

Application

The Modular Cartridge Bin Vent is available as a static unit or with pulse-clean control. They provide excellent air filtration of fine airborne particles from within a storage tank and releases clean air to the atmosphere. While material is pneumatically conveyed into a storage tank, fine particles and air are efficiently separated by the unit's large cartridge filter. This enables clean air to pass from the tank out to the atmosphere. On the pulse-clean version, reverse jet cleaning from a compressed air accumulator pulses the cartridge filter, dislodging any fines and returning them to the storage tank.

Design

The Modular Cartridge Bin Vent is maintenance friendly. Standard materials of construction include carbon steel enamel coating or stainless steel material contact areas. Stainless steel construction is available for abrasive, corrosive, and food-grade applications. Mounting on a standard 508 mm [20 in] diameter tank deck flange, the small modular unit is inexpensive and easy to install. The unit's single cartridge filter is constructed of tough, washable polyester for efficient filtration. The cartridge filter hangs vertically and has shallow, open pleats for efficient dust release, even with difficult materials. Each unit can filter 5.7 - 11.3 m³/min [200 - 400 ft³/min] of air, depending upon the application. Quick-release clamps allow easy access to the cartridge filter. The plenum features a built-in weather hood and specially designed diffuser which, on the pulse-clean unit, enables each air pulse to clean the entire filter. Unlike other bin vents, no exhaust fan is required.

Technical Data

Standard Features

- Available in painted RAL 7035 gray carbon steel or 1.4301 [AISI 304] stainless steel construction
- Simple maintenance from tank deck
- Large 100% spunbond polyester pleated cartridge filter with 9.3 m² [100 ft²] cloth area
- For pulsed-clean unit only, 2.55 m³/h [90 ft³/h] of clean, dry compressed air required at 5.5 bar(g) [80 psi(g)]
- Built in weather hood
- Add additional units for greater filtration
- Cost effective and easy to install
- Quick-release clamps for easy cleaning and maintenance
- CE compliant
- For pulsed-clean unit only, 24 VDC solenoid
- Unit weight without dust loading 32kg [70lb]

Pulse-Clean Control Panel (required, but sold separately)

- Regulates cleaning of the bin vent cartridge filter
- Easy frequency and pulse duration adjustment
- Controls up to 10 units
- When multiple units are used, the controller pulses one unit at a time, leaving the remaining units on-line for filtration
- Cleaning timer control panel with IP65, NEMA 4X enclosure and 24 VDC operation
- NEC Class 2, Div. 2, Groups E, F & G
- ATEX 3 GD rated

Options

Mechanical

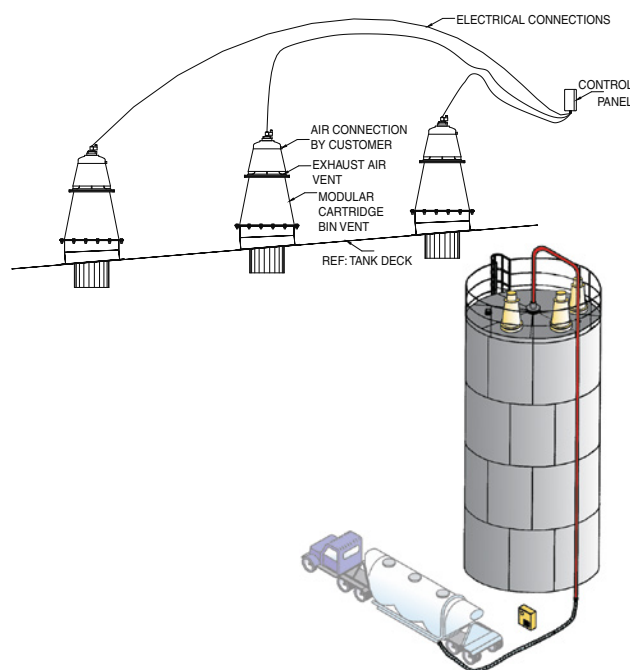
- Flanged adapter stubs (allows the Modular Cartridge Bin Vent to be mounted to the top of an existing storage tank)
- PTFE coated filter cartridges
- Oversized accumulator



Options continued

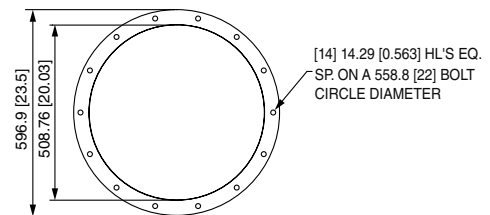
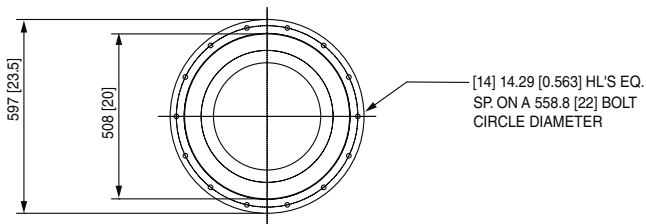
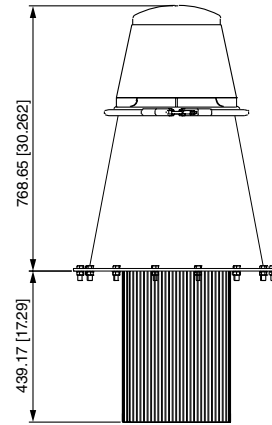
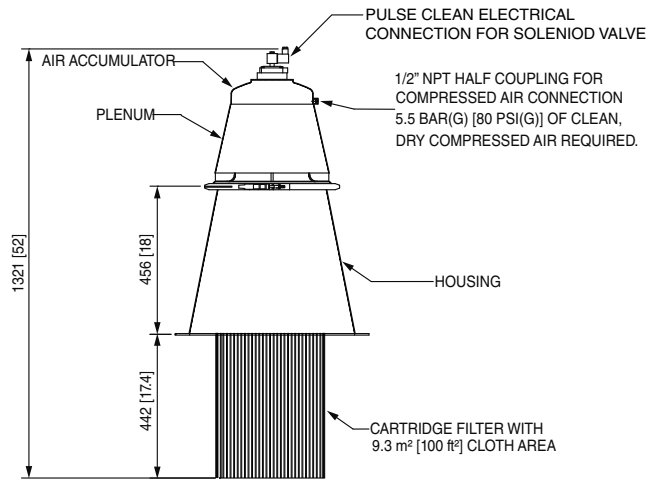
Hazardous Location

- Explosion-proof NEMA 7 or 9 construction
- NEC Class 1, Div. 1, Groups C & D
- ATEX versions available

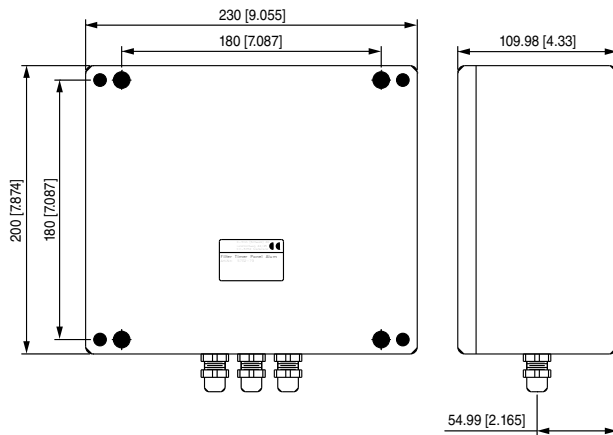


Example of a pulse-clean Modular Cartridge Bin Vent installation in a PD truck unloading system

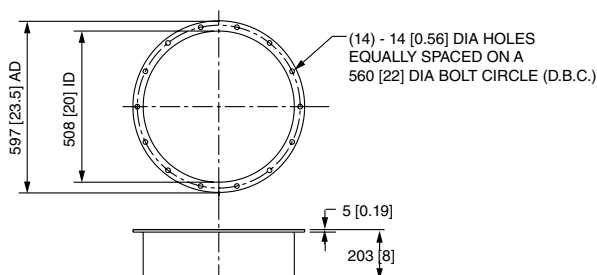
Dimensions of Modular Cartridge Bin Vent mm [in]



Dimensions of Pulse-Clean Control Panel mm [in]
 (required, but sold separately)



Dimensions of Flanged Adapter Stubs mm [in]
 (optional, sold separately)



Caution: Measurements are for general reference only. Please consult dimensional drawing for exact measurements.