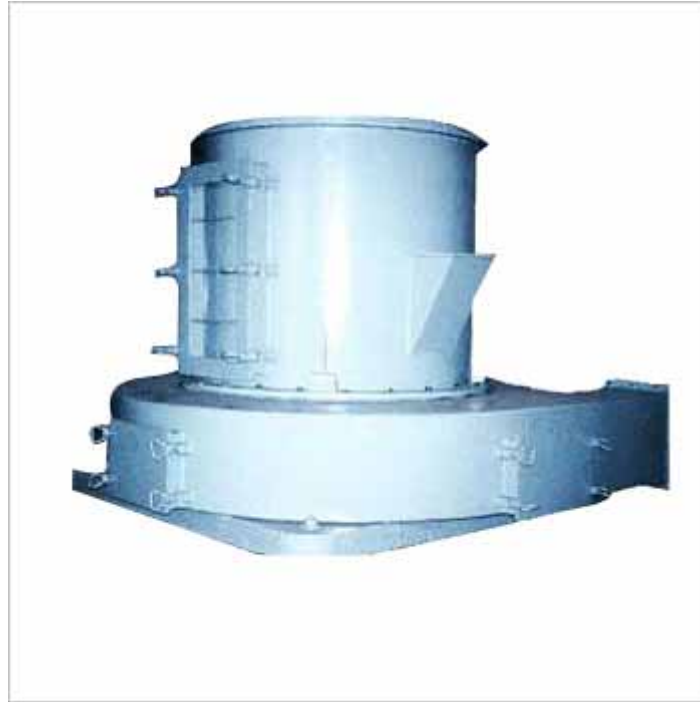


# MRX Powder Grinding Machine



## MRX Powder Grinding Machine

### Power Comparison of supporting Equipment:

Classes	4MRX3516	5MRX4419	5MRX5525
Mill	37	75	200
Grader	15	30	75
Blower	30	55	185
Jaw Crusher	11	15	30
Elevator	3	3	7.5
Feeder	0.06	0.2	0.2
Dust Filter	2.6	5.2	11
Wind blockage valve	0.75	1.1	3
power	99.41	184.5	511.7
Percentage %	101.4%	108.1%	

### Comparison of Technical Parameter :

Classes	4MRX3516	5MRX4419	6MRX4419
Roller	φ350×160	φ440×190	φ440×190
Ring	φ1000×170	φ1270×220	φ1800×260
Machine revolving Speed	140	108	84
Wind Velocity	14000	23500	60250
Wind Pressure	7000	7700	9264

Impeller revolving Speed	170—1750	130—1350	110-1100
Fineness of the finished products	≤1250 um	≤1250 um	≤1250um

Fineness of the finished products		4MRX3516		5MRX4419		6MRX5525	
um	D97um	Kg/h	Kwh/t	Kg/h	Kwh/t	Kg/h	Kwh/t
1250	≤10	500	117	1000	109	3300	95
1000	≤13	700	96.2	1500	86.5	5000	78
800	≤15	1000	71.3	2100	66.2	6800	58
600	≤22	1500	51.2	3000	49.4	9500	40
425	≤36	2800	29.2	5200	29.1	16000	27
325	≤44	3500	25.3	6500	24.5	20000	22

## 1. Brief introduction

Raymond mill is a kind of crushing equipment which is widely used in non-metal mining industry and it has the following advantages such as stable performance, widely suitable range, simple structure, easy operation and huge capacity. Our MRX powder grinding machine has many other properties besides those above, such as high productivity, fine process, precisely grade, energy saving and environmental protection.

1. Products are improved greatly. It possesses the capacity to produce superfine powder lower than 1250 item, from input of raw materials (1-20mm) to the output of 800-1000 items of superfine powder.
2. Productivity: output per machine is increased by 30% than common Raymond mill.
3. High efficiency and energy saving, its power consumption decreases greatly and creates remarkable economic benefits.
4. Clean production environment, no dust pollution inside and outside of the workshop, which improve operating condition of workers and reduce discharging loss of fine powder.
5. Wide application: experiments proved that all materials that Raymond mill can process pendulum grinder also can do.

## 2. Structural features

### (1). Mill

1. Diameter of roller is enlarged by 10%, and ring diameter is also enlarged correspondingly.
2. Surface of grinding roller is finely processed, therefore, at the beginning it enters into the state of finely grinding and keeps good contact and even

abrasion with grinding ring, thus grinding efficiency is improved and useful time of grinding roller is prolonged.

3. Increase rotary speed of shaft properly (about 10%). The increase of roller quality and improvement of revolving speed will enhance positive pressure of milling, and powder grinding area is enlarged with diameter of grinding roller, all of these are beneficial to improve powder grinding efficiency.

4. according to change of structural performance parameter of mill, increase properly rigidity and intensity of key components of mill, strengthen cement foundation, and improve grounding, vibration reducing, anticlastic performance of vibration reducer, bellow, and cover.

## **(2).Grader**

1. Single wheel grader with large processing capacity and can meet fineness of 1250 items.

-Increasing lamina amount of impeller to enhance centrifugal force field.

Reducing thickness of blade to decrease resistance.

-Properly design housing of grader.

-Properly designed air sealing structure can prevent coarse grain getting into the impeller and pollute products.

2. On the premise of guaranteed material input, reduce rated wind of air blower and increase wind pressure to avoid increased resistance which is produced by high speed grader.

3. properly design reasonable position of relative height difference between grader and grinding area of grinder.

-Ampere meter and current relay is connected on the electrical circuit of grader to adjust powder content in air.

-.Soft connection of vibration isolation is connected between grader and mill to avoid damage of grader.

## **(3). Air supply system of grinder**

-choose air blower with high wind pressure and small flowing capacity.

-Modify air-back box of mill and reduce transversal of bellows to meet requirements of small flowing capacity and high wind pressure. Meanwhile, increase thickness, rigidity and intensity of steel plate

- Distribution of air supply pipe must be short and simple, and connect smoothly.