

Mixer/Mill®

Grinding and
Pulverizing



Mixing and
Blending



Tissue Homogenization
and Cell Lysis



RAPIDLY REDUCES HARD, BRITTLE SAMPLES TO POWDER

SAMPLES INCLUDE:

Rocks, Minerals, Sand, Cement, Slag, Ceramics, Catalyst Supports, Metal Alloys, Glass, Pharmaceuticals, Plant and Animal Tissues, Cereal Grains, Seeds, Paints and Ink.

FEATURES & BENEFITS

- :: **Figure eight motion** that has been proven to be more efficient than side-to-side or planetary motion found in other mills. It can also be utilized for mechanical alloying and nanomilling.
- :: **Sample sizes range from 0.2-10 grams per vial** for grinding, and up to 60mL for blending powders or mixing emulsions.
- :: **Electronic timer** with pause and stop functions that displays the programmed running time and the time remaining while the mill is running. Extended run time chip also available.
- :: **Safety features include** a safety interlock so that the mill cannot be operated with the lid open. Each clamp has a lock nut that prevents it from loosening while the mill is running. The motor is equipped with a thermal overload protector and it is CE compliant.
- :: **Several vials are available** in hardened steel, stainless steel, tungsten carbide, alumina ceramic, zirconia ceramic, silicon nitride and agate. Plastic vials and balls are also available for making emulsions and blending powders.
- :: **Forced air cooling system** keeps the motor and clamp cool during longer grinding times to prevent overheating.
- :: **Built to be low maintenance** with ring bearings in the motor and clamp that are sealed for years of operation. The drive belt is extremely durable and rarely needs adjustment.



8000M



8000D



Learn more about the Mixer/Mill
Scan this code with the QR Reader on your smart phone
or visit www.spexsampleprep.com/mixermill

SPEX SamplePrep®

SPECIFICATIONS

8000M MIXER/MILL®

VOLTAGE	115V/60Hz or 230V/50Hz
DIMENSIONS	19 in (48cm) x 14 in (36cm) x 18 in (46cm)
VIAL CAPACITY	Holds one standard vial or one multiple sample adapter.
CLAMP MOVEMENT	2 1/3 in (5.9cm) back-and-forth, 1 in (2.5cm) side-to-side
CLAMP SPEED	115 volts-1060 cycles/minute 230 volts - 875 cycles/minute or 1060 cycles/minute with optional pulley installed.
TIMER/CONTROLS	Programmable 100 minute timer. Expandable up to 1,000 or 10,000 range. Membrane control panel eliminates dust contamination.

8000D MIXER/MILL®

VOLTAGE	115V/60Hz or 230V/50Hz
DIMENSIONS	24 in. (61 cm) x 17 in. (43 cm) x 11 in. (28 cm)
VIAL CAPACITY	Holds two standard vials or two multiple sample adapters.
CLAMP MOVEMENT	2 1/3 in (5.9cm) back-and-forth, 1 in (2.5cm) side-to-side
CLAMP SPEED	115 volts-1060 cycles/minute 230 volts - 875 cycles/minute
TIMER/CONTROLS	Programmable 100 minute timer. Membrane control panel eliminates dust contamination.

ACCESSORIES

Visit www.spexsampleprep.com/mixermill for the full range of accessories.

STANDARD GRINDING VIALS



45mL Agate Vial



45mL Alumina Ceramic Vial



55mL Tungsten Carbide Vial

Standard vials are also available in steel, silicon nitride, zirconia ceramic and methacrylate. Vials also include grinding balls of the same material.

ALTERNATE GRINDING VIALS



75 mL polypropylene grinding vial with attached cap.



12 mL polycarbonate grinding vial includes a slip-on polyethylene cap.



5 mL Hardened Steel Grinding Vial

SAMPLE ADAPTERS



Multiple sample adapters that hold four or seven small vials, for simultaneous running in the Mixer/Mill®

GRINDING AIDS



Grinding Aids prevent caking and reduce contamination. Particularly useful for grinding samples such as cement and many other minerals to particle sizes below 10 microns.

APPLICATION NOTES

• Production of Nano-Crystalline Oxidized Ceramics with High-Energy Ball Milling (SP003).

• How to Guidelines: Feedstuffs Analysis - Crude Fat (Hexane Extractables) (HT002).

To view application notes for the Mixer/Mill, please visit www.spexsampleprep.com/apnotes



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