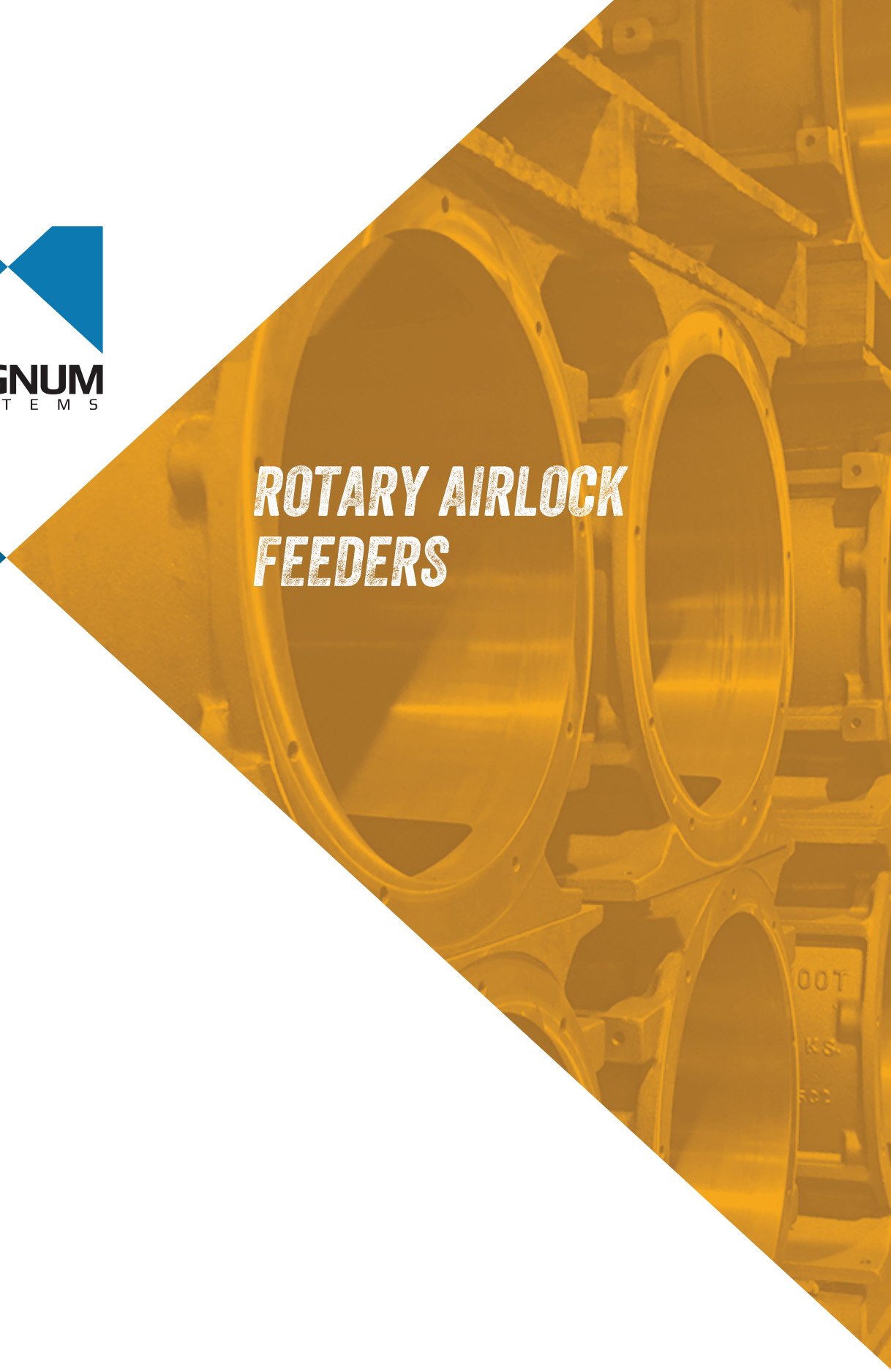
MAGNUM
SYSTEMS

ROTARY AIRLOCK FEEDERS



DRY BULK MATERIAL HANDLING

STANDARD MODELS

The selection of the correct rotary airlock and options is critical to maintain an efficient and reliable plant operation. With over 50 years of experience and success in pneumatic conveying systems and components, Magnum Systems can assist you in determining which type rotary airlock will best fulfill your needs at the lowest cost to install, operate and maintain.

The rotary airlock line includes seven types, all built with the legendary Magnum Systems design and precision. Each airlock type has been designed for specific industries and applications with multiple options and accessories to ensure it will exceed your expectations.

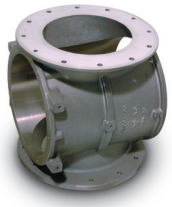
TYPE 1

OUR BASIC AIRLOCK

The Type 1 is a basic, yet versatile airlock. With a wide range of options and accessories, and multiple sizes in stock, the Type 1 uses an open end rotor and will operate efficiently in your system.

Model	Inlet Square	Capacity Per Rev
FT7	6"	0.12 ft 3
FT9	8"	0.27 ft 3
FT11	9"	0.47 ft 3
FT12	10"	0.75 ft 3
FT14	12"	1.10 ft 3
FT16	13"	1.60 ft 3
FT18	15"	2.60 ft 3
FT22	16"	4.00 ft 3
FT30	23"	9.90 ft 3

Model	Round Inlet	Capacity Per Rev
FTP9	8"	0.27 ft 3
FTP12	10"	0.75 ft 3



TYPE 2

DESIGNED FOR MORE ABRASIVE PRODUCTS

The Type 2 airlock is designed to handle moderately abrasive materials. The Type 2 is constructed with a closed end rotor with Abrasion Resistant Tips and a cast iron housing with hard chrome cylinder bore to supply a long lasting, yet economical airlock.

Model	Inlet Square	Capacity Per Rev
FT9	8"	0.21 ft 3
FT11	9"	0.41 ft 3
FT12	10"	0.64 ft 3
FT14	12"	0.96 ft 3
FT16	13"	1.40 ft 3
FT18	15"	2.30 ft 3
FT22	16"	3.6 ft 3
FT30	23"	9.20 ft 3

Model	Round Inlet	Capacity Per Rev
FTP9	8"	0.21 ft 3
FTP12	10"	0.64 ft 3

TYPE 3

CORROSION RESISTANT DESIGN

The Type-3 is our valve with two personalities. Take a standard Type-1 airlock, change the rotor to 304 stainless steel and coat the cast iron end plates and housing with Nedox® or hard chrome; the rotary valve becomes both corrosion resistant and food grade.

Model	Inlet Square	Capacity Per Rev
FT7	6"	0.12 ft 3
FT9	8"	0.27 ft 3
FT11	9"	0.47 ft 3
FT12	10"	0.75 ft 3
FT14	12"	1.10 ft 3
FT16	13"	1.60 ft 3
FT18	15"	2.60 ft 3
FT22	16"	4.00 ft 3
FT30	23"	9.90 ft 3

Model	Round Inlet	Capacity Per Rev
FTP9	8"	0.27 ft 3
FTP12	10"	0.75 ft 3

TYPE 4

304 STAINLESS STEEL

The Type 4 takes stainless steel to the next level with complete stainless steel construction. The housing and end plates are constructed with 316 stainless steel and the open end rotor is 304 stainless steel. The Type 4 will handle mildly corrosive materials while maintaining the legendary Magnum Systems toughness.

Model	Inlet Square	Capacity Per Rev
FT9	8″	0.27 ft 3
FT12	10″	0.75 ft 3

TYPE 5

316 STAINLESS STEEL

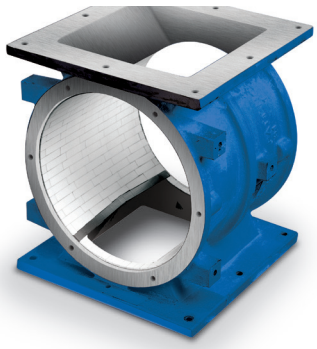
With the Type 5 the housing, end plates, and rotor are constructed from 316 stainless steel. It uses an open end rotor and is designed to handle extremely corrosive materials with ease.

Model	Inlet Square	Capacity Per Rev
FT9	8″	0.27 ft 3
FT12	10″	0.75 ft 3

TYPE 8

SEVERE APPLICATIONS

The Type 8 airlock starts with a heavy duty cast iron housing. Ceramic tiles are bonded to the internal surfaces. A closed end rotor with tungsten carbide tips and shroud insures the valve will provide superior wear resistance.



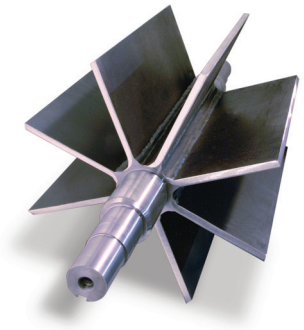
Model	Inlet Square	Capacity Per Rev
FT9	8″	0.21 ft 3
FT11	9″	0.41 ft 3
FT12	10″	0.64 ft 3
FT14	12″	0.96 ft 3
FT16	13″	1.40 ft 3
FT18	15″	2.30 ft 3
FT22	16″	3.6 ft 3
FT30	23″	9.20 ft 3

ROTORS

The key to any rotary airlock valve application is selecting the proper rotor for the intended service. This will make a significant difference in the overall life and performance of the valve. Improper selection could result in accelerated wear and premature failure, additional downtime, reduced efficiency, increased maintenance, product degradation and possible loss of production.

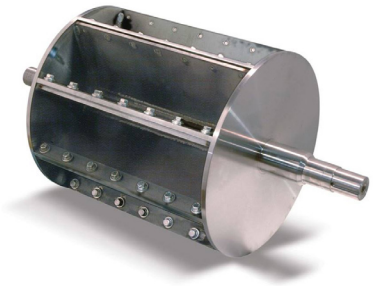
OPEN END ROTORS

Open end rotors can be used in all applications not requiring abrasion-resistant construction. In addition to the cost savings they have slightly more capacity than a closed end rotor. Standard on Type 1, 3, 4 and 5 style airlocks.



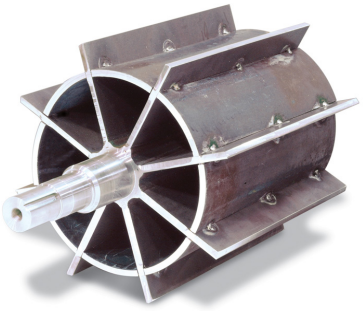
CLOSED END ROTORS

Closed end rotors are best used in applications requiring abrasion resistant construction. Standard on Type 2, 6 and 8 style airlocks.



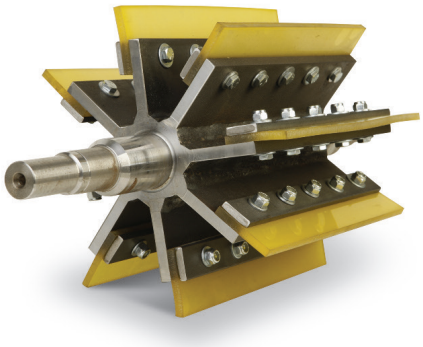
REDUCED CAPACITY ROTORS

The flow properties of some products require large openings and wide rotor pockets. When low feed rates are required in conjunction with this type of product, it may be necessary to reduce the rotor capacity. This can be done on open or closed end rotors.



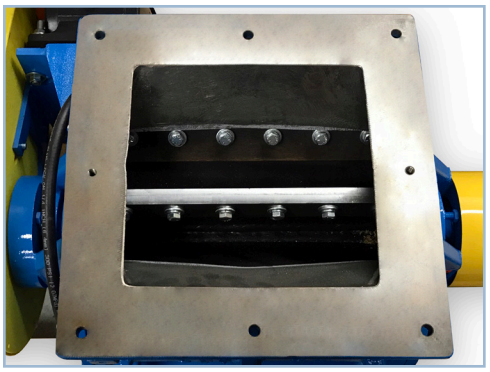
FLEX TIP ROTORS

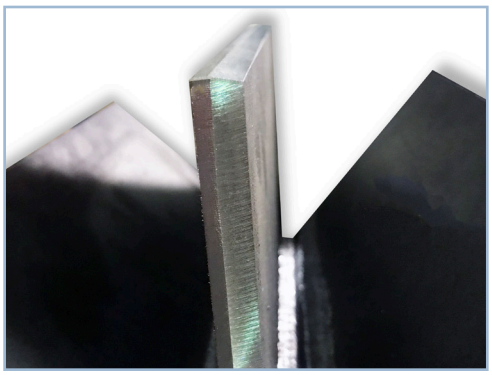
The rotary valve flex tip design ensures that any material trapped between the rotor tips and housing will not jam the valve. The standard flexible tips are made of thermo-set polyurethane and are replaceable. Optional tips available are food grade white neoprene, black neoprene and heavy duty conveyor belting.

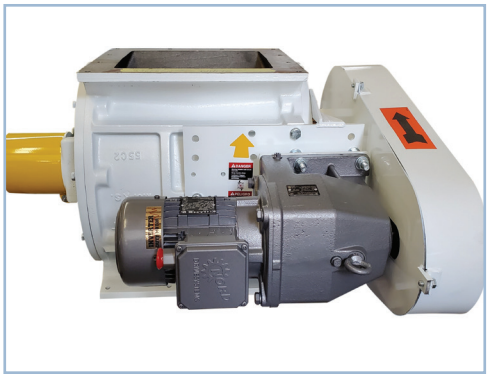


CUSTOMIZATIONS AND SPARES

- RELIEVED ROTOR TIPS
- TEFLON COATED AND NICKEL PLATED ROTORS
- CUSTOM DRIVE PACKAGES
- HIGH TEMPERATURE MODIFICATIONS
- SPECIAL PAINT
- ABRASION RESISTANT TIPS
- CHROME PLATED HOUSINGS





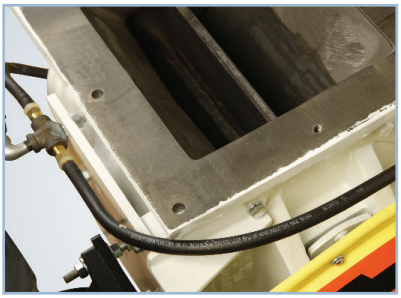


AIR PURGE

SHAFT

SHAFT AIR PURGE (SAP)

SAP uses high pressure plant air to prevent the conveyed material from coming in contact with the shaft seals, therefore extending the life of the seals.



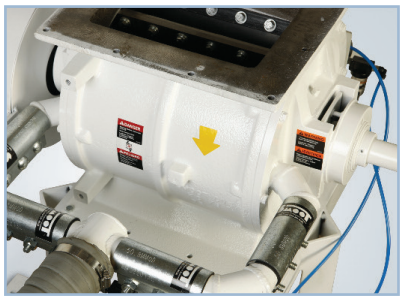
Air line to shaft seals.

CAVITY

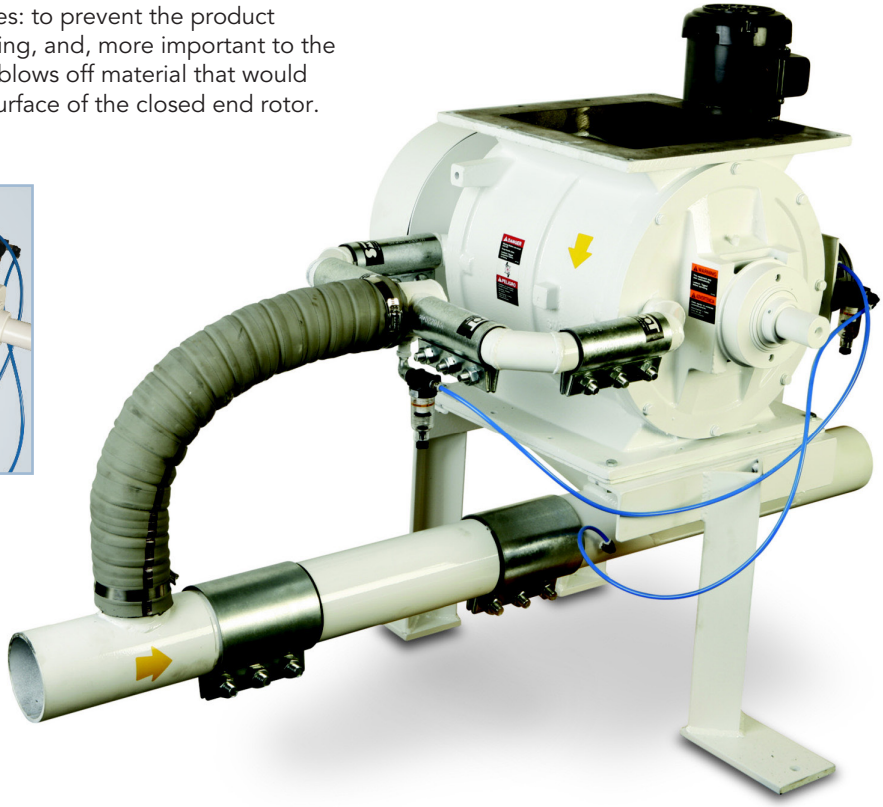
CAVITY AIR PURGE (CAP)

Magnum Systems offers the cavity air purge process on its entire line of closed end rotary valves to reduce abrasion on the rotor, cylinder, and end plates.

This patented design uses low-pressure air from the convey blower and purges the material from the cavity between the rotor shroud and the housing end plates. This air serves two purposes: to prevent the product dust from reaching the shaft packing, and, more important to the life of the overall rotary airlock, it blows off material that would attempt to settle on the top flat surface of the closed end rotor.

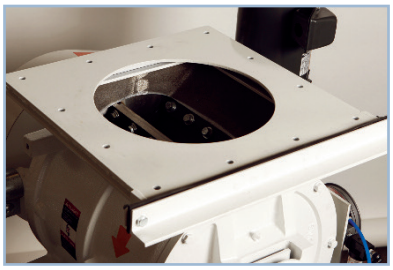


Air piping to end plates.

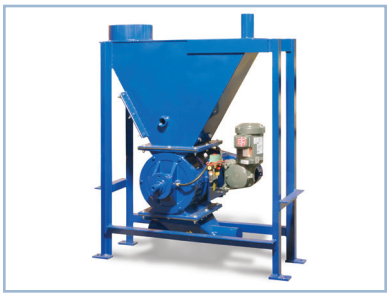


ACCESSORY EQUIPMENT

MAINTENANCE GATE

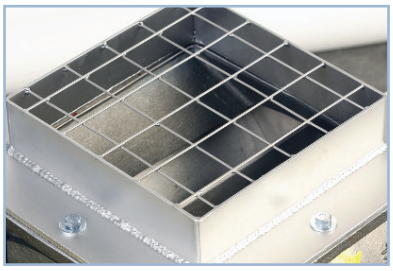


INLET HOPPERS

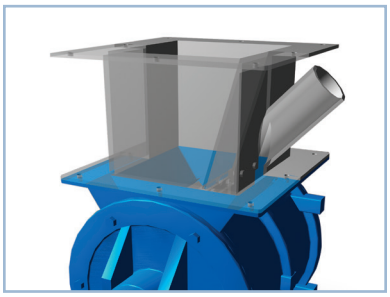


FINGER GUARD

- Increase safety
- Flange mounted

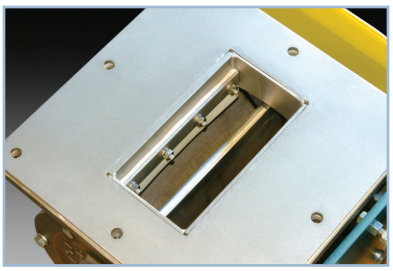


VENTED INLET ADAPTERS



PELLET VALVE

- Non-adjustable
- Most sizes in stock
- Prevents product sheer

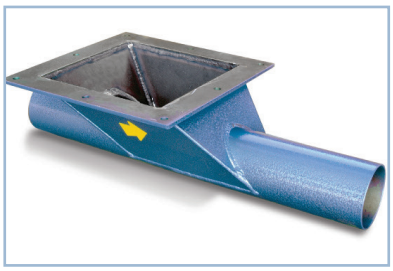


BEARING COOLING KIT

- Recommended on applications above 500 degrees F.

DISCHARGE ADAPTERS

- Effectively directs material away from rotor pocket



YOUR SYSTEMS INTEGRATOR FOR BULK MATERIAL AUTOMATION.

At Magnum Systems, we take a total system approach, which allows us to look at your complete process and develop the most efficient engineered solution for your production line. Depending on your material type, application environment, business objectives and financial goals, Magnum Systems designs a material handling solution that best fits your needs.

MAGNUM SYSTEMS

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