

MacDonald Steel Limited

Environmental Systems Division

Exhaust Systems - Dust Collector/Filtration Units – Balers – Fans – Shredders – Hogs

TYPE "RA" REVERSE AIR ROTATING PLENUM



Features

- Conserves energy: reclaims heated/conditioned air.
- Improves plant housekeeping and employee morale.
- Reduces pollution.
- Automatic cleaning of the filter media by high pressure reverse air through a rotating plenum allowing nonstop operation saving valuable labour and profitable machine production hours. Reverse air blower is integral part of the Collector-Filter; no auxiliary air source (high pressure plant air) is required.
- Primary cyclonic separator integrated with secondary fabric filter reduces dust loading of the filter media.
- Available in a wide range of CFM capacities.
- May be ground or roof mounted to suit your needs.
- Available in Pull-Thru (vacuum) type arrangement where a single system is served by a single high efficiency exhaustor located on the dean air side of the unit reducing H.P. requirements or in Blo-Thru (pressure) type arrangement where multiple systems are serviced by multiple material handling exhaustors located before the collectors inlet.
- Filter bags are maintained from the clean air side of the filter section; the employee works in safety under dust free conditions saving time and reducing maintenance costs.
- Inner cone for better separation and longer bag life
- Fire damper on return outlet.
- Temperature sensor.
- Inlet Dampers

Construction

Constructed of heavy gauge HRS steel panels for bolted assembly. Panel and flanged sections permit maximum support. Models of 13 feet diameter or less are one piece all welded construction. The unit consists of two sections, primary separation and secondary filtration sections incorporated into one integral self-supporting unit. Unit is zinc chromate primed and finished in high quality enamel.

Operation

Dust and particle laden air is drawn from various waste generation points and ducted to the inlet.

The heavier waste is centrifugally separated from the conveying air in the primary section and discharged through the cone outlet. The finer dust particles are directed upward to the filter section where they are filtered out and the clean air is returned to the plant or to atmosphere.

Filter media is cleaned by automatic reverse air flow.

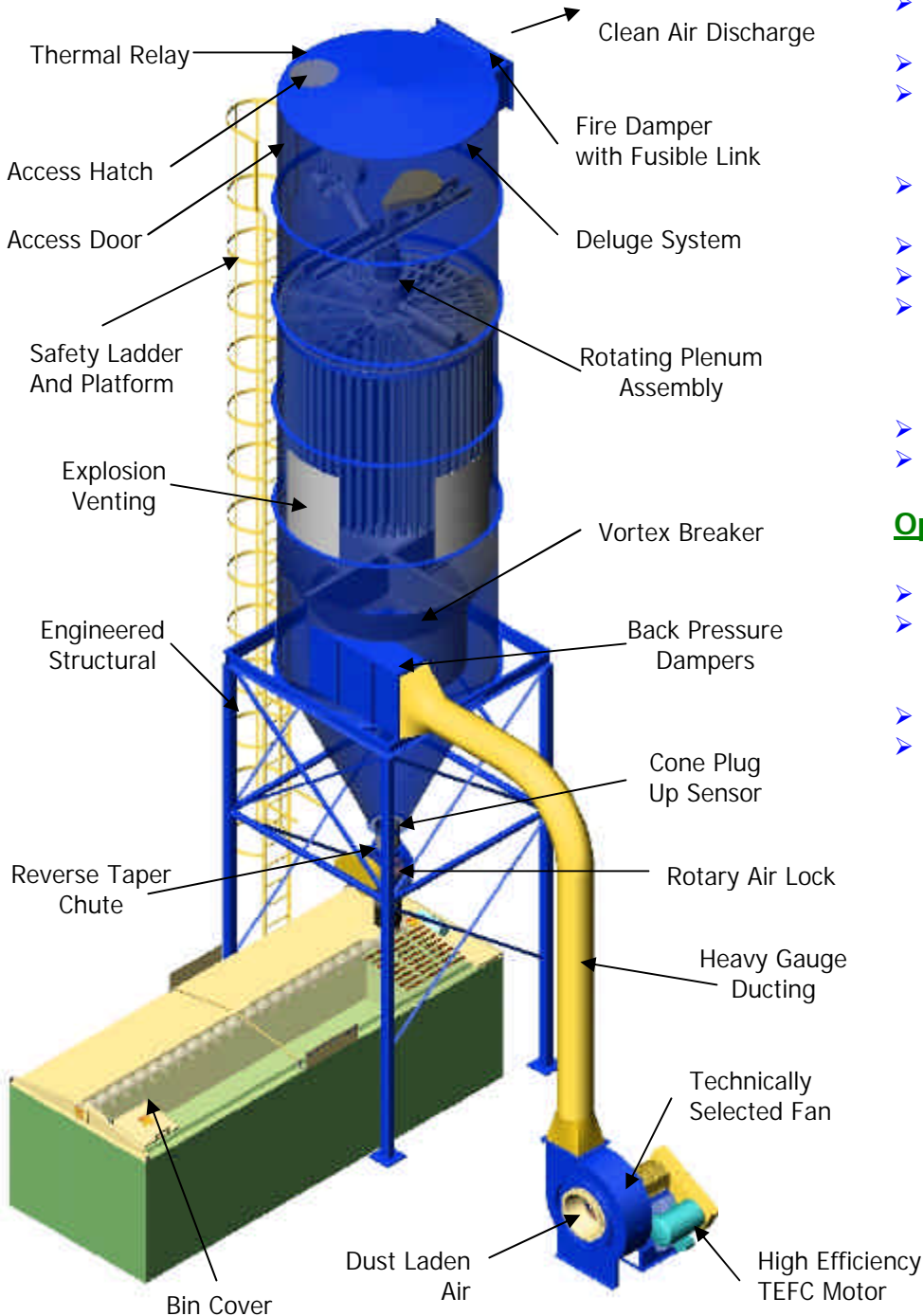
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Available up to 130 000 ft³/min
Sizes Range From 7'8" to 21' Dia
Bag Material: As per Application
Available as Blo-Thru or Pull-Thru

Reverse Air Rotating Plenum Package



“RA” Standard Equipment

- Totally Enclosed Fan Cooled High Efficiency Motor
- Access Door to Primary separation and filtration section
- Safety hoop access ladder, railing and access platforms to filtration system.
- Structural Support Frame.
- Counter balanced back pressure damper(s) which seals inlets(s) when the air flow is stopped in unit
- Fire damper on return air line outlet equipped with fusible link.
- Walk in bag house.
- Thermal Relay
- Pre-Wired electrical control panel to effect the automatic cleaning of the filters while the unit is operating. The cleaning cycle may be operated manually or automatically.
- Top bag removal
- Cone Access Door

Options

- Explosion Venting
- Pressure differential gauge to let you know at a glance how clean the filter bags are and control the cleaning cycle
- Deluge System
- Cone Plug Up Sensor

Applications

Wood
Board Plants
Paper
Grain
Chemical
Foundries
Food
Pharmaceutical
Cement