Application

The Modular Cartridge Bin Vent provides 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. 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 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 no-tool tank deck maintenance
- Large pulse-cleaned cartridge filter with 9.3 m² [100 ft²] cloth area
- 2.55 m³/hr [90 ft³/hr] of clean, dry compressed air required at 5.5 - 6.9 Bar [80 - 100 PSIG]
- 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

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

- Regulates cleaning of the bin vent cartridge filter
- Easy frequency and pulse duration adjustment
- Spare timer and solenoid included to accommodate an additional Modular Cartridge Bin Vent
- 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 4] enclosure and 24 VDC or 120 VAC operation, single-phase, 50/60 Hz
- Includes all fittings and tubing required to connect to the Modular Cartridge Bin Vent filters
- NEC Hazardous Location: Class 2, Div.2, Groups E, F & G

Options

- Flanged adapter stubs (allows the Modular Cartridge Bin Vent to be mounted to the top of an existing storage tank)
- PTFE coated cartridges
- Oversized accumulator
- Explosion-proof NEMA 7 or 9 construction
- NEC Hazardous Location: Class 1, Div.1, Groups C & D
- ATEX versions available

Example of a Modular Cartridge Bin Vent installation in a PD truck unloading system
Dimensions of Modular Cartridge Bin Vent

**mm [in]**

**1/8" NPT CONNECTION**
FOR AIR LINE TO SOLENOID VALVE

**1/4" NPT HALF COUPLING FOR**
COMPRESSED AIR CONNECTION
5.5 - 6.9 BAR [80 - 100 PSIG] OF
CLEAN, DRY COMPRESSED AIR REQ'D

**1/8" NPT COUPLING WITH PLUG**

**CARTRIDGE FILTER WITH**
9.3 m² [100 ft²] CLOTH AREA
(EQUIPPED WITH GALVANIZED END CAPS)

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

**mm [in]**

**DESCRIPTION**

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<tr>
<td>PULSE CONTROLLER FOR 4 MODULAR BIN VENTS</td>
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<td>311 [12.25]</td>
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<tr>
<td>PULSE CONTROLLER FOR 5 MODULAR BIN VENTS</td>
<td>311 [12.25]</td>
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**Dimensions of Flanged Adapter Stubs** (optional, sold separately)

**mm [in]**

**Note:** For more information on these products consult your K-Tron Premier Sales Representative.

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