

Laboratory of powder and compacted sample preparation

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Micromill Pulverisette 0, Fritsch

Operating principle: Impact force
Grinding ball diameter: 50 – 70 mm
Materials of the grinding tools: stainless steel, tempered steel,
Final fineness: (depending on material): 10 μm
Typical grinding time: (depending on the material): 10 min
Cryogenic grinding: Yes
Grinding process: Dry / wet
Grinding bowl oscillations per minute: 3000 – 3600

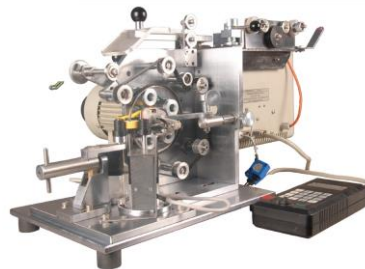


Planetary Ball Mill PM 100, Retsch

Applications: pulverizing, mixing, homogenizing, colloidal milling, mechanical alloying
Feed material soft, hard, brittle, fibrous - dry or wet
Size reduction principle impact, friction
Material feed size < 10 mm
Final fineness < 1 μm , for colloidal grinding < 0.1 μm
Batch size / feed quantity max. 1 x 220 ml,
Grinding jar sizes 12 ml / 25 ml / 50 ml / 80 ml / 125 ml / 250 ml / 500 ml

Toroidal Winding Machine Type TW100SB

Program: microprocessor controlled
Core OD size: min. $\text{\O}5\text{mm}$, max. $\text{\O}60\text{mm}$,
Core ID size: min. $\text{\O}2,2\text{mm}$,
Core height: max. 20mm (15mm)
Wire size: $\text{\O}0,056\text{mm}$ to $\text{\O}0,71\text{mm}$, Wire
Magazine diameter: $\text{\O}100\text{mm}$
Winding speed: max. 2000 RPM
Winding counter: 2pcs optic or 2pcs



Equipment for preparation of samples by pressing

Pressing force: equivalent to 38 ton
Sample shape: ring (outer diameter approx. 24 mm, inner diameter approx. 18 mm, cylinder with diameter of 10 mm.
Temperature at pressing: up to 650°C
Atmosphere: vacuum, inert gasses

Applications:

- Powder sample preparation
- Compacted powder samples preparation
- Winding of toroids on ring-shaped samples