

超 细 磨 粉 机

Ultra Fine Powder Mill



出粉率高/磨腔内运转安全可靠/成品细度高

High rate of powder
Safe and stable process in grinding chamber
High fineness of production

产品简介 Brief Introduction

适用范围 Application

HGM系列超细磨粉机系中速磨粉机是在积累了多年磨粉机生产经验的基础上，汲取瑞典先进的磨粉行业技术，针对目前国内磨粉行业发展的趋势及市场需求情况，经过多年的试验与改进而开发的一种新型超细粉加工设备专业对超细粉加工的用户而研发的一种最新型超细粉磨设备。

HGM Series Ultra-Fine Mill is a new ultra-fine grinding machine which is produced based on many years mill production experience, absorbs Swedish advanced milling technology, takes the tendency of milling industry's development into consideration. HGM Series Ultra-Fine Mill is especially used in ultrafine powder processing.

主要适用于方解石、白垩、碳酸钙、白云石、高岭土、膨润土、滑石、云母、菱镁矿、伊利石、叶腊石、蛭石、海泡石、凹凸棒石、累托石、硅藻土、重晶石、石膏、明矾石、石墨、萤石、磷矿石、钾矿石、浮石等湿度小于6%，莫氏硬度在9级以下非易燃易爆的非金属物料。物料硬度的高低决定着磨损件寿命的长短，当莫氏硬度高于6级时，会降低磨损件寿命。

HGM Series Ultra-Fine Mill is mainly used to grind the materials includeing calcite, creta, dolomite, kaolinite, bentonite, talcum, magnesite, illite, pyrophyllites, vermiculite, sepiolite, attapulgite, rectorite, diatomite, barite, plaster, alum stone, graphite, fluorite, phosphate ore, kalium ore, pumice and other nonmetal materials' moisture under 6% and Moh's hardness under 9 degree, all of the materials are non-flammable and non-explosive.



工作原理 Working Principle

超细磨粉机主机电动机通过减速机带动主轴及各层转盘旋转，转盘通过柱销带动几十个环辊在磨环滚道内滚动并旋转。大块物料经破碎机破碎成小颗粒后由提升机送入储料仓，电磁振动给料机将物料均匀的送到上转盘的中部，物料在离心力的作用下散向圆周边，并落入磨环的滚道内被环辊冲压、滚碾、研磨而粉碎，物料经第一层粉碎后又落入第二层及第三层，高压离心风机的抽吸作用将外部空气吸入机内，并将经过第三层粉碎后的粗粉带入选粉机内。选粉机内旋转的蜗轮所产生的蜗流使粗颗粒物料回落重磨，细粉则随气流进入旋风集粉器并由其下部的卸料阀排出即为成品，而带有少量细粉尘的气流则经过脉冲除尘器净化后通过风机及消声器排出。

The main motor of HGM Series Ultra-Fine Mill drives the principle axis and turntables to whirl through the speed reducer. The turntable drives tens of rollers to whirl in grinding chamber. Big size materials are crushed into the small, then transferred to the hopper by elevating conveyor. Electromagnetic vibrating feeder delivers the materials to the middle place of turntable. Under the centrifugal force, the materials go to the edge of turntable and fall into the grinding rings to be crushed and grinded. After the primary crush, the materials fall into second and third grinding rings in turn. High-pressure and centrifugal air blower breathes the outside air into it, then the airflow brings the coarse powder into powder concentrator. The vortex created by the worm wheel in the powder concentrator carries the coarse powder for grinding repeatedly. The fine powder as product goes into the cyclone powder collection device and discharged by the discharging value. The airflow with less powder is purified by the pulse dust collector, then is discharged by the fan blower and silencer.

主机内部结构

The inside structure of the main unit

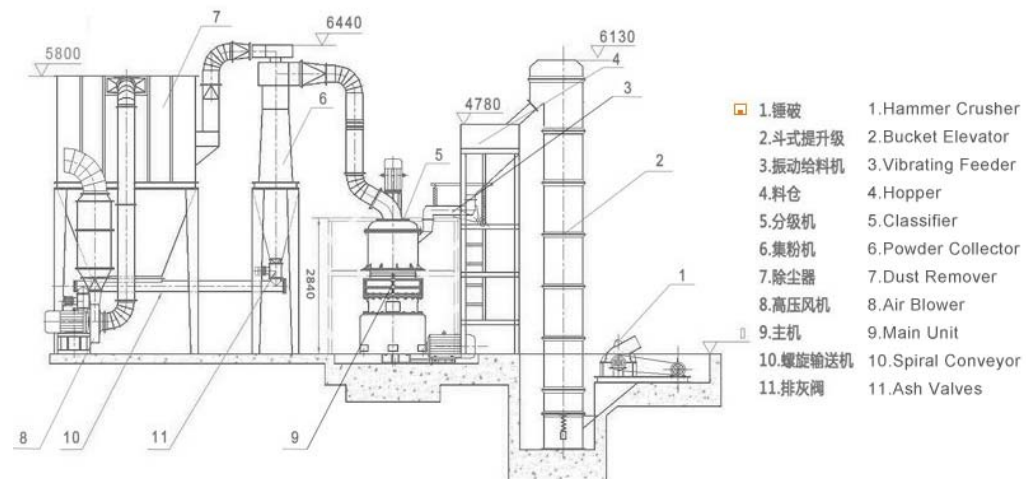


生产线组成 Product Structures

性能特点 Features

全套设备包括：锤式破碎机、斗式提升机、储料仓、电磁振动给料机、主机、选粉机、扩散式双旋风集粉器、脉冲式除尘器、高压风机、消声器。

The assembly includes hammer crusher, bucket hoist conveyor, hopper, electromagnetic vibrating feeder, principle machine, powder concentrator, cyclone powder collection device, pulsing dust collector, high-pressure fan blower, silencer.



- 投资成本低。** 在同等的细度情况下，比气流磨投入少，成本低，回收周期短。
- 出粉率高。** 同等的成品细度及功耗下，比气流磨和搅拌磨产量高45%以上。
- 易损件损耗低。** 所有易损件均采用国内外优质的耐磨材料，比普通磨粉机设备的易损件使用寿命长，一般可在一年以上。
- 磨腔内运转安全可靠。** 该超细磨粉机与普通磨粉机相比，磨腔内无滚动轴承、无螺钉，所以不存在轴承及其它密封件易损的问题，避免了螺钉易松动而毁坏机器的问题。
- 成品细度高。** 最终细度一次性可达到 $d_{97} \leq 5\mu\text{m}$ 。
- 安全可靠性能高。** 磨腔内无滚动轴承、无螺钉，所以不存在轴承及其密封件易损的问题，不存在螺钉易松动而毁坏机器的问题。
- 环保无污染。** 采用高效的脉冲式除尘器，整套设备运转过程中无粉尘污染，配置消音器及消音房，降低了噪音，完全按照国家的环保标准来组织生产，起到了环保作用。消声器的使用减轻了粉尘的污染和噪音，符合国家的环保标准，对周围的环境起到了环保的作用。



性能特点 Features

- 1.Low-cost investment.** In the case of same fineness, lower cost and shorter recovery cycle than air milling machine.
- 2.High rate of powder.** Under the same fineness and power consumption, the handling capacity is 45% higher than air milling machine and mixing mill.
- 3.Low-cost of wear parts.** All wear parts adopt world class fine resistant materials, more durable than traditional milling machine, generally longer than one year.
- 4.Safe and table process in grinding chamber.** Compared with traditional milling machine, the HGM Series Ultra-Fine Mill doesn't have rolling bearing and bolt, so there is no need to trouble about bearing and other wear parts broken.
- 5.High fineness of production.** The final fineness can achieve $d_{97} \leq 5\mu\text{m}$.
- 6.High reliability for safety.** There is no rolling bearing and bolt in the milling chamber, so, the bearing and sealing elements will not exist, loosening-screw easily damaging the machine also does not exist.
- 7.Environmental protection.** The whole production line has no dust pollution in the operating process, because of the adoption of efficient pulsing dust collector, silencer, and silencer room, which reached corresponding standard and protects the environment around.

产品规格 Specification

型号 Model		HGM80	HGM90	HGM100	HGM100A	HGM125
平均直径 Average Diameter (mm)		800	930	1035	1035	1300
数量 NO.	磨辊 Roller	21	24-32	27	34-36	40-44
	磨环环道 Ring of Roller	3	3-4	3	4	4
主轴转速 Main Shaft Speed(r.p.m.)		230-240	200-220	180-200	180-200	135-155
入料粒度 Feeding Size (mm)		≤ 20	≤ 20	≤ 20	≤ 20	≤ 20
成品粒度 Output Size	μm	5-47	5-47	5-47	5-47	5-47
	Mesh	2500-325	2500-325	2500-325	2500-325	2500-325
处理能力 Capacity (kg/h)		500-4500	600-6500	700-7000	1000-8500	1500-12000
电机功率 Motor Power (kw)	主机 Main Engine	55-75	2x37-2x45	110	110-132	160-185
	集粉器 Powder Collector	18.5	22	37	37	45
	风机 Air Blower	45	55	75	75	2-55
	破碎机 Crusher	11	11-18.5	18.5	18.5	18.5-45
	提升机 Bucket Elevator	3	3	3	4	4
	螺旋输送机 Spiral Conveyor	3	3	3	3	2-4
	排料阀 Discharge Valve	2x0.75	2x0.75	3x0.75	2x0.75-1x1.1	4x1.1
	空压机 Air Compressor	7.5	15	15	15-22	2X15
外形尺寸 Dimension(LxWxH) (m)		10x2x5.5	11.9x2.7x5.8	14.5x3.8x6.3	14.5x3.8x6.3	14.5x3.8x6.3

生产现场
Products on site

产品规格
Specification



特殊案例

The customer case

我公司生产的HGM80磨粉机在浙江加工方解石，细度根据客户需要可调节到325目-1250目，成品作为造纸用的添加剂。产量根据细度不同可以达到每小时1-2吨。易损件大约一年更换一次。目前设备已经使用了7年，运转稳定，质量良好。

The HGM80 is produce by Shanghai Shunky, and it works in Zhejiang for about 7 years, and the raw material is field spar, the final powder is used for paper additive. The powder size can be adjust from 325 mesh (15 micron) to 1250 mesh(5 micron), and the production is from 1-2ton per hour. The spare parts can use more than one year. At present, the machines are put into use for about 7 years, and it can work very well.



企业介绍

Enterprise Introduction

上海山启机械制造有限公司是中国知名的破碎筛分设备制造商。我们为客户提供全系列破碎筛分设备，包括圆锥破碎机颚式破碎机、反击式破碎机、立轴冲击破碎机(制砂机)、移动式破碎站和振动筛，我们不仅为客户提供高性价比的产品，还提供一流的服务支持及解决方案。我们的破碎设备在大量的基础建设工程中得到应用，另外,成套设备已出口到俄罗斯、蒙古、中亚、非洲等国家和地区。

公司拥有多名国内破碎筛分的专家，具有强大的新产品研发能力。公司非常重视国际技术交流与合作，先后引进了美国、德国、澳大利亚等国家的先进技术和工艺，拥有生产设备百余台套。时刻关注新产品、新技术的研发，并成立了砂石机器和选矿设备的研究室。



■ ■ 企业介绍
■ ■ Enterprise Introduction

山启机械 ■ ■
Shunky Machinery ■ ■

Shanghai Shunky Machinery Co. Ltd is a famous manufacturer of crushing and screening equipments in China. We provide our customers complete crushing plant, including cone crusher, jaw crusher, impact crusher, VSI sand making machine, mobile crusher and vibrating screen. What we provide is not just the high value-added products, but also the first class service team and problems solution suggestions. Our crushers are widely used in the fundamental construction projects. The complete crushing plants are exported to Russia, Mongolia, middle Asia, Africa and other regions around the world.

We have many crusher experts who are capable of new products searching and developing. We pay high attention on the international communication and cooperation and introduced advanced technology from Germany, America and Australia these years. We also have built research room in our company.



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PRODUCE PERFECT PRODUCTS SHUNKY MACHINERY TAKES THE LEAD IN THE WORLD