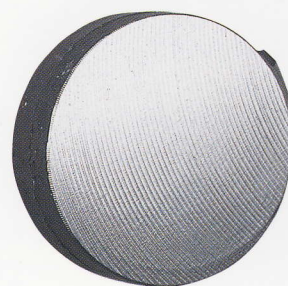


Automatic Sample Milling Machine HS-FF



Optimum results in optical emission
and X-ray fluorescence analysis during
automatic sample preparation

HERZOG

Swivelling
control terminal



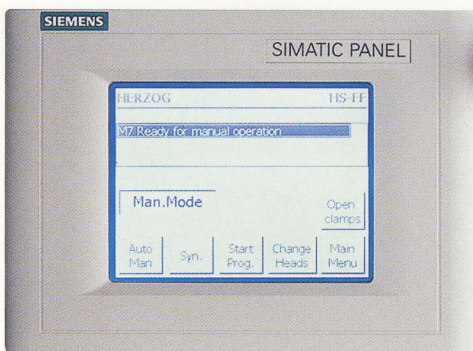
Herzog milling machine HS-FF

Highest reproducibility through automatic sample preparation

The basis for optimum results in optical emission and X-ray fluorescence analysis is a fully-automatic functional sequence during sample preparation. Herzog milling machines deliver the bases for reliable analyses because they guarantee the highest level of reproducibility through program-controlled, automatic processing of the samples.

Perfect integration through a modular design

Herzog milling machines are built in modular form. In this way they can be perfectly integrated into existing operating sequences. They can also still be integrated into automatic systems at a later stage without any problems. Herzog products are moreover designed for continuous use under rough operating conditions. That guarantees long service life and high reliability.



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

Stored program controller with 16 processing programs

The Simatic S7 SPC controller - other controllers can also be integrated - guarantees an error-free automatic grinding process for sample forms with temperatures up to 800 °C. Up to 16 programs, defined by parameters, can be saved and protected by passwords. The processing steps - sample clamping, measurement of sample height, use of milling cutter 1 and/or 2 - all take place automatically.

Feed speed, milling depth and cutting speed can all be set on the swivelling control terminal. Special programs for (patented) automatic deburring of round calibration samples are available in combination with an optional special milling head. The controller display keeps you informed the whole time on the current operating status. The specified control and monitoring processes are the basis of precise analyses since they guarantee the reproducibility of sample processing.

Safe and operator-friendly

The HS-FF is completely enclosed and sound-insulated. Emissions are reduced to a minimum. Numerous safety circuits guarantee optimum protection for the operating personnel. When using the HS-FF in a container laboratory the samples can optionally be fed in from outside the container via an infeed hood with an interlocking system and then conveyed to the milling unit by means of a transport system.

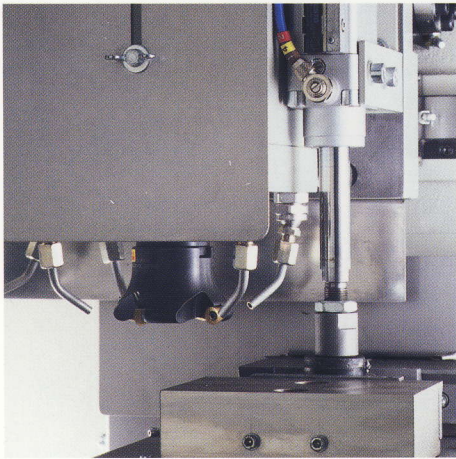
Cost reduction through automation

The modular construction of Herzog precision machines permits an automation concept which is accurately tailored to your own operating requirements. The cost of implementation of the automation concept is quickly repaid since time and costs are saved through the optimisation of your working sequences.

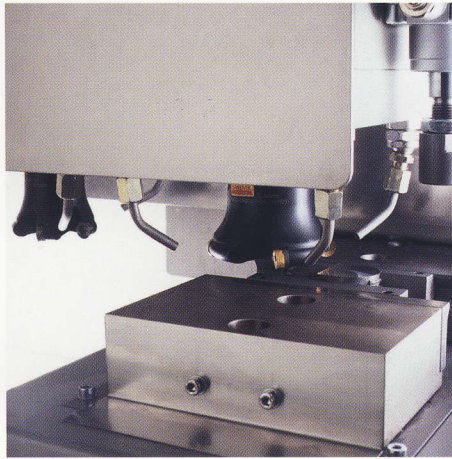
The HS-FF can be combined with the following modules:

- Input and output magazines for samples
- Sample transport systems
 - Air tube systems
 - Transport belts
 - Pneumatic linear conveyors
 - Servo driven linear conveyors
 - Robots
- Sample transfer devices to analysers
 - Robots
 - Manipulators
 - Sample changers

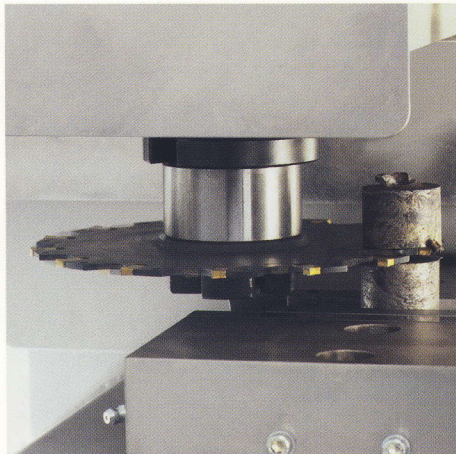
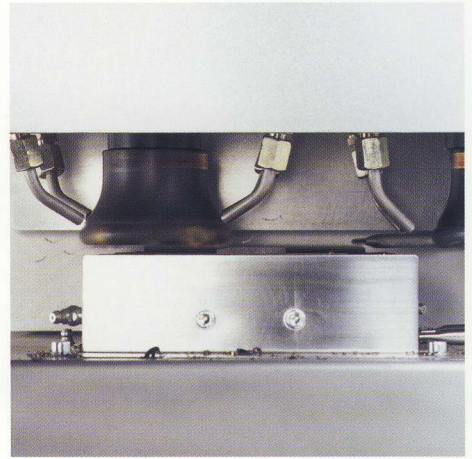
Automatic clamping of the sample and measurement of sample height



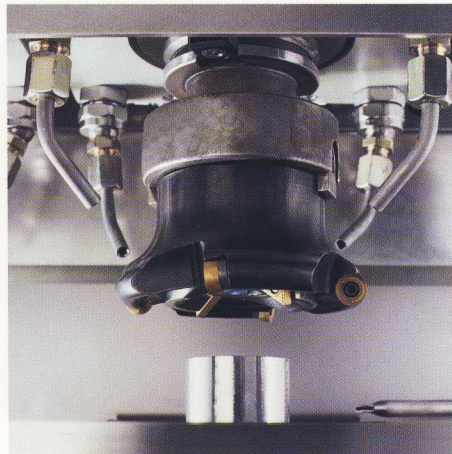
Optimum processing with the use of two milling cutters, optionally with different cutting tools



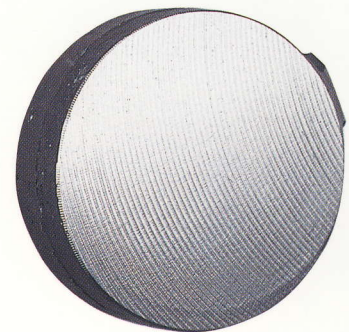
Milling cycle



Optional cutting disc for sample cutting



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



HERZOG

Technical Data HS-FF

Model HS-FF

Colour: blue/white, RAL 5007/7035

Labelling text: English

Operating manual: 1 copy, English

Accessories: 1 set of cutting tips per milling head,
1 set of wrenches

Dimension L x W x H

Machine: approx. 1070 x 1015 x 2020 mm

Weight

Machine: approx. 1400 kg

Milling cutters

Various milling heads and cutting tips available depending on sample quality

Toolholder: pneumatic quick change device

Power supply and consumption

Voltage: 400 V, 50 Hz, 3-phase

Neutral conductor: not required

Power consumption: approx. 14 kVA

Compressed air supply and consumption

Pressure: min. 5 bar, max. 10 bar

Consumption: approx. 750 l 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. 64 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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