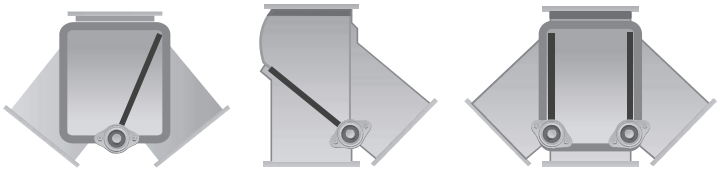
Model No. ZXX

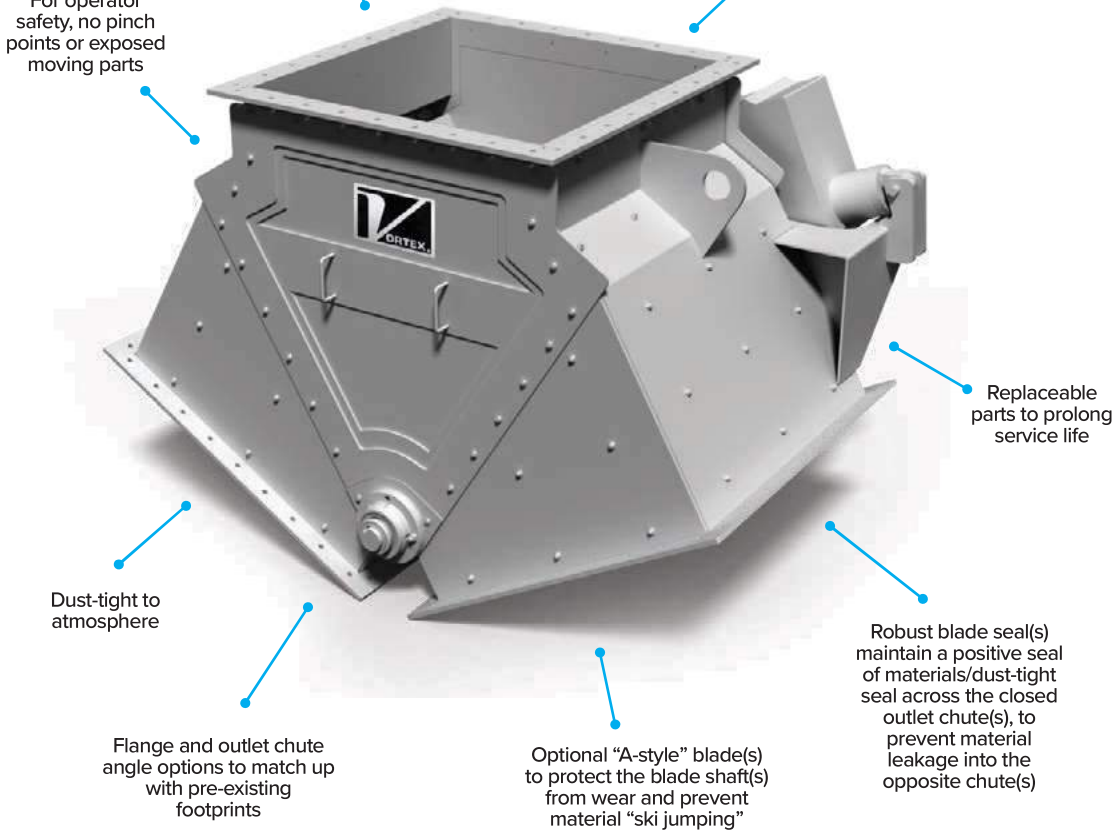
TITAN LINED DIVERTER

Ideal application: Used to divert heavy-duty and/or abrasive dry bulk solid materials from one source toward two or three destinations in gravity-fed applications.

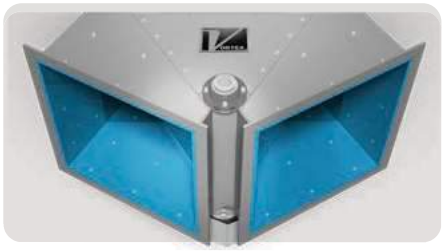
Purpose: The Vortex® Titan Lined Diverter™ offers in-line maintenance features, durable materials of construction, reduced downtime, prolonged service life and many other significant advantages over alternative flap diverters.



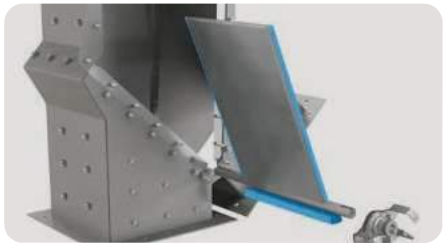
Two-Way | Straight Leg | Three-Way



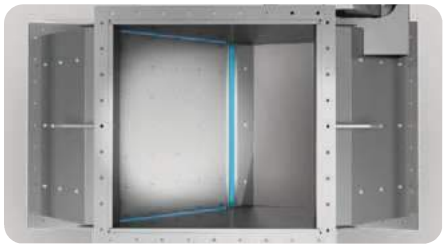
KEY FEATURES



Replaceable abrasion-resistant liners protect against wear and abrasion to prolong service life



Removable access panel for in-line inspection and maintenance



Robust blade seal(s) maintain a positive seal of materials/dust-tight seal across the closed chute(s), to prevent material leakage into the opposite chute(s)

TECHNICAL SPECIFICATIONS

Conveyance Type	Gravity flow only
Materials Handled	Heavy-duty and/or abrasive dry bulk solid materials
Standard Sizes	16 – 36 in | 400 – 900mm Contact us for custom sizes
Inlet & Outlets	Available in square or rectangular sizes. Round transition options are available (see page 67)
Overall Height	25 – 75 in | 650 – 1,905 mm
Weight	140 – 1,265 lb | 65 – 575 kg
Outlet Angle Options	30° or 45° from center Contact us for custom angles
Flange Options	Standard flange, ANSI #125/150, DIN PN10 Custom flanges are available
Material Temperatures	250°F | 120°C for standard gate, with modifications that allow up to 400°F | 205°C
Body/Frame Construction	400 BHN abrasion-resistant steel
Material Contact Options	400 BHN abrasion-resistant steel, carbon steel
Liner Options	400 BHN abrasion-resistant steel, UHMW, rubber
Blade Seal Options	Buna-N nitrile rubber, silicone rubber, polyurethane, EPDM rubber
Shaft Seal Options	PET, 25% glass-filled PTFE
Load Seal Construction	Silicone rubber
Drive/Actuation	Double-acting air cylinder, hand lever, chain wheel, electric actuator (see pages 61 & 62)
Position Confirmation	Magnetic reed, proximity or mechanical limit switches (see page 63)
Other Options	Spin knobs (see page 68)
Compliance	ATEX Zone 20 (internal), ATEX Zone 21 (external), FDA

THE POWER OF COMPARISON

Vortex® Titan Lined Diverter vs. Alternatives

- Many alternative flap diverters have sealed bodies, which limits interior access. In order to perform inspection and/or maintenance, the diverter must be removed from the process line so that its internal mechanisms can be accessed. This can lead to expensive and extensive production downtime. To allow in-line inspection and/or maintenance, the Vortex® Titan Lined Diverter™ is designed with a removable access panel that can be removed using simple tools. This feature is especially beneficial in abrasive applications where frequent interior access is required for wear part maintenance. The removable access panel feature significantly reduces downtime by accelerating the maintenance process.

- Many alternative flap diverters are constructed from less durable metal materials of construction. When handling heavy-duty and/or abrasive dry bulk solid materials, rapid wear and abrasion will result in frequent maintenance and diverter replacement. To address this concern, the body of the Titan Lined Diverter is constructed from carbon steel with replaceable abrasion-resistant liners, or (optional) body constructed from 400 Brinell Hardness Number (BHN) abrasion-resistant steel. For added protection, the Titan Lined Diverter can feature (optional) replaceable abrasion-resistant liners. By incorporating abrasion-resistant liners, it ensures materials are abrading upon replaceable parts, rather than wearing the underlying material contact areas. The addition of abrasion-resistant liners significantly prolongs a diverter's service life.

- Many alternative flap diverters are designed so that the leading edge of the blade(s) is constantly exposed to the material flow stream, creating wear and abrasion to the blade(s) and seal(s). If wear is significant, it can allow material leakage into the opposite chute(s), in addition to frequent wear part maintenance. To address these concerns, the Titan Lined Diverter is designed with recessed areas so that the leading edge of the blade(s) is shielded from the material flow stream.

- Many alternative flap diverters are designed with irreplaceable wetted parts. Once a primary wetted part is worn significantly, the entire diverter must be replaced. To resolve this cost-effectiveness issue, the Titan Lined Diverter is designed with replaceable wetted parts that can be accessed in-line. This includes actuator(s), flapper blade(s) and blade seal(s), the blade shaft seal(s), and the (optional) abrasion-resistant liners, among others. If maintained and operated as recommended, these should be the diverter's only wear parts. In several cases, this has allowed a Titan Lined Diverter to remain in service for many years – and sometimes, even decades.

- Many alternative flap diverters do not have seals beneath the blade shaft(s). This creates a significant opening for material migration into the opposite chute(s). Especially in perishable applications, this can foster cross-contamination and spoilage beneath the blade shaft(s). Also, without blade shaft seals, the blade shaft(s) is subjected to material-assisted abrasion, resulting in frequent wear part maintenance. The Titan Lined Diverter addresses these issues by incorporating "live loaded" hard polymer blade shaft seal(s). Hard polymer provides greater wear resistance and longer service life than alternative sealing materials. The hard polymer seal(s) is "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 seal(s) upward against the blade shaft(s). The seal(s) is also shielded from the material flow stream, to protect it from abrasion. This design maintains the diverter's positive seal of materials/dust-tight seal with infrequent maintenance intervention.

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