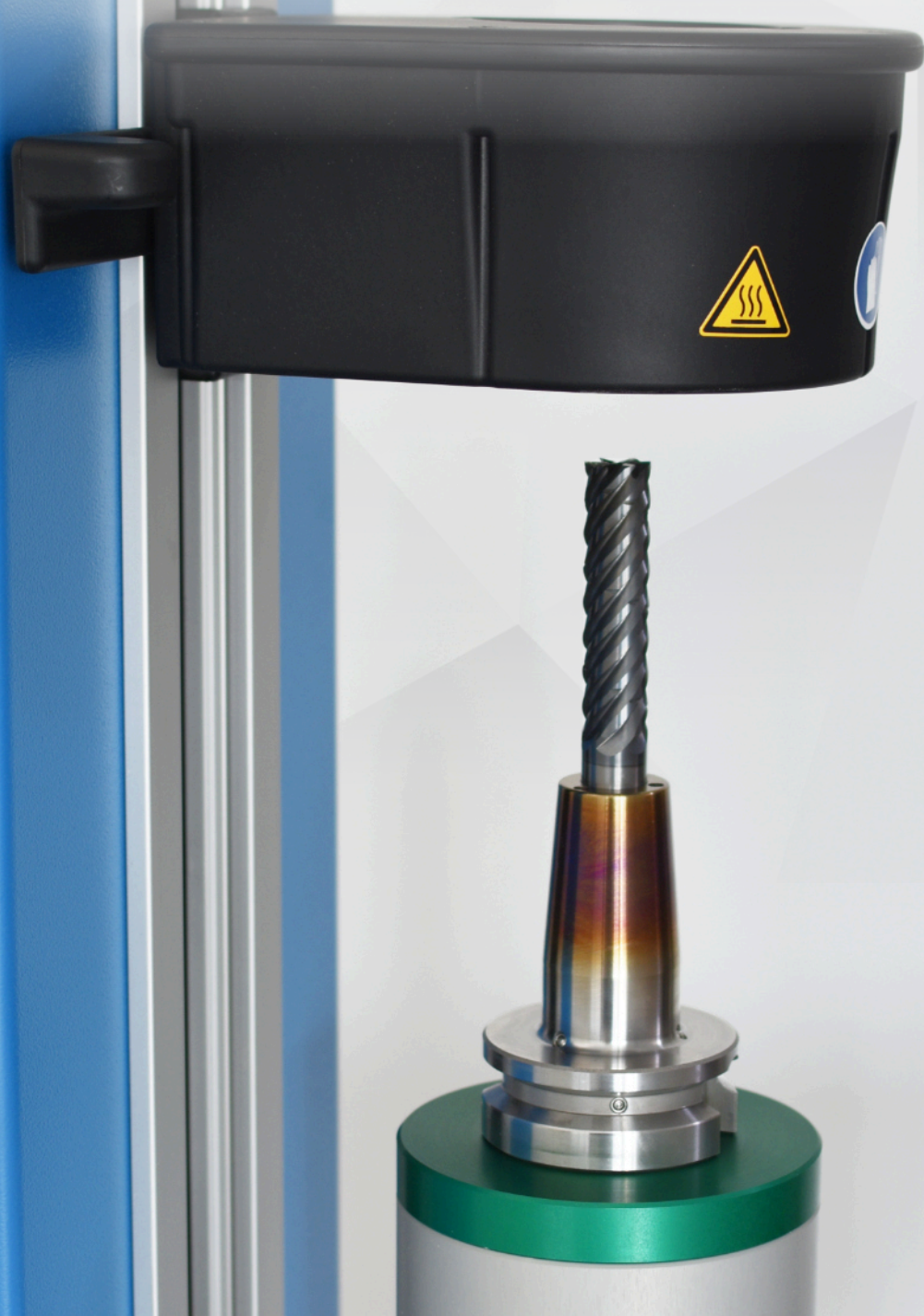


THERMO Shrink-fit equipment

2024



THERMO Shrink-fit unit Fi-6

1 shrink-fit unit + 2 cooling units

High-speed shrinking with cooled electronic board

Ø2 to Ø32 accessories for shrinking and cooling included (other sizes optional)

From shrinking to cooling without touching toolholders

For workbench operation

Length x depth x height = 785 x 510 x 875 mm

Weight = 65 kg

Features

Compatible with any tool type	✓
Self-regulated power	✓
2 to 7 second cycle time	✓
Air cooling compatible with any geometry	✓
Ergonomic design with remote control	✓
Great after-sales support	✓

Best value!



THERMO Shrink-fit unit Start.2

Easy to use

Ø6 to Ø20 accessories for shrinking included (other sizes optional)

For workbench operation

Cooling unit FG500.1150 - possible to use multiple units

Length x depth x height = 255 x 490 x 755 mm

Weight = 19 kg

Features

Compatible with any tool type	✓
Self-regulated power	✓
2 to 7 second cycle time	✓
Air cooling compatible with any geometry	✓
Ergonomic design with remote control	✓
Great after-sales support	✓



*In Germany, shrinking units are not offered for sale, are not available in and will not be delivered to

THERMO Cooling unit FG500.1150

Air cooling unit

Ø6 to Ø20 accessories for shrinking and cooling included (other sizes optional)

Compressed air supply 4 - 6 bar

Equipped with filter and pressure-reducing gauge

For workbench operation

Can be used with both Fi-6 and Start.2 units

Length x depth x height = 220 x 190 x 615 mm

Weight = 5 kg



THERMO Presetting unit FJ160.0100

For length presetting

Fi-6 unit only

Accuracy = ± 0,050 mm

Repeatability = ± 0,020 mm

Capability = tool shank Ø6 to Ø32



Functions

	Start.2	Fi.6
Self-regulated power with microprocessor, detection of Ø, automatic heat configuration and cut-off	x	x
Heat zone located on tool holder, no deterioration of tool and tool holder	x	x
Self-regulated heating depending on parameters detected	x	x
Automatic or manual shrinking cycle time	x	x
Shrinking Ø2 to Ø40 with the same inductor	x	x
Inductor entry diameter: 64 mm	x	x
Ergonomic design with remote control	x	x
Advanced concentrators of magnetic fields allow shrinking of tools provided with a coding chip	x	x
Removable electronic and inductor for quick after-sales service	x	x
Inductor rotates 180° without disassembling	x	x
Cooling system for the electronic board to allow high-speed shrinking		x
Power supply 3x380/480V - 16A 50/60 Hz - 14kW	x	x
Power supply 3x200/240V - 32A 50/60 Hz - 14kW	x	x
Compressed air supply 4-6 bar		x

Options

1 air cooling unit	o	
2 air cooling units	o	x
Storage compartment		x
Shrinking of cutting diameters larger than shank diameters	o	o
Shrinking system for reductions	o	o
Back stop presetting unit	o	o
Storage space for chuck holders	o	o
Storage space for inductor stop rings and cooling stop rings	o	o
Storage space for cooling stop rings	o	

Chuck holders	Code	Start.2	Fi.6	FG500.1150	
HSK 25 A-C-E / HSK 32 B-D-F	FP100.1025	o	o	o	
For HSK 32 A-C-E / HSK 40 B-D-F chuck	FP100.1032	o	o	o	
For HSK 40 A-C-E / HSK 50 B-D-F chuck	FP100.1040	o	o	o	
For HSK 50 A-C-E / HSK 63 B-D-F chuck	FP100.1050	o	o	o	
For HSK 63 A-C-E / HSK 80 B-D-F chuck	FP100.1063	o	o	o	
For HSK 80 A-C-E / HSK 100 B-D-F chuck	FP100.1080	o	o	o	
For HSK 100 A-C-E / HSK 125 B-D-F chuck	FP100.1100	o	o	o	
For ISO / BT 30 chuck	FP100.2030	o	o	o	
For ISO / BT 40 chuck	FP100.2040	o	o	o	
For ISO / BT 45 chuck	FP100.2045	o	o	o	
For ISO / BT 50 chuck	FP100.2050	o	o	o	
For ISO / BT 50 chuck with pull stud	FP100.4050		o	o	
For PSC 63 chuck	FP100.5063	o	o	o	
Standard inductor stop rings					
Ø 2 to Ø 5	FE100.020.050	o	x		
Ø 6 to 12	FE100.060.120	x	x		
Ø 14 to 20	FE100.140.200	x	x		
Ø 25 & 32	FE100.250.320	o	x		
Ø 40	FE100.400.400	o	o		
Split inductor stop rings					
Ø 2 to Ø 5	FE200.020.050	o	o		
Ø 6 to Ø 12	FE200.060.120	o	o		
Ø 14 to Ø 20	FE200.140.200	o	o		
Ø 25 & 32	FE200.250.320	o	o		
Ø 40	FE200.400.400	o	o		
Cooling stop rings					
Ø 2 to Ø 5	FR500.050		x	o	
Ø 6 to Ø 12	FR500.120		x	x	
Ø 14 to Ø 20	FR500.200		x	x	
Ø 25 & 32	FR500.320		x	o	
Ø 40	FR500.400		o	o	
Shrinking with reduction					
Reduction support	FL100.0800	o	o		
Various accessories					
Storage space for tools	FT150.0100		o		
Storage space for chuck holders	FT250.0100	o	o		
Storage space for inductor and cooling stop rings	FT350.0100	o	o		
Storage space for cooling stop rings	FT450.0100	o		o	
Kevlar gloves	FX100.0100	x	x		
Plier for gripping small diameters	FX200.0100	o	o		
Electronic replacement					
Inductor v.5 - Ø64 (tool shank Ø ≤ 40)	FA100.0564	o	o		
Motherboard 380/480 V	FC100.0500	o	o		
Motherboard 200/240 V	FC100.0501	o	o		
Remote control	FY100.050	o	o		

Presetting for Start.2

	Code	
Presetting unit + 4 rods	FJ120.0100	x
Measuring tool shank Ø 6	FJ120.5060	o
Measuring tool shank Ø 8	FJ120.5080	o
Measuring tool shank Ø 10	FJ120.5100	o
Measuring tool shank Ø 12	FJ120.5120	o
Measuring tool shank Ø 14	FJ120.5140	o
Measuring tool shank Ø 16	FJ120.5160	o
Measuring tool shank Ø 18	FJ120.5180	o
Measuring tool shank Ø 20	FJ120.5200	o
Measuring tool shank Ø 25	FJ120.5250	o
Measuring tool shank Ø 32	FJ120.5320	o



Presetting for Fi-6

Presetting unit + 4 rods + ruler + indicator + one set of guides and guides holder	FJ160.0100	x
Presetting guides holder	FJ150.8000	x
Adapter for ISO / BT30 presetting	FJ150.2030	o
Adapter for ISO / BT40 presetting	FJ150.2040	o
Adapter for ISO / BT45 presetting	FJ150.2045	o
Adapter for ISO / BT50 presetting	FJ150.2050	o
Tool guide Ø 6	FJ150.6060	x
Tool guide Ø 8	FJ150.6080	x
Tool guide Ø 10	FJ150.6100	x
Tool guide Ø 12	FJ150.6120	x
Tool guide Ø 14	FJ150.6140	o
Tool guide Ø 16	FJ150.6160	x
Tool guide Ø 18	FJ150.6180	o
Tool guide Ø 20	FJ150.6200	x
Tool guide Ø 25	FJ150.6250	o
Tool guide Ø 32	FJ150.6320	o
Ruler 300 mm	FJ150.9990	x
Dial indicator	FJ150.9991	x



Common replacement parts

«compact» rod	FT500.110	o
«standard» & «for molds range» rod	FT500.120	o
Rod «length 120 mm»	FT500.125	o
Rod «length 160 mm»	FT500.130	o

x = standard o = option

Key benefits of THERMO Shrink-fit:

Unlike more traditional tool clamping systems, Shrink-fit toolholding employs heating and cooling properties of steel in order to achieve superior clamping force. Inside diameter of the toolholder is precisely manufactured to be slightly smaller than the shank diameter of the cutting tool at the room temperature.

Using shrink-fit machine, heat is applied to the toolholder allowing it to expand so that the cutting tool can fit in. Upon cooling down, toolholder contracts to its original dimension the cutting tool.

This clamping system allows for certain benefits not found in more traditional clamping:

- **Superior tool runout** - monobloc toolholder, without clamping elements (bolts, nuts, etc.)
- **Higher rigidity** - tool shank is gripped 360 deg., through the whole bore length
- **Straightforward operation** - fast tool change, less accessories required
- **Increased tool life** - better chip load distribution along the cutting edge
- **Easier workpiece approach** - thinner profile, reduced nose diameter, various toolholder lengths
- **Enhanced reach** - with use of cylindrical shrink fit extensions
- **Internal coolant supply** - delivering coolant through the toolholder to the tool edge for better chip removal and superior surface finish.
 - Coolant ports sealable using M4 screws.
 - High pressure nozzles for better coolant direction at higher rpm.
- **Extended spindle life** - tool holders fine balanced G2.5 at 25 000 rpm or more.
- **Costs saving** - higher machine productivity due to stable operation, increased feeds and speeds and cutting depths.

SAB has two decades worth of experience in supplying customers around the world with only top-quality Shrink fit toolholders.

More information at www.sab.hr



Find additional information
and product catalogues

SAB d.o.o.
Podborska 1b / 43500 Daruvar
tel. + 385 43 675 850
fax. + 385 43 334 700
sab@sab.hr / www.sab.hr