



Mini-Beadbeater-24

The Mini-Beadbeater-24 disrupts up to 24 microbial or tissue samples with better than 95 percent efficiency. Cells are disrupted quickly and safely in the sealed system. The apparatus is easy to clean, has a small footprint and is essentially maintenance free. Compared to the Minibeadbeater-16, the Mini-24 adds advanced electronics for enhanced motor function, variable speeds of 2400-3800 rpm and a 30% increase in microvial capacity.

Cat. No. 112011, Mini-BeadBeater-24, 115 volt

Cat. No. 112011EUR, Mini-Beadbeater-24, 230 volt

European buyers! The **Mini-Beadbeater-24** is CE certified.

Catalog Number

112011EUR ▼

- Power: 115 volts, 60 Hz, 7.5 amps or 230 volts, 50 Hz, 3.7 amps
- Width: 10 in. Depth: 18 in. Height: 12 in. Weight 47 pounds
- Shaking pattern: Uses proven, more efficient near horizontal vial orientation
- Capacity: four to twenty four screw-cap microvials (0.5, 1.5, and 2.0 ml) each containing to 400 mg (wet weight) bio-sample
- Shaking speed: Digitally variable from 2400-3800 strokes/min. The calculated M/sec "performance" value is greater than all competitive beadbeater-type cell disrupters on the market.
- Throw or stroke displacement: 7/8 inches
- Controller: Digital 0-5 minute with auto reset and 3 programmable presets
- Magnetic lid interlock cuts power to the Mini-BeadBeater-24 if the lid is opened at any time.
- Removable vial-holding cassette
- No imposed motor cool-down-time between each sample run
- The Mini-BeadBeater-24 uses standard screw-cap plastic microvials. *Stainless steel microvials* or *special reinforced polypropylene microvials (XXTuff vials)* are available for dry- or cryo-milling with steel beads. *Eight larger capacity, 7 ml vials can be processed using an accessory vial-holding ring (see Parts and Accessories below).*

SHAKING TIME: If you are harvesting expressed proteins, for example, you need close to 100% cell disruption. But, if you want nucleic acids for PCR amplification, perhaps a partial disruption of cells is acceptable. Some manufacturers claim disruption times of less than 30 seconds. That may be fine for PCR work, but not for blotting.

*SHAKING SPEED: Some manufacturers of beadbeaters (bead-mill) machine offer speed settings expressed in an ill-defined term: **meters/second**. The term combines measurable shaking speeds with vial displacements to create a unit presumed to define cell disruption power. Unfortunately, no unit is available that comprehensively defines cell disruption efficiency of bead mill grinding machines. Were it to exist, such a term would need to take into consideration not only shaking speed and distance of vial displacement, but also shaking direction (vertical vs. horizontal), shaking pattern (linear vs. figure eight), kinetics of change in shaking direction (sigmoidal vs. square wave), vial size and shape and other engineering variables. Clearly, the interplay of these variables is complex. They must be taken into consideration in the design of a high performance cell disrupter machine and, as might be expected, some machines achieve this goal better than others. Additionally, most published protocols rarely call for shaking speeds below the maximum shaking speed available from the machine. Thus, speed control, when available, can be viewed as a 'bell and whistle' feature.*

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