

HIGH PERFORMANCE MINI PLANETARY BALL MILL



High Performance Mini Planetary Ball Mill NM200

High Performance Mini Planetary Ball Mill NM200 is versatile and perfect for precise grinding of hard, medium-hard, and brittle materials to a final fineness of 100 nm.

Along with dry grinding, it also offers the capability to reduce size in suspension or inert gases based on the required final fineness. Beyond crushing, the NM200 is suitable for mixing and homogenizing emulsion and paste samples, and it can be utilized for mechanical activation and alloying materials research.

APPLICATIONS

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- **Sample types:** Soft, hard, brittle, fibrous
- **Application areas:** Engineering/electronics, building materials, agriculture, pharmaceuticals, chemical synthetic materials, geology/metallurgy, environmental/resources recycling, glass/ceramics, biological, and other fields
- **Typical samples:** Plant materials, cement slag, concrete, compost, coatings and paints, charcoal, hair, catalysts, chemicals, alloys, carbonized fibers, paper, fiber products, cellulose, seeds, clay minerals, coke, coal, glass, electronic waste, minerals, ores, limestone, iron ore, bentonite, gypsum, quartz, kaolin, bone, metal oxides, ceramics, polymers, pigments, etc.

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Special application

In addition to the traditional mixing and grinding process, the NM200 can also fulfill the technical requirements of colloid grinding. Its high energy input is suitable for preparing mechanical alloys.

Working Principle

The grinding jar is positioned off-center on the sun wheel of the planetary ball mill. The sun wheel rotates in the opposite direction to the grinding jar at a ratio of 1:-2. The velocity difference between the ball and the grinding jar generates friction and impact forces, releasing high dynamic energies that act on the particle sample to quickly produce highly uniform and very fine particles.

FEATURES

- High reliability and repeatability
- Ability to process two samples simultaneously
- High safety performance
- Lid automatically closes and cannot be opened during grinding
- Jar balance detection ensures reliable safety protection
- Equipped with an air cooling system to effectively reduce heat buildup inside the jar
- High friction and energy input, suitable for preparing nanomaterials and alloying materials

Grinding Jar

- Optional materials and specifications
- Automatic positioning and locking, eliminating the need for manual operation
- O-ring effectively seals dust and is suitable for wet grinding

Control Panel

- 7-inch LED screen for easy parameter setting and display
- User-friendly interface for simple operation

TECHNICAL SPECIFICATIONS

Feed size	<5mm	Grinding process	Dry/Wet
Final fineness	<0.1μm(depending on sample)	Jar volume	20/45/80ml
Rotation speed of sun wheel	100-1100rpm	Centrifugal acceleration	95g
Number of stations	2	Rated power	1200W
Effective diameter of sun wheel	140mm	Voltage	220V,50/60Hz (110V is also available)
Sample quantity	2-60ml	Jar material	Zirconia, agate, stainless steel, tungsten carbide, corundum, silicon nitride.



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