

POWTEQ®



High performance mini
Planetary Ball Mill **NM200**

◇ High performance mini Planetary Ball Mill NM200

High performance mini Planetary Ball Mill NM200 has a wide range of applications and is ideal for loss-less grinding of hard, medium hard and brittle materials up to final fineness of 100 nm. Besides dry grinding, size reduction can also be done in suspension or inert gases depending on the desired final fineness. In addition to crushing, you can also use NM200 to mix and homogenize emulsion and paste samples, or apply them to mechanical activation and alloying materials research.



○ Application samples

○ **Sample types:** soft, hard, brittle, fibrous

○ **Application areas:** engineering/electronics, building materials, agriculture, pharmaceuticals, chemical synthetic materials, geological/metallurgy, environment/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, electronics waste, minerals, ores, limestone, iron ore, bentonite, gypsum, quartz, kaolin, bone, metal oxides, ceramics, polymers, pigments, etc



Special application:

In addition to the classical mixing and grinding process, NM200 can also meet the technical requirements of colloid grinding, and its high energy input can meet the requirements of mechanical alloys preparation.

○ Working Principle



The grinding jar is arranged on the sun wheel of the planetary ball mill off centered. The rotate direction of the sun wheel is opposite to that of the grinding jar in a ratio of 1:-2. The velocity difference between the ball and the grinding jar creates an interaction force of friction and impact, which releases high dynamic energies that act on the particle sample so as to quickly produce highly uniformed and very fine particle.

○ Features and advantages

- High reliability and repeatability
- Processing 2 samples at the same time
- High safety performance
- Lid can be automatically closed, and can't be opened during grinding
- Jar balance detection , reliable safety protection
- With air cooling system, effectively reduce the heat gathered inside jar
- High friction and energy input, for nanomaterials and alloying material preparation

○ Grinding jar

- Materials and specifications of grinding jar are optional.
- Automatic positioning and locking, no need manual operation.
- O ring effectively sealing dust and suitable for wet grinding.



○ Control panel

- LED7 inches screen, easy parameter setting and display.
- User- friendly interface, simple operation.

○ Technical data

Feed size	< 5mm	Grinding process	dry/wet
Final fineness	< 0.1 μm (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
Sample quantity	2-60ml	Jar material	Zirconia, agate, stainless steel, tungsten carbide, corundum, silicon nitride