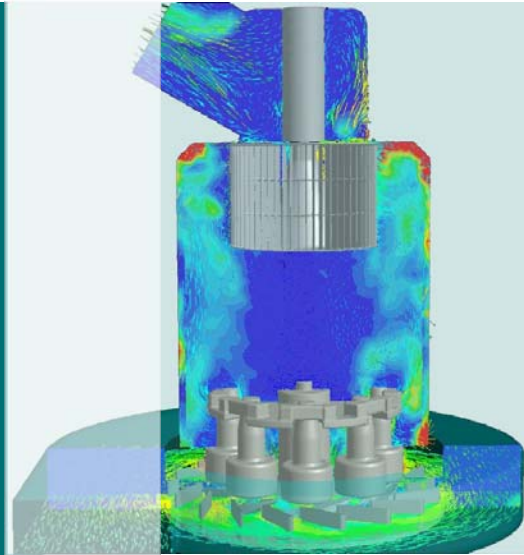


Raymond® Fine Grinding Roller Mill

For new or for existing equipment

- Fine grind $d_{50} < 10$ micron
- Low power consumption
- Low noise/vibration level
- High reliability and availability
- Stable and efficient performance
- Easy operation and system control
- Cost efficient mill retrofit



The Raymond® Fine Grinding Roller Mill (US Patent Nos. 7665681 and 7963471) is specially designed for achieving product size distribution with d_{50} measurements less than 10 microns.

Available on new Raymond® Roller Mills or as a retrofit to your existing mill.

Features include:

- Mill side baffles
- Optimized plow configuration to enhance mill performance for obtaining finer products.

Compared to conventional roller (pendulum) mill:

- Achieves finer products
- Increases production rate by 10-15% for products with an average particle size (d_{50}) of less than 10 microns
- Smoother, quieter mill operation

Principle of operation

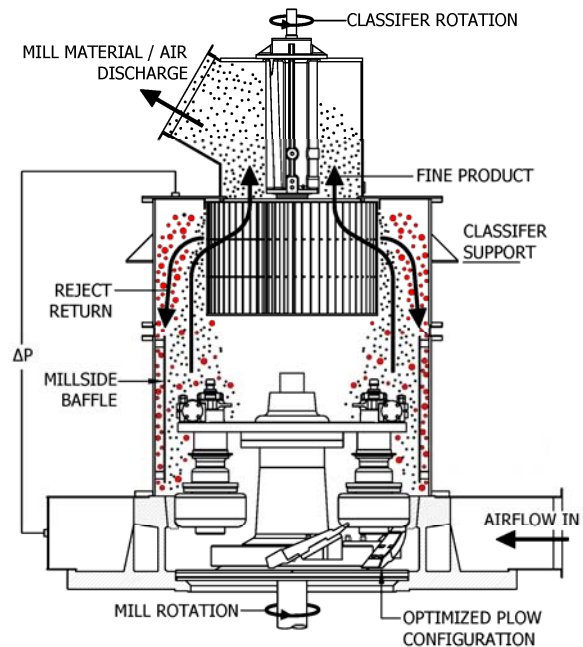
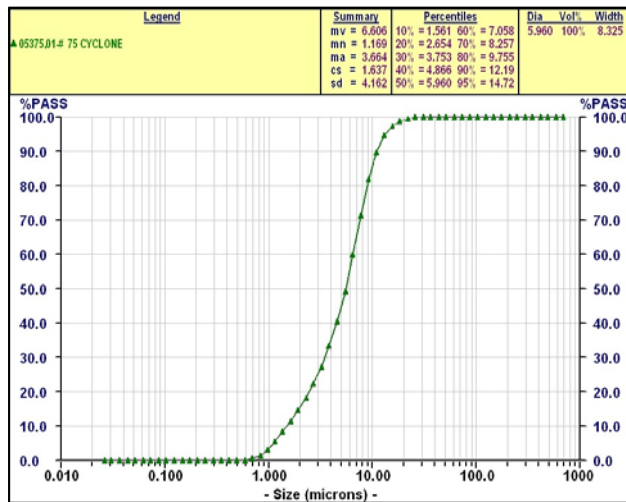
The Raymond® Fine Grinding Roller Mill is an air-swept vertical pendulum mill with integral classification. A vertical shaft rotates an assembly of grinding journals/rolls inside the grinding zone. As the unit turns, centrifugal force drives the rolls against the grinding ring. Feed material enters the mill from the top of the grinding zone and moves down to the mill bottom by gravity. It is then lifted up by the plows from the mill bottom to the nip area of the grinding rolls and ring where the grinding occurs. The plows rotate around the center shaft together beneath the journal/roll assemblies. The ground material is discharged into the process airstream.

The airstream flows through ports beneath the bull-ring, carrying the pulverized material upward to the dynamic classifier where the coarse particles are separated and returned to the grinding zone, while acceptable product exits the mill to be collected in a cyclone or a baghouse.

With the conventional roller mill design, when fine grinding, the classifier tails (rejected particles) are also quite fine and can be easily entrained into the airstream. However, the fine grinding roller mill is designed with a separate path for the coarse reject material to more effectively travel back to the grinding zone without being swept up to the classifier before further size reduction has occurred.

Nominal specifications for fine grinding roller mill

Mill Size		Airflow		Mill Power		Fan Power	
30 in	760 mm	3000 ft ³ /min	5000 m ³ /hr	25 hp	20 kW	20 hp	15 kW
50 in	1270 mm	7700 ft ³ /min	13000 m ³ /hr	70 hp	50 kW	50 hp	35 kW
54 in	1370 mm	9700 ft ³ /min	16500 m ³ /hr	90 hp	65 kW	60 hp	45 kW
60 in	1520 mm	12000 ft ³ /min	20400 m ³ /hr	110 hp	80 kW	80 hp	60 kW
66 in	1670 mm	17300 ft ³ /min	29400 m ³ /hr	160 hp	120 kW	110 hp	85 kW



Coperion

7901 NW 107th Terrace
Kansas City, MO 64153
816-891-9300
info@coperion.com
www.coperion.com/fpm