

Multi Duty (MD) Airlock

- Versatile airlock can be connected to many different types of storage and conveying devices
- Square flanged inlet and outlet
- Highly reliable, rugged design delivers low maintenance service
- Sealed bearings require no lubrication and provide years of service
- Available in a wide range of sizes
- Special options extend service life in challenging applications

Application

With tens of thousands of installations throughout the world, the Schenck Process MD airlock is a highly universal airlock used to meter dry bulk materials under feeding devices, such as bins, hoppers, mixers, screw conveyors and sifters.

Providing rugged service, the MD is suitable for use in dilute phase vacuum, pressure or combination vacuum/pressure pneumatic conveying systems. Low mounting height is ideal for space restricted applications. With a low profile and a wide flange width, the MD airlock is able to match drill hole patterns of many competitor's valves for easy replacement.

Equipment

The MD has a cast housing and endplates with a square flange. The rotor and housing are precision machined to obtain a high degree of accuracy and close tolerances. Close tolerances hold the differential pressure across the valve to reduce air leakage. Reducing leakage saves supply gas, reduces spikes in velocity and stabilizes the system.

An exclusive TS4 quad ring shaft seal maintains superior performance lasting up to ten times longer than a typical seal.



Outboard press fit bearings provide better protection, resulting in longer service life. Special wear resistant MD designs are designed to be placed in abrasive environments. Field tests of these designs show a lifespan up to eight times longer than a standard MD airlock.

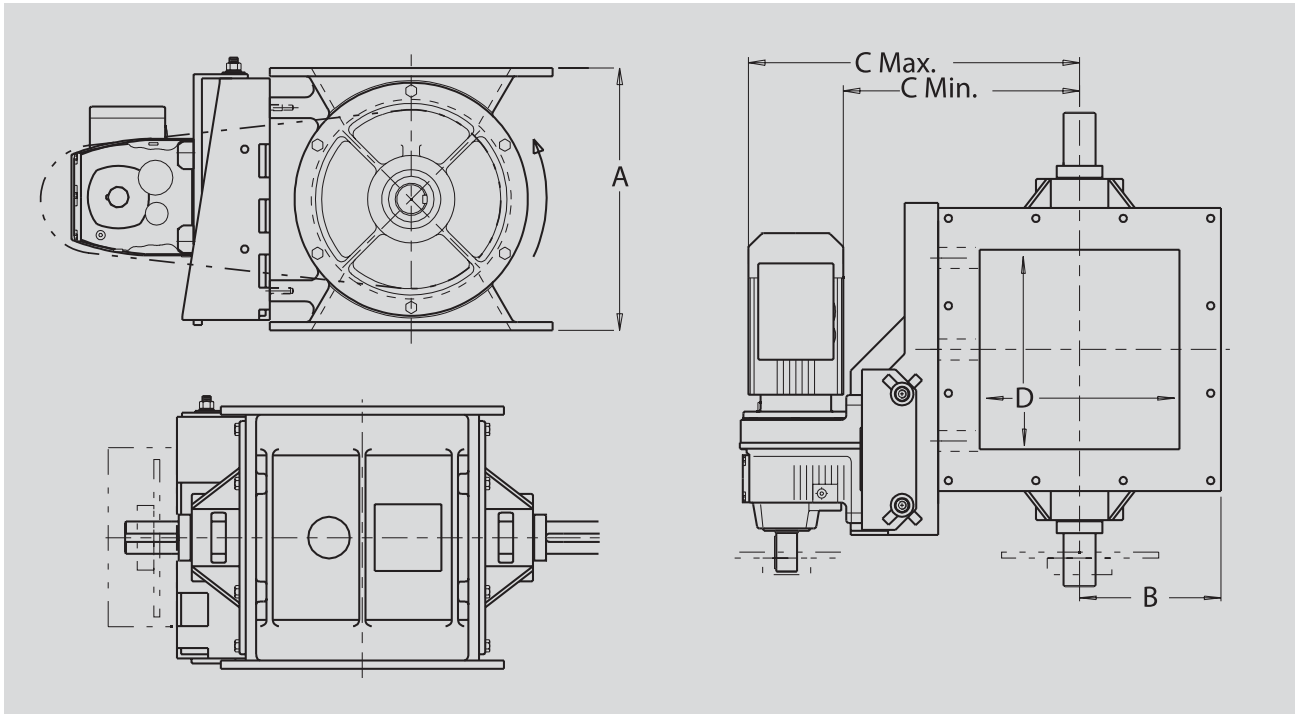
Operating Principle

The airlock reliably meters products into conveying lines or storage areas. With open end rotors, the product comes in contact with the endplates of the housing. With closed end rotors, the product is confined within the pockets of the rotor.

Features

- Rated up to 15 psi pressure differential
- Standard temperature rating is 200 °F (93 °C)
- Optional high-temperature rated to 450 °F (232 °C)
- Standard gray iron housing and endplates with carbon steel rotor for rugged service applications
- Optional stainless steel housing, endplates and rotor
- Rotors available with fixed or adjustable tips
- Rotors available with open or closed ends
- Radius pocket or reduced volume rotor available

Dimensions



| Model | Dimensions – inches (mm) | | | | D | Motor (HP) | CFR | Weight |
|------------|--------------------------|-----------------|-----------------|-----------------|-----------------|------------|------|---------------------|
| | A | B | C (Min.) | C (Max.) | | | | |
| MD20 | 10.5" (267 mm) | 6.0" (152 mm) | 9.38" (238 mm) | 18.0" (457 mm) | 8" (203 mm) | 0.75 | 0.2 | 285 lbs. (129 kg) |
| MD40 | 12.75" (324 mm) | 7.38" (188 mm) | 10.75" (273 mm) | 19.31" (491 mm) | 10" (254 mm) | 0.75 | 0.4 | 340 lbs. (154 kg) |
| MD40 EX SH | | | | | | 1.5 | | |
| MD75 | 15.75" (400 mm) | 8.5" (216 mm) | 11.88" (302 mm) | 22.06" (560 mm) | 12" (305 mm) | 1.0 | 0.75 | 580 lbs. (263 kg) |
| MD75 EX SH | | | | | | 1.5 | | |
| MD139 | 19.5" (495 mm) | 10.0" (254 mm) | 13.38" (340 mm) | 26.19" (665 mm) | 15.75" (400 mm) | 1.5 | 1.39 | 720 lbs. (327 kg) |
| MD260 | 26.0" (660 mm) | 12.5" (318 mm) | 16.31" (414 mm) | 28.19" (716 mm) | 19" (483 mm) | 2.0 | 2.6 | 1,220 lbs. (553 kg) |
| MD500 | 31.0" (787 mm) | 12.63" (321 mm) | 22.0" (559 mm) | 32.19" (818 mm) | 20.75" (527 mm) | 3.0 | 5.6 | 1,550 lbs. (703 kg) |

Dimensions are for an MD with a parallel drive package. Right angle drives are also available.

Airlock Rebuild Program

When your airlock has been subject to heavy service use and is not running up to peak performance, Schenck Process technicians can evaluate the equipment and determine the cost to repair it. Many times the cost of repair is up to 50% less than purchasing a new airlock. All Schenck Process airlock rebuilds are to original factory specification and come with a one year warranty.

Schenck Process

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