

# RV SERIES

## STANDARD ROTARY AIRLOCK VALVE



### ROUND FLANGE, DROP-THRU VALVE

The RV Series Standard Rotary Airlock Valve is ideal for the pneumatic conveying of dry, free flowing, non-cohesive bulk density products or powders. This round flange, drop-thru valve feeds material through the 10 rotating vanes\* where it drops out the bottom outlet flange via gravity. This outboard bearing rotary airlock valve achieves high fill efficiencies with minimum air leakage, due to precise machining and tight rotor clearances. The RV Series Standard Rotary Airlock Valve is available in sizes from 6" up to 14".

#### APPLICATIONS & USE

##### Typical Bulk Materials Processed

- Powder
- Activated Carbon (PAC)
- Plastic Pellets
- Magnesium Oxide
- Soda Ash
- Fly Ash
- Rice
- Lime
- Cement
- Peanuts
- Others

##### 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](mailto:salesinquiries@carmeuse.com)

#### FEATURES

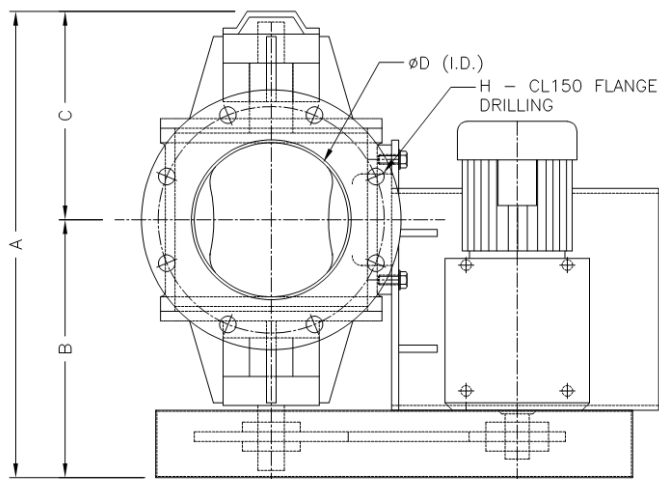
#### BENEFITS

Round inlet and outlet flange	Can mate up to a standard ANSI pipe flange as a duct providing 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
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	Ensures material flow to rotor pockets maximizing performance
Handles differential pressures up to 15 psi	Well suited for pneumatic conveying operations
Chain and sprocket drive	Offers smaller footprint and greater speed selection providing flexibility to the applications being used

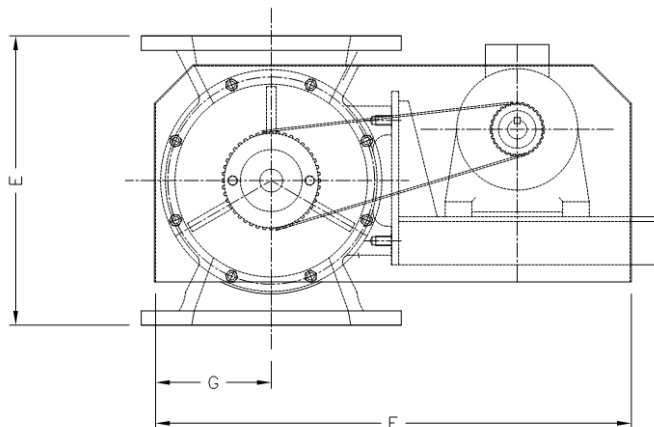
## RV SERIES STANDARD ROTARY AIRLOCK VALVE MODEL AVAILABILITY

MODEL	CAPACITY		A		B		C		D		E	
	(ft <sup>3</sup> /rev [m <sup>3</sup> /rev]) @ 100% efficiency		(in. [mm])		(in. [mm])		(in. [mm])		(in. [mm])		(in. [mm])	
<b>RV-106</b>	0.1	[0.0028]	20 1/2	[521]	11 1/2	[293]	9	[229]	6 3/16	[158]	9	[229]
<b>RV-308</b>	0.3	[0.0085]	24 1/2	[623]	13 1/2	[343]	11	[280]	8 1/4	[210]	15	[381]
<b>RV-610</b>	0.6	[0.0170]	26 1/2	[674]	14 1/2	[369]	12	[305]	10 1/2	[267]	16 3/8	[416]
<b>RV-912</b>	0.9	[0.0255]	29	[737]	15 1/2	[394]	13 1/2	[343]	12 1/2	[318]	19 3/8	[493]
<b>RV-1414</b>	1.4	[0.0396]	30 1/2	[775]	16 1/2	[420]	14	[356]	13 1/2	[343]	21 5/8	[550]

### PLAN VIEW



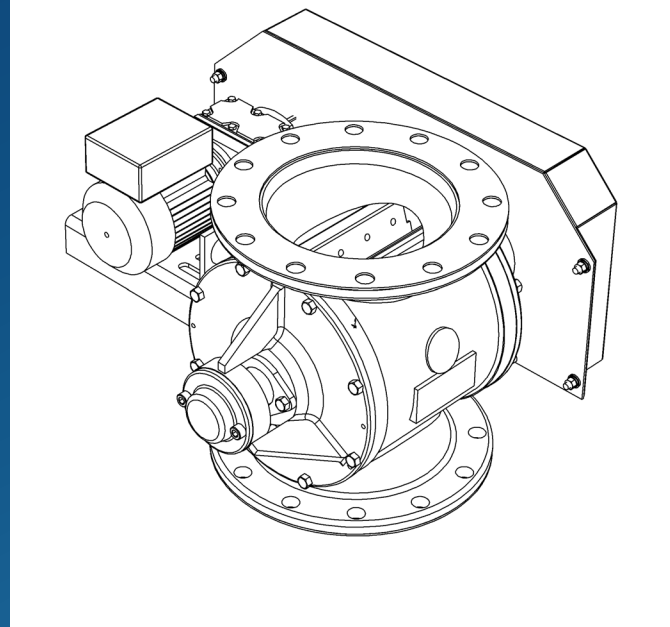
### ELEVATION VIEW



### 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])		Weight (lbs. [kg])	
23	[585]	6 1/2	[166]	6	[150]	120	[55]
24	[610]	6 1/2	[166]	8	[200]	365	[166]
28	[712]	6 1/2	[166]	10	[250]	550	[250]
29 1/2	[750]	8	[204]	12	[300]	690	[313]
29 1/2	[750]	9 1/2	[242]	14	[350]	900	[409]



**RV610 - ROTARY AIRLOCK VALVE**

## SPECIFICATIONS

### PROCESS REQUIREMENT

- **Differential Pressure Across Valve:**  
Max. 15 psig [103 kPag]
- **(Optional) Air Supply for Purge Package:** Max. flow of 10 CFM [17 m<sup>3</sup>/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
  - Closed End
  - Filled Pocket
  - Adjustable / Replaceable Tips
- **Seal Purge Package**
- **End Purge Package**
- **Shear Protector**
- **Motion Detector**
- **Convey Attachment**

### MATERIAL OF CONSTRUCTION

- **Standard:**
  - Housing: G4000 Cast Iron
  - Rotor: C1018 / C1020 Carbon Steel
  - Shear Protector: A36 Carbon Steel
  - Convey Attachment: A36 Carbon Steel
- **Options:**
  - Housing: Hard Chromed Liner / CF8 Stainless Steel / CF8M Stainless Steel / A532 Cl. II High Chrome Alloy
  - Rotor: Hardened Carbon Steel / 304 Stainless Steel / 316 Stainless Steel
  - Shear Protector: 304 Stainless Steel / 316 Stainless Steel
  - Convey Attachment: 304 Stainless Steel / 316 Stainless Steel

### AVAILABILITY

- **RV-106**
- **RV-308**
- **RV-610**
- **RV-912**
- **RV-1414**



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**[salesinquiries@carmeuse.com](mailto:salesinquiries@carmeuse.com)**

**+1-905-875-5587**

**[systems.carmeuse.com](http://systems.carmeuse.com)**

**CANADIAN HEAD OFFICE:**  
8485 PARKHILL DRIVE  
MILTON, ON L9T 5E9, CANADA

**US HEAD OFFICE:**  
3600 NEVILLE ROAD  
PITTSBURGH, PA 15225