

BM-400, BM-450 Mixer/Mill® High-Energy Ball Mills



- High-energy ball mill that pulverizes hard or brittle samples to analytical fineness (<math><50 \mu\text{m}</math>)
- Equipped with forced-air cooling and safety interlock system for operator protection
- Steel housing protects the clamp mechanism and rugged construction ensures a long life of heavy use
- Shock-mounted motor enables benchtop operation

The Mixer/Mill is a high-energy ball mill available with a single clamp, or dual clamps for double capacity, that grinds 0.2 to 25 grams (per clamp) of dry, brittle samples, reducing them to analytical fineness. Samples in grinding vials are shaken with grinding media in a complex motion that combines back-and-forth swings with short lateral movements in a “figure-8” pattern. This motion produces strong G-forces that can pulverize the toughest rocks, slags and ceramics.

Typical applications include: mechanical alloying, nanomilling, slurry grinding, blending powders, mixing emulsions, and mechanochemistry.

Features



LCD screen with manual start/stop buttons



Capable of pulverizing the toughest samples



Clamp swings in a back-and-forth lateral “figure-8” movement



Vibration detection switch shuts the mill down in the event of mechanical failure

BM-400, BM-450 Mixer/Mill®

Sample Types Include



Plant Tissue



Cement



Pharmaceuticals



Minerals



Glass

Before & After Samples – Stone



Specifications – BM-400 Single-Clamp Mixer/Mill

Clamp Movement	5.9 cm (2 5/16) in back-and-forth, 2.5 cm (1 in) side-to-side
Clamp Speed	1060 cycles/minute (115 VAC) or 875 cycles/minute (230 VAC) Alternate pulley supplied with 230 VAC model for 1060 cpm operation
Voltage	115 VAC, 60 Hz or 230 VAC, 50 Hz
CE Approved	Yes
Motor	1/3 HP, 1725 rpm at 60 Hz, 1425 rpm at 50 Hz
Dimensions (L x W x H)	53 x 56 x 36 cm (21 x 22 x 14")
Net Weight	35 kg (77 lb)
Power Cord	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC
Warranty	3 years



BM-400, BM-450 Mixer/Mill®

Specifications – BM-450 Dual-Clamp Mixer/Mill

Clamp Movement	5.9 cm (2 5/16 in) back-and-forth, 2.5 cm (1 in) side-to-side
Clamp Speed	1060 cycles/minute (115 VAC) or 875 cycles/minute (230 VAC)
Voltage	115 VAC, 60 Hz or 230 VAC, 50 Hz
CE Approved	Yes
Motor	1/3 HP, 1725 rpm at 60 Hz, 1425 rpm at 50 Hz
Dimensions (L x W x H)	64 x 54 x 36 cm (25 x 21 x 14")
Net Weight	42 kg (93 lb)
Power Cord	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC
Warranty	3 years



Ordering Information

Description	Item Number
BM-400 Mixer/Mill Single-Clamp, 115 VAC, 60 Hz	04578-12
BM-400 Mixer/Mill Single-Clamp, 230 VAC, 50 Hz	04578-13
BM-450 Mixer/Mill Dual-Clamp, 115 VAC, 60 Hz	04578-10
BM-450 Mixer/Mill Dual-Clamp, 230 VAC, 50 Hz	04578-11

Need a Demo?

- Virtual sample processing – virtual demonstration of the equipment and sample processing
- Physical sample processing – physical testing of your sample with shared results
- Physical equipment testing – a demo unit can be sent to your facility to test before purchasing

Contact us today at sampleprep@antylia.com for details.

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