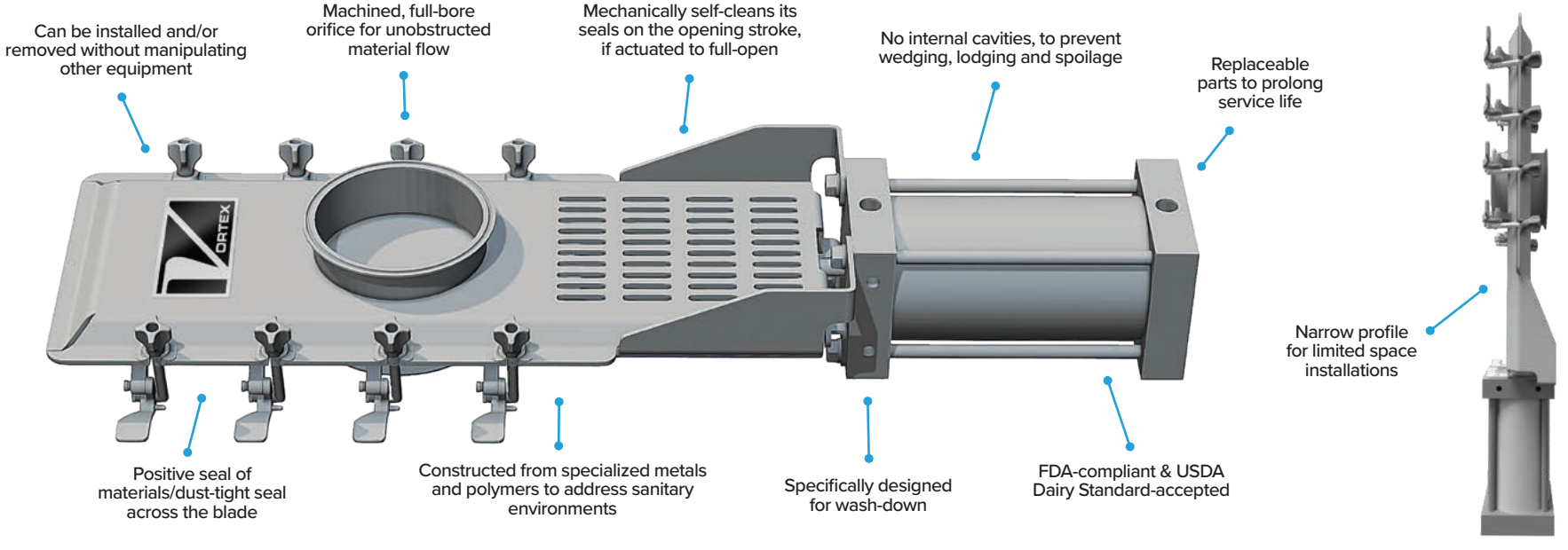
Model No. QCXX

QUICK CLEAN GATE

Ideal application: Sanitary dry bulk solid material handling applications that require frequent "Clean out of Place." The Vortex® Quick Clean Gate™ can be washed down daily, during shift change, or on any other regular cleaning or sanitation schedule. This eliminates potential for microorganisms, spoilage and bacterial growth.

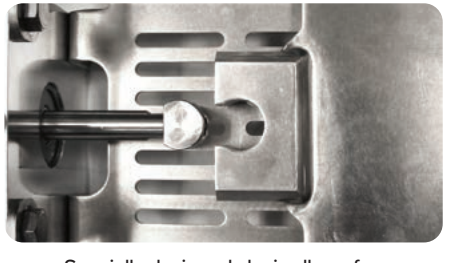
Purpose: The Vortex Quick Clean Gate is the first slide gate to be USDA Dairy Standard-accepted. It can be disassembled and reassembled in a matter of minutes – without using any tools.



KEY FEATURES

Ferrule-type fittings accommodate compression couplings for quick gate installation and removal without tools

Press-lock latches for internal access without tools



Specially designed clevis allows for quick blade removal

TECHNICAL SPECIFICATIONS

Conveyance Type	Gravity flow only. Contact us to discuss suitability for use in low pressure/vacuum applications.
Materials Handled	Non-abrasive powders, pellets and granules in applications where regular sanitation is required. Can be used to handle sticky and/or reactive materials.
Standard Sizes	2 – 10 in | 50 – 255 mm ID & OD diameters are available. Also available in schedule 10, 20 or 40 pipe sizes.
Opening	Available in round sizes
Overall Height	5 1/2 in | 140 mm
Weight	30 – 110 lb | 15 – 50 kg
Connection Options	Ferrule-type fittings, tube stubs, thru-bolt, ANSI #125/150 Custom flanges are available
Material Temperatures	100° F | 40° C for standard gate, with modifications that allow up to 200° F | 95° C
Body/Frame Construction	304 stainless steel
Material Contact Options	304 or 316L stainless steel & copolymer acetal
Pressure Plate Construction	PET & silicone rubber Seals should be hand-cleaned in treatment solutions not exceeding 180°F | 80°C
Load Seal Construction	Silicone rubber
Drive/Actuation	Double-acting air cylinder (see pages 61 & 62)
Cylinder Construction	Aluminum
Cylinder Shaft, Barrel Nuts & Tie Rod Construction	303 stainless steel
Position Confirmation	Magnetic reed switches (see page 63)
Material Flow Controls	AVP (see pages 65 & 66) ** Gate must cycle to full-open between runs to keep the displacement area clear of materials*
Compliance	ATEX Zone 20 (internal), ATEX Zone 21 (external), FDA, USDA Dairy Standard

THE POWER OF COMPARISON

Vortex Quick Clean Gate vs. Alternatives
The Vortex® Quick Clean Gate™ offers unique features and many distinct advantages over typical butterfly valves, pinch valves, ball valves and slide gates used in sanitary applications.

- Alternative slide gates and other valves can be problematic if they cannot be readily disassembled and sanitized. If materials collect in a valve's sealing surfaces, cross-contamination, spoilage and bacterial growth can result. The Quick Clean Gate's ability to be "Cleaned out of Place" ensures product safety and quality.
- The Quick Clean Gate is specifically designed to accelerate the sanitation process, so that downtime is significantly reduced. The Quick Clean Gate's compression coupling connections and its press-lock latches allow for quick disassembly, sanitation and reassembly without tools.
- Many alternative slide gates have open cavities where materials can lodge and prevent positive material shut-off. Lodging can also create seal wear and material degradation, and cause a gate to seize and bind. Lodged materials also create risk for cross-contamination and spoilage. To prevent lodging and ensure positive gate closure, such cavities have been eliminated in the Quick Clean Gate's design. The Quick Clean Gate is designed to mechanically clear materials away from the sealing surfaces with each opening 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 and/or contamination issues.
- A butterfly valve's rotating disc is directly exposed to the material flow steam, which creates wear to the disc itself. This can result in foreign metal fragment contamination. The exposed disc also obstructs material flow as they pass through the valve, which can cause line plugs and other maintenance concerns. To resolve these issues, the Quick Clean Gate's sliding blade is machined with an unobstructed, full-bore orifice that allows unrestricted material movement.
- Alternative slide gates and butterfly valves can significantly shear materials, as a result of jamming and grinding materials into the seals. Sheared materials cause seal wear, material degradation and damaged product quality. Sheared materials may also wedge in the seals, causing the gate to seize and bind. To address these issues, the Quick Clean Gate's "scissoring" action tapers off material flow throughout closure. In keeping the pressure plate seals clear of materials, their service life is also extended.

For more information & technical resources, please visit: **www.vortexglobal.com**