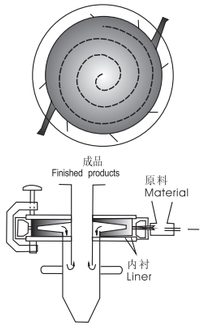
超音速气流粉碎机
Ultrasonic Pancake Jet Mill

粉碎原理示意图
Illustrating Chart of Pulverizing Principle



工作原理

当压缩气体通过加料喷射器，粉碎原料进入粉碎室，在粉碎室外围有数个粉碎喷嘴，喷射超音速气流，使粉料受到气流高速冲击以及粉料互相碰撞、摩擦而粉碎，分级室把较粗的颗粒分离出来，粗颗粒循环返回粉碎室内粉碎后，最后在出料口可获得分布均匀超细粉。

特 点

- 适用于干式超细粉碎工艺，由于冲击速度大，可达2.5马赫以上，一般情况下很容易获得1~10微米粒子。
- 由于粉碎机内部有粒度调节机械，制品中粗粒子不断循环粉碎，因而能获得粒子均匀、粒径分布范围小的制品。
- 粉碎过程中，由于压缩空气膨胀，使温度下降，因此适用于低熔点，热敏性物料的粉碎，粉碎过程中还起到混合和分散的效果。
- 该设备具有粉碎和时间短，结构简单，没有运转活动部件且操作检修方便，占地面积小，低噪声和无振动优点。
- 粉碎效率高，能进行连续粉碎，能保持粉碎制品纯度。

适用范围

该机广泛应用于西药、中药、农药、化工、冶金等行业物料的超细粉碎，如多菌灵、甲基托布津、除草剂、白炭黑、颜料、染料、尼莫地平、可的松等。

超音速气流粉碎机主要技术参数
Major Technical Parameters of Ultrasonic Pancake Jet Mill

参数 Parameter / 型号 Model	QYN200	QYN400	QYN600
生产能力(kg/h) Capacity(kg/h)	30~100	100~300	300~600
空气耗量(m^3/min) Air Consumption(m^3/min)	6	10	20
工作压力(Mpa) Working Pressure(Mpa)	0.7~0.8	0.7~0.8	0.7~0.8
进料粒径(目) Feed Diameter(mesh)	60~325	60~325	60~325
粉碎细度(μm) Grinding Size(μm)	5~45	5~45	5~45
装机功率(kw) Energy Consumption Power(kw)	45	75	160

PRINCIPLE

When the compressed air brings the milling materials through the feeding injector to the milling chamber,the powder will be impacted,collided and milled by ultrasonic air flow from numbers of milling nozzles around the peripheral chamber. The coarser grains separated from the grading chamber will be cycled back to the milling chamber for further milling . The homogeneous superfine powder will be finally discharged from the port.

FEATURES

Applied to the dry-type superfine Proceses:The high speed impact can result in not less than 2.5 Mach,normally 1~10 μm grains.

The homogeneous and superfine products can result from the circular milling in the internal grading structure .

Applied to low-melting and heat-sensitive milling owing to the low temperature and expanded air,and also yielding the double result of blending and dispersion.

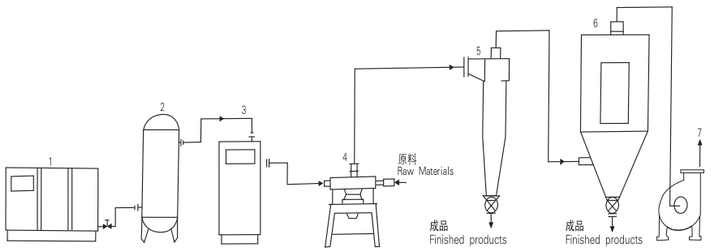
Advantages: rapid milling, simple structure,free of movable parts,accessible maintenance and operation,minimal floorage,low noise,and vibration-free.

High Efficie ncy of Milling:performing continous milling and maintaining good purity of milling products.

APPLICATION SCOPE

It is widely applied to superfine milling in such fields as pesticide,chemical smelt and pharmic industries,for carbendazim,formal topsin,herbicide,silica aero gel,pigment dye and cortisone.

QYN型超音速气流粉碎机流程示意图
Flow Chart of QYN Ultrasonic Pancake Jet Mill



1、空气压缩机	1. Air Compressor
2、贮气罐	2. Air Storage Tank
3、空气冷冻干燥器	3. Air Cooling Drier
4、QYN超音速气流粉碎机	4. QYN Ultrasonic Jet Mill
5、旋风分离器	5. Cyclone Separator
6、除尘器	6. Dust collector
7、引风机	7. Draught Fan

密友MIYOU 国家高新技术企业

粉碎、研磨、分级、环保生产线
Roller Milling and Classifying Production Line

工作原理

粉碎研磨分级连续生产线是我公司针对非矿等行业重点推出的流程化产品。该生产线主要由环辊磨、高精度分级机、真空上料系统、管路输送系统、旋风分离器、脉冲除尘器、引风机、回路管等组成。通过优化的系统配置，使环辊磨生产的粉体直接进入高精度分级机进行分级。一次产出符合用户细度要求的成品。

特 点

采用了由微机工作站、高性能PLC可编程控制器、组态控制软件及相应电器元件组成的自动控制系统，实现自动运行、故障报警、远程监视、远程控制等功能。在本系统中，各控制部分由PLC可编程控制器协调控制，集中将所有采集设备输入信号采集，编译，并显示在本公司自行编写的组态控制程序中；同时将组态控制程序中的各种输入限制参数读入PLC，并且与采集设备采集来的信号进行运算，比较，判断，并做出正确的指示。实现了有效资源高度集中应用，自动化程度很高的控制系统。

通过系统调整，可生产2um、5um、10um等多种系列的粉体产品。其生产细度无极可调。并可根据用户实际产能需求，设计制造不同产能的粉碎研磨分级连续生产线。

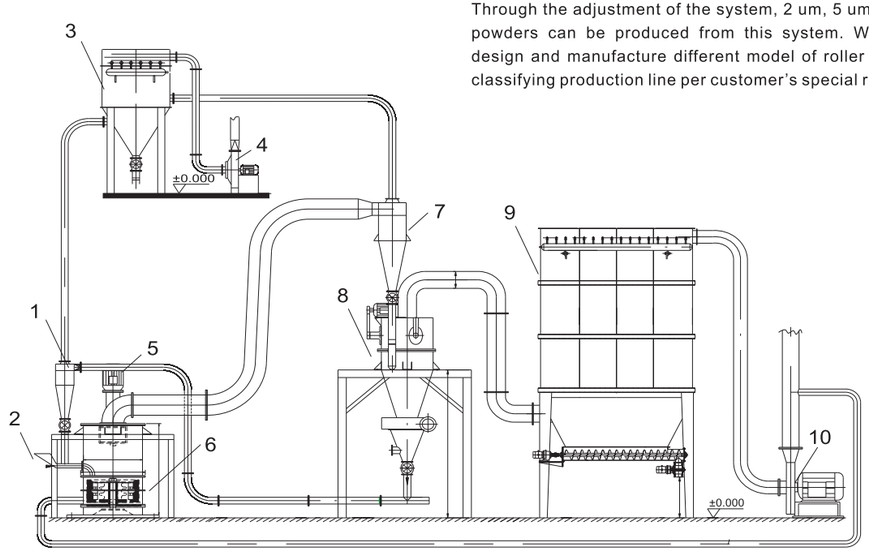
PRINCIPLE

Roller Milling and classifying production Line is a continuous production line we recommend in non-mineral industry. This production line is composed of roller mill, high precision air classifier, vacuum feeding system, pipeline transportation system, cyclone separator, dust collector, draught fan, loop pipes etc. Optimized system configuration makes the powders after roller milling enter into the air classifier for further classifying directly to get the finished product.

FEATURES

Adopt the high performance of computer workstation PLC programmable controller, the control software configuration and the corresponding electric components of automatic control system, realized the automatic operation, fault alarm, remote monitoring function such as remote control in the system, and the control part by PLC programmable controller coordination control, concentrate on all acquisition device input signal acquisition, compiled, and displayed in the company to write configuration control procedures; And at the same time, to control the procedure in the configuration of various input limit parameters read in PLC, and with acquisition device to signal collection operations, compare, judgment, and make the right instructions realize the effective resources highly centralized application, highly automated control system.

Through the adjustment of the system, 2 um, 5 um, 10 um etc powders can be produced from this system. We can also design and manufacture different model of roller milling and classifying production line per customer's special request.



1、7、旋风分离器	5、电机
2、进料口	6、环辊磨
3、9、除尘器	8、高精度分级机
4、10、引风机	

1、7、Cyclone separator	
2、Inlet	5、Motor 22KW
3、9、Dust colector	6、Roller Mill
4、10、Draught Fan	8、High Precision Air Classifier