

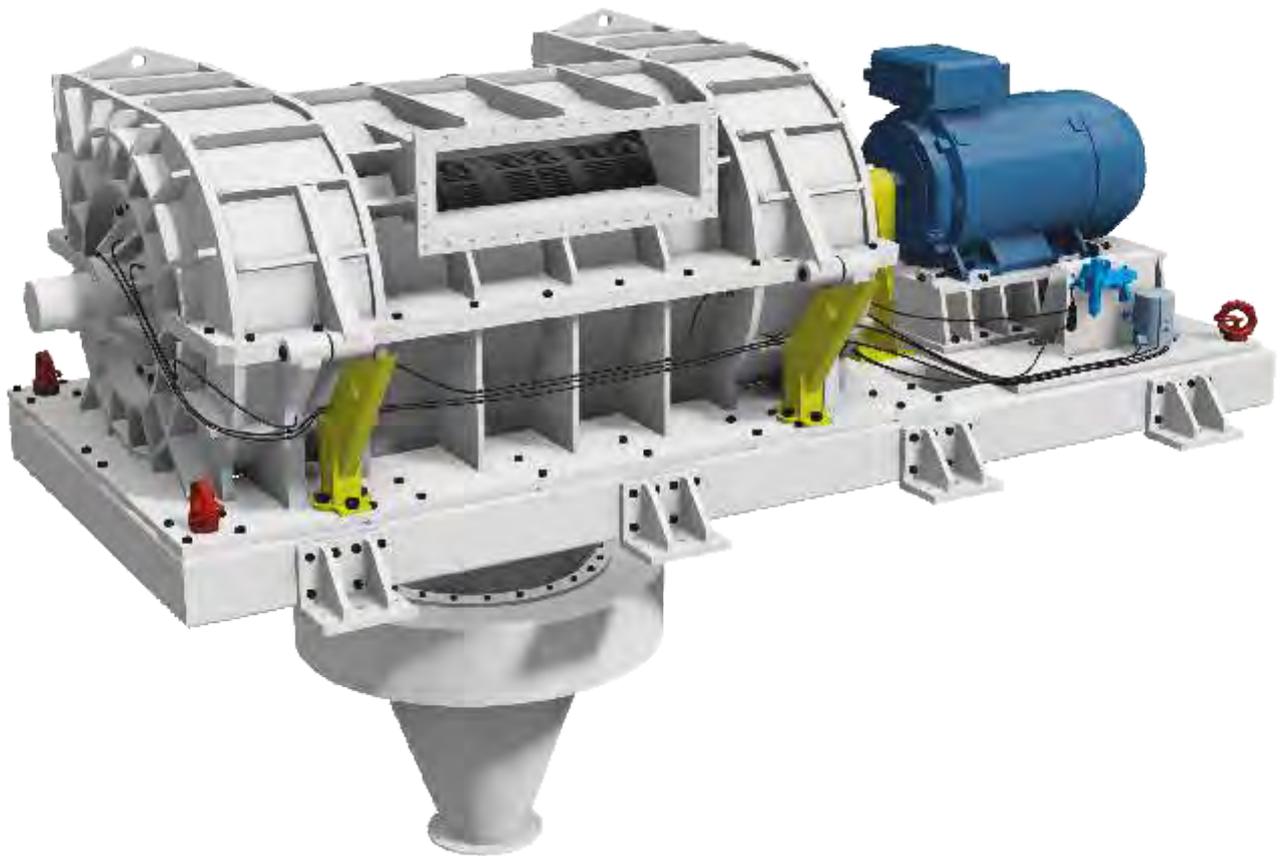
ecutec[®]

A Company of NETZSCH Group

MISTRAL

Finest in Processing

AIR CLASSIFIER FOR ULTRA-FINE PRODUCTS



ECUTEK 's MISTRAL turbo classifiers have been designed to produce ultra-fine products down to $d_{98} < 2 \mu\text{m}$ on an industrial scale at a highly competitive energy consumption

With its strong commitment to research and development ECUTEK introduced a whole new generation of horizontal turbo classifiers with outstanding performance. These classifiers have been creating business opportunities and opening new markets for already well established customers.

In developing the **MISTRAL** the main objective was to achieve products of high fineness, combined with a sharp cut point at a high fines yield and a low specific energy consumption. These criterias have been met by optimising the dynamics of the air flow and mechanical resistance of the rotating parts. In addition, Ecutek's philosophy of building hybrid-rotors with a high length/diameter ratio is a proven advantage in achieving these objectives.

ECUTEK can offer an air classifier to meet your most demanding product fineness requirements. The use of sophisticated composite materials for the rotor construction has enabled us to reach tip speeds up to 108 m/s.

MISTRAL air classifiers are designed for the ultrafine classification of industrial minerals such as calcite, dolomite, chalk, talc, wollastonite, graphite, etc. Because of their high precision of separation, the **MISTRAL** range is also well suited to the production of toner and other similar products.



MISTRAL 510/2 for the production of ultra-fine calcium carbonate

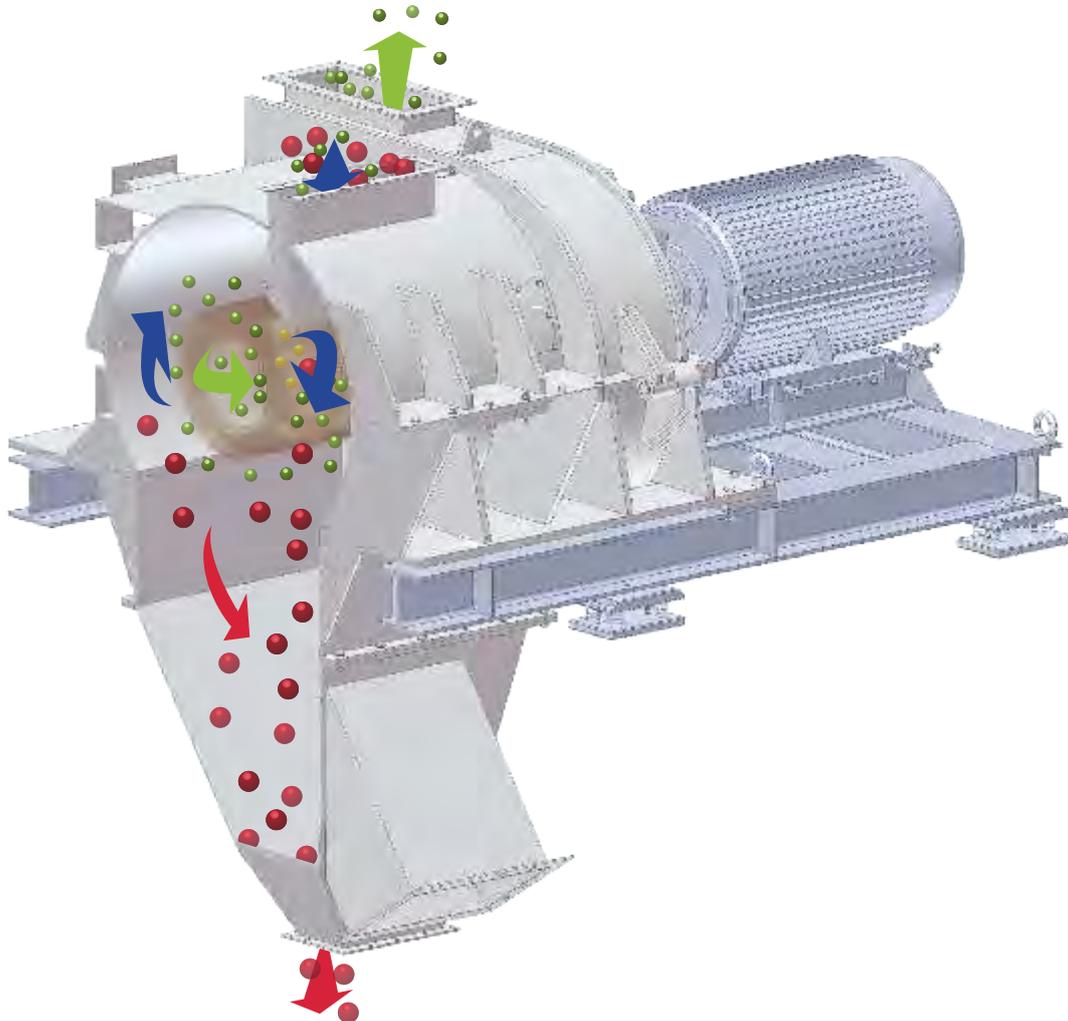


MISTRAL 510/2 in the Ecutec workshop

BENEFITS

1. Cut point down to $d_{98} < 2 \mu\text{m}$
2. Very sharp cut points with high yields
3. Production of ultra-fine particles on an industrial scale, which in the past was only achieved by wet processes
4. Return of investment in very short time.
5. Highest throughputs on the market, for example at $d_{98} < 3 \mu\text{m}$ on calcium carbonate – 1.000 kg/h (MISTRAL 510/2)
6. Rotor with hybrid-design makes the classification more reliable
7. Low maintenance costs and easy maintenance
8. Double discharge reduces pressure loss and saves energy costs by over 40 %
9. Dynamic air sealing adapted to rotor speed minimizes risk of oversize contamination ($< 5 \text{ ppm}$ at $25 \mu\text{m}$)

OPERATING PRINCIPLE



■ Air Inlet

■ Coarse

■ Fines

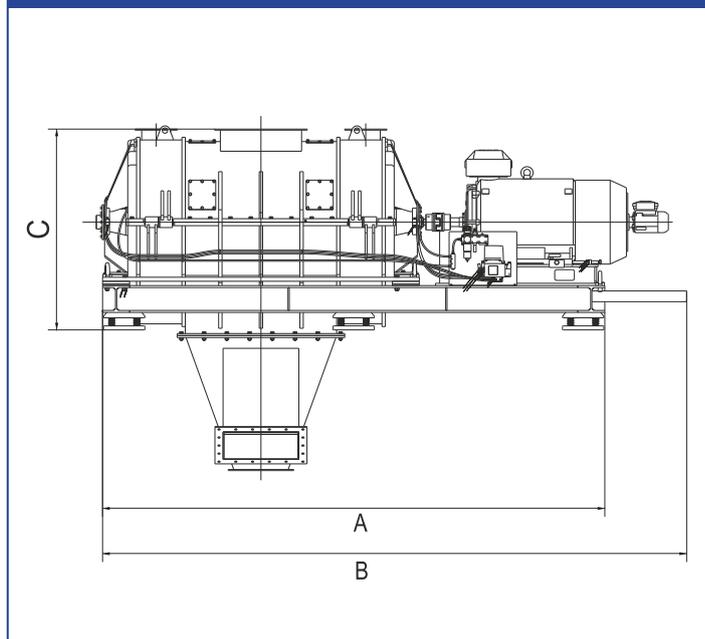
Technical Data		180/2	360/2	510/2	720/2
Air throughput approx.	[m ³ /h]	4.000	12.000	24.000	48.000
Feedrate up to	[t/h]	4	7	12	24
Rotor speed max.	[rpm]	18.000	8.000	4.500	4.000
Installed drive	[kW]	75	160	200	315
Fineness d ₉₈	[μm]	1-10	2 - 50	2-50	4 - 50
Sealing air approx.	[m ³ /h]	500	1.200	2.400	3.000
A	[mm]	1.750	2.450	3.700	4.655
B	[mm]	1.840	2.580	4.185	5.005
C	[mm]	750	1.050	1.435	1.690

All technical data are subject to change

PARTICLE SIZE DISTRIBUTION



DIMENSIONAL DRAWING



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