

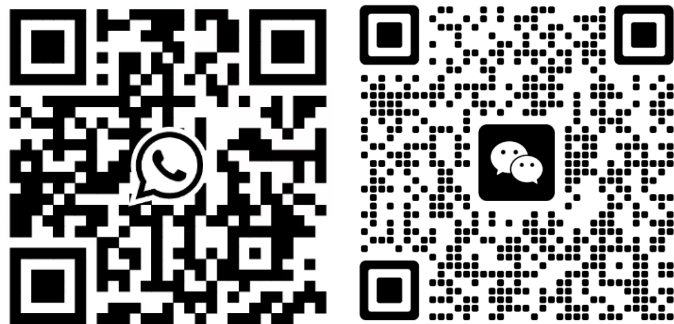


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MSF Ultrafine Mill

SHANGHAI MOUNTAIN RIVER MACHINERY CO.,LTD

CRUSH THE STONES, CONSTRUCT THE WORLD

MSF Ultrafine Mill

Introduction

MSF series ultrafine mill is designed to produce fine powder and ultrafine powder. The original size of raw material to feed the ultrafine mill could be around 20mm, after ground, our customer can get fine powder and ultrafine powder until 3000 mesh, 5 microns.



Application

The MSF series ultrafine grinding mill is mainly used to grind more than 200 kinds of non-flammable and non-explosive brittle materials with Mohs hardness < 9. The most popular materials are dolomite, barite, limestone, gypsum, bentonite, calcium carbonate, coal, mica, talc, graphite, fluorite, calcite, kaolin, illite, pyrophyllite, sepiolite, potash feldspar, phosphate rock etc.



The final powder from the MSF series ultrafine mill is widely applied in paint, paper making, pigment, rubber, plastic, padding, cosmetic, chemical supplies and many other industrial fields.

Material	Fineness (Mesh)	Application
Calcium Carbonate	600	coating, paper making toothpaste, healing drugs and daily chemical using, pvc making, etc.
	800	paint, coating, paper making toothpaste, healing drugs and daily chemical using, pvc making, etc.
	1250	paint, coating, paper making, toothpaste, healing drugs and daily chemical using, additive in chemical and plastic, additive in high quality paper and seal oil, etc.
	1500	paint, coating, paper making, toothpaste, healing drugs and daily chemical using, additive in chemical and plastic, additive in high quality paper and seal oil, etc.
Barite	600	paint, rubber packing, drilling mud, pvc making, plastic, etc.
	800	paint, rubber packing, drilling mud, plastic, etc.
	1250	paint, rubber packing, paper making, drilling mud, plastic, etc.
	2500	paint, rubber packing, paper making, drilling mud, plastic, etc.
Calcite	600	paper making, coating, printing ink, main ingredients of toothpaste, etc
	800	paper making, coating, printing ink, pvc additives, cable additives, etc
	1250	degradable plastic, paper making, paint, coating, printing ink, adhesive, etc
	2500	degradable plastic, coating, printing ink, adhesive, etc
Mica	600	pearl pigment, toothpaste, coating, paint, etc
	800	pearl pigment, mica paper coating, paint, etc
	1250	oil drilling mica pulp, pearl pigment, paper making, coating, paint, plastic, cosmetics, etc
	2500	oil drilling mica pulp, pearl pigment, paper making, coating, paint, plastic, cosmetics, aerial material, etc

Main structure

The main structure of MSF series ultrafine mill consists of main unit, classifier, pulse dust collector, motor, pipes and blower, etc. The auxiliary equipment include hammer crusher, elevator, feeder and control cabinet.

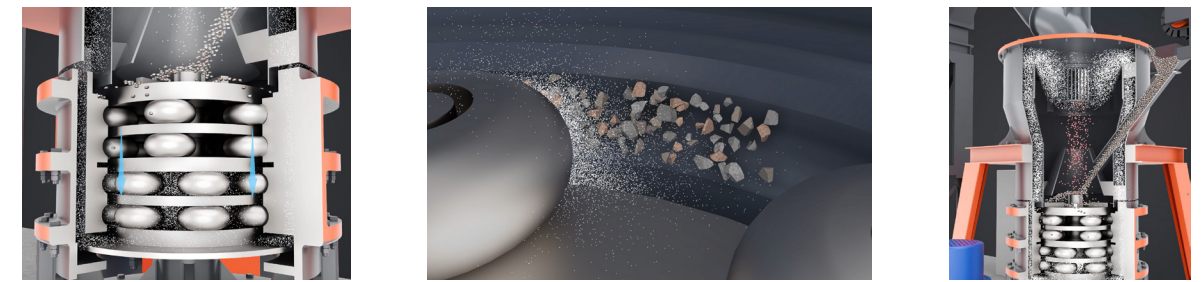


Working Principle

The raw material will be fed into the hammer crusher to be crushed. The bucket elevator will load the crushed material below 20mm and then feed it into the main mill through a hopper and a belt feeder.

The motor of the main mill drives the center shaft and disc rotor to rotate through the reducer. The roller pins on the edge of the grinding disc drive the grinding rollers to roll in the mill roller path. The material will fall on the distribution plate above the disc rotor, moving sideward under the action of centrifugal force, and then falling into the mill roller path for being crushed and ground between the ring and rollers. After being processed through roller paths, the material will become ultrafine powder. The high-pressure blower will inhale outside air into the mill body, then taking the ground material into the powder classifier.

The rotating impellers in the classifier will drive the coarse particles to fall back for repeated grinding, with the qualified fine powder forced into the cyclone powder collector along with the air flow and discharged from the lower discharge valve as finished products, while the air flow with small amount of fine dust will be discharged out of the mill via the blower and muffler after being purified by the impulse dust collector.



Technical Parameters

Content	Model				
	MSF600	MSF800	MSF1000	MSF1250	MSF1680
Roller qty. (pieces)	12	21	28	32	44
Diameter of ring (mm)	Φ600	Φ800	Φ1000	Φ1250	Φ1680
Main shaft speed (rpm)	250-280	230-240	180-200	135-155	120-130
Max. feeding size (mm)	20	20	20	20	25
Final size (mesh)	325-2500	325-2500	325-2500	325-2000	325-2000
Capacity (t/h)	0.2-3	0.5-4.5	1-8.5	2.5-14	5-25
Dimension (m)	11.5*3.5*5.2	13*3*5.8	18*4.6*8.6	14*9*10.25	16*5*11
Main mill (kW)	45	75	132	200	315
Classifier (kW)	15	18.5	30	75	132
Blower (kW)	37	45	75	132	200-220
Hammer crusher Motor (kW)	PC300*400 PC400*600	PC400*600	PC600*800	PC600*800	PC600*800
	11/18.5	18.5	45	45	45
Bucket elevator Motor (kW)	TH200*8.2m TH200*6.04m	TH200*9.79m	TH300*11.05m	TH300*13.55m	TH300*16.31m
	3	3	4	5.5	7.5
Belt feeder Motor (kW)	300*60 *1000mm	300*60 *1800mm	300*60 *1800mm	400*80 *2000mm	400*80 *2800mm
	1.1	1.5	1.5	1.5	2.2
Pulse dust collector	DMC96	DMC120	LDMC35-8	LDMC64-9	LDMC64-9 (2 sets)
		DMC160			
Discharge screw conveyor Motor (kW)	/	LS219-4.5	LS245-6.2	LS315-10.34	LS315-10.34 (2 sets)
		LS219-3			
Air compressor Motor (kW)	KSH150D	3/3	4	7.5	7.5*2
Air compressor Motor (kW)	11	KSH240D	LGY5-8	LG6.2/8	LG10/8
Air compressor Motor (kW)	11	15	30	37	55

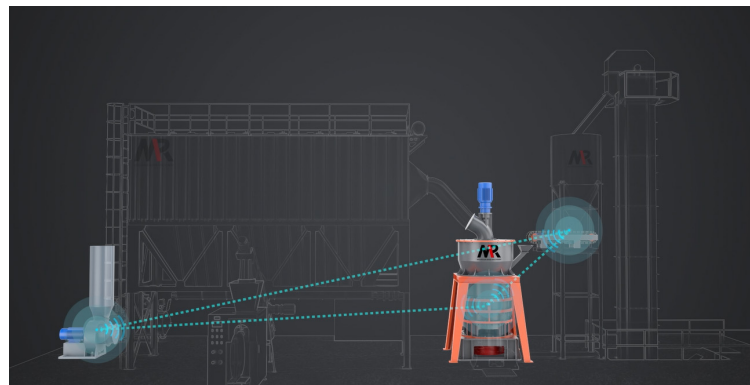
Technical Advantages

(1) High degree of automation:

1. It adopts computer integrated control and manual control dual modes. One-button start, the computer automatically alarms and shuts down when a fault occurs.
2. Equipped with manual control button, be prepared for any eventuality.
3. Equipped with mobile phone APP system, so that you can also know the production status even when you are away from your grinding plant.

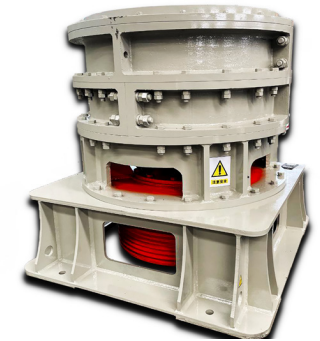


4. Automatically and evenly adjust the feeding amount of raw material according to the current of the main mill and fan to achieve the highest grinding efficiency.



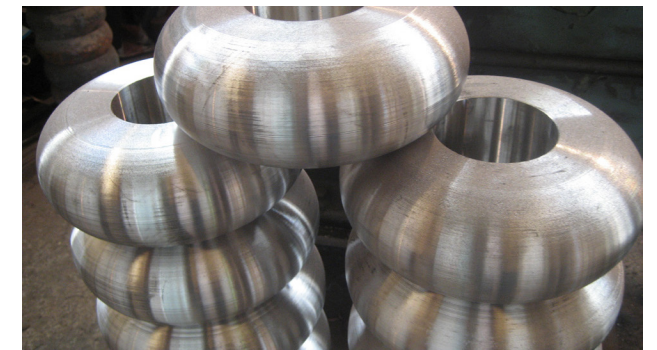
(2) High efficiency and low consumption:

Under the condition of the same finished product fineness and motor power, the output is more than that of other mills and the energy consumption is 30% lower.



(3) High durability of wearing parts:

Grinding roller and grinding ring are forged from special wear-resistant materials, which greatly improves their durability.



(4) The product has a wide adjustable range:

By adjusting the speed of the cage classifier, powder between 150–3000 mesh can be produced.



Customer Site

