

Model No. ZXX  
**SEAL TITE  
 DIVERTER**

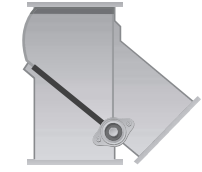
**Ideal application:** Gravity flow applications where dry bulk solid materials must be diverted from one source toward up to three destinations.

**Purpose:** The Vortex® Seal Tite Diverter™ offers many unique features and significant advantages over alternative flap diverters.

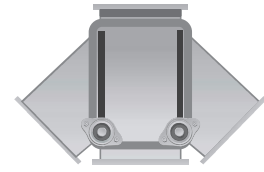
**OPTIONS**



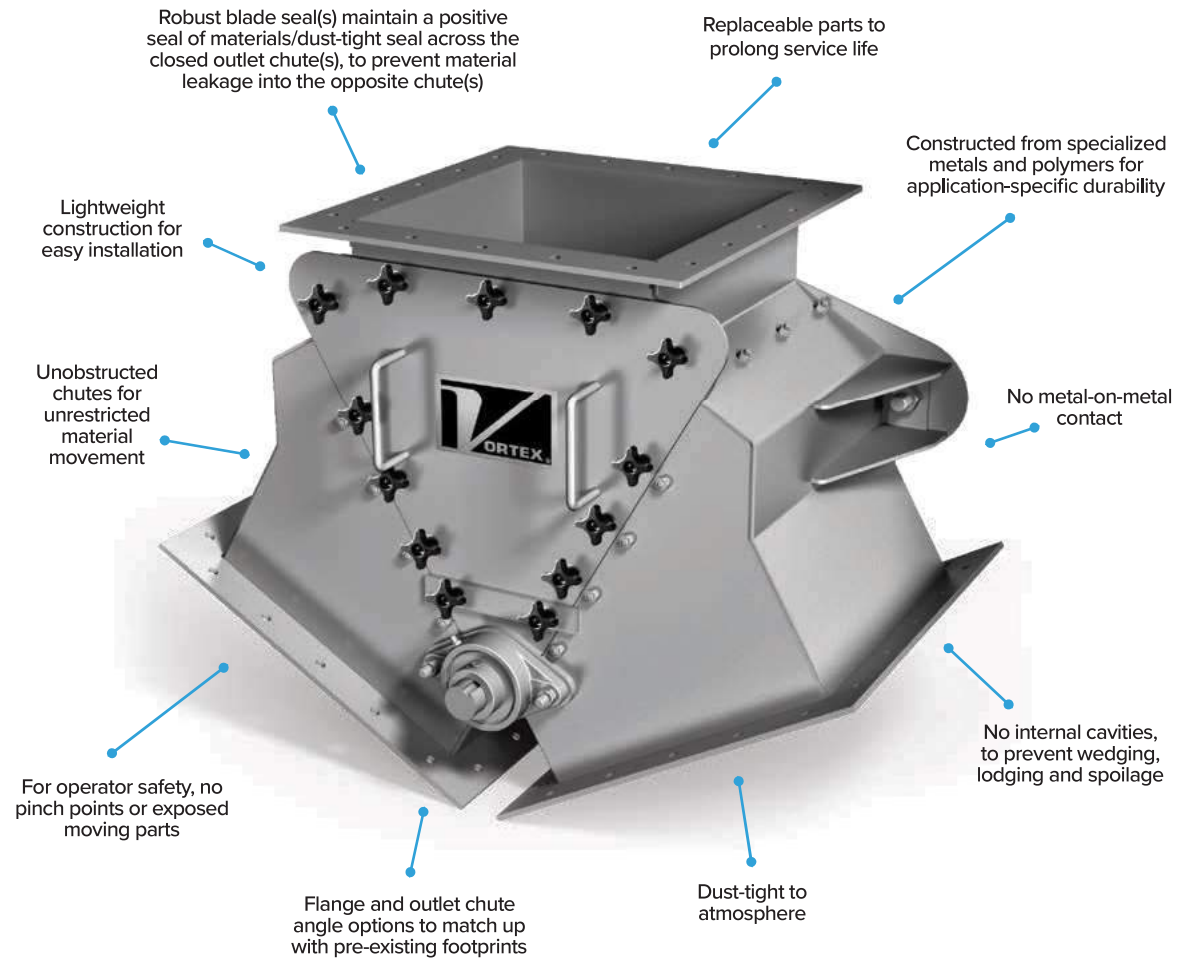
Two-Way



Straight Leg



Three-Way



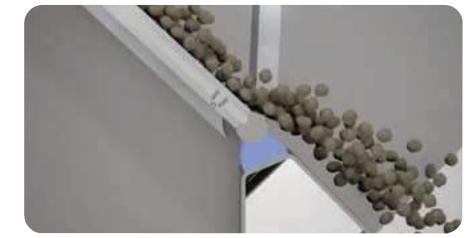
**KEY FEATURES**



Recessed blade(s) to protect the blade(s) & seal(s) from abrasion



Removable access panel for in-line inspection and maintenance



Live loaded, wear compensating shaft seal(s) protect the blade shaft(s) from wear and prevent material leakage into the opposite chute(s)

## TECHNICAL SPECIFICATIONS

|                                   |                                                                                                                                                   |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Conveyance Type</b>            | Gravity flow only                                                                                                                                 |
| <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>             | 4 – 30 in   100 – 760 mm<br>Contact us for custom sizes                                                                                           |
| <b>Inlet &amp; Outlets</b>        | Available in square or rectangular sizes. Round transition options are available (see page 67)                                                    |
| <b>Overall Height</b>             | 15x15 in – 65x55 in   385x385 mm – 1,640x1,370 mm                                                                                                 |
| <b>Weight</b>                     | 40 – 1,265 lb   20 – 575 kg                                                                                                                       |
| <b>Outlet Chute Angle Options</b> | 30° or 45° from center<br>Contact us for custom angles                                                                                            |
| <b>Flange Options</b>             | Standard flange, ANSI #125/150, DIN PN10<br>Custom flanges are available                                                                          |
| <b>Material Temperatures</b>      | 180° F   80° C for standard gate, with modifications that allow up to 400° F   205° C                                                             |
| <b>Body/Frame Options</b>         | 304 or 316L stainless steel, carbon steel                                                                                                         |
| <b>Material Contact Options</b>   | 304 or 316L stainless steel, carbon steel                                                                                                         |
| <b>Blade Seal Options</b>         | Buna-N nitrile rubber, silicone rubber, polyurethane, EPDM rubber                                                                                 |
| <b>Shaft Seal Options</b>         | PET, 25% glass-filled PTFE                                                                                                                        |
| <b>Load Seal Construction</b>     | Silicone rubber                                                                                                                                   |
| <b>Drive/Actuation</b>            | Double-acting air cylinder, hand lever, chain wheel, electric actuator (see pages 61 & 62)                                                        |
| <b>Position Confirmation</b>      | Magnetic reed, proximity or mechanical limit switches (see page 63)                                                                               |
| <b>Other Options</b>              | Spin knobs (see page 68)                                                                                                                          |
| <b>Compliance</b>                 | ATEX Zone 20 (internal), ATEX Zone 21 (external), FDA                                                                                             |



## THE POWER OF COMPARISON

### Vortex Seal Tite 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® Seal Tite Diverter™ is designed with a removable access panel that can be removed using simple tools. This feature is especially beneficial in sanitary applications where frequent interior access is required for proper sanitation, or in abrasive applications where 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 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 Seal Tite 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 have thin elastomer seals adhered to the perimeter of the blade(s). Over time, the thin seals erode or tear away from the blade(s) and allow material leakage into the opposite chute(s). The Seal Tite Diverter addresses this concern by incorporating a blade seal constructed from a full sheet of durable rubber. Rather than adhering thin seal strips around the perimeter of the blade, the robust seal sheet is compressed between two metal plates which form the flapper blade. This design ensures the blade seals will not tear away in service, and will provide a positive seal of materials/dust-tight seal over time.
- 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 Seal Tite 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.
- 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 Seal Tite Diverter is designed with replaceable wetted parts that can be accessed in-line. This includes actuator(s), flapper blade(s) and blade seal(s), and the blade shaft seal(s), among others. If maintained and operated as recommended, these should be the diverter's only wear parts. In several cases, this has allowed a Seal Tite Diverter to remain in service for many years – and sometimes, even decades.

For more information & technical resources, please visit:

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