



Mill Series – MJS



Equipment Specifications

The fluidized bed jet mill consists of a grinding unit which uses high pressure gas, and a variable rotary classifier for selection of particle size in the milled product, all in a single compact and versatile machine.

The high impact speed and accelerated air flow from the nozzles produces a high collision speed between the particles which results in very efficient grinding.

Compared with other types of air mills, this machine can obtain 30-40% in energy savings.

The main operational feature is the reciprocal impact between the particles, rendering the particles self-grinding. As the particles do not pass through the nozzles and very rarely impact the walls, the mill is suitable for the pulverization of extremely hard, abrasive substances.

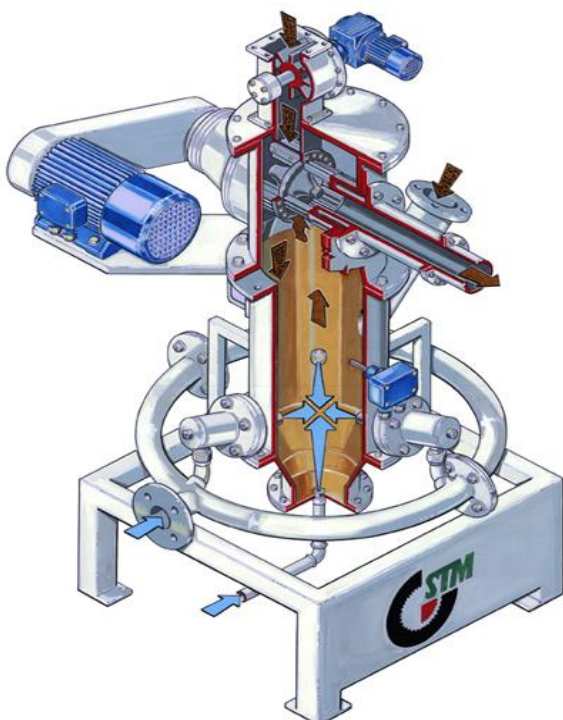
The unit is equipped with an internal turbine selector for ultra fine particles, typical of a high precision selector with a narrow granulometric distribution curve.

Automatic operation allows the grinding and refining process to take place without continuous supervision by the staff.



Principles of Operation

The material to be processed is introduced via a volumetric feed screw, and sent to the grinding chamber via rotating star valve. Air or nitrogen gas at high pressure enters the chamber through nozzles situated opposite each other in the lower part of the machine.



The accelerated product particles collide at the point of intersection of the air jets, and granulometric reduction occurs exclusively due to this collision of particles in the fluidized bed.

The ground product is transported to the ultra fine classifier turbine by an upwards air flow.

The end product passes through the product outlet and into a reservoir, while material which has not yet reached the desired fineness is returned to the lower section of the machine.



Particle Size and Products

For obtaining fine and ultra fine powders (2 - 80 microns), up to a hardness of 10 Mohs.

Wear and tear:

Jet mills suffer extremely low levels of wear and tear during operation. Therefore the resulting powdered products are totally free of iron contamination.

Product quality:

Jet mills provide for unlimited operation in an environment completely free of coarse particles.

Technical Data – Mill Series MJS

STM Mill Series		Total Installed Power	Total Power Consumption	Hourly Production	Supply	Particle Size*	Compressor Pressure	Compressor Power	Volume Airflow	Noise Levels
type	size	kW	kW	Range kg/hr			bar	kW	m ³ /hr	dB(A)
MJS	120	13.8	12.4	0.5 - 20	< 500 µm	d. 98 < 30µm d.50 < 5µm	12.8	11.0	109.4	< 70
					< 100 µm	d. 98 < 3µm d.50 < 1µm				
MJS	200	41.5	37.4	1 - 100	< 500 µm	d. 98 < 30µm d.50 < 5µm	12.8	37.0	437.8	< 70
					< 100 µm	d. 98 < 3µm d.50 < 1µm				
MJS	300	81.2	73.1	20 - 250	< 500 µm	d. 98 < 30µm d.50 < 5µm	12.8	75.0	684.0	< 70
					< 100 µm	d. 98 < 5µm d.50 < 2µm				
MJS	400	173.0	155.7	50 - 500	< 500 µm	d. 98 < 30µm d.50 < 5µm	12.8	160.0	1751.0	< 70
					< 100 µm	d. 98 < 7µm d.50 < 2µm				

* Data Reference: CALCIUM CARBONATE

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Operational Advantages

- “ Fully automatic operation
- “ Reduced wear
- “ Eliminated product contamination
- “ Ease of adjustability
- “ Easy breakdown for cleaning and disinfecting
- “ High-efficiency refining
- “ Very low noise levels
- “ Compact design, with very low floor loads
- “ Ideal for processing ultra fine, hard, abrasive products

JET MILL MJS (Granulometry database available):

Clay	Corundum	Magnesium Oxide	Copper Sulfide
Bakelite	Chromite	Tin Oxide	Tin Sulfide
Bentonite	Dipentaerythritol	Zinc Oxide	Talcum
Sodium Bicarbonate	Ebonite	Zirconium Oxide	Rare Earths
Kaolin	Feldspar	Triple Superphosphate	Potassium Titanate
Barium Carbonate	Ferrite	Perlite	Toner
Calcium Carbonate	Natural Graphite	Inorganic peroxides	Tricalcium Phosphate
Magnesium Carbonate	Synthetic Grafite	PTFE	Trisodium Phosphate
Sodium Carbonate	Frits and Grits	Quartz	Silicate Glass
Activated Carbon	Aluminum Hydroxide	Rhyolite	Thermal Glass
Waxes for Paints	Mica Ferric	Zirconium Silicate	Zirconium (dust/granule)
CMC	Mica Muscovite	Ferrous Sulfate	
Food Coloring	Aluminum Oxide	Antimony Sulfide	
Ceramics Coloring	Calcium Oxide	Molybdenum Sulfide	

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