Mixer/Mill®

High-energy ball mills for efficient sample grinding



High-energy ball mills to pulverize hard or brittle samples to analytical fineness.

- 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.

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

APPLICATIONS INCLUDE

- Mechanical alloying
- Nanomilling
- Slurry grinding
- · Blending powders
- · Mixing emulsions
- Mechanochemistry

SAMPLE TYPES INCLUDE

- Plant tissue
- Minerals
- Cement
- Pharmaceuticals
- Glass



Mixer/Mill® Options



BM-450 Dual High-Energy Ball Mill

BM-400 High-Energy Ball Mill

Before and Sample Samples – Stone





Specifications

Specification	BM-450	BM-400	
Type of mill	High-Energy Ball Mill	High-Energy Ball Mill	
Display	Digital	Digital	
Motor	1/3 hp	1/3 hp	
Clamp speed	1060 back-and-forth cycles at 115 VAC, 60 Hz or 875 at 230 VAC, 50 Hz	1060 back-and-forth cycles at 115 VAC, 60 Hz or 875 at 230 VAC, 50 Hz	
Clamp movement	2 1/4 in. back and forth, 1-in. side-to-side	2 1/4 in. back and forth, 1-in. side-to-side	
Number of clamps	2	1	
CE approved	Yes	Yes	
Voltage	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC	
Dimensions (W x D x H)	54 x 64 x 36 cm (21 x 25 x 14 in.)	56 x 54 x 38 cm (22 x 21 x 15 in.)	
Net weight	42 kg (92 lb) without vials	36 kg (90 lb) without vials	
Warranty	1 year	1 year	



Ordering Information

Description	SamplePrep SKU	Cole-Parmer Item Number
BM-400 Mixer/Mill, Single Clamp, 115 VAC, 60 Hz	8000D-115	04578-12
BM-400 Mixer/Mill, Single Clamp, 230 VAC, 50 Hz	8000D-230	04578-13
BM-450 Mixer/Mill, Dual Clamp, 115 VAC, 60 Hz	8000M-115	04578-10
BM-450 Mixer/Mill, Dual Clamp, 230 VAC, 50 Hz	8000M-230	04578-11

For additional information or to request a quote or demo, scan the QR code or visit spexsampleprep.com



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@coleparmer.com for details.

65 Liberty Street Metuchen, NJ 08840, USA

Phone: 1.732.623.0465

Email: sampleprep@coleparmer.com



spexsampleprep.com