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## Product Brochure



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**PLANETARY BALL MILL SERIES**

# Heavy-duty Full-directional Planetary Ball Mill

## QXQM

Large-capacity full-directional planetary ball mill for industrial production. 360-degree rotation combined with revolution/rotation prevents material settling and caking, achieving multi-dimensional grinding with high efficiency.

<https://www.planetaryballmills.com/products/grinding-series/planetary-ball-mill/heavy-duty-full-directional-planetary-ball-mill.html>



TENCAN POWDER

## Product Overview

Large-capacity full-directional planetary ball mill for industrial production. 360-degree rotation combined with revolution/rotation prevents material settling and caking, achieving multi-dimensional grinding with high efficiency.





## **Product Introduction**

The all-round production planetary ball mill has a large production volume, a short production cycle, and high production efficiency. While the planetary structure rotates and revolves, the entire planet rotates 360 degrees to achieve multi-dimensional and multi-directional grinding, which can solve the problem of some materials that are prone to sinking to the bottom and forming slabs.





Planetary ball mills are widely used in geology, minerals, metallurgy, electronics, building materials, ceramics, chemical industry, light industry, medicine, environmental protection and other departments. They are suitable for electronic ceramics, structural ceramics, magnetic materials, lithium cobalt oxide, lithium manganese, catalysts, phosphors, long afterglow luminescent powder, rare earth polishing powder, electronic glass powder, fuel cells, zinc oxide pressure sensitive Production field of resistors, piezoelectric ceramics, nanomaterials, wafer ceramic capacitors, MLCC, thermistors (PTC, NTC), ZnO varistors, dielectric ceramics, alumina ceramics, zirconia ceramics, phosphors, zinc oxide powders, cobalt oxide powders, Ni-Zn ferrite, Mn-Zn ferrite and other products.

## Technical parameters

model	Grinding tank rotation speed (rpm)	Inner diameter of grinding pot seat (mm)	Motor power	Grinding jar revolution diameter (mm)	Overall dimensions (mm)	Net weight(kg)
QXQM-0.4	0~870	80	250W	Φ140	900×570×666.5	136
QXQM-(2-6)	0~670	134	0.75KW	F234	1330×810×860	305
QXQM-(8-12)	0~580	162	1.5KW	Φ275	1360×850×930	430
QXQM-16	0~510	182	3KW	Φ320	1530×1018×1100	580
QXQM-20	0~430	222	4KW	F385	1700×1210×1300	1180
QXQM-40	0~390	250	5.5KW	Φ430	1900×1450×1480	1430
QXQM-100	0~240	326	11KW	F578	2939×1680×2450	3900

## Working Principle

The equipment drives the turntable to rotate through the planetary gear, and at the same time, the ball mill tank rotates around its own axis, forming planetary motion. During this process, the grinding ball exerts high-intensity impact and grinding on the material due to the centrifugal force and Coriolis force. After superimposing the flip function, the ball mill tank periodically flips in three-dimensional space to further break up the layering or agglomeration of materials and ensure uniform dispersion.

## Product Features

- **Efficient grinding** : Through the superimposed flipping function of planetary motion, the grinding ball and the material produce multi-dimensional impact and shear, achieving micron to nanometer fineness (minimum up to 0.1 micron).
- **Stable and durable** : Using thickened steel plate, precision gear transmission and liquid oil self-lubricating design to ensure the stability and low-noise operation of the equipment under long-term high load.
- **Flexible control** : Supports variable frequency stepless speed regulation, program-controlled timing operation, and can be set to forward, reverse and fixed-point operation modes to adapt to different process requirements.
- **Safe and convenient** : Equipped with brake locking function, the turning angle can be stopped at any time; Integrated lifting and dumping devices reduce labor intensity.

## Accessories & Customization

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### **Accessories**

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

### **Customization**

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.