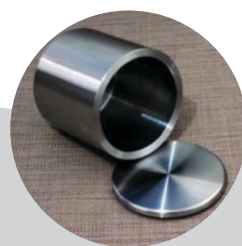


PLANETARY BALL MILLS BM 1200+ SERIES

< 10 mm
↓
< 0.1 μm



APPLICATIONS

NANO GRINDING

PULVERIZING

MIXING

HOMOGENIZING

COLLOIDAL MILLING

MECHANICAL ALLOYING

The vertical Laboratory Planetary Ball Mill is a device of high tech materials mixing, fine grinding, sample making, new product development and small batch production. This planetary ball mill model owns small volume and high efficiency, low noise and functional features which is a ideal equipment for R&D institution, university, enterprises laboratory to get samples (each experiment can get four samples at the same time). It gets powder samples under the vacuum state when equipped with vacuum ball mill tank.

WORKING PRINCIPLE

Vertical Laboratory Planetary Ball Mill (Semi-circle Model) has four ball grinding tanks installed on one turntable. When the turntable rotates, the tank axis makes planetary movements, the balls and samples inside the tanks 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 μm



APPLICATIONS

The planetary ball mill is widely used in many fields of geology, mine, metallurgy, electric industry, Construction, ceramics, chemicals, light industry, medicine, environmental protection etc.



TECHNICAL PARAMETERS

Drive Mode	Gear drive or belt drive
Working Mode	Two or four grinding jars working together
Max Load Volume (Material + Balls)	No more than 2/3 of mill jar volume
Feed Size	≤10mm
Output Granularity	Minimum up to 1um & 0.1um (Colloidal Grinding) (Different materials and grinding process will be different)
Rotation Speed Ratio	1:-2(Revolution/Rotation)
Rotation Speed	Details as per parameters table
Speed Regulation	Frequency Control
Interval Operation	Yes. Reverse
Display	LCD Display standard or Optional LCD Colour Touch Screen

TECHNICAL PARAMETERS (Semi circle round type)

Model No	Total timing(min)	Alternate running time (min)	Revolution (rpm)	Rotation (rpm)	Noise < db
BM 1200 - 2A	1-9999	1-999	35-335	70-670	60±5
BM 1200 - 4A	1-9999	1-999	35-335	70-670	60±5
BM 1200 - 8A	1-9999	1-999	35-290	70-580	60±5
BM 1200 - 10A	1-9999	1-999	35-290	70-580	60±5
BM 1200 - 12A	1-9999	1-999	35-290	70-580	60±5
BM 1200 - 16A	1-9999	1-999	30-255	60-510	60±5

SPECIFICATIONS OF PLANETARY BALL MILL MODEL (semi-circle round type)

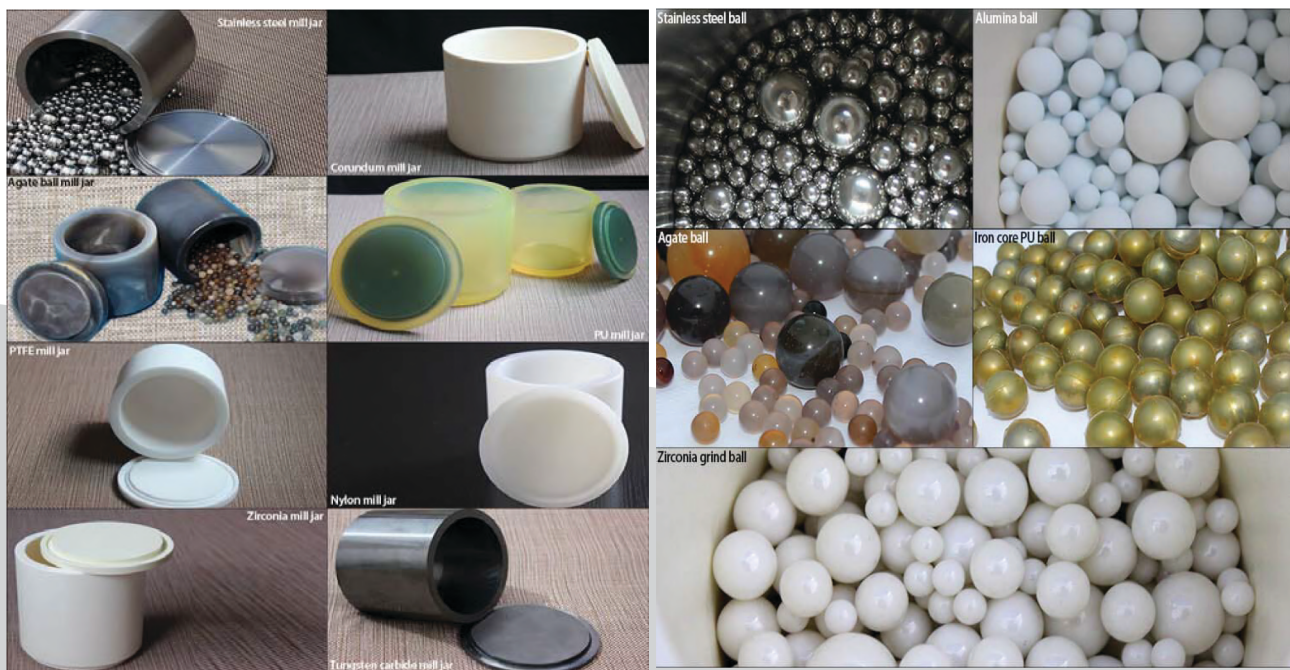
Model No.	Power Supply	Power(KW)	Net Weight(Kgs)	Dimensions(mm)
BM 1200 - 2A	240V – 50Hz	0.75	80	750×470×590
BM 1200 - 4A	240V – 50 Hz	0.75	80	750×470×590
BM 1200 - 8A	240V – 50 Hz	1.5	132	880×560×670
BM 1200 - 10A	240V – 50 Hz	1.5	132	880×560×670
BM 1200 - 12A	240V – 50 Hz	1.5	132	880×560×670
BM 1200 - 16A	240V – 50 Hz	3	203	950×600×710

AVAILABLE SIZES OF MILL JAR FOR PLANETARY BALL MILL (Semi-circle round type)

Model No.	Specifications	Available sizes of Mill jars	Quantity	Remarks
BM 1200 - 2A	2L	50-500ML	4 pcs	Can be matched with 50ml-250ml vacuum mill jar
BM 1200 - 4A	4L	250-1000ML	4 pcs	Can be matched with 50ml-1000ml vacuum mill jar
BM 1200 - 8A	8L	1-2L	4 pcs	Can be matched with 50ml-1500ml vacuum mill jar
BM 1200 - 10A	10L	1-2.5L	4 pcs	Can be matched with 1L-2L vacuum mill jar
BM 1200 - 12A	12L	1- 3L	4 pcs	Can be matched with 1L-2Lvacuum mill jar
BM 1200 - 16A	16L	2- 4L	4 pcs	Can be matched with 1L-3Lvacuum mill jar

Advantages of Vertical Planetary Ball Mill Semi-circle Round Model

- Stable revolving speed of the gear transmission ensures the consistency and repeatability of the experiment.
- Planetary movement principle is adopted in the machine, which has high speed, large energy, high efficiency, small granularity.
- Four powder samples from different sizes and different materials can be produced at one time.
- The machine is controlled by frequency converter, you may choose ideal rotating speed according to expected experimental result. The converter is equipped with device of under voltage and over-current to protect the motor.
- The planetary ball mill has functions of timing power off, self-timing forward and reversal rotating. You may choose freely any operation modes of one-waydirection, alternation, succession, time setting according to experimental needs, so as to improve efficiency of grinding.
- Technical features of BM1200+ series Ball Mill: Low center of gravity, stable performance, compact structure, easy operation, reliable safety, lower noise, small loss.
- Safety switch is installed on the machine to prevent safety accident if the safety cover is opened while machine is running.



PARAMETERS OF GRINDING BALLS AND JARS

Material	Volume of Mill Jar	Diameter of Balls (mm)
Stainless Steel	50ml,100ml,250ml,500ml,1L,1.5L,2L,2.5L,3L,4L	1-30mm
Zirconia	50ml,100ml,250ml,500ml,1L,1.5L,2L,3L,4L	1-30mm
Alumina	50ml,100ml,250ml,500ml,1L,1.5L,2L,3L	1-50mm
Tungsten Carbide	50ml,100ml,250ml,500ml,1L,1.5L	3-10mm
Agate	50ml,100ml,150ml,250ml,300ml,400ml,500ml,1L,1.5L,2L	6-35mm
Nylon	50ml,100ml,250ml,500ml,1L,1.5L,2L,2.5L,3L,4L	\
PU	50ml,100ml,250ml,500ml,1L,1.5L,2L,2.5L,3L,4L	\
PTFE	50ml,100ml,250ml,500ml,1L,1.5L,2L,2.5L,3L,4L	\

We can also provide all kinds of mill balls like stainless steel balls, zirconia balls, alumina balls, PU balls, steel carbon balls, tungsten balls, agate balls, hard metal balls, silicon nitride balls, high wear resistant steel ball, manganese steel balls, nylon balls, cemented carbide, crystal glass and other special metal materials.

Grinding Jar Material	Recommended Solution
Soil materials and other materials which are not allowed with any impurity contamination	Agate jar
Metal or nonmetal which are not allowed with any impurity contamination	Zirconium jar
High hardness materials like diamond, tungsten carbide	Tungsten carbide jar
Strong acid & alkali materials, or other materials under high temperature	PTFE jar
Iron ore materials or other materials with low impurity sensitivity	304 stainless steel jar
Pigment or materials with later processing under high temperature	Nylon jar
Aluminum materials like ceramic glaze	Corundum jar
Electronic materials like lithium battery	Polyurethane jar
Easily oxidized materials or some materials which need to be protected under special atmosphere	Vacuum jar

OTHER PRODUCTS



**Vibratory Sieve Shaker
VS 1100 (Touchscreen)**



**Air Jet Sieve Shaker
JS 1100 (Touchscreen)**



**Mortar Grinder
HG 1100 (Touchscreen)**



**Ball Mill
MM 1100 (Micro)**



**Cryo Ball Mill
CM 1100**



**Planetary Ball Mill
BM 1100+**



**Planetary Ball Mill
BM 1400+**

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