CV SERIES CONVEYING ROTARY AIRLOCK VALVE

CARMEUSE SYSTEMS

DATA SHEET



APPLICATIONS & USE

Typical Bulk Materials Proce

- Powder Activated Carbon (PAC)
- Plastic
 Pellets
- Magnesium Oxide

Typical Applications

- Water Treatment
- Food
- Chemical Processing
- Mining
- Grain Handling
- General Industrial
- Oil and Gas
- Glass and Ceramics
- Pulp and Paper

Applicability can vary by system make and model. For an evaluation, contact us: salesinquiries@carmeuse.com

| essed | |
|-------|----------|
| | Soda Ash |

- Soua Asn
 Fly Ash
- Rice
 - Lime
- Cement
- Peanuts
- Others

ROUND FLANGE, BLOW-THRU VALVE

The CV Series Conveying Rotary Airlock Valve is designed to handle most types of dry granulated materials including difficult, sticky products in pneumatic conveying systems with conveying pressure up to 15 psi. This outboard bearing airlock has ports on the sides of the end covers that connect directly to the convey line pipe. The conveying air blows through the rotor pockets to assist the material to discharge directly into the conveying line.

This CV Series Rotary Airlock Valve achieves high fill efficiencies with minimum air leakage, due to precise machining and tight rotor clearances. The design of this valve is especially suited for low headroom installations and retrofit applications. The CV Series Conveying Rotary Airlock Valve is available in two sizes, 8" and 12".

| FEATURES | BENEFITS |
|--|---|
| Round inlet and outlet flange | Can mate up to a standard ANSI pipe flange as a duct providing more standard compatibility |
| Fabricated 10 vane, fixed tip rotor | Better resolution and repeatability in metering resulting in more consistent operation / Maximizes air seal causing less air leakage |
| Blow-thru body | Assists the material to discharge reducing product buildup increasing efficiency |
| Low profile design attaches to the convey line connections | Requires less space making it suitable for low headroom installations |
| Cast iron construction | Offers rugged design providing maximum structural stability |
| Precision-machined housing | Minimizes rotor-to-barrel clearances limiting leakage |
| Outboard bearing design | Protects bearings from damaging contaminant extending maintenance cycles |
| Packing gland type seals | Makes for easy maintenance saving on costs |
| Open throat valve inlet design | Provides more complete pocket filling ensuring maximum material flow |
| Handles differential pressures up to 15 psi | Well suited for pneumatic conveying operations increasing productivity |
| Chain and sprocket drive | Offers smaller footprint and greater speed selection providing flexibility |

YOUR LIME HANDLING EXPERTS

CV SERIES CONVEYING ROTARY AIRLOCK VALVE MODEL AVAILABILITY

| MODEL | CAPACITY (ft³/rev [m³/rev]) @ 100% efficiency | A (in. [mm]) | B (in. [mm]) | C (in. [mm]) | D (in. [mm]) | E (in. [mm]) |
|--------|--|------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------|
| CV-308 | 0.3 [0.0085] | 30 [762] | 16 ¹ / ₂ [420] | 13 ¹ / ₂ [343] | 8 ¹ / ₄ [210] | 15 [381] |
| CV-912 | 0.9 [0.0255] | 34 [864] | 18 ¹ / ₂ [470] | 15 ¹ / ₂ [394] | 12 ¹ / ₂ [318] | 19 ³/ ₈ [493] |

PLAN VIEW



ELEVATION VIEW



NOTE:

Information / dimensions shown are for reference only and is subject to change based on final design and applications.

| F (in. [mm]) | G (in. [mm]) | H (NPS [DN]) | J (in. [mm]) | K (in. [mm]) | Weight (lbs. [kg]) | |
|--------------------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|--|
| 29 ¹ / ₂ [750] | 8 [204] | 8 [200] | 3 [75] | 2.9 [74] | 365 [166] | |
| 29 ¹ / ₂ [750] | 8 [204] | 12 [350] | 4 [100] | 3.8 [96] | 690 [313] | |
| | | | | | | |

SPECIFICATIONS

PROCESS REQUIREMENT

- Differential Pressure Across Valve: Max. 15 psig [103 kPag]
- **(Optional) Air Supply for Purge Package:** Max. flow of 10 CFM [17 m³/h] @ pressure of 2 psig [14 kPag] higher than operating pressure

ADD-ON FEATURES

- Gearbox with NEMA / IEC Motor
- Washdown / Chemical / Explosion-Proof Duty Motor
- Rotor:
 - High Temperature Application
 - Hardened Carbon Steel
 - Filled Pocket
 - Adjustable / Replaceable Tips
- Seal Purge Package
- Shear Protector
- Motion Detector

MATERIAL OF CONSTRUCTION

- Standard:
 - Housing: G4000 Cast Iron
 - Rotor: C1018 / C1020 Carbon Steel
 - Shear Protector: A36 Carbon Steel
- Options:
 - Housing: Hard Chromed Liner / CF8 Stainless Steel
 - Rotor: Hardened Carbon Steel / 304 Stainless Steel / 316 Stainless Steel
 - Shear Protector: 304 Stainless Steel / 316 Stainless Steel

AVAILABILITY

- CV-308
- CV-912

CV912 - ROTARY AIRLOCK VALVE





YOUR LIME HANDLING EXPERTS[™]

Carmeuse Systems is your trusted partner for designing, integrating, and upgrading lime handling systems. As part of the Carmeuse Group, our teams have unrivaled expertise in understanding the role of lime handling equipment within your operation. From selecting the appropriate raw material, to system engineering, enhancements, and maintenance, our teams provide End-2-End support and guidance. We make complex projects seem simple and help our customers every step of the way. Let's start a conversation, contact us at:

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The information contained in this product data sheet is, to the best of our knowledge, true and accurate. As application-specific factors may impact performance, users are advised to evaluate the product independently to determine suitability for the intended application and use conditions. Product availability and specifications are subject to change without notice.