

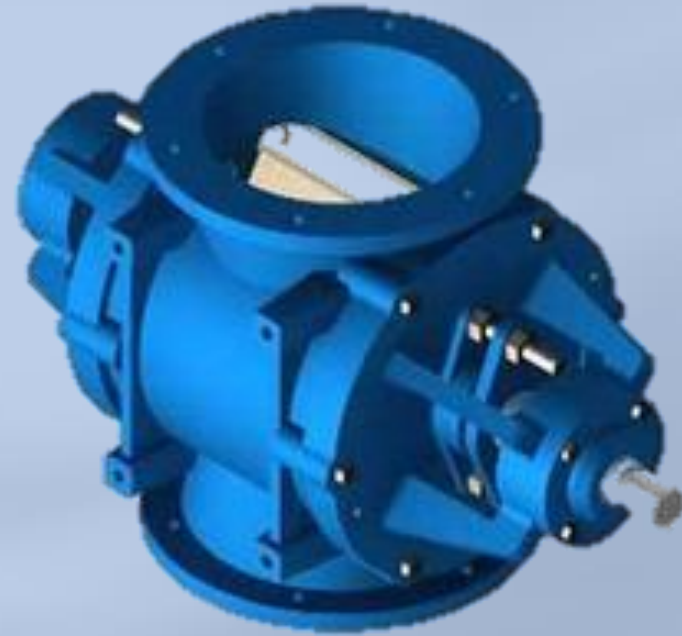
ROTARY AIR LOCK VALVES

Introduction

A rotary airlock valve can be equipped with a variety of rotor assembly tip designs. Each tip design addresses a particular problem or requirement of the application. Some are good for a wide range of applications, while others have limited applications. Knowing which tip to use is more of an art, than a science. Many times experience with a specific product material, or similar material, is the only guide. Sometimes, with all the variables to consider within a system, this experience may not be enough to accurately determine the proper tip design. It is, however, a good place to start. These descriptions and illustrations are to help clarify various terms and applications, but can not completely cover the endless variety of configurations which are possible in the manufacture of rotor assemblies.

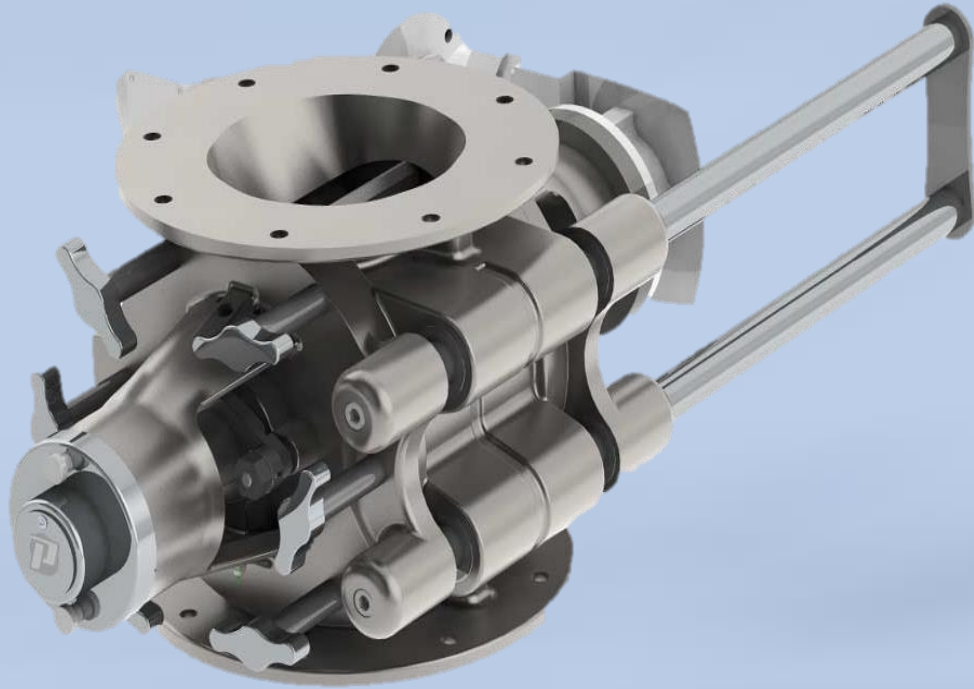
Process

- The material is fed into rotor pockets (A gap between two vanes) from hopper or bin.
- Due to rotation of shaft vanes also rotates. Due to rotation of vanes the, material in the rotor pockets will be transferred from inlet of airlock valve to its outlet.



- From outlet it will go to the pneumatic conveying system.
- As the blades rotate a fixed volume of material passes through the material inlet to the spaces between adjacent blades (called rotor pockets) and is carried in the pockets toward the material outlet.

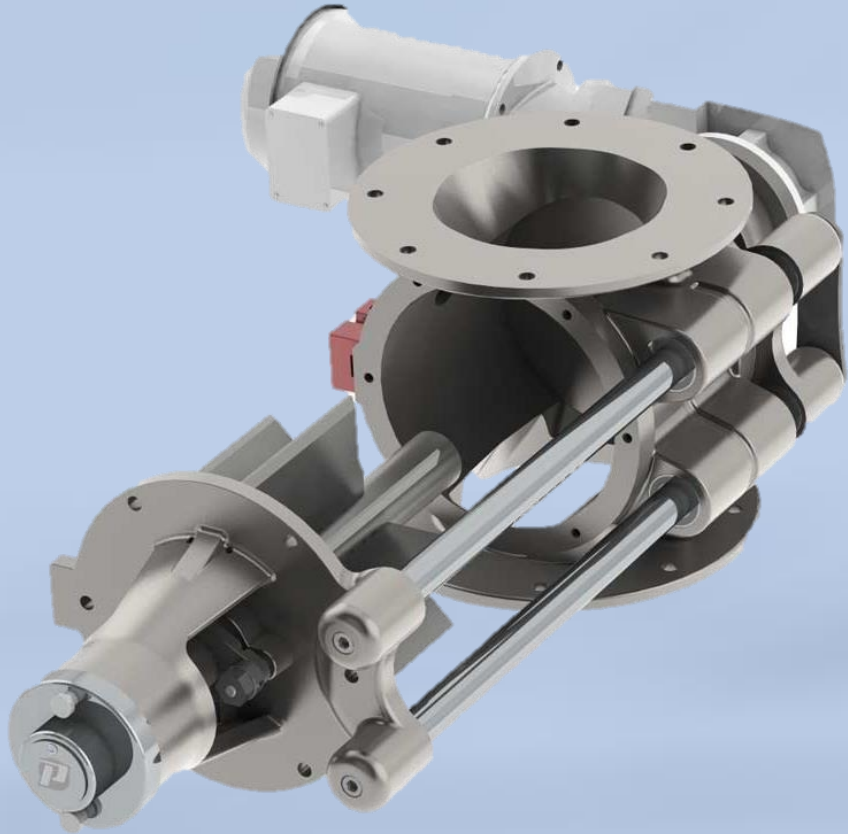
Uses



- Rotary Air-lock Valves are used at the bottom of Bins, Cyclones, Dust Collectors or Feed Hoppers to discharge materials at a controlled rate or act as an Airlock

- To feed material from bins or hoppers.
- To deliver fines from the collector while sealing against air loss.
- And to feed material to pneumatic conveying line against pressure.
- They are also used to introduce materials into positive or negative conveying systems
- The valves can be used in various industries such as food, plastics, chemical, asphalt, mining, baking, cement and paint.
- The Rotary Air-locks provide reliable service in high pressure, high temperature and other severe service conditions

Applications



- Rotary airlock feeders have wide application in industry wherever dry free-flowing powders, granules, crystals, or pellets are used.
- Typical materials include: cement, ore, sugar, minerals, grains, plastics, dust, fly ash, flour, gypsum, lime, coffee, cereals, pharmaceuticals, etc.

- Industries requiring this type include cement, asphalt, chemical, mining, plastics, food, etc.
- Rotary Valves are ideal for pollution control applications in
 - wood,
 - grain,
 - food,
 - textile,
 - paper,
 - tobacco,
 - Rubber
 - Paint industries

Advantages

- No product contamination higher operating temperatures
- Easy packing change without rotor removal
- Select from multiple sizes to fit the application
- Reduces deflection
- Assures maximum torque delivery



Features

- Outboard bearings
- Replaceable packing rings
- Round or square flange available
- Larger shaft diameters than competition
- Cast iron, 304SS, 316SS, 316SS Ni-Hard

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