



Technical resources

Laboratory planetary grinder

Model: XQM

<https://www.tencanballmills.com/en/products/grinding-series/planetary-ball-mill/laboratory-planetary-grinder.html>

09.10.2026 / TENCAN

Laboratory planetary grinder

Model: 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.

Technical specifications

Number of grinding jars	4 pieces
Grinding jar specification	50ml~25L
Speed control	Variable frequency control

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



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.

可视窗

可以清晰看到窗内运行情况

安全罩门

可以保护球磨机内部设备

变频控制

可根据实验选定理想转速，转速精度可达到0.2转/分钟以上。

气动撑杆

在整个工作行程中撑力恒定，阻尼适中，操作方便、安全。

安全锁

防止设备在安全外罩打开的情况下启动，以免发生安全事故；

四罐研磨

采用新式压杆，精致美观大方；转速稳定、效率高、研磨颗粒更细。



免长途热线：400 640 1233





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.



荧光粉



纳米材料



催化剂



电子陶瓷

Technical parameters

Basic Configuration Parameters

Model	Specification	Compatible Grinding Jar Specification	Quantity	Compatible Vacuum Grinding Jar Specification	Equipment Weight (kg)	Equipment Dimensions (mm)
XQM-0.4A	0.4L	25-100mL	4 pcs.	Compatible with 50mL Vacuum Grinding Jars	29	500×300×340
XQM-1A	1L	50-500mL	4 pcs.	Compatible with 50-250mL Vacuum Grinding Jars	85	760×470×600
XQM-2A	2L	50-500mL	4 pcs.	Compatible with 50-250mL Vacuum Grinding Jars	85	760×470×600
XQM-4A	4L	250-1000mL	4 pcs.	Compatible with 50-500mL Vacuum Grinding Jars	85	760×470×600
XQM-6A	6L	1-1.5L	4 pcs.	Compatible with 50-1000mL Vacuum Grinding Jars	85	760×470×600
XQM-8A	8L	1-2L	4 pcs.	Compatible with 50-1500mL Vacuum Grinding Jars	150	880×560×642

XQM-10A	10L	1-2.5L	4 pcs.	Compatible with 1-2L Vacuum Grinding Jars	150	880×560×642
XQM-12A	12L	1-3L	4 pcs.	Compatible with 1-2L Vacuum Grinding Jars	150	880×560×642
XQM-16A	16L	2-4L	4 pcs.	Compatible with 1-3L Vacuum Grinding Jars	205	950×600×710

Performance Parameters

Model	Power Supply	Power Phase	Motor Power(kW)	Speed Regulation Method	Preset Running Total Time(min)	Alternating Forward/Reverse Running Time(min)	Planetary Disk Speed(rpm)	Grinding Jar Speed (rpm)	Speed Ratio	Noise(dB)
XQM-0.4A	220V 50Hz	Single-phase	0.25kW	Variable-Frequency Speed Control	1-9999	1-999	0-435	0-870	1:2	58±5
XQM-1A	220V 50Hz	Single-phase	0.75kW	Variable-Frequency Speed Control	1-9999	1-999	0-405	0-810	1:2	60±5
XQM-2A	220V 50Hz	Single-phase	0.75kW	Variable-Frequency Speed Control	1-9999	1-999	0-405	0-810	1:2	60±5
XQM-4A	220V 50Hz	Single-phase	0.75kW	Variable-Frequency Speed Control	1-9999	1-999	0-405	0-810	1:2	60±5
XQM-6A	220V 50Hz	Single-phase	0.75kW	Variable-Frequency Speed Control	1-9999	1-999	0-335	0-670	1:2	60±5
XQM-8A	220V 50Hz	Single-phase	1.5kW	Variable-Frequency Speed Control	1-9999	1-999	0-290	0-580	1:2	60±5
XQM-10A	220V 50Hz	Single-phase	1.5kW	Variable-Frequency Speed Control	1-9999	1-999	0-290	0-580	1:2	60±5
XQM-12A	220V 50Hz	Single-phase	1.5kW	Variable-Frequency Speed Control	1-9999	1-999	0-290	0-580	1:2	60±5
XQM-16A	380V 50Hz	Three-phase	3kW	Variable-Frequency Speed Control	1-9999	1-999	0-255	0-510	1:2	65±5

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.

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Before operation, review the selected model's instructions and the material requirements.