roll jar mill with single layer four position and wheel

This roll jar mill adopts single layer and four stations design, which can grind several samples at the same time, greatly improving the production efficiency, and is widely used in many fields, such as electronic materials, ceramics, coatings, glass powder, fluorescent materials and so on.

Roll Jar Mill

Through frequency conversion speed control, manual adjustment of roll jar mill roller spacing and other operations, users can be precisely controlled according to different grinding needs.

Features

1. Frequency conversion speed regulation: with stepless speed regulation function, it can precisely control the grinding speed and adapt to the grinding requirements of different materials.
2. Manually adjust the roller spacing: through the handwheel to adjust the roller spacing, effectively avoiding the phenomenon of ball milling jar running off, to ensure uniform grinding process.

3. Wear-resistant outer lining: the overall roller lining is made of wear-resistant polyurethane sleeve, which enhances the friction coefficient, prevents the tank from slipping or deformation, and prolongs the service life of the equipment.
4. Wide range of particle size: the feed size is less than 3 mm, soil materials can be up to 10 mm or less. the discharge size can be up to 20 to 300 mesh (i.e. 65 micron to 75 micron).
5. Universal foot and wheel design: universal wheel and universal foot balanced design, not only convenient for equipment movement, but also ensure the stability of the equipment when running.
6. Single-level four stations: small footprint, suitable for flexible operation in laboratory and small batch production.

Working Principle

The roll jar mill drives the ball milling jar to rotate through the roller shaft. Material and grinding media (e.g. grinding balls) are added to the ball mill jar. During the rotation process, the material collides and rubs against the grinding balls, and the material is gradually ground into powder. With the four-station design, multiple samples can be ground at the same time. The speed and time of each working station can be adjusted independently to meet different material and process requirements.

Application Areas

1. Electronic materials: such as battery materials, conductive ceramics, display materials and so on.
2. Ceramic industry: used for the refinement of ceramic powder, in the production of high-precision ceramic products.
3. Coating industry: fine grinding of pigments and coatings.
4. Fluorescent materials: for material grinding of products such as photoelectric displays and photoelectric sensors.
5. Non-metallic minerals: such as quartz powder, calcium carbonate and other minerals grinding.
6. Explosives and magnetic materials: such as fine powder used to manufacture high-precision magnetic materials.
7. Biocultivation: such as plant extracts and other materials grinding.
8. Food packaging: involves the grinding of coatings and additives in food packaging materials.
9. Battery materials: lithium batteries, sodium batteries and other energy materials for precision grinding.

Ball Mill Jar Selection

1. Nylon ball mill jars: with high hardness and wear resistance, suitable for grinding a variety of materials.
2. Stainless steel ball mill jars: corrosion resistance, suitable for some special grinding requirements.
3. Aluminum oxide ball mill jars: with high hardness and excellent grinding effect.

4. Polyurethane ball mill jars: strong wear resistance, high surface finish, suitable for mixing higher purity samples.
5. PTFE ball milling jars: strong corrosion resistance, suitable for corrosive materials grinding.

Grinding Balls Selection

1. Agate ball: high hardness, suitable for high precision grinding.
2. Zirconium ball: strong hardness and wear resistance, suitable for demanding grinding tasks.
3. Stainless steel balls: suitable for general grinding tasks, with high cost performance.
4. Polyurethane balls: smooth surface, good wear resistance, suitable for grinding with higher precision requirements.
5. Aluminum oxide balls: higher hardness, suitable for grinding harder materials.
6. Tungsten carbide balls: good wear resistance, suitable for high precision and heavy duty grinding.

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Model	**HB4-1**	**HB4-3**	**HB4-5**	**HB4-10**	**HB4-10B**	**HB4-20**	**HB4-30**
Jar capacity	500ml to 1L	500ml to 3L	500ml to 5L	500ml to 10L	500ml to 10L	500ml to 20L	500ml to 30L
Roller diameterXLe	ϕ38x185x2	ϕ58x250x2	ϕ58x290x2	ϕ68x349x2	ϕ68x349x2	ϕ78x424x2	ϕ78x424x2

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Model	HB4-1	HB4-3	HB4-5	HB4-10	HB4-10B	HB4-20	HB4-30
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Power	0.55kw	0.75kw	0.75kw	1.5kw	1.5kw	3kw	4kw
Adjusted space mannual	62 to 160mm	76 to 230mm	67 to 280mm	67 to 230mm	67 to 230mm	30 to 340mm	35 to 290mm
Jar diameter	ϕ50 to ϕ160mm	ϕ70 to ϕ180mm	ϕ70 to ϕ260mm	ϕ60 to ϕ280mm	ϕ60 to ϕ280mm	ϕ60 to ϕ320mm	ϕ60 to ϕ360mm
Layer	1	1	1	1	1	1	1
Stations	4	4	4	4	4	4	4
Transmission mode	synchronous belt						
Roller speed	5 to 1000rpm	5 to 1000rpm	5 to 1000rpm	5 to 1200rpm	5 to 720rpm	5 to 720rpm	5 to 720rpm

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Model	HB4-1	HB4-3	HB4-5	HB4-10	HB4-10B	HB4-20	HB4-30
Roller Nunmbers	3	3	3	3	4	4	4
Power supply	220Vac, 50Hz	220Vac, 50Hz	220Vac, 50Hz	380Vac, 50Hz	380Vac, 50Hz	380Vac, 50Hz	380Vac, 50Hz
Dimensions	780x520x510mm	1010x690x540mm	1020x750x550mm	1230x890x570mm	1220x610x1110mm	1350x1130x720mm	1480x1820x860mm