

Model No. JAXX

# CLEAR ACTION GATE

**Ideal application:** Isolating a rotary airlock from a feeder above. Flange patterns are customizable to match up with any rotary airlock in the industry.

**Purpose:** Designed to seal against pressure from below. When a rotary airlock is idle, the Clear Action Gate is closed to prevent air loss into upstream equipment. This prevents line plugs and improves blower efficiency. A Clear Action Gate can also act as a maintenance device to isolate upstream equipment, if airlock maintenance is necessary.

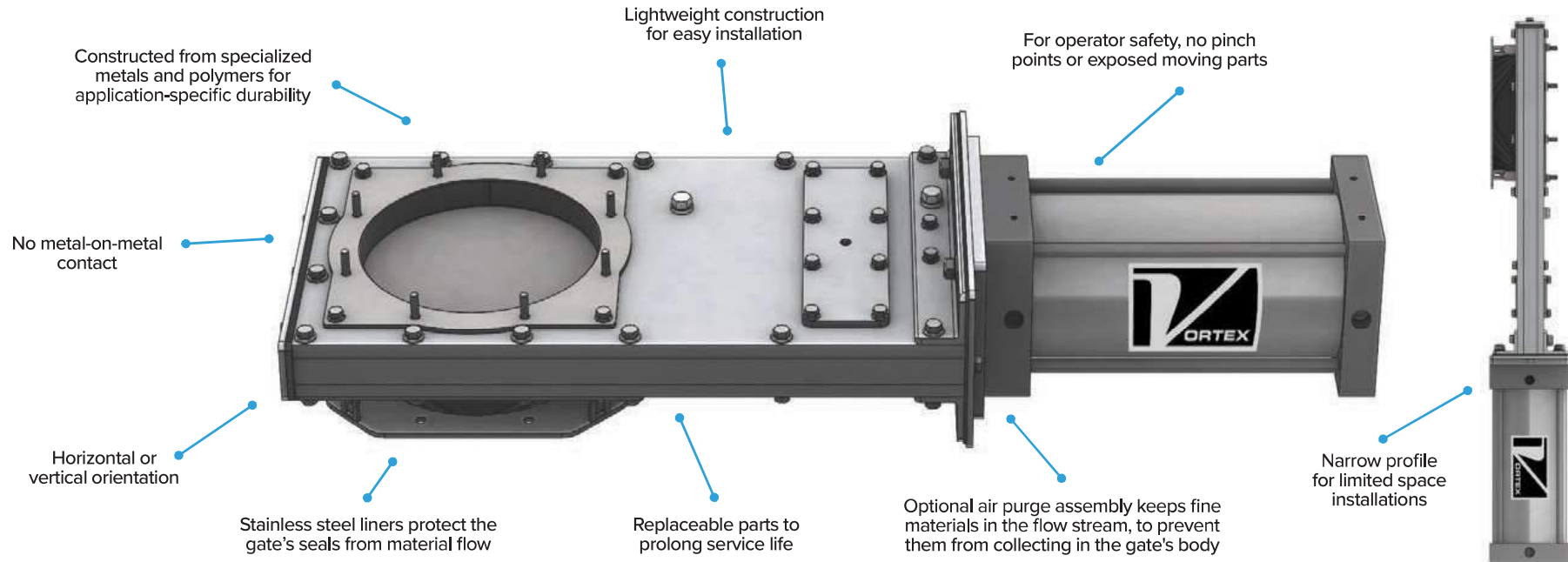


Standard

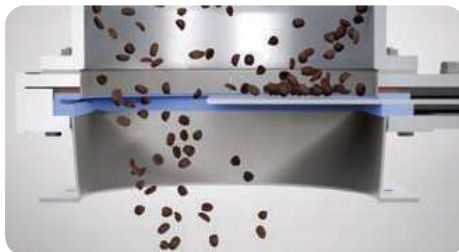


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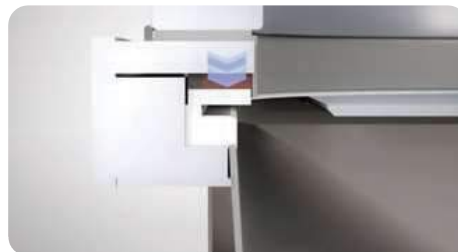
## OPTIONS



## KEY FEATURES



Positive seal of materials/dust-tight seal across the blade and to atmosphere



Live loaded, wear compensating hard polymer pressure plate seals



Enhance conveying efficiency by preventing air loss

## TECHNICAL SPECIFICATIONS

<b>Conveyance Type</b>	Gravity flow and dilute phase pneumatic conveying applications. Can handle differential pressures up to 15 psig   1 barg   0.1 MPa, depending on gate size. Can be used in pressure or vacuum systems.
<b>Materials Handled</b>	Non-abrasive to moderately abrasive powders, pellets and granules. Modifications available for handling corrosive materials and/or for wash-down.
<b>Standard Sizes</b>	6 – 16 in   150 – 400 mm
<b>Opening</b>	Available in round sizes. Square, round or rectangular mating flanges are available.
<b>Overall Height</b>	4 – 8 in   95 – 200 mm
<b>Weight</b>	55 – 180 lb   25 – 80 kg
<b>Flange Options</b>	Standard stud bolt pattern, ANSI #125/150, DIN PN10, JIS 10 Custom flanges are available
<b>Material Temperatures</b>	250°F   120°C for standard gate, with modifications that allow up to 400°F   205°C
<b>Body/Frame Construction</b>	Aluminum
<b>Material Contact Options</b>	304 or 316L stainless steel
<b>Pressure Plate Options</b>	Nylon, PET
<b>Load Seal Construction</b>	Silicone rubber
<b>Drive/Actuation</b>	Double-acting air cylinder, hand wheel/crank, chain wheel, electric actuator (see pages 61 & 62)
<b>Position Confirmation</b>	Magnetic reed, proximity or mechanical limit switches, and/or clear bonnet cover for visual indication (see page 63)
<b>Material Flow Controls</b>	AVP, IVP, VPO, VPC (see pages 65 & 66)
<b>Other Options</b>	Sealed body air purge (see page 64) Special Service Inlet (see page 67)
<b>Compliance</b>	ATEX Zone 20 (internal), ATEX Zone 21 (external), FDA



## THE POWER OF COMPARISON

### Vortex Clear Action Gate vs. Alternatives

- Many alternative slide gates and butterfly valves rely on soft rubber seals which are directly exposed to the material flow stream. These seals rapidly erode or tear away in service. Others rely on bonnet packing, which can relax and allow material packing in the seals. These deficiencies promote leakage of materials and dusts past the gate and to atmosphere, in addition to actuation issues and several other maintenance concerns. The Vortex® Clear Action Gate™ addresses these issues by incorporating "live loaded" hard polymer pressure plate seals. Hard polymer provides greater wear resistance and longer service life than alternative sealing materials. The hard polymer seals are "live loaded" with compressed rubber backing to ensure even as the polymer experiences frictional wear from many actuations over time, the rubber load seals continuously force the polymer seals against the blade. The seals are also shielded from the material flow stream, to protect them from abrasion. This design maintains the gate's positive seal of materials/dust-tight seal with infrequent maintenance intervention.
- Many alternative slide gates allow metal-on-metal sliding, which creates galling. This causes a gate to seize and bind, and can create foreign metal fragment contamination. The Clear Action Gate's hard polymer seals eliminate metal-on-metal contact to resolve each of these concerns.
- Many alternative slide gates and butterfly valves have open cavities where materials can wedge and prevent positive material shut-off. Wedging can also create seal wear and material degradation, and cause a gate to seize and bind. Wedged materials also create risk for cross-contamination and spoilage. To prevent wedging and ensure positive gate closure, the Clear Action Gate's machined, square-edged blade is designed to mechanically clear materials away from the sealing surfaces with each closing stroke. This ensures migrant materials are forced back out of the seals and are discharged into the process line, rather than packing in the seals and causing actuation issues.

For more information & technical resources, please visit:

[www.vortexglobal.com](http://www.vortexglobal.com)