

Application

The Maximum-Duty (MD) 1820 Aerolock™ is one of Coperion K-Tron's largest rotary valves and is designed for high volume service. The MD 1820 is commonly used with some of the most challenging materials including minerals, chemicals, fillers, food ingredients, filled pellets, PVC compound and diatomaceous earth. The MD 1820 is engineered for heavy to severe industrial service with pressure differentials up to 1.4 bar(g) [20 psi(g)] and/or temperatures of 121°C [250°F]. The ability to withstand severe shock loads and elevated temperatures make the MD 1820 Aerolock a "true maximum duty" performer.

Design

The MD 1820 has a ten-blade, rotor that maintains a minimum three-blade labyrinth seal to minimize air leakage. The ten-blade rotor is available with flat or relieved tips in several rotor choices. The MD 1820 a single radial ball bearing on the drive side and two tapered roller bearings on the thrust side.



Technical Data

Standard Mechanical Specifications

- Rectangular inlet/outlet flange patterns
- Cast iron housing and end plates (coatings available)
- Carbon steel rotors
- Outboard bearings

Model Size	1820	
Basic Valve Size mm [in]	508 [20]	
Rotor - End Configuration	Closed	Open
Displ. dm³/Rev. [Ft³/Rev.]	69 [2.42]	73 [2.57]
Maximum Allowable Torque in Nm [lbf-in]	2,373 [21,000]	
Unit Weight in kg [lbs] without drive	544 [1,200]	
Unit Weight in kg [lbs] with drive	604 [1331]	

Options

Shaft Seals

- Packing: Spring loaded self-adjusting PTFE impregnated packing or optional graphite impregnated packing
- Air Purge: Compressed air defuser followed by a standard seal

Rotor (ten-blade)

- Standard flat or relieved tips
- Open-ended
- Hubbed
- Reduced displacement
- Staggered pocket
- Stainless steel

Coating

- Chrome
- Tungsten carbide
- Nedox (FDA approved)
- Nickel (electroless)
- Other coatings available

High Temperature

- Standard unit max. 121°C [250°F]
- High temperature option for max. 232°C [450°F]

Flanges

- Custom

Drives

- Single speed or variable speed
- Right angle or parallel
- Direct or indirect transmission (chain or belt)
- OSHA protective guarding

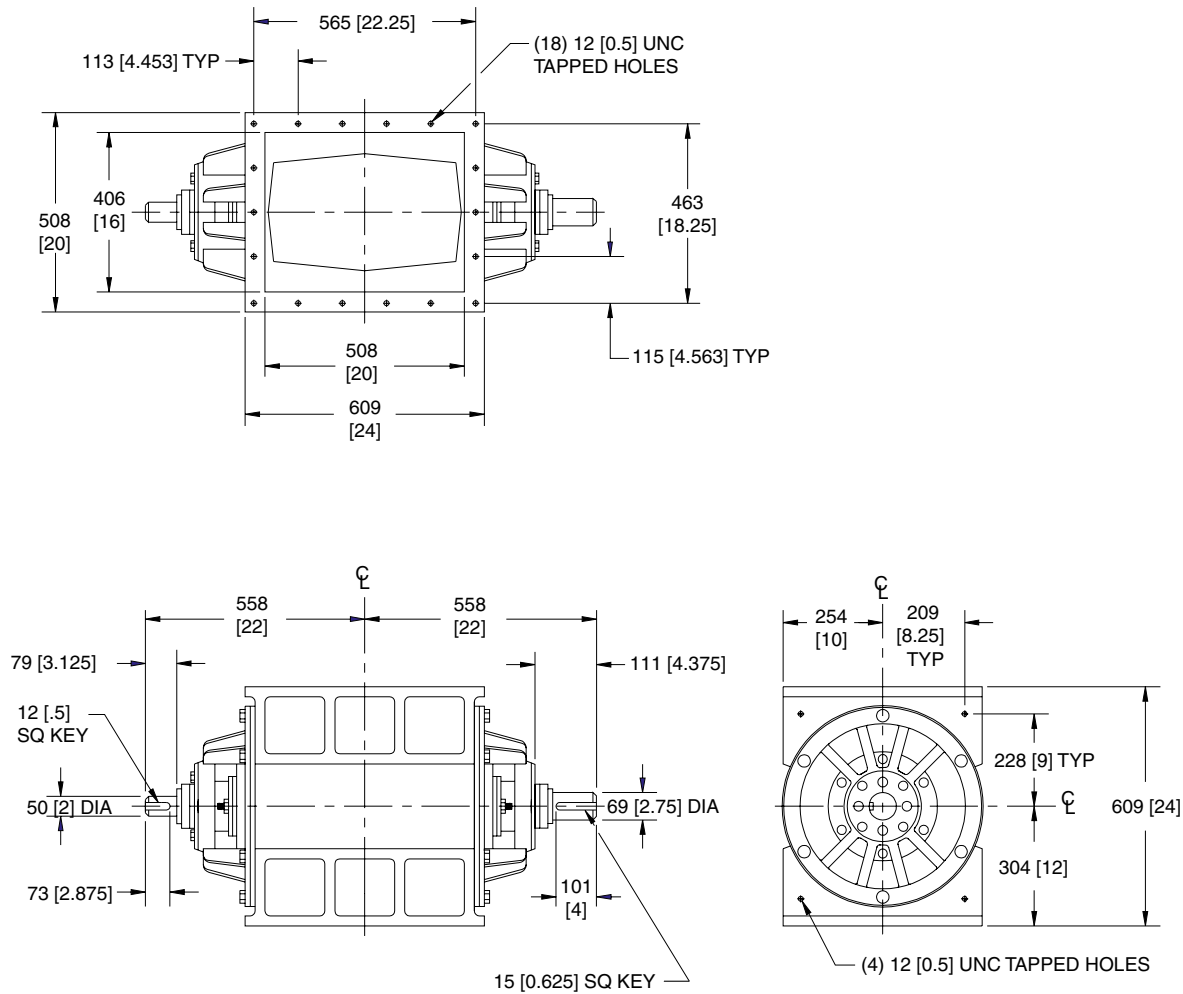
Electrical

- Consult factory for NEC or ATEX classifications available

Accessories

A complete line of accessories is available for Coperion K-Tron Aerolock rotary valves: outlet adapters, shear protectors, maintenance slide gates, outlet guards, surge hoppers, floor support stands, flanged transitions and custom transitions allowing an easy fit into an existing facility.

Dimensions of MD 1820 AeroLock™ mm [in]



Caution: Measurements are for general reference only. Please consult dimensional drawing for exact measurements.