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INNOVATION DRIVES DEVELOPMENT, QUALITY WINS TRUST



上海科利瑞克机械有限公司
SHANGHAI CLIRIK MACHINERY CO., LTD

磨粉系列 GRINDING EQUIPMENT

专注于微粉研磨设备领域

DEVOTED TO THE FIELD OF MICRO POWDER
GRINDING MILLS

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品质
QUALITY

质量为本, 追求卓越
匠心锻造, 行业典范

QUALITY FIRST,
PURSUE EXCELLENCE, MASTERFULLY FORGED,
INDUSTRY BENCHMARK



创新
INNOVATION

持续创新, 技术领先
引领变革, 智创未来

CONTINUOUS INNOVATION,
TECHNOLOGY LEADING, DRIVING CHANGE,
CREATING A SMART FUTURE



服务
SERVICE

客户至上, 成就价值
精诚共进, 誉满全球

CUSTOMER FOREMOST,
VALUE ACHIEVED, SINCERE PARTNERSHIP,
GLOBAL REPUTATION



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COMPANY BRIEF INTRODUCTION

公司简介

上海科利瑞克机械有限公司坐落于上海浦东新区，是国内较早专注于工业粉体设备研发、制造与销售的高新技术企业。公司拥有现代化生产基地与智能化产线，配备专业的研发、生产及服务团队，主营超细磨粉机、高压悬辊磨粉机、破碎机等研磨破碎设备，广泛应用于矿业、建材、化工等行业，产品畅销国内，并远销东欧、中东、非洲、美洲等120多个国家和地区。

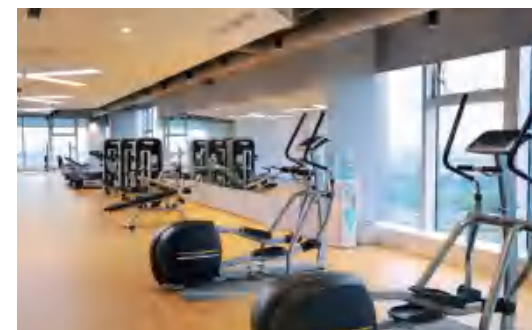
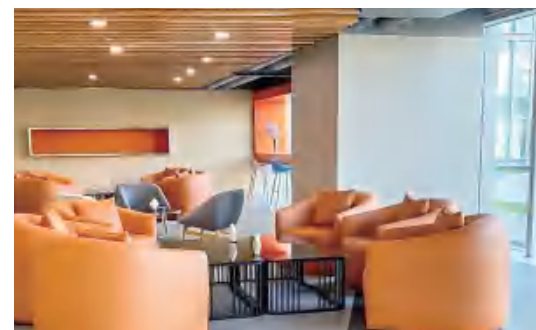
SHANGHAI CLIRIK MACHINERY CO., LTD. Located in Pudong New District, Shanghai, we are a pioneer in the R&D, manufacturing and sales of industrial powder processing equipment in China. With a modern production base, intelligent production lines and a dedicated team for R&D, production and service, we specialize in micro powder grinding mills, high-pressure grinding mills, crushers and related equipment. Widely applied in mining, construction materials, chemicals and other industries, our products enjoy popularity across China and are exported to over 120 countries and regions in Eastern Europe, the Middle East, Africa, the Americas and beyond.

公司深耕行业多年，坚持与国内外科研机构协同创新，技术实力始终处于国内前沿。我们秉持“创新为基、品质为本、客户至上”的理念，为客户提供高性价比产品、定制化设备选型、优化工艺配置及全流程技术支持，助力客户以最小投入实现价值最大化。

With years of industry experience and continuous cooperation with leading domestic and international research institutions, we maintain leading R&D capabilities in China. Adhering to the philosophy of “Innovation, Quality, Customer First”, we provide cost-effective products, customized equipment selection, optimized process configuration and comprehensive technical support, helping customers maximize value with minimal investment.



ENTERPRISE HOMETOWN
企业本部



HGM MICRO POWDER GRINDING MILL

HGM 系列超细磨粉机



■ 产品介绍 | Brief Introduction

超细磨粉机(三环四环中速微粉磨)是我公司研发技术部经过多次创新、测试、设计出的一种高效低耗超细粉加工设备,成功替代了传统的气流磨、球磨机研磨选粉的复杂程序,大大降低了生产成本,提高产品精细度。经国内数千家用户证明,该设备具有性能优越、品质稳定、操作简单、维修方便等优势,是超细微粉加工的理想设备。

Micro powder grinding mill is designed by our R&D department on the basis of multiple innovation and testing. It has been proved by thousands of customers that our machine has outstanding features, stable quality, easy operation and maintenance. It is the ideal equipment for fine powder milling.



■ 适用范围 | Scope

超细磨粉机是一种加工超细粉及超微粉的设备,主要适用于中、低硬度,莫氏硬度 ≤ 6 级的非易燃易爆的脆性物料,如方解石、白垩、石灰石、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、粉煤灰等100多种物料。

HGM Series Micro Powder Grinding Mill is the equipment specializing in producing fine and superfine powder of non-inflammable, non-explosive and brittle materials with Moh's hardness under six, such as calcite, chalk, limestone, dolomite, kaolin, bentonite, talc, mica, magnesite, ilite, pyrophyllite and vermiculite, sepiolite, attapulgite, rectorite, diatomite, barite, gypsum, alunite, graphite, fluorite, rock phosphate, Kalium ore, pumice, fly ash, etc., totally more than 100 kinds of materials.



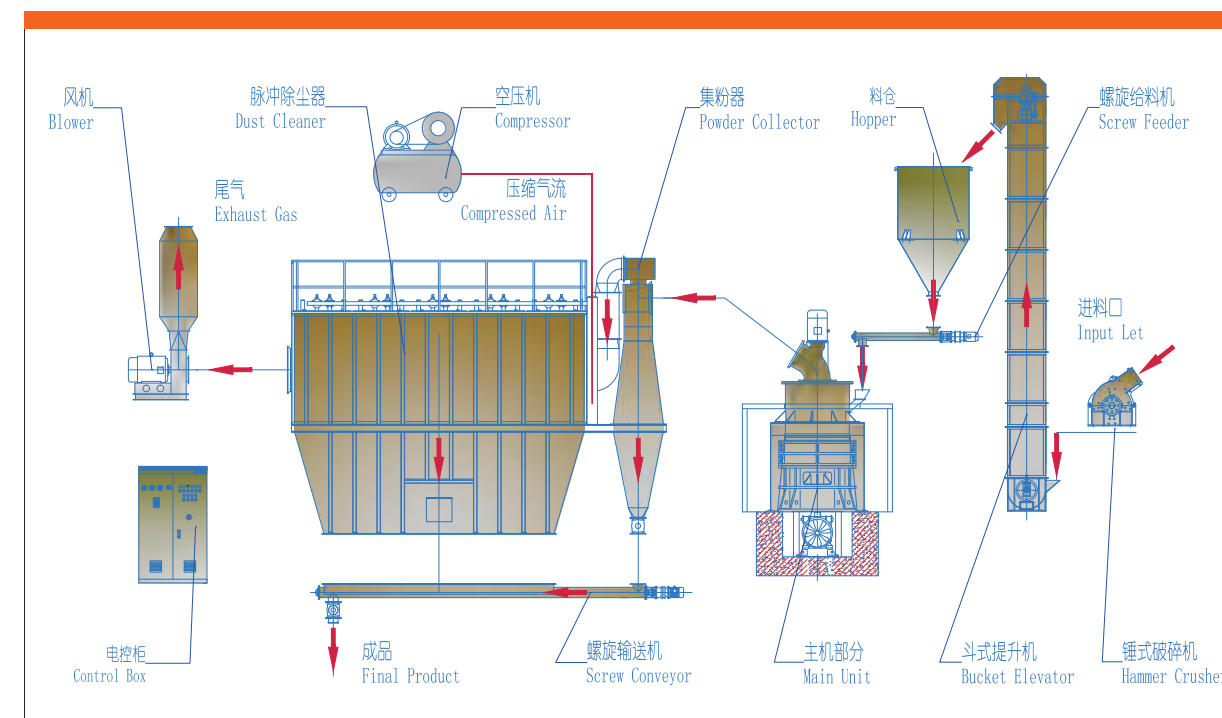
■ 应用领域 | Applications





高速旋转的叶轮对其进行筛选，不合格的物料回落重磨，合格的物料则随气流进入旋风集粉器，粉尘下落，由底部的卸料阀排出即为成品。小部分细粉尘则随气流进入除尘器，并粘附在滤袋表面。脉冲阀控制高压气流从滤袋内部瞬间喷射，粘附其上的粉尘则因滤袋的突然抖动下落，底部的输送机则把两处收集的物料送出进行成品包装。经过滤后的洁净空气最终在消声器出风口处排出。

Flow diagram of HGM micro powder mill processing



The high-speed rotating impeller of the classifier screens the airflow: unqualified particles are returned for regrinding, while qualified particles are carried with the airflow into the cyclone powder collector. Most of the powder falls and is discharged from the discharge valve at the bottom as finished product. A small portion of fine powder continues with the airflow into the dust collector and adheres to the surfaces of the filter bags. At this point, the pulse valve controls high-pressure air to be ejected momentarily from inside the filter bags, causing the bags to vibrate suddenly and the adhering powder to fall off. The conveyors at the bottom then transport the collected materials from both collection points for final packaging. The filtered clean air is finally discharged from the outlet of the muffler.

FEATURES

性能特点



- 高效低耗
在成品细度及电动机功率相同的情况下，比气流磨、搅拌磨、球磨机的产量高一倍以上，能耗低 30%。
- 易损件使用寿命长
磨辊、磨环采用特种耐磨材料锻制而成，从而使耐用程度大大提高。在物料及成品细度相同的情况下，比冲击式破碎机与涡轮粉碎机的易损件使用寿命长2-3倍，一般可达一年以上；加工碳酸钙、方解石时，使用寿命可达 2-5 年，高硬度物料将缩短易损件使用寿命。
- 安全可靠性强
因磨腔内无滚动轴承及螺钉，所以不存在轴承及其密封件易损的问题，或因螺丝松动而损坏机器的问题。
- 产品细度高，细度可调节范围广
与雷蒙磨及其它粗粉磨产品细度最细325目（47微米）相比，该超细粉磨机可生产更细的微粉，细度可在 200–2500目（74–5微米）之间任意调节。
- 先进的智能变频调速装置
该装置使物料均匀投放研磨、主机转速匹配不同物料，成品粒度更稳定、粒径切割精度高，提高了产量和效率从而达到降低功耗的作用。
- High Efficiency
Under the same finished final size and the same motor power, the capacity of micro powder grinding mill is twice as much as jet mill, mixing grinder and ball mill, and energy consumption decreased 30%.
- Long lifecycle of spare parts
The ring and roller are forged by special material with high utilization. Under the same grinding material and finish size, the lifecycle of spare parts is about one year, which is 2-3 times longer than impact mill or turbo mill. Furthermore, the lifetime can reach 2-5 years for grinding calcium carbonate, calcite. The lifecycle of spare parts is variable for the material’ s hardness.
- High safety and reliability
As no rolling bearings or screws in grinding cavity, there are no problems caused by bolts shedding or rapid wear of bearings and seal components.
- High fineness, flexible adjustment
The final fineness of the grinding materials can be adjusted between 200 mesh and 2500 mesh (74-5 micron).
- Advanced intelligent speed control device
Let the material feed into the machine evenly, adjust the main speed to fit for ground material, the fineness more stable. So as to increase the capacity and efficiency, reduce the power consumption.

PARAMETER

参数

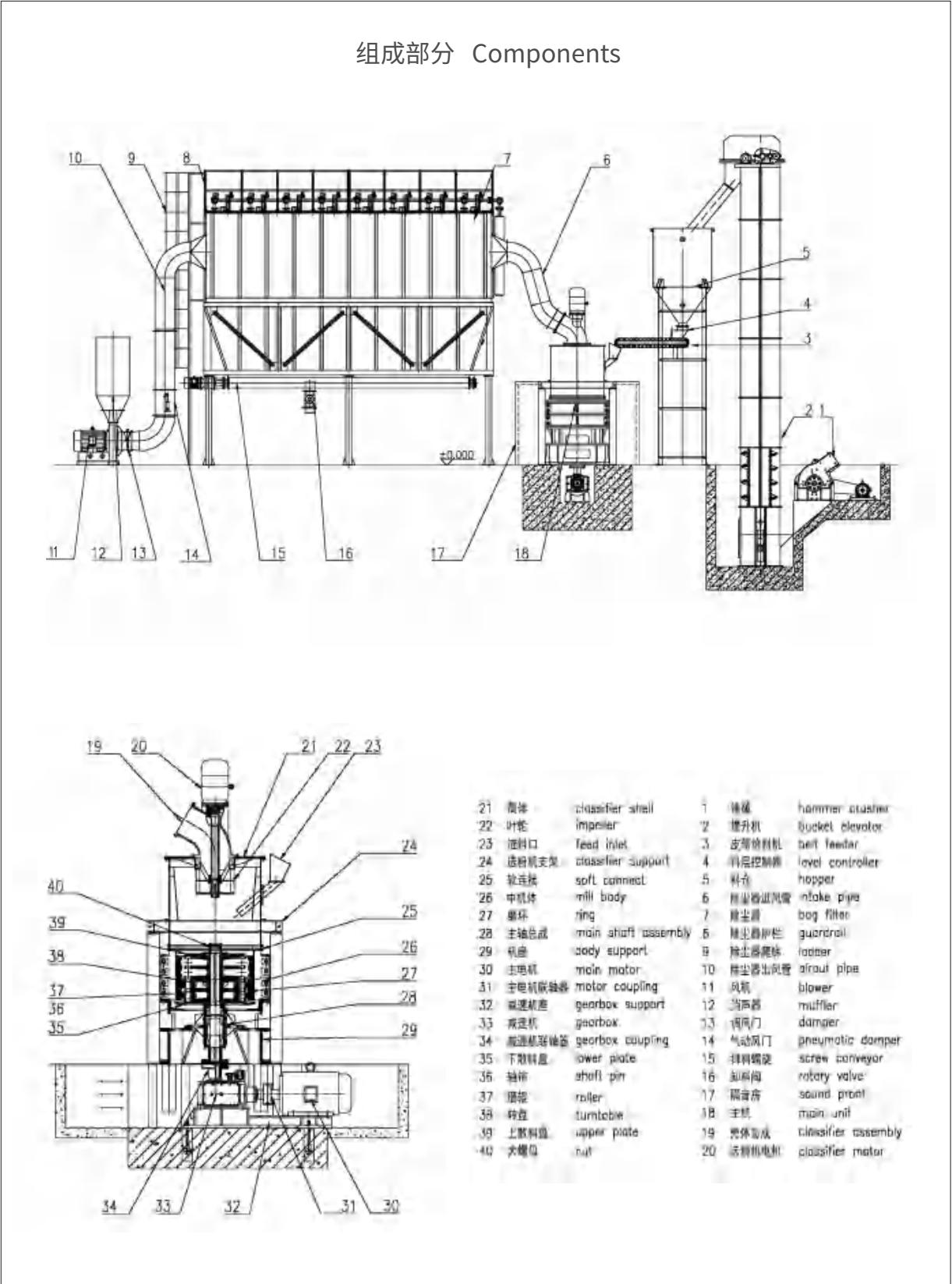
主要技术参数 / Main Specification				
型号 Model	HGM80	HGM100L-II HGM100P	HGM125L	HGM1680L
平均工作直径 Ring Diameter(mm)	800	1000	1250	1680
环道数量 Ring Number(layer)	3	4	4	4
磨辊数量 Roller Number(piece)	18-21	28-36	30-40	30-44
主轴转速 Main Shaft Speed(r.p.m)	230-240	180-200	135–155	120-130
入料粒度 Input Size(mm)	≤20	≤20	≤20	≤20
成品粒度范围 Finished Size(μm/mesh)	75-7.5 (200-2000)	75-7.5 (200-2000)	75-10 (200-1500)	75-12 (200-1250)
成品产量 Capacity(t/h)	5.5-0.5	9-0.8 9-1	15-3	25-5
外形尺寸 Overall Dimension(L*W*H, m)	15.1*4.2*7.3	22.7*3.6*8.5	27.3*4.2*9.9	31.7*7.7*12.6

注: 此产量区间基于境内碳酸钙物料, 不同物料差异会有变动。
Note: The capacity is based on the domestic CaCO₃ Powder factory’ s feedback.

功率参数 / Power Parameter				
Unit: KW	HGM80	HGM100L-II HGM100P	HGM125L	HGM1680L
主机 / Main Unit	75	132-150	185-200	315
选粉机 / Classifier	18.5	30-37	75	132
风机 / Blower	45	75	110	200-220
破碎机 / Crusher	18.5	18.5	45	45
提升机 / Bucket Elevator	3	4	4	7.5
螺旋输送机 / Spiral Conveyor	1.5	1.5	1.5	2.2
卸料阀 / Discharging Valve	2*0.75	1.1	1.5	2*1.5
空压机 / Air compressor	11	22	37	55

注: 以上表格中的数据为“2*××”时表示, 该项配置有 2 个相同参数的电机。
Note: For the data with prefix such as “2*××”, which means there are two same motors configured for one item.

COMPONENTS
部件组成



HGM SIZE TEST REPORT
测试报告

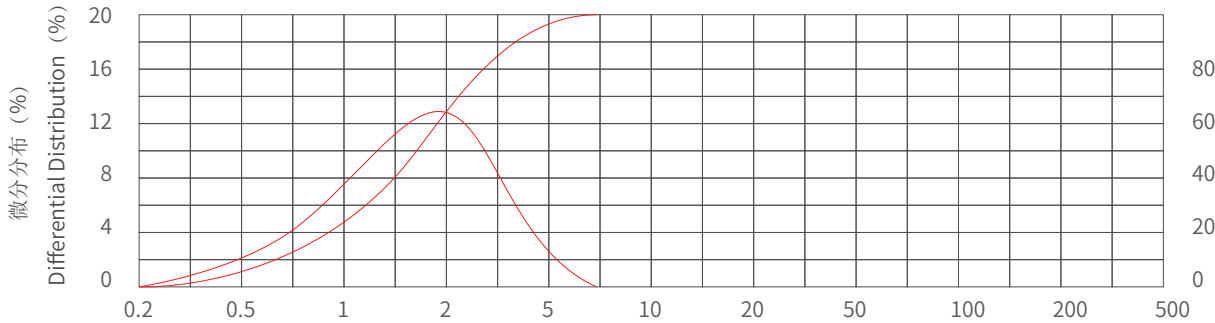
■ 仪器类型 : LS-POP (VI) Type

样本名称:CaCO ₃	截断下限:0.20	拾合残余:0.02	测试时间:17:47:50
Sample Name:CaCO ₃	Lower Limit Of Truncation:0.20	Fit Remnants:0.02	Test Time:17:47:50
分析模式:rosin-ram	样品折射率:1:60	截断上限:517.20	超声时间:2"
Analysis Pattern:rosin-ram	Sample Refractive Index:1:60	Upper Limit Of Truncation:517.20	Ultrasonic Time:2"
样品池:循环	介质折射率:1.33	测试日期:2010/8/15	遮光比:14.98%
Sample Pool:cycle	Mediun Refractive Index:1.33	Test Date:2010/8/15	Shading Ratio:14.98%

■ 粒度特征参数 | Characteristic Parameters of Particle Size

D(4,3): 2.07 μm	D50: 1.87 μm	D(3,2): 2.07 μm	DS.S.A: 4.85 sq.m/c.c.
D10: 0.63 μm	D50: 1.87 μm	D90: 2.07 μm	D97: 4.47 μm

■ 粒径分布 | Size Distribution



■ 粒度分布表 | Table of Size Analysis

粒径 particle size μm	微分分布 Differential Distribution (%)	累积分布 Cumulative Distribution (%)	粒径 particle size μm	微分分布 Differential Distribution (%)	累积分布 Cumulative Distribution (%)	粒径 particle size μm	微分分布 Differential Distribution (%)	累积分布 Cumulative Distribution (%)
0.20			2.89	11.93	76.95	41.8	0.00	100.00
0.24	0.53	0.53	3.50	10.22	87.17	50.6	0.00	100.00
0.29	0.57	1.28	4.24	7.17	94.34	61.3	0.00	100.00
0.35	1.03	2.32	5.13	3.84	98.18	74.2	0.00	100.00
0.43	1.57	3.89	6.21	1.45	99.63	89.8	0.00	100.00
0.52	2.01	5.89	7.51	0.37	100.00	108.6	0.00	100.00
0.63	2.75	8.65	9.09	0.00	100.00	131.5	0.00	100.00
0.76	3.62	12.27	11.00	0.00	100.00	159.1	0.00	100.00
0.92	4.88	17.14	13.31	0.00	100.00	192.6	0.00	100.00
1.11	6.23	23.37	16.11	0.00	100.00	233.1	0.00	100.00
1.35	8.24	31.61	19.50	0.00	100.00	282.1	0.00	100.00
1.63	9.70	41.31	23.60	0.00	100.00	341.4	0.00	100.00
1.97	11.29	52.60	28.56	0.00	100.00	413.1	0.00	100.00
2.39	12.43	65.02	34.57	0.00	100.00	500.0	0.00	100.00

MULTI-HEAD CLASSIFIER
多头选粉机



本公司研制的多头选粉机，可用于方解石、滑石、重晶石、高岭土、云母、石灰石、硅石、镁铝氢氧化物、炭黑、金属粉末（硅、铝、铜等）、木粉、淀粉、粉煤灰、膨润土、碳化硅、金刚砂等物料的精确分级，适用范围广，成品广泛应用于塑料、橡胶、涂料、造纸、食品、保健品、药物、饲料、陶瓷、油墨、磨料、耐火材料、水泥、石油、粉末冶金等行业。

The CDF classifier cooperates with different types of grinding mills, is separated for the calcite, gypsum, barite, kaolin, talc, limestone, silica, Mg/AL(OH)3, carbon black, metal powder, wood powder etc materials in high efficiency. Which is widely used in the plastic, rubber, painting, food, abrasives, ceramics, new materials and other industries.

■ 工作原理 | Working Principle

物料在风机抽力作用下由分级机下端入料口随上升气流高速运动至分级区，在高速旋转的分级涡轮产生的强大离心力作用下，使粗细物料分离，符合粒径要求的细颗粒通过分级轮叶片间隙进入旋风分离器或除尘器收集，粗颗粒夹带部分细颗粒撞壁后返回磨腔内重新研磨。

From bottom feeding inlet, the materials are sent to the separating field by inhaling of air blower. Coarse and fine materials are separated by powerful centrifugal force generated by high speed rotating classifying turbine. The qualified fine powders are sent into cyclone separator or dust cleaner to be collected by classifier blade; the unqualified coarse powder with little fine powders hit the classifier surface, fall down to grinding chamber and reground.

FEATURES&ADVANTAGES
产品优势



- 高效率、高精度：根据流体力学原理，优化了选粉区域和分级机转子叶片的间距，分级精度和效率更高。
- 高细度，低能耗：5头分级机的最大成品粒度可达3000mesh，能耗是传统分析机的70%或者更低。
- 控制系统采用 PLC 自动控制，运行状态实时显示，操作简便。
- 采用卧式分级涡轮装置，转速高、顶点切割准确。
- High rotational speed and accurate vertex cutting. According to the hydromechanics principle, optimize the structure and the gap between the impeller.
- High fineness and low consumption. The 5-head classifier can achieve a maximum finished particle size of 3000 mesh, while its energy consumption is 70% or less than that of traditional classifiers.
- PLC automatic control system, running real-time display, easy to operate.
- Horizontal classifying turbine unit with high speed and accurate vertex cutting.

■ 性能参数 | Main Specification

主要技术参数 / Main Specification			
型号 Model	HGM100P-3	HGM125L-5	HGM1680L-6
平均工作直径 Ring Diameter(mm)	1000	1250	1680
入料粒度 Input Size(mm)	≤15	≤20	≤20
成品粒度范围 Finished Size(mesh)	1000-2500	1000-2500	800-2500
成品产量 Capacity(t/h)	2.7-0.7	4-1	7-1.6

CUSTOMER CASES
客户案例



CLRM SERIES RAYMOND MILL

CLRM 系列雷蒙磨



■ 产品介绍 | Brief Introduction

本机主要适用于加工莫氏硬度6以下，湿度在6%以下的各种非易燃易爆矿产物料的磨粉加工，在冶金、建材、化工、矿山、高速公路建设等行业有着广泛的应用。成品颗粒可在80-500目范围内任意调节。主要加工物料如：石英石、长石、重晶石、方解石、石灰石、滑石、陶瓷、铁矿石、碳化硅、铝矾土大理石、磷矿石、煤块、矿渣等400余种物料。

Clirik enhanced roller grinding mill is suitable for processing various non-flammable and non-explosive mineral materials with Moh's hardness less than 6 and humidity less than 6%, it is widely used in the fields of metallurgy, construction, chemical industry, mining, highway construction etc.. The granularity of the finished powder size can be adjusted between 80-500 mesh. Examples of processing materials include quartz, feldspar, barite, calcite carbonate, limestone, talc, ceramic, iron ore, carborundum, bauxite, rock phosphate, coal and other materials, total about 400 kinds of materials.

WORKING PRINCIPLE

工作原理

大块状物料经鄂式破碎机破碎到所需粒度后，由提升机将物料送至储料斗，再经振动给料机将料均匀定量连续地送入主机磨室内进行研磨，粉磨后的细粉随风机气流经管道进入大旋风收集器内，进行分离收集，再经过粉阀排出即为成品细粉。气流由大旋风收集器上端回风管吸入鼓风机。本机整个气流系统是密闭循环的，并且是在正负压状态下循环流动的。

Big materials are crushed by jaw crusher to the required particle sizes, and carried by bucket elevator to the storage hopper, and are fed evenly and continuously by vibrating feeder into the main unit for grinding. The grinded powder are carried by the airflow from the blower to the classifier to be classified, the particles which meet the fineness enter cyclone collector through pipe, and are separated and collected there. They are discharged at the discharging valve to become finished products; the airflow is sucked to the blower by return pipe on the top of cyclone collector. The whole airflow system is a sealed circulation, and is circulated under positive and negative air pressure.

■ 工作特点 | Working Features

- 优化研磨总成，提高研磨效率

较之前磨粉机研磨压力提升10%、研磨面积提升15-20%，改善磨辊布局提升有效研磨空间效率。

- 三重减震结构设计确保设备稳定

设备底座，蜗壳风道，机体，研磨总成之前三重减震处理，有效杜绝震动传递，确保设备稳定输出。

- 新型叶轮变频控制提升选粉效率

分析机叶轮从叶片式升级成轮式，通过变频控制进行无级变速。成品细度范围提升至80-500目任意可调。

- 研磨装置采用重叠式密封，密封性好

- Optimized grinding part, increase grinding efficiency

Compared with the previous-generation mill, grinding pressure is increased by 10%, while the grinding area is expanded by 15-20%. The optimized roller arrangement maximizes the effective grinding space, resulting in higher grinding efficiency.

- Triple Vibration-Damping Design for Stable Operation

A triple vibration-damping structure is applied to the equipment base, volute air duct, and main unit. The design effectively isolates vibration transmission and ensures stable and reliable operation.

- New type impeller of classifier with VFD

The classifier features a new cage-type impeller, replacing the conventional blade-type design. Variable-frequency drive (VFD) enables stepless speed adjustment, expanding the finished product fineness range to 80-500 mesh.

- Grinding device adopts superimposed multistage seal, prolong the lubricating cycle.

COMPONENTS

部件组成

本新型悬辊磨标准的配置包含主机、减速机、选粉机、集粉器、除尘器、风机、电控柜和连接管道。可供选配的配件有破碎机、斗式提升机、喂料机。

The standard configuration of the CLRM enhanced roller grinding mill consists of main unit, reducer, powder classifier, cyclone powder collector, dust collector, blower, electrical cabinet and pipes. The optional accessories include crusher, bucket elevator, feeder.

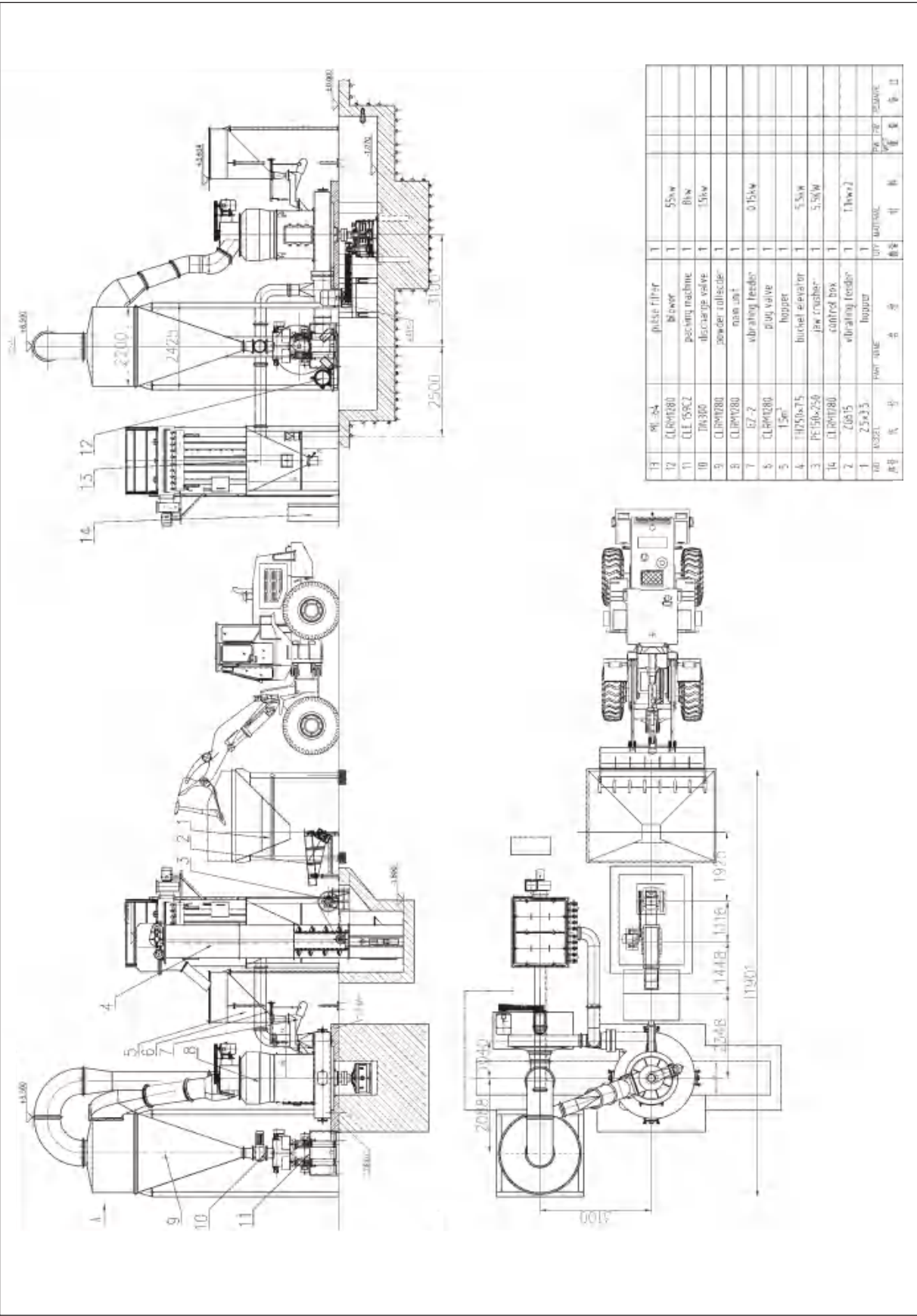


主要技术参数 | Main Specification

规格型号 Model	磨辊 Roller		磨环 Ring		主机转速 Main Shaft Speed (r/min)	进料粒度 Feeding Size (mm)	成品细度 Finished Size (mm)	电机 Motor (kw)	产量 Capacity (t/h)
	数量 Qty (pcs)	尺寸 Size (mm)	外径 External Dia (mm)	高度 Height (mm)					
CLRM9720	3	Φ320*200	1077	200	145	<20	80-500	45*15*37	7-1
CLRM3220	4	Φ320*200	1077	200	145	<20	80-500	45*15*37	6-1
CLRM1280	3	Φ370*240	1280	240	125	<20	80-400	75*15*55	12-3
CLRM1300	4	Φ410*280	1390	280	112	<20	80-400	110*22*90	15-4
CLRM1620	4	Φ450*300	1620	300	102	<20	80-400	160*30*132	20-8
CLRM1700A	4	Φ510*300	1700	300	102	<30	80-325	185*37*160	25-11
CLRM1900A	4	Φ600*300	1900	300	92	<35	80-325	250*45*220	32-13
CLRM2200	4	Φ650*300	2200	300	82	<35	80-325	315*45*280	40-16

注: 上表格中电机表格数据如“45*15*37”,表示主机电机*分析机电机*风机电机功率。

Note: For the motor data in the above sheet such as “45*15*37” means the main motor*classifier motor*blower motor.



CUSTOMER CASES
客户案例



CLCM SERIES AIRFLOW VORTEX MILL

CLCM 系列气旋涡流磨



■ 产品介绍 | Brief Introduction

CLCM是当今应用最广泛的粉碎设备之一，适用于干性物料，如精细化学品、食品等。它将机械冲击磨与动态气流分级机相结合，特别适用于中小规模生产线。凭借多年积累的经验，该磨机可根据不同物料进行定制。根据物料特性和产品规格，有多种耐磨件可供选择。

The CLCM is one of the most widely used pulverizing machines today, suitable for dry materials such as fine chemicals, food products, and others. It combines the mechanical impact mill with dynamic air classifier, special for the small to medium scale production line. With years of accumulated experience, the mill can be customized for different materials. There are various kinds of wear parts to choose under the material properties and product specifications.

APPLICATION

应用领域

CLCM 系列气旋涡流磨粉机在全球拥有超过1000家应用案例，广泛应用于化学品、粉末涂料、食品、制药/化妆品及矿物等行业。化学品领域涵盖双酚 A、酒石酸、E-PVC、杀菌剂、除草剂及硬脂酸盐；粉末涂料包括环氧树脂、聚酯、混合型、UV 固化丙烯酸酯和聚酰胺；食品行业涉及糖、可可、淀粉、鱼粉、黄原胶、瓜尔胶和乳糖；制药与化妆品方面适用于散粉、抗坏血酸和酒石酸；矿物加工则覆盖滑石、高岭土、硫酸钙、铝土矿和石灰石。典型加工物料包括可可饼、糖、颜料、粉末涂料、滑石和干豌豆。

The CLCM Vortex Mill has over 1,000 application cases worldwide, widely used in chemicals, powder coatings, food, pharmaceuticals, cosmetics, and other industries. The chemical sector covers bisphenol A, tartaric acid, E-PVC, fungicides, herbicides, and stearates. Powder coatings include epoxy resins, polyesters, hybrid types, UV-curable acrylates, and polyamides. The food industry involves sugar, cocoa, starch, fish meal, xanthan gum, guar gum, and lactose. In pharmaceuticals and cosmetics, it is applied to face powders, ascorbic acid, and tartaric acid. Mineral processing covers talc, kaolin, calcium sulfate, bauxite, and limestone. Typical processed materials include cocoa cake, sugar, pigments, powder coatings, talc, and dry peas.



化学品/ Chemicals

矿物/ Minerals

食品/ Food

化妆品/ Cosmetics

医药/ Pharmaceuticals

WORKING PRINCIPLE

工作原理

物料由给料系统均匀送入研磨腔，受到高速旋转的研磨盘强烈冲击。同时，物料在离心力作用下与研磨齿圈发生碰撞，并受到剪切、摩擦、碰撞等多种综合作用，完成粉碎。粉碎后的物料随气流进入分级区，通过变频调速的分级机将粗细颗粒分离。符合细度要求的成品随气流进入旋风收集器和除尘器收集，粗粉返回分级区进行二次粉碎。

Material is evenly fed into the grinding chamber, where it is subjected to intense impact from the high-speed rotating disc and pins. It collides with the gear ring under the centrifugal force, concurrently, it is pulverized through the combined actions of shearing, friction, and impact so as to achieve size reduction. The pulverized material is then carried by the airflow into the classification zone, where a variable-frequency-driven classifier separates coarse and fine particles. Qualified powder is collected along with the airflow into the cyclone and dust collector, while coarse particles are returned to the classification zone for secondary grinding.

■ 工作特点 | Working Features

- 多功能集成：冷却、干燥、粉碎、分级一体化作业。
- 根据物料特性选配销钉式、锤头式、齿盘式等多种形式的研磨盘，产生不同的粉碎力，有效提升研磨效率。
- 锤头、齿圈、分级轮等关键部件可采用氧化铝、氧化锆或碳化硅等陶瓷材质，确保粉碎过程全程无金属接触，保障成品高纯度。
- 结构紧凑，占地面积小，便于拆卸与清洗维护。
- Multi-function combination: cooling, drying, grinding and classifying.
- Different types of grinding disc (pin, hammer, teeth or others) are used based on characteristics of materials to obtain different grinding forces and improve grinding efficiency.
- Key parts like the hammer, gear ring, and classifying wheel are made of ceramic materials such as aluminum oxide, zirconium oxide, or silicon carbide, ensuring no metal contact throughout the grinding process for high purity of the final product.
- Compact structure and small occupation, easy to disassemble and clean.

PARAMETER
参数

主要技术参数 / Main Specification							
型号 Model	CLCM-15	CLCM-20	CLCM-30	CLCM-45	CLCM-60	CLCM-100	CLCM-125
主电机功率 / Main Motor (kw)	7.5	11	22	30	45	55-75	90-110
分级机功率 / Classifier Motor (kw)	0.75	1.1	4	5.5	7.5	11	15
给料机功率 / Feeder Motor (kw)	0.55	0.55	0.55	0.55	0.55	1.1	1.1
主机转速 / Main Unit Speed (rpm)	7000	5500	4000	3500	3000	2000	1600
分级机转速 / Classifier Speed (rpm)	800-3000	750-3100	700-2800	650-2600	600-2400	500-2000	400-1600
给料机转速 / Feeder Speed (rpm)	20-100	20-100	20-100	20-100	20-100	20-100	20-100
转盘直径 / Rotor Disc Diameter (mm)	300	300	400	550	700	1000	1200
齿圈直径 / Gear Ring Diameter (mm)	366	366	470	601	774	1080	1295
分级机直径 / Classifier Diameter (mm)	175	175	242	274	350	414	461
线速度 / Linear Speed (m/s)	110	87	84	102	110	106	101
风量 / Air Volume (m³/h)	700-1200	1300-2800	2200-3600	3600-6500	4000-7500	8000-12000	12000-16000
产品细度 / Product Fineness (µm)	3-300	5-300	5-300	10-300	10-300	10-300	10-300
产量 / Output (kg/h)	200-10	600-20	1000-30	1200-40	1500-50	3000-80	5000-120
主机尺寸 / Main Unit Dimension (LWH mm)	1450*900*1000	1450*900*1000	1740*1190*1100	1940*1250*1170	2150*1460*1380	2840*2150*1760	3000*2380*2000

注: 以上数据基于标准型号。该磨机可根据客户要求和物料特性进行调整。

Note: the above data is based on the standard model. The mill can be adjusted to match the client’s requirement and material characters.

CUSTOMER CASES
客户案例



CLDJ SERIES TURBO PULVERIZER

CLDJ 系列涡轮粉碎机



■ 产品介绍 | Brief Introduction

CLDJ 涡轮粉碎机，又称涡轮万能粉碎机。主要应用于化工、医药、食品、农药、染料、涂料、碳粉、塑料（PS/PVC/ABS等）等行业。细度可在30至150目之间调节，具有产量高、粒度细、噪音低、能耗低、维护简单、安装方便等优点，尤其适用于含油、粘性、热敏性、纤维性等低硬度物料的粉碎。

The CLDJ turbo mill, also known as the turbo universal pulverizer, is mainly used in industries such as chemicals, pharmaceuticals, food, pesticides, dyes, coatings, carbon powder, and plastics (PS/PVC/ABS, etc.). Its fineness can be adjusted between 30 and 150 mesh. It features high output, fine particle size, low noise, low energy consumption, easy maintenance, and convenient installation. It is particularly suitable for pulverizing low-hardness materials that are oily, sticky, heat-sensitive, or fibrous.

WORKING PRINCIPLE

工作原理

该粉碎机主要有机壳，门盖，主轴，转子件，筛子，电机等部件组成。
物料从料斗进入主机，在涡轮转子高速旋转带动下紧密的摩擦和冲击，被撞碎在涡轮叶片边缘上，接着在涡轮叶片和磨块之间再次粉碎。同时涡轮吸入大量空气，起到设备冷却，辅助粉碎和输送细粉的作用。轴承部件采用特殊密封结构，能有效防止粉尘进入轴承腔延长轴承寿命。

The pulverizer is mainly composed of components such as the housing, door cover, main shaft, rotor assembly, screen, and motor.
Material enters the main unit from the hopper, driven by the high-speed rotation of the turbo rotor, undergoes intense friction and impact, being crushed against the edges of the turbo blades. It is then further pulverized between the turbo blades and the grinding blocks. Meanwhile, the turbo draws in a large volume of air, which serves to cool the equipment, assist in pulverization, and convey the fine powder. The bearing assembly adopts a special sealing structure that effectively prevents dust from entering the bearing chamber, thereby extending bearing life.

PARAMETER

参数

主要技术参数 / Main Specification					
型号	转盘直径	主机转速	产量	出料细度	外形尺寸
Model	Rotor Disc Diameter (mm)	Main Unit Speed (r/min)	Capacity (kg/h)	Output Size (mesh)	Dimension (mm)
CLDJ-130	130	7500	50-3	10-325	320*150*255
CLDJ-150	150	7300	70-5	10-325	350*165*280
CLDJ-220	220	6000	150-50	10-325	505*220*405
CLDJ-250	250	6000	200-20	10-325	615*212*480
CLDJ-350	350	4500	500-25	10-325	830*290*660
CLDJ-500	500	3250	1200-30	10-325	1060*350*835
CLDJ-550	550	2930	1500-50	10-325	1080*400*903
CLDJ-750	750	2250	2000-60	10-325	1400*400*1130

CLJM-L SERIES FLUIDIZED BED JET MILL

CLJM-L 系列流化床气流磨



■ 产品介绍 | Brief Introduction

流化床气流磨是一种高效的超细粉碎设备，它将流化床技术与高速气流粉碎技术相结合，用于制备微米级甚至纳米级粉体。应用领域非常广泛，尤其适合处理高硬度、高纯度或对热敏性物料。

Fluidized Bed Jet Mill is a high-efficiency ultra-fine pulverizing equipment that combines fluidized bed technology with high-speed jet milling technology, and is used for producing micron-sized and even nano-sized powders. It has a very broad range of applications and particularly for processing materials with high hardness, high purity, or heat-sensitive properties.

APPLICATION

应用领域

该流化床气流磨应用领域十分广泛，涵盖矿物陶瓷（如碳酸钙、高岭土、石英、氧化铝）、化工（活性炭、石墨、钛白粉、颜料）、制药（原料药及辅料）、电池能源（钴酸锂、磷酸铁锂、负极石墨）、金属硬质材料（碳化钨、钴、钼、金属粉末）以及食品和碳粉（香料、淀粉、蜡）等行业，能够满足各类物料对超细粉碎与高纯度加工的严格要求。

This Fluidized Bed Jet Mill is widely used in various industries, including minerals and ceramics (such as calcium carbonate, kaolin, quartz, and alumina), chemicals (activated carbon, graphite, titanium dioxide, and pigments), pharmaceuticals (APIs and excipients), batteries and energy (lithium cobalt oxide, lithium iron phosphate, and anode graphite), metals and hard materials (tungsten carbide, cobalt, molybdenum, and metal powders), as well as food and toners (spices, starches, and wax). It can meet the strict requirements for ultrafine grinding and high purity processing of different materials.



化学品/ Chemicals

医药/ Pharmaceuticals

电池/ batteries

食品/ Food

WORKING PRINCIPLE

工作原理

流化床气流磨是由粉碎喷嘴，分级转子，螺旋给料机等组成。

物料通过螺旋加料器进入粉碎室，压缩空气通过特殊配置的超音速喷嘴向粉碎室高速喷射，物料在超音速喷射流中加速，并在喷嘴交汇处反复冲击、碰撞，达到粉碎。被粉碎物料随上升气流进入分级室，由于分级转子高速旋转，粒子即受到分级转子产生的离心力，又受到气流粘性作用产生的向心力，即分级径以上的粗粒子返回粉碎室继续冲击粉碎，分级径以下的细粒子随气流进旋风分离器，除尘器收集，气体由引风机排出。

Fluidized-bed jet mill is a kind of equipment that realizes ultra-fine grinding of dry materials by high speed jet. It is composed of a grinding nozzle, a grading rotor, a spiral feeder, etc.

The material enters the grinding chamber through the spiral feeder, and the compressed air is sprayed to the grinding chamber at high speed through the specially configured supersonic nozzle, and the material accelerates in the supersonic jet stream, and repeatedly impacts and collides at the intersection of the nozzles to achieve grinding. The crushed material enters the classification chamber with the updraft. Due to the high speed rotation of the classification rotor, the particles are subjected to the centrifugal force generated by the classification rotor and the centripetal force generated by the viscous action of the air flow, that is, the coarse particles above the classification diameter return to the crushing chamber to continue to impact and crush, and the fine particles below the classification diameter enter the cyclone separator with the air flow, the dust collector is collected, and the gas is discharged by the induced draft fan.

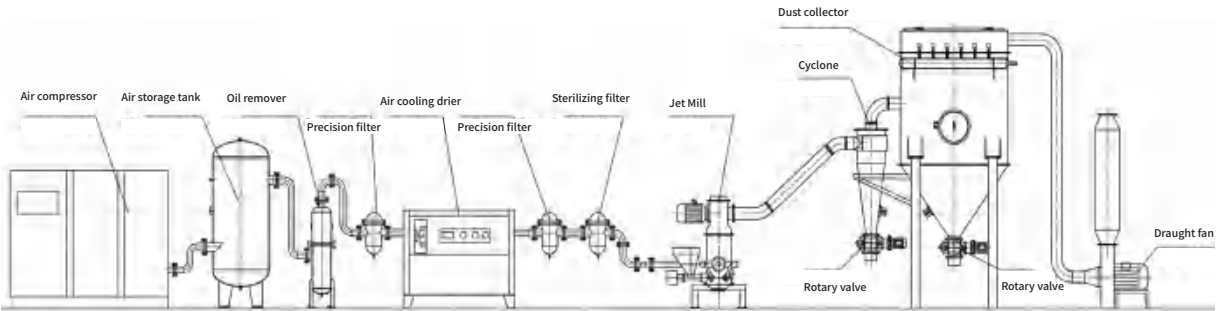
■ 工作特点 | Working Features

- 超细粉碎:成品细度可达 d97 小于 2 微米。专利分级机设计配合高线速度(最高达 80 米每秒),确保精确的粒径控制和极窄的粒径分布。
- 高纯度、无污染:粉碎过程完全为自磨(颗粒对颗粒冲击),无研磨介质,避免污染,非常适合高纯度物料。
- 无磨损运行:粉碎区内颗粒与磨壁无接触,磨损极小。对于极硬物料,可选用耐磨内衬(陶瓷或 Vulkollan)。
- 低温粉碎:压缩气体在粉碎室内膨胀产生冷却效应(焦耳-汤姆逊效应),适合加工热敏性、低熔点或含糖物料。
- 陡峭的粒径分布:集成的高性能分级机确保成品无超大颗粒,保证粒径分布尖锐且一致。
- 灵活操作:通过改变分级机转速即可轻松调节粒径。系统可使用压缩空气、热气体(最高 250 摄氏度)或惰性气体(用于易爆物料)。
- 自动控制:PLC 控制系统配合称重系统,监测料层高度并自动调节给料,实现最优连续运行。
- 清洁安静运行:系统在负压下工作,无粉尘外泄,且噪音较低。

- Ultrafine Fineness: Achieves products down to d97 less than 2 micrometers. The patented classifier design, with high line speeds up to 80 meters per second, ensures precise particle size control and extremely narrow particle size distributions.
- High Purity and No Contamination: Grinding is completely autogenous (particle-to-particle impact). There are no grinding media to cause contamination, making it ideal for high-purity materials.
- Wear-Free Operation: As there is no contact between particles and the mill walls during the grinding zone, wear is minimal. For very hard materials, wear-resistant linings (ceramic or Vulkollan) are available.
- Low Temperature Grinding: The expansion of compressed gas in the grinding chamber creates a cooling effect (Joule-Thomson effect). This makes the mill perfect for grinding heat-sensitive, low-melting-point, or sugar-containing substances.
- Steep Particle Size Distribution: The integrated high-performance classifier ensures that the final product contains no oversized particles, guaranteeing a sharp and consistent particle size profile.
- Flexible Operation: Particle size can be easily adjusted by changing the classifier speed. The system can be run with compressed air, hot gas (up to 250 degrees Celsius), or inert gas for explosive materials.
- Automated Control: PLC control systems with weighing systems monitor the bed level and automatically control the product feed for optimal, continuous operation.
- Clean and Quiet Operation: The system operates under negative pressure, ensuring a dust-free environment with low noise levels.

PARAMETER
参数

主要技术参数 / Main Specification						
型号 / Model	CLJM-100	CLJM-200	CLJM-300	CLJM-400	CLJM-600	CLJM-800
空气消耗量 / Air Consumption (m³/min)	3	4.5	6	10	20	40
工作压力 / Working Pressure (MPa)	0.75-0.85	0.75-0.85	0.75-0.85	0.75-0.85	0.75-0.85	0.75-0.85
进料粒度 / Feed Size (mesh)	50-325	50-325	50-325	50-325	50-325	50-325
出料细度 / Output Size (µm)	0.5-75	0.5-75	0.5-75	0.5-75	0.5-75	0.5-75
产量 / Capacity (kg/h)	0.5-10	10-100	80-120	50-260	80-450	200-600
电机功率 / Motor (kW)	25	40	60	95	188	380



CLJM-Y SERIES DISC AIR MILL

CLJM-Y 系列圆盘式气流粉碎机



■ 产品介绍 | Brief Introduction

圆盘式气流粉碎机是一款干式超微粉碎设备，利用超音速气流使颗粒自磨，无需研磨介质，确保产品高纯无污染。设备冲击力强，能获得均匀且分布集中的超细粉体；尤其擅长处理粘性及热敏性物料，不易堵塞。运行平稳、噪音低、无振动，结构紧凑，操作维护简便。广泛适用于化工、医药、食品、矿物以及高硬度、高附加值材料的精细粉碎。

The Disc Air Mill is a dry ultrafine grinding device that uses supersonic airflow for particle self-grinding, with no grinding media – ensuring high purity and no contamination. It delivers strong impact force, producing uniform and narrowly distributed ultrafine powders. Particularly effective for viscous and heat-sensitive materials, it resists clogging. The mill runs smoothly with low noise and no vibration, features a compact design, and is easy to operate and maintain. It is widely used in chemicals, pharmaceuticals, food, minerals, and high-hardness, high-value material applications.

WORKING PRINCIPLE

工作原理

该圆盘式气流粉碎机利用压缩气体实现超微粉碎，其工作过程为：压缩气体通过加料喷射器将原料带入粉碎室，随后多个喷嘴产生超音速高速气流，带动物料颗粒以切向方式猛烈喷射至粉碎壁上，颗粒与壁面及颗粒之间发生剧烈摩擦与碰撞，从而达到粉碎效果；粉碎细度则可通过调节粉碎室的纵向深度、改变粉碎压力或调整加料速度来控制，部分机型还可借助调节粉碎器角度进行辅助控制。

The disc air mill uses compressed gas for ultrafine grinding. The working process is as follows: compressed gas carries the material into the crushing chamber via the feeding injector, then multiple nozzles generate supersonic high-speed airflow, driving particles to be sprayed tangentially against the crushing wall at high speed. Intense friction and collision between particles and the wall, as well as inter-particle impacts, achieve the size reduction. The fineness can be controlled by adjusting the chamber's longitudinal depth, changing the grinding pressure, or modifying the feed rate; some models also allow auxiliary control by adjusting the crusher angle.



主要技术参数 / Main Specification					
型号 / Model	CLJM-Y100	CLJM-Y200	CLJM-Y300	CLJM-Y400	CLJM-Y600
生产能力 / Capacity (kg/h)	0.5~10	10~60	60~240	200~500	400~800
空气耗量 / Air Consumption (m³/min)	2	3	6	10	20
工作压力 / Working Pressure (MPa)	0.6~1.2	0.6~1.2	0.6~1.2	0.6~1.2	0.6~1.2
进料粒度 / Feed Size (mesh)	≥60	≥60	≥60	≥60	≥60
出料细度 / Output Size (μm)	0.5~75	0.5~75	0.5~75	0.5~75	0.5~75
电机功率 / Motor (kW)	18	25	58	85	155

QUALIFICATION HONOR

资质荣誉

高新技术企业证书
High and new technology
enterprise certificate

重合同守信用证书
Heavy contract and
credit certificate

ISO9001 证书
ISO9001 certificate

欧盟 CE 证书
EU CE certificate

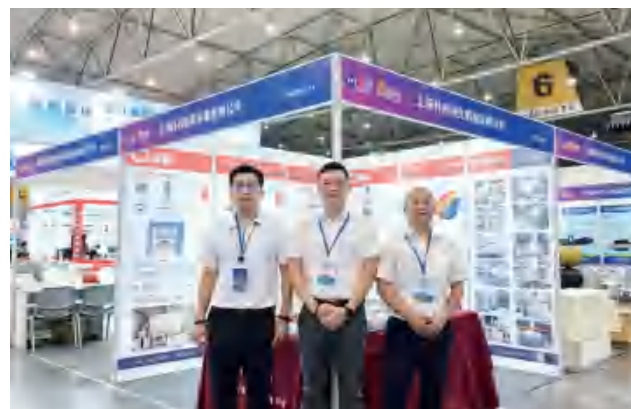
专利证书
Patent certificate



PRODUCTION SITE
生产现场



INDUSTRY EXHIBITION
行业展会



CUSTOMER VISIT

客户来访



始于客户需求 终于客户满意

Begin from Customer Demand End with Customer Satisfaction

优质的售后服务是企业品牌的象征和实力的标志。我们始终本着“一切追求高质量，用户满意为宗旨”的精神，以“最优惠的价格、最周到的服务、最可靠的质量”为原则，竭诚为广大用户服务。

High quality of after-sales service symbolizes our brand and ability. We pursue not only good quality products, but also best after sales service. Your satisfaction is our final purpose.



01

国内外安装指导
Installation guidance worldwide

02

操作人员全程培训
Comprehensive Operator
Training

03

易损件更换周期提醒
Reminder on wearing parts
replacement cycle

04

快速维修及配件更换
Prompt repair and parts
replacement

05

一年跟踪服务，终身保修
One-year follow-up service
lifetime warranty

06

运行远程监控
Remote Monitoring Operation

