DeDuster mid series





Bulkmatology™ fact: Product clarity, strength, and precision are direct results of DeDusting your materials

Discover Bulkmatology™

The Art and Science of Bulk Material Handling

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The Situation

- Fines can cause serious problems during the Solid State Polymerization process (SSP)
- Fines cause fibers to weaken and break during the spinning process
- Fines in virgin products and compounds will lead to customer complaints
- Fines limit the use of regrind in compounding applications

The Solution

Remove fines with Pelletron's mid series DeDusters. While the DeDuster fits directly to an Extruder, it is also designed for the packaging and loading areas as well as in a regrinding process line. The DeDuster removes dust particles as small as 1 micron and as clean as 5 ppm.

For cleaning of all types of plastics:

PolyesterPolycarbonateAcrylicStyreneHDPELDPEPolypropylenePTTNylonRegrindGlass & Mineral Filled

DeDuster Features

- Patented air wash decks
- Patented venturi chamber
- Patented magnetic flux field coil
- Open or closed loop systems
- Patented VCDC dust collector with cartridge filter system available
- Combination with bag house dust collector system available
- DeDuster all stainless steel construction
- Easy access through sight window
- Metal detector available

DeDuster Benefits

- Reduces scrap and bad parts
- Reduces customer complaints and rejects
- Improves product quality
- Reduces maintenance of the Extruder and the entire system
- Improves regrind quality
- Lowers manufacturing costs







(all weights and measures are approximate. Capacity is based on 35 lbs/cft or 560 kg/m³ bulk density)

Model	(A) Height	(B) Depth	(C) Width	Weight	Materials	Electrical Power	Capacity/hr
P10	43 in 1100 mm	32 in 810 mm	37 in 940 mm	255 lbs 116 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	1000 lbs 455 kg
P30	43 in 1100 mm	34 in 860 mm	37 in 940 mm	265 lbs 120 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	3000 lbs 1360 kg
P50	43 in 1100 mm	36 in 910 mm	37 in 940 mm	285 lbs 130 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	5000 lbs 2270 kg
P80	48 in 1220 mm	48 in 1220 mm	54 in 1370 mm	450 lbs 205 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	8000 lbs 3630 kg
P120	48 in 1220 mm	51 in 1300 mm	61 in 1550 mm	500 lbs 230 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	12000 lbs 5445 kg
P200	48 in 1220 mm	55 in 1400 mm	61 in 1550 mm	625 lbs 285 kg	All Stainless	120-240VAC / 1PH / 50-60 Hz 240-460VAC / 3PH / 50-60 Hz	20000 lbs 9070 kg



Principles of Operation

- 1. When product enters the DeDuster a **Primary Magnetic Flux Field Generator** (located at the inlet) disrupts the electrostatic bond between dust and pellets.
- 2. The pellets and contaminants fall to the surface of the **Primary Air Wash Deck**, where they are washed by pressurized air which lifts the lighter contaminants above the main product stream.
- 3. Pellets pass through the Venturi Chamber with regulated updraft air velocity at a sufficient level to remove dust and large stringy contaminants.
- Fines, fluff and streamers are now drawn by vacuum to a Dust filter separator which collects the contaminants in the dust box.
- 5. The wash air is cleaned by a filter and either recirculated or discharged.
- As the pellets drop to the Secondary Air Wash Deck, they receive a final wash to insure complete cleaning.
- 7. The cleaned pellets are then discharged through the outlet at the base of the DeDuster.



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