

INNOVATIVE TECHNOLOGIES

Planetary Ball Mill



TORONTECH



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Discover the power of **Planetary Ball Mills from Torontech** – your ultimate solution for grinding (dry or wet) and blending a variety of materials, from soft to hard, brittle to fibrous samples.

Engineered to meet the highest standards of precision and reliability, **these mills ensure consistent grinding results, adhering to the highest industry standards.** Explore the versatility of our mills, catering to diverse applications beyond mixing and particle size reduction, and excelling in achieving colloidal grinding. setting a new benchmark in technical excellence.

Unleash the potential of your samples with Planetary Ball Mills from Torontech.

APPLICATION

Sample Type

Soft, Hard, Brittle, and Fibrous.

Related Fields

- Engineering/ Electronics
- Building Materials
- Agriculture
- Pharmaceutical
- Chemical / Synthetic Materials
- Geology / Metallurgy
- Environment / Resource Recovery
- Glass / Ceramic Industry

Typical Sample

- Building Materials: Cement Clinker, Concrete, Clay Minerals, Limestone, Gypsum, and Quartz.
- Organic Materials: Plant Material, Compost, Charcoal, Hair, Seeds, and Bones.
- Chemical Products: Coatings and paint, Catalyst, Chemicals, and Pigment.
- Industrial Materials: Metal, Carbon Fiber, Glass, Waste Electronic Products, and Metal Oxide (including iron ore).
- Fibrous Materials: Paper, Fiber Products, Cellulose, and Polymers.
- Miscellaneous: Coke, Coal, Ceramics, and Bentonite.



PRODCUT ADVANTAGES

Long-Term Durability and Continuous Operation:

Designed for extended and continuous use. Equipped with an automatic ventilation system, it efficiently cools the grinding chamber during operation.

Programmed Precision for Reproducible Results:

Programmed grinding parameters ensure consistent outcomes, guaranteeing reproducible results for accurate research.

Versatile Grinding Jars for Various Applications:

Choose from six grinding jar varieties to suit diverse sample volumes and materials, providing flexibility for different research needs.

Advanced Grinding Capabilities:

Our equipment delivers rapid grinding down to nano fineness, preventing clumping with automatic direction reversal. It offers versatility with four grinding platforms for simultaneous processing (BM40 model).

WORKING PRINCIPLE

As the planetary ball mill springs to life, the motor ignites a captivating dance: the central sun wheel propels the grinding jars to spin gracefully on their axes.

In a mesmerizing twist, they move in opposite directions, creating a rhythmic symphony of motion. Inside the jars, the grinding balls whirl with energy, driven by the mystical forces of Coriolis. Each collision releases dynamic energies, transforming raw materials into refined creations.

Caught in this whirlwind, samples succumb to the relentless crush of the grinding balls, their essence extracted with each friction-filled embrace against the inner walls of the jar.

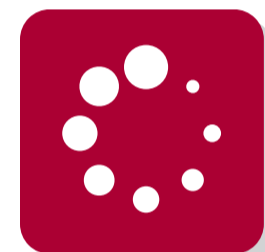
It's a spectacle of power and precision, a ballet of innovation shaping the future of materials processing.

FEATURES



Grinding Jar Features:

Designed for user convenience and durability, our grinding jars feature clear markings for easy identification and an O-ring for effective dust prevention. Stainless steel-coated jars provide extra protection and durability.



Enhanced Safety Design for Grinding Jars:

Featuring a secure closure mechanism and safety closure devices, our grinding jars ensure a gas-tight environment for safe colloid grinding. An aeration lid enhances safety further, preserving the integrity of the grinding process.



Pressure and Temperature Measuring System (PTM): During operation, our planetary ball mill incorporates the PTM, enabling real-time monitoring and recording of various processes and reactions occurring within the grinding jars. This includes tracking temperature and pressure changes, enhancing grinding quality, and facilitating precise result analysis.



High-Power Fans for Effective Cooling:

Built-in high-power fans ensure effective motor cooling during grinding, minimizing maintenance needs and supporting consistent performance, even during prolonged operation.



Effortless Operation and Cleaning:

Our equipment ensures seamless operation and easy cleaning with an intelligent security lock, ergonomic design, and user-friendly program. Built-in high-power fans facilitate effective motor cooling, enhancing equipment reliability and durability.



Customizable Speed Ratio:

Planetary ball mills offer 1, 2, or 4 adjustable grinding stations, catering to various sample characteristics. With customizable speed ratios ranging from 1:1 to 1:-3.5, they provide efficient sample grinding using high-quality materials and flexible grinding ball combinations.

TECHNICAL SPECIFICATION

ITEM	BM40	BM6PRO	BM20	BM20PLUS
Feed size	<0.39 inches.			<0.78 inches
Final fineness	<0.1µm(up to nanometer for colloidal grinding)			
Speed	30-400rpm	100-650rpm	50-650rpm	30-300rpm
Speed ratio	1:-2.2	1:- 2	1:- 2	1: -1.9
Time	0-99min(recycle times 01-99)			
Effective sun wheel diameter	14.1732 inches.	10.2362 inches.	11.4173 inches.	15.1181 inches.
Rated power	1.5KW	750W	750W	2.2KW
Power supply	220V, 50/60Hz (110V is also available. Please specify when ordering)			
Instrument size	30.87 x 23.54 x 22.72 inches	26.97 x 20.08 x 19.92 inches	26.97 x 20.08 x 19.92 inches	24.02 x 32.28 x 24.61 inches
Package size	35.43 x 40.16 x 35.04 inches	33.86 x 37.8 x 30.71 inches	33.86 x 37.8 x 30.71 inches	35.43 x 40.16 x 35.04 inches
Weight	418.88 pounds / 190 kg	275.58 pounds / 125 kg	319.67 pounds / 145 kg	429.9 pounds / 195 kg


Member of
**(WORLD
of TEST)**™



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