HSM Pulverizing mill

HTP
Pellet press



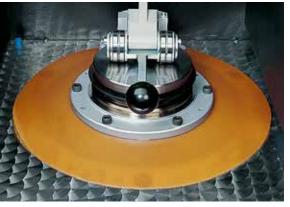




HSM 100 P with pneumatic clamping device (option)



HSM 100 with flap open



HSM 100 H with manual clamping device

Optimal sample preparation of powder material

At a glance

- The HERZOG pulverizing mill HSM and pellet press HTP offer the full benefits of program-controlled sample preparation for x-ray fluorescence analysis.
- Pulverizing and pelletizing with the HERZOG HSM and HTP significantly increase reproducibility and accuracy of sample preparation.
- The HSM and HTP are fully encapsulated, insulated against noise, and have safety cutouts for operator protection. Dust and noise burden are reduced, and safety enhanced.
- The HERZOG pulverizing mill and pellet presses are high-quality, precision engineering products with compact dimensions. They are ideally suited for laboratory requirements.

PULVERIZING MILL HSM.

Short grinding times - long life span

The HERZOG HSM vibration disk mill is suitable for pulverizing of minerals, slags, ferro-alloys and other basic material. The high-speed of the drive motor enables the grinding of even hard materials with short process times. Due to the robust design with twin eccentric disk bearings the HSM mill achieves a long service life with a minimum of maintenance.

Complete flexibility

The pulverizing parameters of the Herzog HSM mill are controlled by a PLC program. This allows an easy operation of the machine and complete flexibility in selection of processing parameters. A wide variety of different sizes and materials can be selected for the grinding vessels – according to the requirements of the customer.



PELLETIZING PRESS HTP

Optimum quality of pressed pellets

The HERZOG hydraulic HTP press produces high-quality pressed pellets with a mirrorlike surface necessary for optimal XRF results. The HSM achieves the desired homogeneity and stability of each individual pellet with a maximum of reproducibility.

The HTP 40 reaches press forces of 400 kN, the HTP 60 of up to 600 kN even with larger sample diameters.



A swing-out cross-head makes filling and cleaning of the die quick, simple and safe. A number of pressing variables can be selected, depending on the press tool employed. Precision press tools with a range of diameters and materials permit free pressing, pressing in aluminium shells, and pressing in steel rings.

Precise control of the pelletizing process

The pelletizing process of the HSM is controlled by the PLC program. This leads to substantial improvement in reproducibility of sample preparation and consequently more precise analysis results. Pelletizing parameters such as total pressing force, incremental increase and decrease of pressure as well as pressure holding time can be preset on the HMI panel.

The pressure increase and decrease during pelletizing are controlled such that inner stresses within the sample are reduced. This allows the production of perfect pellets even with complicated sample material.





HTP 40/HTP 60



Swing-out cross-head for easy machine handling

Manual cleaning device for steel rings (option)



- · Color: Blue/white • Labeling text: English
- · Instruction manual: 1 copy English

Dimensions L x W x H

Machine: 550 mm x 750 mm x 1,000 mm

Machine including

packaging crate: 1,000 mm x 1,050 mm x 1,350 mm

Weight

Machine: 250 kg

Machine including

packaging crate: 360 kg

Electrical power supply and consumption

400 V, 50 Hz, 3-phase, or other as required Voltage:

Neutral conductor: Not required Power consumption: 2 kVA

Pneumatic supply and consumption

250 P/100 P (pneumatic clamping facility) Version

Pressure: Min. 5 bar, max. 10 bar

Consumption

per sample: Approx. 10 dm³

Electrical switchgear cabinet (integral)

Programmable

controller: Simatic S 7-1200

Control Voltage: 24 V DC Degree of protection: IP 54 Insulation class:

Control parameters

Duration of grinding: 1-900 s

Sample types

Material: A range of materials, e.g. raw cement

> meal, cement, clinker, slag of different types, ores, ferro alloys and other

basic material

Grain size: 10 mm Hardness: Max. 9 Mohs Max. 100 °C Temperatur:

Options:

• Pneumatic clamping device (HSM 100 P, HSM 250 P)

Grinding vessel chromium steel (10, 50, 100, 250 ccm), tungsten carbide (10, 50, 100, 250 ccm), colmonoy (100, 250 ccm), agate (100 ccm)

• Continuously variable rotation speed (750-1,500 rpm)

Model HTP 40/HTP 60

Color: Blue/white Labeling text: English

Instruction manual: 1 copy English

Dimensions L x W x H

Machine: 550 mm x 620 mm x 1,250 mm

Machine including

packaging crate: 900 mm x 1,050 mm x 1,550 mm

Weight

Machine: 340 kg

Machine including

packaging crate: 470 kg

Electrical power supply and consumption

400 V, 50 Hz, 3-phase, or other as required Voltage:

Neutral conductor: Not required Power consumption: 4 kVA

Pneumatic supply and consumption

Only required with pneumatic ring cleaning device

Min. 5 bar, max. 10 bar

Consumption per sample: Approx. 15 dm3

Electrical switchgear cabinet (integral)

Programmable

controller: Simatic S 7-1200

Control Voltage: 24 V DC Degree of protection: IP 54 Insulation class:

Pressing process

Pressing in steel rings Standard 40 x 35 x 14 mm or

51.5 x 35 x 8.6 mm

Pressing in aluminium shells, standard diameter 40 mm,

free pressing diameter 15-50 mm

Control parameters

Pressure build-up/pressure decrease

Pressure holding time

Press force

Options:

Press tool 40 mm diameter for free pressing

Press tool 40 mm in aluminium cups

Press tool 40 mm for pressing in steel rings

Press tool 51.5 mm for pressing in steel rings

Cleaning device, manual

Cleaning device, pneumatic

The design prevention design

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of the machine complies with the applicable accident and VDE (German association of electronic engineers) reserve the right to make technical changes We egulations.