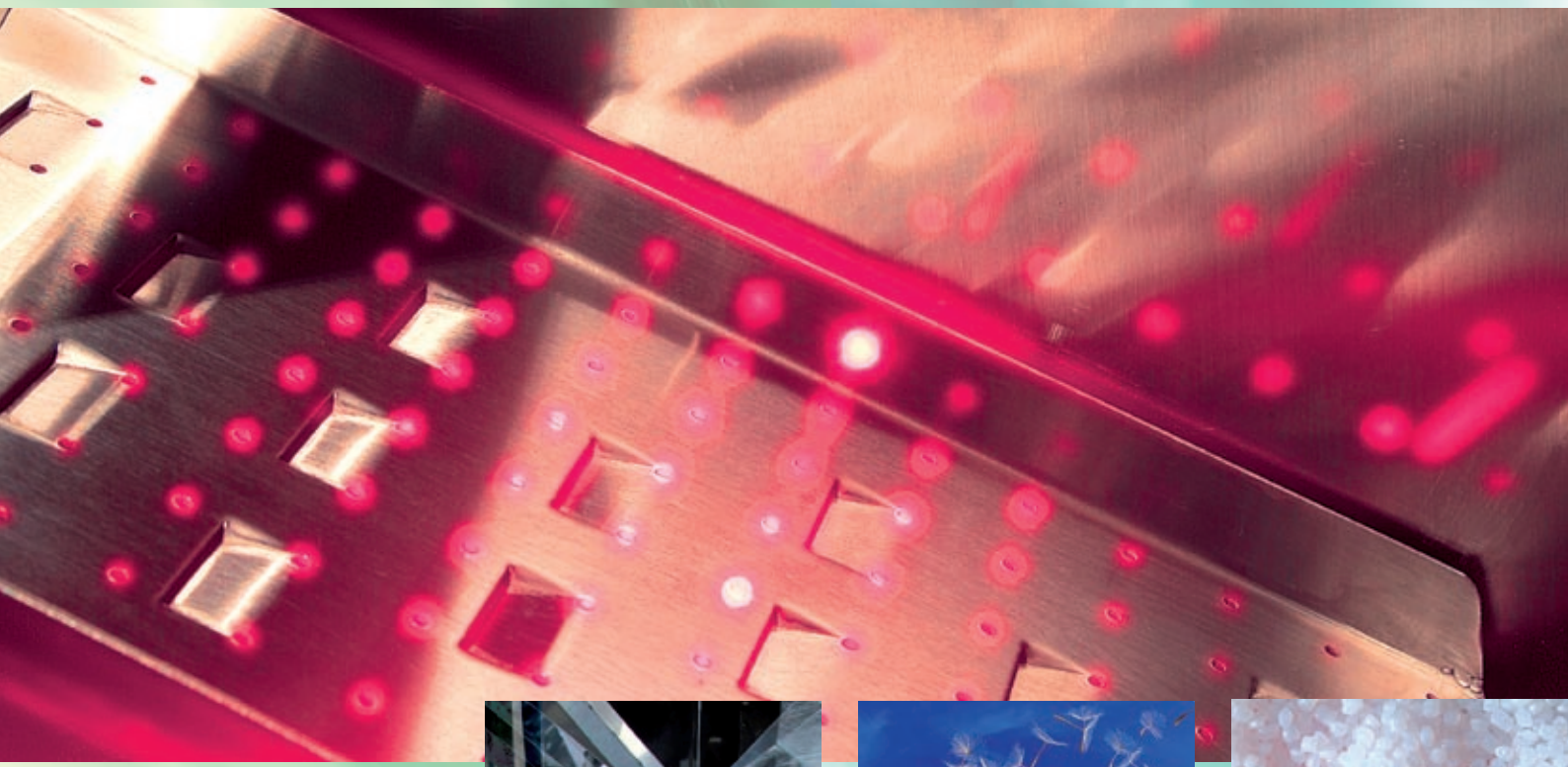
pelletron

Discover **Bulkmatology**™
The Nature of Bulk Material Handling

DeDusting Solutions
for the plastics industry



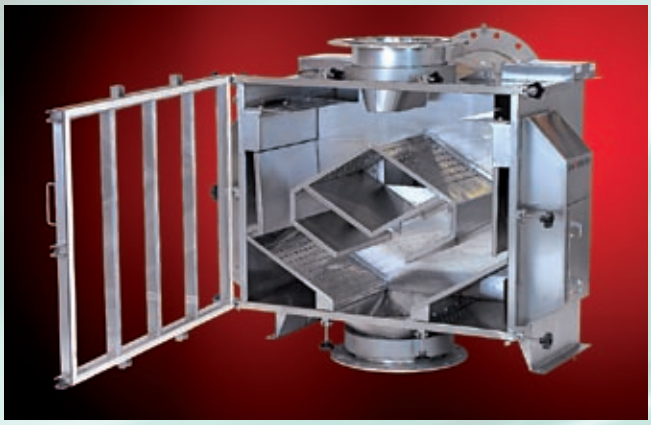
Mid and Max Series DeDuster™

Mid Series

P10	1000 lbs/h	500 kg/hr
P30	3000 lbs/h	1500 kg/hr
P50	5000 lbs/h	2500 kg/hr
P80	8000 lbs/h	4000 kg/hr
P120	12000 lbs/h	6000 kg/hr
P200	20000 lbs/h	10000 kg/hr

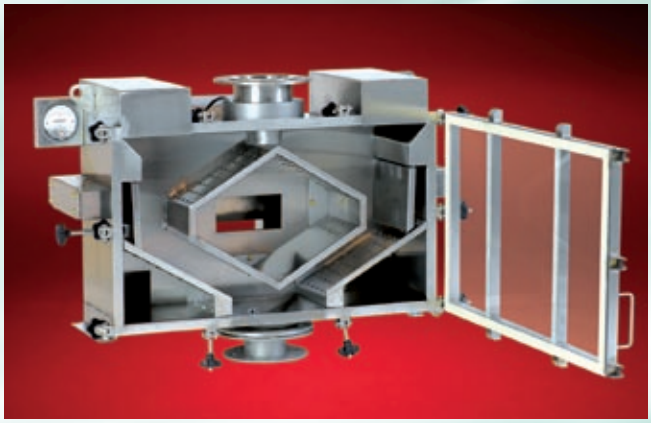
Max Series

P400	40000 lbs/h	20000 kg/hr
P600	60000 lbs/h	30000 kg/hr
P800	80000 lbs/h	40000 kg/hr
P1200	120000 lbs/h	60000 kg/hr
P2000	200000 lbs/h	100000 kg/hr



XP Series

XP15	3000 lbs/h	1500 kg/hr
XP45	90000 lbs/h	4500 kg/hr
XP90	18000 lbs/h	9000 kg/hr
XP180	36000 lbs/h	18000 kg/hr
XP360	72000 lbs/h	36000 kg/hr
XP720	144000 lbs/h	72000 kg/hr
XP900	180000 lbs/h	90000 kg/hr



Application solutions

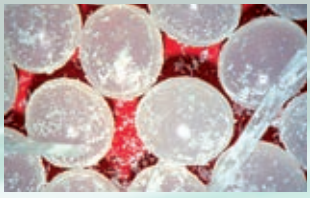
- For bagging stations
- For truck & railcar loading
- As stand alone system
- As mobile station

Benefits

- Removes dust and streamers
- Reduces customer complaints
- Improves product quality
- Reduces housekeeping costs

Dust and streamers are generated at the pneumatic conveying process. Dilute phase systems with high velocities create a high amount of dust and streamers. Slow motion conveying systems prevent the creation of streamers, but generate very fine dust due to the high friction. These fines need to be removed before processing, extrusion or before packaging.

Cleaned plastic pellets

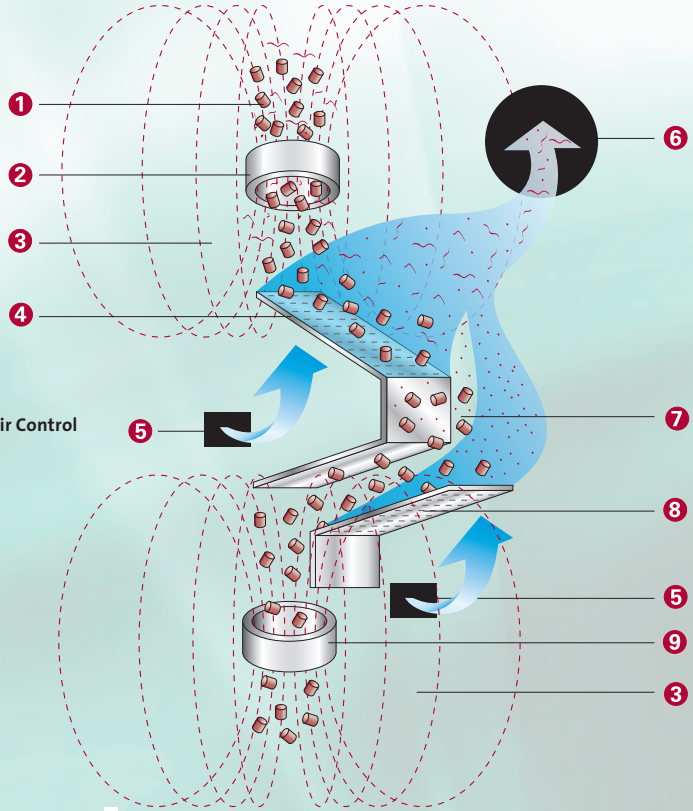


Dusty plastic pellets

Operating Principle

1 Product Inlet
2 Primary Flux Field Generator
3 Magnetic Field
4 Primary Wash Deck
5 Wash Air Inlet
6 Dusty Air Outlet
7 Venturi Chamber with By-Pass Air Control
8 Secondary Wash Air Deck
9 Secondary Flux Field Generator

XP-DeDuster™ uses one Primary Flux Field Generator only

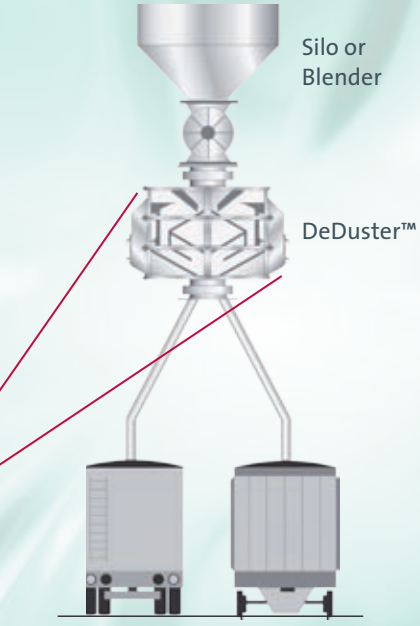


DeDusting Solutions

Pelletron DeDusters™ use a magnetic flux field to disrupt the electrostatic charge between contaminants and pellets, and a patented air wash deck to separate and remove the contaminants. Pelletron provides DeDusters™ for the Plastic Processing and Plastic Manufacturing Industry, as well as for Food, Mineral, Pharmaceutical, Chemical and other applications. DeDusters are available in sizes 100lbs/h (50kg/h) up to 200000lbs/h (100t/h).

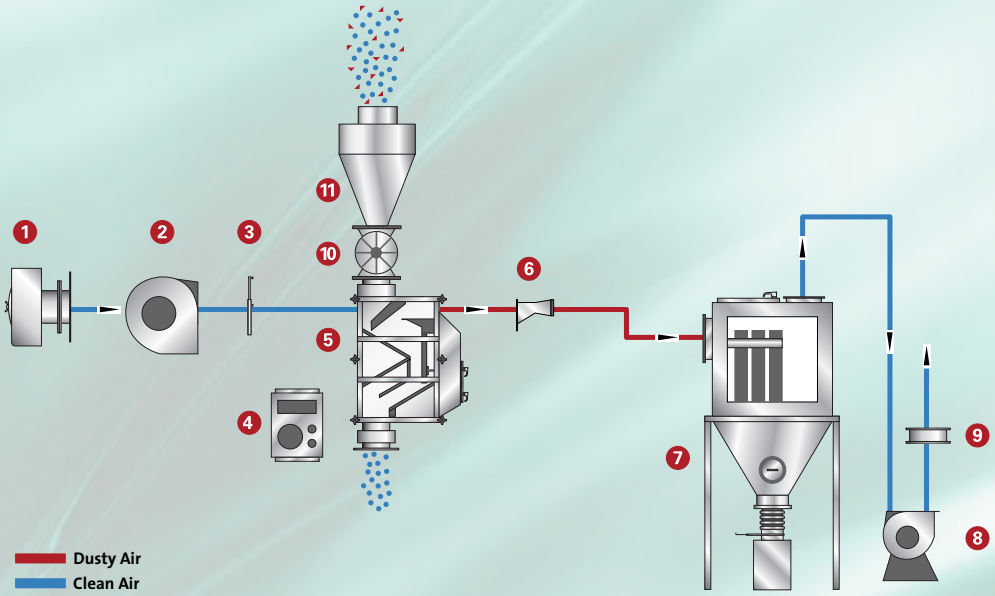
P1200 DeDuster™, 60 t/h capacity in a PET loading station.

The best location for DeDusting is always at the end of the pellet handling process, before packaging or loading.



Installation Examples

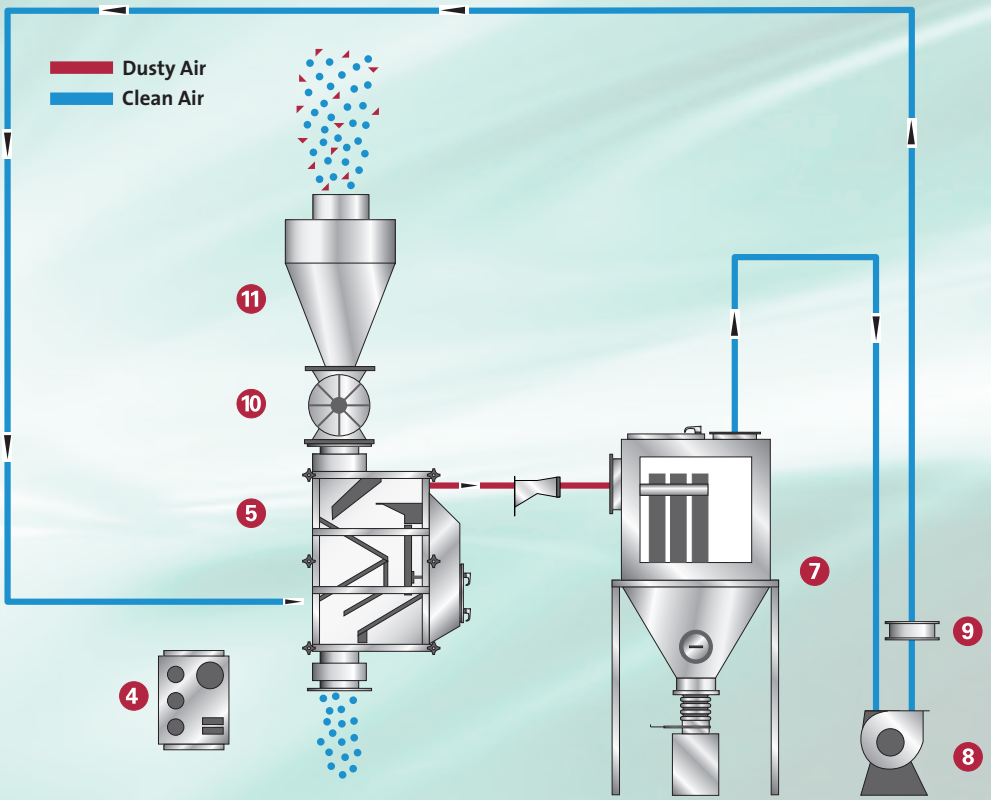
Open loop system with dust collector or patented Vertical Cyclonic Dust Collector



For application with frequent product and /or color changes. Clean air side and dusty air side completely separated. Cross contamination excluded. We recommend using VCDC's for low to medium dust content and dust collectors for high dust content and streamers.

1 Air Inlet Filter
2 Wash Air Fan
3 Inlet Damper (Blast Gate)
4 Electrical Control Box
5 DeDuster
6 Fresh Air Inlet
7 Dust Collector (Bag House)
8 Exhaust Fan
9 Outlet Damper
10 Rotary Valve
11 Inlet Hopper | Silo

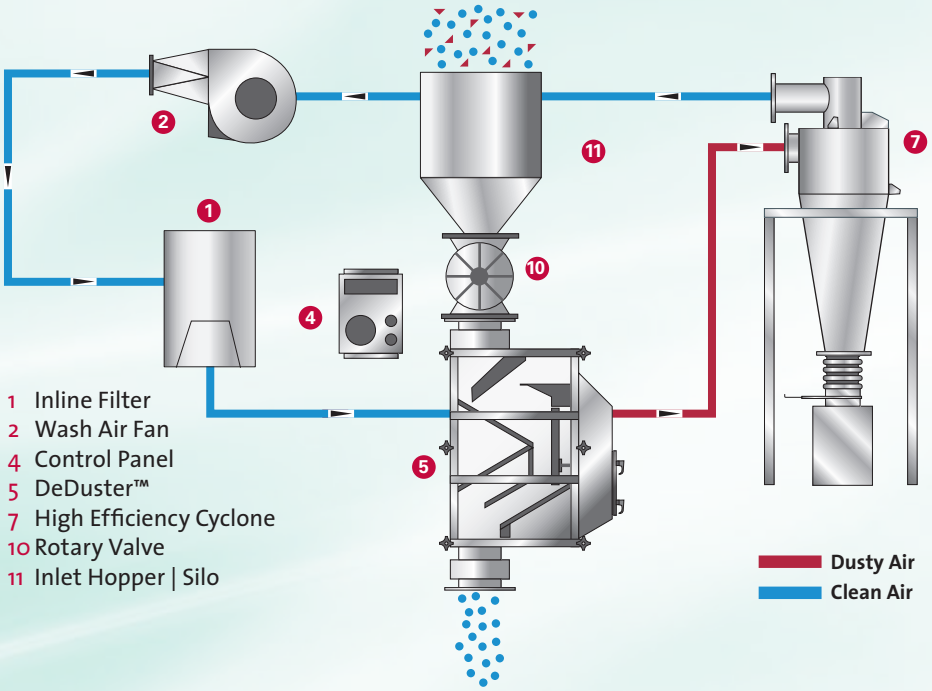
Closed loop system with dust collector or patented Vertical Cyclonic Dust Collector



For application with dried air or inert gas (N2). For long production runs with the same product. Low energy consumption because of one fan only. We recommend using VCDC's for low to medium dust content and dust collectors for high dust content and streamers.

4 Electrical Control Box
5 DeDuster
7 Dust Collector (Bag House)
8 Exhaust Fan
9 Outlet Damper
10 Rotary Valve
11 Inlet Hopper | Silo

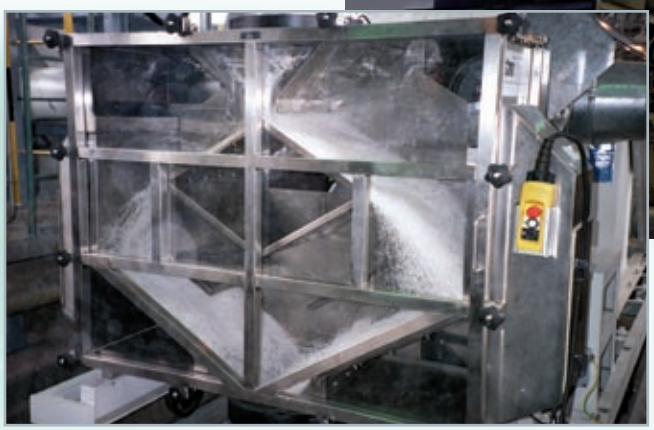
Closed loop system with patented CCD solution (Compact Cyclonic DeDuster™)



1 Inline Filter
2 Wash Air Fan
4 Control Panel
5 DeDuster™
7 High Efficiency Cyclone
10 Rotary Valve
11 Inlet Hopper | Silo

For application with very high dust loads, regrind and long streamers. Very compact design. Also recommended for mobile stations.

CCD system on Gaylord stand



P800 DeDuster cleaning 40 T/H with LDPE while loading railcars

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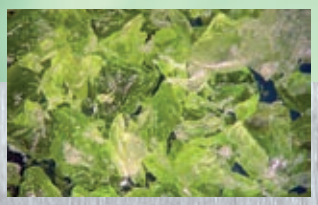
Cleaned regrind



Dusty regrind

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