

Application

The 2415 powder receivers are designed to handle fine bulk materials. The modular design of the receivers allow flexibility in the selection of material construction, power, filtration and receiver inlet sections to meet your current application requirements as well as your future needs.

The 2415 receiver is available in two versions for either general keep full conveying or loss-in-weight (LIW) feeder refill applications, with a selection of various discharge valve types (gravity, orifice and butterfly), depending on the application and material to be fed.

Receivers for keep-full applications are fitted with a gravity gate discharge valve. The receiver sequences draw cycles of material as long as inductive proximity switch on the gravity discharge gate is in the almost closed position or a signal from a secondary level indicator in the hopper is detected, ensuring the hopper below the receiver is kept full.

Receivers designed for loss-in-weight feeder refill applications are fitted with a level sensor in the housing and require a slide/orifice or butterfly valve. The receiver draws material until it is full and waits for a signal from the feeder below to open the discharge valve and dispense the material. This cycle is then repeated.

Design

The 2415 receiver is available in either aluminum (painted) or stainless steel construction. Components of different construction are interchangeable allowing receivers to be specified with stainless steel material contact areas only.

Central system units for the 2415 receivers utilize a common vacuum blower package, and are primarily used on multiple-destination applications where larger conveying rates or long distances are required.

Mechanical Features

- Rugged modular design
- Quick-connect clamps for easy cleaning and filter maintenance
- Full support discharge flange for mounting

Controls

The receiver is available with controls suitable for use with either a solid state microprocessor controller (MPC) or a programmable logic controller (PLC). Both control systems utilize 24 VDC low voltage and are available with installation kits making installation easy and more economical. The receiver controls include color coded quick connectors and provide communication to the central controller.

For single receiver applications, we offer the LSR Controller. In loss-in-weight feeder refill applications, the LSR Controller seamlessly interfaces with Coperion K-Tron Feeder controls.

Conveying Rates

Based on a distance of 15 m [50 ft] and bulk density of 0.5 kg/dm³ [31 lb/ft³]. Rates vary with material characteristics, conveying distance and plant layout.

Powder Receiver

- Up to 1000 kg/h [2200 lb/h]



Technical Data

Standard Mechanical Specifications

- Available in painted RAL 7035 gray aluminum or 1.4301 (AISI 304) stainless steel construction
- Holding capacity: keep full version 28.5 dm³ [1.0 ft³]
LIW refill version 22.8 dm³ [0.8 ft³]
- 381 mm [15 in] diameter housing
- Up to 76.2 mm [3 in] tangential inlet with stainless steel check valve assembly
- Stainless steel band clamps
- Integral fill valve with backside vent, dual acting air cylinder with solenoid control 24 VDC
- Discharge gate valve
 - Keep full version: One-piece aluminum or stainless steel 127 mm [5 in] gravity gate discharge with white Neoprene seal and inductive proximity switch level-sensing system (24 VDC) on gravity gate
 - LIW feeder refill version: Butterfly or orifice gate valve; with single coil solenoid (energize to open valve)
- Automatic reverse jet cleaning
1.7 dm³ [0.06 ft³] air reservoir; max 6.9 bar(g) [100 psi(g)]

Standard Filtration Specifications

- 454 g [16 oz] polyester felt filter bag with snap-ring seal for powder, total 0.84 m² [9 ft²] filter area

Standard Electrical Specifications

- Signal voltage 24 VDC

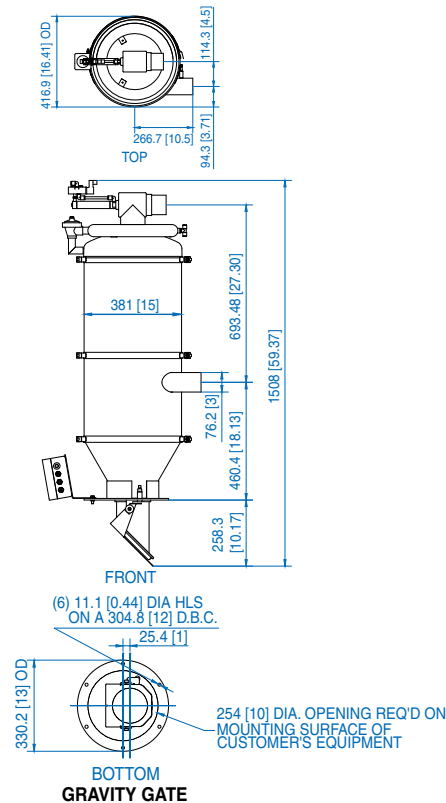
Weights

- Aluminum: keep full version 26 kg [57 lb]
LIW refill version 49 kg [107 lb]
- Stainless Steel: keep full version 34 kg [75 lb]
LIW refill version 62 kg [137 lb]

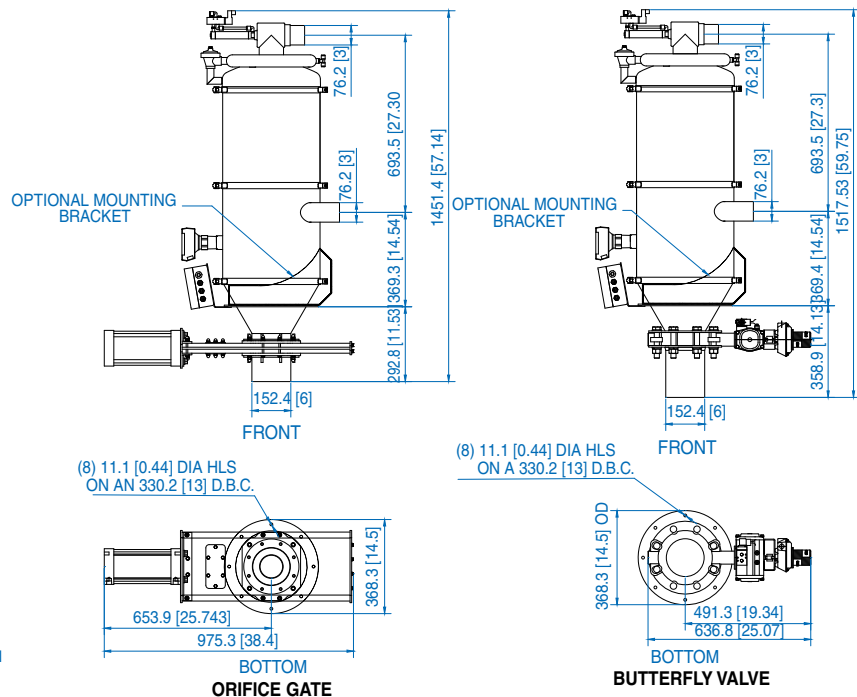
Operating Temperature

- -10 to 50°C [14 to 122°F]

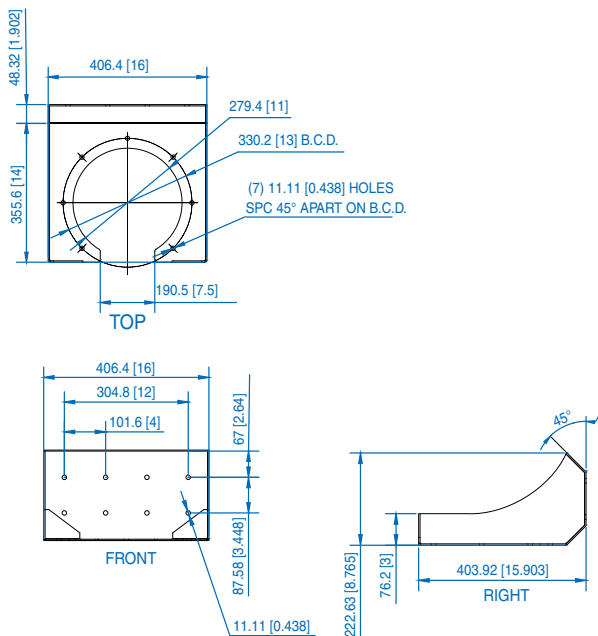
Dimensions of 2415 Powder Receiver
for general keep full conveying mm [in]



for loss-in-weight feeder refill mm [in]



Dimensions Optional Mounting Bracket mm [in]



Options

Mechanical

- Mounting bracket for LIW feeder refill versions
- Bead blast surface finish (1.8 micron Ra)
- Flange for alternate discharge gate valve
- PTFE membrane on filter elements
- Weatherhood for outdoor use
- Custom material combinations
- Reduced inlet tube size to meet smaller capacity applications
- Vibrator as discharge aid
- Aeration pads as discharge aid
- Enclosure for solenoids

Electrical

- Mounting bracket for terminal box or controller
- Level probes (capacitive or tuning fork type)
- Limit switches on butterfly or slide gate valve
- LSR Controller
- Central Microprocessor or PLC Control
- Stainless steel options on solenoids, gauges as required
- Solenoid boxes supplied loose in mild or stainless steel finish
- Terminal box mounted in mild or stainless steel finish
- CSA or UL certified solenoids

Hazardous Locations

- NEC Contact factory

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