

new technology

New DeDuster[®]
RC-Series with CentraCone[®]

Pelletron introduces the new RC-Series DeDuster[®] with the CentraCone[®] technology (Patent pending)

newsletter | 10.2010

Pelletron sold hundreds of small P1 and P5 series DeDusters[®] to plastic processing companies, mainly injection molders, worldwide. Continuous customer demands for a flexible DeDuster[®] that can handle only a few kg/h as well as larger quantities were the driving factor for the development of the new RC-Series DeDuster[®] with the CentraCone[®] technology. This new DeDuster[®] was designed to supersede the successful P1 and P5 series. The new design has the same low height as the P1 ~300mm (12"), but can also clean the P5 capacities of ~300kg/h (600lbs/hr).

HOW IT WORKS

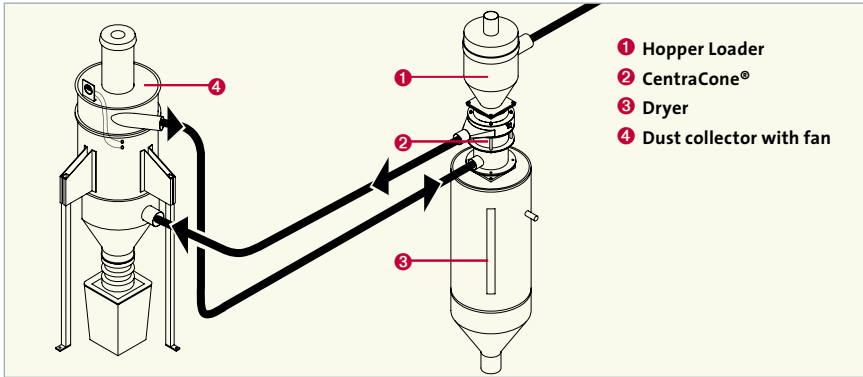
The well-proven electromagnetic coil feature remains unchanged. The electromagnetic field breaks the static bond between the electrostatically-charged plastic pellet and the small dust particles.

Dust particles as small as 1 micron will be removed efficiently. However, some design changes were made in order to improve the efficiency of dust and angel hair removal. The product flows into an adjustable inlet funnel at the DeDuster[®]. The adjustable inlet funnel distributes the product evenly to the central conical wash deck, also called CentraCone[®], and provides a smooth flow. The wash air, generated by a high-efficiency fan, pushes the air through holes and slots in the wash deck for efficient removal of dust and streamers. From the round wash deck, the material flows through the circular Venturi zone surrounding the wash deck. This area is designed to remove the long angel hair and heavier dust particles. The airflow velocity passing the Venturi zone can be regulated by adjusting the air volume. Dust and angel hair will be carried to the circular dust air channel. The combination of the design modifications and air flow improvements resulted in higher cleaning efficiency and lower carry over.

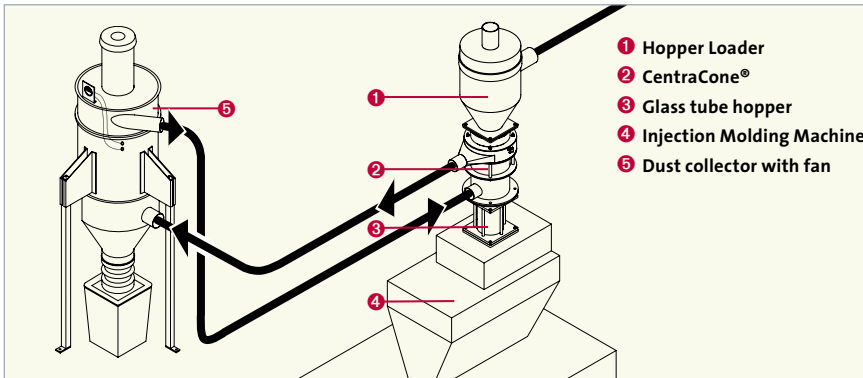
THE CentraCone[®] TECHNOLOGY:

- Lower height design at higher capacities
- Removes dust and angel hair
- Low energy and air consumption
- Variable flow rates from ~5kg/h (10lbs/hr) up to ~300kg/h (600lbs/hr)

New DeDuster[®] RC-Series with CentraCone[®]



RC-CentraCone[®] on dryer



RC-CentraCone[®] on IMM



RC-CentraCone[®] DeDuster[®]

INSTALLATION EXAMPLES

The RC-CentraCone[®] DeDuster[®] is designed to fit on an injection molding machine or a dryer, shown on the 3D drawings above. The standard DeDuster[®] system includes a dust collector/fan combination. The system is also available as stand-alone compact unit on a mobile frame, including a cyclone, fan, inline filter, and electrical equipment. There are many other solutions available for various applications. The system is ideal for all types of granular products that need to be cleaned before processing, packaging or shipping.

SPECIAL FEATURES

In order to reduce electrical energy consumption, Pelletron offers a **CentraCone[®] DeDuster[®]**, combined with a high-speed, fractional-horsepower fan. The fan is installed within a specially designed, insulated housing to keep the working environment at a low noise level. The velocity of the fan and the air volume are adjustable with a potentiometer dial. This provides very easy fine-tuning for the operator. Connection to a remote controlled system is also possible.

DEDUSTER[®] BENEFITS

With its patented **DeDuster[®]**, Pelletron has helped thousands of companies around the world to improve their production processes by separating contaminants from virgin and recycled materials before processing. **DeDusters[®]** have helped many customers earn a return on their investment in as little as a few weeks, thanks to reduced scrap rates, increased production, and improved quality of the end product.

BENEFITS

- Reduces scrap and bad parts
- Reduces customer complaints and rejects
- Reduces maintenance of extruder
- Improves product quality
- Improves production with fast ROI
- Improves regrind quality
- Increases life span of feed screw
- Increases logistics flexibility for loading and unloading

OTHER DeDUSTER[®] SIZES

Model	Capacity (kg/h)	Capacity (lbs/hr)
XP-5	400	800
XP-15	1,500	3,000
XP-45	4,500	10,000
XP-90	9,000	20,000
XP-180	18,000	40,000
XP-360	36,000	80,000
XP-540	54,000	120,000
XP-720	72,000	160,000
XP-900	90,000	200,000

ABOUT PELLETRON CORPORATION

Founded in 1986, Pelletron Corporation provides dedusting solutions to processors and manufacturers in an array of applications including plastics, recycling, automotive, medical equipment, mining and food.

Pelletron maintains a Bulkmatology[®] test lab and offers free-of-charge DeDusting tests.