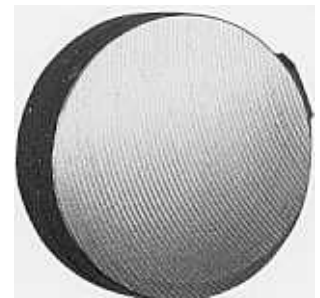
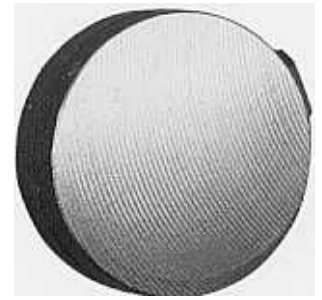


Automatic Sample Milling Machine HS-FF 2000



Sample preparation machine for optical emission
and X-ray fluorescence analysis for iron and steel
samples

HERZOG

HERZOG milling machine HS-FF 2000
for automatic, analysis-ready
preparation of iron and steel samples
for spectral analysis.



Herzog automatic sample milling machine HS-FF 2000



Control terminal with display for the preselection
of parameters and program selection.

Optimum sample preparation as a prerequisite for accurate analyses

The automatic processing cycle ensures extremely fast and reproducible results. Milling parameters optimally adjustable to all material grades, combined with a variety of application-matched tools, ensure the maximum degree of flexibility.

Safe and operator-friendly

The HS-FF 2000 is hermetically sealed and sound-insulated. Safety circuits guarantee protection for the operating personnel. The large safety hood enables easy access for operation and maintenance. Milling swarf is collected in a removable collector tray.



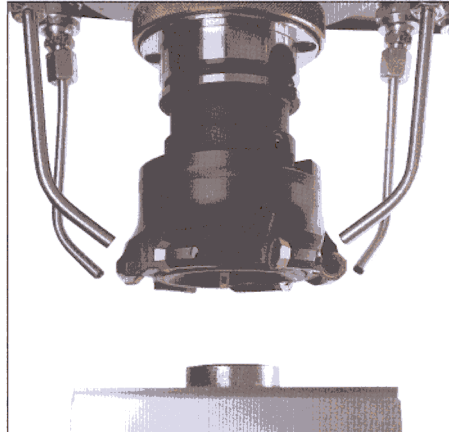
The machine has been designed to enable easy integration into robot-based automation systems.



The HS-FF 2000 is hermetically sealed and sound-insulated.



Automatic clamping of the sample and measurement of sample height.



Special milling cutters with different cutter materials, optimally matched to all material grades.



Optional special milling head with integrated deburring device for automatic deburring of round calibration samples.

Milling spindle

Two independently operated precision milling spindles can be fitted with milling cutters for various material grades. There is no need to change cutters when changing from steel to iron and vice versa. The extremely sturdy spindle bearings allow safe, sustained processing of even the hardest material grades.

Tool change is quick and easy – without the need for any special tools.

Stored program controller with 16 standard processing programs

The integrated Simatic S7 SPC controller guarantees an error-free, automatic processing of the widest possible variety of samples. Up to 16 programs, defined by parameters, can be saved and protected by password.

The processing steps: alignment and clamping of the sample, selection of milling cutter 1 or milling cutter 2 runs automatically. Feed speed, milling depth and cutting speed can be set as program parameters at the control panel. Separate programs for automatic deburring of round calibration samples are available in conjunction with a special milling head.

Milling cutters

The system is designed to allow the use of special milling cutters and different cutter materials, optimally matched to all material grades. Tool life times are monitored. Tool change and maintenance intervals are displayed on the machine control panel.

Cost reduction through automation

The machine has been designed to enable easy integration into robot-based automation systems. The focus of the development engineering of the Herzog sample milling machine was on the mechanical connections and electronic interfaces. Extremely short processing times and smooth, coordinated operating sequences round off the automation concept.

Technical Data HS-FF 2000

Model HS-FF 2000

Colour: blue/white, RAL 5007/7035
Labelling text: English
Operating manual: 1 copy, English
Accessories: 1 set of wrenches

Dimension L x W x H

Machine: 1330 x 1320 x 2000 mm

Weight

Machine: approx. 2600 kg

Milling cutters

Various cutters and cutting tips. Geometry selectable, according to sample quality
Toolholder: mechanical quick change device

Power supply and consumption

Voltage: 400 V, 50 Hz, 3-phase
Neutral conductor: not required
Power consumption: approx. 20 kVA

Compressed air supply and consumption

Pressure: min. 5 bar, max. 10 bar
Consumption: approx. 750 dm³/N per sample
Connection sleeve: nominal diameter = 19 mm

Electrical switch cabinet (integrated in the machine housing)

Programmable controller: Simatic S7
Control voltage: 24 V DC
Protection class: IP 44
Insulation class: B

Processing parameters

Cutting depth: 1.5 mm programmable in steps of 0.05 mm
Processing cycle duration: depending upon the program 20 to 40 sec.
Number of processing programs: 16

Processable samples

Material: steel and iron
Form: without pin, round, oval, square samples with 2 parallel clamping faces and double thickness samples
Sample dimensions: height min. 7 mm, max. 60 mm
Diameter: max. 60 mm, clamping range nominal diameter +/- 14 mm
Sample hardness: max. 65 HRC, depending on cutting tips and material characteristics

Sample cooling

Cooling type: by means of cooling nozzles
Cooling medium: compressed air

Sample insertion and discharge

Insertion method: manually into the open clamping device, optional with an external handling system
Discharge method: manually from the clamping device, optional with an external handling system

Options

Patented special milling head for automatic deburring of round calibration samples (diameter 35 - 55 mm)
External cooling device
Sample transport system to external devices

The design of the machine complies with the applicable accident prevention and VDE (German association of electronics engineers) regulations. We reserve the right to make technical changes.



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