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# TENCAN

## Product Brochure



**MIXING BALL MILL SERIES**

# Production type stirred ball mill

**JM**

Production-type stirred ball mill for ultra-fine grinding of zirconium silicate, alumina, ceramics, chemicals, paints, battery materials. High efficiency, continuous operation for industrial mineral processing.

<https://www.planetaryballmills.com/products/grinding-series/stirring-ball-mill/production-type-stirred-ball-mill>

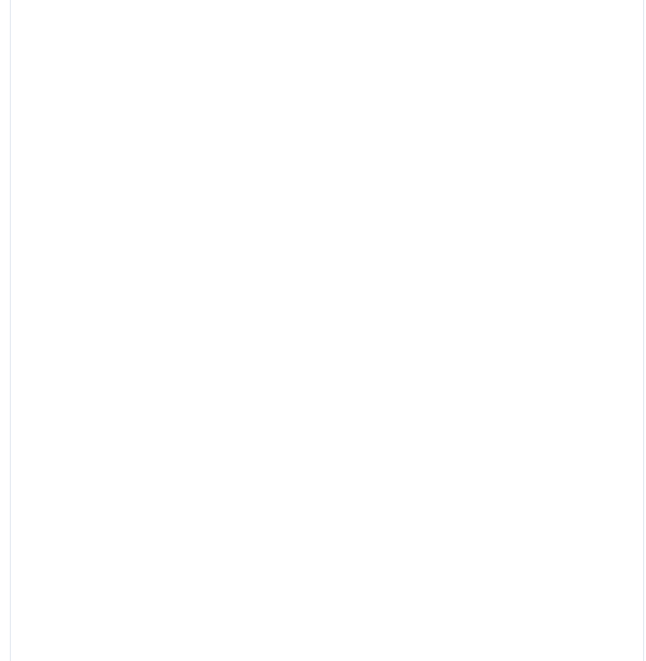
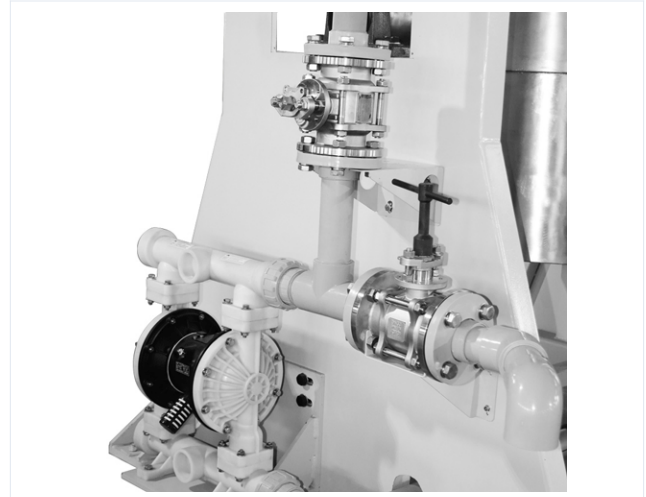


TENCAN POWDER

## Product Overview

Production-type stirred ball mill for ultra-fine grinding of zirconium silicate, alumina, ceramics, chemicals, paints, battery materials. High efficiency, continuous operation for industrial mineral processing.





## Product Introduction

The production-type stirred mill is mainly composed of a stationary grinding barrel filled with small-diameter grinding media, a stirring device and other auxiliary devices (such as: circulation device, cooling device, timing, speed control, etc.). It has high grinding efficiency and small crushing particle size. It can well achieve various process parameter requirements and simulate various indicators in production. At the same time, due to its advantages of small batch, low power consumption, and low price, it is an optional equipment for schools, research units, and companies to conduct research on crushing processes, new materials, and coatings. It is widely used in the production of various ultrafine powders such as zirconium silicate, zirconium oxide, alumina, ceramics, chemicals, electronic materials, magnetic materials, papermaking, coatings, non-metallic minerals, new materials, paints, graphite, calcium carbonate, pharmaceuticals, etc.





## **| Technical parameters**

model	Overall dimensions (mm)	Frequency conversion speed (r/min)	Equipment weight (KG)	Loading capacity (L)	Motor power (KW)	Grinding barrel material (material thickness)	Grinding barrel size (without water jacket)	Grinding barrel size (with water jacket)
JM-100L without lift	1100X910X1900	0~145	590	35	7.5	Stainless steel, carbon steel (about 6mm)	To be determined	Φ540*600
						Zirconia, corundum (about 10mm)	To be determined	Φ560*620
						PTFE, nylon (about 15mm)	To be determined	To be determined
						Polyurethane (approx. 15mm)	Φ496*620	Φ560*620
JM-200L without lift	1400X1060X2200	0~145	790	70	11	Stainless steel, carbon steel (about 6mm)	To be determined	Φ640*830
						Zirconia, corundum (about 25mm)	To be determined	Φ695*850
						PTFE, nylon (about 15mm)	To be determined	To be determined
						Polyurethane (approx. 15mm)	Φ600*830	To be determined
JM-300L without lift	1800X1200X2600	0~110	970	100	15	Stainless steel, carbon steel (about 5mm)	To be determined	Φ710*890
						Zirconia, corundum (about 25mm)	Φ740*890	Φ800*890
						PTFE, nylon (about 20mm)	To be determined	To be determined
						Polyurethane (about 20mm)	To be determined	Φ750*894
JM-500L without lift	2750X1400X3340	0~90	1730	170	18.5	Stainless steel, carbon steel (about 10mm)	Φ820*1010	Φ916*1010
						Zirconia, corundum (about 25mm)	To be determined	Φ960*1022
						PTFE, nylon (about 20mm)	To be determined	To be determined
						Polyurethane (about 20mm)	To be determined	Φ940*1022

\* JM-100L/200L discharge valve 1.5 inches, JM-300L/500L discharge valve 2 inches;

\* JM-100L/200L/300L/500L feed particle size  $\leq 20\text{mm}$  ;

\* JM-100L can be equipped with an optional delivery pump (feeding particle size  $\leq 2.5\text{mm}$ ), JM-200L/300L can be equipped with a delivery pump (feeding particle size  $\leq 4.5\text{mm}$ ), and JM-500L can be equipped with a delivery pump (feeding particle size  $\leq 8\text{mm}$ ).

## Working Principle

The spindle drives the mixer to rotate at high speed, causing the grinding medium to move irregularly. This chaotic and disordered movement will cause collision, extrusion, friction and shearing of the grinding medium, thereby crushing and finely grinding the material. In addition, the size, shape and proportion of the grinding media are different, and the grinding effects obtained are also different. Generally speaking, the larger the size of the grinding media, the coarser the material will be crushed. On the contrary, the smaller the grinding media, the finer the material is ground. The appropriate ratio of different specifications of grinding media, coupled with the appropriate adjustment of the speed, will result in better grinding effects.

## Product Features

1. The energy utilization rate is high and high power density can be obtained, so it saves energy.
2. The product particle size is easy to adjust, and the fineness can be ensured by adjusting the residence time of the material in the cylinder.
3. Small vibration and low noise.
4. Beautiful appearance, high-end atmosphere, excellent performance, simple maintenance, easy and labor-saving operation, and durable.
5. The mixing rod can be raised and lowered automatically, and the grinding barrel can be flipped freely.
6. It can well realize various process requirements and can carry out continuous or intermittent production as needed.
7. Since the ball mill barrel is equipped with a jacket, the grinding temperature can be well controlled.
8. Equipment with various special functions can be made as needed, such as: timing, speed adjustment, circulation, temperature adjustment, etc.
9. You can choose grinding barrels and stirring devices made of different materials (stainless steel, corundum ceramics, polyurethane, zirconia, etc.).

## 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.