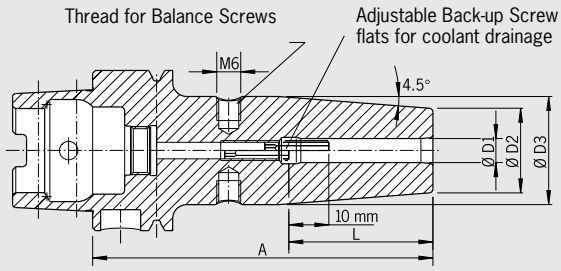
– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
  (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

METRIC	ER	16	25
	Ø D [mm]	28	42
	Clamping range [mm]	2.0–10.0	2.0–16.0
	L [mm]	32	39
Length A [mm]	ultra short	50	60
Order No.	**A32.025...**	**.16.3.HP**	**.25.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)			See page 192
Size		ER 16	ER 25
Order No. 83.914...		**.16.1**	**.25.1**
Roller bearing wrench			See page 192
Order No. 84.650...		**.16.1**	**.25.1**
Collets ER			See page 180
Shrink Fit Collets			See page 175
Power Collets			See page 186
Power Collets with Safe-Lock			See page 188
Cool Jet bores for Power Collets			See page 189
Order No. 91.100.27			

SHRINK FIT CHUCK
HSK-A 40 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

DIN 69893-1
– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash from 1/4" for an extra charge (See pages 214/215)

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	3/8	1/2	5/8
	Ø D2 [inch]	0.39	0.39	0.83	0.94	0.94	1.06
	Ø D3 [inch]	—	—	1.06	1.26	1.26	1.30
	L [inch]	0.35	0.59	1.42	1.65	1.85	1.97
Gage length A [inch]	short	2.36[1]	2.36[1]	3.15	3.15	3.54	3.54
Order No.	**A40.140...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**	**.5/8Z**

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34
	L [mm]	09	12	15	36	36	42	47	47	50
Length A [mm]	short	60[1]	60[1]	60[1]	80	80	80	90	90	90
Order No.	**A40.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**
Length A [mm]	ZG120	120[2]	120[2]	120[2]	120	120	120	120	—	—
Order No.	**A40.147...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**		
Length A [mm]	ZG130	130[2]	130[2]	130[2]	130	130	130	130	—	—
Order No.	**A40.144...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**		

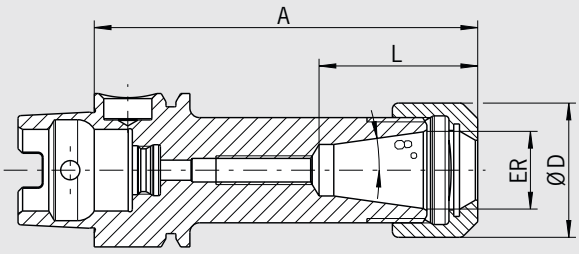
Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Coolant Tube	**Order No. 85.700.40**	
Reduction sleeves		See page 199
Back-up screws		See page 204
Cool Jet bores		See page 213
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
2) Without back-up screw, without threads for balancing screws, without slits along the clamping bore for cooling from outside

ER COLLET CHUCK
HSK-A40 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For clamping tools with cylindrical shank in collets according to ISO 15488 (formerly DIN 6499).

DIN 69882-6
– Hardened 54–2 HRC
Included in delivery:
– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces)
– Enlarging of size L upon request

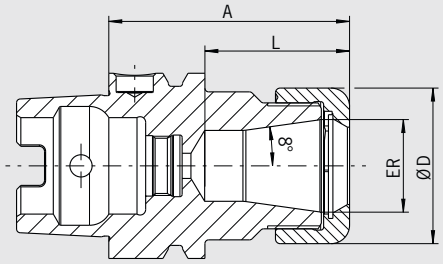
METRIC	ER		11	16	25	32
	Ø D [mm]		19	28	42	50
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.0–16.0	1.5–20.0
	L [mm]		23.5	32.5	41	47
Length A [mm]	ultra short		60[1)]	60[1)]	70[1)]	70[1)]
Order No.	**A40.025...**		**.11**	**.16**	**.25**	**.32**
Length A [mm]	short		—	80	80	—
Order No.	**A40.020...**			**.16**	**.25**	

Accessories

Collets ER						See page 180
Shrink Fit Collets						See page 174
Locknut (pre-balanced)						
Size			ER 11	ER 16	ER 25	ER 32
Order No.	**83.912...**		**.11**	**.16**	**.25**	**.32**
Chuck nut HS (fine-balanced)						
Size			—	ER 16	ER 25	ER 32
Order No.	**83.912...**			**.16.HS**	**.25.HS**	**.32.HS**
Fork wrench						
Size			ER 11	ER 16	—	—
Order No.	**84.200...**		**.11**	**.16**		
Clamping wrench						
Size			—	—	ER 25	ER 32
Order No.	**84.200...**				**.25**	**.32**
Balancing index rings						
Size	long/oversize		—	ER 16	ER 25	ER 32
Order No.	**79.350...**			**.19**	**.28**	**.32**
Adjusting screw						
Size			—	ER 16	ER 25	ER 32
Order No.	**85.800...**			**.34**	**.34**	**.35**
Coolant Tube						
Order No.	**85.700.40**					
Shrink fit extensions						See page 170

1) Drilled through

POWER COLLET CHUCK
HSK-A40 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
(Attention: By using standard collet ER length A will increase)
– High rigidity
– Hardened 54 – 2 HRC
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

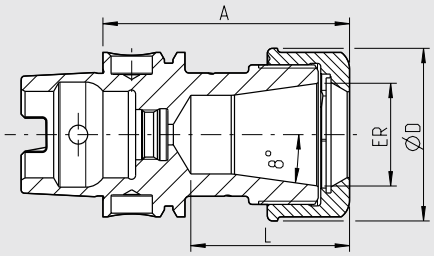
INCH	ER	16	25	32
	Ø D [inch]	1.1	1.65	1.97
	Clamping range [inch]	1/8–3/8	1/8–5/8	1/8–3/4
	L [inch] ultra short	1.22	1.51	1.85
Gage length A [inch]	ultra short	1.97	2.36	2.76
Order No.	**A40.025...**	**.16.3**	**.25.3**	**.32.3**
	L [inch] short	1.69	2.01	2.09
Gage length A [inch]	short	3.15	3.15	3.15
Order No.	**A40.020...**	**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)				
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**
Power Collet Clamping wrench				See page 191
Torque Master torque wrench				See page 190
Order No. 84.600.00				
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				
Shrink Fit Collets				See page 175

HIGH PRECISION COLLET CHUCK
HSK-A40 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

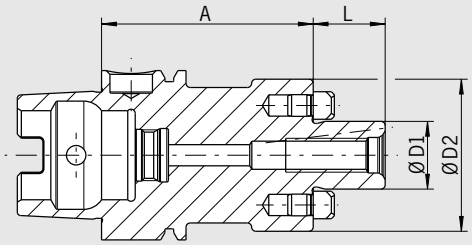
– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
  (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	31	38.5	47
Length A [mm]	ultra short	50	60	70
Order No.	**A40.025...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
	L [mm]	43	51	53
Length A [mm]	short	80	80	80
Order No.	**A40.020...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

FACE MILL ARBOR
HSK-A40 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880.

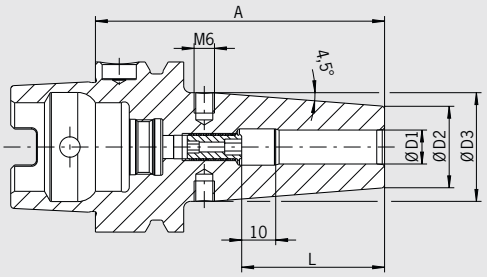
DIN 69882-3
– Hardened 54–2 HRC
– Included in delivery: tightening bolt, without coolant tube
– With coolant exit bores on the end face for milling cutters with central cooling

METRIC	Clamping Ø D1 [mm]	16	22
	Ø D2 [mm]	36	48
	L [mm]	17	19
Length A [mm]	short	50	60
Order No.	**A40.050...**	**.16.KKB**	**.22.KKB**

Accessories			
Tightening bolt			
Size D1		16	22
Order No.	**85.300...**	**.16**	**.22**
Wrench			
Size D1		16	22
Order No.	**84.400...**	**.16**	**.22**
Balancing index rings			
Size D1		16	22
Order No.	**79.350...**	**.36**	**.48**

SHRINK FIT CHUCK
HSK-A 50 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
Shrink fit chuck suitable for use with all available shrink fit units.

DIN 69893-1

– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash from diam. 6 mm for an extra charge (See pages 214/215)

Standard version, similar to DIN 69882-8

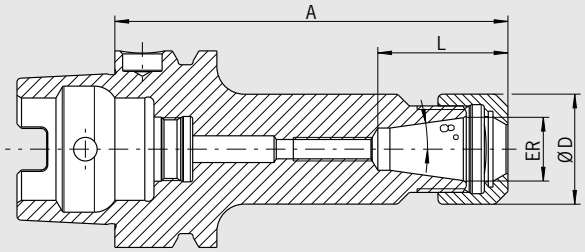
METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34
	L [mm]	09	12	15	36	36	42	47	47	50
Length A [mm]	short	60[1]	60[1]	60[1]	80	80	85	90	90	95
Order No.	**A50.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**
Length A [mm]	ZG120	120[2]	120[2]	120[2]	120	120	120	120	—	120
Order No.	**A50.147...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**		**.16**
Length A [mm]	ZG130	130[2]	130[2]	130[2]	130	130	130	130	—	130
Order No.	**A50.144...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**		**.16**

Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Coolant Tube	**Order No. 85.700.50**	
Reduction sleeves		See page 199
Back-up screws		See page 204
Cool Jet bores		See page 213
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
2) Without back-up screw, without threads for balancing screws, without slits along the clamping bore for cooling from outside

ER COLLET CHUCK
HSK-A50 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in collets according to ISO 15488 (formerly DIN 6499).

DIN 69882-6
– Hardened 54–2 HRC
Included in delivery:
– Locknut type HS (High-Speed, fine balanced, with slide coating for higher clamping forces)
– Enlarging of size L upon request

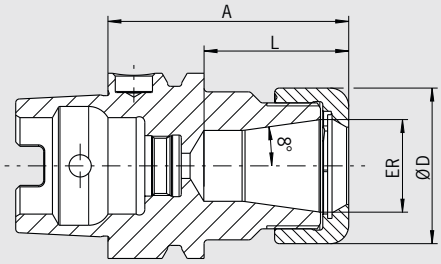
METRIC	ER		11	16	25	32	40
	Ø D [mm]		19	28	42	50	63
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.0–16.0	1.5–20.0	2.5–26.0
	L [mm]		26.5	32.5	41	47	53
Length A [mm]	ultra short		60[1]	60[1]	70[1]	80[1]	80[1]
Order No.	**A50.025...**		**.11**	**.16**	**.25**	**.32**	**.40**
Length A [mm]	short		—	100[2]	100	100	120
Order No.	**A50.020...**			**.16**	**.25**	**.32**	**.40**

Accessories							
Collets ER							See page 180
Shrink Fit Collets							See page 174
Locknut (pre-balanced)							
Size				ER 16	ER 25	ER 32	
Order No.	**83.912...**			**.16**	**.25**	**.32**	
Chuck nut HS (fine-balanced)							
Size				ER 16	ER 25	ER 32	
Order No.	**83.912...**			**.16.HS**	**.25.HS**	**.32.HS**	
Fork wrench							
Size				ER 16	—	—	
Order No.	**84.200...**			**.16**			
Clamping wrench							
Size				—	ER 25	ER 32	
Order No.	**84.200...**				**.25**	**.32**	
Balancing index rings							
Size	long/oversize		ER11	ER 16	ER 25	ER 32	ER 40
Order No.	**79.350...**[2]		**.19**	**.22**	**.32**	**.40**	**.50**
Adjusting screw							
Size				ER 16	ER 25	ER 32	
Order No.	**85.800...**			**.34**	**.34**	**.35**	
Coolant Tube							
Order No.	**85.700.50**						
Shrink fit extensions							See page 170

1) Drilled through
2) Suitable balancing index rings Order No. 79.350.28

POWER COLLET CHUCK
HSK-A50 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

- High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
- Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
- High rigidity
- Hardened 54–2 HRC
- Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times, higher machining accuracy, higher clamping forces
- Equally suited to High Speed manufacturing and heavy milling
- With threaded holes for balancing screws
- Optional: Cool Jet bores on Power Collets
- Program of Power Collets on pages 186 – 189

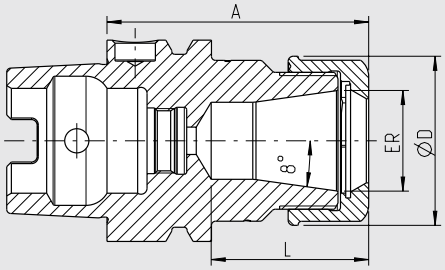
INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.26	1.53	1.89
Gage length A [inch]	ultra short		2.36	2.56	2.95
Order No.	**A50.025...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER 32	
Order No. 83.914...		**.16**	**.25**	**.32**	
Power Collet Clamping wrench					See page 191
Torque Master torque wrench					See page 190
Order No. 84.600.00					
Power Collets					See page 186
Power Collets with Safe-Lock					See page 188
Cool Jet bores for Power Collets					See page 189
Order No. 91.100.27					
Shrink Fit Collets					See page 175

HIGH PRECISION COLLET CHUCK
HSK-A50 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

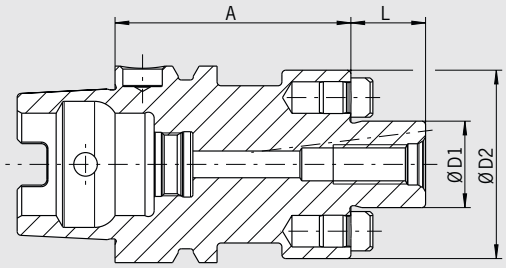
METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	32	39	48
Length A [mm]	ultra short	60	65	75
Order No.	**A50.025...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

FACE MILL ARBOR
HSK-A50 · DIN 69893-1

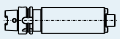
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880 and exceeding clamping diameter 40 clamping according to DIN 2079 is possible, too (4 additional tapped holes).
With coolant exit bores on the end face for milling cutters with central cooling.

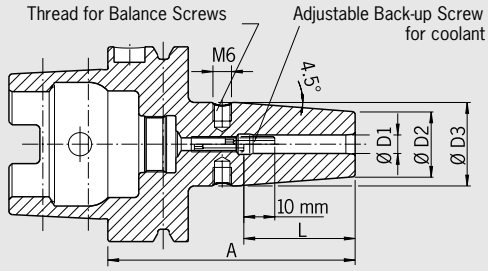
DIN 69882-3

– Included in delivery: tightening bolt, without coolant tube

METRIC	Clamping Ø D1 [mm]		16	22	27
	Ø D2 [mm]		36	48	60
	L [mm]		17	19	21
Length A [mm]	short		50	60	60
Order No.	**A50.050...**		**.16.KKB**	**.22.KKB**	**.27.KKB**
Length A [mm]	long		100	100	100
Order No.	**A50.051...**		**.16.KKB**	**.22.KKB**	**.27.KKB**
Length A [mm]	oversize		160	—	—
Order No.	**A50.052...**		**.16.KKB**		

Accessories				
Tightening bolt				
Size D1		16	22	27
Order No.	**85.300...**	**.16**	**.22**	**.27**
Wrench				
Size D1		16	22	27
Order No.	**84.400...**	**.16**	**.22**	**.27**
Balancing index rings				
Size D1		16	22	27
Order No.	**79.350...**	**.36**	**.48**	**.60**

SHRINK FIT CHUCK
HSK-A63 · DIN 69893-1
INCH



CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed

Use:

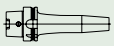
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

DIN 69893-1

Optional:
– Cooling with Cool Flash from ¼"–1" for an extra charge (See pages 214/215)

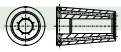
Standard version

INCH	Clamping Ø D1 [inch]		1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]		0.39	0.39	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.73	1.73
	Ø D3 [inch]		–	–	1.06	1.06	1.26	1.26	1.26	1.34	1.65	2.09	2.09
	L [inch]		0.35	0.47	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	short		3.15[1]	3.15[1]	3.15	3.15	3.35	3.35	3.54	3.74	3.94	4.53	4.72
Order No.	**A63.140...**		**.1/8Z**	**.3/16Z**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	ZG130		–	–	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.	**A63.144...**				**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	oversize		–	–	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	–
Order No.	**A63.142...**				**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	

Standard version with Safe-Lock and M3 seal screw installed

INCH	Clamping Ø D1 [inch]		1/4	5/16	3/8	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]		0.83	0.83	0.94	0.94	1.06	1.30	1.73	1.73
	Ø D3 [inch]		1.06	1.06	1.26	1.26	1.34	1.65	2.09	2.09
	L [inch]		1.42	1.42	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	short		3.15[2]	3.15[2]	3.35[2]	3.54[2]	3.74[2]	3.94[2]	4.53[2]	4.72[2]
Order No.	**A63.140...**		**.1/4Z.47**	**.5/16Z.47**	**.3/8Z.47**	**.1/2Z.47**	**.5/8Z.47**	**.3/4Z.47**	**.1Z.47**	**.1 1/4Z.47**

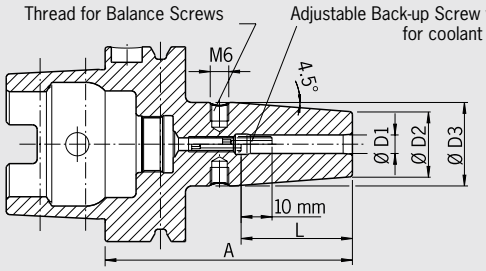
Accessories See accessories (pg. 169)

Coolant Tube			
Order No.	**85.700...**		**.63**
Set of Balancing Screws			
Back-up screws			
Cool Flash			**Order No. 91.100.40** See pages 214/215

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool
2) With tension spring

SHRINK FIT CHUCK
HSK-A63 · DIN 69893-1
METRIC

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube

DIN 69893-1
Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge (See pages 214/215)

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	42	53	53
	L [mm]	09	12	15	36	36	42	47	47	50	50	52	58	58
Length A [mm]	short	80[1]	80[1]	80[1]	80	80	85	90	90	95	95	100	115	120
Order No.	**A63.140...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Length A [mm]	ZG120	120[1]	120[1]	120[1]	120	120	120	120	120	120	120	120	—	—
Order No.	**A63.147...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**		
Length A [mm]	ZG130	130[1]	130[1]	130[1]	130	130	130	130	130	130	130	130	130	—
Order No.	**A63.144...**	**.03.1**	**.04.1**	**.05.1**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	
Length A [mm]	oversize	—	—	—	160	160	160	160	160	160	160	160	160	160
Order No.	**A63.142...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Length A [mm]	ZG200	—	—	—	200	200	200	200	200	200	200	200	200	200
Order No.	**A63.146...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**

Standard version, with Cool Jet (Ø 3–5 mm Cooling with slits)

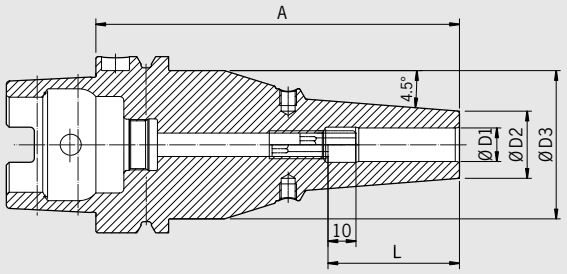
METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	42	53	53
	L [mm]	09	12	15	36	36	42	47	47	50	50	52	58	58
Length A [mm]	short	80[2]	80[2]	80[2]	80	80	85	90	90	95	95	100	115	120
Order No.	**A63.140...**	**.03**	**.04**	**.05**	**.06.2**	**.08.2**	**.10.2**	**.12.2**	**.14.2**	**.16.2**	**.18.2**	**.20.2**	**.25.2**	**.32.2**
Length A [mm]	ZG130	—	—	—	130	130	130	130	130	130	130	130	130	—
Order No.	**A63.144...**				**.06.2**	**.08.2**	**.10.2**	**.12.2**	**.14.2**	**.16.2**	**.18.2**	**.20.2**	**.25.2**	

Standard version, with Safe-Lock pull out protection

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Length A [mm]	short	80[3]	80[3]	85[3]	90[3]	90[3]	95[3]	95[3]	100[3]	115[3]	120[3]
Order No.	**A63.140...**	**.06.7**	**.08.7**	**.10.7**	**.12.7**	**.14.7**	**.16.7**	**.18.7**	**.20.7**	**.25.7**	**.32.7**

1) Without back-up screw, without threads for balancing screws, without slits along the clamping bore for cooling from outside
2) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside
3) With tension spring

POWER SHRINK CHUCK
HSK-A63 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed

The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– Increased machining capacity due to higher spindle speed, higher feed and larger cutting depth
– Shorter processing times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes for balancing screws

The long versions (A=120, 130 and 160) with slim tips are especially versatile to use.
– High rigidity, slim at the tip, dampen vibrations
– High clamping force
– Equally suited to high-speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine
Optional:
– Cooling with Cool Flash for an extra charge
– Safe-Lock pull out protection (See pages 216–220)

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1	11/4
	Ø D2 [inch] ultra short	0.87	0.87	1.04	1.04	1.16	1.40	1.77	1.77
	Ø D3 [inch] ultra short	—	—	—	—	—	—	2.01	2.01
	L [inch] ultra short	1.49	1.49	1.70	1.81	1.93	1.93	2.24	2.32
Gage length A [inch]	ultra short	2.76[1]	2.76[1]	2.76[1]	2.76[1]	2.95[1]	2.95[1]	3.35[1]	3.35[1]
Order No.	**A63.145...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**	**.1 1/4z.3**
Safe-Lock Order No.	**A63.145...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**	**.1 1/4z.37**
	Ø D2 [inch]	0.83	0.83	0.94	0.94	1.06	1.30	1.73	1.73
	Ø D3 [inch]	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09
	L [inch]	1.42	1.42	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	ZG130	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.	**A63.144...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**	**.1 1/4z.3**
Safe-Lock Order No.	**A63.144...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**	**.1 1/4z.37**
Gage length A [inch]	oversize	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.	**A63.142...**	**.1/4z.3**	**.5/16z.3**	**.3/8z.3**	**.1/2z.3**	**.5/8z.3**	**.3/4z.3**	**.1z.3**	**.1 1/4z.3**
Safe-Lock Order No.	**A63.142...**	**.1/4z.37**	**.5/16z.37**	**.3/8z.37**	**.1/2z.37**	**.5/8z.37**	**.3/4z.37**	**.1z.37**	**.1 1/4z.37**

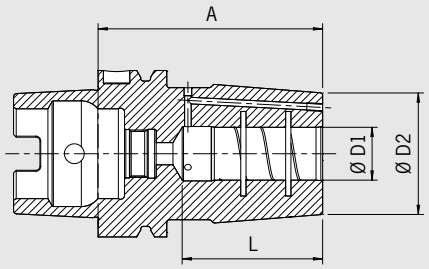
METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm] ultra short	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45	45
	Ø D3 [mm] ultra short	—	—	—	—	—	—	—	—	51	51
	L [mm] ultra short	38	38	43	46	48	49	49	49	57	59
Gage length A [mm]	ultra short	70[1]	70[1]	70[1]	70[1]	75[1]	75[1]	75[1]	75[1]	85[1]	85[1]
Order No.	**A63.145...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**A63.145...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**	**.32.37**
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	53	53	53	53	53	53	53	53	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	ZG120	120	120	120	120	120	120	120	120	120	120
Order No.	**A63.147...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**A63.147...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**	**—**
Gage length A [mm]	ZG130	130	130	130	130	130	130	130	130	130	130
Order No.	**A63.144...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**A63.144...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**	**.32.37**
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160	160	160
Order No.	**A63.142...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**A63.142...**	**.06.37**	**.08.37**	**.10.37**	**.12.37**	**.14.37**	**.16.37**	**.18.37**	**.20.37**	**.25.37**	**.32.37**

1) *Without back-up screw*

HEAVY DUTY CHUCK
HSK-A63 · DIN 69893-1

CERTIFICATE OF QUALITY

- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed



Finally there is a holder for heavy machining that can replace the Weldon tool holder. The Heavy Duty Chuck is a shrink fit chuck designed for extreme cases. The contour is optimized for highest rigidity and clamping force.

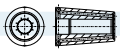
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– Smooth clamping of the tool shank
– No deformation at the tool shank after shrink process
– TIR less than 0.00012" (3 µm)
– Reinforced outer contour
– To shrink with HAIMER 13 kW HD Coil
– With internal groove in the clamping bore
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included
– Without back-up screws

Optional:
– Cooling with Cool Flash for an extra charge
– Safe-Lock pull out protection (See pages 216–220)

INCH	Clamping Ø D1 [inch]		5/8	3/4
	Ø D2 [inch]		1.81	1.81
	L [inch]		2.01	2.08
Gage length A [inch]	ultra short		3.15	3.15
Order No.	**A63.145…**		**.5/8z.6**	**.3/4z.6**
Safe-Lock Order No.	**A63.145…**		**.5/8z.67**	**.3/4z.67**
Gage length A [inch]	short		3.35	3.35
Order No.	**A63.140…**		**.5/8z.6**	**.3/4z.6**
Safe-Lock Order No.	**A63.140…**		**.5/8z.67**	**.3/4z.67**

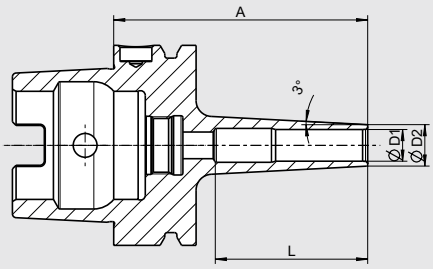
METRIC	Clamping Ø D1 [mm]		16	20
	Ø D2 [mm]		46	46
	L [mm]		51	53
Gage length A [mm]	ultra short		80	80
Order No.	**A63.145…**		**.16.6**	**.20.6**
Safe-Lock Order No	**A63.145…**		**.16.67**	**.20.67**
Gage length A [mm]	short		85	85
Order No.	**A63.140…**		**.16.6**	**.20.6**
Safe-Lock Order No	**A63.140…**		**.16.67**	**.20.67**

Accessories

Cool Flash		**Order No. 91.100.40**	See pages 214/215

MINI SHRINK
HSK-A63 · DIN 69893-1

– It is imperative that the correct adapter be used for both heating and cooling with all "Mini Shrink" chucks in order to prevent overheating of the chuck.



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

HSK-A63
– Extremely slim design
– No disturbing edges
– Highest runout accuracy: 3 µm
– Also jobs difficult to access are penetrable
– Optimum rigidity
– Ideal to shrink with the HAIMER Power Clamp
– For all solid carbide tools with shank tolerance h6
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– With 3° slope for dies and molds
– **Extra slim version:** extremely slim for fine machining and for jobs very difficult to reach
– Tool holders fine balanced
– Delivery without coolant tube
– **Attention: Shrinking only with shrink and cooling adapter**

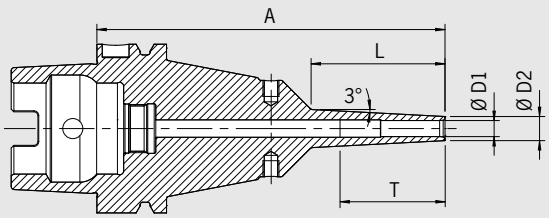
METRIC	Clamping Ø D1 [mm]			06	08	10	12
	Ø D2 extra slim [mm]			09	11	13	15
	Ø L [mm]			—	—	48	48
Length A [mm]	ZG80			80	80	80	80
Order No.	extra slim	**A63.173...**		**.06**	**.08**	**.10**	**.12**
Length A [mm]	ZG120			120	120	120	120
Order No.	extra slim	**A63.177...**		**.06**	**.08**	**.10**	**.12**

Mini Shrink shrink and cooling sleeve
– Protect Mini Shrink chucks from overheating
– Extend lifetime of shrink fit chucks
– Secure and user friendly handling
– Cooling with standard cooling body

Fitting sleeves for Mini Shrink chucks						Order No.
Extra slim						
Size [mm]		Ø 06	Ø 08	Ø 10	Ø 12	
Order No.	**80.105.14.2...**	**.04**	**.05**	**.06**	**.07**	
Base						**80.105.14.2.99**
Set with base (12 pcs)						**80.105.14.2.00**

POWER MINI SHRINK CHUCK
HSK-A63 · DIN 69893-1

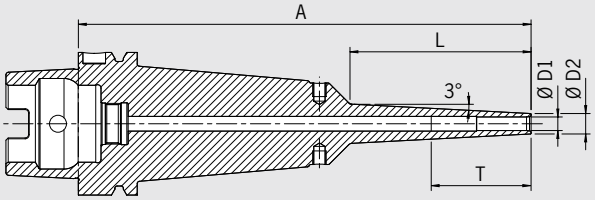
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Mini Shrink Chuck is perfect for 5-axis machining in the die & mold and in the medical industry. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. This allows for efficient milling with an angled tool, even at long protruding lengths.

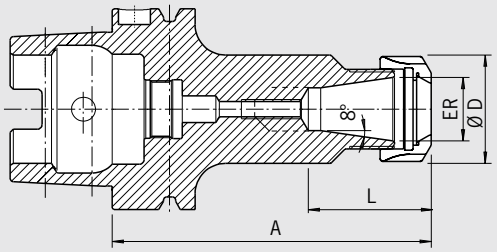
- 2 types: Standard (3 mm wall thickness) and extra slim (1.5 mm wall thickness)
- 3° slope at the top
- With threaded holes for balancing screws
- For solid carbide tools with shank tolerance h6
- Heat resistant hot-working steel
- Hardened 54–2 HRC
- **Attention: Shrinking only with shrink and cooling adapter**

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



METRIC	Clamping Ø D1 [mm]		03	04	05	06	08	10	12	16
	Ø D2 [mm] standard		09	10	11	12	14	16	18	24
	Ø D2 [mm] extra slim		06	07	08	09	11	13	15	—
	T [mm]		—	—	—	—	—	68	75	75
	L [mm] ZG130		50	50	50	50	50	50	50	50
Gage length A [mm]	ZG130		130	130	130	130	130	130	130	130
Order No.	standard	**A63.184...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**A63.174...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**
	L [mm] oversize/ZG200		**80**	**80**	**80**	**80**	**80**	**80**	**80**	**80**
Gage length A [mm]	oversize		160	160	160	160	160	160	160	160
Order No.	standard	**A63.182...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**A63.172...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**
Gage length A [mm]	ZG200		200	200	200	200	200	200	200	200
Order No.	standard	**A63.186...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**.16.8**
Order No.	extra slim	**A63.176...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**	**—**

ER COLLET CHUCK
HSK-A63 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

– Locknut (balanced, with slide coating for higher clamping forces); without coolant tube
– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces) for an extra charge

– Increasing size L possible upon request

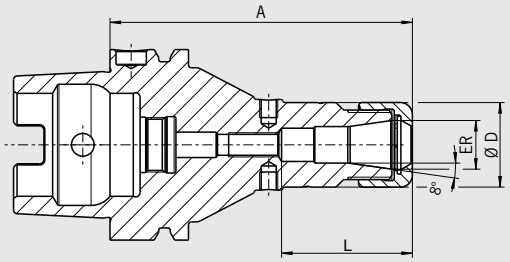
INCH	ER	11	16	25	32	40
	ØD [inch]	0.75	1.1	1.65	1.97	2.48
	Clamping range [inch]	0.02–0.28	0.02–0.39	0.04–0.63	0.06–0.79	0.09–1.02
	Clamping range [mm]	0.5–7.0	0.5–10.0	1.0–16.0	1.5–20.0	2.5–26.0
L [inch]		1.03	1.81	1.83	1.85	2.09
Gage length A [inch]	ultra short	2.95	2.95	2.95	2.95	3.35
Order No.	**A63.025...**	**.11**[1]	**.16**[1]	**.25**[1]	**.32**[1]	**.40**[1]
L [inch]		[2]	1.28	1.61	1.85	2.09
Gage length A [inch]	short	3.94	3.94	3.94	3.94	4.72
Order No.	**A63.020...**	**.11**	**.16**	**.25**	**.32**	**.40**
L [inch]			1.28	1.61	1.85	2.09
Gage length A [inch]	oversize		6.30	6.30	6.30	6.30
Order No.	**A63.022...**	**–**	**.16**	**.25**	**.32**	**.40**

Accessories						
Collets ER						See page 180
Shrink Fit Collets						See page 174
Locknut (pre-balanced)						
Size		ER 11	ER 16	ER 25	ER 32	ER 40
Order No.	**83.912...**	**.11**	**.16**	**.25**	**.32**	**.40**
Chuck nut HS (fine-balanced)						
Size		—	ER 16	ER 25	ER 32	ER 40
Order No.	**83.912...**		**.16.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Fork wrench						
Size		ER 11	ER 16	—	—	—
Order No.	**84.200...**	**.11**	**.16**			
Clamping wrench						
Size		—	—	ER 25	ER 32	ER 40
Order No.	**84.200...**			**.25**	**.32**	**.40**
Balancing index rings						
Size	long/oversize	—	ER 16	ER 25	ER 32	ER 40
Order No.	**79.350...**		**.28**	**.42**	**.48**	**.50**
Adjusting screw						
Size		—	ER 16	ER 25	ER 32	ER 40
Order No.	**85.800...**		**.34**	**.34**	**.35**	**.35**
Coolant Tube						
Order No.	**85.700.63**					
Shrink fit extensions						See page 170

1) Without thread for back-up screw 2) Drilled through

POWER COLLET CHUCK
HSK-A63 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
(Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch] ultra short		1.12	1.41	1.65
Gage length A [inch]	ultra short		2.95	2.95	2.95
Order No.	**A63.025...**		**.16.3**[1)]	**.25.3**[1)]	**.32.3**[1)]
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	short		3.94	3.94	3.94
Order No.	**A63.020...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**A63.022...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**

Power Collet Clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00

Power Collets See page 186

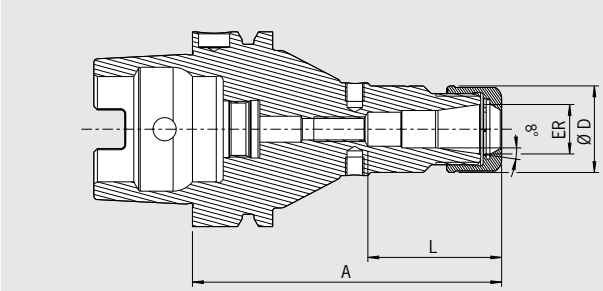
Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets See page 175

1) Without thread for back-up screw

HIGH PRECISION COLLET CHUCK
HSK-A63 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 30,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools.

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	28,5	36	42
Length A [mm]	ultra short	75[1]	75[1]	75[1]
Order No.	**A63.025...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
	L [mm]	43	51	53
Length A [mm]	short	100	100	100
Order No.	**A63.020...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	oversize	160	160	160
Order No.	**A63.022...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

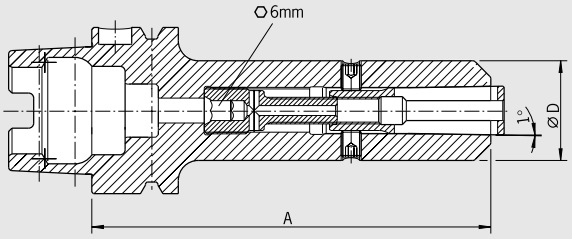
Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

1) With back-up screw

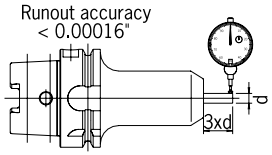
HG COLLET CHUCK
HSK-A63 · DIN 69893-1

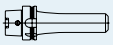
CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For high-precise clamping of tools with cylindrical shank, also with clamping flats.
Very useful for High Speed machining.

– Included in delivery: high-precision chuck with clamping screw and pull-out hook, without collet, without coolant tube
– Shank tolerance h6
– Optional: Cool Jet bores on HG Collets from diam. 1/4" (6 mm)
– Extensions for High-Precision Chuck available

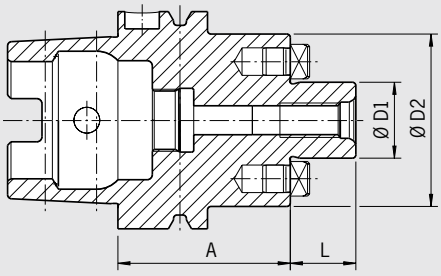


METRIC	HG		01						02			03		
	Ø D [mm]		30						35			48		
	Clamping diameter		2	3	4	5	6	8	10	12	14	16	18	20
Length A [mm]	short		120						120			120		
Order No.	**A63.120...**		**.01**						**.02**			**.03**		
Length A [mm]	oversize		160						160			160		
Order No.	**A63.122...**		**.01**						**.02**			**.03**		

Accessories

Clamping screw														
Collets HG														See page 193
HG 01			Ø 02	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	—	—	—	—	—	—
Order No.	**82.510...**		**.02**	**.03**	**.04**	**.05**	**.06**	**.08**						
HG 02			—	—	—	—	—	—	Ø 10	Ø 12	Ø 14	—	—	—
Order No.	**82.520...**								**.10**	**.12**	**.14**			
HG 03												Ø 16	Ø 18	Ø 20
Order No.	**82.530...**											**.16**	**.18**	**.20**
Pull-out hook														
HG			HG 01						HG 02			HG 03		
Order No.	**82.570...**		**.00**						**.00**			**.00**		
Coolant Tube														
HG														
Order No.	**85.700.63**													
Balancing index rings														
HG			HG 01						HG 02			HG 03		
Order No.	**79.350...**		**.30**						**.35**			**.48**		
Shrink fit extensions														See page 170
														
Cool Jet bores														See page 213
Order No.	**91.100.24**													

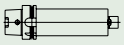
FACE MILL ARBOR
HSK-A63 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For clamping face-mill cutters.
With coolant exit bores on the end face for milling cutters with central cooling

– Included in delivery: tightening bolt, without coolant tube
– Inch sizes: Coolant bores on front side for an extra charge

INCH	Clamping Ø D1 [inch]		3/4	1	1 1/4	1 1/2
	L [inch]		0.70	0.70	0.70	0.94
	Ø D2 [inch]		1.67	1.67	1.67	3.78
Gage length A [inch]	short		1.97	2.36	2.36	2.36
Order No.	**A63.050...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**
Gage length A [inch]	long		3.94	3.94	3.94	3.94
Order No.	**A63.051...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**
Gage length A [inch]	oversize		6.30	6.30	–	–
Order No.	**A63.052...**		**.3/4Z**	**.1Z**		

METRIC	Clamping Ø D1 [mm]		16	22	27	32	40
	Ø D2 [mm]		36	48	60	78	87
	L [mm]		17	19	21	24	27
Length A [mm]	short		50	50	60	60	60
Order No.	**A63.050...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Length A [mm]	long		—	100	100	100	100
Order No.	**A63.051...**			**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Length A [mm]	oversize		—	160	160	160	—
Order No.	**A63.052...**			**.22.KKB**	**.27.KKB**	**.32.KKB**	

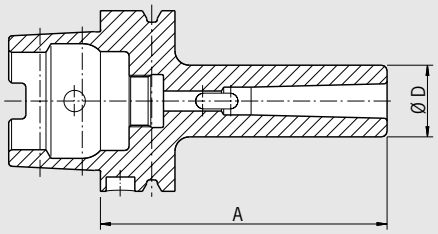
Accessories See accessories (pg. 169)

Clamping Screw						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**85.300...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Wrench						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**84.400...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**
Balancing index ring						
Ø D1 [inch]			3/4	1	–	–
Order No.	**79.350...**		**.1.71Z**	**.55**		
Coolant Tube						
Ø D1 [inch]			3/4	1	1 1/4	1 1/2
Order No.	**85.700...**		**.63**	**.63**	**.63**	**.63**
Coolant bores						
Order No.	**91.100.03**					

Accessories							
Tightening bolt							
Size D1			16	22	27	32	40
Order No.	**85.300...**		**.16**	**.22**	**.27**	**.32**	**.40**
Wrench							
Size D1			16	22	27	32	40
Order No.	**84.400...**		**.16**	**.22**	**.27**	**.32**	**.40**
Balancing index rings							
Size D1			16	22	27	32	40
Order No.	**79.350...**		**.36**	**.48**	**.60**	**.78**	**.87**

ADAPTER FOR MORSE TAPER WITH TANG
HSK-A63 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For holding tools with morse taper and tang according to DIN 228-1 form B.

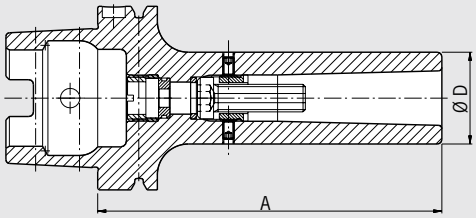
– Fine-balancing for an extra charge

METRIC	MK		01	02	03	04
	Ø D [mm]		25	32	40	48
Gage Length A [mm]	short		100	120	140	160
Order No.	**A63.080...**		**.01**	**.02**	**.03**	**.04**

Accessories

Balancing index rings						
MK			01	02	03	04
Order No.	**79.350...**		**.25**	**.32**	**.40**	**.48**
Coolant tube						
Order No.	**85.700.63**					

ADAPTER FOR MORSE TAPER WITH THREAD
HSK-A63 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For holding tools with morse taper with thread according to DIN 228-1 form A.

– Fine-balancing for an extra charge
– Delivery with tightening bolt without coolant tube

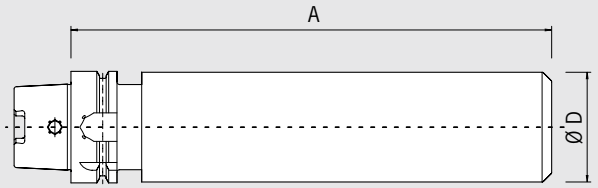
METRIC	MK		02	03	04
	Ø D [mm]		32	40	48
Gage Length A [mm]	short		120	140	160
Order No.	**A63.130...**		**.02**	**.03**	**.04**

Accessories

Balancing index rings					
MK			02	03	04
Order No.	**79.350...**		**.32**	**.40**	**.48**
Coolant tube					
Order No.	**85.700.63**				

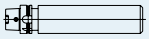
BLANK ADAPTER
HSK-A63 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

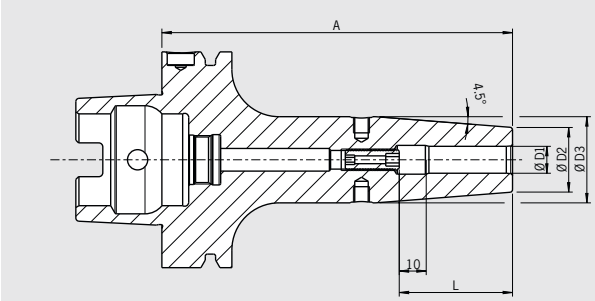


Use:
For manufacturing special tools in your own factory.

Design:
HSK is hardened and ground, the cylindrical part is soft.

METRIC	Ø D [mm]		64
Gage Length A [mm]	ZG250		250
Order No.	**A63.090...**		**.64**

STANDARD SHRINK FIT CHUCK
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM)



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Suitable for all shrinking units.

DIN 69893-1
– With threaded holes for balancing screws
– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– Incl. pocket for data chip
– Cooling Systems Cool Jet and Cool Flash available on request

Standard version, similar to DIN 69882-8

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8
	Ø D2 [inch]	0.83	0.83	0.94	0.94	1.06
	Ø D3 [inch]	1.06	1.06	1.26	1.26	1.34
	L [inch]	1.42	1.42	1.65	1.85	1.97
Length A [inch]	ZG130	5	5	5	5	5
Order No.	**A63/80.144...**	**.1/4z.i**	**.5/16z.i**	**.3/8z.i**	**.1/2z.i**	**5/8z.i**

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18
	Ø D2 [mm]	21	21	24	24	27	27	33
	Ø D3 [mm]	27	27	32	32	34	34	42
	L [mm]	36	36	42	47	47	50	50
Length A [mm]	ZG130	130	130	130	130	130	130	130
Order No.	**A63/80.144...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**

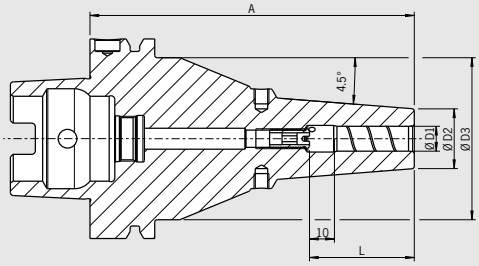
Accessories

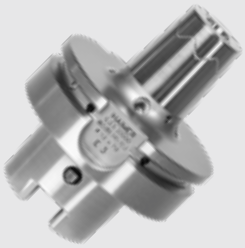
Shrink fit extensions		See page 170
Balance screws		See page 194
Cool Jet bores		**Order No. 91.100.24**
Cool Flash Upgrade incl. Cool Jet		**Order No. 91.100.41**
Balluff-Chip BIS-C-122-04/L		**Order No. 909009-0002**
Data-Lock mechanical data carrier locking system	**Order No. 91.100.06**	See page 202
Coolant Tube		**Order No. 85.700.63**
Reduction sleeves		See page 199
Back-up screws		See page 204

Cooling grooves on request

POWER SHRINK CHUCK
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM) – INCH

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN





The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Heat resistant hot-working steel
– Hardened 54–2 HRC

Delivery includes:
– Cool Jet bores (sealed)
– With threaded holes for balancing screws
– Incl. pocket for data chip
– With thread for coolant tube

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch]	0.87	0.87	1.04	1.04	1.16	1.40	1.81
	L [inch] extra ultra short	—	—	—	—	—	1.71	1.85
Length A [inch]	extra ultra short						2.75	2.75
Order No.	**A63/80.145...**						**.3/4z.5.i**	**.1z.5.i**
	Ø D2 [inch]	0.87	0.87	1.04	1.04	1.16	1.40	1.77
	L [inch] ultra short	1.50	1.50	1.69	1.81	1.93	1.93	2.24
Length A [inch]	ultra short	3	3	3	3	3	3	3
Order No.	**A63/80.145...**	**.1/4z.3.i**	**.5/16z.3i**	**.3/8z.3.i**	**.1/2z.3.i**	**.5/8z.3.i**	**.3/4z.3.i**	**.1z.3.i**
Length A [inch]	short							3.5
Order No.	**A63/80.140...**							**.1z.3.i**

Length A = ZG130

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	1/2	5/8
	Ø D2 [inch]	0.83	0.83	0.94	0.94	1.06
	Ø D2 [inch]	2.56	2.56	2.56	2.56	2.56
	L [inch]	1.42	1.42	1.65	1.85	1.97
Length A [inch]	ZG130	5[1)]	5[1)]	5[1)]	5[1)]	5[1)]
Order No.	**A63/80.144...**	**.1/4z.3.i**	**.5/16z.3.i**	**.3/8z.3.i**	**.1/2z.3.i**	**.5/8z.3.i**

Accessories

Shrink fit extensions		See page 170
Balance screws	**Order No. 80.203.00**	See page 194
Cool Flash	**Order No. 91.100.40**	See page 214
Balluff-Chip BIS-C-122-04/L	**Order No. 909009-0002**	
Data-Lock mechanical data carrier locking system	**Order No. 91.100.06**	See page 202
Coolant tube	**Order No. 85.700.63**	

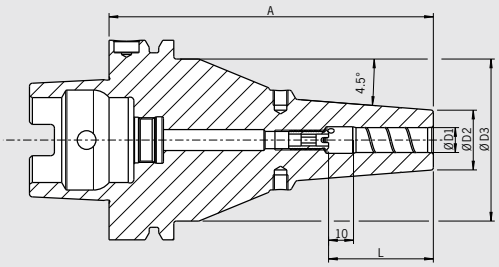
Cooling adapters for extra ultra short holders

Size		Ø 20	Ø 25
Order No.	**80.105...**	**.16.0045**	**.18.0011**

Cooling grooves on request

1) With back-up screw

POWER SHRINK CHUCK WITH SAFE-ΛOCK®
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM) – INCH



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC

Delivery includes:
– Safe-Lock pull-out protection
– Cool Jet bores (sealed)
– With threaded holes for balancing screws
– Incl. pocket for data chip
– With thread for coolant tube

INCH	Clamping Ø D1 [inch]	1/2	5/8	3/4	1
	Ø D2 [inch] extra ultra short			1.40	1.77
	L [inch] extra ultra short			1.93	2.24
Length A [inch]	extra ultra short			2.75	2.75
Order No.	**A63/80.145...**			**.3/4z.57.i**	**.1z.57.i**
	Ø D2 [inch]	1.04	1.16	1.40	1.77
	L [inch]	1.81	1.93	1.93	2.24
Length A [inch]	ultra short	3	3	3	3
Order No.	**A63/80.145...**	**.1/2z.37.i**	**.5/8z.37.i**	**.3/4z.37.i**	**.1z.37.i**
Length A [inch]	short				3.5
Order No.	**A63/80.140...**				**.1z.37.i**

Length A = ZG130

INCH	Clamping Ø D1 [inch]	1/2	5/8
	Ø D2 [inch]	0.94	1.06
	Ø D3 [inch]	2.56	2.56
	L [inch]	1.85	1.97
Length A [inch]	ZG130	5[1)]	5[1)]
Order No.	**A63/80.144...**	**.1/2z.37.i**	**.5/8z.37.i**

Accessories

Shrink fit extensions		See page 170
Balance screws	**Order No. 80.203.00**	See page 194
Cool Flash	**Order No. 91.100.40**	See page 214
Balluff-Chip BIS-C-122-04/L	**Order No. 909009-0002**	
Data-Lock mechanical data carrier locking system	**Order No. 91.100.06**	See page 202
Coolant tube	**Order No. 85.700.63**	

Cooling adapters for extra ultra short holders

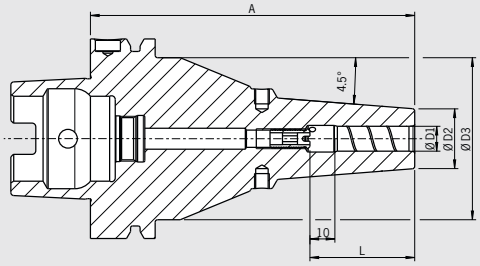
Size		Ø 20	Ø 25
Order No.	**80.105...**	**.16.0045**	**.18.0011**

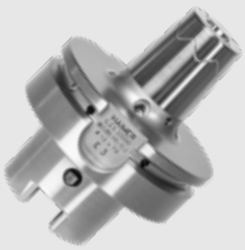
Cooling grooves on request

1) With back-up screw

POWER SHRINK CHUCK
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM) – METRIC

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN





The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Heat resistant hot-working steel
– Hardened 54–2 HRC

Delivery includes:
– Cool Jet bores (sealed)
– With threaded holes for balancing screws
– Incl. pocket for data chip
– With thread for coolant tube

METRIC	Clamping Ø D1 [mm]	06	08	10	12	16	20	25	32
	Ø D2 [mm] extra ultra short	22	22	27	26.5	29.5	35.5	46	—
	L [mm] extra ultra short	—	—	41	—	—	43.5	47	—
Length A [mm]	extra ultra short			65			70[2]	70[3]	
Order No.	**A63/80.145...**			**.10.5**			**.20.5**	**.25.5**	
	Ø D2 [mm]	22	22	26.5	26.5	29.5	35.5	45	45
	L [mm]	38	38	43	46	49	49	57	59
Length A [mm]	ultra short	70	70	70	70	75	75	80[3]	
Order No.	**A63/80.145...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.16.3**	**.20.3**	**.25.3**	
Length A [mm]	short							90	90
Order No.	**A63/80.140...**							**.25.3**	**.32.3**

Length A = ZG130

METRIC	Clamping Ø D1 [mm]	06	08	10	12	16
	Ø D2 [mm]	21	21	24	24	27
	Ø D3 [mm]	65	65	65	65	65
	L [mm]	36	36	42	47	50
Length A [mm]	ZG130	130	130	130	130	130
Order No.	**A63/80.144...**	**.06.3[1]**	**.08.3[1]**	**.10.3[1]**	**.12.3[1]**	**.16.3[1]**

Accessories

Shrink fit extensions			See page 170
Balance screws		**Order No. 80.203.00**	See page 194
Cool Flash		**Order No. 91.100.40**	See page 214
Balluff-Chip BIS-C-122-04/L		**Order No. 909009-0002**	
Data-Lock mechanical data carrier locking system		**Order No. 91.100.06**	See page 202
Coolant tube		**Order No. 85.700.63**	

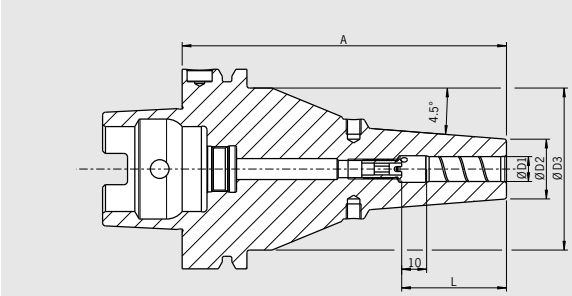
Cooling adapters for extra ultra short holders

Size		Ø 20	Ø 25
Order No.	**80.105...**	**.16.0045**	**.18.0011**

Cooling grooves on request

1) With back-up screw
2) Cooling adapter for Ø 20 mm
3) Cooling adapter for Ø 25 mm

POWER SHRINK CHUCK WITH SAFE-ΛOCK®
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM) – METRIC



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC

Delivery includes:
– Safe-Lock pull-out protection
– Cool Jet bores (sealed)
– With threaded holes for balancing screws
– Incl. pocket for data chip
– With thread for coolant tube

METRIC	Clamping Ø D1 [mm]	08	10	12	16	20	25
	Ø D2 [mm] extra ultra short	—	—	—	—	35.5	46
	L [mm] extra ultra short	—	—	—	—	43.5	47
Length A [mm]	extra ultra short					70[2]	70[3]
Order No.	**A63/80.145...**					**.20.57**	**.25.57**
	Ø D2 [mm]	22	26.5	26.5	29.5	35.5	45
	L [mm]	38	43	46	49	49	57
Length A [mm]	ultra short	70	70	70	75	75	80[3]
Order No.	**A63/80.145...**	**.08.37**	**.10.37**	**.12.37**	**.16.37**	**.20.37**	**.25.37**
Length A [mm]	short						90
Order No.	**A63/80.140...**						**.25.37**

Length A = ZG130

METRIC	Clamping Ø D1 [mm]	12	16
	Ø D2 [mm]	24	27
	Ø D3 [mm]	65	65
	L [mm]	47	50
Length A [mm]	ZG130	130[1]	130[1]
Order No.	**A63/80.144...**	**.12.37**	**.16.37**

Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Cool Flash		**Order No. 91.100.40**
Balluff-Chip BIS-C-122-04/L		**Order No. 909009-0002**
Data-Lock mechanical data carrier locking system	**Order No. 91.100.06**	See page 202
Coolant Tube		**Order No. 85.700.63**

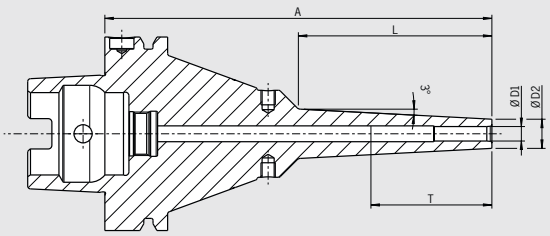
Cooling adapters for extra ultra short holders

Size	[2] Ø 20	[3] Ø 25
Order No. 80.105...	**.16.0045**	**.18.0011**

1) With back-up screw
2) Cooling adapter for Ø 20 mm
3) Cooling adapter for Ø 25 mm

POWER MINI SHRINK
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM)

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Power Mini Shrink Chuck is perfect for 5-axis machining of parts that are difficult to access. Very slim at the top like the HAIMER Mini Shrink Chucks, the Power Mini Shrink is reinforced at the base. This allows for efficient milling with an angled tool, even at long protruding lengths.

– 3 mm wall thickness
– 3° slope at the top
– With threaded holes for balancing screws
– For solid carbide tools with shank tolerance h6
– Incl. pocket for data chip
– Heat resistant hot-working steel
– Hardened 54–2 HRC

– Attention: Shrinking only with shrink and cooling adapter

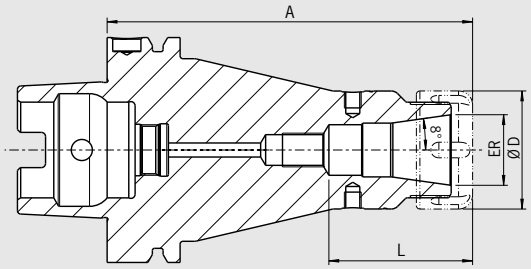
INCH	Clamping Ø D1 [inch]	1/8	1/4	5/16	3/8	1/2
	Ø D2 [inch]	0.35	0.47	0.55	0.63	0.71
	T [inch]	—	—	—	2.68	2.95
	L [inch]	3.15	3.15	3.15	3.15	3.15
Length A [inch]	oversize	6.5	6.5	6.5	6.5	6.5
Order No.	**A63/80.182...**	**.1/8z.8.i**	**.1/4z.8.i**	**.5/16z.8.i**	**.3/8z.8.i**	**.1/2z.8.i**

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12
	Ø D2 [mm]	09	10	11	12	14	16	18
	T [mm]	—	—	—	—	—	68	75
	L [mm]	80	80	80	80	80	80	80
Length A [mm]	oversize	160	160	160	160	160	160	160
Order No.	**A63/80.182...**	**.03.8**	**.04.8**	**.05.8**	**.06.8**	**.08.8**	**.10.8**	**.12.8**

Mini Shrink shrink and cooling sleeve
– Protect Mini Shrink chucks from overheating
– Extend lifetime of shrink fit chucks
– Secure and user friendly handling
– Cooling with standard cooling body

Fitting sleeves for Mini Shrink chucks							Order No.
Size [mm]		Ø 03	Ø 06	Ø 08	Ø 10	Ø 12	
Size [inch]		Ø 1/8	Ø 1/4	Ø 5/16	Ø 3/8	Ø 1/2	
Order No.	**80.105.14.2...**	**.04**	**.09**	**.10**	**.11**	**.12**	
Base							**80.105.14.2.99**
Set with base (12 pcs)							**80.105.14.2.00**

POWER COLLET CHUCK
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM)



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488
(Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Incl. pocket for data chip
– Optional: Cool Jet bores on Power Collets from ER 25, Ø 6 mm
– Program of Power Collets on pages

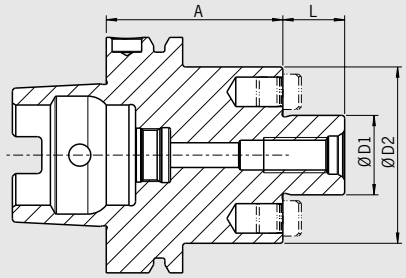
INCH	ER		16	25	32
	Ø D [inch]		1.10	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.69	1.97	1.87
Length A [inch]	ultra short		2.95	2.95	2.95
Order No.	**A63/80.025…**		**.16.3**	**.25.3**	**.32.3**
Length A [inch]	ZG130		5.12	5.12	5.12
Order No.	A63/80.024…		.16.3	.25.3	.32.3

METRIC	ER		16	25	32
	Ø D [mm]		28	42	50
	Clamping range [mm]		2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]		43	50	47.5
Length A [mm]	ultra short		75	75	75
Order No.	**A63/80.025…**		**.16.3**	**.25.3**	**.32.3**
Length A [mm]	ZG130		130	130	130
Order No.	**A63/80.024…**		**.16.3**	**.25.3**	**.32.3**

Accessories				
Locknut (fine-balanced)				
Size		ER 16	ER 25	ER 32
Order No. 83.914…		**.16**	**.25**	**.32**
Power Collet clamping wrench				See page 191
				
Torque Master torque wrench				See page 190
Order No. 84.600.00				
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				
Shrink Fit Collets				See page 175

FACE MILL ARBOR
HSK-A63/80 (TAPER 63 MM/FLANGE 80 MM)

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 33,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880 and exceeding clamping diameter 40 clamping according to DIN 2079 is possible, too (4 additional tapped holes).

DIN 69882-3

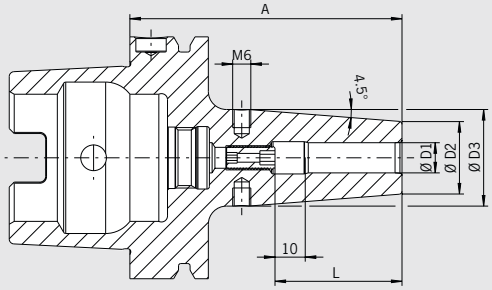
– Included in delivery: tightening bolt, without coolant tube
– INCH Version: With coolant exit bores on the end face for milling cutters with central cooling
– METRIC Version: Coolant exit bores optional

INCH	Clamping Ø D1 [inch]		3/4	1
	Ø D2 [inch]		1.71	2.17
	L [inch]		0.67	0.67
Length A [inch]	short		1.97	2.36
Order No.	**A63/80.050...**		**.3/4z.i**	**.1z.i**

METRIC	Clamping Ø D1 [mm]		22	27
	Ø D2 [mm]		48	60
	L [mm]		19	21
Length A [mm]	short		50	60
Order No.	**A63/80.050...**		**.22**	**.27**

Accessories				
Tightening bolt				
Size D1			22	27
Order No.	**85.300...**		**.22**	**.27**
Wrench				
Size D1			22	27
Order No.	**84.400...**		**.22**	**.27**
Balancing index rings				
Size D1			22	27
Order No.	**79.350...**		**.50**	**.60**

SHRINK FIT CHUCK
HSK-A80 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Included in delivery: Shrink fit chuck with backup screw, without coolant tube

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge

Standard version, similar to DIN 69882-8

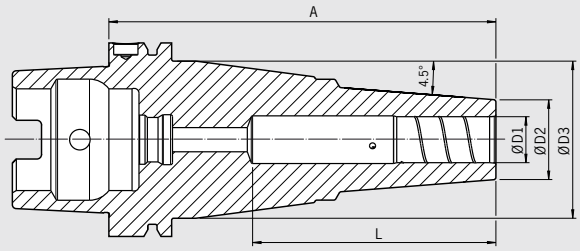
METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Length A [mm]	short	85	85	90	95	95	100	100	105	115	120
Order No.	**A80.140...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**

Accessories

Shrink fit extensions			See page 170
Balance screws			See page 194
Coolant tube		**Order No. 85.700.80**	See page 201
Reduction sleeves			See page 199
Back-up screws			See page 204
Cool Jet bores		**Order No. 91.100.24**	See page 180
Cool Flash		**Order No. 91.100.40**	See pages 214/215

POWER SHRINK CHUCK
HSK-A80 · DIN 69893-1

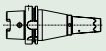
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

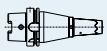


The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times
- Quieter running, therefore better surface quality and protection of tools, spindles and machines
- Higher machining accuracy
- With threaded holes for balancing screws
- Cool Jet coolant bores that can be sealed included

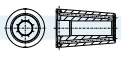
The long versions with slim tips are especially versatile to use.
- High rigidity
- Slim at the tip
- Dampen vibrations
- Higher clamping forces
- Equally suited to High Speed manufacturing and heavy milling
- Universal usage, saves space in tool magazine

Optional:
- Cooling with Cool Flash from for an extra charge (See pages 214/215)
- Safe-Lock pull out protection

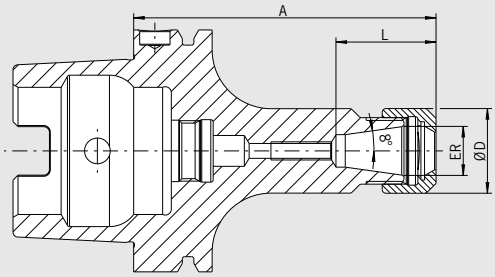
INCH	Clamping Ø D1 [inch]		1/2'	3/4
	Ø D2 [inch]		0.944	1.299
	Ø D3 [inch] short		2.598	2.598
	Ø D3 [inch] ZG130/oversize		2.559	2.559
	L [inch] short		2.795	2.716
	L [inch] ZG130		2.952	3.779
	L [inch] oversize		2.952	3.976
Gage length A [inch]	short		3.94	3.94
Order No.	**A80.149...**		**.1/2z.3.2140**	**.3/4z.3.2140**
Gage length A [inch]	ZG130		5.12	5.12
Order No.	**A80.149...**		**.1/2z.3.2144**	**.3/4z.3.2144**
Gage length A [inch]	oversize		6.3	6.3
Order No.	**A80.149...**		**.1/2z.3.2142**	**.3/4z.3.2142**

METRIC	Clamping Ø D1 [mm]		08	10	12	16	20
	Ø D2 [mm]		21	24	24	27	33
	Ø D3 [mm] short		66	66	66	66	66
	Ø D3 [mm] ZG130/oversize		65	65	65	65	65
	L [mm] short		—	68	71	70	69
	L [mm] ZG130		—	70	75	75	96
	L [mm] oversize		—	70	75	75	101
Gage length A [mm]	short		100	100	100	100	100
Order No.	**A80.149...**		**.08.3.2140**	**.10.3.2140**	**.12.3.2140**	**.16.3.2140**	**.20.3.2140**
Gage length A [mm]	ZG130		130	130	130	130	130
Order No.	**A80.149...**		**.08.3.2144**	**.10.3.2144**	**.12.3.2144**	**.16.3.2144**	**.20.3.2144**
Gage length A [mm]	oversize		160	160	160	160	160
Order No.	**A80.149...**		**.08.3.2142**	**.10.3.2142**	**.12.3.2142**	**.16.3.2142**	**.20.3.2142**

Accessories

Cool Flash  **Order No. 91.100.40** See pages 214/215

ER COLLET CHUCK
HSK-A80 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

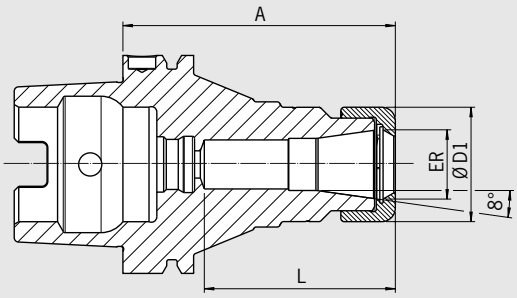
– Included in delivery: locknut (balanced, with slide coating for higher clamping forces); without coolant tube
– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces) for an extra charge
– Increasing size L possible upon request

INCH	Ø ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		0.02–0.39	0.04–0.63	0.59–0.79
	L [inch]		1.26	1.62	1.85
Gage length A [inch]	short		3.94	3.94	3.94
Order No.	**A80.020...**		**.16**	**.25**	**.32**

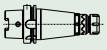
Accessories					
Collets ER					See page 180
Shrink Fit Collets					See page 175
Locknut (pre-balanced)					
Size			ER 16	ER 25	ER 32
Order No.	**83.912...**		**.16**	**.25**	**.32**
Chuck nut HS (fine-balanced)					
Size			ER 16	ER 25	ER 32
Order No.	**83.912...**		**.16.HS**	**.25.HS**	**.32.HS**
Fork wrench					
Size			ER 16	—	—
Order No.	**84.200...**		**.16**		
Clamping wrench					
Size			—	ER 25	ER 32
Order No.	**84.200...**			**.25**	**.32**
Balancing index rings					
Size	long/oversize		ER 16	ER 25	ER 32
Order No.	**79.350...**		**.28**	**.42**	**.48**
Adjusting screw					
Size			ER 16	ER 25	ER 32
Order No.	**85.800...**		**.34**	**.34**	**.35**
Coolant Tube					
Order No.	**85.700.80**				
Shrink fit extensions					See page 170

POWER COLLET CHUCK
HSK-A80 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.
- High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
- Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
- High rigidity
- Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times, higher machining accuracy, higher clamping forces
- Equally suited to High Speed manufacturing and heavy milling
- With threaded holes for balancing screws
- Optional: Cool Jet bores on Power Collets
- Program of Power Collets on pages 186 – 189

INCH	ER		25	32
	Ø D1 [inch]		1.653	1.968
	Clamping range [inch]		1/8–5/8	1/8–3/4
	L [inch] short		2.755	2.716
	L [inch] ZG130		3.248	3.543
	L [inch] oversize		3.248	3.858
Gage length A [inch]	short		3.94	3.94
Order No.	**A80.029...**		**.25.3.2021**	**.32.3.2021**
Gage length A [inch]	ZG130		5.12	5.12
Order No.	**A80.029...**		**.25.3.2024**	**.32.3.2024**
Gage length A [inch]	oversize		6.3	6.3
Order No.	**A80.029...**		**.25.3.2022**	**.32.3.2022**

Accessories

Locknut (fine-balanced)

Size		ER 25	ER32
Order No. 83.914...		**.25**	**.32**

Power Collet clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00

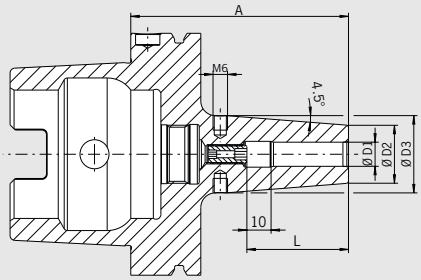
Power Collets See page 186

Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets See page 176

SHRINK FIT CHUCK
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws
– Inch sizes with Cool Jet, metric sizes with Cool Jet optional
– Included in delivery: Back-up screw, without coolant tube

Optional:
– Cooling with Cool Flash for an extra charge

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.73	1.73
	Ø D3 [inch]	1.06	1.06	1.26	1.26	1.26	1.34	1.65	2.09	2.09
	L [inch]	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.28	2.28
Gage length A [inch]	short	3.35	3.35	3.54	3.54	3.74	3.94	4.13	4.53	4.72
Order No.	**A10.140...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	ZG130	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Order No.	**A10.144...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	oversize	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Order No.	**A10.142...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	**.1 1/4Z.4**
Gage length A [inch]	ZG200	7.87		7.87		7.87	7.87	7.87	7.87	
Order No.	**A10.146...**	**.1/4Z.4**	—	**.3/8Z.4**	—	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.1Z.4**	—

Standard version, similar to DIN 69882-8

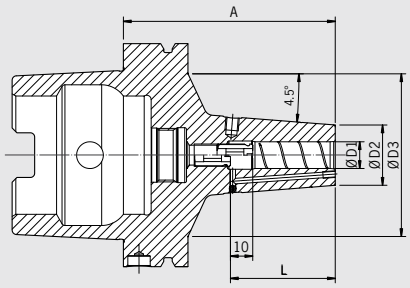
METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	27	27	32	32	34	34	42	42	53	53
	L [mm]	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short	85	85	90	95	95	100	100	105	115	120
Order No.	**A10.140...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	ZG130	130	130	130	130	130	130	130	130	130	130
Order No.	**A10.144...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	oversize	160	160	160	160	160	160	160	160	160	160
Order No.	**A10.142...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	ZG200	200	200	200	200	200	200	200	200	200	200
Order No.	**A10.146...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**

Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Coolant Tube	**Order No. 85.700.10**	
Reduction sleeves		See page 199
Back-up screws		See page 204
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

POWER SHRINK CHUCK
HSK-A100 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed

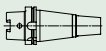


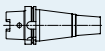
The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

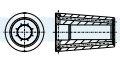
The long versions (A=160 and 200) with slim tips are especially versatile to use.
– High rigidity, slim at the tip, dampen vibrations
– High clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

Optional:
– Cooling with Cool Flash from for an extra charge

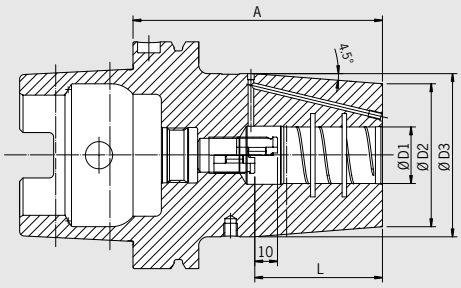
INCH	Clamping Ø D1 [inch]		1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch]		0.83	0.83	1.06	1.06	1.3	1.73	1.73
	Ø D3 [inch] ultra short		2.36	2.36	2.09	2.87	3.07	3.35	3.35
	Ø D3 [inch]		3.27	3.27	3.27	3.27	3.27	3.27	3.27
	L [inch]		1.42	1.42	1.65	1.85	1.97	2.05	2.28
Gage length A [inch] **Standard Order No.** **Safe-Lock Order No.**	short **A10.140...** **A10.140...**		3.35 **.1/4z.3** **.1/4z.37**	3.35 **.5/16z.3** **.5/16z.37**	3.54 **.3/8z.3** **.3/8z.37**	3.74 **.1/2z.3** **.1/2z.37**	3.94 **.5/8z.3** **.5/8z.37**	4.13 **.3/4z.3** **.3/4z.37**	4.53 **.1z.3** **.1z.37**
Gage length A [inch] **Standard Order No.** **Safe-Lock Order No.**	oversize **A10.142...** **A10.142...**		6.30 **.1/4z.3** **.1/4z.37**	6.30 **.5/16z.3** **.5/16z.37**	6.30 **.3/8z.3** **.3/8z.37**	6.30 **.1/2z.3** **.1/2z.37**	6.30 **.5/8z.3** **.5/8z.37**	6.30 **.3/4z.3** **.3/4z.37**	6.30 **.1z.3** **.1z.37**
Gage length A [inch] **Standard Order No.** **Safe-Lock Order No.**	ZG200 **A10.146...** **A10.146...**		7.87 **.1/4z.3** **.1/4z.37**	7.87 **.5/16z.3** **.5/16z.37**	7.87 **.3/8z.3** **.3/8z.37**	7.87 **.1/2z.3** **.1/2z.37**	7.87 **.5/8z.3** **.5/8z.37**	7.87 **.3/4z.3** **.3/4z.37**	7.87 **.1z.3** **.1z.37**

METRIC	Clamping Ø D1 [mm]		06	08	10	12	14	16	18	20	25
	Ø D2 [mm]		21	21	27	27	33	33	44	44	44
	Ø D3 [mm] ultra short		60	60	53	73	60	78	76	85	85
	Ø D3 [mm]		83	83	83	83	83	83	83	83	83
	L [mm]		36	36	42	47	47	50	50	52	58
Gage length A [mm] **Standard Order No.** **Safe-Lock Order No.**	short **A10.140...** **A10.140...**		85 **.06.3** **.06.37**	85 **.08.3** **.08.37**	90 **.10.3** **.10.37**	95 **.12.3** **.12.37**	95 **.14.3** **.14.37**	100 **.16.3** **.16.37**	100 **.18.3** **.18.37**	105 **.20.3** **.20.37**	115 **.25.3** **.25.37**
Gage length A [mm] **Standard Order No.** **Safe-Lock Order No.**	oversize **A10.142...** **A10.142...**		160 **.06.3** **.06.37**	160 **.08.3** **.08.37**	160 **.10.3** **.10.37**	160 **.12.3** **.12.37**	160 **.14.3** **.14.37**	160 **.16.3** **.16.37**	160 **.18.3** **.18.37**	160 **.20.3** **.20.37**	160 **.25.3** **.25.37**
Gage length A [mm] **Standard Order No.** **Safe-Lock Order No.**	ZG200 **A10.146...** **A10.146...**		200 **.06.3** **.06.37**	200 **.08.3** **.08.37**	200 **.10.3** **.10.37**	200 **.12.3** **.12.37**	200 **.14.3** **.14.37**	200 **.16.3** **.16.37**	200 **.18.3** **.18.37**	200 **.20.3** **.20.37**	200 **.25.3** **.25.37**

Accessories

Cool Flash		**Order No. 91.100.40**	See pages 214/215

HEAVY DUTY CHUCK
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed

Finally there is a holder for heavy machining that can replace the Weldon tool holder. The Heavy Duty Chuck is a shrink fit chuck designed for extreme cases. The contour is optimized for highest rigidity and clamping force.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– Smooth clamping of the tool shank
– TIR less than 0.00012" (3 µm)
– Reinforced outer contour
– To shrink with 13 kW HD-Coil or with high performance shrink fit unit HAIMER Power Clamp Profi Plus (20 kW)
– With internal groove in the clamping bore
– With threaded holes for balancing screws
– Cool Jet coolant bores that can be sealed included

Optional:
– Cooling with Cool Flash for an extra charge

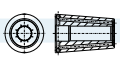
INCH	Clamping Ø D1 [inch]	5/8	3/4	1	1 1/4	1 1/2	2
	Ø D2 [inch]	2.01	2.28	2.48	2.76	3.22	3.22
	Ø D3 [inch]	—	2.64	2.83	3.07	3.70	3.70
	L [inch]	1.97	2.05	2.28	2.4	3.46	3.46
Gage length A [inch]	short 	3.94	3.94	4.33	4.33	5.51	5.51
Order No.	**A10.150...**	**.5/8z.6**	**.3/4z.6**	**.1z.6**	**.11/4z.6**	**.11/2z.6**	**.2z.6**
Safe-Lock Order No.	**A10.150...**	**.5/8z.67**	**.3/4z.67**	**.1z.67**	**.11/4z.67**	**.11/2z.67**	**.2z.67**

METRIC	Clamping Ø D1 [mm]	16	20	25	32	40	50
	Ø D2 [mm]	51	58	63	70	82	82
	Ø D3 [mm] short	—	67	72	78	94	94
	Ø D3 [mm]	85	85	85	85	94	94
	L [mm]	50	52	58	61	88	88
Gage length A [mm]	short 	100	100	110	110	140	140
Order No.	**A10.150...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A10.150...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	oversize 	160	160	160	160	160	160
Order No.	**A10.152...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A10.152...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	ZG200 	200	200	200	200	200	200
Order No.	**A10.156...**	**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A10.156...**	**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**

Heavy Duty Chuck – For 13 kW shrink fit machine

METRIC	Clamping Ø D1 [mm]	16	20
	Ø D2 [mm]	46	46
	L [mm]	51	53
Gage length A [mm]	short 	100	100
Order No.	**A10.140...**	**.16.6**	**.20.6**[1)]
Safe-Lock Order No.	**A10.140...**	**.16.67**	**.20.67**[1)]

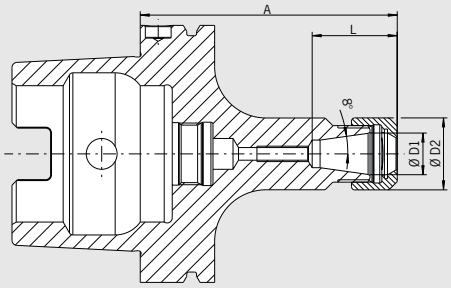
Accessories

Cool Flash  **Order No. 91.100.40** See pages 214/215

1) Without back-up screw

ER COLLET CHUCK
HSK-A100 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For clamping tools with cylindrical shank in collets according to ISO 15488 (formerly DIN 6499).

DIN 69882-6

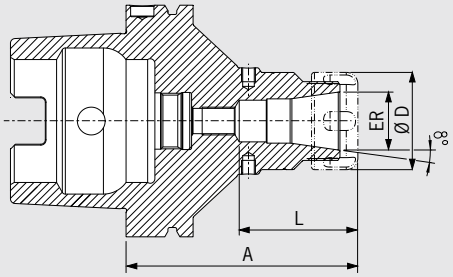
Included in delivery:
– Locknut (balanced, with slide coating for higher clamping forces); without coolant tube
– Locknut Type HS (High-Speed, fine balanced, with slide coating for higher clamping forces) for an extra charge
– Enlarging of size L upon request

INCH	ER		16	25	32	40
	Ø D [inch]		1.1	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.39	0.04–0.63	0.06–0.79	0.10–1.02
	L [inch]		1.28	1.62	1.85	2.09
Gage length A [inch]	short		3.94	3.94	3.94	4.72
Order No.	**A10.020...**		**.16**	**.25**	**.32**	**.40**
Gage length A [inch]	oversize		6.30	6.30	6.30	6.30
Order No.	**A10.022...**		**.16**	**.25**	**.32**	**.40**

Accessories

Collets ER						See page 180
Shrink Fit Collets						See page 175
Locknut (pre-balanced)						
Size			ER 16	ER 25	ER 32	ER 40
Order No.	**83.912...**		**.16**	**.25**	**.32**	**.40**
Chuck nut HS (fine-balanced)						
Size			ER 16	ER 25	ER 32	ER 40
Order No.	**83.912...**		**.16.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Fork wrench						
Size			ER 16	—	—	—
Order No.	**84.200...**		**.16**			
Clamping wrench						
Size			—	ER 25	ER 32	ER 40
Order No.	**84.200...**			**.25**	**.32**	**.40**
Balancing index rings						
Size	long/oversize		ER 16	ER 25	ER 32	ER 40
Order No.	**79.350...**		**.28**	**.42**	**.48**	**.50**
Adjusting screw						
Size			ER 16	ER 25	ER 32	ER 40
Order No.	**85.800...**		**.34**	**.34**	**.35**	**.35**
Coolant Tube						
Order No.	**85.700.10**					
Shrink fit extensions						See page 170

POWER COLLET CHUCK
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.
- High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
- Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
- High rigidity
- Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times, higher machining accuracy, higher clamping forces
- Equally suited to High Speed manufacturing and heavy milling
- With threaded holes for balancing screws
- Optional: Cool Jet bores on Power Collets
- Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	ultra short		3.35	3.35	3.35
Order No.	**A10.025...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	short		3.93	3.93	3.93
Order No.	**A10.020...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	ZG130		5.12	5.12	5.12
Order No.	**A10.024...**		**.16.3**	**.25.3**	**.32.3**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**A10.022...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	ER32
Order No. 83.914...		**.16**	**.25**	**.32**

Power Collet clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00 

Power Collets See page 186

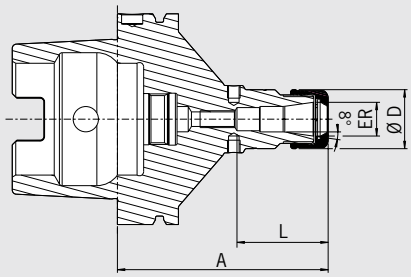
Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets  See page 175

HIGH PRECISION COLLET CHUCK
HSK-A100 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools.

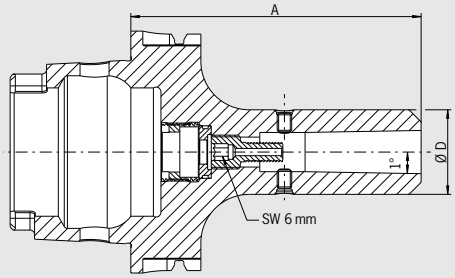
– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

METRIC	ER		16	25	32
	Ø D [mm]		28	42	50
	Clamping range [mm]		2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]		43	51	53
Length A [mm]	extra short		85	85	85
Order No.	**A10.025...**		**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	short		100	100	100
Order No.	**A10.020...**		**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	long		130	130	130
Order No.	**A10.024...**		**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
Length A [mm]	oversize		160	160	160
Order No.	**A10.022...**		**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

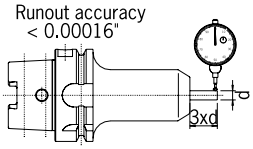
HG COLLET CHUCK
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For high-precise clamping of tools with cylindrical shank, also with clamping flats. Very useful for High Speed machining.

– Included in delivery: high-precision chuck with clamping screw and pull-out hook, without collet, without coolant tube
– Shank tolerance h6
– Optional: Cool Jet bores on HG Collets from diam. 0.25" – 0.78"
– Extensions for High-Precision Chuck available



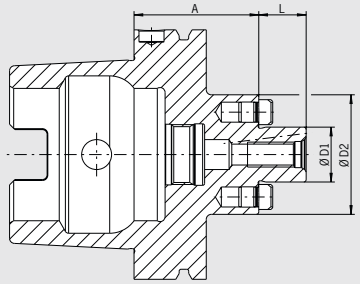
INCH	HG		01	02	03
	ØD [inch]		1.18	1.38	1.89
	Clamping Ø [inch] shank tolerance h6		0.08–0.35	0.39–0.57	0.63–0.79
Gage length A [inch]	short		4.72	4.72	5.12
Order No.	**A10.120...**		**.01**	**.02**	**.03**
Gage length A [inch]	oversize		6.30	6.30	6.30
Order No.	**A10.122...**		**.01**	**.02**	**.03**

Accessories See accessories (pg. 169)

Collet HG					
See accessories					
Locking Screw					
HG	short		HG 01	HG 02	HG 03
Order No.	**82.560...**		**.02**	**.14**	**.14**
HG	oversize		HG 01	HG 02	HG 03
Order No.	**82.560...**		**.04**	**.05**	**.05**
Balancing index rings					
HG			HG 01	HG 02	HG 03
Order No.	**79.350...**		**.30**	**.35**	**.48**
Coolant Tube					
HG			HG 01	HG 02	HG 03
Order No.	**85.700...**		**.10**	**.10**	**.10**

FACE MILL ARBOR
HSK-A100 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



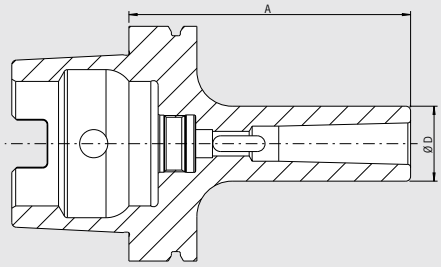
Use:
For clamping face-mill cutters.
With coolant exit bores on the end face for milling cutters with central cooling.

– Included in delivery: Face Mill Arbor with clamping screw
– Inch sizes: Coolant bores on front side for an extra charge

INCH	Ø D1 [inch]		3/4	1	1 1/4	1 1/2
	L [inch]		0.67	0.67	0.67	0.94
	Ø D2 [inch]		1.71	2.17	2.75	3.78
Gage length A [inch]	long		3.94	3.94	3.94	3.94
Order No.	**A10.051...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**
Gage length A [inch]	oversize		6.30	6.30	6.30	6.30
Order No.	**A10.052...**		**.3/4Z**	**.1Z**	**.1 1/4Z**	**.1 1/2Z**

METRIC	Ø D1 [mm]		16	22	27	32	40
	L [mm]		17	19	21	24	27
	Ø D2 [mm]		36	48	60	78	87
Gage length A [mm]	short		50	50	50	50	60
Order No.	**A10.050...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Gage length A [mm]	long		100	100	100	100	100
Order No.	**A10.051...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Gage length A [mm]	oversize		160	160	160	160	160
Order No.	**A10.052...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**
Accessories							
Clamping Screw							
Ø D1 [inch]			3/4	1	1 1/4	1 1/2	
Order No.	**85.300...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**	
Wrench							
Ø D1 [inch]			3/4	1	1 1/4	1 1/2	
Order No.	**84.400...**		**.3/4Z**	**.1Z**	**.11/4Z**	**.11/2Z**	
Balancing index ring							
Ø D1 [inch]			3/4	1	–	–	
Order No.	**79.350...**		**.1.71Z**	**.55**			
Coolant Tube							
Ø D1 [inch]			3/4	1	1 1/4	1 1/2	
Order No.	**85.700...**		**.10**	**.10**	**.10**	**.10**	
Coolant bores							
Order No.	**91.100.03**						
Accessories							
Clamping Screw							
Ø D1 [mm]			16	22	27	32	40
Order No.	**85.300...**		**.16**	**.22**	**.27**	**.32**	**.40**
Wrench							
Ø D1 [mm]			16	22	27	32	40
Order No.	**84.400...**		**.16**	**.22**	**.27**	**.32**	**.40**
Balancing index ring							
Ø D1 [mm]			16	22	27	32	40
Order No.	**79.350...**		**.36**	**.48**	**.60**	**.78**	**.87**
Coolant Tube							
Ø D1 [mm]			16	22	27	32	40
Order No.	**85.700...**		**.10**	**.10**	**.10**	**.10**	**.10**

ADAPTER FOR MORSE TAPER WITH TANG
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For holding tools with morse taper and tang according to DIN 228-1 form B.

– Fine-balancing for an extra charge

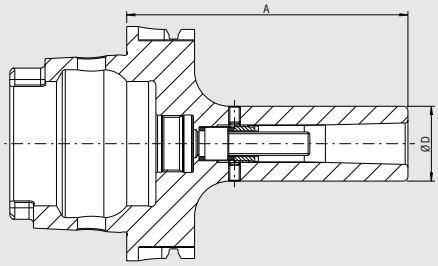
MK			01	02	03	04
Ø D [mm]			25	32	40	48
Gage Length A [mm]	short		110	120	150	170
Order No.	**A10.080...**		**.01**	**.02**	**.03**	**.04**

Accessories

Balancing index rings						
MK			01	02	03	04
Order No.	**79.350...**		**.25**	**.32**	**.40**	**.48**
Coolant tube						
Order No.	**85.700.10**					

ADAPTER FOR MORSE TAPER WITH THREAD
HSK-A100 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck balanced G6.3 8,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For holding tools with morse taper with thread according to DIN 228-1 form A.

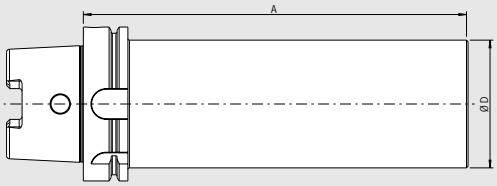
– Fine-balancing for an extra charge
– Delivery with tightening bolt without coolant tube

MK			01	02	03	04
Ø D [mm]			25	32	40	48
Gage Length A [mm]	short		110	120	150	170
Order No.	**A10.130...**		**.01**	**.02**	**.03**	**.04**

Accessories

Balancing index rings						
MK			01	02	03	04
Order No.	**79.350...**		**.25**	**.32**	**.40**	**.48**
Coolant tube						
Order No.	**85.700.10**					

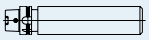
BLANK ADAPTER
HSK-A100 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

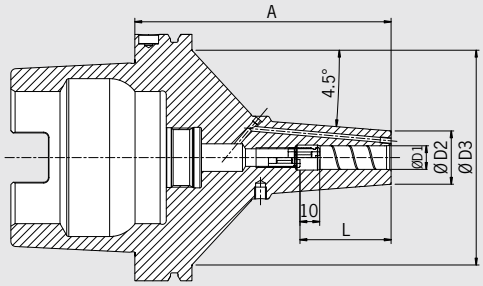
Use:
For manufacturing special tools in your own factory.

Design:
HSK is hardened and ground, the cylindrical part is soft.

	Ø D [mm]		83
Gage Length A [mm]	ZG250		250
Order No.	**A10.090...**		**.83**

POWER SHRINK CHUCK
HSK-A125 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed



The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy
– Quieter running, therefore better surface quality and protection of tools, spindles and machines
– With Cool Jet bores that can be sealed (Thread M4) and 6 bores
– With internal groove in the clamping bore
– Higher coolant flow rate due to optimized coolant bores
– With threaded holes for balancing screws

The long versions (A = oversize and ZG9 inch) with slim tips are especially versatile to use.

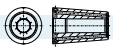
– High rigidity, slim at the tip, dampen vibrations
– Higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Universal usage, saves space in tool magazine

Optional:
– Cooling with Cool Flash for an extra charge

INCH	Clamping Ø D1 [inch]		3/8	1/2	5/8	3/4	1
	Ø D2 [inch]		1.06	1.06	1.30	1.73	1.73
	Ø D3 [inch]		4.29	4.29	4.29	4.29	4.29
	L [inch]		1.65	1.85	1.97	2.05	2.28
Gage length A [inch]	ZG5 inch		5[1)]	5[1)]	5[1)]	5	5
Order No.	**A125.140...**		**.3/8Z.3.I**	**.1/2Z.3.I**	**.5/8Z.3.I**	**.3/4Z.3.I**	**.1Z.3.I**
Safe-Lock Order No.	**A125.140...**		**.3/8Z.37.I**	**.1/2Z.37.I**	**.5/8Z.37.I**	**.3/4Z.37.I**	**.1Z.37.I**
Gage length A [inch]	oversize		7[1)]	7[1)]	7[1)]	7	7
Order No.	**A125.142...**		**.3/8Z.3.I**	**.1/2Z.3.I**	**.5/8Z.3.I**	**.3/4Z.3.I**	**.1Z.3.I**
Safe-Lock Order No.	**A125.142...**		**.3/8Z.37.I**	**.1/2Z.37.I**	**.5/8Z.37.I**	**.3/4Z.37.I**	**.1Z.37.I**
Gage length A [inch]	ZG9 inch		9[1)]	9[1)]	9[1)]	9	9
Order No.	**A125.146...**		**.3/8Z.3.I**	**.1/2Z.3.I**	**.5/8Z.3.I**	**.3/4Z.3.I**	**.1Z.3.I**
Safe-Lock Order No.	**A125.146...**		**.3/8Z.37.I**	**.1/2Z.37.I**	**.5/8Z.37.I**	**.3/4Z.37.I**	**.1Z.37.I**

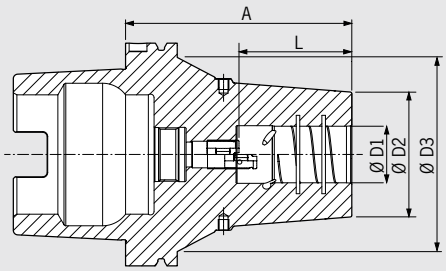
METRIC	Clamping Ø D1 [mm]		10	12	16	20	25
	Ø D2 [mm]		27	27	33	44	44
	Ø D3 [mm]		109	109	109	109	109
	L [mm]		42	47	50	52	58
Gage length A [mm]	ZG130		130[1)]	130[1)]	130	130	130
Order No.	**A125.140...**		**.10.3**	**.12.3**	**.16.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**A125.140...**		**.10.37**	**.12.37**	**.16.37**	**.20.37**	**.25.37**
Gage length A [mm]	oversize		160[1)]	160[1)]	160	160	160
Order No.	**A125.142...**		**.10.3**	**.12.3**	**.16.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**A125.142...**		**.10.37**	**.12.37**	**.16.37**	**.20.37**	**.25.37**
Gage length A [mm]	ZG200		200[1)]	200[1)]	200	200	200
Order No.	**A125.146...**		**.10.3**	**.12.3**	**.16.3**	**.20.3**	**.25.3**
Safe-Lock Order No.	**A125.146...**		**.10.37**	**.12.37**	**.16.37**	**.20.37**	**.25.37**

Accessories

Cool Flash		**Order No. 91.100.40**	See pages 214/215
Coolant tube		**Order No. 85.700.125**	See page 201

1) Thread M3, 2 bores

HEAVY DUTY SHRINK CHUCK
HSK-A125 · DIN 69893-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN
- ☑ Cool Jet, can be sealed

Finally there is a holder for heavy machining that can replace the Weldon tool holder. The Heavy Duty Chuck is a shrink fit chuck designed for extreme cases. The contour is optimized for highest rigidity and clamping force.

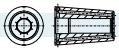
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– No deformation at the tool shank after shrink process
– TIR less than 0.00012" (3 µm)
– Reinforced outer contour
– To shrink with 13 kW HD-Coil or with high performance shrink fit unit HAIMER Power Clamp Profi Plus (20 kW)
– With internal groove in the clamping bore
– With Cool Jet bores that can be sealed (Thread M4) and 6 bores
– Higher coolant flow rate due to optimized coolant bores
– With threaded holes for balancing screws

Optional:
– Cooling with Cool Flash from 5/8"–1" for an extra charge

INCH	Clamping Ø D1 [inch]		5/8	3/4	1	1 1/4	1 1/2	2
	Ø D2 [inch]		2.01	2.28	2.48	2.76	3.23	3.23
	Ø D3 [inch]		4.29	4.29	4.29	4.29	4.29	4.29
	L [inch]		1.97	2.05	2.28	2.28	3.46	3.46
Gage length A [inch]	ZG5 inch		5	5	5	5	5[1)2)]	5[1)2)]
Order No.	**A125.150...**		**.5/8Z.6.I**	**.3/4Z.6.I**	**.1Z.6.I**	**.11/4Z.6.I**	**.11/2Z.6.I**	**.2Z.6.I**
Safe-Lock Order No.	**A125.150...**		**.5/8Z.67.I**	**.3/4Z.67.I**	**.1Z.67.I**	**.11/4Z.67.I**	**.11/2Z.67.I**	**.2Z.67.I**
Gage length A [inch]	oversize		7	7	7	7	7	7
Order No.	**A125.152...**		**.5/8Z.6.I**	**.3/4Z.6.I**	**.1Z.6.I**	**.11/4Z.6.I**	**.11/2Z.6.I**	**.2Z.6.I**
Safe-Lock Order No.	**A125.152...**		**.5/8Z.67.I**	**.3/4Z.67.I**	**.1Z.67.I**	**.11/4Z.67.I**	**.11/2Z.67.I**	**.2Z.67.I**
Gage length A [inch]	ZG9 inch		9	9	9	9	9	9
Order No.	**A125.156...**		**.5/8Z.6.I**	**.3/4Z.6.I**	**.1Z.6.I**	**.11/4Z.6.I**	**.11/2Z.6.I**	**.2Z.6.I**
Safe-Lock Order No.	**A125.156...**		**.5/8Z.67.I**	**.3/4Z.67.I**	**.1Z.67.I**	**.11/4Z.67.I**	**.11/2Z.67.I**	**.2Z.67.I**

METRIC	Clamping Ø D1 [mm]		16	20	25	32	40	50
	Ø D2 [mm]		51	58	63	70	82	82
	Ø D3 [mm]		109	109	109	109	109	109
	L [mm]		50	52	58	61	88	88
Gage length A [mm]	ZG130		130	130	130	130	130[1)2)]	130[1)2)]
Order No.	**A125.150...**		**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A125.150...**		**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	oversize		160	160	160	160	160	160
Order No.	**A125.152...**		**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A125.152...**		**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**
Gage length A [mm]	ZG200		200	200	200	200	200	200
Order No.	**A125.156...**		**.16.6**	**.20.6**	**.25.6**	**.32.6**	**.40.6**	**.50.6**
Safe-Lock Order No.	**A125.156...**		**.16.67**	**.20.67**	**.25.67**	**.32.67**	**.40.67**	**.50.67**

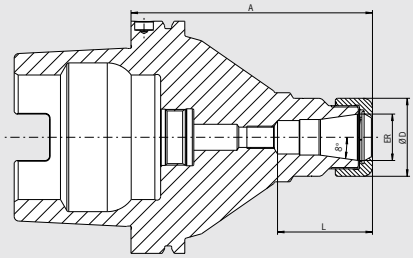
Accessories

Coolant tube		**Order No. 85.700.125**	See page 201
Back-up screws			See page 204
Cool Flash		**Order No. 91.100.40**	See page 214

1) Without back-up screws
2) Gage L = 87.5 mm /3.43"

POWER COLLET CHUCK
HSK-A125 · DIN 69893-1

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



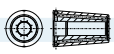
The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

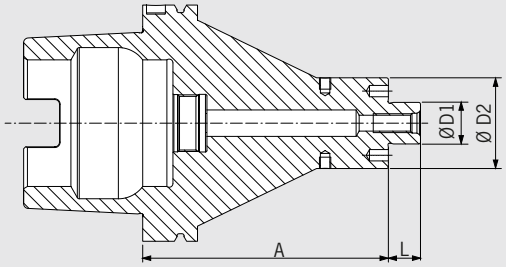
INCH	ER		25	32
	Ø D [inch]		1.65	1.97
	Clamping range [inch]		1/8–5/8	1/8–3/4
	L [inch]		2.01	2.09
Gage length A [inch]	short		4	4
Order No.	**A125.020...**		**.25.3.I**	**.32.3.I**
Gage length A [inch]	ZG5 inch		5	5
Order No.	**A125.024...**		**.25.3.I**	**.32.3.I**
Gage length A [inch]	oversize		7	7
Order No.	**A125.022...**		**.25.3.I**	**.32.3.I**
Gage length A [inch]	ZG9 inch		9	9
Order No.	**A125.026...**		**.25.3.I**	**.32.3.I**

METRIC	ER		25	32
	Ø D [mm]		42	50
	Clamping range [mm]		2.0–16.0	2.0–20.0
	L [mm]		51	53
Gage length A [mm]	short		100	100
Order No.	**A125.020...**		**.25.3**	**.32.3**
Gage length A [mm]	ZG130		130	130
Order No.	**A125.024...**		**.25.3**	**.32.3**
Gage length A [mm]	oversize		160	160
Order No.	**A125.022...**		**.25.3**	**.32.3**
Gage length A [mm]	ZG200		200	200
Order No.	**A125.026...**		**.25.3**	**.32.3**

Accessories

Cool Flash Upgrade		**Order No. 91.100.40**	See pages 214/215
Coolant tube		**Order No. 85.700.125**	See page 201

FACE MILL ARBOR
HSK-A125 · DIN 69893-1

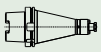


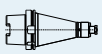
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN

Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880.

DIN 69882-3

– Reinforced outer contour
– Included in delivery: tightening bolt, with threaded holes for balancing screws, without coolant tube
– Metric sizes: With coolant exit bores on the end face for milling cutters with central cooling

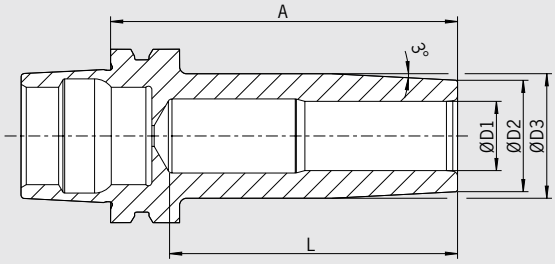
INCH	Clamping Ø D1 [inch]		3/4	1
	Ø D2 [inch]		1.71	2.17
	L [inch]		0.67	0.67
Gage length A [inch]	short		4	4
Order No.	**A125.050...**		**.3/4Z.3.I**	**.1Z.3.I**
Gage length A [inch]	ZG5 inch		5	5
Order No.	**A125.054...**		**.3/4Z.3.I**	**.1Z.3.I**
Gage length A [inch]	oversize		7	7
Order No.	**A125.052...**		**.3/4Z.3.I**	**.1Z.3.I**
Gage length A [inch]	ZG9 inch		9	9
Order No.	**A125.056...**		**.3/4Z.3.I**	**.1Z.3.I**

METRIC	Clamping Ø D1 [mm]		22	27
	Ø D2 [mm]		48	60
	L [mm]		19	21
Gage length A [mm]	short		100	100
Order No.	**A125.050...**		**.22.3.KKB**	**.27.3.KKB**
Gage length A [mm]	ZG130		130	130
Order No.	**A125.054...**		**.22.3.KKB**	**.27.3.KKB**
Gage length A [mm]	oversize		160	160
Order No.	**A125.052...**		**.22.3.KKB**	**.27.3.KKB**
Gage length A [mm]	ZG200		200	200
Order No.	**A125.056...**		**.22.3.KKB**	**.27.3.KKB**

Accessories				
Tightening bolt				
Size D1			22	27
Order No.	**85.300...**		**.22**	**.27**
Wrench				
Size D1			22	27
Order No.	**84.400...**		**.22**	**.27**
Balancing index rings				
Size D1			22	27
Order No.	**79.350...**		**.48**	**.60**
Coolant bores				
Order No.	**91.100.03**			

MINI SHRINK
HSK-E25 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Low cutting forces at high rpm are typical in micro machining (die & mold, medical engineering, micro mechanical engineering). The slim and short design of the all new HSK–E25 series from HAIMER – which is well known from the HAIMER Mini Shrink tool holders – is perfectly suitable for the requirements of micro machining.

– No disturbing edges, also jobs difficult to access are penetrable
– Highest runout accuracy: < 0.00012" (3 µm)
– Ideal to shrink with the HAIMER Power Clamp Nano
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC

Available as:
– Mini Shrink (Ø 3-12) in two different lengths

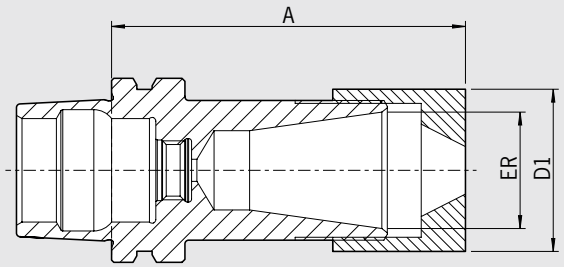
METRIC	Clamping Ø D1 [mm]	03	04	05	06	06	06	08	10	10	10	12
	Ø D2 [mm]	09	10	11	12	12	12	14	16	16	16	18
	Ø D3 [mm]	—	—	—	—	—	—	—	18	18	18	20
	L [mm] ultra short	15	18	23	27.5	—	—	27	26.5	—	—	26
	L [mm] standard	15	18	28	37.5	32.5	37.5	27	41.5	36.5	41.5	35.5
Gage length A [mm]	ultra short	35[1]	35[1]	35[1]	40[1]	—	—	40[1]	40[1]	—	—	40[1]
Order No.	**E25.185...**	**.03**	**.04**	**.05**	**.06**			**.08**	**.10**			**.12**
Gage length A [mm]	standard	45	45	45	45[2]	45	50	50	50[2]	50	55	50
Order No.	**E25.180...**	**.03**	**.04**	**.05**	**.06**	**.06.V2**	**.06.V3**	**.08**	**.10**	**.10.V2**	**.10.V3**	**.12**

1) Only shrinkable with Power Clamp Nano
2) Without thread for coolant tube

Mini Shrink shrink and cooling sleeve
– Protect Mini Shrink chucks from overheating
– Extend lifetime of shrink fit chucks
– Secure and user friendly handling
– Cooling with standard cooling body

Shrinking and cooling sleeves for Mini Shrink chucks							Order No.
Extra slim							
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	
Order No. 80.105.14...	**.2.01**	**.2.02**	**.2.03**	**.2.04**	**.2.05**	**.2.06**	**.2.07**	
Standard							
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	
Order No. 80.105.14...	**.2.04**	**.2.08**	**.2.05**	**.2.09**	**.2.10**	**.2.11**	**.2.12**	
Base							**80.105.14.2.99**
Set with base (12 pcs)							**80.105.14.2.00**

COLLET CHUCK MINI ER
HSK-E25 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Low cutting forces at high RPMs are typical in micro machining (die & mold, medical engineering, micro mechanical engineering). The slim and short design of the all new HSK–E25 series from HAIMER is perfectly suitable for the requirements of micro machining.

– Included in delivery: Locknut

Available as:
– Mini-ER collet chuck (Mini-ER 16) in two different lengths

Standard version, similar to DIN 69882-8

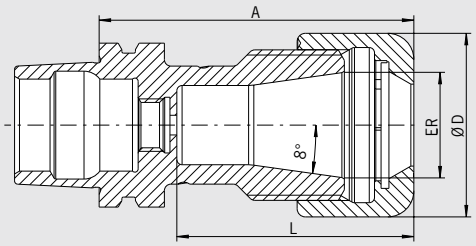
INCH	Mini-ER		16
	Ø D [inch]		0.87
	Clamping range [inch]		0.02–0.39
Gage length A [inch]	ultra short		1.69
Order No.	**E25.025...**		**.16.7**[1)]
Gage length A [inch]	short		1.89
Order No.	**E25.020...**		**.16.7**

1) Without thread for coolant tube

Accessories			
Clamping nut			
Size			Mini ER 16
Order No.	**915010-**		**.0002**
Torque Master torque wrench			
Order No.	**84.600.00**		
Insert torque wrench			Mini ER 16
Order No.	**84.620...**		**.16.1**

POWER COLLET CHUCK
HSK-E25 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Low cutting forces at high RPMs are typical in micro machining (die & mold, medical engineering, micro mechanical engineering). The slim and short design of the all new HSK–E25 series from HAIMER is perfectly suitable for the requirements of micro machining.

– Included in delivery: Locknut
– Without thread for set screw
– Attention: By using standard collet ER length A will increase

Power Collet Chuck for highest runout accuracy

INCH	ER		16
	Ø D [inch]		1.1
	Clamping range [inch]		1/8–3/8
	L [inch]		1.22
Gage length A [inch]	ultra short		1.77
Order No.	**E25.025...**		**.16.3**
	L [inch]		1.42
Gage length A [inch]	standard		1.89
Order No.	**E25.020...**		**.16.3**

Accessories

Power Collets

ER 16 (2.0–10.0)

Clamping Ø		02	03	04	05	06	08	10
Order No. 81.163...		**.02**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**

Collets ER  See page 180

Shrink Fit Collets  See page 175

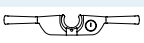
Locknut (fine-balanced)

Size			ER 16
Order No.	**83.914...**		**.16**

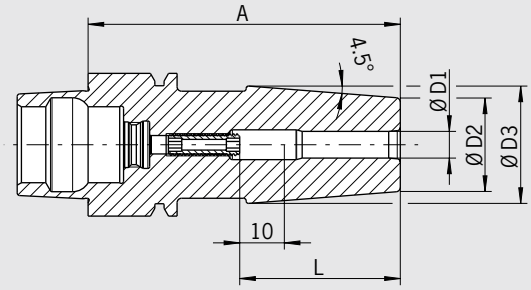
Power Collet clamping wrench

Size			ER 16
Order No.	**84.650...**		**.16**

Torque Master torque wrench

Order No. **84.600.00** 

SHRINK FIT CHUCK
HSK-E32 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

DIN 69893-5
– With threaded holes in order to balance with balancing screws
– Included in delivery: Shrink fit chuck with backup screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6

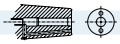
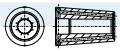
Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge

Standard version, similar to DIN 69882-8

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	3/8
	Ø D2 [inch]	0.39	0.39	0.83	0.94
	L [inch]	0.35	0.59	1.42	1.65
Gage length A [inch]	short 	2.36[1]	2.36[1]	2.76	3.15
Order No.	**E32.140...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10
	Ø D2 [mm]	10	10	10	21	21	24
	Ø D3 [mm]	—	—	—	27	27	32
	L [mm]	09	12	15	36	36	42
Length A [mm]	short 	60[1]	60[1]	60[1]	70[2]	70[2]	80[2]
Order No.	**E32.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**

Accessories

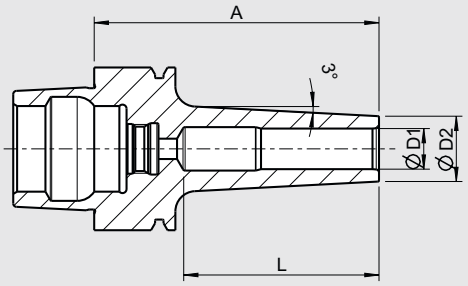
Balance screws			See page 194
Back-up screws			See page 204
Cool Jet bores			See page 213
Cool Flash		**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet		**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool
2) Without threads for balancing screws

MINI SHRINK
HSK-E32 · DIN 69893-5

– It is imperative that the correct adapter be used for both heating and cooling with all "Mini Shrink" chucks in order to prevent overheating of the chuck.

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



– Extremely slim design
– No disturbing edges
– Highest runout accuracy: 3 µm
– Also jobs difficult to access are penetrable
– Optimum rigidity
– Heat resistant hot-working steel
– Hardened 54–2 HRC
– Ideal to shrink with the HAIMER Power Clamp
– For all solid carbide tools with shank tolerance h6
– With 3° slope for dies and molds

– **Standard version:** with high clamping force
– Tool holders fine balanced
– Delivery without coolant tube
Attention: Heating and cooling only with shrink and cooling sleeves (See accessories)

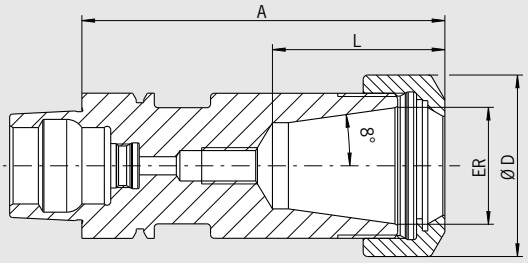
INCH	Clamping Ø D1 [inch]		1/8	3/16	1/4	3/8	1/2
	Ø D2 [inch]		0.35	0.43	0.47	0.63	0.71
Gage length A [inch]	ultra short		2.37	2.37	2.37	2.37	2.37
Order No.	Standard	**E32.185...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**
Gage length A [inch]	short		2.76	2.76	2.76	2.76	2.76
Order No.	Standard	**E32.183...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**

METRIC	Clamping Ø D1 [mm]		03	04	05	06	08	10	12
	Ø D2 Standard [mm]		09	10	11	12	14	16	18
Gage length A [mm]	ultra short		60	60	60	60	60	60	60
Length L [mm]			46	43	43	43	38	42	41,5
Order No.	**E32.185...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Gage length A [mm]	ZG80		80	80	80	80	80	80	80
Length L [mm]			66	63	63	63	38	48	48
Order No.	**E32.183...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**

Mini Shrink shrink and cooling sleeve
– Protect Mini Shrink chucks from overheating
– Extend lifetime of shrink fit chucks
– Secure and user friendly handling
– Cooling with standard cooling body

Fitting sleeves for Mini Shrink chucks							Order No.
Size [mm]		Ø 03	Ø 06	Ø 08	Ø 10	Ø 12	
Order No.	**80.105.14.2...**	**.04**	**.09**	**.10**	**.11**	**.12**	
Base							**80.105.14.2.99**
Set with base (12 pcs)							**80.105.14.2.00**

ER COLLET CHUCK
HSK-E32 · DIN 69893-5

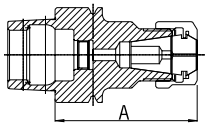


CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in ER collets.

– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces)
– Balanced collet nuts with special slide coating for low friction and higher clamping forces

extra short



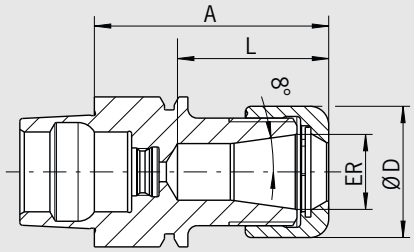
INCH	ER		16	25
	Ø D [inch]		1.1	1.65
	Clamping range [inch]		0.02–0.39	0.04–0.63
	Clamping range [mm]		0.5–10.0	1.0–16.0
L [inch]			1.28	1.61
Gage length A [inch]	short		3.15	3.15
Order No.	**E32.020...**		**.16**	**.25**
L [inch]			1.28	
Gage length A [inch]	long		3.94	
Order No.	**E32.021...**		**.16**	

Accessories See accessories (pg. 169)

Collet nut HS (Highspeed), fine-balanced				
Ø ER			ER16	ER25
Order No.	**83.912...**		**.16.HS**	**.25.HS**
Wrench				
Ø ER			ER16	
Order No.	**84.200...**		**.16**	
Wrench				
Ø ER				ER25
Order No.	**84.200...**			**.25**
Balancing index rings				
Ø ER			ER16	ER25
Order No.	**79.350...**		**.22**	**.32**
Back-up screw				
Ø ER			ER16	ER25
Order No.	**85.800...**		**.34**	**.34**
Coolant Tube				
Ø ER			ER16	ER25
Order No.	**85.700...**		**.32**	**.32**

POWER COLLET CHUCK
HSK-E32 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced or U < 1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.
- High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
- Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
- High rigidity
- Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times, higher machining accuracy, higher clamping forces
- Equally suited to High Speed manufacturing and heavy milling
- Without thread for set screw
- Optional: Cool Jet bores on Power Collets
- Program of Power Collets on pages 186 – 189

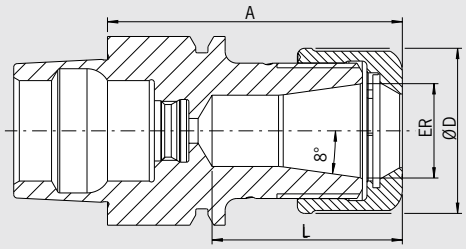
INCH	ER	16	25
	Ø D [inch]	1.1	1.65
	Clamping range [inch]	1/8–3/8	1/8–5/8
	L [inch]	1.26	1.53
Gage length A [inch]	ultra short	1.97	2.36
Order No.	**E32.025...**	**.16.3**	**.25.3**

Accessories

Locknut (fine-balanced)

Size		ER 16	ER 25	
Order No. 83.914...		**.16**	**.25**	
Power Collet Clamping wrench				See page 191
Torque Master torque wrench				See page 190
Order No. 84.600.00				
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				
Shrink Fit Collets				See page 175

HIGH PRECISION COLLET CHUCK
HSK-E32 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: 0.00012" (3 µm) at 3×D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

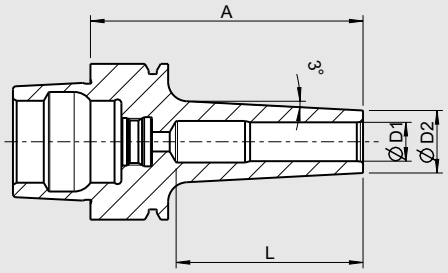
METRIC	ER	16	25
	Ø D [mm]	28	42
	Clamping range [mm]	2.0–10.0	2.0–16.0
	L [mm]	32	39
Length A [mm]	ultra short	50	60
Order No.	**E32.025...**	**.16.3.HP**	**.25.3.HP**

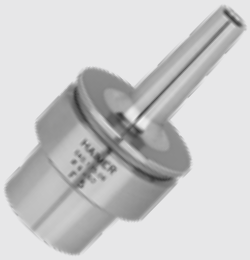
Accessories

High Precision Smooth Locknut (fine-balanced)			See page 192
Size		ER 16	ER 25
Order No. 83.914...		**.16.1**	**.25.1**
Roller bearing wrench			See page 192
Order No. 84.650...		**.16.1**	**.25.1**
Collets ER			See page 180
Shrink Fit Collets			See page 175
Power Collets			See page 186
Power Collets with Safe-Lock			See page 188
Cool Jet bores for Power Collets			See page 189
Order No. 91.100.27			

SHRINK FIT CHUCK
HSK-E40 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN





Use:
Shrink fit chuck suitable for use with all available shrink fit units.

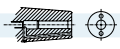
– With threaded holes in order to balance with balancing screws
– Included in delivery: Shrink fit chuck with backup screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	1/2	5/8
	Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	1.06
	Ø D3 [inch]	–	–	1.06	1.06	1.26	1.26	1.34
	L [inch]	0.35	0.59	1.42	1.42	1.65	1.85	1.97
Gage length A [inch]	short 	2.36[1]	2.36[1]	3.15	3.15	3.15	3.54	3.54
Order No.	**E40.140...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.5/16Z**	**.3/8Z**	**.1/2Z**	**.5/8Z**

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34
	Ø D2 [mm] E40.145...	—	—	—	22.5	22.5	26.5	26.5	30	30
	Ø D3 [mm] E40.145...	—	—	—	28.7	28.7	32	32	33	33
	L [mm]	09	12	15	36	36	42	47	47	50
Length A [mm]	ultra short 	—	—	—	60[2]	60[2]	60[3]	60[3]	60[3]	60[3]
Order No.	**E40.145...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**
Length A [mm]	short 	60[1]	60[1]	60[1]	80	80	80	90	90	90
Order No.	**E40.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**

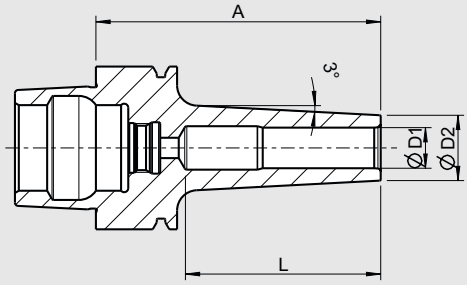
Accessories

Balance screws			See page 194
Back-up screws			See page 204
Cool Jet bores			See page 213
Cool Flash		**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet		**Order No. 91.100.41**	See page 214

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool
2) Without back-up screw, without threads for balancing screws
3) Without back-up screw, without threads for balancing screws, without thread for coolant tube

MINI SHRINK
HSK-E40 · DIN 69893-5

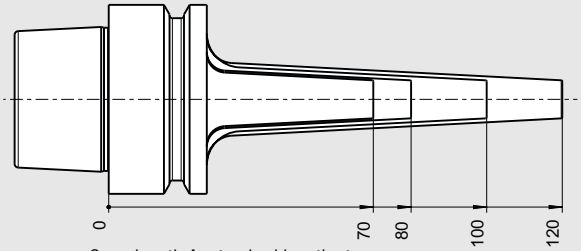
– It is imperative that the correct adapter be used for both heating and cooling with all "Mini Shrink" chucks in order to prevent overheating of the chuck.



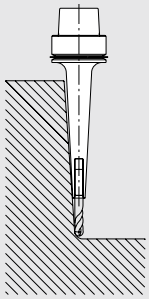
CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

– Extremely slim design
– No disturbing edges
– TIR less than 0.00012" (3 µm)
– Also jobs difficult to access are penetrable
– Optimum rigidity
– Heat resistant hot-working steel
– Hardened 54 – 2 HRC
– Ideal for the HAIMER Power Clamp
– For all solid carbide tools with shank tolerance h6

– With 3° slope for dies and molds
– **Standard version:** with high clamping force
– **Extra slim version:** extremely slim for fine machining and for jobs very difficult to reach
– Tool holders fine balanced
– Delivery without coolant tube
– **Attention:** Heating and cooling only with shrink and cooling sleeves (See accessories)



Gage length A: standard length steps

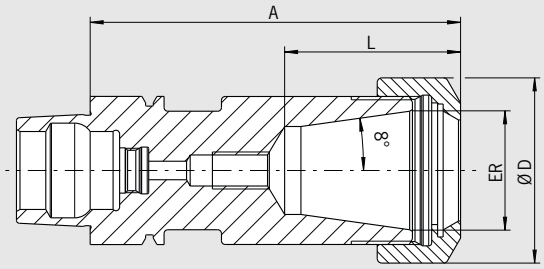


INCH	Clamping Ø D1 [inch]			1/8	3/16	1/4	3/8	1/2
	Ø D2 [inch]			0.35	0.43	0.47	0.63	0.71
Gage length A [inch]	ultra short			2.37	2.37	2.37	2.37	2.37
Order No.	Standard	**E40.185...**		**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**
Gage length A [inch]	short			2.76	2.76	2.76	2.76	2.76
Order No.	Standard	**E40.180...**		**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**

Clamping	Ø D1 [mm]			03	04	05	06	08	10	12
	Ø D2 Standard [mm]			09	10	11	12	14	16	18
	Ø D2 Extra slim [mm]			06	07	08	09	11	13	15
Length A [mm]	ultra short			60	60	60	60	60	60	60
Length L [mm]				—	—	—	41	41	42	41,5
Order No.	Standard	**E40.185...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	Extra slim	**E40.175...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Length A [mm]	short			70	70	70	70	70	70	70
Length L [mm]				—	—	—	51	51	48	48
Order No.	Standard	**E40.180...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	Extra slim	**E40.170...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Length A [mm]	ZG80			80	80	80	80	80	80	80
Length L [mm]				—	—	—	61	61	48	48
Order No.	Standard	**E40.183...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	Extra slim	**E40.173...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**

ER COLLET CHUCK
HSK-E40 · DIN 69893-5

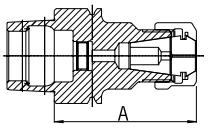
CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For clamping tools with cylindrical shank in ER collets.

– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces)
– Balanced collet nuts with special slide coating for low friction and higher clamping forces

extra short



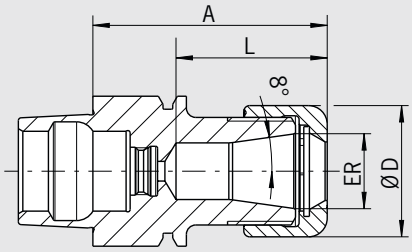
INCH	ER		11	16	25	32
	Ø D [inch]		0.75	1.1	1.65	1.97
	Clamping range [inch]		0.02–0.28	0.02–0.39	0.04–0.63	0.04–0.79
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.0–16.0	1.5–20.0
L [inch]			1.05	1.28	1.61	1.85
Gage length A [inch]	ultra short		2.36	2.36	2.76	2.76
Order No.	**E40.025...**		**.11**[1)]	**.16**[1)]	**.25**[1)]	**.32**[1)]
L [inch]			–	1.30	1.61	–
Gage length A [inch]	short		–	3.15	3.15	–
Order No.	**E40.020...**			**.16**	**.25**	

Accessories See accessories (pg. 169)

Collet nut HS (Highspeed), fine-balanced						
Ø ER				ER16	ER25	ER32
Order No.	**83.912...**			**.16.HS**	**.25.HS**	**.32.HS**
Wrench						
Ø ER			ER11	ER16	–	–
Order No.	**84.200...**		**.11**	**.16**		
Wrench						
Ø ER			–	–	ER25	ER32
Order No.	**84.200...**				**.25**	**.32**
Balancing index rings						
Ø ER			ER11	ER16	ER25	ER32
Order No.	**79.350...**		**.19**	**.28**	**.32**	**.40**
Back-up screw						
Ø ER			–	ER16	ER25	ER32
Order No.	**85.800...**			**.34**	**.34**	**.35**
Coolant Tube						
Ø ER			ER11	ER16	ER25	ER32
Order No.	**85.700...**		**.40**	**.40**	**.40**	**.40**

1) Without thread for back-up screw

POWER COLLET CHUCK
HSK-E40 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Without thread for set screw
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

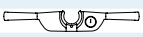
INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.22	1.51	1.85
Gage length A [inch]	ultra short		1.97	2.36	2.76
Order No.	**E40.025...**		**.16.3**	**.25.3**	**.32.3**
	L [inch]		1.69	2.01	2.09
Gage length A [inch]	short		3.15	3.15	3.15
Order No.	**E40.020...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size —  — ER 16 — ER 25 — ER 32
Order No. 83.914... — **.16** — **.25** — **.32**

Power Collet clamping wrench  See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00 

Power Collets See page 186

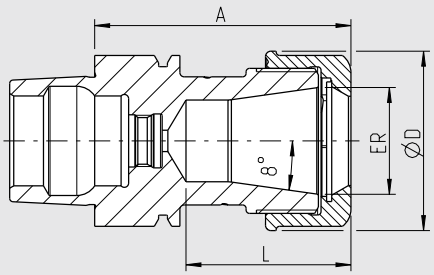
Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets  See page 175

HIGH PRECISION COLLET CHUCK
HSK-E40 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

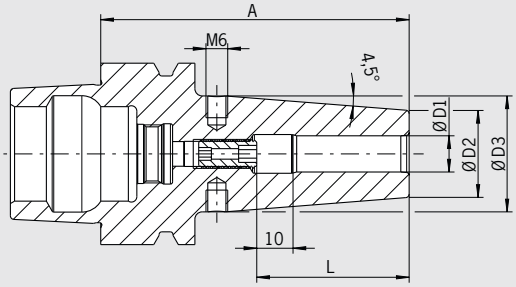
– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	31	38.5	47
Length A [mm]	ultra short	50	60	70
Order No.	**E40.025...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**
	L [mm]	43	51	53
Length A [mm]	short	80	80	80
Order No.	**E40.020...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

SHRINK FIT CHUCK
HSK-E50 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

DIN 69893-5

– Included in delivery: Shrink fit chuck with back-up screw, without coolant tube
– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6

Optional:
– Cooling with Cool Jet for an extra charge (See page 213)
– Cooling with Cool Flash for an extra charge (See pages 214/215)

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8
	Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	0.94	1.06
	Ø D3 [inch]	–	–	1.06	1.06	1.26	1.26	1.26	1.34
	L [inch]	0.35	0.59	1.42	1.42	1.65	1.65	1.85	1.97
Gage length A [inch]	short	2.36[1)]	2.36[1)]	3.15	3.15	3.35	3.35	3.54	3.74
Order No.	**E50.140...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.5/16Z**	**.3/8Z**	**.7/16Z**	**.1/2Z**	**.5/8Z**

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34
	L [mm]	09	12	15	36	36	42	47	47	50
Length A [mm]	short	60[1)]	60[1)]	60[1)]	80	80	85	90	90	95
Order No.	**E50.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**
Length A [mm]	ZG130	—	—	—	130	130	130	130	130	130
Order No.	**E50.144...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**

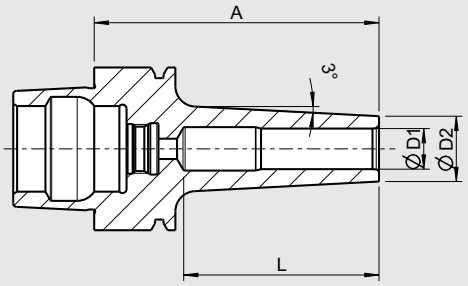
Accessories			See accessories (pg. 169)
Shrink fit extensions			
Set of Balancing Screws			
Coolant tube		**Order No. 85.700.63**	
Reduction sleeves			
Back-up Screws			
Cool Jet bores		**Order No. 91.100.24**	
Cool Flash Upgrade		**Order No. 91.100.41**	See pages 214/215

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool

MINI SHRINK
HSK-E50 · DIN 69893-5

– It is imperative that the correct adapter be used for both heating and cooling with all "Mini Shrink" chucks in order to prevent overheating of the chuck.

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



– Extremely slim design
– No disturbing edges
– TIR less than 0.00012" (3 µm)
– Ideal for the HAIMER Power Clamp
– For all solid carbide tools with shank tolerance h6
– With 3° slope for dies and molds
– With high clamping force
– Tool holders fine balanced
– Delivery without coolant tube

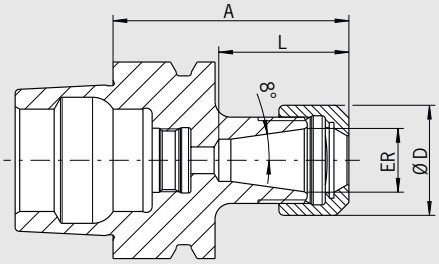
Attention: Heating and cooling only with shrink and cooling sleeves (See accessories)

INCH	Clamping Ø D1 [inch]			1/8	3/16	1/4	3/8	1/2
	Ø D2 standard [inch]			0.35	0.43	0.47	0.63	0.71
	Ø D2 extra slim [inch]			0.24	0.31	0.35	0.51	0.59
Gage length A [inch]	short			2.76	2.76	2.76	2.76	2.76
Order No.	Standard	**E50.180...**		**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**
Order No.	extra slim	**E50.170...**		**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**
Gage length A [inch]	ZG100			3.94	3.94	3.94	3.94	3.94
Order No.	**Standard**	**E50.181...**		–	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**
Order No.	**extra slim**	**E50.171...**		**.1/8Z**	**.3/16Z**	**.1/4Z**	**.3/8Z**	**.1/2Z**

METRIC	Clamping Ø D1 [mm]			03	04	05	06	08	10	12
	Ø D2 Standard [mm]			09	10	11	12	14	16	18
	Ø D2 extra slim [mm]			06	07	08	09	11	13	15
Gage length A [mm]	short			70	70	70	70	70	70	70
Gage length L [mm]				—	—	—	—	—	48	48
Order No.	Standard	**E50.180...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	extra slim	**E50.170...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Gage length A [mm]	ZG80			80	80	80	80	80	80	80
Gage length L [mm]				—	—	—	—	—	48	48
Order No.	Standard	**E50.183...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	extra slim	**E50.173...**		**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**
Gage length A [mm]	ZG100			—	—	100	100	100	100	100
Gage length L [mm]				—	—	—	—	—	48	48
Order No.	Standard	**E50.181...**				**.05**	**.06**	**.08**	**.10**	**.12**
Order No.	extra slim	**E50.171...**				**.05**	**.06**	**.08**	**.10**	**.12**

Fitting sleeves for Mini Shrink chucks									Order No.
Extra slim									
Size [mm]		Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	
Order No.	**80.105.14.2...**	**.01**	**.02**	**.03**	**.04**	**.05**	**.06**	**.07**	
Standard									
Size [mm]		Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	Ø 16
Order No.	**80.105.14.2...**	**.04**	**.08**	**.05**	**.09**	**.10**	**.11**	**.12**	**.16**
Base									**80.105.14.2.99**
Set with base (12 pcs., diameter 3 – 12 mm)									**80.105.14.2.00**

ER COLLET CHUCK
HSK-E50 · DIN 69893-5

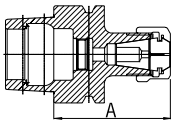


CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in ER collets.

– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces)
– Balanced collet nuts with special slide coating for low friction and higher clamping forces

extrashort



INCH	ER		11	16	20	25	32
	Ø D [inch]		0.75	1.1	1.34	1.65	1.97
	Clamping range [inch]		0.02–0.28	0.02–0.39	0.04–0.51	0.04–0.63	0.04–0.79
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.5–13.0	1.0–16.0	1.5–20.0
L [inch]			1.05	1.28	1.73	1.61	1.85
Gage length A [inch]	ultra short		2.36	2.36	2.76	2.76	3.15
Order No.	**E50.025...**		**.11**[1]	**.16**[1]	**.20**[1]	**.25**[1]	**.32**[1]
L [inch]			–	1.28	–	1.61	1.85
Gage length A [inch]	short		–	3.94	–	3.94	3.94
Order No.	**E50.020...**			**.16**		**.25**	**.32**

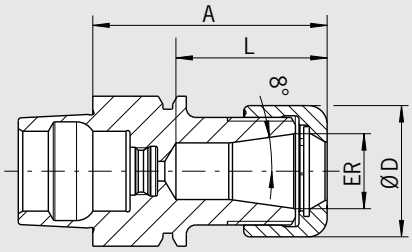
Accessories

Collets ER							See page 180
Shrink Fit Collets							See page 174
Chuck nut HS (fine-balanced)							
Size				ER 16	ER 20	ER 25	ER 32
Order No.	**83.912...**			**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**
Fork wrench							
Size			ER 11	ER 16	ER 20	—	—
Order No.	**84.200...**		**.11**	**.16**	**.20**		
Clamping wrench							
Size				—	—	ER 25	ER 32
Order No.	**84.200...**					**.25**	**.32**
Balancing index rings							
Size	oversize		ER 11	ER 16	ER 20	ER 25	ER 32
Order No.	**79.350...**		**.19**	**.22**	**.34**	**.32**	**.40**
Adjusting screw							
Size				ER 16	—	ER 25	ER 32
Order No.	**85.800...**			**.34**		**.34**	**.35**
Coolant Tube							
Order No.	**85.700.50**						
Shrink fit extensions							See page 170

1) Without thread for back-up screw
2) Suitable balancing index rings Order No. 79.350.28

POWER COLLET CHUCK
HSK-E50 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



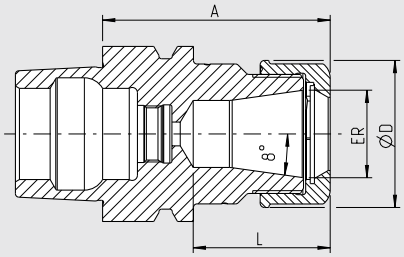
The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool.
The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (formerly DIN 6499) (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, higher clamping forces
– Equally suited to High Speed manufacturing and heavy milling
– Without thread for set screw
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER		16	25	32
	Ø D [inch]		1.1	1.65	1.97
	Clamping range [inch]		1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]		1.26	1.53	1.89
Gage length A [inch]	ultra short		2.36	2.56	2.95
Order No.	**E50.025...**		**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)				
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16**	**.25**	**.32**
Power Collet clamping wrench				See page 191
				
Torque Master torque wrench				See page 190
Order No. 84.600.00				
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				
Shrink Fit Collets				See page 175

HIGH PRECISION COLLET CHUCK
HSK-E50 · DIN 69893-5



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools. The chuck is especially suitable for micro and fine machining (e.g. in the medical or watchmaking industry).

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3×D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

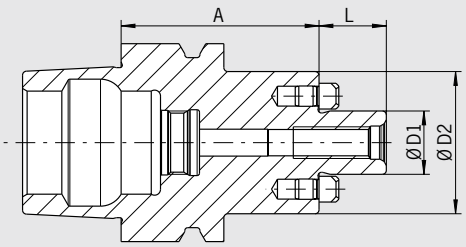
METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	32	39	48
Length A [mm]	ultra short	60	65	75
Order No.	**E50.025...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

Accessories

High Precision Smooth Locknut (fine-balanced)				See page 192
Size		ER 16	ER 25	ER 32
Order No. 83.914...		**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench				See page 192
Order No. 84.650...		**.16.1**	**.25.1**	**.32.1**
Collets ER				See page 180
Shrink Fit Collets				See page 175
Power Collets				See page 186
Power Collets with Safe-Lock				See page 188
Cool Jet bores for Power Collets				See page 189
Order No. 91.100.27				

FACE MILL ARBOR
HSK-E50 · DIN 69893-5

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 1/min or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880 and exceeding clamping diameter 40 clamping according to DIN 2079 is possible, too (4 additional tapping holes).

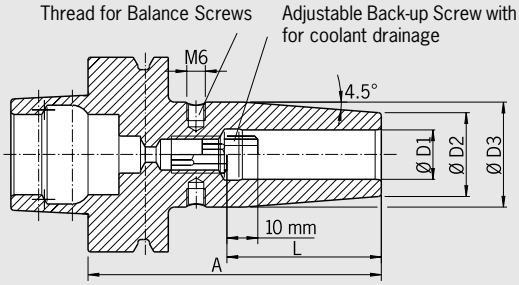
DIN 69882-3

– Included in delivery: tightening bolt, without coolant tube
– With coolant exit bores on the end face for milling cutters with central cooling

METRIC	Clamping Ø D1 [mm]		16	22	27	32
	Ø D2 [mm]		36	48	60	78
	L [mm]		17	19	21	24
Length A [mm]	short		50	60	60	60
Order No.	**E50.050...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**
Length A [mm]	long		100	100	100	100
Order No.	**E50.051...**		**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**
Length A [mm]	oversize		—	160	—	—
Order No.	**E50.052...**			**.22.KKB**		

Accessories						
Tightening bolt						
Size D1			16	22	27	32
Order No.	**85.300...**		**.16**	**.22**	**.27**	**.32**
Wrench						
Size D1			16	22	27	32
Order No.	**84.400...**		**.16**	**.22**	**.27**	**.32**
Balancing index rings						
Size D1			16	22	27	32
Order No.	**79.350...**		**.36**	**.48**	**.60**	**.78**

SHRINK FIT CHUCK
HSK-F63 · DIN 69893-6



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

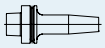
Use:
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With threaded holes for balancing screws

– Included in delivery: Shrink fit chuck with back-up screw
– Cool Jet option available upon request (See page 180)

INCH	Clamping Ø D1 [inch]	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
	Ø D2 [inch]	0.39	0.39	0.83	0.83	0.94	0.94	1.06	1.3	1.73
	Ø D3 [inch]	–	–	1.06	1.06	1.26	1.26	1.34	1.65	2.09
	L [inch]	0.35	0.59	1.42	1.42	1.65	1.85	1.97	2.05	.28
Gage length A [inch]	short 	3.15[1]	3.15[1]	3.15	3.15	3.35	3.54	3.74	3.94	4.53
Order No.	**F63.140...**	**.1/8Z**	**.3/16Z**	**.1/4Z**	**.5/16Z**	**.3/8Z**	**.1/2Z**	**.5/8Z**	**.3/4Z**	**.1Z**

Standard version, similar to DIN 69882-8

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	16	20	25
	Ø D2 [mm]	10	10	10	21	21	24	24	27	33	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	42	53
	L [mm]	09	12	15	36	36	42	47	50	52	58
Length A [mm]	short 	80[1]	80[1]	80[1]	80	80	85	90	95	100	115
Order No.	**F63.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.16**	**.20**	**.25**
Length A [mm]	ZG130 	—	—	—	130	130	130	130	130	130	130
Order No.	**F63.144...**				**.06**	**.08**	**.10**	**.12**	**.16**	**.20**	**.25**

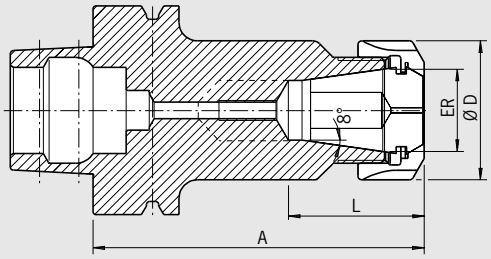
Accessories

Shrink fit extensions		See page 170
Balance screws		See page 194
Back-up screws		See page 204

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for coolant around the tool

ER COLLET CHUCK
HSK-F63 · DIN 69893-6

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



Use:
For clamping tools with cylindrical shank in ER collets according to ISO 15488.

DIN 69882-6

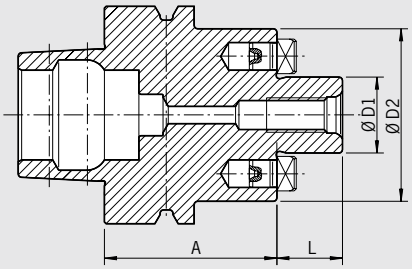
– Included in delivery: locknut (balanced, with slide coating for higher clamping forces)
– Locknut type HS (High Speed, fine balanced, with slide coating for higher clamping forces) for an extra charge

INCH	ER		ER11	ER16	ER20	ER25	ER32	ER40
	ØD [inch]		0.75	1.1	1.34	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.28	0.02–0.39	0.06–0.51	0.04–0.63	0.06–0.79	0.10–1.02
	Clamping range [mm]		0.5–7.0	0.5–10.0	1.5–13.0	1.0–16.0	1.5–20.0	2.5–26.0
L [inch]			1.93	1.93	1.93	1.89	1.98	209
Gage length A [inch]	ultra short		2.95	2.95	2.95	2.95	2.95	2.95
Order No.	**F63.025...**		**.11**	**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			0.91	1.28	1.51	1.61	1.85	.09
Gage length A [inch]	short		3.94	3.94	3.94	3.94	3.94	4.72
Order No.	**F63.020...**		**.11**	**.16**	**.20**	**.25**	**.32**	**.40**

Accessories

Collets ER								See page 180
Shrink Fit Collets								See page 174
Locknut (pre-balanced)								
Size			ER 11	ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**83.912...**		**.11**	**.16**	**.20**	**.25**	**.32**	**.40**
Chuck nut HS (fine-balanced)								
Size			—	ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**83.912...**			**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Balancing index rings								
Size	short/oversize		ER 11	ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**79.350...**		**.19**	**.28**	**.34**	**.42**	**.48**	**.50**
Adjusting screw								
Size			—	ER 16	ER 20	ER 25	ER 32	ER 40
Order No.	**85.800...**			**.34**	**.34**	**.34**	**.35**	**.35**

FACE MILL ARBOR
HSK-F63 · DIN 69893



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Use:
For holding face mill cutters and cutters with radial driving slot DIN 1880 and exceeding clamping diameter 40 according to DIN 2079 is also possible (4 additional tapped holes).
With coolant exit bores on the end face for milling cutters with central cooling.

DIN 69882
– Included in delivery: tightening bolt, without coolant tube

METRIC	Clamping Ø D1 [mm]		22	27
	Ø D2 [mm]		48	60
	L [mm]		19	21
Gage length A [mm]	short		50	60
Order No.	**F63.050...**		**.22.KKB**	**.27.KKB**

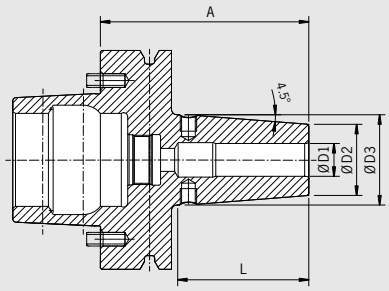
Accessories

Tightening bolt					See page 191
Size D1			22	27	
Order No.	**85.300...**		**.22**	**.27**	
Wrench					See page 191
Size D1			22	27	
Order No.	**84.400...**		**.22**	**.27**	
Balancing index rings					See page 194
Size D1			22	27	
Order No.	**79.350...**		**.48**	**.60**	

SHRINK FIT CHUCK
HSK-F80M
INCH

CERTIFICATE OF QUALITY

- ☑ Chuck fine balanced G2.5 33,000 rpm or U< 1 gmm
- ☑ Balanceable via screws M6
- ☑ All functional surfaces fine machined
- ☑ With thread for coolant tube



The HAIMER HSK-F80 Makino Shrink fit Chucks provide the highest machining capacity in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects machine, spindle and tool.

- All pre-balanced to G2.5@33,000 rpm or U < 1 gmm
- All standard balanceable via set screws
- Short gage length per machine builders recommendation
- Dampen vibrations, high clamping force
- Equally suited to High Speed manufacturing and heavy milling
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times
- Quieter running, therefore better surface quality and protection of cutting tools, machine spindles and machines
- Higher machining accuracy
- Heat resistant hot-working steel
- Hardened 54-2 HRC
- For HSS and solid carbide tools
- Shank tolerance h6
- With thread for coolant tube
- Cooling with Cool Jet for an extra charge
- Cooling with Cool Flash for an extra charge

Standard Version

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	1 1/4
	Ø D2 [inch]	0.826	0.826	1.003	1.023	1.023	1.141	1.397	1.83	1.772
	Ø D3 [inch]	1.063	1.063	1.220	1.260	1.300	1.417	1.614	2.047	2.087
	L [inch]	1.417	1.417	1.693	1.693	1.890	2.008	2.008	1.930	2.560
Gage length A [inch]	ultra short	3	3	3	3	3	3	3	3	3.5
Order No.	**F80M.145...**	**.1/4z**[1]	**.5/16z**[1]	**.3/8z**	**.7/16z**	**.1/2z**	**.5/8z**	**.3/4z**	**.1z**	**.11/4z**

Extra ultra short Version

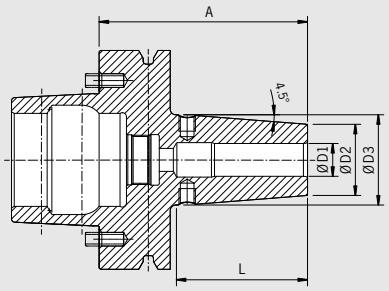
INCH	Clamping Ø D1 [inch]	3/4	1
	Ø D2 [inch]	1.398	1.811
	Ø D3 [inch]	—	—
	L [inch]	1.713	1.850
Gage length A [inch]	extra ultra short	2.75	2.75
Order No.	**F80M.145...**	**.3/4z.5.i**	**.1z.5.i**
Suitable Cooling adapter	**80.105...**	**.16.0045**	**.18.0011**

Accessories

Shrink fit extensions		See page 170
Pull studs		See page 196
Reduction sleeves		See page 199
Back-up screws		See page 204
Set of balancing screws	**Order No. 80.203.00**	See page 194
Cool Flash	**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet	**Order No. 91.100.41**	See page 214

1) With back-up screw

SHRINK FIT CHUCK
HSK-F80M
METRIC



CERTIFICATE OF QUALITY

- ☑ Chuck fine balanced G2.5 33,000 rpm or U< 1gmm
- ☑ Balanceable via screws M6
- ☑ All functional surfaces fine machined
- ☑ With thread for coolant tube

The HAIMER HSK-F80 Makino Shrink fit Chucks provide the highest machining capacity in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects machine, spindle and tool.

– All pre-balanced to G2.5@33,000 RPM or U < 1gmm
– All standard balanceable via set screws
– Short gage length per machine builders recommendation
– Dampen vibrations, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times
– Quieter running, therefore better surface quality and protection of cutting tools, machine spindles and machines
– Higher machining accuracy

Use:
Shrink fit chuck suitable for use with all available shrink fit units.

– Heat resistant hot-working steel
– Hardened 54-2 HRC
– For HSS and solid carbide tools
– Shank tolerance h6
– With thread for coolant tube
– Safe-Lock pull-out protection for an extra charge
– Cooling with Cool Jet for an extra charge
– Cooling with Cool Flash for an extra charge

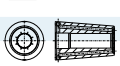
Standard Version

METRIC	Clamping Ø D1 [mm]		6	8	10	12	14	16	20	25
	Ø D2 [mm]		21	21	26	26	29	29	35.5	46.5
	Ø D3 [mm]		27	27	32	33	36	36	41	52
	L [mm]		36	36	43	48	48	51	50.5	49
Length A [mm]	ultra short		76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
Order No.	**F80M.145...**		**.06**[1]	**.08**[1]	**.10**	**.12**	**.14**	**.16**	**.20**	**.25**

Extra ultra short Version

METRIC	Clamping Ø D1 [mm]		6	8	10	12	16	20	25
	Ø D2 [mm]		22	22	26.5	26.5	29.5	35.5	46
	Ø D3 [mm]		—	—	—	—	—	—	—
	L [mm]		38	38	43	36	44.5	43.5	47
Length A [mm]	extra ultra short		70	70	70	70	70	70	70
Order No.	**F80M.145...**		**06.5**	**08.5**	**10.5**	**12.5**	**16.5**	**.20.5**	**.25.5**
Suitable Cooling adapter	**80.105...**		—	—	—	—	—	**.16.0045**	**.18.0011**

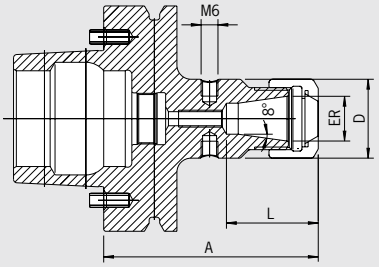
Accessories

Shrink fit extensions			See page 170
Pull studs			See page 196
Reduction sleeves			See page 199
Back-up screws			See page 204
Set of balancing screws		**Order No. 80.203.00**	See page 194
Cool Flash		**Order No. 91.100.40**	See page 214
Cool Flash Upgrade incl. Cool Jet		**Order No. 91.100.41**	See page 214

1) With back-up screw

ER COLLET CHUCK
HSK-F80M

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 33,000 rpm or U< 1gmm
- ☑ Balanceable via screws M6
- ☑ All functional surfaces fine machined
- ☑ With thread for coolant tube



The HAIMER HSK-F80 Makino ER collet chucks provide a universal clamping solution for High Speed manufacturing. The optimized design combines a highly accurate universal clamping system for cutting tools.

– All pre-balanced to G2.5@33,000 RPM or U < 1 gmm
– All standard balanceable via screws
– Short gage length per machine builders recommendation
– Balanced nuts with special slide coating for low friction and high clamping forces
– Great for drilling
– Good clamping force
– Higher machining accuracy

Use:
For clamping tools with cylindrical shank in collets according to ISO 15488.

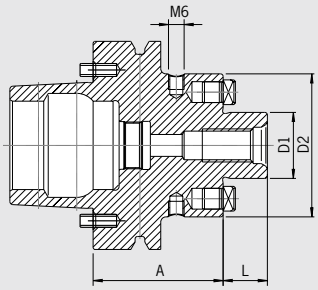
– Included in delivery: Locknut (balanced, with slide coating for higher clamping forces)
– Locknut type HS (High Speed, fine-balanced, with slide coating for higher clamping forces) available for an extra charge
– With threaded holes for balancing screws

INCH	ER	11	16	20	25	32	40
	Clamping range [inch]	**0.02–0.276**	**0.02–0.394**	**0.059–0.512**	**0.039–0.63**	**0.02–0.787**	**0.098–1.024**
	Ø D [inch]	**1.062**	**1.102**	**1.574**	**1.653**	**1.968**	**2.483**
	L [inch]	**1.043**	**1.279**	**1.515**	**1.889**	**1.850**	**2.086**
Gage length A [inch]	ultra short	3	3	3	3	3	3
Order No.	**F80M.025...**	**.11**	**.16**	**.20**	**.25**	**.32**	**.40**

Accessories

Collets ER							See page 180
Shrink Fit Collets							See page 174
Locknut (pre-balanced)							
Size		ER11	ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**	**.11**	**.16**	**.20**	**.25**	**.32**	**.40**
Chuck nut HS (fine-balanced)							
Size		ER11	ER16	ER20	ER25	ER32	ER40
Order No.	**83.912...**	**.11.HS**	**.16.HS**	**.20.HS**	**.25.HS**	**.32.HS**	**.40.HS**
Set of balancing screws							See page 194
Order No. 80.203.00							

FACE-MILL ARBOR
HSK-F80 MAKINO



CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 33,000 rpm
- ☑ Balanceable via screws M6
- ☑ Integrated thread for coolant tube

The HAIMER HSK-F80 Makino Face-mill arbors provide a solid base for face-mill cutters for High Speed manufacturing. The optimized design combines a highly accurate universal clamping system for cutting tools.

– All pre-balanced to G2.5@33,000 RPM
– All standard as a balanceable for fine tune balancing capability
– Short gage length per machine builders recommendation
– Higher machining accuracy due to proper construction

Use:
For holding face-mill cutters and milling cutters with radial driving slot DIN 1880

– Included in delivery: Tightening bolt, without coolant tube
– Coolant bores on front side available for an extra charge
– With threaded holes for balancing screws

INCH	Clamping Ø D1 [inch]	3/4	1
	Ø D2 [inch]	1.710	2.165
	L [inch]	0.669	0.669
Gage length A [inch]	ultra short 	1.968	1.968
Order No.	**F80M.050...**	**.3/4z**	**.1z**
Gage length A [inch]	short 	3.937	3.937
Order No.	**F80M.051...**	**.3/4z**	**.1z**

Accessories			
Tightening bolt			
Ø D1 [inch]		3/4	1
Order No.	**85.300...**	**.3/4z**	**.1z**
Coolant bores			
Order No	**91.100.03**		
Set of Balancing Screws			See page 194
Order No.	**80.203.00**		

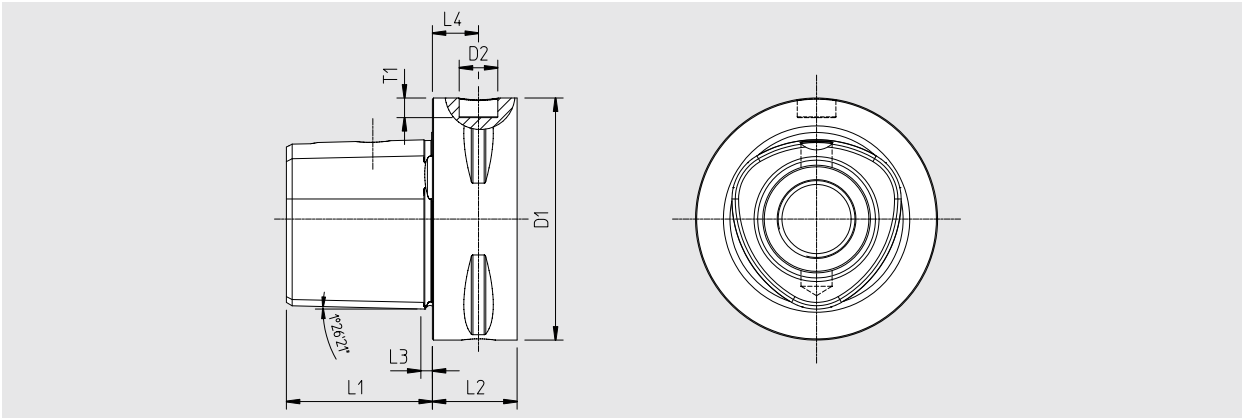
ISO 26623
PSC 63

POLYGON SHANK COUPLING PSC 63
ISO 26623

Compared to steep tapers, PSC has the following advantages:

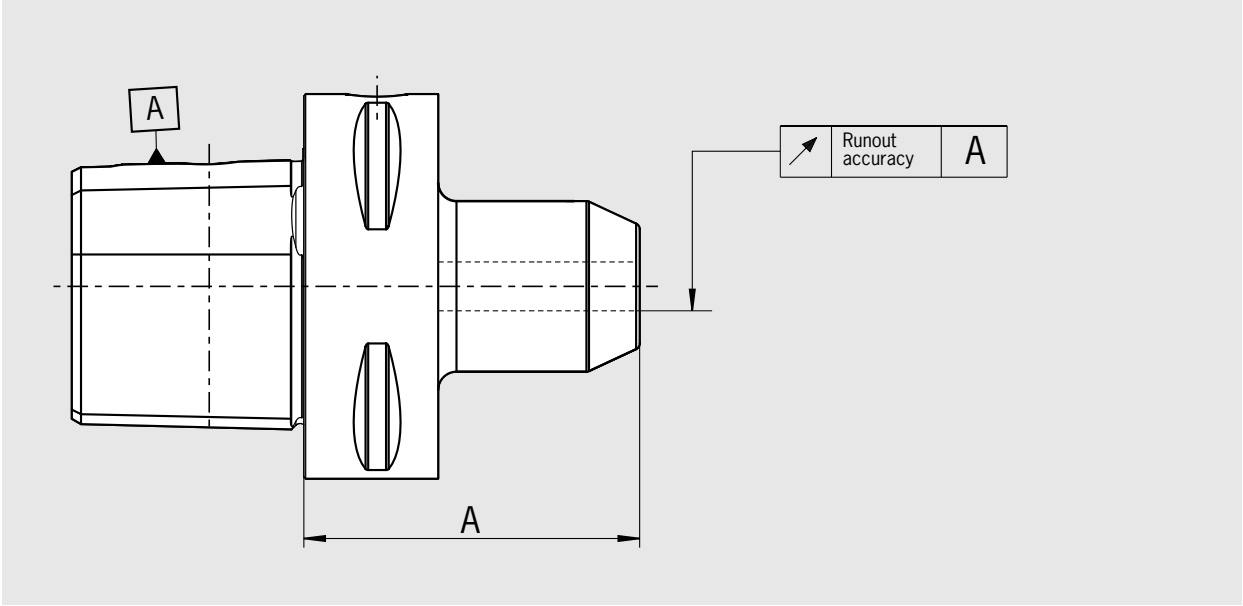
– High repetition accuracy when clamping tools into spindle
– Fix axial positioning by flat contact surface
– Suitable for high speed cutting
– No pull stud necessary
– Interface with a unique tapered polygon and flange location face
– Exact positioning in the circumferential direction
– Highest runout accuracy, torque and rigidity
– Innovative modular tool system with highest precision
– Suitable for both turning and milling centers
– Incl. bore for data chip Ø 10 mm

Material:
– Special case-hardening steel for highly stressed parts
– Surface hardness: 60–2 HRC
– **Tensile strength in core min. 950 N/mm²**



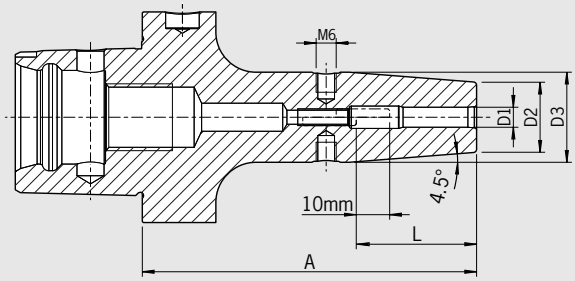
Length [mm]	D1	D2	L1	L2	L3	L4	T1
PSC 63	63	10	38	22	3	12	5

RUNOUT ACCURACY
ISO 26623



Gage length A [mm]	A < 160	A ≥ 160
max. runout tolerance in mm		
Shrink fit chuck	0.003	0.004
Collet chuck ER	0.003	0.004
Power Collet Chuck	0.003	0.004
High Precision Collet Chuck	0.003	0.003
Weldon tool holder	0.003	0.004
Face mill arbor	0.006	0.006

SHRINK FIT CHUCK
PSC 63 · ISO 26623-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

Shrink fit chuck suitable for use with all available shrink fit units.
– Interface with a unique tapered polygon and flange location face
– Exact positioning in the spindle
– Highest runout accuracy, torque and rigidity
– Innovative modular tool system with highest precision
– Suitable for both turning and milling centers
– With threaded holes for balancing screws
– Inch sizes with Cool Jet, metric sizes without Cool Jet (optional available)

Optional:
– Metric sizes: Cooling with Cool Jet for an extra charge
– Cooling with Cool Flash for an extra charge

ISO 26623
– Delivery: With back-up screw

INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/4
	Ø D2 [inch]	0.83	0.83	0.94	0.94	0.94	1.06	1.30	1.30	1.73	1.73
	Ø D3 [inch]	1.06	1.06	1.26	1.26	1.26	1.34	1.65	1.65	2.09	2.09
	L [inch]	1.42	1.42	1.65	1.65	1.85	1.97	2.05	2.05	2.28	2.28
Gage length A [inch]	short	3.15	—	3.15	—	3.15	3.35	3.35	—	3.54	—
Order No.	**CC6.140...**	**.1/4Z.4**		**.3/8Z.4**		**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**		**.1Z.4**	
Gage length A [inch]	long	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	—	—
Order No.	**CC6.141...**	**.1/4Z.4**	**.5/16Z.4**	**.3/8Z.4**	**.7/16Z.4**	**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**	**.7/8Z.4**		
Gage length A [inch]	ZG130	5.12	—	5.12	—	5.12	5.12	5.12	—	5.12	5.12
Order No.	**CC6.144...**	**.1/4Z.4**		**.3/8Z.4**		**.1/2Z.4**	**.5/8Z.4**	**.3/4Z.4**		**.1Z.4**	**.11/4Z.4**

METRIC	Clamping Ø D1 [mm]	03	04	05	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm]	10	10	10	21	21	24	24	27	27	33	33	44	44
	Ø D3 [mm]	—	—	—	27	27	32	32	34	34	42	42	53	53
	L [mm]	09	12	15	36	36	42	47	47	50	50	52	58	58
Gage length A [mm]	short	80[1)]	80[1)]	80[1)]	80	80	80	80	85	85	85	85	90	95
Order No.	**CC6.140...**	**.03**	**.04**	**.05**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	long	—	—	—	100	100	100	100	100	100	100	100	—	—
Order No.	**CC6.141...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**		
Gage length A [mm]	ZG130	—	—	—	130	130	130	130	130	130	130	130	130	130
Order No.	**CC6.144...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Gage length A [mm]	oversize	—	—	—	160	160	160	160	160	160	160	160	160	160
Order No.	**CC6.142...**				**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**

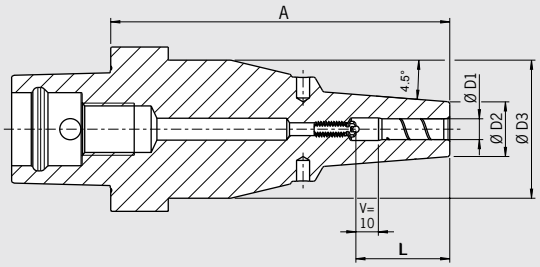
Accessories

Cool Flash	**Order No. 91.100.40**		See page 182

1) Without back-up screw, without threads for balancing screws, with slits along the clamping bore for cooling from outside

POWER SHRINK CHUCK
PSC 63 · ISO 26623-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Shrink Chuck is designed for the highest cutting performance in High Speed manufacturing. The optimized design combines high rigidity with vibration dampening, which protects the machine, spindle and tool.
- Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
- Shorter cycle times, higher machining accuracy
- Quieter running, therefore better surface quality and protection of tools, spindles and machines
- With threaded holes for balancing screws
- Cool Jet bores that can be sealed included
- Cooling with Cool Flash for an extra charge

The long versions (A=130) with slim tips are especially versatile to use.
- High rigidity, slim at the tip, dampen vibrations
- High clamping force
- Equally suited to High Speed manufacturing and heavy milling
- Universal usage, saves space in tool magazine

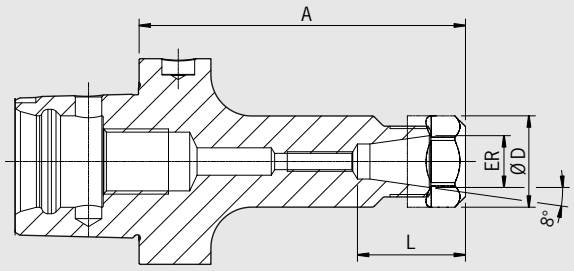
INCH	Clamping Ø D1 [inch]	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/4
	Ø D2 [inch] ultra short	0.87	0.87	1.04	1.04	1.04	1.16	1.40	1.40	1.77	1.77
	Ø D3 [inch] ultra short	—	—	—	—	—	—	—	—	—	—
	L [inch] ultra short	1.50	1.50	1.69	1.81	1.81	2.00	2.09	2.09	2.36	2.56
Gage length A [inch]	ultra short	2.56	2.56	2.56	2.56	2.56	2.76	2.76	2.76	3.15	3.15
Order No.	**CC6.145...**	**.1/4Z.3**	**.5/16Z.3**	**.3/8Z.3**	**.7/16Z.3**	**.1/2Z.3**	**.5/8Z.3**	**.3/4Z.3**	**.7/8Z.3**	**.1Z.3**	**.11/4Z.3**
Safe-Lock Order No.	**CC6.145...**	—	—	—	—	**.1/2Z.37**	**.5/8Z.37**	**.3/4Z.37**	—	—	—
	Ø D2 [inch] ZG130	0.83		0.94		0.94	1.06	1.30			
	Ø D3 [inch] ZG130	2.09		2.09		2.09	2.09	2.09			
	L [inch] ZG130	1.42		1.65		1.65	1.97	1.97			
Gage length A [inch]	ZG130	5.12		5.12		5.12	5.12	5.12			
Order No.	**CC6.144...**	**.1/4Z.3**		**.3/8Z.3**		**.1/2Z.3**	—	—			
Safe-Lock Order No.	**CC6.144...**	**.1/4Z.37**		**.3/8Z.37**		**.1/2Z.37**	**.5/8Z.37**	**.3/4Z.37**			

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32
	Ø D2 [mm] ultra short	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45	45
	Ø D3 [mm] ultra short	—	—	—	—	—	—	—	—	—	—
	L [mm] ultra short	38	38	43	46	48	51	51	53	60	65
Gage Length A [mm]	ultra short	65	65	65	65	70	70	70	70	80	80
Order No.	**CC6.145...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**	**.14.3**	**.16.3**	**.18.3**	**.20.3**	**.25.3**	**.32.3**
Safe-Lock Order No.	**CC6.145...**	—	—	—	**.12.37**	—	**.16.37**	—	**.20.37**	—	—
	Ø D2 [mm] ZG130	21	21	24	24		27		33		
	Ø D3 [mm] ZG130	53	53	53	53		53		53		
	L [mm] ZG130	36	36	42	47		50		52		
Gage Length A [mm]	ZG130	130	130	130	130		130		130		
Order No.	**CC6.144...**	**.06.3**	**.08.3**	**.10.3**	**.12.3**		**.16.3**		**.20.3**		
Safe-Lock Order No.	**CC6.144...**	—	—	**.10.37**	**.12.37**		**.16.37**		**.20.37**		

Accessories

Cool Flash **Order No. 91.100.40** See page 182

COLLET CHUCK ER
PSC 63 · ISO 26623



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U<1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN

Use:
For clamping tools with cylindrical shank in collets according to ISO 15488 (formerly DIN 6499). Available from ER 16 to 40.

ISO 26623
– Included in delivery: With locknut (balanced, with slide coating for higher clamping forces)
– In four different lengths available, additionally Mini-ER 11 and Mini-ER 16 in two lengths

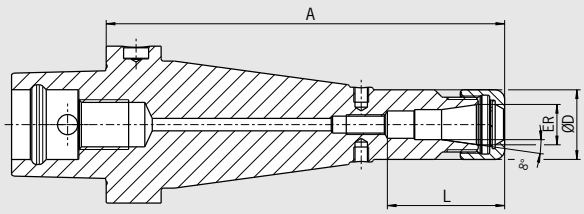
INCH	ER		16	20	25	32	40
	Ø D [inch]		1.1	1.34	1.65	1.97	2.48
	Clamping range [inch]		0.02–0.39	0.06–0.51	0.04–0.63	0.06–0.79	0.98–1.02
L [inch]			2)	2)	1.91	1.87	2.11
Gage length A [inch]	ultra short		2.36	2.36	2.36	2.36	2.56
Order No.	**CC6.025...**		**.16**[1)]	**.20**[1)]	**.25**[1)]	**.32**[1)]	**.40**[1)]
L [inch]			1.30	1.54	1.63	1.87	2.11
Gage length A [inch]	long		3.94	3.94	3.94	3.94	3.94
Order No.	**CC6.021...**		**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			1.30	1.54	1.63	1.87	2.11
Gage length A [inch]	ZG130		5.12	5.12	5.12	5.12	5.12
Order No.	**CC6.024...**		**.16**	**.20**	**.25**	**.32**	**.40**
L [inch]			1.30	1.54	1.63	1.87	2.11
Gage length A [inch]	oversize		6.30	6.30	6.30	6.30	6.30
Order No.	**CC6.022...**		**.16**	**.20**	**.25**	**.32**	**.40**

INCH	Collet Chuck Mini-ER		11	16
	Ø D1 [inch]		0.63	0.87
	L [inch]		1.00	1.56
Gage length A [inch]	long		3.94	3.94
Order No.	**CC6.021...**		**.11.7**[1)]	**.16.7**[1)]
Gage length A [inch]	oversize		6.30	6.30
Order No.	**CC6.022...**		**.11.7**[1)]	**.16.7**[1)]

1) Without thread for back-up screw

POWER COLLET CHUCK
PSC 63 · ISO 26623-1

CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN



The Power Collet Chuck is designed for the highest machining capacity in High Speed manufacturing. The optimized design with improved construction combines high rigidity with vibration dampening features, giving more protection to the machine, spindle and tool. The universal Power Collet Chuck is a unique high performance chuck that can also be used with standard collets.

– TIR less than 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Runs smoother thanks to vibration absorbing geometry, yielding better surface finish and increased tool, spindle and machine protection
– Highest cutting performance with higher spindle speeds, higher feeds and larger cutting depths
– Shorter cycle times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes for balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

INCH	ER	16	25	32
	Ø D [inch]	1.1	1.65	1.97
	Clamping range [inch]	1/8–3/8	1/8–5/8	1/8–3/4
	L [inch]	1.69	2.01	2.09
Gage length A [inch]	oversize	6.30[1)]	6.30[1)]	6.30[1)]
Order No.	**CC6.024...**	**.16.3**	**.25.3**	**.32.3**

Accessories

Locknut (fine-balanced)

Size	ER 16	ER 25	ER 32
Order No. 83.914...	**.16**	**.25**	**.32**

Power Collet clamping wrench See page 191

Torque Master torque wrench See page 190
Order No. 84.600.00

Power Collets See page 186

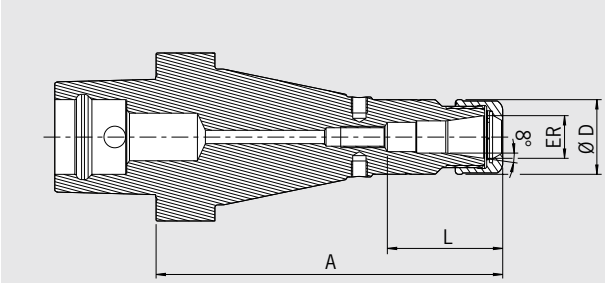
Power Collets with Safe-Lock See page 188

Cool Jet bores for Power Collets See page 189
Order No. 91.100.27

Shrink Fit Collets See page 175

1) With back-up screw

HIGH PRECISION COLLET CHUCK
PSC 63 · ISO 26623-1



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 30,000 rpm or U < 1 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

The High Precision Collet Chuck is the collet chuck for highest metal removal rates in High Speed cutting. The optimized design with better construction and a special coated smooth locknut combines high rigidity with vibration dampening and noise-reducing features, giving more protection to machines, spindles and tools.

– With a specially coated smooth locknut, balanced at < 1 gmm
– High runout accuracy: < 0.00012" (3 µm) at 3 × D with HAIMER Power Collets
– Also for standard collets ER according to ISO 15488 (Attention: By using standard collet ER length A will increase)
– High rigidity
– Smoother running thanks to vibration absorbing geometry, therefore better surface quality and protection of tools, spindles and machines
– Increased machining capacity due to higher spindle speeds, higher feed rates and larger cutting depths
– Shorter processing times, higher machining accuracy, high clamping force
– Equally suited to High Speed manufacturing and heavy milling
– With threaded holes in order to balance with balancing screws
– Optional: Cool Jet bores on Power Collets
– Program of Power Collets on pages 186 – 189

METRIC	ER	16	25	32
	Ø D [mm]	28	42	50
	Clamping range [mm]	2.0–10.0	2.0–16.0	2.0–20.0
	L [mm]	43	51	53
Length A [mm]	oversize	130[1)]	130[1)]	130[1)]
Order No.	**CC6.024...**	**.16.3.HP**	**.25.3.HP**	**.32.3.HP**

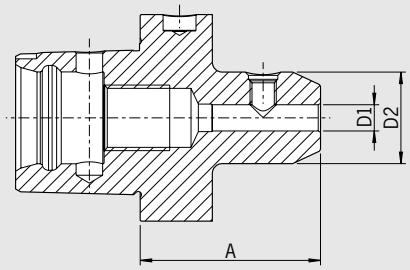
Accessories

High Precision Smooth Locknut (fine-balanced)			See page 192
Size	ER 16	ER 25	ER 32
Order No. 83.914...	**.16.1**	**.25.1**	**.32.1**
Roller bearing wrench			See page 192
Order No. 84.650...	**.16.1**	**.25.1**	**.32.1**
Collets ER			See page 180
Shrink Fit Collets			See page 175
Power Collets			See page 186
Power Collets with Safe-Lock			See page 188
Cool Jet bores for Power Collets			See page 189
Order No. 91.100.27			

1) With back-up screw

WELDON TOOL HOLDER
PSC 63 · ISO 26623

CERTIFICATE OF QUALITY
- ☑ Chuck fine balanced G2.5 25,000 rpm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN



Use:
For clamping cutters with cylindrical shanks and Weldon flats according to DIN 1835-B and DIN 6935-HB.
From Ø 6 to Ø 40 mm.
– Interface with a unique tapered polygon and flange location face
– Exact positioning in the spindle
– Highest runout accuracy, torque and rigidity
– Innovative modular tool system with highest precision
– Suitable for both turning and milling centers

ISO 26623

– Included in delivery: with clamping screw

METRIC	Clamping Ø D1 [mm]	06	08	10	12	14	16	18	20	25	32	40
	Ø D2 [mm]	25	28	35	42	44	48	50	52	64	72	80
Gage length A [mm]	short	55	55	60	60	60	65	65	65	80	90	100
Order No.	**CC6.000...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**	**.40**

Accessories

Clamping screw

		06	08	10	12	14	16	18	20	25	32	40
Clamping Ø												
Order No.	**85.100...**	**.06**	**.08**	**.10**	**.12**	**.12**	**.14**	**.14**	**.16**	**.18**	**.20**	**.25**

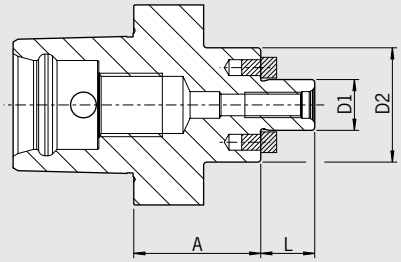
Balancing index rings

		06	08	10	12	14	16	18	20	25	32	40
Clamping Ø	long/oversize											
Order No.	**79.350...**	**.25**	**.28**	**.35**	**.42**	**.44**	**.48**	**.50**	**.52**	**.64**	**.72**	**.80**

Cool Jet bores from Ø 6 mm – Ø 20 mm See page 213
Order No. 91.100.24

Cool Jet bores from Ø 25 mm – Ø 32 mm See page 213
Order No. 91.100.26

FACE MILL ARBOR
PSC 63 · ISO 26623



CERTIFICATE OF QUALITY
- ☑ Chuck body fine balanced G2.5 25,000 rpm or U< 1 gmm
- ☑ All functional surfaces machined
- ☑ More accurate than DIN

Use:
For clamping face mill cutters and cutters with radial driving slot DIN 1880.
– Interface with a unique tapered polygon and flange location face
– Exact positioning in the spindle
– Highest runout accuracy, torque and rigidity
– Innovative modular tool system with highest precision
– Suitable for both turning and milling centers

ISO 26623

– Included in delivery: tightening bolt
– With coolant exit bores on the end face for milling cutters with central cooling

METRIC	Clamping Ø D1 [mm]	16	22	27	32	40
	Ø D2 [mm]	36	48	60	63	70
	L [mm]	17	19	21	24	27
Gage length A [mm]	short	40	25	25	25	40
Order No.	**CC6.050...**	**.16.KKB**	**.22.KKB**	**.27.KKB**	**.32.KKB**	**.40.KKB**

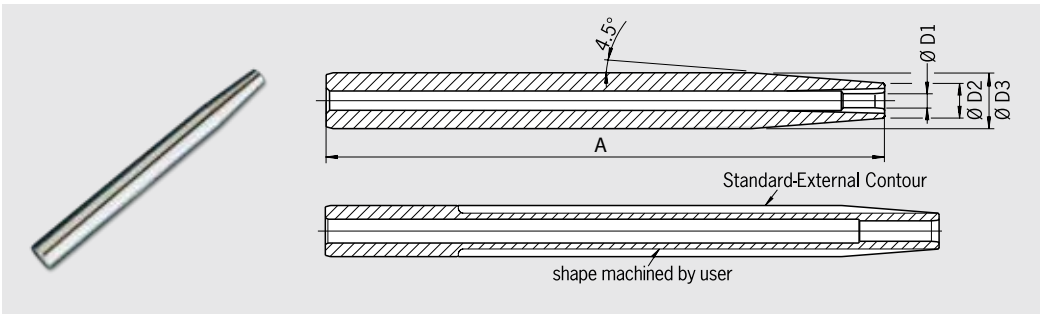
Accessories						
Tightening bolt						
Size D1		16	22	27	32	40
Order No.	**85.300...**	**.16**	**.22**	**.27**	**.32**	**.40**
Wrench						
Size D1		16	22	27	32	40
Order No.	**84.400...**	**.16**	**.22**	**.27**	**.32**	**.40**
Balancing index rings						
Size D1		16	—	—	—	40
Order No.	**79.350...**	**.36**				**.70**
Coolant bores						
Order No.	**91.100.03**					

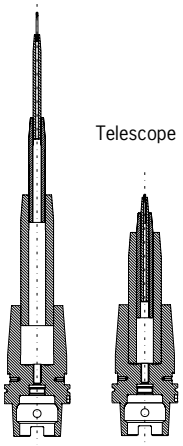
FOR YOUR NOTES

ACCESSORIES
FOR TOOL HOLDERS

CONTENT

SHRINK FIT EXTENSION





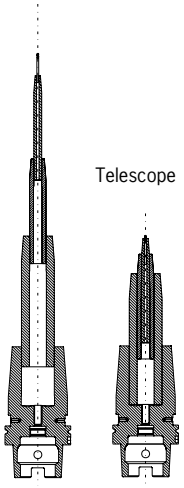
The universal solution for your machining issues
- Highest runout accuracy
- Optimal and nearly unlimited extensions possible
- Versatile to use and always re-usable
- The most economic way for special machining requirements
- For carbide steel and HSS shanks
- Delivery without cooling adapter
- Telescope version (drilled through, without back-up screw)
- For shank tolerance h6

INCH		Ø D3	Ø D2	Clamping Ø D1	Gage length A	Cooling body	Adapter
Order No.	**78.1/2Z0.1/8Z.2**	1/2"	0.31"	1/8"	6.30"	Ø 14–16	80.105.14.1.1
Order No.	**78.1/2Z0.3/16Z.2**	1/2"	0.31"	3/16"	6.30"	Ø 14–16	80.105.14.1.1
Order No.	**78.5/8Z0.1/8Z.2**	5/8"	0.39"	1/8"	6.30"	Ø 14–16	80.105.14.1.1
Order No.	**78.5/8Z0.3/16Z.2**	5/8"	0.39"	3/16"	6.30"	Ø 14–16	80.105.14.1.1
Order No.	**78.5/8Z0.1/4Z.1**	5/8"	0.39"	1/4"	6.30"	Ø 14–16	80.105.14.1.1
Order No.	**78.3/4Z0.1/4Z.1**	3/4"	0.55"	1/4"	6.30"	Ø 14–16	80.105.14.1.2
Order No.	**78.3/4Z0.3/8Z.1**	3/4"	0.55"	3/8"	6.30"	Ø 14–16	80.105.14.1.2
Order No.	**78.1Z0.3/8Z.1**	1"	0.79"	3/8"	6.30"	Ø 6–8	–
Order No.	**78.1Z0.1/2Z.1**	1"	0.79"	1/2"	6.30"	Ø 6–8	–
Order No.	**78.1Z0.5/8Z.1**	1"	0.87"	5/8"	6.30"	Ø 10–12	–
Order No.	**78.11/4Z0.3/8Z.1**	1 1/4"	0.94"	3/8"	6.30"	Ø 14–16	–
Order No.	**78.11/4Z0.1/2Z.1**	1 1/4"	0.94"	1/2"	6.30"	Ø 14–16	–
Order No.	**78.11/4Z0.5/8Z.1**	1 1/4"	1.06"	5/8"	6.30"	Ø 14–16	–

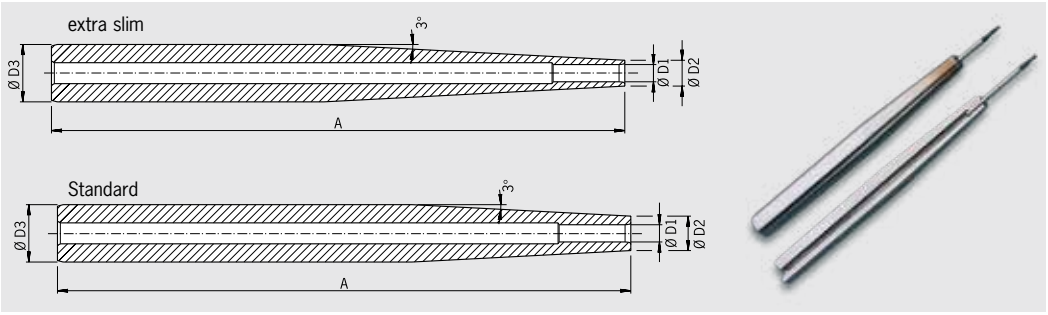
METRIC [mm]		Ø D3	Ø D2	Clamping Ø D1	Gage length A	Cooling body	Adapter
Order No.	**78.120.03.2**	12	8	3	160	Ø 14–16	80.105.14.1.1
Order No.	**78.120.04.2**	12	8	4	160	Ø 14–16	80.105.14.1.1
Order No.	**78.160.03.2**	16	10	3	160	Ø 14–16	80.105.14.1.1
Order No.	**78.160.04.2**	16	10	4	160	Ø 14–16	80.105.14.1.1
Order No.	**78.160.05.2**	16	10	5	160	Ø 14–16	80.105.14.1.1
Order No.	**78.160.06.1**	16	10	6	160	Ø 14–16	80.105.14.1.1
Order No.	**78.200.05.2**	20	14	5	160	Ø 14–16	80.105.14.1.2
Order No.	**78.200.06.1**	20	14	6	160	Ø 14–16	80.105.14.1.2
Order No.	**78.200.08.1**	20	14	8	160	Ø 14–16	80.105.14.1.2
Order No.	**78.250.08.1**	25	19	8	160	Ø 6–8	–
Order No.	**78.250.10.1**	25	20	10	160	Ø 6–8	–
Order No.	**78.250.12.1**	25	20	12	160	Ø 6–8	–
Order No.	**78.250.14.1**	25	20	14	160	Ø 6–8	–
Order No.	**78.250.16.1**	25	22	16	160	Ø 10–12	–
Order No.	**78.320.10.1**	32	24	10	160	Ø 14–16	–
Order No.	**78.320.12.1**	32	24	12	160	Ø 14–16	–
Order No.	**78.320.14.1**	32	27	14	160	Ø 14–16	–
Order No.	**78.320.16.1**	32	27	16	160	Ø 14–16	–
Order No.	**78.320.20.1**	32	27	20	160	Ø 14–16	–

The external contour of the shrinking extensions can be modified later as required

MINI SHRINK EXTENSION



– It is imperative that the correct adapter be used for both heating and cooling with all "Mini Shrink" chucks in order to prevent overheating of the chuck.



– Extremely slim design
– No disturbing edges
– Ideal for the HAIMER Power Clamp
– For all solid carbide tools with shank tolerance h6
– With 3° slope for dies and molds

– **Standard version:** with higher clamping forces
– **Extra slim version:** extremely slim for fine machining and for jobs which are very difficult to reach

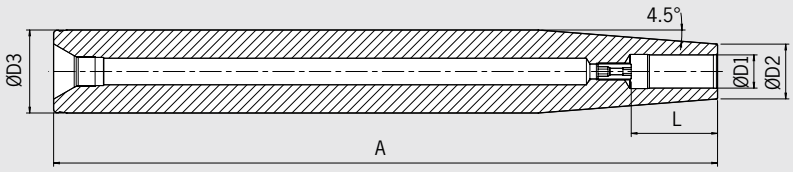
Attention: Heating and cooling only with shrink and cooling sleeves (See accessories)

Standard version Order No.	Length A [inch]	Outer Ø D3 [inch]	Shank tolerance	Clamping Ø D1 [inch]	Ø D2 [inch]	Cooling body	Adapter
77.5/8Z2.1/8Z	6.30"	5/8"	h6	1/8"	0.35"	Ø 6–8	80.105.14.2.04
77.5/8Z2.3/16Z	6.30"	5/8"	h6	3/16"	0.43"	Ø 6–8	80.105.14.2.05
77.5/8Z2.1/4Z[1)]	6.30"	5/8"	h6	1/4"	0.47"	Ø 6–8	80.105.14.2.09
77.5/8Z2.3/8Z[1)]	6.30"	5/8"	h6	3/8"	0.63"	Ø 6–8	80.105.14.2.11
77.3/4Z2.1/4Z	7.87"	3/4"	h6	1/4"	0.47"	Ø 6–8	80.105.14.2.09
77.3/4Z2.3/8Z	7.87"	3/4"	h6	3/8"	0.63"	Ø 6–8	80.105.14.2.11
77.3/4Z2.1/2Z	7.87"	3/4"	h6	1/2"	0.71"	Ø 6–8	80.105.14.2.12
Extra slim							
77.5/8Z0.1/8Z	6.30"	5/8"	h6	1/8"	0.24"	Ø 6–8	80.105.14.2.01
77.5/8Z0.3/16Z	6.30"	5/8"	h6	3/16"	0.32"	Ø 6–8	80.105.14.2.03
77.5/8Z0.1/4Z[1)]	6.30"	5/8"	h6	1/4"	0.35"	Ø 6–8	80.105.14.2.04
77.5/8Z0.3/8Z[1)]	6.30"	5/8"	h6	3/8"	0.51"	Ø 6–8	80.105.14.2.06
77.3/4Z0.1/4Z	7.87"	3/4"	h6	1/4"	0.35"	Ø 6–8	80.105.14.2.04
77.3/4Z0.3/8Z	7.87"	3/4"	h6	3/8"	0.51"	Ø 6–8	80.105.14.2.06
77.3/4Z0.1/2Z	7.87"	3/4"	h6	1/2"	0.59"	Ø 6–8	80.105.14.2.07

Standard version Order No.	Length A [mm]	Outer Ø D3 [mm]	Shank tolerance	Clamping Ø D1 [mm]	Ø D2 [mm]	Cooling body	Adapter
77.162.03	160	16	h6	3	9	Ø 6–8	80.105.14.2.04
77.162.04	160	16	h6	4	10	Ø 6–8	80.105.14.2.08
77.162.05	160	16	h6	5	11	Ø 6–8	80.105.14.2.05
77.162.06[1)]	160	16	h6	6	12	Ø 6–8	80.105.14.2.09
77.162.08[1)]	160	16	h6	8	14	Ø 6–8	80.105.14.2.10
77.162.10[1)]	160	16	h6	10	16	Ø 6–8	80.105.14.2.11
77.202.06	200	20	h6	6	12	Ø 6–8	80.105.14.2.09
77.202.08	200	20	h6	8	14	Ø 6–8	80.105.14.2.10
77.202.10	200	20	h6	10	16	Ø 6–8	80.105.14.2.11
77.202.12	200	20	h6	12	18	Ø 6–8	80.105.14.2.12
Extra slim							
77.160.03	160	16	h6	3	6	Ø 6–8	80.105.14.2.01
77.160.04	160	16	h6	4	7	Ø 6–8	80.105.14.2.02
77.160.05	160	16	h6	5	8	Ø 6–8	80.105.14.2.03
77.160.06[1)]	160	16	h6	6	9	Ø 6–8	80.105.14.2.04
77.160.08[1)]	160	16	h6	8	11	Ø 6–8	80.105.14.2.05
77.160.10[1)]	160	16	h6	10	13	Ø 6–8	80.105.14.2.06
77.200.06	200	20	h6	6	9	Ø 6–8	80.105.14.2.04
77.200.08	200	20	h6	8	11	Ø 6–8	80.105.14.2.05
77.200.10	200	20	h6	10	13	Ø 6–8	80.105.14.2.06
77.200.12	200	20	h6	12	15	Ø 6–8	80.105.14.2.07

1) With adjustment screw

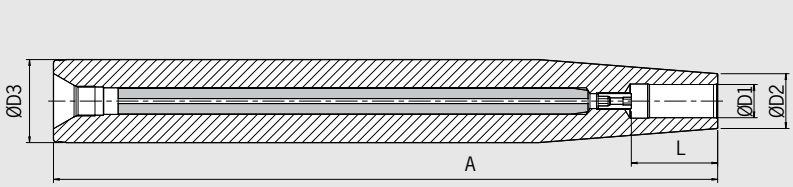
HEAVY DUTY SHRINK FIT EXTENSIONS



– HAIMER is a full system provider: The next addition to the Heavy Duty Chucks
– Extremely stable with 50 mm outer diameter
– Safe support of the tool with set screws
– Heavy machining also in hidden angles: Lengths of 400 and 600 mm
– The extensions can be shortened to customer's needs on request
– Solid carbide inserts for vibration dampening on request

Heavy Duty Shrink Fit Extensions without solid carbide core

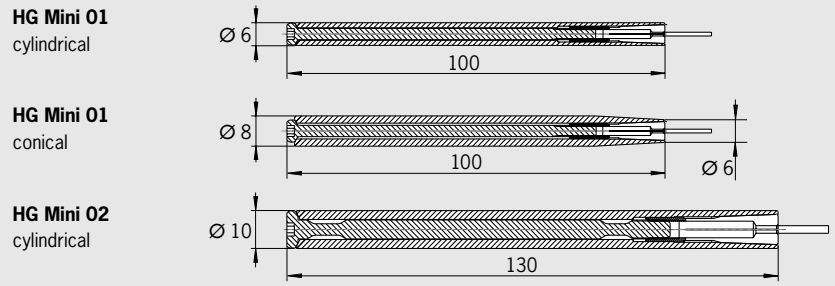
METRIC	Clamping Ø D1 [mm]	16	20	25
	Ø D2 [mm]	27	33	44
	Ø D3 [mm]	50	50	50
	L [mm]	50	52	58
Gage length A [mm]	oversize	400	400	400
Order No.	**78.502...**	**.16**	**.20**	**.25**
Gage length A [mm]	ZG600	600	600	600
Order No.	**78.506...**	**.16**	**.20**	**.25**



Heavy Duty Shrink Fit Extensions with solid carbide core

METRIC	Clamping Ø D1 [mm]	16	20	25
	Ø D2 [mm]	27	33	44
	Ø D3 [mm]	50	50	50
	L [mm]	50	52	58
Gage length A [mm]	oversize	400	400	400
Order No.	**78.502...**	**.16.9**	**.20.9**	**.25.9**
Gage length A [mm]	ZG600	600	600	600
Order No.	**78.506...**	**.16.9**	**.20.9**	**.25.9**

HG MINI EXTENSIONS



For clamping tools with cylindrical shank with utmost precision.

– For tools with shank tolerance h6

	HG Mini 01 cylindrical	HG Mini 01 conical	HG Mini 02 cylindrical
Size	A=100 mm	A=100 mm	A=130 mm
Outer diam.	6 mm cylindrical	6–8 mm conical	10 mm cylindrical
Clamping range Ø	1–2.5 mm	1–2.5 mm	2.0–4.5 mm
Order No.	**82.611.01**	**82.621.01**	**82.610.02**

Collets for HG Mini 01

Clamping	Ø D [mm]	1	1,5	2	2.5
Order No.	**82.650...**	**.010**	**.015**	**.020**	**.025**

Collets for HG Mini 02

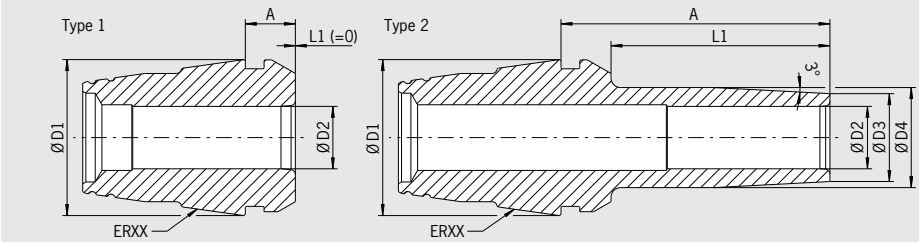
Clamping	Ø D [mm]	2	2.5	3	3.5	4	4.5
Order No.	**82.660...**	**.020**	**.025**	**.030**	**.035**	**.040**	**.045**

HG Mini with torque wrench and assembly device

Assembly device for HG Mini

Accessories		
Torque wrench for HG Mini (pre-adjusted)		
Size	01	02
Order No.	**82.576.00**	**82.577.00**
Assembly device for HG Mini		
Order No.	**82.578.00**	

SHRINK FIT COLLETS ER11 (8°)



Version

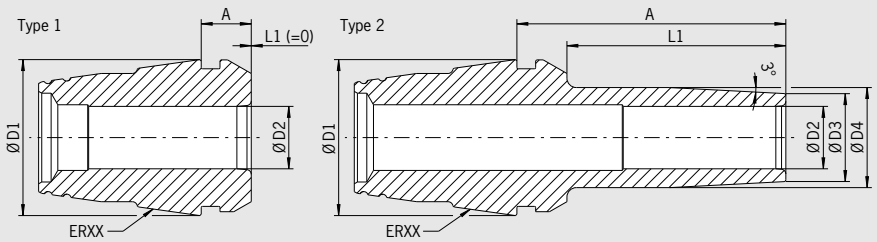
- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.110.000.03	1	ER11	11	4.55	0	3	–	–	–
81.110.010.03	2	ER11	11	14.55	10	3	7	7.4	–
81.110.020.03	2	ER11	11	24.55	20	3	7	7.4	–
81.110.000.04	1	ER11	11	4.55	0	4	–	–	–
81.110.010.04	2	ER11	11	14.55	10	4	7	7.4	–
81.110.020.04	2	ER11	11	24.55	20	4	7	7.4	–
81.110.000.05[1)]	1	ER11	11	4.55	0	5	–	–	–
81.110.000.06[1)]	1	ER11	11	4.55	0	6	–	–	17

Coolant slots
Order No. 91.100.42

1) Mounting of slits not possible

SHRINK FIT COLLETS ER16 (8°)



Version

- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

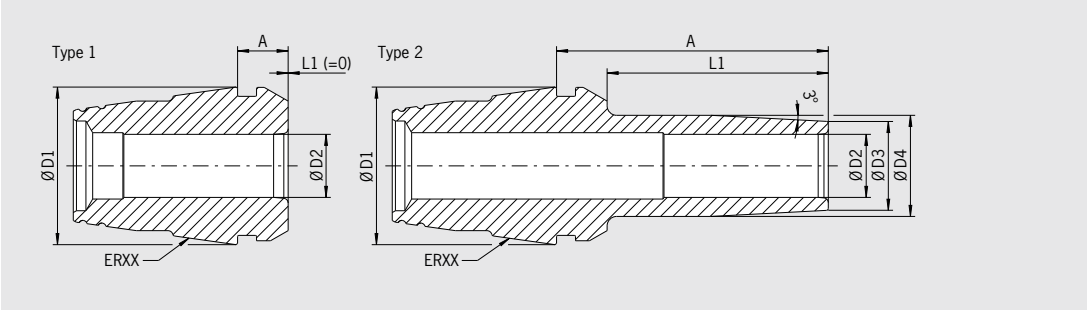
Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.160.000.03	1	ER16	16	6.7	0	3	–	–	–
81.160.010.03	2	ER16	16	16.7	10	3	7	–	–
81.160.020.03	2	ER16	16	26.7	20	3	7	–	–
81.160.025.03	2	ER16	16	31.7	25	3	7	–	–
81.160.030.03	2	ER16	16	36.7	30	3	7	9.5	–
81.160.035.03	2	ER16	16	41.7	35	3	7	9.5	–
81.160.000.04	1	ER16	16	6.7	0	4	–	–	–
81.160.010.04	2	ER16	16	16.7	10	4	7	–	–
81.160.020.04	2	ER16	16	26.7	20	4	7	–	–
81.160.025.04	2	ER16	16	31.7	25	4	7	–	–
81.160.030.04	2	ER16	16	36.7	30	4	7	9.5	–
81.160.035.04	2	ER16	16	41.7	35	4	7	9.5	–
81.160.000.05	1	ER16	16	6.7	0	5	–	–	–
81.160.010.05	2	ER16	16	16.7	10	5	8	–	–
81.160.020.05	2	ER16	16	26.7	20	5	8	9.5	–
81.160.025.05	2	ER16	16	31.7	25	5	8	9.5	–
81.160.030.05	2	ER16	16	36.7	30	5	8	9.5	–
81.160.035.05	2	ER16	16	41.7	35	5	8	9.5	–
81.160.000.06	1	ER16	16	6.7	0	6	–	–	–
81.160.010.06	2	ER16	16	16.7	10	6	9	–	–
81.160.020.06	2	ER16	16	26.7	20	6	9	10	–
81.160.025.06	2	ER16	16	31.7	25	6	9	10	–
81.160.030.06	2	ER16	16	36.7	30	6	9	10	–
81.160.035.06	2	ER16	16	41.7	35	6	9	10	–
81.160.000.08[1)]	1	ER16	16	6.7	0	8	–	–	–
81.160.000.10[1)]	1	ER16	16	6.7	0	10	–	–	23

Coolant slots

Order No. 91.100.42

1) Mounting of slits not possible

SHRINK FIT COLLETS ER20 (8°)



Version

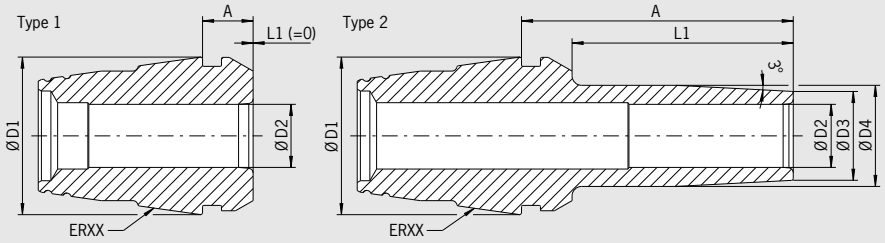
- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.200.000.03	1	ER20	20	7.52	0	3	–	–	–
81.200.025.03	2	ER20	20	32.52	25	3	7	12.5	–
81.200.035.03	2	ER20	20	42.52	35	3	7	13.5	–
81.200.000.04	1	ER20	20	7.52	0	4	–	–	–
81.200.025.04	2	ER20	20	32.52	25	4	7	12.5	–
81.200.035.04	2	ER20	20	42.52	35	4	7	13.5	–
81.200.000.05	1	ER20	20	7.52	0	5	–	–	–
81.200.025.05	2	ER20	20	32.52	25	5	8	13.5	–
81.200.035.05	2	ER20	20	42.52	35	5	8	13.5	–
81.200.000.06	1	ER20	20	7.52	0	6	–	–	–
81.200.025.06	2	ER20	20	32.52	25	6	9	13.5	–
81.200.035.06	2	ER20	20	42.52	35	6	9	13.5	–
81.200.000.08	1	ER20	20	7.52	0	8	–	–	–
81.200.025.08	2	ER20	20	32.52	25	8	11	14	–
81.200.035.08	2	ER20	20	42.52	35	8	11	14	–
81.200.000.10	1	ER20	20	7.52	0	10	–	–	–
81.200.000.12[1)]	1	ER20	20	7.52	0	12	–	–	29.5

Coolant slots
Order No. 91.100.42

1) Mounting of slits not possible

SHRINK FIT COLLETS ER25 (8°)



Version

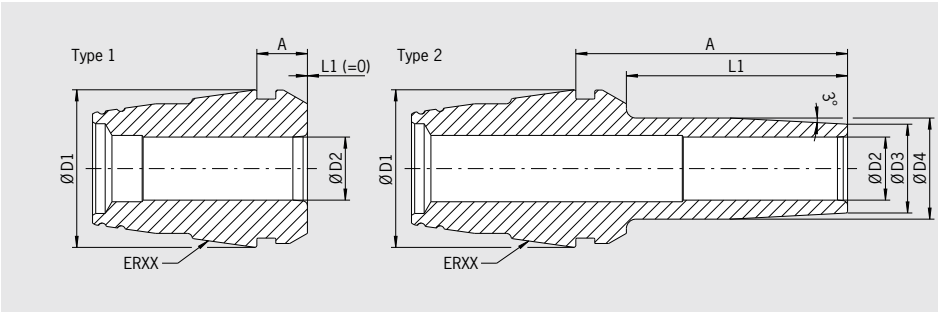
- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.250.000.03	1	ER25	25	8	0	3	–	–	–
81.250.010.03	2	ER25	25	18	10	3	7	12.5	–
81.250.020.03	2	ER25	25	28	20	3	7	12.5	–
81.250.025.03	2	ER25	25	33	25	3	7	12.5	–
81.250.030.03	2	ER25	25	38	30	3	7	13.5	–
81.250.035.03	2	ER25	25	43	35	3	7	13.5	–
81.250.000.04	1	ER25	25	8	0	4	–	–	–
81.250.010.04	2	ER25	25	18	10	4	7	12.5	–
81.250.020.04	2	ER25	25	28	20	4	7	12.5	–
81.250.025.04	2	ER25	25	33	25	4	7	12.5	–
81.250.030.04	2	ER25	25	38	30	4	7	13.5	–
81.250.035.04	2	ER25	25	43	35	4	7	13.5	–
81.250.000.05	1	ER25	25	8	0	5	–	–	–
81.250.010.05	2	ER25	25	18	10	5	8	13.5	–
81.250.020.05	2	ER25	25	28	20	5	8	13.5	–
81.250.025.05	2	ER25	25	33	25	5	8	13.5	–
81.250.030.05	2	ER25	25	38	30	5	8	14.5	–
81.250.035.05	2	ER25	25	43	35	5	8	14.5	–
81.250.000.06	1	ER25	25	8	0	6	–	–	–
81.250.010.06	2	ER25	25	18	10	6	9	14.5	–
81.250.020.06	2	ER25	25	28	20	6	9	14.5	–
81.250.025.06	2	ER25	25	33	25	6	9	14.5	–
81.250.030.06	2	ER25	25	38	30	6	9	15.5	–
81.250.035.06	2	ER25	25	43	35	6	9	15.5	–
81.250.000.08	1	ER25	25	8	0	8	–	–	–
81.250.010.08	2	ER25	25	18	10	8	11	16	–

Coolant slots

Order No. 91.100.42

SHRINK FIT COLLETS ER25 (8°)



Version

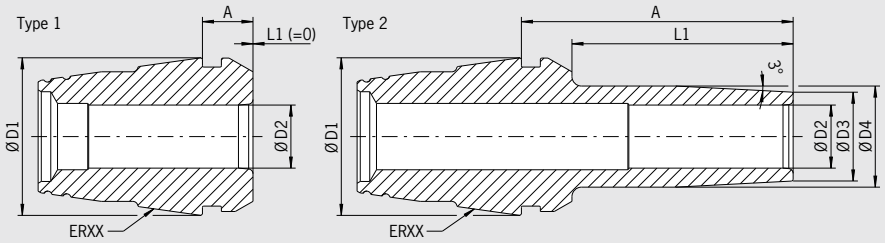
- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.250.020.08	2	ER25	25	28	20	8	11	16	–
81.250.025.08	2	ER25	25	33	25	8	11	16	–
81.250.030.08	2	ER25	25	38	30	8	11	16.7	–
81.250.035.08	2	ER25	25	43	35	8	11	16.7	–
81.250.000.10	1	ER25	25	8	0	10	–	–	–
81.250.010.10	2	ER25	25	18	10	10	14	–	–
81.250.020.10	2	ER25	25	28	20	10	14	–	–
81.250.025.10	2	ER25	25	33	25	10	14	–	–
81.250.030.10	2	ER25	25	38	30	10	14	16	–
81.250.035.10	2	ER25	25	43	35	10	14	16	–
81.250.000.12	1	ER25	25	8	0	12	–	–	–
81.250.000.14	1	ER25	25	8	0	14	–	–	–
81.250.000.16[1)]	1	ER25	25	8	0	16	–	–	33

Coolant slots
Order No. 91.100.42

1) Mounting of slits not possible

SHRINK FIT COLLETS ER32 (8°)



Version

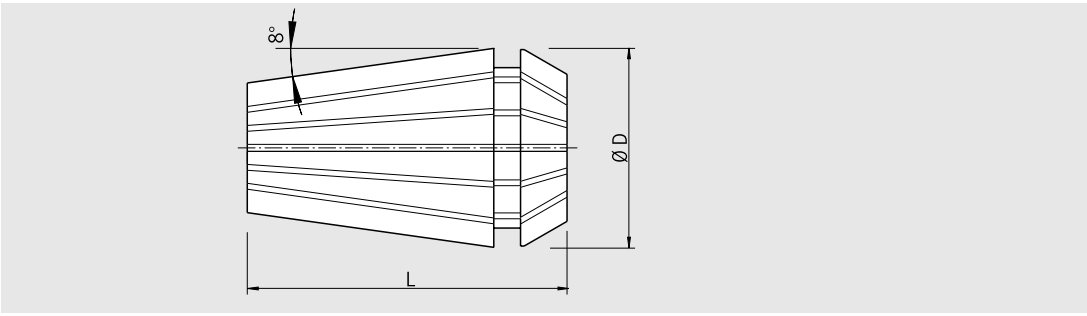
- Compatible with all established ER nuts
- Optional with slits along the clamping bore for cooling from outside
- For solid carbide tools with shank tolerance h6

Order No.	Type	ER Size	D1 [mm]	A [mm]	L1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	Insertion depth [mm]
81.320.000.03	1	ER32	32	9	0	3	–	–	–
81.320.035.03	2	ER32	32	44	35	3	7	15	–
81.320.000.04	1	ER32	32	9	0	4	–	–	–
81.320.035.04	2	ER32	32	44	35	4	7	15	–
81.320.000.05	1	ER32	32	9	0	5	–	–	–
81.320.035.05	2	ER32	32	44	35	5	8	16	–
81.320.000.06	1	ER32	32	9	0	6	–	–	–
81.320.035.06	2	ER32	32	44	35	6	9	17	–
81.320.000.08	1	ER32	32	9	0	8	–	–	–
81.320.035.08	2	ER32	32	44	35	8	11	19	–
81.320.000.10	1	ER32	32	9	0	10	–	–	–
81.320.035.10	2	ER32	32	44	35	10	14	22	–
81.320.000.12	1	ER32	32	9	0	12	–	–	–
81.320.035.12	2	ER32	32	44	35	12	15	24	–
81.320.000.14	1	ER32	32	9	0	14	–	–	–
81.320.035.14	2	ER32	32	44	35	14	17	24	–
81.320.000.16	1	ER32	32	9	0	16	–	–	–
81.320.035.16	2	ER32	32	44	35	16	19	24	–
81.320.000.18	1	ER32	32	9	0	18	–	–	–
81.320.000.20	1	ER32	32	9	0	20	–	–	–

Coolant slots

Order No. 91.100.42

HIGH PRECISION ER COLLETS
METRIC



- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 5 µm

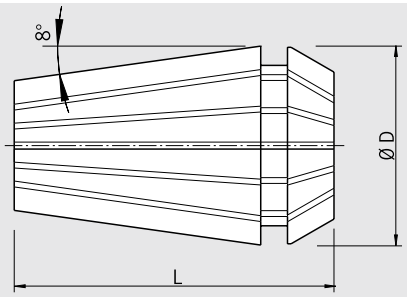
ER 11 Clamping Ø		[mm]	Ø D	L
Order No.	**81.110.1.0**	0.50 ... 1.00	11.5	18
	81.110.1.5	1.00 ... 1.50	11.5	18
	81.110.2.0	1.50 ... 2.00	11.5	18
	81.110.2.5	2.00 ... 2.50	11.5	18
	81.110.3.0	2.50 ... 3.00	11.5	18
	81.110.3.5	3.00 ... 3.50	11.5	18
	81.110.4.0	3.50 ... 4.00	11.5	18
	81.110.4.5	4.00 ... 4.50	11.5	18
	81.110.5.0	4.50 ... 5.00	11.5	18
	81.110.5.5	5.00 ... 5.50	11.5	18
	81.110.6.0	5.50 ... 6.00	11.5	18
	81.110.6.5	6.00 ... 6.50	11.5	18
	81.110.7.0	6.50 ... 7.00	11.5	18

ER 16 Clamping Ø		[mm]	Ø D	L
Order No.	**81.160.01**	0.50 ... 1.00	17	27
	81.160.1.5	1.00 ... 1.50	17	27
	81.160.02	1.50 ... 2.00	17	27
	81.160.2.5	2.00 ... 2.50	17	27
	81.160.03	2.50 ... 3.00	17	27
	81.160.04	3.00 ... 4.00	17	27
	81.160.05	4.00 ... 5.00	17	27
	81.160.06	5.00 ... 6.00	17	27
	81.160.07	6.00 ... 7.00	17	27
	81.160.08	7.00 ... 8.00	17	27
	81.160.09	8.00 ... 9.00	17	27
	81.160.10	9.00 ... 10.00	17	27

ER 20 Clamping Ø		[mm]	Ø D	L
Order No.	**81.200.02**	1.50 ... 2.00	21	31.5
	81.200.03	2.00 ... 3.00	21	31.5
	81.200.04	3.00 ... 4.00	21	31.5
	81.200.05	4.00 ... 5.00	21	31.5
	81.200.06	5.00 ... 6.00	21	31.5
	81.200.07	6.00 ... 7.00	21	31.5
	81.200.08	7.00 ... 8.00	21	31.5
	81.200.09	8.00 ... 9.00	21	31.5
	81.200.10	9.00 ... 10.00	21	31.5
	81.200.11	10.00 ... 11.00	21	31.5
	81.200.12	11.00 ... 12.00	21	31.5
	81.200.13	12.00 ... 13.00	21	31.5

ER 25 Clamping Ø		[mm]	Ø D	L
Order No.	**81.250.1.5**	1.00 ... 1.50	26	35
	81.250.02	1.50 ... 2.00	26	35
	81.250.2.5	2.00 ... 2.50	26	35
	81.250.03	2.50 ... 3.00	26	35
	81.250.04	3.00 ... 4.00	26	35
	81.250.05	4.00 ... 5.00	26	35
	81.250.06	5.00 ... 6.00	26	35
	81.250.07	6.00 ... 7.00	26	35
	81.250.08	7.00 ... 8.00	26	35
	81.250.09	8.00 ... 9.00	26	35
	81.250.10	9.00 ... 10.00	26	35
	81.250.11	10.00 ... 11.00	26	35
	81.250.12	11.00 ... 12.00	26	35
	81.250.13	12.00 ... 13.00	26	35
	81.250.14	13.00 ... 14.00	26	35
	81.250.15	14.00 ... 15.00	26	35
	81.250.16	15.00 ... 16.00	26	35

HIGH PRECISION ER COLLETS
METRIC

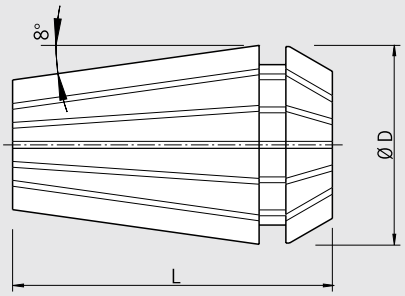


- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 5 µm

ER 32 Clamping Ø		[mm]	Ø D	L
Order No.	**81.320.02**	1.50 ... 2.00	33	40
	81.320.2.5	2.00 ... 2.50	33	40
	81.320.03	2.50 ... 3.00	33	40
	81.320.04	3.00 ... 4.00	33	40
	81.320.05	4.00 ... 5.00	33	40
	81.320.06	5.00 ... 6.00	33	40
	81.320.07	6.00 ... 7.00	33	40
	81.320.08	7.00 ... 8.00	33	40
	81.320.09	8.00 ... 9.00	33	40
	81.320.10	9.00 ... 10.00	33	40
	81.320.11	10.00 ... 11.00	33	40
	81.320.12	11.00 ... 12.00	33	40
	81.320.13	12.00 ... 13.00	33	40
	81.320.14	13.00 ... 14.00	33	40
	81.320.15	14.00 ... 15.00	33	40
	81.320.16	15.00 ... 16.00	33	40
	81.320.17	16.00 ... 17.00	33	40
	81.320.18	17.00 ... 18.00	33	40
	81.320.19	18.00 ... 19.00	33	40
	81.320.20	19.00 ... 20.00	33	40

ER 40 Clamping Ø		[mm]	Ø D	L
Order No.	**81.400.03**	2.50 ... 3.00	41	46
	81.400.04	3.00 ... 4.00	41	46
	81.400.05	4.00 ... 5.00	41	46
	81.400.06	5.00 ... 6.00	41	46
	81.400.07	6.00 ... 7.00	41	46
	81.400.08	7.00 ... 8.00	41	46
	81.400.09	8.00 ... 9.00	41	46
	81.400.10	9.00 ... 10.00	41	46
	81.400.11	10.00 ... 11.00	41	46
	81.400.12	11.00 ... 12.00	41	46
	81.400.13	12.00 ... 13.00	41	46
	81.400.14	13.00 ... 14.00	41	46
	81.400.15	14.00 ... 15.00	41	46
	81.400.16	15.00 ... 16.00	41	46
	81.400.17	16.00 ... 17.00	41	46
	81.400.18	17.00 ... 18.00	41	46
	81.400.19	18.00 ... 19.00	41	46
	81.400.20	19.00 ... 20.00	41	46
	81.400.21	20.00 ... 21.00	41	46
	81.400.22	21.00 ... 22.00	41	46
	81.400.23	22.00 ... 23.00	41	46
	81.400.24	23.00 ... 24.00	41	46
	81.400.25	24.00 ... 25.00	41	46
	81.400.26	25.00 ... 26.00	41	46

HIGH PRECISION ER COLLETS
INCH



- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 0.0002" (5 µm)

ER 16 Clamping Ø		[inch]	Ø D	L
Order No.	**81.160.1/16Z**	0.0425 – 0.0625	0.67	1.06
	81.160.1/8Z	0.085 – 0.125	0.67	1.06
	81.160.3/16Z	0.1475 – 0.1875	0.67	1.06
	81.160.1/4Z	0.21 – 0.25	0.67	1.06
	81.160.5/16Z	0.2725 – 0.3125	0.67	1.06
	81.160.3/8Z	0.335 – 0.375	0.67	1.06

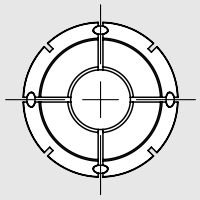
ER 20 Clamping Ø		[inch]	Ø D	L
Order No.	**81.200.1/8Z**	0.085 – 0.125	0.83	1.24
	81.200.3/16Z	0.1475 – 0.1875	0.83	1.24
	81.200.1/4Z	0.21 – 0.25	0.83	1.24
	81.200.5/16Z	0.2725 – 0.3125	0.83	1.24
	81.200.3/8Z	0.335 – 0.375	0.83	1.24
	81.200.7/16Z	0.3975 – 0.4375	0.83	1.24
	81.200.1/2Z	0.46 – 0.50	0.83	1.24

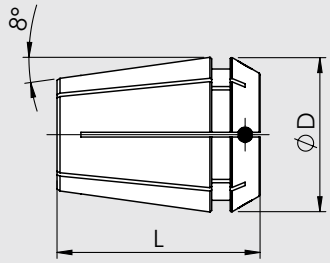
ER 25 Clamping Ø		[inch]	Ø D	L
Order No.	**81.250.1/8Z**	0.085 – 0.125	1.02	1.38
	81.250.3/16Z	0.1475 – 0.1875	1.02	1.38
	81.250.1/4Z	0.21 – 0.25	1.02	1.38
	81.250.5/16Z	0.2725 – 0.3125	1.02	1.38
	81.250.3/8Z	0.335 – 0.375	1.02	1.38
	81.250.7/16Z	0.3975 – 0.4375	1.02	1.38
	81.250.1/2Z	0.46 – 0.50	1.02	1.38
	81.250.9/16Z	0.5225 – 0.5625	1.02	1.38
	81.250.5/8Z	0.585 – 0.625	1.02	1.38

ER 32 Clamping Ø		[inch]	Ø D	L
Order No.	**81.320.1/8Z**	0.085 – 0.125	1.3	1.57
	81.320.3/16Z	0.1475 – 0.1875	1.3	1.57
	81.320.1/4Z	0.21 – 0.25	1.3	1.57
	81.320.5/16Z	0.2725 – 0.3125	1.3	1.57
	81.320.3/8Z	0.335 – 0.375	1.3	1.57
	81.320.7/16Z	0.3975 – 0.4375	1.3	1.57
	81.320.1/2Z	0.46 – 0.50	1.3	1.57
	81.320.9/16Z	0.5225 – 0.5625	1.3	1.57
	81.320.5/8Z	0.585 – 0.625	1.3	1.57
	81.320.11/16Z	0.6475 – 0.6875	1.3	1.57
	81.320.3/4Z	0.71 – 0.75	1.3	1.57

ER 40 Clamping Ø		[inch]	Ø D	L
Order No.	**81.400.1/4Z**	0.21 – 0.25	1.61	1.81
	81.400.5/16Z	0.2725 – 0.3125	1.61	1.81
	81.400.3/8Z	0.335 – 0.375	1.61	1.81
	81.400.7/16Z	0.3975 – 0.4375	1.61	1.81
	81.400.1/2Z	0.46 – 0.50	1.61	1.81
	81.400.9/16Z	0.5225 – 0.5625	1.61	1.81
	81.400.5/8Z	0.585 – 0.625	1.61	1.81
	81.400.3/4Z	0.71 – 0.75	1.61	1.81
	81.400.7/8Z	0.835 – 0.875	1.61	1.81
	81.400.1Z	0.96 – 1	1.61	1.81

HIGH PRECISION ER COLLETS – SEALED METRIC





- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 5 µm
- Sealed for internal coolant tools

ER 16 Clamping Ø		[mm]	Ø D	L
Order No.	**81.165.03**	03	16.70	30
	81.165.04	04	16.70	30
	81.165.05	05	16.70	30
	81.165.06	06	16.70	30
	81.165.07	07	16.70	30
	81.165.08	08	16.70	30
	81.165.09	09	16.70	30
	81.165.10	10	16.70	30

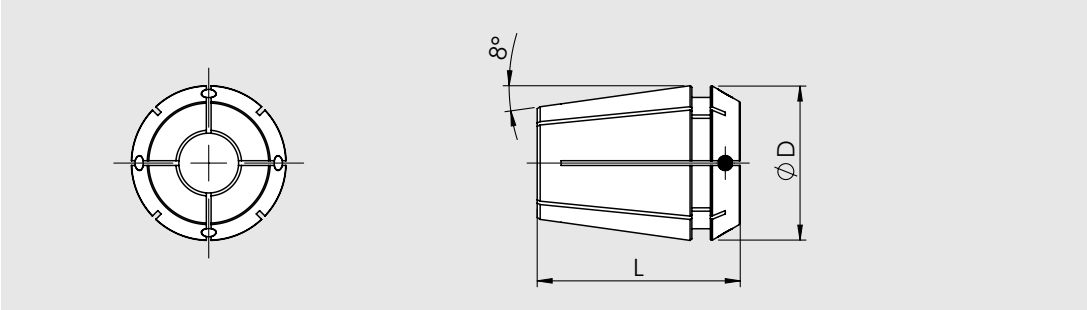
ER 25 Clamping Ø		[mm]	Ø D	L
Order No.	**81.255.03**	03	25.70	37
	81.255.04	04	25.70	37
	81.255.05	05	25.70	37
	81.255.06	06	25.70	37
	81.255.07	07	25.70	37
	81.255.08	08	25.70	37
	81.255.09	09	25.70	37
	81.255.10	10	25.70	37
	81.255.11	11	25.70	37
	81.255.12	12	25.70	37
	81.255.13	13	25.70	37
	81.255.14	14	25.70	37
	81.255.15	15	25.70	37
	81.255.16	16	25.70	37

ER 40 Clamping Ø		[mm]	Ø D	L
Order No.	**81.405.06**	06	40.70	30
	81.405.08	08	40.70	30
	81.405.10	10	40.70	30
	81.405.12	12	40.70	30
	81.405.14	14	40.70	30
	81.405.16	16	40.70	30
	81.405.18	18	40.70	30
	81.405.20	20	40.70	30
	81.405.22	22	40.70	30
	81.405.25	25	40.70	30

ER 20 Clamping Ø		[mm]	Ø D	L
Order No.	**81.205.03**	03	20.70	30
	81.205.04	04	20.70	30
	81.205.05	05	20.70	30
	81.205.06	06	20.70	30
	81.205.07	07	20.70	30
	81.205.08	08	20.70	30
	81.205.09	09	20.70	30
	81.205.10	10	20.70	30
	81.205.11	11	20.70	30
	81.205.12	12	20.70	30

ER 32 Clamping Ø		[mm]	Ø D	L
Order No.	**81.325.03**	03	32.70	45
	81.325.04	04	32.70	45
	81.325.05	05	32.70	45
	81.325.06	06	32.70	45
	81.325.07	07	32.70	45
	81.325.08	08	32.70	45
	81.325.09	09	32.70	45
	81.325.10	10	32.70	45
	81.325.11	11	32.70	45
	81.325.12	12	32.70	45
	81.325.13	13	32.70	45
	81.325.14	14	32.70	45
	81.325.15	15	32.70	45
	81.325.16	16	32.70	45
	81.325.17	17	32.70	45
	81.325.18	18	32.70	45
	81.325.19	19	32.70	45
	81.325.20	20	32.70	45

HIGH PRECISION ER COLLETS - SEALED
INCH



- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 0.0002" (5 µm)
- Sealed for internal coolant tools

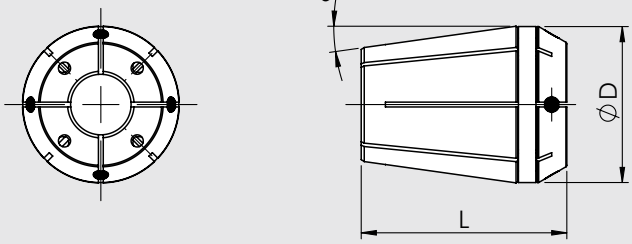
ER 16 Clamping Ø		[inch]	Ø D	L
Order No.	81.165.1/8z	1/8	0.65	1.18
	81.165.3/16z	3/16	0.65	1.18
	81.165.1/4z	1/4	0.65	1.18
	81.165.5/16z	5/16	0.65	1.18
	81.165.3/8z	3/8	0.65	1.18

ER 20 Clamping Ø		[inch]	Ø D	L
Order No.	81.205.1/8z	1/8	1.001	1.46
	81.205.3/16z	3/16	1.001	1.46
	81.205.1/4z	1/4	1.001	1.46
	81.205.5/16z	5/16	1.001	1.46
	81.205.3/8z	3/8	1.001	1.46
	81.205.7/16z	7/16	1.001	1.46
	81.205.1/2z	1/2	1.001	1.46

ER 25 Clamping Ø		[inch]	Ø D	L
Order No.	81.255.1/8z	1/8	1.001	1.46
	81.255.3/16z	3/16	1.001	1.46
	81.255.1/4z	1/4	1.001	1.46
	81.255.5/16z	5/16	1.001	1.46
	81.255.3/8z	3/8	1.001	1.46
	81.255.7/16z	7/16	1.001	1.46
	81.255.1/2z	1/2	1.001	1.46
	81.255.9/16z	9/16	1.001	1.46
	81.255.5/8z	5/8	1.001	1.46

ER 32 Clamping Ø		[inch]	Ø D	L
Order No.	81.325.1/8z	1/8	1.28	1.77
	81.325.3/16z	3/16	1.28	1.77
	81.325.1/4z	1/4	1.28	1.77
	81.325.5/16z	5/16	1.28	1.77
	81.325.3/8z	3/8	1.28	1.77
	81.325.7/16z	7/16	1.28	1.77
	81.325.1/2z	1/2	1.28	1.77
	81.325.9/16z	9/16	1.28	1.77
	81.325.5/8z	5/8	1.28	1.77
	81.325.3/4z	3/4	1.28	1.77

HIGH PRECISION COLLETS ER – SEALED WITH COOL JET



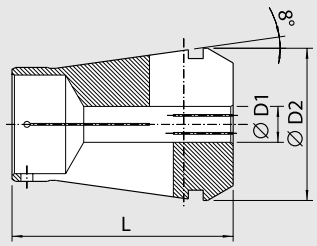
- High polished finish for extra accuracy and long life, especially when clamped in HAIMER ER collet chucks
- ISO 15488 (formerly DIN 6499)
- Superior clamping strength
- Fits all brands of ER collet holders
- Run-out accuracy 3 µm
- With Cool Jet bores for optimal coolant supply
- For cylindrical shanks with tolerance h8 or better

ER 25 Clamping Ø		[mm]	Ø D	L
Order No.	**81.252.04**	04	26	37
	81.252.06	06	26	37
	81.252.08	08	26	37
	81.252.10	10	26	37
	81.252.12	12	26	37
	81.252.14	14	26	37

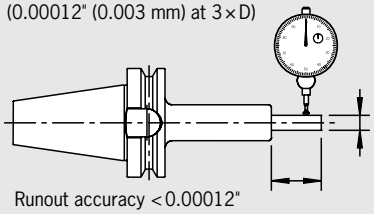
ER 32 Clamping Ø		[mm]	Ø D	L
Order No.	**81.322.04**	04	33	45
	81.322.06	06	33	45
	81.322.08	08	33	45
	81.322.10	10	33	45
	81.322.12	12	33	45
	81.322.14	14	33	45
	81.322.16	16	33	45
	81.322.18	18	33	45

Attention: Blue plastic ring is for identification purposes only and must be removed before use.

POWER COLLET FOR HAIMER POWER/HIGH PRECISION COLLET CHUCK INCH



Power ER Collet
– For ultra precision machining
– High runout accuracy
(0.00012" (0.003 mm) at 3×D)



– High runout accuracy: < 0.00012" (3 µm) at 3×D
– Superior clamping strength
– Fits HAIMER Power Collet Chucks and High Precision Collet Chucks
– For cylindrical shanks with tolerance h10
– Optional: Cool Jet bores at self-sealing collets

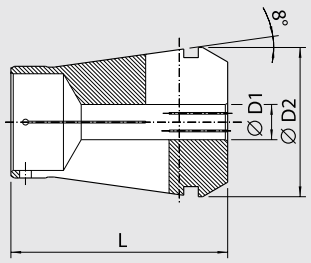
ER 16	Clamping	Ø D1 [inch]	Ø D2 [inch]	L [inch]
Order No.	81.163.1/8z	1/8	0.65	1.18
	81.163.3/16z	3/16	0.65	1.18
	81.163.1/4z[1)]	1/4	0.65	1.18
	81.163.5/16z[1)]	5/16	0.65	1.18
	81.163.3/8z[1)]	3/8	0.65	1.18

ER 25	Clamping	Ø D1 [inch]	Ø D2 [inch]	L [inch]
Order No.	81.253.1/8z	1/8	1.001	1.46
	81.253.3/16z	3/16	1.001	1.46
	81.253.1/4z[1)]	1/4	1.001	1.46
	81.253.5/16z[1)]	5/16	1.001	1.46
	81.253.3/8z[1)]	3/8	1.001	1.46
	81.253.7/16z[1)]	7/16	1.001	1.46
	81.253.1/2z[1)]	1/2	1.001	1.46
	81.253.9/16z[1)]	9/16	1.001	1.46
	81.253.5/8z[1)]	5/8	1.001	1.46

ER 32	Clamping	Ø D1 [inch]	Ø D2 [inch]	L [inch]
Order No.	81.323.1/8z	1/8	1.28	1.77
	81.323.3/16z	3/16	1.28	1.77
	81.323.1/4z[1)]	1/4	1.28	1.77
	81.323.5/16z[1)]	5/16	1.28	1.77
	81.323.3/8z[1)]	3/8[1)]	1.28	1.77
	81.323.7/16z[1)]	7/16	1.28	1.77
	81.323.1/2z[1)]	1/2[1)]	1.28	1.77
	81.323.9/16z[1)]	9/16	1.28	1.77
	81.323.5/8z[1)]	5/8[1)]	1.28	1.77
	81.323.3/4z[1)]	3/4	1.28	1.77

1) Sealed for internal coolant

POWER COLLET FOR HAIMER POWER/HIGH PRECISION COLLET CHUCK METRIC



– High runout accuracy: < 0.00012" (3 µm) at 3 × D
– Superior clamping strength
– Fits HAIMER Power Collet Chucks and High Precision Collet Chucks
– For cylindrical shanks with tolerance h10
– Optional: Cool Jet bores at self-sealing collets

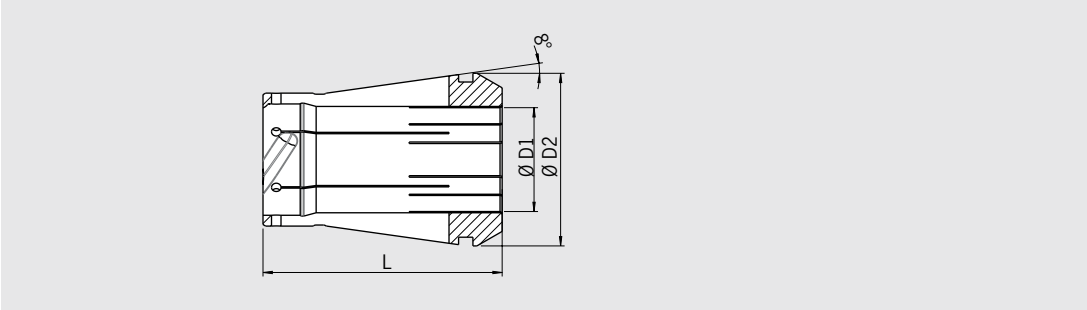
ER 16 Clamping Ø [mm]		D1	D2	L
Order No.	**81.163.02**[1)]	2	16.45	30
	81.163.03	3	16.45	30
	81.163.04[1)]	4	16.45	30
	81.163.05[1)]	5	16.45	30
	81.163.06[1)]	6	16.45	30
	81.163.08[1)]	8	16.45	30
	81.163.10[1)]	10	16.45	30

ER 25 Clamping Ø [mm]		D1	D2	L
Order No.	**81.253.02**[1)]	2	25.45	37
	81.253.03	3	25.45	37
	81.253.04	4	25.45	37
	81.253.05[1)]	5	25.45	37
	81.253.06[1)]	6	25.45	37
	81.253.08[1)]	8	25.45	37
	81.253.10[1)]	10	25.45	37
	81.253.12[1)]	12	25.45	37
	81.253.14[1)]	14	25.45	37
	81.253.16[1)]	16	25.45	37

ER 32 Clamping Ø [mm]		D1	D2	L
Order No.	**81.323.02**[1)]	2	32.48	45
	81.323.03	3	32.48	45
	81.323.04	4	32.48	45
	81.323.05[1)]	5	32.48	45
	81.323.06[1)]	6	32.48	45
	81.323.08[1)]	8	32.48	45
	81.323.10[1)]	10	32.48	45
	81.323.12[1)]	12	32.48	45
	81.323.14[1)]	14	32.48	45
	81.323.16[1)]	16	32.48	45
	81.323.18[1)]	18	32.48	45
	81.323.20[1)]	20	32.48	45

1) Sealed for internal coolant

POWER COLLET WITH SAFE-LOCK™



– High-precision Power Collets with stabilization and concentration through pilot of collet
– High torque due to form closed clamping
– No pull out and no spinning of the tool
– Groove on tool shank is directed so that the tool will be pulled into the chuck (depending on direction of rotation)
– Sealed for internal coolant

INCH ER 16 (0.47–0.63)		Ø D1 [inch]	Ø D2 [inch]	L [inch]
Order No.	81.163.3/8z.7	3/8	1.001	1.46

INCH ER 25 (0.47–0.63)		Ø D1 [inch]	Ø D2 [inch]	L [inch]
Order No.	81.253.3/8z.7	3/8	1.001	1.46
	81.253.1/2z.7	1/2	1.001	1.46
	81.253.5/8z.7	5/8	1.001	1.46

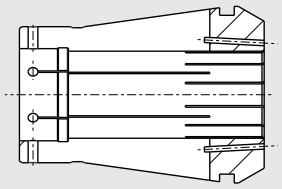
INCH ER 32 (0.63–0.79)		Ø D1 [inch]	Ø D2 [inch]	L [inch]
	81.323.3/8z.7	3/8	1.28	1.77
	81.323.1/2z.7	1/2	1.28	1.77
	81.323.5/8z.7	5/8	1.28	1.77
	81.323.3/4z.7	3/4	1.28	1.77

METRIC ER 16 Clamping Ø [mm]		D1	D2	L
Order No.	81.163.06.7	6	16.45	30
	81.163.08.7	8	16.45	30
	81.163.10.7	10	16.45	30

METRIC ER 25 Clamping Ø [mm]		D1	D2	L
Order No.	81.253.06.7	6	25.45	37
	81.253.08.7	8	25.45	37
	81.253.10.7	10	25.45	37
	81.253.12.7	12	25.45	37
	81.253.14.7	14	25.45	37
	81.253.16.7	16	25.45	37

METRIC ER 32 Clamping Ø [mm]		D1	D2	L
Order No.	81.323.06.7	6	32.48	45
	81.323.08.7	8	32.48	45
	81.323.10.7	10	32.48	45
	81.323.12.7	12	32.48	45
	81.323.14.7	14	32.48	45
	81.323.16.7	16	32.48	45
	81.323.18.7	18	32.48	45
	81.323.20.7	20	32.48	45

COOL JET BORES FOR POWER COLLETS



Optional: Cool Jet for Power Collets

– Optimized coolant bores, aimed at center in the collet
– Coolant directly to the cutting edge
– Extended tool life up to 100%
– Higher reliability of cutting process
– Eliminates chips packing and chip welding
– Available for self-sealing Power Collets

Cool Jet bores for Power Collets
Order No. 91.100.27

TORQUE MASTER TORQUE WRENCH FOR HAIMER POWER COLLET CHUCKS AND STANDARD ER CHUCKS

Two-armed clamping wrench and torque wrench for Collet Chucks:
– For highest runout accuracy, no one-sided clamping
– Optimal power transmission by consistent force application
– Torque wrench for highest clamping accuracy and repeatability with dial gauge
– Maximum torque for highest clamping force
– No overloading of smaller clamping diameters
– Changeable inserts, useable also for standard ER Collets

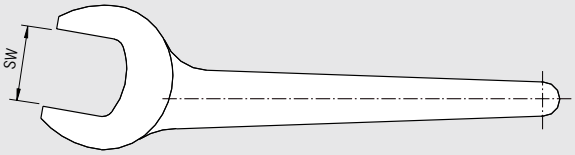
Torque Master Torque Wrench	Order No.
Torque Master with suitcase	84.600.00
Torque Master without suitcase	84.600.00.S
Torque Master torque wrench set with suitcase and 3 inserts for Standard ER Chucks in ER16, ER25, ER32	84.600.00.AK

INSERTS FOR TORQUE MASTER TORQUE WRENCH

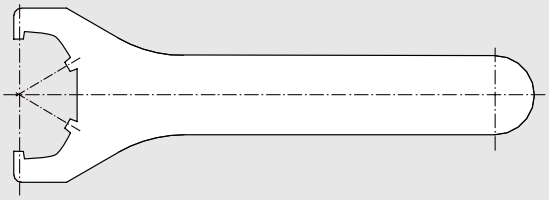
Inserts for Torque Master Wrench		
for Power Collet Chucks	Size	
Order No.		
84.610.16	ER16	
84.610.25	ER25	
84.610.32	ER32	
for Standard ER Chucks	Size	Wrench size SW
84.620.11	ER11	SW17
84.620.16	ER16	SW25
84.620.20	ER20	SW30
84.620.25	ER25	
84.620.32	ER32	

WRENCHES

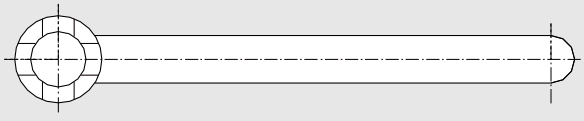
Power Collet clamping wrench for ER 16, ER 25 and ER 32				
ER		ER 16	ER 25	ER 32
Order No.	84.650...	.16	.25	.32



Wrench for locknuts ER 11, ER 16 and ER 20				
ER		ER 11	ER 16	ER 20
Wrench size		17	25	30
Order No.	84.200...	.11	.16	.20

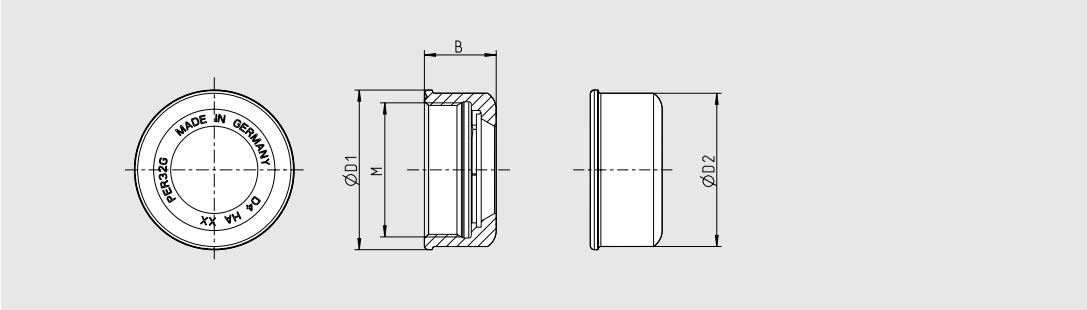


Wrench for locknuts ER 25–40				
ER		ER 25	ER 32	ER 40
Order No.	84.200...	.25	.32	.40



Wrench for tightening bolts for face mill arbors and combination shell end mill adapters Ø 16–60								
Ø		16	22	27	32	40	50	60
Order No.	84.400...	.16	.22	.27	.32	.40	.50	.60

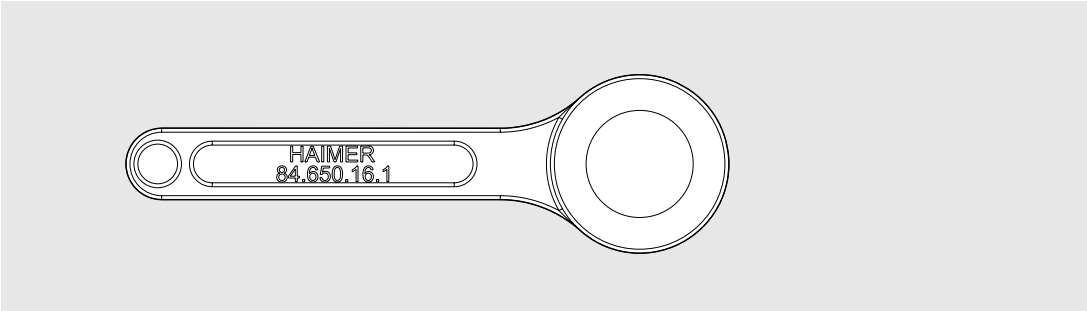
SMOOTH LOCKNUTS FOR HIGH PRECISION COLLET CHUCKS



High Precision Smooth Locknuts ER:
– Highest runout accuracy
– No wear and high clamping force due to special slide coating
– Less vibrations due to pre-balancing
– Noise reducing

ER		ER 16	ER 25	ER 32
Order No.	**83.914...**	**.16.1**	**.25.1**	**.32.1**
Ø D1		28	42	50
Ø D2		27	40	48
M		M 23 x 1.5	M 34 x 1.5	M 42 x 1.5
B		17.8	20	22.5

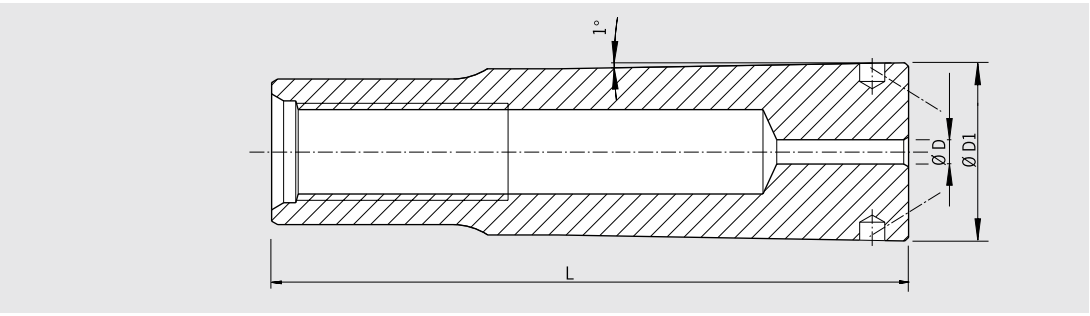
ROLLER BEARING WRENCH FOR HIGH PRECISION COLLET CHUCKS



Roller bearing wrench for clamping of locknuts for High Precision Collet Chucks.

Roller bearing wrench for ER 16, ER 25 and ER 32				
ER		ER 16	ER 25	ER 32
Order No.	**84.650...**	**.16.1**	**.25.1**	**.32.1**

HG COLLETS AND HG SPINDLE WIPER



HG Collets

For clamping tools with cylindrical shank with utmost precision in HG chucks

– For tools with Shank tolerance h6

INCH					
HG 01 **Order No.**	Ø D [inch] **82.510...**	**1/8** **.1/8Z**	**3/16** **.3/16Z**	**1/4** **.1/4Z**	**5/16** **.5/16Z**
HG 02 **Order No.**	Ø D [inch] **82.520...**	**3/8** **.3/8Z**	**7/16** **.7/16Z**	**1/2** **.1/2Z**	**9/16** **.9/16Z**
HG 03 **Order No.**	Ø D [inch] **82.530...**	**5/8** **.5/8Z**	**3/4** **.3/4Z**		

HG 01	Ø D [mm]	2	2.5	3	4	4.5	5	5.5	5.6[1)]	6	6.3	7	7.1[1)]	8	9
	Ø D1[mm]	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
	L [mm]	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
Order No.	**82.510...**	**.02**	**.02.5**	**.03**	**.04**	**.04.5**	**.05**	**.05.5**	**.05.6**	**.06**	**.06.3**	**.07**	**.07.1**	**.08**	**.09**
HG 02	**Ø D [mm]**	**10**		**11**		**12**		**12.5**		**14**					
	Ø D1[mm]	**17.87**		**17.87**		**17.87**		**17.87**		**17.87**					
	L [mm]	**64.2**		**64.2**		**64.2**		**64.2**		**64.2**					
Order No.	**82.520...**	**.10**		**.11**		**.12**		**.12.5**		**.14**					
HG 03	**Ø D [mm]**	**16**		**18**		**20**									
	Ø D1[mm]	**26.147**		**26.147**		**26.147**									
	L [mm]	**69.7**		**69.7**		**69.7**									
Order No.	**82.530...**	**.16**		**.18**		**.20**									

Accessories

Pull-out hook

HG

Order No. **82.570.00**

Lubrication paste

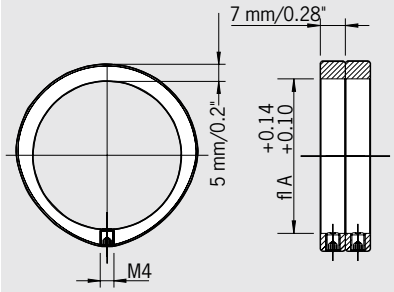
Order No. **82.585.00**

Spindle wiper

For cleaning tool holder I.D. of HG chuck

HG		for HG 01	for HG 02	for HG 03
Order No.	**82.590...**	**.01**	**.02**	**03**

BALANCING INDEX RINGS
SET OF BALANCING SCREWS



Make your standard tool holder a balanceable tool holder quickly and easily

– Included in delivery: 2 balancing index rings with screws
– Tightening torque: 1 ft lb (1.4 Nm)

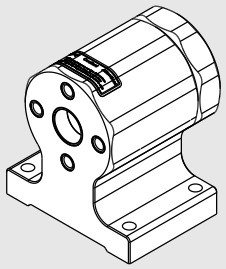
Set of balancing screws including
11 x 10 screws and screw driver
Order No. 80.203.00

Order No.	Ø A [mm]	Ø A [inch]	ca. unbalance
79.350.15	15	0.59	9 g·mm
79.350.17	17	0.67	12 g·mm
79.350.19	19	0.75	16 g·mm
79.350.20	20	0.79	17 g·mm
79.350.22	22	0.87	20 g·mm
79.350.24	24	0.94	27 g·mm
79.350.25	25	0.98	32 g·mm
79.350.26	26	1.02	33 g·mm
79.350.27	27	1.06	33 g·mm
79.350.28	28	1.10	40 g·mm
79.350.30	30	1.18	45 g·mm
79.350.32	32	1.26	36 g·mm
79.350.34	34	1.34	40 g·mm
79.350.35	35	1.38	48 g·mm
79.350.36	36	1.42	47 g·mm
79.350.38	38	1.50	53 g·mm
79.350.40	40	1.57	57 g·mm
79.350.42	42	1.65	65 g·mm
79.350.43	43	1.69	65 g·mm
79.350.1.71Z	43.45	1.71	68 g·mm
79.350.44	44	1.73	68 g·mm
79.350.46	46	1.81	75 g·mm
79.350.48	48	1.89	81 g·mm
79.350.50	50	1.97	87 g·mm
79.350.52	52	2.05	94 g·mm
79.350.53	53	2.09	86 g·mm
79.350.54	54	2.13	91 g·mm

Order No.	Ø A [mm]	Ø A [inch]	ca. unbalance
79.350.55	55	2.17	94 g·mm
79.350.56	56	2.20	100 g·mm
79.350.58	58	2.28	106 g·mm
79.350.60	60	2.36	110 g·mm
79.350.62	62	2.44	120 g·mm
79.350.63	63	2.48	123 g·mm
79.350.64	64	2.52	126 g·mm
79.350.65	65	2.56	129 g·mm
79.350.66	66	2.60	120 g·mm
79.350.68	68	2.68	135 g·mm
79.350.70	70	2.76	145 g·mm
79.350.72	72	2.83	152 g·mm
79.350.74	74	2.91	160 g·mm
79.350.76	76	2.99	168 g·mm
79.350.78	78	3.07	178 g·mm
79.350.80	80	3.15	186 g·mm
79.350.82	82	3.23	199 g·mm
79.350.84	84	3.31	215 g·mm
79.350.86	86	3.39	224 g·mm
79.350.87	87	3.43	225 g·mm
79.350.88	88	3.46	226 g·mm
79.350.89	89	3.50	231 g·mm
79.350.90	90	3.54	237 g·mm
79.350.92	92	3.62	247 g·mm
79.350.94	94	3.70	253 g·mm
79.350.96	96	3.78	267 g·mm
79.350.98	98	3.86	277 g·mm
79.350.100	100	3.94	285 g·mm

2 m hex wrench not included
HAIMER rings will work on many brands of tool holders
Unbalance g·mm are reference values, little variances possible

TOOL ASSEMBLY DEVICE TOOL CLAMP WITH VARIOUS ADAPTERS



The tool assembly device:
- Secure tool assembling
- Minimum locking force needed
- Quick-change function for different taper interfaces – without additional tooling
- Accident-free assembling of cutting tools
- Spring-loaded locking pin
- Mechanical security pin
- Better tool clamping thanks to optimum ergonomics
- Replaceable brass tool inserts protect the taper surface
- Required space 140 x 100 mm

Tool Clamp

Tool holder SK

Tool Clamp – without tool holder, 4 x 90° indexable	
Order No.	**84.700.00**

Tool holder SK (DIN/MAS-BT/CAT)	
Order No.	**Type**
84.701.30	CAT/BT/SK/ISO 30
84.701.40	CAT/BT/SK/ISO 40
84.701.50	CAT/BT/SK/ISO 50

Tool holder HSK-A (DIN 69893/1)	
Order No.	**Type**
84.702.40	HSK-A40
84.702.50	HSK-A50
84.702.63	HSK-A63
84.702.80	HSK-A80
84.702.10	HSK-A100

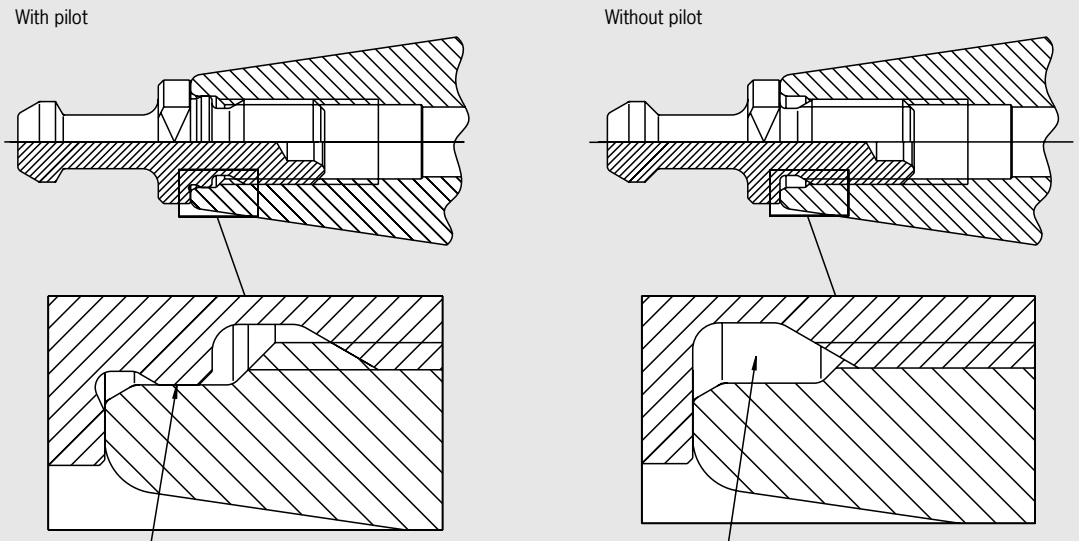
Tool holder HSK-C/HSK-E (DIN 69893/1)	
Order No.	**Type**
84.703.32	HSK-C/E32
84.703.40	HSK-C/E40
84.703.50	HSK-C/E50
84.703.63	HSK-C/E63
84.703.80	HSK-C/E80

Tool holder HSK-F	
Order No.	**Type**
84.704.63.M	HSK-F63/HSK-F63 MAKINO
84.704.80.M	HSK-F80 MAKINO

Tool holder PSC	
Order No.	**Type**
84.705.40	PSC 40
84.705.50	PSC 50
84.705.60	PSC 63

Tool holder KM4X100	
Order No.	**Type**
84.706.4X100	KM4X

CAT40/CAT50
PULL STUD INFORMATION

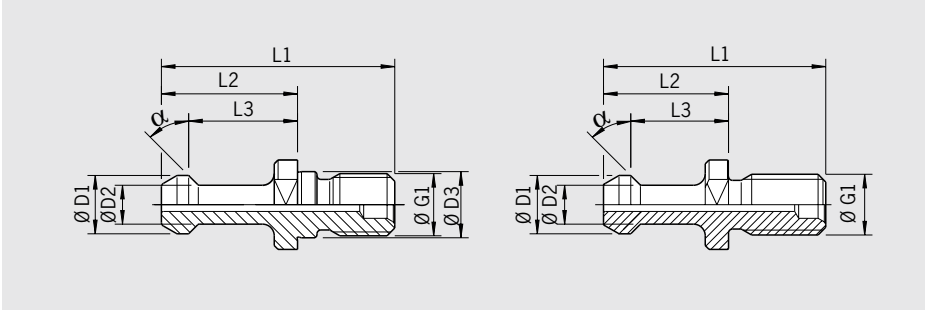


HAIMER goes far beyond the requirements of CAT40 tooling. Our experience with tool holders and balancing have merged together to successfully create far superior CAT tapered tooling.

In addition to our contact and 100% inspection process of our tapers, HAIMER has developed a special feature to greatly increase your tool holder balance repeatability and your machine tool spindle draw mechanism repeatability.

We have added a ground pilot in the rear of all our CAT40 tool holders. This ground pilot fits perfectly with the special HAIMER pull stud to maximize your tool holder to machine tool connection. The ground pilot is larger than the standard ANSI dimension, so you can easily use any pull stud from any manufacturer. However, for those serious about balance and machine tool spindle draw repeatability, HAIMER has the answer for you with our special pull stud/pilot connection!

PULL STUDS
CAT40 · BT30/40 · SK40



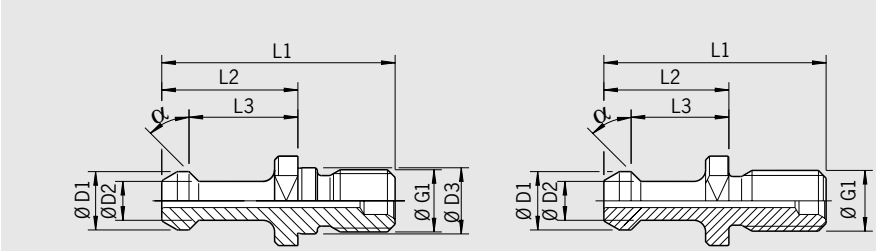
Version with ground pilot is used to help consistently locate the pull stud in the tool holder. Great for runout accuracy, balance repeatability and machine tool draw bar consistency.

All HAIMER tool holders are provided with ground center-bore to match pull stud pilot (all standard pull studs can be used as well). All metric pull studs come with a ground pilot.

CAT40 I BT 30/40 I SK 40

Without coolant through hole	With coolant through hole	G1	D1	D2	D3	L1	L2	L3	α
Order No.									
MAS 30°									
88.604.30	**–**	M12	0.43”	0.28”	0.49”	1.69”	0.91”	0.71”	30°
MAS 45°									
88.601.30	**–**	M12	0.43”	0.28”	0.49”	1.69”	0.91”	0.71”	45°
88.601.40	**–**	M16	0.59”	0.39”	0.67”	2.36”	1.38”	1.10”	45°
–	**88.613.40**	5/8”–11UNC”	0.59”	0.39”	–	2.25”	1.27”	0.99”	45°
88.621.40	**88.623.40**	5/8”–11UNC” + pilot	0.59”	0.39”	0.67”	2.25”	1.27”	0.99”	45°
JIS 6339 Makino									
88.701.40	**88.700.40**	M16	0.75”	0.55”	0.67”	2.13”	1.14”	0.91”	15°
88.711.40	**88.710.40**	5/8”–11UNC”	0.75”	0.55”	–	2.01”	1.03”	0.79”	15°
–	**88.720.40**	5/8”–11UNC” + pilot	0.75”	0.55”	0.67”	2.01”	1.03”	0.79”	15°
–	**88.800.40**	M16	0.75”	0.55”	0.67”	2.13”	1.03”	0.79”	15°
ANSI B5.5 Mazak									
–	**88.510.40**	5/8”–11UNC”	0.74”	0.49”	–	1.62”	0.64”	0.44”	45°
88.521.40	**88.520.40**	5/8”–11UNC” + pilot	0.74”	0.49”	0.67”	1.62”	0.64”	0.44”	45°
–	**88.500.40.1**	M16	0.74”	0.49”	0.67”	1.62”	0.64”	0.44”	45°
MAS 30°									
88.614.40	**88.615.40**	5/8”–11UNC”	0.59”	0.39”	–	2.25”	1.27”	0.99”	30°
88.624.40	**88.625.40**	5/8”–11UNC” + pilot	0.59”	0.39”	0.67”	2.25”	1.27”	0.99”	30°
MAS 45° (Special)									
88.627.40	**88.631.40**	5/8”–11UNC”	0.59”	0.39”	0.67	2.42”	1.44”	1.16”	45°
MAS 90° Mori Seiki									
88.111.40	**–**	5/8”–11UNC”	0.59”	0.39”	–	2.25”	1.27”	0.99”	90°
88.121.40	**–**	5/8”–11UNC” + pilot	0.59”	0.39”	0.67”	2.25”	1.27”	0.99”	90°
MAS 90° Mori Seiki (Special)									
88.131.40	**–**	5/8”–11UNC”	0.59”	0.39”	0.67”	1.94”	0.96”	0.68”	90°
ISO 7388-3 Form A (formerly DIN 69872)									
88.202.40	**88.200.40**	M16	0.75”	0.55”	0.67”	2.13”	1.02”	0.78”	15°

PULL STUDS
CAT50 · BT50



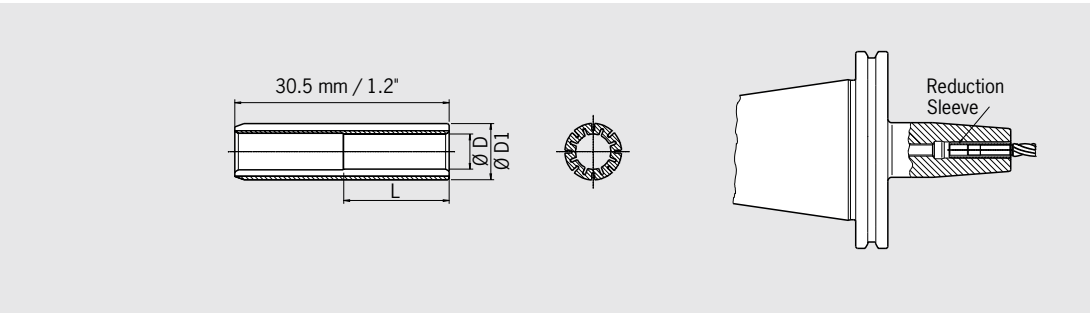
Version with ground pilot is used to help consistently locate the pull stud in the tool holder. Great for runout accuracy, balance repeatability and machine tool draw bar consistency.

All HAIMER tool holders are provided with ground center-bore to match pull stud pilot (all standard pull studs can be used as well). All metric pull studs come with a ground pilot.

CAT50 I BT 50

Without coolant through hole	With coolant through hole	G1	D1	D2	D3	L1	L2	L3	α
Order No.									
MAS 45°									
88.601.50	**–**	M24	0.91"	0.67"	0.98"	3.35"	1.77"	1.38"	45°
88.611.50	**88.613.50**	1"–8UNC"	0.91"	0.67"	–	3.35"	1.78"	1.39"	45°
–	**88.623.50**	1"–8UNC" + pilot	0.91"	0.67"	1.06"	3.35"	1.78"	1.39"	45°
MAS 30°									
88.604.50	**–**	M24	0.91"	0.67"	0.98"	3.35"	1.77"	1.38"	30°
88.614.50	**88.615.50**	1"–8UNC"	0.91"	0.67"	–	3.35"	1.77"	1.38"	30°
88.624.50	**88.625.50**	1"–8UNC" + pilot	0.91"	0.67"	1.06"	3.35"	1.77"	1.38"	30°
JIS 6339 Makino									
88.700.50	**–**	M24	1.1"	0.83"	0.98"	2.91"	1.34"	0.98"	15°
88.710.50	**–**	1"–8UNC"	1.1"	0.83"	–	2.93"	1.35"	0.99"	15°
88.720.50	**–**	1"–8UNC" + pilot	1.1"	0.83"	1.06"	2.93"	1.35"	0.99"	15°
Ansi B5.50 Mazak									
–	**88.500.50**	M24	1.14"	0.82"	0.98"	2.57"	1"	0.70"	45°
–	**88.510.50**	1"–8UNC"	1.14"	0.82"	–	2.57"	1"	0.70"	45°
–	**88.520.50**	1"–8UNC" + pilot	1.14"	0.82"	1.06"	2.57"	1"	0.70"	45°
Ansi B5.50 Mazak (sealing with O-ring on face side)									
88.511.50	**88.510.50**	1"–8UNC"	1.14"	0.82"	–	2.57"	1"	0.70"	45°
88.521.50	**88.520.50**	1"–8UNC" + pilot	1.14"	0.82"	1.06"	2.57"	1"	0.70"	45°
MAS 90° Mori Seiki									
88.101.50	**–**	M24	0.91"	0.67"	0.98"	3.35"	1.77"	1.38"	90°
88.111.50	**88.113.50**	1"–8UNC"	0.91"	0.67"	–	3.35"	1.78"	1.39"	90°
88.121.50	**–**	1"–8UNC" + pilot	0.91"	0.67"	1.06"	3.35"	1.78"	1.39"	90°
ISO 7388-3 Form A (formerly DIN 69872)									
88.202.50	**88.200.50**	M24	1.1"	0.82"	0.98"	2.92"	1.34"	0.98"	15°
–	**88.800.50**	M24	1.1"	0.83"	0.98"	2.91"	1.34"	0.99"	15°

REDUCTION SLEEVES



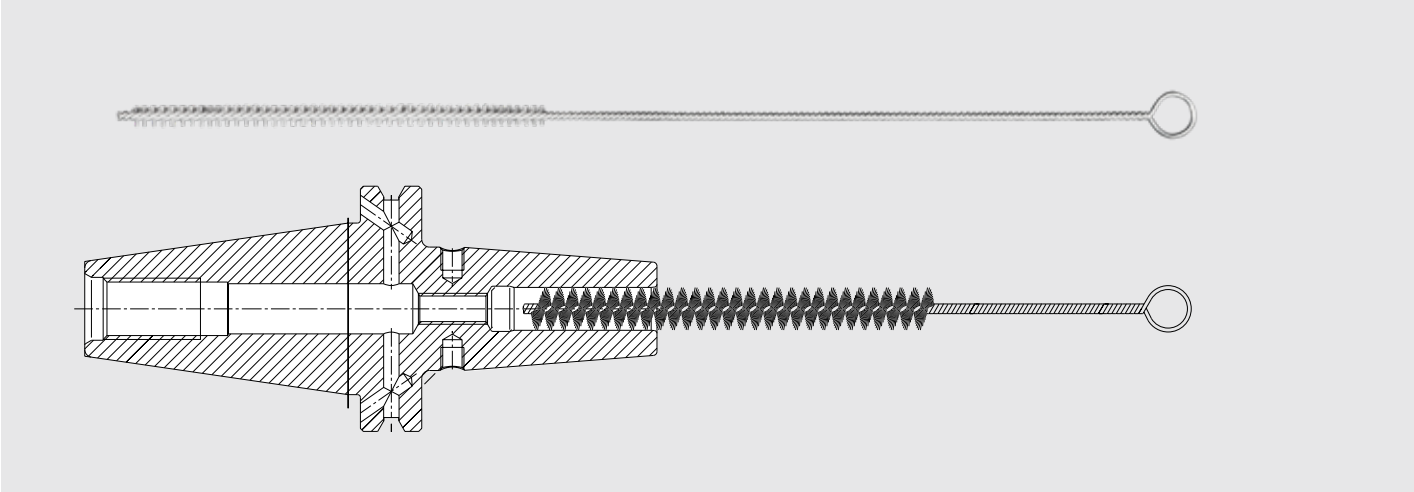
Use:
For clamping small shanks in chucks with Ø 5/16" or 8 mm ID's.

For use in all chucks as reducers
– HG-chucks
– Collet chucks
– Hydraulic chucks
– Other high precision mechanical chucks

INCH		Ø D	Ø D1	L
Order No.	79.110.3/32Z	3/32"	5/16"	0.27"
Order No.	79.110.1/8Z	1/8"	5/16"	0.35"
Order No.	79.110.5/32Z	5/32"	5/16"	0.47"
Order No.	79.110.3/16Z	3/16"	5/16"	0.56"
Order No.	79.110.7/32Z	7/32"	5/16"	0.65"

METRIC		Ø D [mm]	Ø D1 [mm]	L [mm]
Order No.	79.110.2.5	2.5	8	7.5
Order No.	79.110.3	3	8	9
Order No.	79.110.3.5	3.5	8	10.5
Order No.	79.110.4	4	8	12
Order No.	79.110.4.5	4.5	8	13.5
Order No.	79.110.5	5	8	15
Order No.	79.110.5.5	5.5	8	16.5

SHRINK FIT BRUSHES

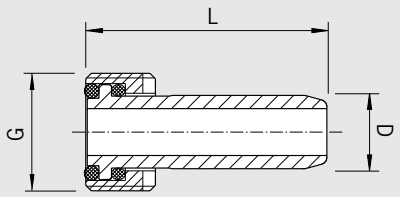


In order to achieve the best possible shrink fit connection, a grease free socket and shank is necessary. The cleaning can be done by a cold solvent (e.g. brake cleaner). An appropriate cleaning brush is necessary to clean the socket of the Shrink Fit Chuck.

Shrink Fit Brush Order No.	Ø [inch]
86.200.01	1/8 (3.175 mm)
86.200.02	3/16 (4.762 mm)
86.200.03	1/4 (6.35 mm)
86.200.03	5/16 (7.93 mm)
86.200.04	3/8 (9.525 mm)
86.200.04	7/16 (11.11 mm)
86.200.05	1/2 (12.7 mm)
86.200.06	5/8 (15.87 mm)
86.200.07	3/4 (19.05 mm)
86.200.08	1 (25.4 mm)

Shrink Fit Brush Order No.	Ø [mm]
86.200.01	3
86.200.02	3.5
86.200.02	4
86.200.02	4.5
86.200.02	5
86.200.03	6
86.200.03	8
86.200.04	10
86.200.04	12
86.200.06	14
86.200.06	16
86.200.07	18
86.200.07	20
86.200.08	25

COOLANT TUBES



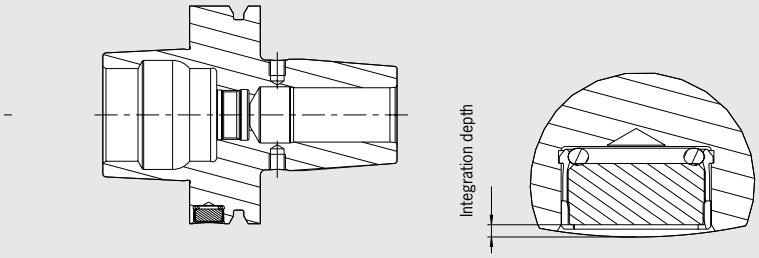
– Dual o-ring design makes tube slightly movable
– Coated steel with smooth surface for trouble-free insertion into the machine spindle
– Fits all brands of HSK holders
– Must be used with all coolant through HSK spindles

Coolant tube with 2 o-rings	HSK-A32	HSK-A40	HSK-A50	HSK-A63	HSK-A80	HSK-A100	HSK-A125
	HSK-E32	HSK-E40	HSK-E50				
Order No. 85.700...	**.32**	**.40**	**.50**	**.63**	**.80**	**.10**	**.125**
Length G [mm]	M10 x 1	M12 x 1	M16 x 1	M18 x 1	M20 x 1,5	M24 x 1,5	M30 x 1,5
Length D [mm]	6	8	10	12	14	16	18
Length L [mm]	26	29,5	33	36,5	40	44	48

Accessories

Wrench			HSK 32	HSK 40	HSK 50	HSK 63	HSK 80	HSK 100	HSK 125
Order No.	**84.500...**		**.32**	**.40**	**.50**	**.63**	**.80**	**.100**	**.125**

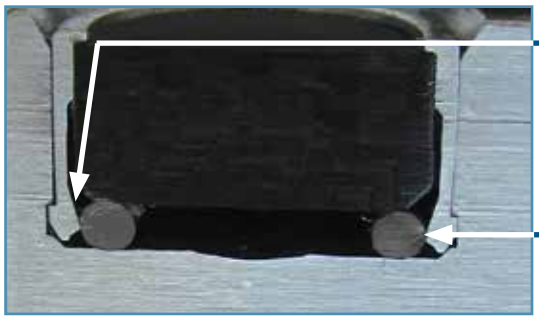
DATA-LOCK
MECHANICAL DATA CARRIER LOCKING SYSTEM



The mechanical data carrier locking system locks the data carrier by a form and press fit into the tool holder. Especially for higher rpm ranges the new system provides high process reliability.

Advantages:
- Process reliability even at high rotations thanks to mechanical locking (60,000 – 120,000 rpm)
- Less integration depth than comparable mechanical locking systems
- Process reliability at the reading/writing process thanks to the reduced integration depth
- Fine balanced tool holder after data carrier assembly
- Immediately ready to use
- Possible also for non-HAIMER holders
- Patent pending

Delivery includes:
- Modification of the data carrier bore
- Sleeve for the data carrier
- Seal ring
- Mounting of data carrier
- Fine balancing



Sleeve is clamped by form and press fit into the tool holder

Seal ring locks data carrier in the sleeve

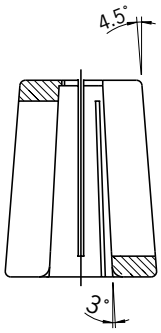
Detail Data-Lock cut-away model

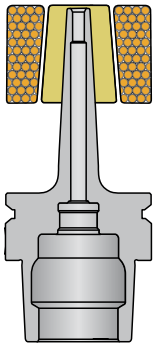
	Order No.
Mounting on HAIMER holders incl. fine balancing	**91.100.06**
Mounting on different holders incl. fine balancing	**91.100.07**

MINI SHRINK
SHRINK AND COOLING SLEEVES

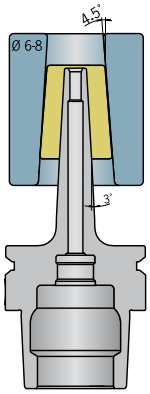
For shrinking and cooling of Mini Shrink chucks.
- Protects Mini Shrink chucks from overheating
- Extends lifetime of shrink fit chucks
- Secure and user friendly handling
- Cooling with standard cooling body 6 mm – 8 mm

Function





Heat up
With shrink and cooling sleeve

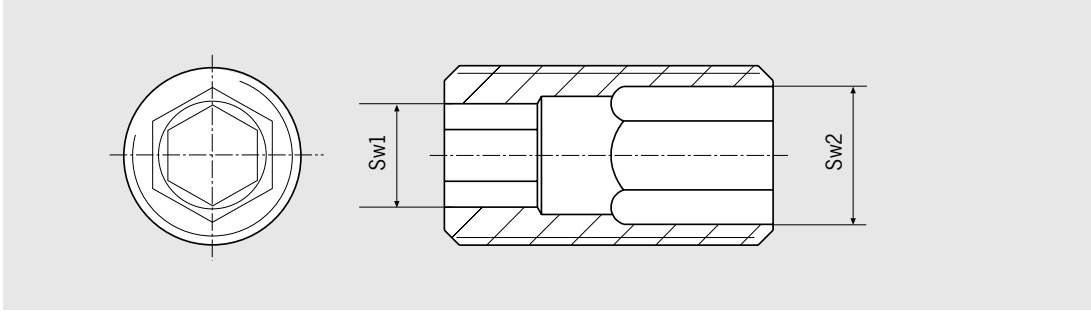


Cool down
With shrink and cooling sleeve and cooling body Ø 6–8 mm

Shrinking and cooling sleeves for Mini Shrink chucks									Order No.
Extra slim									
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12		
Order No. 80.105.14...	**.2.01**	**.2.02**	**.2.03**	**.2.04**	**.2.05**	**.2.06**	**.2.07**		
Standard									
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	Ø 16	
Order No. 80.105.14...	**.2.04**	**.2.08**	**.2.05**	**.2.09**	**.2.10**	**.2.11**	**.2.12**	**.2.16**	
Base									**80.105.14.2.99**
Set with base (12 pcs)									**80.105.14.2.00**

1) Not suitable for central cooling

BACK-UP SCREWS
FOR SHRINK FIT CHUCKS & POWER COLLET CHUCKS



– Hexagon socket on each end – can always be reached
– Flats on sides for optimized coolant drainage
– Fine thread for maximum accuracy

For Shrink Fit Chucks

[mm]		CAT40/50 SK 40/50 BT 40/50	HSK-A 32/E 32 A 40/E 40	HSK-A 50/ E 50	HSK-A 63	HSK-F 63	HSK-A 80	HSK-A 100
Clamping Ø	**Length** **Order No.**							
6	**85.810...**	**.12.1**	**.12.1**	**.12.1**	**.12.1**	**.12.1**	**.12.1**	**.12.1**
8		**.15.1**	**.15.1**	**.15.1**	**.15.1**	**.15.1**	**.15.1**	**.15.1**
10	short other	**.18.2** **.18.2**	**.18.2** **.36.2**	**.18.2** **.36.2**	**.18.2** **.36.2**	**.18.2** **.36.2**	**.18.2** **.36.2**	**.18.2** **.36.2**
12	short other	**.24.2** **.24.2**	**.24.2** **.24.2**	**.39.2** **.24.2**	**.39.2** **.24.2**	**.39.2** **.24.2**	**.21.2** **.24.2**	**.21.2** **.24.2**
14	short ZG130/oversize	**.24.2** **.24.2**	**.24.2** **.24.2**	**.39.2** **.24.2**	**.39.2** **.24.2**	**–** **–**	**.21.2** **.24.2**	**.21.2** **.24.2**
16	short ZG130/oversize	**.46.2** **.46.2**	**.27.2** **.27.2**	**.25.2** **.38.2**	**.25.2** **.46.2**	**.25.2**[1)] **.46.2**[1)]	**.27.2** **.46.2**	**.40.1** **.46.2**
18	short ZG130/oversize	**.46.2** **.46.2**	**–** **–**	**.25.2** **.38.2**	**.25.2** **.46.2**	**–** **–**	**.27.2** **.46.2**	**.40.1** **.46.2**
20	short ZG130/oversize	**.52.2** **.52.2**	**–** **–**	**.51.2** **.52.2**	**.51.2** **.52.2**	**.51.2**[1)] **.52.2**[1)]	**.51.2** **.52.2**	**.51.2** **.52.2**
25	short ZG130/oversize	**.52.2** **.52.2**	**–** **–**	**–** **–**	**.52.2** **.52.2**	**.52.2**[1)] **.52.2**[1)]	**.52.2** **.52.2**	**.52.2** **.52.2**
32	short ZG130/oversize	**.52.2** **.52.2**	**–** **–**	**–** **–**	**.52.2** **.52.2**	**–** **–**	**.52.2** **.52.2**	**.52.2** **.52.2**

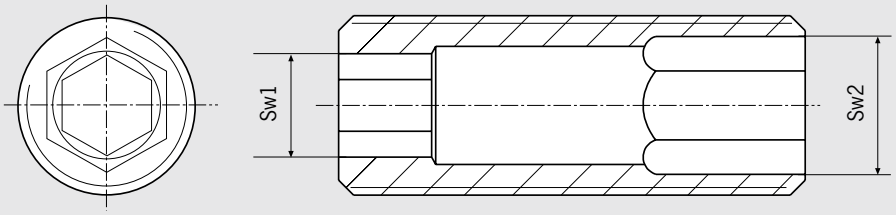
For Shrink Fit Chucks & Power Collet Chucks

Order No.	SW1	SW2	Thread	Also usable for Power Collet Chucks
85.810.12.1	SW2.5	SW2.5	M5x0.8x16	
85.810.15.1	SW3	SW3	M6x1x16	
85.810.18.2	SW3	SW4	M8x1x16	ER16
85.810.24.2	SW4	SW5	M10x1x20	
85.810.25.2	SW5	SW6	M12x1x18	ER25
85.810.27.2	SW4	SW6	M12x1x18	ER25
85.810.36.2	SW3	SW4	M8x1x20	ER16
85.810.46.2	SW6	SW6	M12x1x20	ER25

Order No.	SW1	SW2	Thread	Also usable for Power Collet Chucks
85.810.21.2	SW4	SW5	M10x1x16	
85.810.38.2	SW5	SW6	M12x1x22	ER25
85.810.39.2	SW4	SW5	M10x1x18	
85.810.40.1	SW6	SW6	M12x1x16	ER25
85.810.43.2	SW5	SW8	M12x1x18	ER25
85.810.44.2	SW5	SW8	M12x1x22	ER25
85.810.45.2	SW6	SW8	M12x1x18	ER25
85.810.51.2	SW5	SW8	M16x1x18	ER32
85.810.52.2	SW6	SW8	M16x1x22	ER32

1) Only adjustable through clamping bore

BACK-UP SCREWS
FOR SHRINK FIT CHUCKS & POWER COLLET CHUCKS



– Hexagon socket on each end – can always be reached
– Flats on sides for optimized coolant drainage
– Fine thread for maximum accuracy

For Shrink Fit Chucks

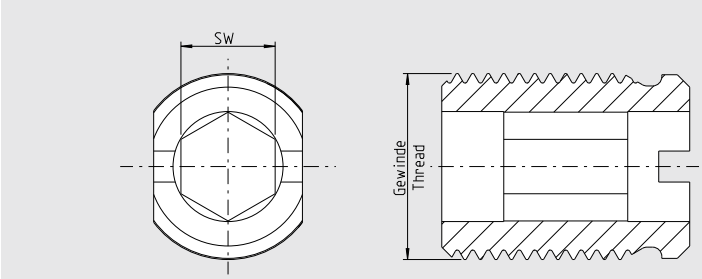
[mm]		CAT40/50 SK 40/50 BT 40/50	HSK-A 32/E 32 A 40/E 40	HSK-A 50 E 50	HSK-A 63	HSK-F 63	HSK-A 80	HSK-A 100
Clamping Ø	**Length** **Order No.**							
6	**85.810...**	**.12.4**	**.12.4**	**.12.4**	**.12.4**	**.12.4**	**.12.4**	**.12.4**
8		**.15.4**	**.15.4**	**.15.4**	**.15.4**	**.15.4**	**.15.4**	**.15.4**
10		**.18.4**	**.18.4**	**.18.4**	**.18.4**	**.18.4**	**.18.4**	**.18.4**
12		**.21.4**	**.21.4**[1)]	**.21.4**	**.21.4**	**.21.4**	**.21.4**	**.21.4**
14		**.21.4**	**.21.4**	**.21.4**	**.21.4**	**.21.4**	**.21.4**	**.21.4**
16	short ZG130/oversize	**.37.4** **.37.4**	**.27.4** **.27.4**	**.25.4** **.25.4**	**.25.4** **.37.4**	**.25.4**[1)] **.37.4**[1)]	**.27.4** **.37.4**	**.40.4** **.37.4**
18	short ZG130/oversize	**.37.4** **.37.4**	**–** **–**	**.25.4** **.25.4**	**.25.4** **.37.4**	**.25.4**[1)] **.37.4**[1)]	**.27.4** **.37.4**	**.40.4** **.37.4**
20	short ZG130/oversize	**.52.4** **.52.4**	**–** **–**	**.52.4** **.52.4**	**.52.4** **.52.4**	**.52.4**[1)] **.52.4**[1)]	**.52.4** **.52.4**	**.52.4** **.52.4**
25		**.52.4**	**–**	**–**	**.52.4**	**.52.4**[1)]	**.52.4**	**.52.4**
32		**.52.4**	**–**	**–**	**.52.4**	**.52.4**[1)]	**.52.4**	**.52.4**

For Shrink Fit Chucks & Power Collet Chucks

Order No.	SW1	SW2	Thread	Also usable for Power Collet Chucks
85.810.12.4	SW2.5	SW2.5	M5x0.8x24	
85.810.15.4	SW3	SW3	M6x1x24	
85.810.18.4	SW3	SW4	M8x1x24	ER16
85.810.21.4	SW4	SW5	M10x1x28	
85.810.37.4	SW6	SW8	M12x1x34	ER25
85.810.43.4	SW5	SW8	M12x1x34	ER25
85.810.25.4	SW5	SW6	M12x1x34	ER25
85.810.27.4	SW4	SW6	M12x1x34	ER25
85.810.52.4	SW6	SW8	M16x1x34	ER32

1) Only adjustable through clamping bore

BACK-UP SCREWS FOR POWER SHRINK CHUCKS



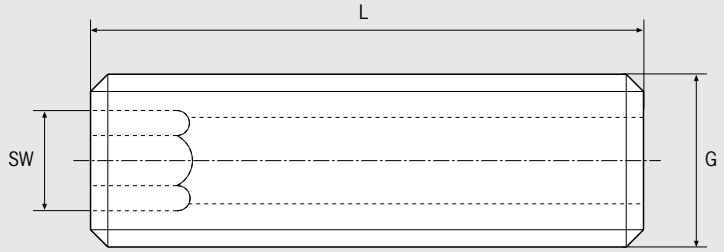
- Optimized for Shrink Fit Chucks with Cool Jet
- Guaranteed coolant supply via transverse groove
- Hexagon socket on each end – can always be reached
- Flats on sides for optimized coolant drainage
- Fine thread for maximum accuracy

[mm]	Type	CAT40/50 SK40/50 BT40/50	HSK-A32/E32 A40/E40	HSK-A50/ E50	HSK-A63	HSK-F63	HSK-A80	HSK-A100
Clamping Ø	**Length** **Order No.**							
6	**85.810...**	**.12.3**	**.12.3**	**.12.3**	**.12.3**	**.12.3**	**.12.3**	**.12.3**
8		**.15.3**	**.15.3**	**.15.3**	**.15.3**	**.15.3**	**.15.3**	**.15.3**
10		**.18.3**	**.18.3**	**.18.3**	**.18.3**	**.18.3**	**.18.3**	**.18.3**
12	 ultra short	**.48.3** **.48.3.1**	**.48.3** —	**.48.3** —	**.48.3** —	**.48.3** —	**.48.3** —	**.48.3** —
14		**.21.3**	**.21.3**	**.21.3**	**.21.3**	—	**.21.3**	**.21.3**
16	 ultra short	**.49.3** **.49.3.1**	**.49.3** —	**.49.3** —	**.49.3** —	**.49.3** —	**.49.3** —	**.49.3** —
18		**.40.3**	—	**.40.3**	**.40.3**	—	**.40.3**	**.40.3**
20		**.51.3**	—	**.51.3**	**.51.3**	**.51.3**	**.51.3**	**.51.3**
25		**.52.3**	—	—	**.52.3**	—	**.52.3**	**.52.3**
32		**.52.3**	—	—	**.52.3**	—	**.52.3**	**.52.3**

Order No.	SW	Thread
85.810.12.3	SW2.5	M5x0.8x16
85.810.15.3	SW3	M6x1x16
85.810.18.3	SW4	M8x1x16
85.810.21.3	SW5	M10x1x16
85.810.40.3	SW6	M12x1x16
85.810.43.3	SW6	M12x1x18
85.810.46.3	SW6	M12x1x20
85.810.48.3	SW5	M10x1x16

Order No.	SW	Thread
85.810.48.3.1	SW5	M10x1x28
85.810.49.3	SW6	M12x1x16
85.810.49.3.1	SW6	M12x1x20
85.810.51.3	SW6	M16x1x18
85.810.52.3	SW6	M16x1x20

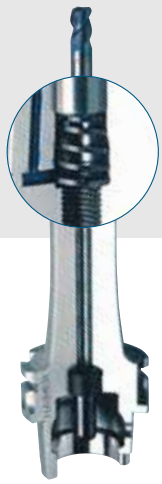
BACK-UP SCREWS FOR COLLET CHUCKS



Size Ø [mm]	HSK-32, 40, 50, 63, 80, 100		SW	L [mm]	Thread
ER 16	**Order No.**	**85.800.34**	3	25	M6
ER 20		**85.800.34**	3	25	M6
ER 25		**85.800.34**	3	25	M6
ER 32		**85.800.35**	5	25	M10
ER 40		**85.800.35**	5	25	M10

TENSION SPRINGS FOR SHRINK FIT CHUCKS

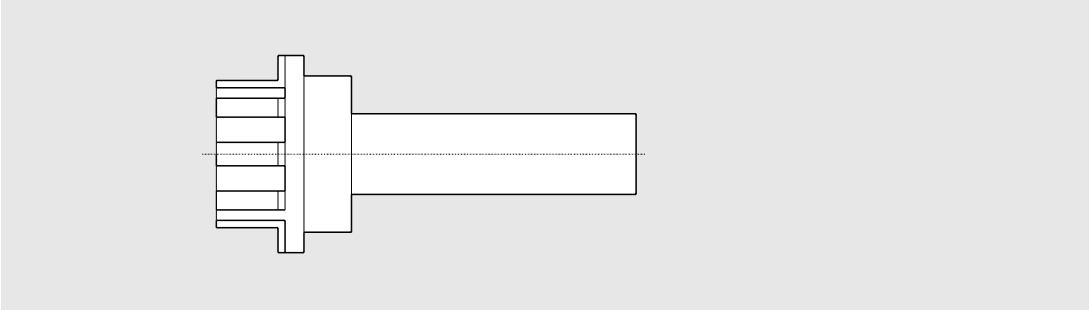
- Spring is set into clamping bore
- Spring presses tool against stop disk
- Fits all common shrink fit chucks
- Back-up screw can remain in chuck



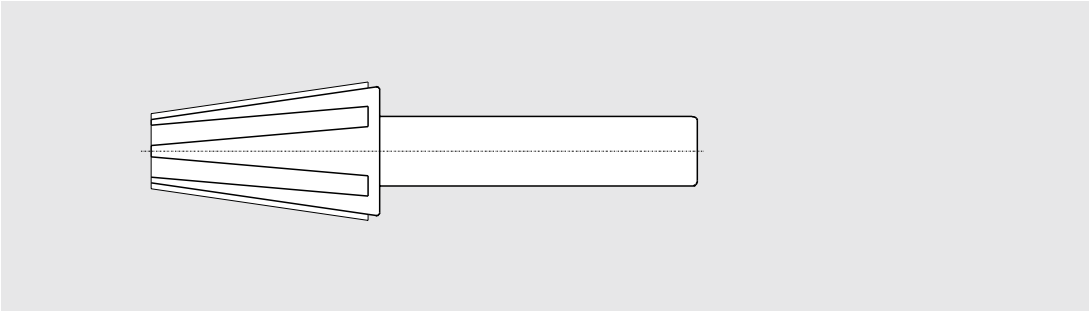
Tension spring for length presetting

											Order No.
Tension spring		Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
Order No.	**85.830...**	**.06**	**.08**	**.10**	**.12**	**.14**	**.16**	**.18**	**.20**	**.25**	**.32**
Tension spring set (10 pcs. of each size) incl. grab				**85.830.00**							

CONE WIPER

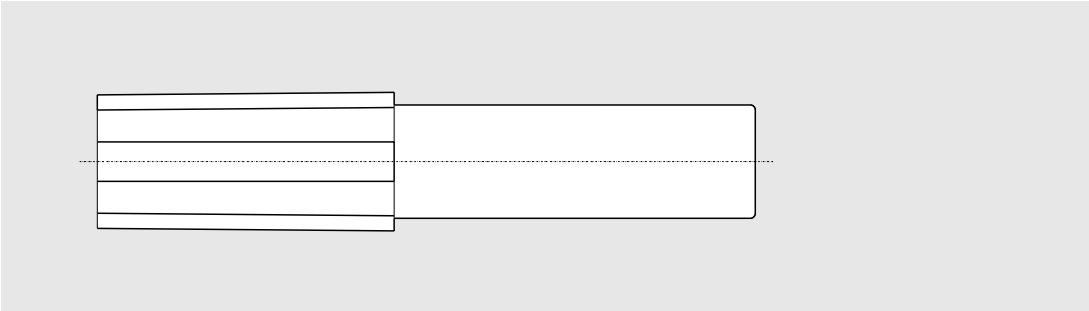


Cone wiper HSK		HSK-32	HSK-40	HSK-50	HSK-63	HSK-80	HSK-100
Order No.	85.820...	.32	.40	.50	.63	.80	.10



Cone wiper SK, BT, CAT		SK30	BT30	SK40	BT40	CAT40	SK50	BT50	CAT50
Order No.	86.100...	.30	.30	.40	.40	.40	.50	.50	.50

Cone wiper MK		MK 01	MK 02	MK 03	MK 04
Order No.	86.100...	.01	.02	.03	.04



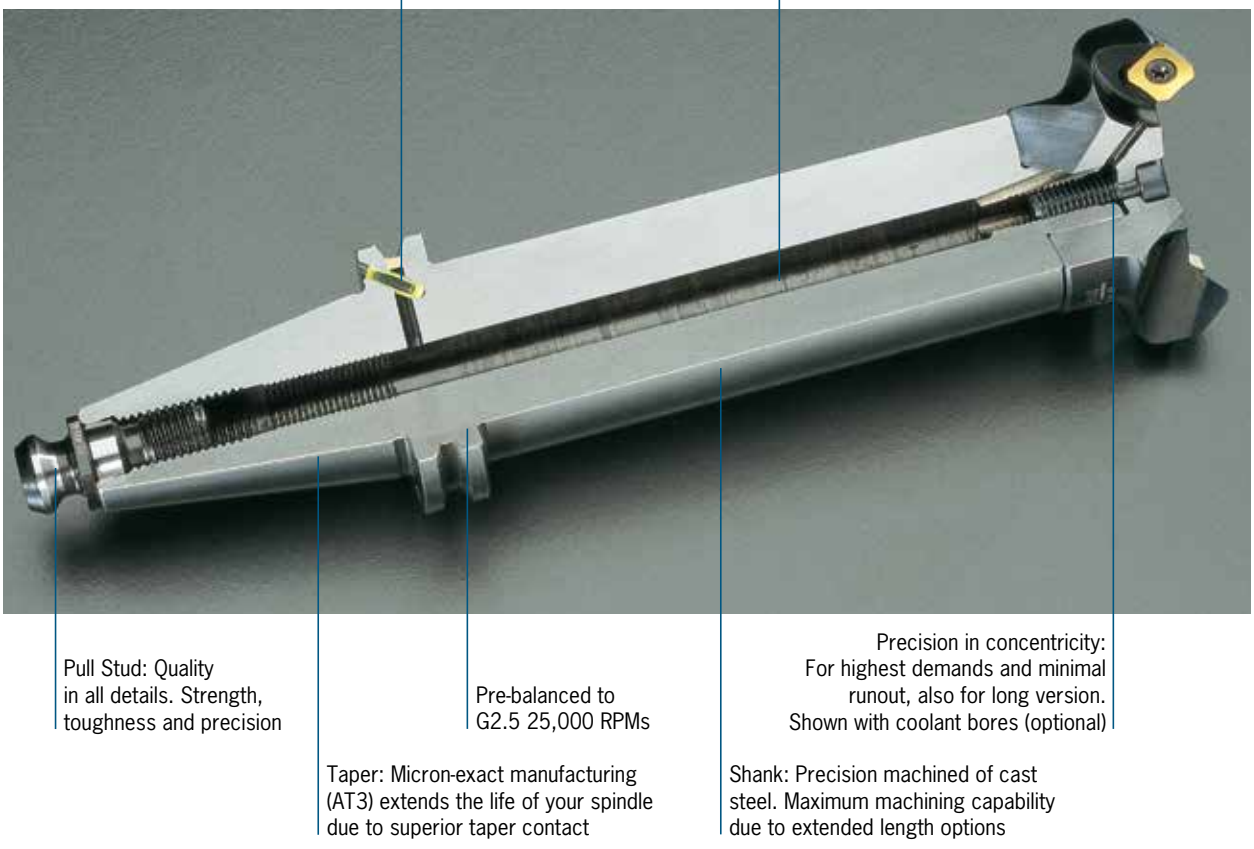
Cone wiper HG		HG 01	HG 02	HG 03
Order No.	82.590...	.01	.02	.03

For cleaning the inner cone of HG chucks

TAPER AND HOLDER SPECIFICATIONS

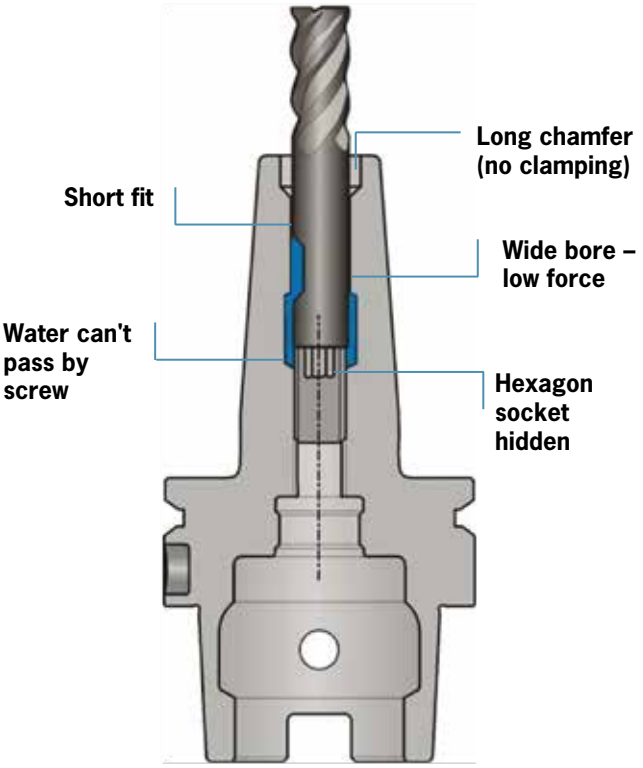
Features and Benefits:

– Taper: Micron-exact manufacturing (AT3) extends the life of your spindle due to superior taper contact
– All tapers inspected during production to ensure maximum taper contact = maximum accuracy
– All tool holders easily balanceable
– Tapers Form ADB. Central coolant supply through the pull stud (Form AD, pull stud drilled through) and coolant channels through the flange (Form B, pull stud sealed) which can be sealed again
– Minimal runout
– All holders marked with an identification number
– All holders come standard with pocket for data chip (Except BT Tapers)
– pre-balanced to G 2.5 at 25,000 RPMs
– Fine balancing optional
– Many tapers available (for SK40 and SK50, HSK-A32, HSK-A50 and HSK-A80 please see European catalogs)
– 3 piece minimum order quantity on specials or discontinued items

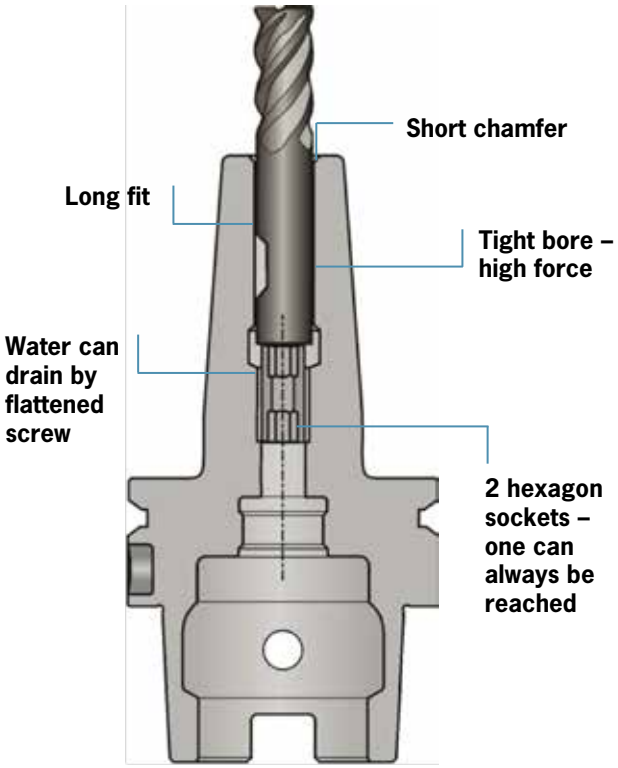


COMPARISON SHRINK FIT CHUCKS – HAIMER VS. COMPETITOR

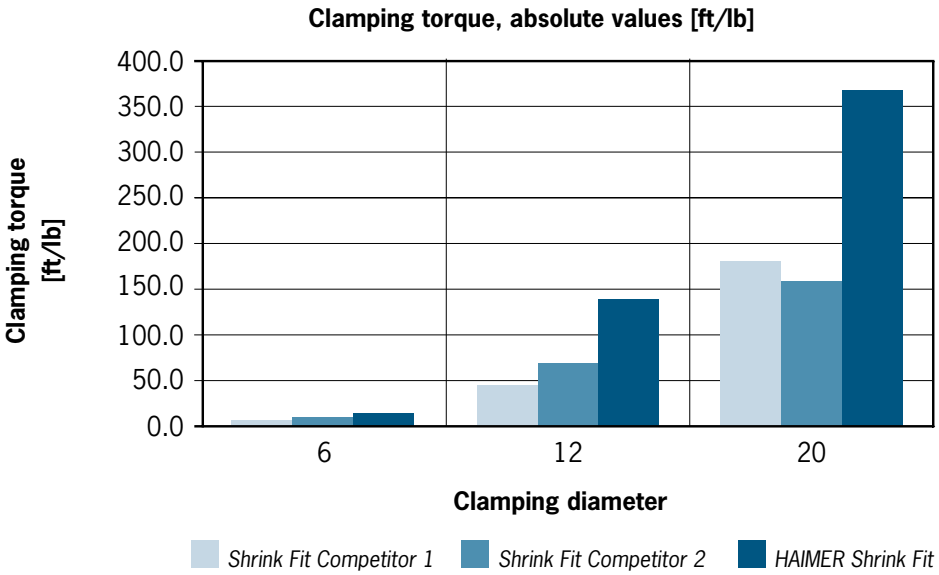
Competitor



HAIMER



Comparison Shrink Fit Clamping Torque



HAIMER SHRINK FIT CHUCKS ADVANTAGES

Total quality control

– All shrink chucks built by HAIMER in-house
– HAIMER is a true innovator – making shrink fit an even better solution for everyone
– Shrinking of carbide and HSS tools from diameter 3 – 50 mm (1/8" to 2") in tolerance h6
– Even small clamping diameter 3 – 5 mm (1/8", 3/16") suitable for HSS tools with shank tolerance h6

Highest clamping force due to extreme pressure on shank

– Highest pull out force
– Highest torque (See diagram)
– Secure clamping even when tool shank is at lower range of tolerance
– Optimum process security

Optimum support of tool

– Short chamfer for inserting tool – clamping up to the top (See sketch)
– Long fit – support of tool on whole length (See sketch)
– Extreme rigidity
– Long tool life
– No movement of tool in tool holder

Patented security set screw (See sketch)

– No dangerous development of steam when heating due to total drainage of water
– Precise length adjustment due to fine pitch thread (small clearance)
– Hexagon socket on both ends
– Simple tool removal after breakage (on hexagon socket always can be reached)

Long life of tool holder

– High-temperature resistant special steel (tested more than 2,000 times)
– No wear of clamping bore due to high clamping forces and short chamfer
– No distortion due to special hardening method

More

– For heavy-duty machining reinforced chucks type Power Shrink or Heavy Duty
– Flexible tool length with shrink fit extensions – no more special tool holders
– Optimum coolant supply by Cool Jet or Cool Flash system (no interruption of the bore)
– Balanced to G2.5 at 25,000 RPMs or under 1 gmm of unbalance (dependent upon taper)
– Fine balancing with set screws possible
– Several lengths in stock
– Slender shape – “Mini-Shrink” available
– Outer shape can be machined by user
– Dimensions according to DIN 69882-8 - Inch and metric bore diameters standard
– TIR 0.00012" (0.003 mm) at 3 times diameter
– Steep taper in tolerance AT 3, form ADB (coolant through center and through collar)
– All DIN and HSK include pocket for data chip
– CAT40 and CAT50 holders have ground pilot for pull-stud connection
– CAT40 and CAT50 standard with DIN-B coolant delivery option

ULTRA-PRECISION SHRINK FIT CHUCK WITH RUNOUT <0.001MM

CERTIFICATE OF QUALITY

- ☑ Chuck body ultra fine balanced G2.5 33,000 rpm or U<0.5 gmm
- ☑ All functional surfaces fine machined
- ☑ More accurate than DIN

HAIMER offers the opportunity to supply Ultra-Precision Shrink Fit Chucks with a runout accuracy < 1 µm.
The Ultra-Precision Shrink Fit Chucks with additional ultra fine balancing are ideal for ultra high speed and high precision machining centers to achieve even better surface finish.

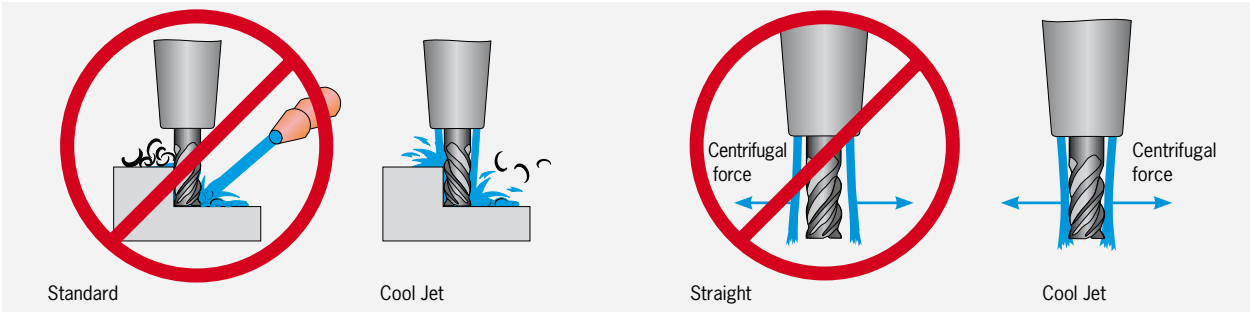
Your advantages are:

– No abortive wear of the tool
– Higher accuracy
– Better surface finish
– Higher cutting volume
– Smooth running, low vibration
– Optional available for all shrink chucks
– With additional ultra fine balancing G2.5 33,000 rpm or U < 0.5 gmm

	Order No.
Ultra-Precision Shrink Fit Chuck	**91.100.45**

Now available: Ultra-Precision Shrink Fit Chuck with runout accuracy < 1 µm

COOL JET – CUT THE CHIP ONLY ONCE!

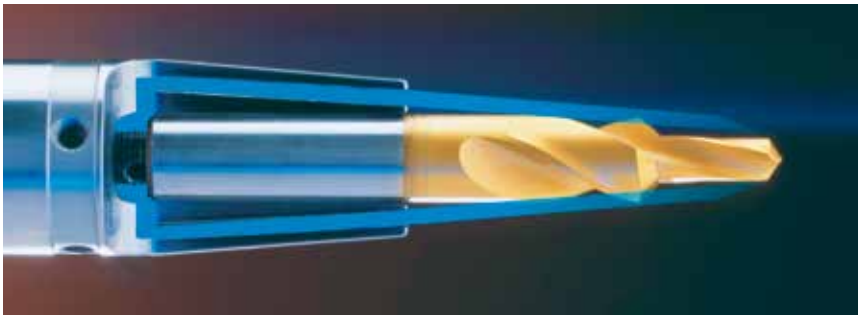


– Coolant directly to the cutting edge
– Extended tool life up to 100 %
– Higher reliability of cutting process
– Eliminates chips packing and chip welding

Function at high spindle speed

Previous coolant bores: straight
Optimized coolant bores: aimed at center

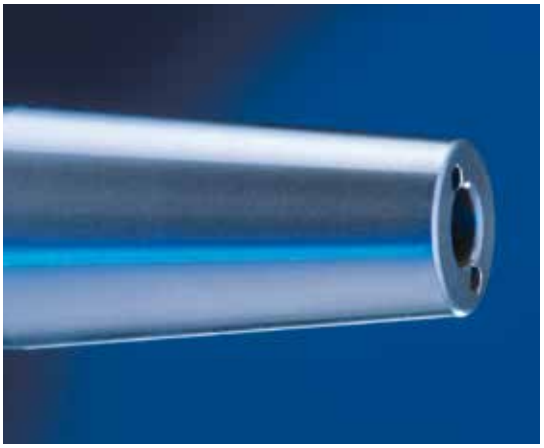
Cool Jet available in following versions	Order No.
Cool Jet with 2 Coolant bores for Shrink fit chucks (Ø 6–14 mm), Weldon (Ø 6–20 mm) and HG Collets	**91.100.24**
Cool Jet with 3 Coolant bores (Shrink fit chuck Ø 16 mm–32 mm)	**91.100.25**
Cool Jet with 4 Coolant bores for Weldon (Ø 25–40 mm) and Whistle Notch (Ø 25–40 mm)	**91.100.26**



Examples

For use in:
– Shrink Fit Chuck
– HG Chuck
– Face Mill Arbor
– Weldon

Shrink Fit Chuck

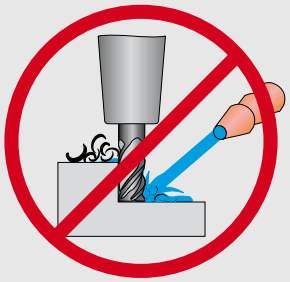


Coolant bores aimed at center
Cool Jet by HAIMER

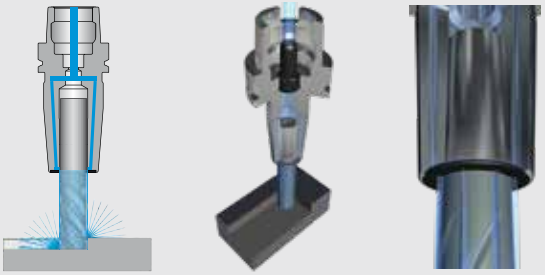
Weldon

COOLING SYSTEM COOL FLASH – COOLANT TAKEN TO THE TOP

Standard

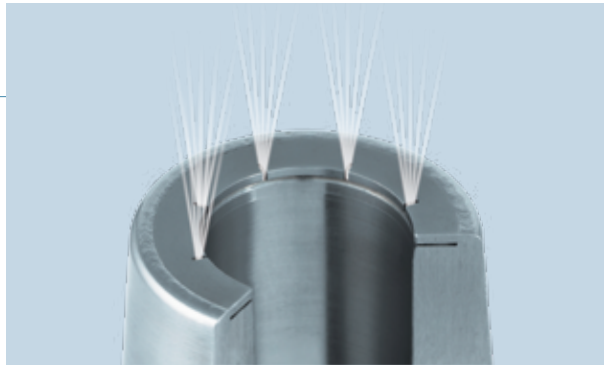


Cool Flash



True to the slogan “make good things even better”, HAIMER has developed the Cool Flash system out of the existing Cool Jet system. The Cool Flash design directs coolant into T-slots at the nose of the holder and works with the centrifugal force of the rotating tool to lead the coolant along the shank of the cutter and directly to the flutes at any speed.

- Coolant directly to the cutting edge
- Extended tool life up to 100 %
- Eliminates chip packing and chip welding
- Also for high rpm
- Optimized runout accuracy! No additional unbalance! No disturbing clearance!
- Low acquisition costs & can be added later
- For tools from diam. ¼"–1" (6 mm up to diam. 25 mm)



Optimized coolant bores with coolant outlet through slots Cool Flash by HAIMER

Cool Flash vs. internal tool cooling		
	Cool Flash	internal tool cooling
Cooling range at the cutting edge	✓ 100 %	✗ max. 30–40 %
Tool stability	✓ maximum	✗ reduced
Application range	✓ variable	✗ per cutting tool
Diameter area	✓ from 6 mm	✗ from 12 mm
Acquisition cost	✓ per tool holder	✗ per cutting tool

Cool Flash

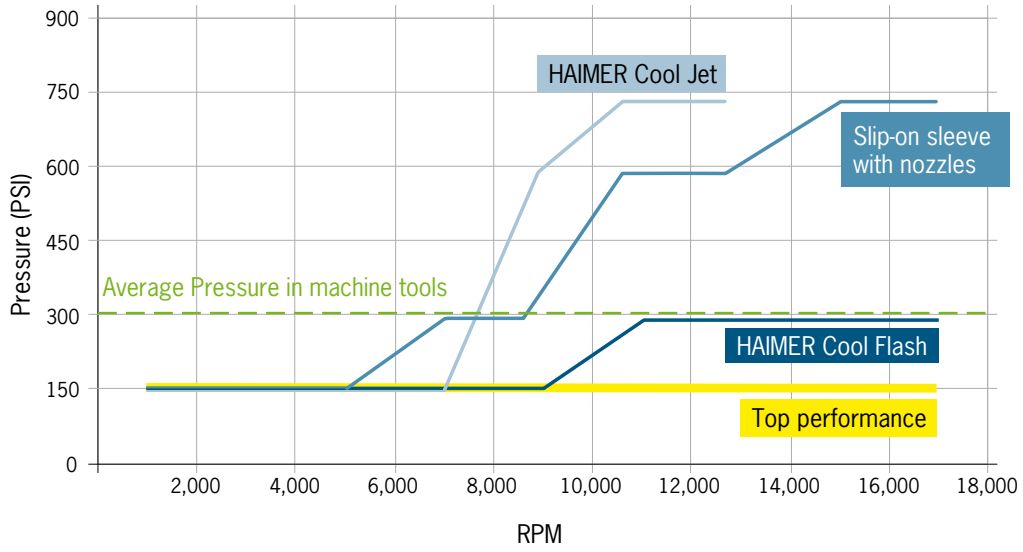
Cool Flash	**Order No.**	**91.100.40**
Cool Flash Upgrade incl. Cool Jet	**Order No.**	**91.100.41**

COOLING SYSTEM COOL FLASH – SIMULATION

The goal of the development of the Cool Flash system was to transport the coolant directly to the cutting edges. Even for existing machine tools with an average pressure of approx. 290 psi, Cool Flash allows for reliable and precise cooling without any changes to the cooling system of the machine tool.

The graphic shows the optimized coolant supply to the cutting edges for different systems by comparing dependence of pressure and rpm. Even at low pressure and high rpm Cool Flash assures precise cooling. On competitive systems, higher rpm require higher pressure to generate effective cooling.

Optimized coolant supply to the top of the cutting tool
(Protruding length: 28 mm, Tool Ø 6 mm)



COOL FLASH COMPARED TO COMPETITIVE SYSTEMS

Test Results

Tool:	Endmill (two flutes)
Tool diameter:	20 mm
Protruding length:	50 mm
Pressure:	290 psi (20 bar)
RPM:	12,000

Cool Flash – effective cooling at the cutting edges

Slip-on sleeve with nozzles –
ineffective cooling, coolant does not reach the cutting edges

No tool pull out with Safe-Lock

SAFE-LOCK:
The safety belt for your tools

In high performance cutting (HPC), it is possible for the cutting tool to be pulled out of the chuck. The reason is a slow micro-creeping motion. It happens when cutting at high speeds and with high pull out forces. Even chucks with extremely high clamping force cannot prevent micro-creeping. High-quality work pieces become scrap as a result. **The Safe-Lock system offers a solution.**

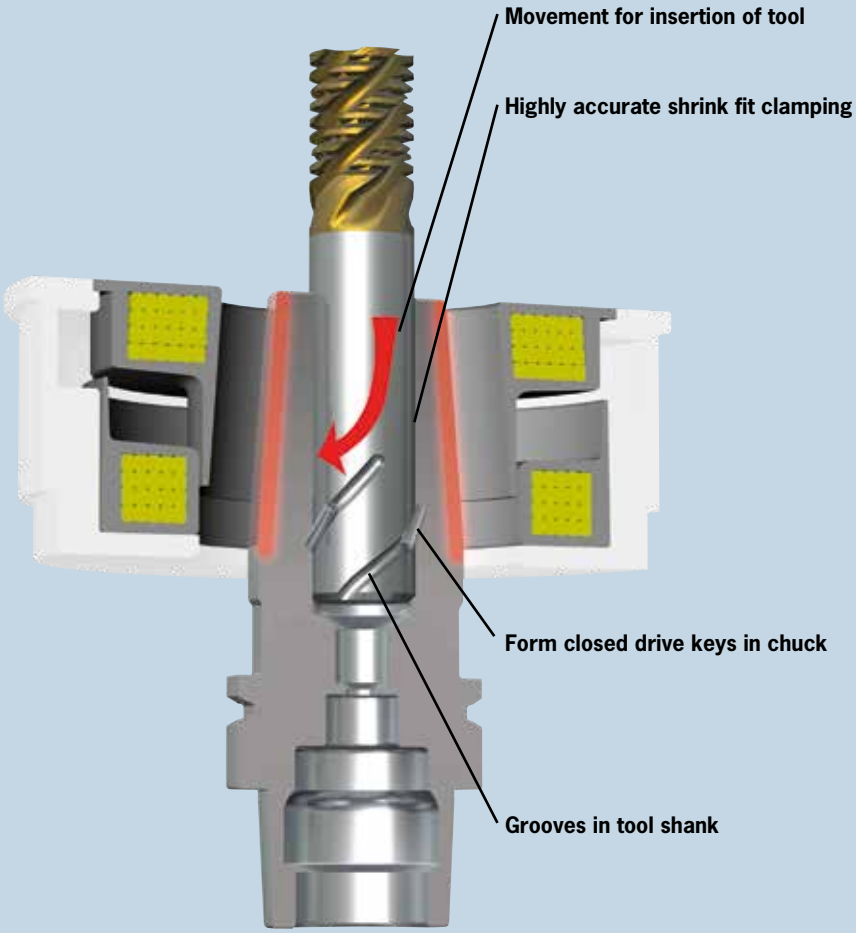
The revolutionary system secures the cutting tool via the high accuracy frictional clamping in conjunction with a positive locking form fit connection with the grooves in the cutting tools and the corresponding form fit in the tool holder. This creates a connection in which all potential movements of the cutting tool are prevented.

Your advantages –
Be on the safe side with SAFE-LOCK

- For High Performance Cutting (HPC)
- Highly accurate clamping due to shrink fit or collet chuck technology, runout accuracy < 0.00012" (3 µm)
- High torque due to form closed clamping
- No pull out of the tool, thus no damages to the work piece or machine
- No spinning of the tool
- The groove on the tool shank is directed so that the tool will be pulled into the chuck (depending on direction of rotation)
- Patent granted: licensing possible

Maximum metal removal rate with absolute process reliability

SAFE-ΛOCK® PULL OUT PROTECTION – FUNCTIONALITY



The following tool manufacturers are licensed by HAIMER officially and offer their shank cutting tools with Safe-Lock grooves in the tool shank as a standard.

Power. Precision. Performance.

Safe-Lock: Application in the aerospace industry at a large aircraft manufacturer in the USA

Problem:

- Low metal removal rate (especially for roughing)
- Low cutting tool life
- Expensive scrap at titanium and aluminum work pieces
- All tests with different systems failed: Milling Chucks, Press-Fit Chucks, Hydraulic Chucks or reinforced shrink fit chucks could not prevent cutting tool pull-out, despite higher clamping forces
- As a result they only used Whistle Notch / Weldon

Target:

- Needed to increase metal removal rate – especially for roughing
- Wanted to increase cutting tool life
- Increase of process reliability to avoid expensive scrap

Application: Roughing Titanium

Work piece:	Critical airplane component made of Ti6Al4V, a titanium alloy
Machine:	Vertical portal milling machine
Machine tool:	HSK-A100
Tool holder:	Shrink Fit Chuck HAIMER Safe-Lock , Ø 32 mm, length 120 mm
Roughing/ Fine machining:	One and the same coated solid carbide tool, effective cutting length of 83 mm

Result:

- Cutting tool was securely held due to Safe-Lock in all tests, no movement in the chuck during the entire machining process
- No danger of the tool being pulled out of the chuck
- Tool life more than doubled
- During roughing and finishing operations no vibrations, and consequently no chatter marks – unlike the Weldon chuck
- Significant productivity increases through the increase in material removal rates of **30%**

100% MORE TOOL LIFE WITH

SAFE-ΛOCK®

Safe-Lock: Application at a leading provider in the industrial sealing technology

Problem:

– Tool pull-out at high precision tool holder
– Only Weldon holders could be used

Target:

– Process reliability in machining with highly precise tool holding

Application: Roughing VA Steel

Work piece:	Gasket ring
Material:	1.4571 (VA)
Machine:	Mazak
Interface:	SK 40
Tool:	Solid carbide, variable flute end mill, Ø 16 mm

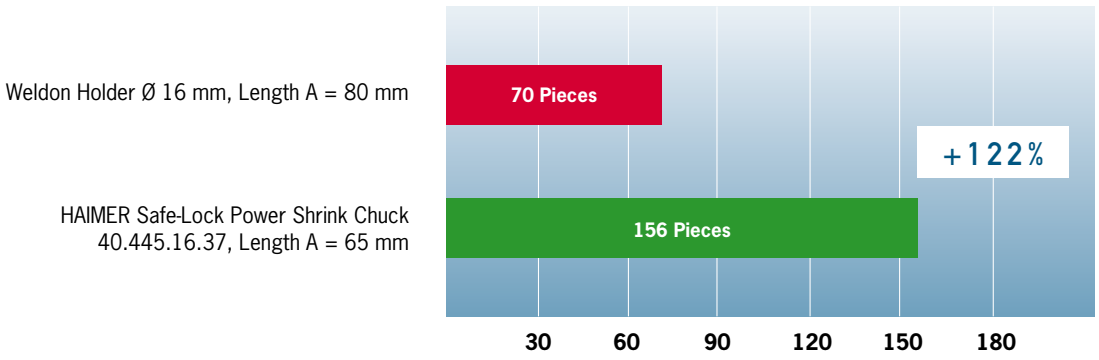
Application parameters:

Cutting Depth:	Axial (a_p) 19.8 mm
Radial (a_e) Slot:	29.8 mm
RPM:	1194 rpm
Cutting speed (vc):	60 m/min
Feed rate/flute (fz):	0.2 mm/r

Result:

– With Weldon holder and tooling, 50–70 parts per cutter
– With Safe-Lock, 150 parts per cutter and no pull-out issue
– Machine runs much smoother with less vibrations

Test:



Test result: Higher output by 86 pieces in the same time or an increase by 122%.

Safe-Lock: Roughing application in the packing machine industry

Problem:

– High tool wear on one flute (tool breakout)
– Only Weldon holders could be used

Target:

– Increase of tool life
– Usage of high precision tool holding instead of Weldon

Application: Contour milling

Material work piece: Steel

Cutting tool: HPC solid carbide cutter with variable flutes, Ø = 20 mm, Z=4

Application parameters:

Cutting depth radial (a_e) = 10 mm
Cutting depth axial (a_p) = 0.75xD
Cutting speed (v_c) = 180 m/min
Feed rate/flute (f_z) = 0.07 mm

SAFE-λOCK®

Equal width of the wear marks at all four flutes

Weldon

Tool breakout on the opposite side of the Weldon flat

Result

This comparison shows the wear characteristics of the cutting tools at various machining times. It is worth noting that, in the case of Safe-Lock, even at double the machining time, wear is less prevalent and more controlled than for Weldon – **with 100% protection against pull-out.**

HAIMER DEMO VANS:
TARGETED ADVICE ON-SITE.

**Request our service and profit from the experience of our experts.
Our knowledge is your advantage!**

Our service advantages

- Latest tool holders as well as shrinking, balancing and presetting technology presented in a **mobile showroom**
- **Specific solutions** for higher process reliability and less machine downtime
- **True experts** from your area demonstrate the necessity of balancing so that your machine can operate at its fullest capacity
- **Free of charge inspection** of your tool holders, grinding wheels or other rotors such as impellers, ventilators and housings

Equipment of the Demo Van

- Shrink Fit device Power Clamp Comfort NG
- Balancing machine TD Comfort Plus
- Presetting device Microset UNO Premium
- Broad selection of tool holders for all current interfaces (HSK-A/E, SK/BT)
- Innovations such as Safe-Lock, Cool Flash, Duo-Lock
- Shrink Fit extensions
- HAIMER MILL Power Series solid carbide endmills
- 3D sensors and centering devices

Passion for precision

HAIMER is a German, medium-sized family business. We develop and produce innovative ultra-precision products, primarily in the field of tool clamping. As the market leader in Germany, the continuous technological innovations of our products is very important to us and for this reason we annually invest 8–10% in research and development.
With this budget, we can afford our own product development team, which consistently works on practical innovations and continual product improvements. 16 sales and service subsidiaries guarantee the first class HAIMER service and specific customer orientated product consultation worldwide on the spot. However, all products are solely produced in Germany.
In accordance with our corporate philosophy: **Quality Wins.**

Our North American Headquarters

Located in the Chicago suburb of Villa Park, HAIMER's 30,000 ft² headquarters is designed and built to help facilitate the company's growth in the North American marketplace. It features state-of-the-art training facilities able to accommodate up to sixty people. The expanded showroom includes a CNC machining center for demo cuts, shrink fit and balancing machines under power, and HAIMER's complete range of tool holding solutions on display. Both the training facilities and showroom are wired with HD cameras for live and web-based presentations.
From our facility, HAIMER will also provide balance inspection, precision balancing and data chipping services for tool holders from HAIMER or any other manufacturer.

HAIMER USA – Chicago, Illinois

HAIMER USA's Competency Center features a 60 seat Training Room

HAIMER's 30,000 ft² North American Headquarters includes a spacious customer lounge

HAIMER USA's Showroom is equipped with the latest cutting edge technologies

TERMS OF DELIVERY AND PAYMENT

I. Generalities
The following conditions apply to all business transactions - also those in the future - with the customer. Our sales and shipping conditions apply exclusively; we do not recognize other conditions as well as especially contrary or otherwise differing conditions on the part of the customer, unless we explicitly approve of the validity of those conditions. Our sales and shipping conditions also apply in the event that we acknowledge contrary or differing conditions on the side of the customer and unreservedly fulfill the order. All agreements reached between ourselves and the customer must be in written form in order to be valid. Our sales and shipping conditions apply exclusively towards registered businessmen/ businesswomen if the contract is integrated in operating their business and towards legal entities under public law and separate estates or assets under public law.

II. Prices/Price changes, shipping
1. Our prices offered are Euro prices, and do not include value-added tax. Therefore, value-added tax must be added to the prices at the rate determined by the law applicable at the time. If not agreed specifically otherwise, our prices are ex. works, excluding costs for packaging, postage, and shipping. All offered prices are subject to change.
2. Our prices offered are applicable only for the dates of order upon which the offers are based. Subsequent changes or additions upon request or at the instigation of the customer, including additional costs incurred by the above, shall be charged additionally. The same applies for additional costs which might arise as the result of the above from machine down-time. In the event of changes in wages or material costs which arise either between making the offer and the placing of the order, or at any time exceeding four months following completion of contract, we reserve the right to adjust the price accordingly.
3. Shipping of goods occurs at expense and risk of the customer and always plus cost of packaging following any one time valid price list of Haimer or the relevant valid offer. Inasmuch as goods are shipped at cost and risk of the customer at the customer's request, our liability, as far as is legally permissible, is limited to damage caused intentionally or by gross negligence. At the customer's written request, and at his own expense, goods may be shipped insured by ourselves against theft, breakage, damage to or loss of goods in transit, fire and water damage, or against such other risks as may be expressed explicitly by the customer insofar as such are insurable.
4. As far as can be reasonably expected on the part of the customer, partial shipments are permissible.

III. Payment
1. The goods are to be paid in full, no deductions, within 30 calendar days of date of invoice.
2. Bills of exchange are only accepted upon special agreement and on account of performance without allowance for discount. Discounting and bill charges shall be borne by the customer and become due for payment immediately. We are not liable for the timely presentation of a bill of exchange, its due protest, due notice, or the return of an unpaid bill, unless we or our vicarious agents are guilty of damage by intention or gross negligence.
3. The customer is only entitled to set-off claims if his counterclaims have become res judicata, are uncontested or recognized by ourselves. In the event of contested counterclaims, the customer has no right of retention.
4. In the case of uncontested counterclaims, the customer can only claim a right of retention regarding asserted claims which are based upon the same contractual relationship.
5. With respect to this order the customer is obligated to confirm the receipt of the goods in cases of the delivery from Germany to the foreign countries of Europe; the confirmation has to comply with the regulation concerning turnover tax.

IV. Delay in Payment
1. In the event of delay in payment, we are entitled to charge the legal rate of interest on overdue payments, i.e. the rate of 9 % plus the basic annual interest rate current at the time in question and a lump sum of EUR 40,00 per overdue amount; this notwithstanding, we explicitly reserve the right to assert claims regarding additional damages. If the rate of interest is not claimed firstly this shall not exclude a later enforcement in the frames of the legal limitation; in this regard a forfeiture is excluded.
2. Should we become aware of circumstances which call into question the customer's creditworthiness and therefore deem our claim for payment to be at risk, particularly if the initiation of insolvency proceedings are filed for - or if insolvency proceedings are opened against the customer's property, or if a check is not honored, or the customer stops payments respectively is in extensive default of the payment with collection threat, then we are entitled to declare the residual debt due immediately and to demand immediate payment. Further, we are then entitled to demand advance payment or provisions of security, and to retain the goods until payment, advance payment, or provisions of security are made, and to discontinue processing running orders until the same. If a change of the order required by the customer affects the production time, we can claim for a new delivery time adjusted to the new circumstances. Delay of delivery or performance caused by major force, caused by circumstances that are beyond our control and caused by incidents which do make the delivery not only temporary difficult or impossible - this is especially strike, lock out, intervention of public administration, act of war, riots, lack of energy, destruction or damage of our production and operating units, which were beyond our control as well as stoppage of transportation means, restrictions of work, etc., even though this occurs at our supplier or their sub-supplier we are not responsible for even if we agreed on binding delivery deadlines. You allow us to prolong the delivery respectively performance time for the time of interference and an additional initial period. Additionally in such cases we have the right to adjust the price. The above mentioned circumstances do also fall beyond our control if they occur during a already existing delay. Begin and end of such interference will be communicated to the customer as soon as possible. The delivery time is observed in case the product left the premise or we communicated the readiness of shipment to the customer at the end of the delivery time.

V. Reservation of title
1. Until all claims arising from the business relationship with the customer are fulfilled, the customer is required to grant the following securities, which we will release at the customer's request and at our own free will if the securities' value consistently exceeds that of the claims by more than 10%.
2. All goods delivered to the customer remain our property until all claims arising from the business relationship with the customer are paid in full.
3. The object delivered may be neither pledged nor transferred for security to a third party before it is paid in full. In the event of attachment by a third party to the object of delivery, particularly as a pledge, the customer shall refer to our ownership and inform us in writing immediately, so that we can enforce our rights of ownership. The customer is liable for costs which arise judicially or extra-judicially should the third party not be in a position to repay us such costs as arise in relation to the above mentioned.
4. The customer is permitted to sell and process the goods within the context of proper business transactions, as long as he is not in arrears with fulfilling the claims which he owes. We can revoke this permission if the customer is overdue in payments or comes into a state of forfeiture of assets, particularly if insolvency proceedings are opened against his property.
5. The processing or transforming of the goods by the customer shall always be done for us. In the event that the goods are joined, mixed, or blended with other items, we acquire co-ownership in proportion with the value of the goods (sum total of invoice including legal value-added tax) to the remaining items which were joined, mixed, or blended together at the time when they were joined, mixed, or blended together.
For the event that ownership of the goods be lost inasmuch as the goods become an integral or necessary part of another item, the customer hereby concedes to us now, in advance, co-ownership of the main item equal to the share which corresponds with the proportion of the value of the goods delivered (sum total of invoice including legal value-added tax) to the value of the main item at the time of said joining, mixing, or blending.
6. In the event that the goods are sold, the customer now and hereby, for the security of our claims arising from the whole of the business relationship, assigns all claims which arise for the customer from resale or from other legal grounds (insurance, tortius act, or the like) against the buyer or third parties, independently of whether the goods, of which we have (partial) ownership, are resold with or without processing. Upon our request, which may be made at any time, the customer must inform us regarding the state of the claim, and allow us or anyone authorized by us to inspect those business records relevant to the above. We grant the customer permission, subject to revocation, to collect the sums due for the claims we assigned, to his own account and in his own name. This direct debit authorization can only be revoked if the customer does not meet his financial obligations in a proper manner. Our authority to collect ourselves the sums due remains unaffected by the above. However, we bind ourselves not to collect the sums due as long as the customer meets his financial obligations with the collected sales revenue, is not overdue for payments, and especially if no initiation for insolvency proceedings has been filed or cessation of payments has been noted. If this is the case, however, we can require that the customer makes known to us immediately the claims assigned and their debtors, including all information required for collection purposes, providing us with all records necessary therefore, and informing the debtors (third parties) of the assignment of claims. We as well have the right of disclosure of assignments against debtors. The customer, however, is not entitled to assign this claim to third parties.
7. Contrary to position 3, the customer is not entitled to sell the goods, even within the context of proper, standard business transactions, if the customer excludes assigning claims based on the sale of the goods to us.
8. In the event of actions contrary to the terms of contract, particularly in the case of delay of payment, we are entitled to rescission of the contract. Following rescission, we can demand return of the goods from the customer.

VI. Delivery time
1. Delivery dates and delivery periods are only binding if they are confirmed by us explicitly in writing.
2. The confirmed delivery dates and delivery periods start when the following cumulative conditions are met: the clarification of all technical questions; the fulfilment of the customer's contractual obligations, particularly that of furnishing records, authorizations, and release statements. When alterations ordered by the customer have an influence upon the duration of production time, we are entitled to insist upon agreeing to a new delivery time which is adjusted to the changed circumstances. We are not liable for delays in delivery and performance, even if binding dates and times have been agreed upon, in case of acts of God, in case of circumstances which we are not responsible for, and in the event of incidents which not only temporarily substantially impede delivery or make it impossible - this includes in particular strike, lock-out, sovereign intervention, acts of war, riots, electrical shortage, destruction or damage to our production or works fixtures for which we are not liable, as well as transportation failure, work limitations etc., also when the above affect our suppliers or their sub-suppliers. Such circumstances entitle us to postpone delivery or performance for the duration of the impediment plus a reasonable starting-up time. Furthermore, such a case entitles us, for our part, to adjust the price accordingly. We are also not liable for the circumstances mentioned if they arise during an already existing delay. In important cases, we will inform the customer as soon as possible regarding the beginning and end of such hindrances. The delivery deadline is met if by date of its expiry the goods have left the works or the customer has received notice of readiness of dispatch.

VII. Sample
Samples of all kinds, whether designs, models, etc., are prepared especially for the customer according to his instructions and only by prior written commission for the same. In every case, these samples will be billed separately to the customer.

VIII. Storage of documents and items for further use
The storage of the customer's papers and other objects such as may serve some future purpose is undertaken only upon prior written agreement and in exchange for special compensation beyond the date of delivery of the goods ordered. The abovementioned goods a/o objects, if they are placed at our disposal by the customer, shall be handled with care up to the delivery date. In this case as well, storage beyond the delivery date is only granted upon prior written agreement and in return for special compensation. Should the abovementioned documents a/o objects be insured against water, fire, theft, or other dangers, the customer must provide the necessary insurance himself. Further, within legally permissible limits, we are exempt from liability for the loss of, damage to, or destruction of these documents a/o objects.

IX. Company print
On objects of our manufacture, we can, with the customer's permission, make reference to our company in an appropriate manner. The customer can only withhold his permission in the event that he has a justifiable interest in so doing.

X. Time limit for making a claim
Upon delivery, the customer must inspect the goods without delay, and in the event that the goods have obvious defects, these must be reported to us within a period of two weeks following receipt of the goods, in the case of shipping from the point of taking delivery from the shipper or carrier; otherwise, the customer's claims regarding defects are excluded. Claims for non-obvious defects can only be asserted within a period of one year upon receipt of the goods, in the case of shipping upon taking delivery from the shipper or carrier.

XI. Warranty
The warranty period is 1 year after passing of the risk. In the event of defects, we are entitled to choose between rectifying the defects or delivering a substitute, up to the amount of the contractual value, unless we or our vicarious agents are guilty of damage by intent or gross negligence, or if we have given a guarantee for the condition of the goods. If two attempts at rectifying the defects or at delivering a substitute fail, or if rectification or substitution is not possible, not to be reasonably expected for the customer, or finally refused by ourselves, then the customer can demand a reasonable reduction in price or withdraw from the contract. For substantial third-party products, our liability is limited initially to the assignment of liability claims to which we are entitled against the supplier of the third-party products. Any liability ensuing on our part in this instance can only be secondary and requires prior recourse to the courts for the supplier of the third-party product. We will reimburse such costs as may arise if they cannot be collected from the supplier and if they were necessary for prosecution. Guarantee and damage claims which exceed the above are excluded, so far as is permissible by law.

XII. Compensation for Damages
The following liability limits apply for damage claims, within the parameters of the law:
For all damages arising from culpable breach of contract, we are liable if we ourselves or our vicarious agents are at fault, but only in case of damage by intention or gross negligence. Within the limits of the law, this also applies in cases of default or when performance becomes impossible. Insofar as we are considered liable for damages due to breach of contract which results from a slight degree of negligence on our part or on the part of our vicarious agents, liability for indirect damages is excluded. When delay damages arise due to delay in our performance, we are only liable to the extent of contractual value (our own work excluding advance performance and material) if we or our vicarious agents are only at fault for slight negligence. This limitation of liability also applies for damages in connection with services of Haimer for goods of customers (e.g. Balancing, Cool Jet, Cool-Flash, Duo-Lock™ or Safe-Lock™), whereupon the liability is limited to the extent of the contractual value of the service by Haimer.

XIII. Taking Delivery; Passing of Risk
The customer must take delivery of the goods at the completion time agreed upon if the goods are ready for acceptance. If the customer is in default of acceptance, regardless of article III.1 the price agreed upon is due immediately. If the customer does not meet this obligation, we are entitled to withdraw from the contract and to make other use of the goods, whereby the sales revenues gained in this case are credited to the price agreed upon. We must be compensated for profit lost. If the seller is in default of acceptance or fails to perform other participation duties, then we are entitled to demand compensation for damages thus caused, including any additional expenditures which may arise. We reserve the right to further claims on our behalf. In case of default or delay in acceptance by the buyer, or other failure to perform participation duties on the part of the buyer, then the risk of accidental loss of the goods or of accidental worsening of the state of the goods passes over to the buyer from the point in which he entered into the state of default in acceptance or debtor's delay.

XIV. Ownership, Copyright, Duty of Secrecy
Those articles of the trade which we use to manufacture the product of the contract, in particular special means of operation (tools, devices) remain our property and shall not be delivered. We reserve for ourselves the ownership and copyrights of estimates of cost, drawings, and other documents. They may only then be made available to unauthorized third parties if we give our prior explicit written permission. The customer is solely liable if, in the process of executing orders, any rights, particularly copyrights, trademarks, or patents of third parties are infringed upon. The customer indemnifies us against claims of third parties in the event of such violations of rights. All ideas and documents drawn up by ourselves, in particular samples, sketches, designs, technical information, models, technical drawings etc. are under the protection of our intellectual property, have to be treated confidential and may not be used or applied in any manner without our prior written consent.

XV. Export
The customer (Buyer) confirms if he resales Haimer products that he complies with all provisions and regulations of German and international export controls as well as with the US re-export regulations. The customer (Buyer) declares with his order his compliance with this kind of laws and regulations. Additionally the customer (Buyer) confirms with his order that the products will remain in the delivery country respectively will not be delivery out of the European Union.

XVI. Applicability of German Law
The law of the Federal Republic of Germany is exclusively applicable. Application of the UN Convention on Contracts for the International Sale of Goods, dated January 1, 1991, is precluded.

XVII. Place of Performance, Place of Jurisdiction, and Validity
The place of performance for all claims arising from this contractual relationship is Igenhausen. Augsburg is the place of jurisdiction for all legal disputes arising from this business connection. We are, however, entitled to bring grievances before the legal place of jurisdiction as well. The partial or complete invalidity of any provision in these terms of sales and delivery, or of any provision within the context of other agreements, whether now or in the future, shall not affect the validity of any part of the remaining provisions or agreements. The invalid provision is then replaced by that lawfully permissible provision which is closest to the meaning of the invalid provision.

HAIMER®
Quality Wins.

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