Professional
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Product Brochure

VIBRATION BALL MILL SERIES

lab vibration ball mill

ZM

Lab vibration ball mill is a high-efficiency grinding equipment available in single, double, and three-cylinder configurations. Ideal for fine powder preparation in research and lab settings.

https://www.planetaryballmills.com/products/grinding-series/vibration-ball-mill/lab-vibration-ball-mill.html

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Product Overview

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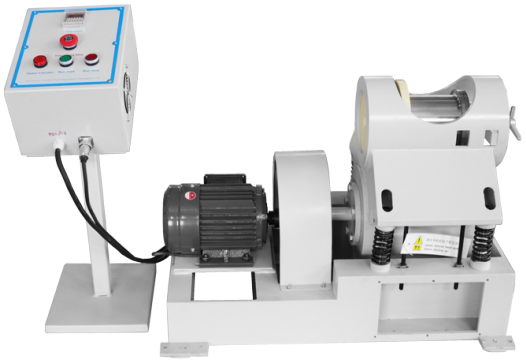
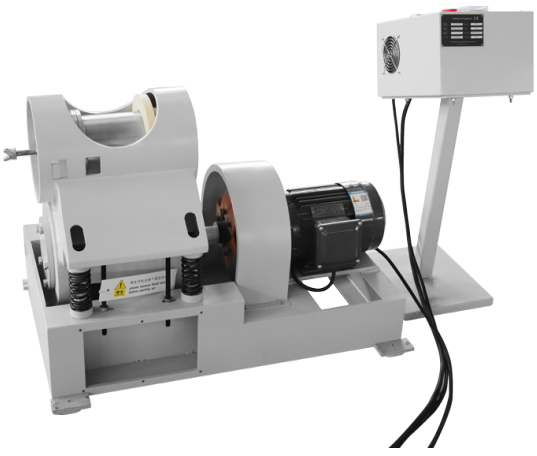
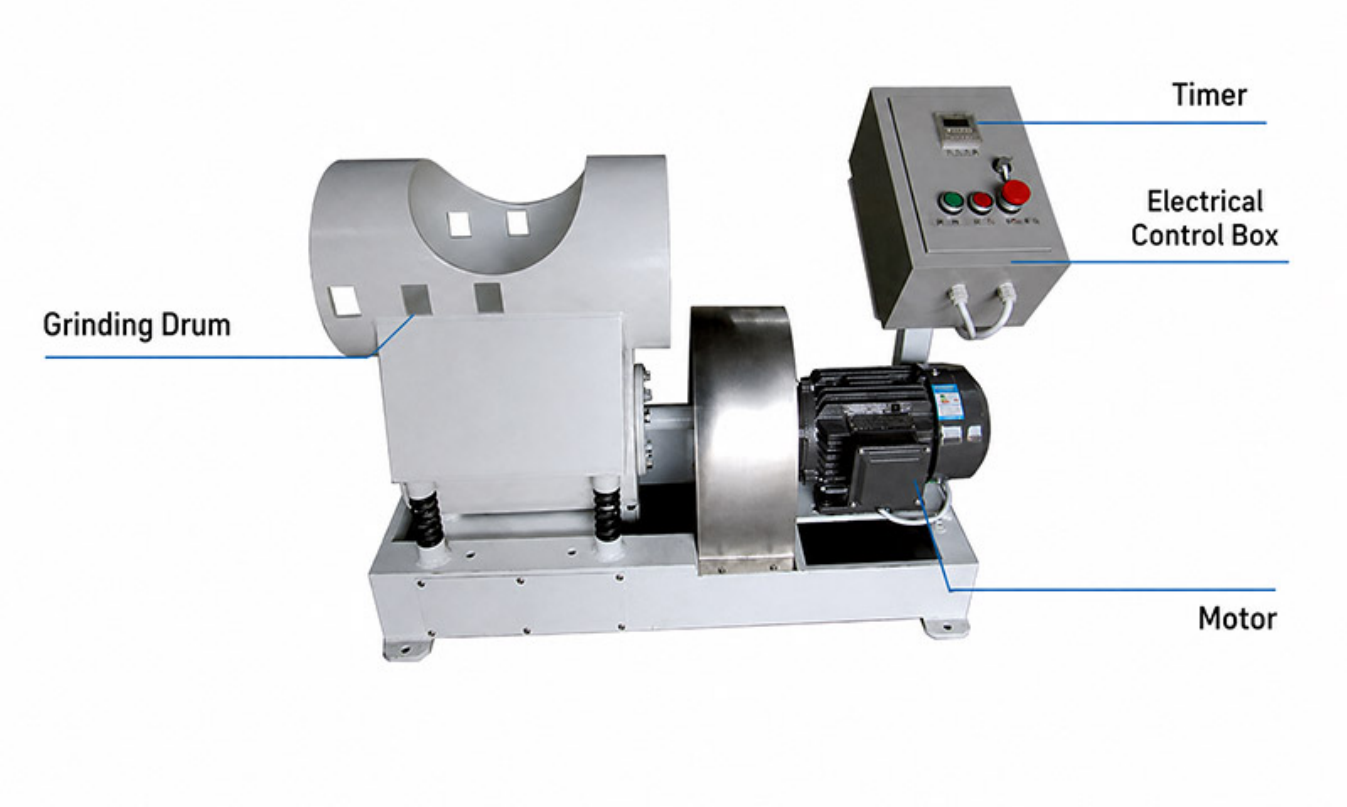




Product Introduction

Experimental vibration mill, also called vibration mill, is a new type of high-efficiency milling equipment. It has three structural types: single-cylinder, double-cylinder and three-cylinder.

The experimental vibration mill is simple and convenient to operate, reliable in operation, easy to clean, and has strong adaptability to working conditions. It can be used for dry and wet ball milling.



Experimental vibration mills are widely used in the fields of electronics, ceramics, chemicals, powder metals, tungsten, calcium carbide, rubber compounds, magnetic materials and radio industries, high-frequency porcelain materials and pharmaceuticals.

Technical parameters

model	Amplitude(mm)	Vibration frequency (r/min)	Loading capacity	ball loading	motor	Overall (reference) dimensions (mm)	Feed particle size (mm)	Discharge particle size (mesh)
ZM-(1-3)L	5-8	1440	25%	60%	1.1kW-4	880x570x680	≤5	200~2000 (related to material characteristics)
ZM-(3-5)L	5-8	1440	25%	60%	1.1kW-4	900x570x680		
ZM-10L	5-8	1440	25%	60%	1.5kW-4	980x540x685		
ZM-20L	5-8	1440	25%	60%	1.5kW-4	1160x740x740		

Working Principle

The experimental vibration mill is mainly composed of a frame, a bottom frame, an exciter, a grinding barrel, a spring, a motor, etc. When the machine is started, the motor drives the exciter to generate an exciting force, causing the grinding barrel to continuously vibrate at high frequency and small amplitude. Due to the rotation and relative motion of the grinding medium, the materials are frequently impacted and peeled, thereby achieving the purpose of uniformly crushing the materials.

Product Features

1. The media filling amount in the grinding barrel is higher than that of a ball mill with the same capacity, up to 80%, so the processing capacity is large.
2. The structure is simple, and products of different particle sizes can be produced by adjusting the amplitude, frequency, medium, and ratio.
3. The vibration mill with jacketed grinding barrel can adjust the grinding temperature.
4. The vibrating mill with screen and collection device can carry out continuous production.
5. It is simple and convenient to operate, reliable in operation, easy to clean, and has strong adaptability to working conditions.
6. Dry and wet ball milling can be performed.
7. Light weight, small size and high efficiency.
8. Special customization can be made according to requirements.

Accessories & Customization

Special options: The tank lining can be lined with stainless steel, ceramic (alumina), zirconia, ceramic tile, nylon, polytetrafluoroethylene, food grade rubber or polyurethane.

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.