

Professional
Powder Equipment
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Powder
Equipment



Milling
Technology



Powder
Materials

TENCAN

Product Brochure



PLANETARY BALL MILL SERIES

Laboratory planetary grinder

XQM

High-efficiency planetary ball mill for lab-scale grinding, mixing, and nanomaterial synthesis. Features planetary motion and semi-circular jars for enhanced grinding performance in material research.

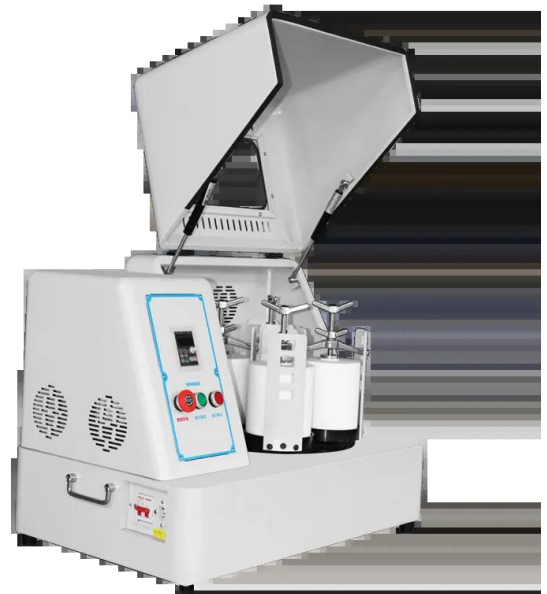
<https://www.planetaryballmills.com/products/grinding-series/planetary-ball-mill/laboratory-planetary-grinder.htm>



— TENCAN POWDER —

Product Overview

High-efficiency planetary ball mill for lab-scale grinding, mixing, and nanomaterial synthesis. Features planetary motion and semi-circular jars for enhanced grinding performance in material research.





Product Introduction

Planetary ball mill is an efficient and precise laboratory-grade powder preparation equipment, mainly used for crushing, mixing, dispersing materials and preparing nanomaterials. Its core structure includes planetary disk, ball mill tank, grinding ball, drive system and safety device. The equipment achieves efficient grinding of materials through the compound motion of the planetary wheel's revolution and rotation, combined with high-energy impact and friction. The semicircular ball mill tank design further optimizes space utilization and grinding efficiency, and is suitable for small batch and high-precision experimental requirements.

Viewing Window

Allows a clear view of the operating condition inside the chamber

Variable Frequency Control

The ideal speed can be selected according to experimental needs, with speed accuracy up to 0.2 rpm or better

Safety Lock

Prevents the machine from starting when the safety cover is open, avoiding safety accidents



Protective Cover Door

Protects the internal components of the ball mill

Pneumatic Support Rod

Provides constant supporting force throughout the working stroke, with moderate damping for convenient and safe operation

Four-Jar Grinding

Adopts a new pressing-rod design, refined and elegant in appearance; stable rotation, high efficiency, and finer grinding particles





Planetary ball mill Widely used in geology, mining, metallurgy, electronics, building materials, ceramics, chemical industry, light industry, medicine, environmental protection and other departments, suitable for electronic ceramics, structural ceramics, magnetic materials, lithium cobalt oxide, lithium manganate, catalysts, phosphors, long afterglow luminescent powder, rare earth polishing powder, electronic glass powder, fuel cells, zinc oxide varistors , piezoelectric ceramics, nanomaterials, wafer ceramic capacitors, MLCC, thermistors (PTC, NTC), ZnO varistors, dielectric ceramics, alumina ceramics, zirconia ceramics, phosphors, zinc oxide powder, cobalt oxide powder, Ni-Zn ferrite, Mn-Zn ferrite and other products.



Phosphor



Nanomaterials



Catalyst



Electronic Ceramics

Technical parameters

serial number	model	shape	Grinding tank rotation speed (mm)	Inner diameter of grinding pot seat (mm)	Motor power	Grinding jar revolution diameter (mm)	Overall dimensions (mm)	Net weight(kg)
1	XQM-0.2	Miniature	0~1160	50	90W	F111	420×260×310	25
2	XQM-0.2S	Mini glove box	0~1160	50	90W	F111	Equipment: 390×220×270 Control box: 200×180×240	29
3	XQM-0.4A	semicircle style	0~870	80	250W	Φ140	530×300×360	34
4	XQM-6		0~670	134	0.75KW	F234	760×470×580	100
5	XQM-4A	semicircle style	0~670	134	0.75KW	F234	760×470×600	85
6	XQM-(8-12)		0~580	162	1.5KW	Φ275	900×600×640	168
7	XQM-(8-12)A	semicircle style	0~580	162	1.5KW	Φ275	880×560×642	150
8	XQM-16A	semicircle style	0~510	182	3KW	Φ320	950×600×710	205
9	XQM-20		0~430	222	4KW	F385	1200×790×930	392
10	XQM-40		0~390	250	5.5KW	Φ430	1400×880×1070	656
11	XQM-60		0~260(1:1.5)	275	7.5KW	Φ490	1600×1070×1250	950
12	XQM-100		0~240(1:1.5)	326	11KW	F578	1750×1140×1330	1300
13	XQM-200		0~215	460	22KW	Φ738	2670×1600×2804	2725

Product Features

The equipment shell adopts square design elements and is stamped with high-precision molds. It is generous and refined, high-end and stable.; The machined parts adopt CNC processing technology, the planetary disk is integrally cast and formed, and the transmission gears are made of special materials and precision gears to ensure smooth and quiet operation of the equipment at high speeds. ; The grinding tank holding device is easy to operate, safe and reliable.

Accessories & Customization

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.