

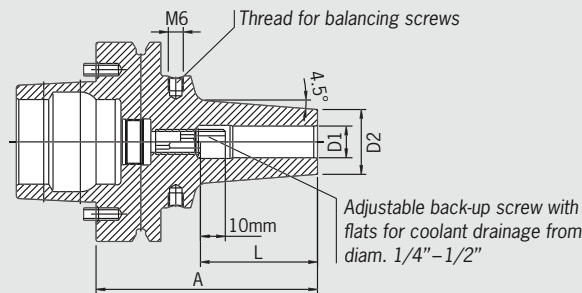
HAIMER[®]
Quality Wins.

Since 1977



Haimer F80 Makino

HSK F80 MAKINO SHRINK FIT CHUCKS



CERTIFICATE OF QUALITY

- Chuck fine balanced
G2.5 33,000 1/min
- With balancing threads M6
- Integrated thread for coolant supply 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, therefore giving more protection to machines, spindles and 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
- Dampen vibrations
- High clamping force
- Equally suited to high-speed manufacturing and heavy milling
- Increased machining capacity due to higher spindle speed, higher feed and larger cutting depth
- Shorter processing times
- Quieter running, therefore better surface quality and protection of cutting tools, machine spindles and machines
- Higher machining accuracy

Use:

Suitable for all shrinking units

- Heat resistant hot-working steel
- Hardened 54-2 HRC
- For HSS and solid carbide tools
- Shank tolerance h6
- Cooling with Cool Jet available for an extra charge (see accessories catalog)
- Included in delivery: Shrink fit chuck with back-up screw (where available)

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"	1.791"	1.791"
	L [inch]	1.417"	1.417"	1.653"	1.653"	1.850"	2.007"	2.047"	2.362"	2.559"
Length A [inch]		3.5"	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"
Order No.	F80M.140...	...1/4z	...5/16z	...3/8z	...7/16z	...1/2z	...5/8z	...3/4z	...1z	...11/4z

Clamping	Ø D1 [mm]	6.35	7.9375	9.525	11.1125	12.7	15.875	19.05	25.4	31.75
	Ø D2 [mm]	21	21	25.5	26	26	29	35.5	45.5	45.5
	L [mm]	36	36	42	42	47	51	52	60	65
Length A [mm]		88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
Order No.	F80M.140...	...1/4z	...5/16z	...3/8z	...7/16z	...1/2z	...5/8z	...3/4z	...1z	...11/4z

Clamping	Ø D1 [mm]	6	8	10	12	14	16	20	25	-
	Ø D2 [mm]	21	21	25.5	26	26	29	35.5	45.5	-
	L [mm]	36	36	42	47	47	51	52	60	-
Length A [mm]		88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	
Order No.	F80M.140...	...06	...08	...10	...12	...14	...16	...20	...25	

Accessories

Shrink fit extensions



Set of balance screws

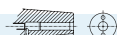


Order No. 80.203.00

Back up screws



Cool Jet bores



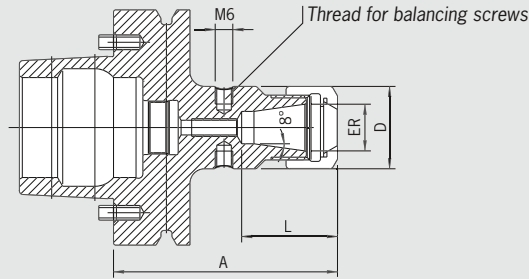
Order No. 91.100.24

Technical data subject to change without prior notice.

HSK F80 MAKINO COLLET CHUCKS

CERTIFICATE OF QUALITY

- Chuck fine balanced
G2.5 33,000 1/min
- With balancing threads M6
- Integrated thread for coolant supply 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
- All standard as a balanceable for fine tune balancing capability
- 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 DIN 6499

- 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
- Fine-balancing by balance screws (where available)

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"	2.362"
L [inch]	1.062"	1.299"	1.515"	1.889"	1.850"	2.086"
Length A [inch]	3"	3"	3"	3"	3"	3"
Order No.	F80M.020... ...11	...16	...20	...25	...32	...40

ER	11	16	20	25	32	40
Clamping range [mm]	0.5–7	0.5–10	1.5–13	1–16	1.5–20	2.5–26
Ø D [mm]	27	28	40	42	50	60
L [mm]	27	33	38.5	48	47	53
Length A [mm]	76.2	76.2	76.2	76.2	76.2	76.2
Order No.	F80M.020... ...11	...16	...20	...25	...32	...40

Accessories

Collets



Locknut (pre-balanced)

Size	ER11	ER16	ER20	ER25	ER32	ER40
Order No.	83.912... ...11	...16	...20	...25	...32	...40

Locknut HS (high-speed), fine-balanced

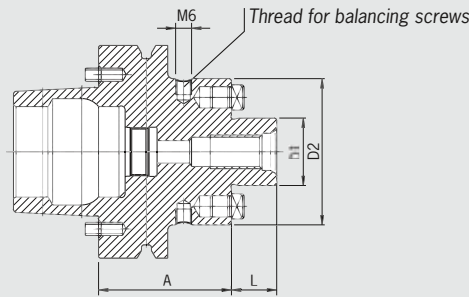
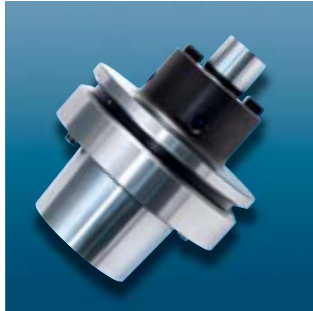
Size	ER16	ER20	ER25	ER32	ER40
Order No.	83.912... ...16.HS	...20.HS	...25.HS	...32.HS	...40.HS

Set of balance screws

Order No.	80.203.00
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Technical data subject to change without prior notice.



CERTIFICATE OF QUALITY

- Chuck fine balanced
G2.5 33,000 1/min
- With balancing threads M6
- Integrated thread for coolant supply 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.

Use:

For holding face-mill cutters and milling cutters with radial driving slot
DIN 1880

- 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

- Comprising: Tightening bolt, without coolant tube
- Coolant bores on front side available for an extra charge
- Fine-balancing by balance screws

Clamping	Ø D1 [inch]	3/4"	1"
	Ø D2 [inch]	1.710"	2.165"
	L [inch]	0.669"	0.669"
Length A [inch]		1.968"	1.968"
Order No.	F80M.050...	...3/4z	...1z
Length A [inch]		3.937"	3.937"
Order No.	F80M.051...	...3/4z	...1z

Clamping	Ø D1 [mm]	19.05	25.4
	Ø D2 [mm]	43.45	55
	L [mm]	17	17
Length A [inch]		50	50
Order No.	F80M.050...	...3/4z	...1z
Length A [inch]		100	100
Order No.	F80M.051...	...3/4z	...1z

Accessories

Tightening bolt

Ø D1 [mm]		3/4"	1"
Order No.	85.300...	...3/4z	...1z

Coolant bores

Order No.	91.100.03
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Set of balance screws

Order No.	80.203.00
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Technical data subject to change without prior notice.

TOOL DYNAMIC TD 2002 MODULAR BALANCING SYSTEM

Tool Dynamic TD 2002 Economic Plus

For measuring in two planes (dynamic). Long tools must be balanced in two planes in order to eliminate the couple unbalance. The handling is done by an integrated keyboard and screen, which is clearly designed. Furthermore the Economic Plus has an integrated drawer for accessories.

Tool Dynamic TD 2002 Economic

Works very precisely and with an adapter system which can be used for all kinds of tool holders. Measurement in one plane (static). Particularly very sensible for short tool holders, because of the couple unbalance being very low. Easy handling with integrated keyboard and screen.



Technical details				
Tool Dynamic TD 2002	Comfort Plus	Comfort	Economic Plus	Economic
Dimensions b x h x t [mm/inch]	1100x1500x820/43x59x32	1100x1500x820/43x59x32	500x1500x820/20x59x32	500x1500x820/20x59x32
Weight [kg/lbs]	450/922	450/922	450/922	450/922
Spindle speed [rpm]	300-1100	300-1100	300-1100	300-1100
Measuring accuracy [gmm]	< 0,5	< 0,5	< 0,5	< 0,5
Power requirements [V/Hz]	230/50-60	230/50-60	230/50-60	230/50-60
Power usage [kW]	0,4	0,4	0,4	0,4
Compressed air [bar/psi]	6/87	6/87	6/87	6/87
max. tool length [mm/inch]	400/15.7	400/15.7	400/15.7	400/15.7
Optional [mm/inch]	700/27.6	700/27.6	700/27.6	700/27.6
Max. tool diameter [mm/inch]	360/14.2	360/14.2	360/14.2	360/14.2
Optional [mm/inch]	425/16.7	425/16.7	425/16.7	425/16.7
Max. tool weight [kg/lbs]	30/70	30/70	30/70	30/70
Order No.	80.226.00	80.224.00	80.222.00	80.220.00

Technical data subject to change without prior notice.

**HAIMER POWER CLAMP NEW GENERATION
INDUCTIVE SHRINK FIT MACHINE**

Intelligent patented coil technology:

The coil adjusts itself to the chuck in length and diameter. Therefore only the shrinking area of the

chuck will be warmed – nothing else. Shrinking and cooling will be much faster.



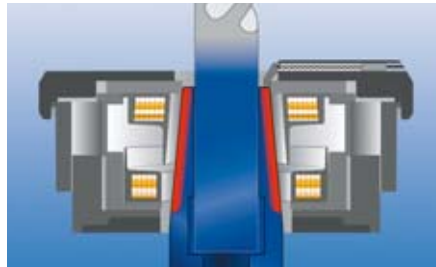
Even more efficiency, more flexibility, easier handling.

- Coil adjusts itself to the chuck
- Perfect magnetic flow due to length adjustment of the coil
- Optimal heat distribution due to length adjustment of the coil
- Lower chuck warming
- Shorter shrinking time

- Shorter cooling time
- Simple operation
- No contact discs necessary any more
- Suitable for T-shaped groove milling cutters
- Suitable for ultra-short chucks
- Suitable for special shape



Small tool



Big tool

Single hand operation

- Positioning of coil and regulation of heating with one hand
- Highest efficiency
- Minimum heating of the chuck

The turning table

- Work fast and efficient
- Heating and cooling at the same time on 2 stations
- No idle periods

The Cooling Manager

- Switches Speed Cooler on and off automatically
- Always reliable cooling
- Saves the cooling unit (no continuous operation)



The Cooling Manager

Chuck support for 3 chucks

- For all actual tapers
- Also different tapers combined possible



Chuck support

Technical details					
Power Clamp New Generation	Economic NG	Economic Plus NG	Comfort NG	Preset NG	Profi Plus NG
Mains voltage	3x360–500V, 16A, 13kW	3x360–500V, 16A, 13kW	3x360–500V, 16A, 13kW	3x360–500V, 16A, 13kW	3x360–500V, 32A, 20kW
Tools	Solid carbide and HSS	Solid carbide and HSS	Solid carbide and HSS	Solid carbide and HSS	Solid carbide and HSS
Tool diameter [mm]	3–32	3–32	3–32	3–32	3–50
Max. length of shrink fit chuck [mm]	550	550	550	550	550
Dimensions [mm]	500x670x700	500x670x700	500x670x700	500x670x700	500x670x700
Weight [kg]	45	90	90	100	100
Order No.	80.110.00NG	80.110.01NG	80.100.00NG	80.130.00NG	80.100.10NG

Technical data subject to change without prior notice.

Cooling bodies for rapid cooling

- Chucks remain dry
- No rust
- Hot spots always covered, no danger of injury
- Hot parts need not to be taken into the hand

The display

- User-friendly operating panel
- Clear, compact and easy to handle

The tool tray

- For laying down cutting tools
- Integrated in base plate

The craning boxes

- For accessories
- Everything close at hand

The system cart

- Best technics, but also best look

The drawer

- Profiled inserts for accessories
- Everything in its place

Decide on quality.

Since 1977 we have produced ultra-precise machine components and special machines designed for specific branches. Always made of the highest quality and perfect construction. In accordance with our corporate philosophy: **Quality wins!**

Visit our website: www.haimer.com and ask for our delivery program.



Made by Haimer: Tool Holders

- Highest precision at fair prices
- DIN 69871 – SK 30, SK 40, SK 50
- CAT 40, CAT 50
- JIS B 6339 – BT 30, BT 40, BT 50
- DIN 69893 – HSK-A, HSK-C, HSK-E, HSK-F



Made by Haimer: Tool Dynamic

- Modular balancing system for tool holders, grinding wheels and rotors
- Measuring in one or two planes
- Easy and fast handling



Made by Haimer: Power Clamp

- Inductive shrink fit equipment for shortest rigging periods
- Tool change just by pressing a button
- For shrinking HSS and solid carbide tools from $\varnothing 3$ to $\varnothing 50$ mm



Made by Haimer: Sensors

- For centering bores and shafts
- Different versions
- High measuring accuracy