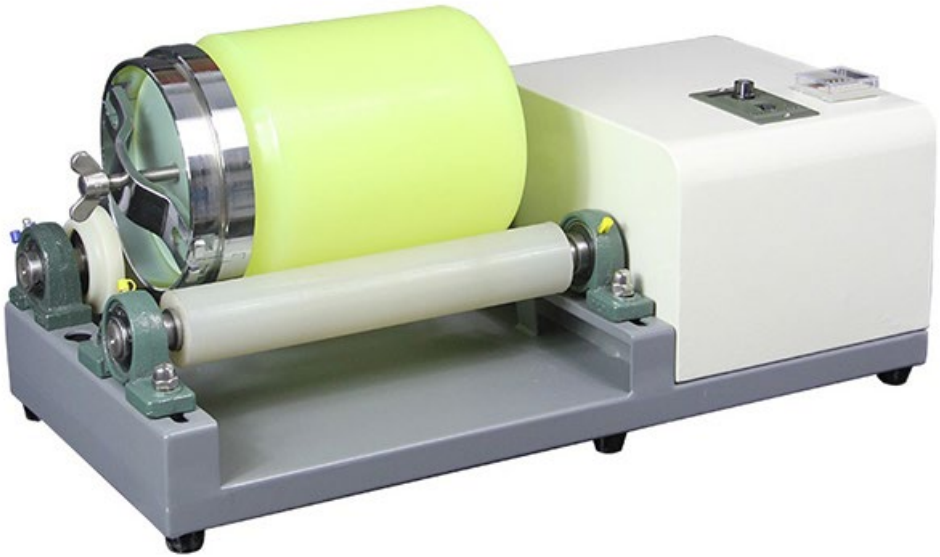
roller ball mill with a single working position manufacturer

Roller ball mill is a kind of equipment used for fine grinding and mixing of materials, which is widely used in many fields, such as electronic materials, ceramics, coatings, glass powder, fluorescent materials, non-metallic minerals, explosives, magnetic materials, battery materials and so on.

Roller Ball Mill



Features

1. High-efficiency grinding and mixing: Roller ball mill realizes fine grinding and uniform mixing through the collision and friction between the high-speed rotating grinding balls and materials, which is suitable for grinding materials of various hardness.
2. Easy to operate: the equipment structure is simple, convenient operation, suitable for use in the laboratory, small-scale production line and large-scale industrial production.
3. Widely applicable: able to handle a variety of different types of materials, including fragile ceramics and glass, hard metal powder, corrosion-resistant chemicals and so on.

4. Adjustable grinding parameters: according to the nature of different materials, adjust the grinding time, speed and type of grinding media, so as to optimize the grinding effect.
5. Low noise design: the roller ball mill adopts advanced sound insulation and vibration damping technology, which effectively reduces the noise during the operation of the equipment.
6. Frequency conversion speed regulation, program control stepless speed regulation.
7. The whole roller shaft is lined with wear-resistant polyurethane sleeve, which improves the friction coefficient and prevents the tank from slipping and deformation.
8. The feed size is less than 3 mm, the soil allows 10 mm or less, the discharge size 20 to 300 mesh, that is, 65 microns to 75 microns.
9. A single ball mill jar, lightweight, suitable for laboratory small batch sample preparation and mixing.

Working Principle

Based on the collision, friction and extrusion between the material and the grinding media (such as grinding balls). The grinding chamber is equipped with a certain number of grinding balls, when the motor drives the grinding jar to rotate, the grinding balls in the ball mill jar free movement and material collision with each other. Repeated impact and friction between the material and the balls make the material gradually be refined and evenly mixed. By adjusting the rotating speed and grinding time, the effect of grinding and the particle size distribution of materials can be controlled.

Advantages

1. Fine grinding effect: adopting high efficient grinding media, it can achieve good grinding effect and is suitable for material processing which needs high precision.
2. Strong adaptability: able to handle a variety of materials, including soft, hard, brittle or sticky materials, to meet the needs of different fields.
3. Energy saving and environmental protection: compared with the traditional mill, the ball mill used in the roller ball mill is more efficient in processing materials, reducing energy consumption, while reducing environmental pollution.
4. Low wear and long service life: made of wear-resistant materials, the equipment itself has a low wear rate and can run stably for a long time.
5. High stability and safety: roller ball mill in the design of the safety and stability of the equipment, suitable for long time continuous work, suitable for industrialized large-scale production needs.

Application Fields

1. Electronic materials: such as crystal materials, thin film materials, conductive powder grinding and mixing.
2. Ceramic industry: used for fine grinding of ceramic raw materials, to improve the precision and quality of ceramic products.

3. Paint and pigment: In the production of paint and pigment, roller ball mill can effectively realize the uniform dispersion of materials.
4. Glass powder and fluorescent material: In order to improve the quality of glass powder and fluorescent material, the roller ball mill is used to carry out fine grinding with high precision.
5. Non-metallic minerals and explosives: roller ball mill plays a vital role in the processing of non-metallic minerals and explosives materials grinding process.
6. Magnetic materials: in the preparation process of magnetic materials, roller ball mill can provide the required fine powder.
7. Batteries and biological preparations: used in the grinding of battery materials as well as the mixing and refining of biological preparations and food packaging materials.
8. Food industry: through the fine grinding of food raw materials, to improve its processing effect and the taste of food.

Roller Ball Mill Ball Grinding Jars Selection

1. Nylon ball mill jar: with high hardness and wear resistance, suitable for processing lighter materials, widely used in laboratories.
2. Stainless steel ball mill jar: 304 stainless steel, with good corrosion resistance, suitable for processing corrosive samples.

3. Aluminum oxide ball mill jar: the main component is aluminum oxide, high hardness, good wear resistance, can provide better grinding effect.
4. Polyurethane ball mill jars: with high purity and abrasion resistance, smooth surface, suitable for high-precision mixing and grinding.
5. PTFE ball milling jars: suitable for handling acidic and alkaline materials due to its strong corrosion resistance.

Selection of Grinding Balls

1. Agate ball: suitable for high precision grinding with meticulous and non-polluting requirements.
2. Zirconium balls: high hardness, suitable for efficient grinding of hard materials.
3. Stainless steel balls: for general grinding, good wear resistance, suitable for medium hardness materials.
4. Polyurethane balls: used for fine grinding, reduce the pollution of materials, suitable for special requirements of grinding.
5. Alumina ball, tungsten carbide ball: used for higher hardness, requires high wear resistance grinding.

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Model	**HB1-5**
Jar capacity	500ml to 5L
Roller diameterXLength	ϕ58x288mm
Power	0.55kw
Adjusted space mannual	52 to 210mm
Jar diameter	ϕ50 to ϕ200mm
Layer	1
Stations	1
Transmission mode	synchronous belt
Roller speed	10 to 1000rpm
Roller Nunmbers	2
Power supply	220Vac, 50Hz

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Model	**HB1-5**
Dimensions	680x330x250mm