

Model No. BDXX

AGGREGATE DIVERTER

Ideal application: Used to divert heavy-duty and/or abrasive dry bulk solid materials from one source toward two destinations in gravity-fed applications. The Vortex® Aggregate Diverter™ often replaces conventional “bucket” diverters used in such environments.

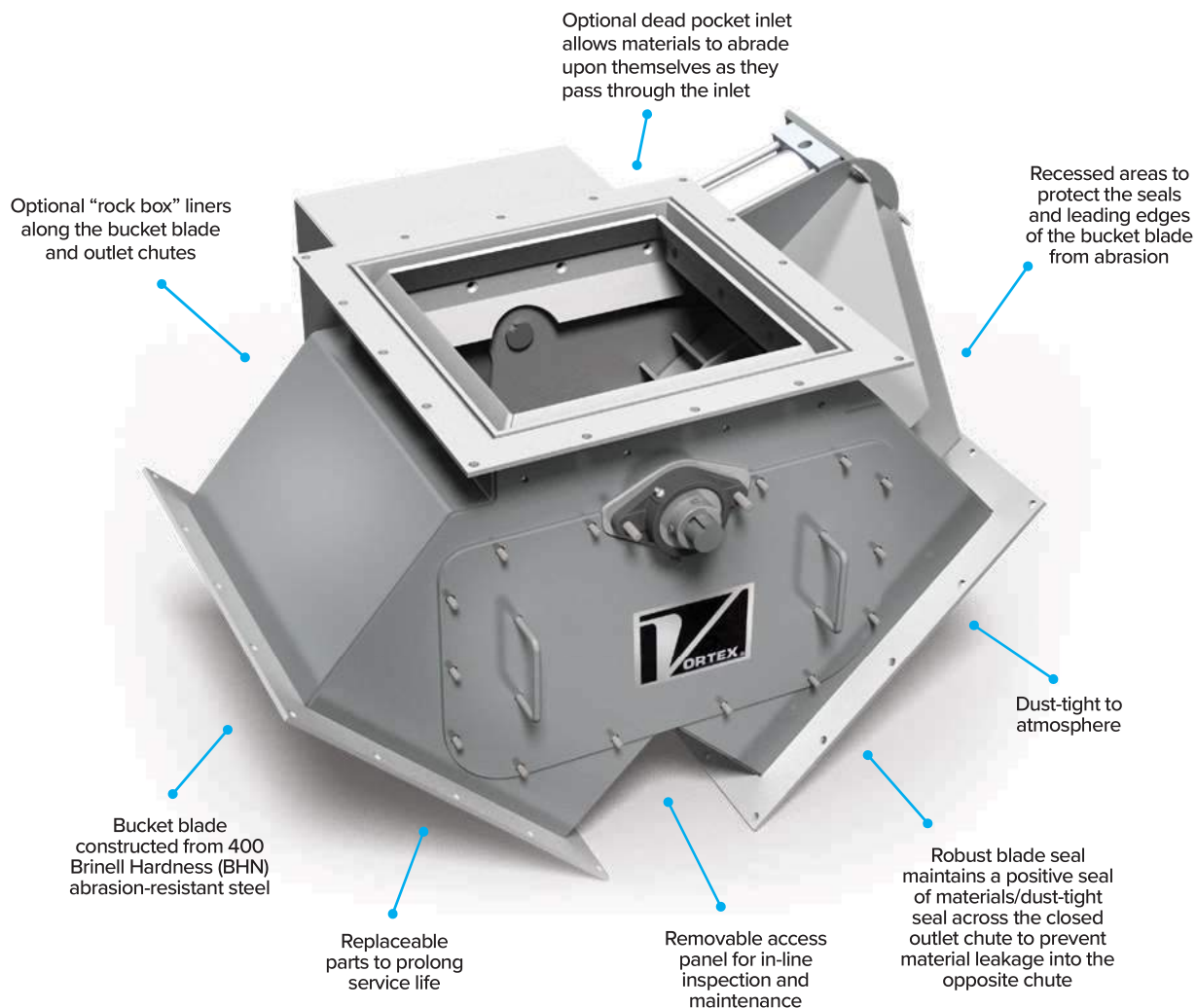
Purpose: In-line maintenance features and durable materials of construction to reduce downtime and prolong service life.



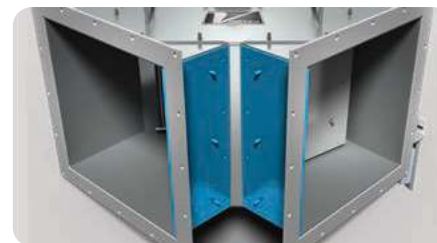
A- Style



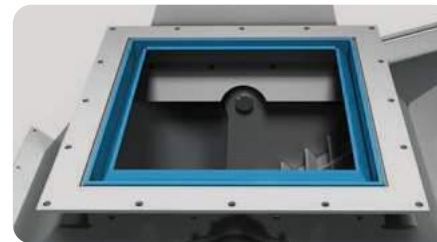
Straight Leg



KEY FEATURES



Optional chute liners to protect against wear and abrasion



Optional dead pocket inlet allows materials to abrade upon themselves as they pass through the inlet



Optional “rock box” liners allow materials to collect and abrade upon themselves, rather than continuously abrading upon the diverter’s material contact areas

TECHNICAL SPECIFICATIONS

Conveyance Type	Gravity flow only
Materials Handled	Heavy-duty and/or abrasive dry bulk solid materials
Standard Sizes	6 – 24 in 152 – 610 mm Contact us for custom sizes
Inlet & Outlets	Available in square or rectangular sizes. Round transition options are available (see page 67)
Overall Height	15x24 in — 50x73 in 380x610 mm — 1,270x1,855 mm
Weight	70 – 1,275 lb 30 – 580 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	Painted carbon steel
Material Contact Options	400 BHN abrasion-resistant steel, carbon steel
Liner Options	400 BHN abrasion-resistant steel, UHMW, rubber, “rock box”
Bucket Seal Options	Chute rubber, silicone rubber, Kryptane® abrasion-resistant polyurethane
Drive/Actuation	Double-acting air cylinder, hand lever, 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 Aggregate Diverter vs. Alternatives

- Many alternative bucket 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 Vortex® Aggregate Diverter™ is constructed from carbon steel. Its bucket blade is constructed from 400 Brinell Hardness Number (BHN) abrasion-resistant steel.
- Many alternative bucket diverters have thin elastomer seals adhered to the perimeter of the blade. Over time, the thin seals erode or tear away from the blade and allow material leakage into the opposite chute. The Aggregate Diverter addresses this concern by incorporating a bucket seal constructed from a full sheet of durable rubber. Rather than adhering thin seal strips around the perimeter of the bucket, the robust seal sheet is bolted beneath the bucket and secured by a bolt-in metal plate. This design ensures the bucket seal will not tear away in service, and will provide a positive seal of materials/dust-tight seal over time.
- Many alternative bucket diverters are designed so that the leading edges of the bucket are constantly exposed to the material flow stream, creating wear and abrasion to the blade and bucket seal. If wear is significant, it can allow material leakage into the opposite chute, in addition to frequent wear part maintenance. To address these concerns, the Aggregate Diverter is designed with recessed areas so that the leading edges of the bucket are shielded from the material flow stream.
- Many alternative bucket 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 Aggregate Diverter is designed with replaceable wetted parts that can be accessed in-line. This includes actuator, bucket, and bucket seal, among others. If maintained and operated as recommended, these should be the diverter's only wear parts. In several cases, this has allowed an Aggregate Diverter to remain in service for many years – and sometimes, even decades.
- Many alternative bucket 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 Aggregate 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.

For more information & technical resources, please visit:

www.vortexglobal.com