



Mill Series – SDF



## Equipment Specifications

This classifier is a compressed air, dry selection machine, with dual air intake and a horizontal centrifugal classifier rotor.

Extremely resistant to wear and with an extended operational lifespan, the machine is suitable for the classification of fast-flowing materials.

Fine or coarse powders can be produced with a high level of purity, even from substances which are not easily dispersible in air.

The machine covers a wide range of fineness, working in a range from  $d_{97}=10\mu$ .

With a maximum operational capacity of 8 ton/hr, the machine is often used in the cement industry.

Different particles - spherical, flakes, fibers - can be separated, as well as materials of different densities.

High level of fineness selection:  $d_{75}/d_{25}=1,1/1,5$ .

Good selection efficiency: Newton  $n=60-90\%$ .

Compact construction.

The desired fineness of the product is easily adjustable. Assembly, maintenance and cleaning operations are extremely simple.

Occupies very little space; extremely low vibration.

Large production capacity.

May be used in conjunction with other grinding machinery to produce fine powders.

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

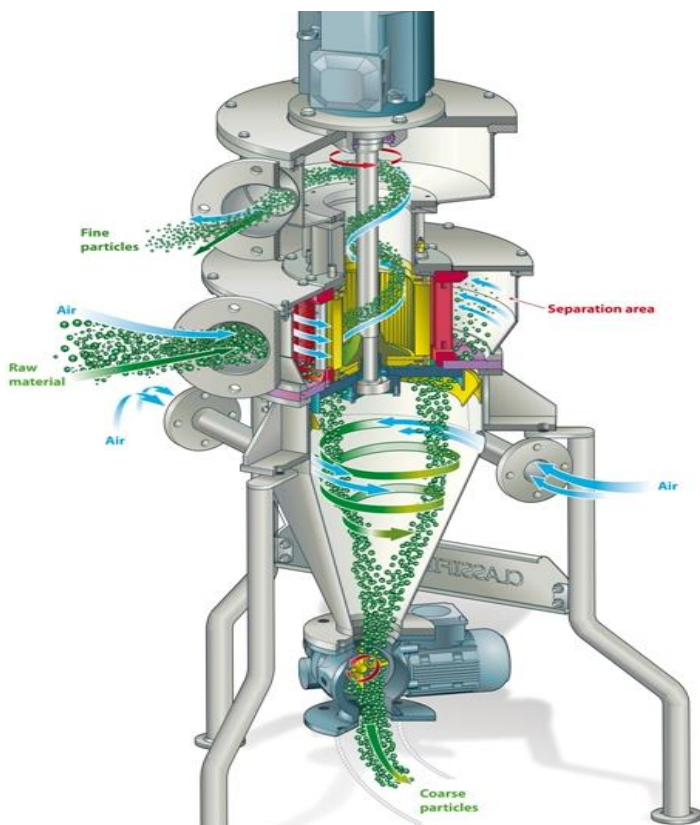
Automatic operation allows the grinding and refining process to take place without continuous supervision by the staff.



## Principles of Operation

The material is introduced through a star valve in the upper section of the separator via a feeder.

After passing through the valve, the material goes into the selection chamber where it is thoroughly classified by the horizontal selection drum.

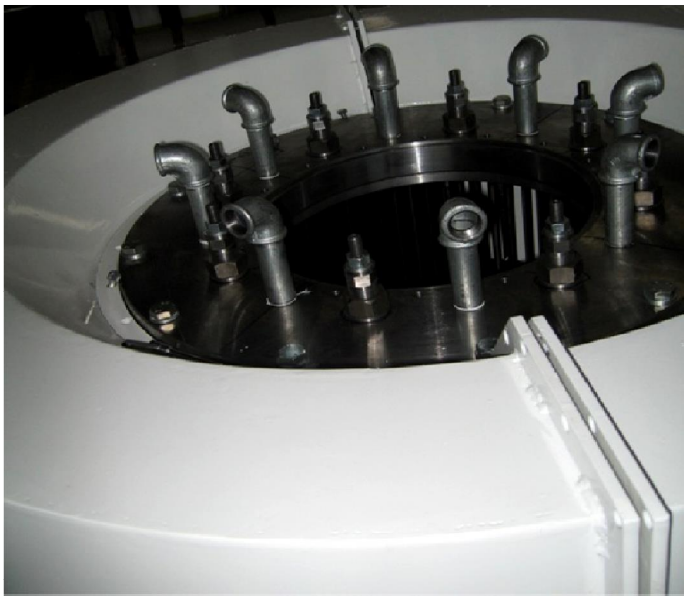


The coarse particles are propelled against the walls of the separator and slide downwards.

The selector fan's double air jet sends the mixture of fine and coarse powder back to the rotor for classification

The coarse particles which have reached the bottom of the separator are discharged via a star valve, while the fine particles are sucked into the end product outlet, passing through the selection drum.

The tail gas is discharged into the atmosphere by a fan.



## Particle Size and Product

For separation of minerals and chemical products in general; normally used in grinding plants for classification of downstream product of open-cycle mills, i.e. mills with no separation of fine and coarse particles at the outlet.

The classifier mill allows different particle sizes to be separated by granular selection, removing the fine portion while returning the coarse portion to the grinder.

## Technical Data - Mill Series SDF

STM Mill Series		Total Installed Power	Total Power Consumption	Hourly Production	Supply	Particle Size*	Volume Airflow	Noise Level
type	size	kW	kW	Range kg/hr			m <sup>3</sup> /hr	dB(A)
SDF	200	7.5	6.8	300 - 1200	< 5 mm	d.97: 2 - 100 µm	800	< 70
SDF	350	15.0	13.5	900 - 3500	< 5 mm	d.97: 4 - 200 µm	2600	< 70
SDF	500	22.0	19.8	1800 - 6000	< 5 mm	d.97: 5 - 300 µm	5500	< 70
SDF	750	30.0	27.0	4000 - 15000	< 5 mm	d.97: 10 - 500 µm	14000	< 70
SDF	1000	37.0	33.3	7000 - 27000	< 5 mm	d.97: 10 - 500 µm	20000	< 70

\* Data reference: CALCIUM CARBONATE

## Mill Series SD - 350



### Operational Advantages

- ~ High selection capability, yielding up to 70% fine particles
- ~ Compact design with reduced weight and reduced space requirements
- ~ Ease of installation
- ~ Easy cleaning and maintenance
- ~ Simple controls
- ~ Low noise levels, no vibration
- ~ Minimal operational wear and reduced product contamination with metallic particles
- ~ Energy efficient

SELECTOR MILL SDF (Granulometry database available):

Clay	Sodium Carbonate	Aluminum Hydroxide	Ferrous Sulfate
Bakelite	Activated Carbon	Wood (chipped)	Antimony Sulfide
Bauxite	Mineral Carbon	Lithopone	Molybdenum Sulfide
Bentonite	Choline Chloride	Mica Muscovite	Talcum
Sodium Bicarbonate	CMC	Soft mineral oxides	Rare Earths
Hydrated Lime	Chromite	Lime Oxide	Potassium Titanate
Kaolin	Feldspar	Magnesium Oxide	Wollastonite
Barium Carbonate	Fluorine	Zinc Oxide	Sulfur
Calcium Carbonate	Natural Graphite	Perlite	
Magnesium Carbonate	Synthetic Grafite	Pyrite	

STM S.R.L.

Via Mazzini, 66 – 21020 TERNATE – VA – ITALY – Tel +39 0332 943411 Fax +39 0332 961585

E-mail: [info@stmimpianti.com](mailto:info@stmimpianti.com) Http: [www.stmimpianti.com](http://www.stmimpianti.com)

