

## **MB-100 Laboratory Planetary Ball Mill**

### **Semicircular planetary ball mill**

#### 1、 Fashion design

3D arc shape design is noble and trend

#### 2、 Perfect craft

Half a million molds forming, 3 million fine mechanism made

#### 3、 Original gear

Single silent gear, noise reduction 15-20dB;The gear transmission speed is stable to ensure the consistency and repeatability of the test.

#### 4、 Easy Operate

Humanized design, easy and comfortable operation。

### **Planetary Ball Mill Machine**

Samy planetary ball mill is a necessary device for mixing, fine grinding, small sample preparation, new product development and small batch production of high-tech materials. Our planetary ball mill is small in size, full in function, high in efficiency and low in noise. It is the ideal equipment for scientific research units, colleges and universities and enterprise laboratories to obtain research samples (four samples can be obtained at the same time for each experiment). With vacuum ball mill tank, it can grind samples under vacuum state.

Planetary ball mill is widely used in geology, minerals, metallurgy, electronics, building materials, ceramics, chemical industry, light industry, medicine, environmental protection and other departments. Applicable to electric ceramics, structural ceramics, magnetic materials, cobalt acid lithium, lithium manganese acid, catalyst, phosphor, long persistence luminescent powder, rare earth polishing powder, glass powder, fuel cells, zinc oxide varistor, piezoelectric ceramics, nanomaterials, wafer ceramic capacitors, MLCC, thermistors (PTC, NTC), ZnO varistor, dielectric ceramics, alumina ceramics, zirconia ceramics, phosphor, zinc powder oxide, cobalt oxide powder, Ni - zinc ferrite, Mn - zinc ferrite products such as production areas.



**Specification:**

Name	Laboratory Planetary Ball Mill
Model	MB-100
Capacity	100ml × 4=0.4L
Style	Planetary
Grinding ways	Dry grinding /wet grinding/High energy alloyed grinding/vacuum grinding/low temperature grinding for optional
Loading and unloading method	Intermittent type
Transmission mode	Gear drive
Speed control mode	Frequency conversion speed regulation
Control system	Frequency conversion control system
Speed rate (r/min)	2:1
The revolution speed(r/min)	5-400
Rotation speed(r/min)	10-800
Rated voltage (V)	220
Rated power(W)	750
Frequency (Hz)	50
Long run time(h)	100
Run time(h)	0-9999
Multi section speed setting	7 section
Feed particle size (mm)	<15mm,Hard material <3mm
Grain size(μm)	0.1μm, or 100nm
Ball material ratio	(2 - 10):1
Net Weight	30KG
Dimension	48×28×33cm

## Product Features

1. Two windows for you to see and control the grinding process better, one in the front of the machine and another on the top of the machine.
2. Back and side radiating holes for better heat dissipation and so as to prolong the machine working life.
3. With small size, light weight, low noise.
4. Can be operated continuously, one-way running, automatic positive and reverse continuous and regular operation.
5. Can be dry grinding, wet grinding, vacuum grinding, protection of the atmosphere.
6. Main belt tightness adjustable, long-term use is not easy to slip, greatly extended the service life.
7. The planetary ball mill appearance original box clamshell (or open), easy to operate, cover with safety switch, safe and reliable. Compact structure, beautiful shape, greatly reduce the weight, the whole machine is fully integrated.
8. Adopts the complete rolling friction drive between the metal wheel and the abrasive wheel. The noise and wear to the minimum, and the operation and operation of the gear type ball mill may not appear the phenomenon of breaking and damage, greatly extended the operation of the stability and service life.

## Working Principle

Planetary Ball Mill has four ball grinding jars installed on one turntable. When the turntable rotates, the jar axis makes planetary movements, the balls and samples inside the jars are impacted strongly in high speed movement, and samples are eventually ground into powder. Various kinds of different materials can be ground by the mill with dry or wet method. Minimum granularity of ground powder can be as small as  $0.1\mu\text{m}$ .

## Product Application

### 1. Agricultural

Plant material, seed, soil, tobacco, wood fiber

### 2. Biological

Bones, hair, paper towels

### 3. Ceramic and glass

Ceramic oxide and clay minerals, glass, hydroxyl phosphate

Carbon fiber, catalyst, cellulose, pigments, coatings, plastics and polymers

### 4. Building materials

Bentonite, cement clinker, polymer, gypsum, sand, stone

5. Environmental research

The mixture, electronic chips, sludge, waste

6. Mineral and metallurgical and metal electrons

Alloys, coal, coke, iron ore, metal oxide, quartz, semi-precious stone, slag, magnetic materials, etc.

## Grinding balls with various materials

SMALL APPEARANCE



# Grinding tanks of various materials

SMALL APPEARANCE



Stainless steel jar



Corundum jar



Zirconia jar



Tungsten carbide jar



Agate jar



Nylon jar

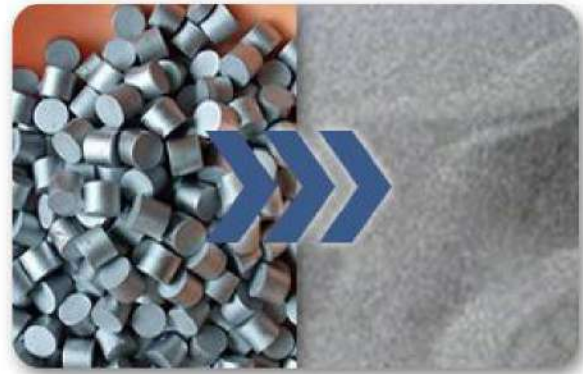
# Grinding of various materials

FINE GRINDING, DRY AND WET.



Carbon fiber, plastic and so on

Max speed :560rpm,grinding time:10 min



Graphite, metal and so on

Max speed:600rpm,grinding time:40 min



Straw, crops and so on

Max speed:400rpm,grinding time:20 min



Soil, sludge and so on

Max speed:500rpm,grinding time:10 min