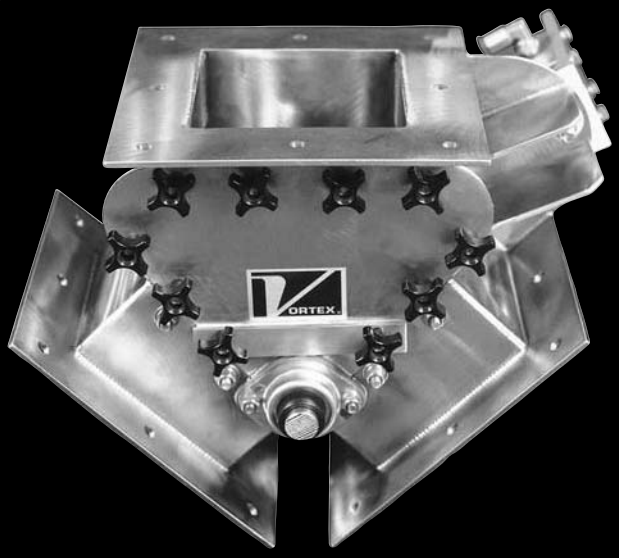
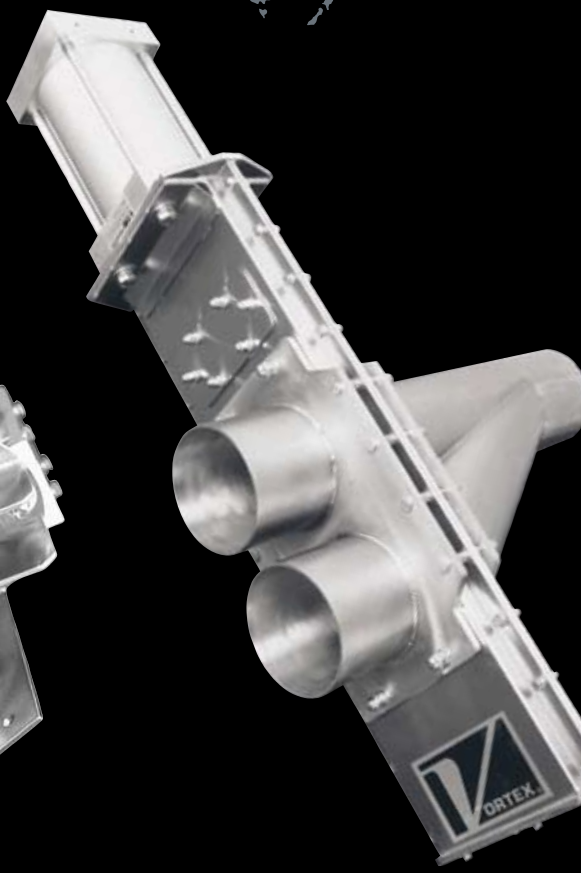
VORTEX® Valves

Product Catalog

Handling the world's dry bulk solids®





www.vortexvalves.com

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Granules

Pellets

Aggregates

VORTEX®

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Precision Manufacturing

Engineered Solutions

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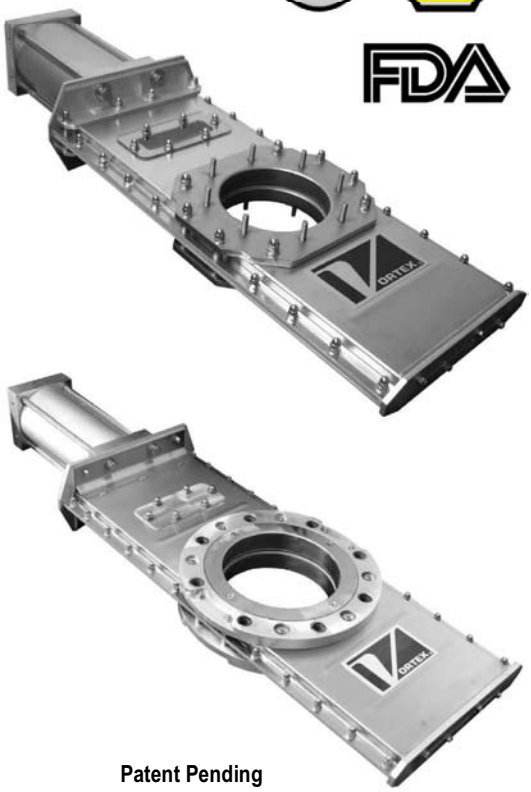
VORTEX® QUANTUM™ ORIFICE GATE™

The patent pending Quantum™ Series Orifice Gate™ is specifically designed to handle dry bulk solids in gravity flow, dilute phase, or vacuum conveying systems. A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow or cause material bridging. The gate seat and live-loaded seals are shielded from blast abrasion by a metal insert, which provides a smooth bore through the valve improving performance and decreasing any pressure drop across the orifice. By design, the valve "self cleans" material from the seat on each stroke of the valve blade, improving overall seat life. The Quantum™ Series Orifice Gate™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Quantum™ Series Orifice Gate™ Features

- Self-Cleaning Action, No Material Build-Up
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Accurate Metering of Material with Optional Metering Controls
- Easy Installation and Maintenance



Patent Pending

Valve Specifications

Size/Bore Options	2", 2.5", 3", 4", 5", 6", 8", 10", 12", 14" Diameters
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Stud Pattern, ANSI, DIN, JIS, and Custom Flanges available
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	Up to 15 psig, -0.1 MPa +0.1 MPa, 1 barg, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, Hand Crank, Chain Wheel, Hydraulic
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

G	Valve constructed of painted mild steel body and mounting flange with 304 or 316L stainless steel material contact.
H	Valve constructed of aluminum body and mounting flange with aluminum and stainless steel material contact.
F	Valve constructed of aluminum body with 304 or 316L stainless steel mounting flange and material contact.
J	Valve constructed of 304 stainless steel body and mounting flange with 304 or 316L stainless steel material contact.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450°F intermittent service.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

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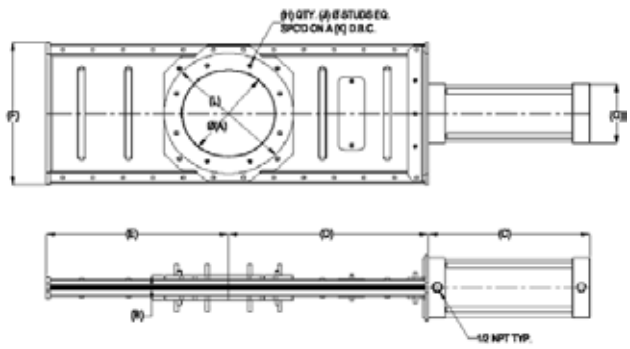
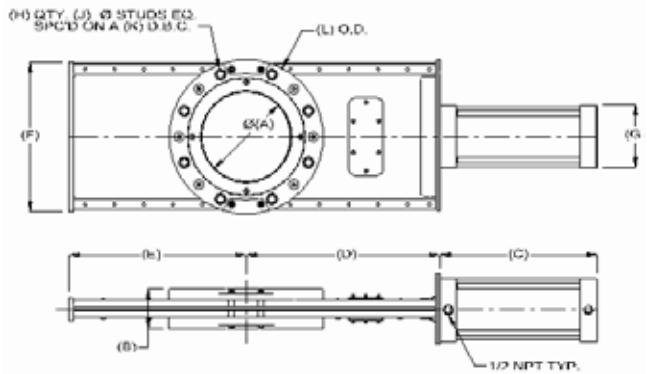
VORTEX® QUANTUM™ ORIFICE GATE™ DIMENSIONAL INFORMATION

Stud Bolt Model



ANSI Model



Stud Bolt Model	A	B	C	D	E	F	G	H	J	K	L	WT (LBS)
GRA02-F	1 3/4	2 1/8	6 3/4	7 1/2	6	7 1/8	3 3/8	4	5/16-18 NC x 1 1/8	3 7/8	4 3/4	17
GRA02.5-F	2 1/4	2 1/8	8 1/2	9	7 7/8	8 1/8	4 1/8	4	5/16-18 NC x 1 1/8	5	5 3/4	27
GRA03-F	2 3/4	2 1/8	8 1/2	9	7 7/8	8 1/8	4 1/8	4	5/16-18 NC x 1 1/8	5	5 3/4	27
GRA04-F	3 3/4	2 3/8	9 1/2	10 7/8	9 1/4	9 1/8	5 1/8	6	5/16-18 NC x 1	5 1/2	6 3/4	33
GRA05-F	4 7/8	2 3/8	10 1/2	12 5/8	10 7/8	10 1/8	5 1/8	8	5/16-18 NC x 1	6 1/2	7 1/2	38
GRA06-F	5 7/8	2 3/8	11 3/4	14	12 3/8	11 1/8	5 1/2	8	5/16-18 NC x 1	7 1/2	8 1/2	45
GRA08-F	7 7/8	2 3/8	13 3/4	17	15 3/8	13 1/8	5 1/2	8	5/16-18 NC x 1	9 1/2	10 1/2	56
GRA10-F	9 7/8	2 5/8	16 3/4	20 1/8	18 3/8	15 1/4	6 1/2	8	5/16-18 NC x 1 1/8	11 1/2	12 1/2	90
GRA12-F	11 7/8	2 5/8	18 3/4	23 1/8	21 3/8	17 3/8	6 1/2	12	5/16-18 NC x 1 1/8	13 3/4	15	108
GRA14-F	13 7/8	2 5/8	20 3/4	26 5/8	24 3/8	19 3/8	6 1/2	12	3/8-16 NC x 1 1/8	16	17	140

ANSI Model	A	B	C	D	E	F	G	H	J	K	L	WT (LBS)
GRA02-F-AP	1 3/4	3 3/8	6 3/4	7 1/2	6	7 1/8	3 3/8	4	5/8-11 NC x 3/4	4 3/4	6	22
GRA02.5-F-AP	2 1/4	3 3/8	8 1/2	9	7 7/8	8 1/8	4 1/8	4	5/8-11 NC x 3/4	5 1/2	7	32
GRA03-F-AP	2 3/4	3 3/8	8 1/2	9	7 7/8	8 1/8	4 1/8	4	5/8-11 NC x 3/4	6	7 1/2	32
GRA04-F-AP	3 3/4	3	9 1/2	10 7/8	9 1/4	9 1/8	5 1/8	8	5/8-11 NC x 3/4	7 1/2	9	38
GRA05-F-AP	4 7/8	3 1/2	10 1/2	12 5/8	10 7/8	10 1/8	5 1/8	8	3/4-10 NC x 3/4	8 1/2	10	42
GRA06-F-AP	5 7/8	3 1/2	11 3/4	14	12 3/8	11 1/8	5 1/2	8	3/4-10 NC x 3/4	9 1/2	11	50
GRA08-F-AP	7 7/8	3 1/2	13 3/4	17	15 3/8	13 1/8	5 1/2	8	3/4-10 NC x 3/4	11 3/4	13 1/2	61
GRA10-F-AP	9 7/8	4 3/8	16 3/4	20 1/8	18 3/8	15 1/4	6 1/2	12	3/4-10 NC x 3/4	14 1/4	16	95
GRA12-F-AP	11 7/8	4 3/8	18 3/4	23 1/8	21 3/8	17 3/8	6 1/2	12	7/8-9 NC x 1	17	19	115
GRA14-F-AP	13 7/8	4 5/8	20 3/4	26 5/8	24 3/8	19 3/8	6 1/2	12	1-8 NC x 1	18 3/4	21	145

All dimensions are in inches, Information subject to change without notice.

VORTEX® HDP® SLIDE GATE™

The unique "rising" blade design of the patented Vortex® HDP® Slide Gate sets itself apart from traditional industry slide gates by providing positive material shut-off in applications. The HDP® offers the durability and efficiency required to meet today's material processing demands. Traditional slide gates or butterfly valves are designed to handle gases and liquids, not dry materials. These valves rely on soft seals susceptible to blast abrasion and material packing, eventually allowing leakage of air and material through the valve or to the atmosphere. This causes the need for frequent valve maintenance, production inefficiencies, and unsanitary plant environments. The Vortex® HDP® Slide Gate is designed to prevent these problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® HDP® Slide Gate Features

- Designed to Handle Abrasive or Sticky Materials
- Positive Seal of Conveying Air and Fine Powders
- Seals Protected from Abrasion
- Long Service Life
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	4", 6", 8", 10", 12", 14", 16" Diameters
Media	Powder, Pellets, Granulars
Connection	ANSI, DIN, JIS, Custom Flanges
MediaTemperature	Up to 250°F continuous to 300°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	Up to +0.5 MPa, 5 barg, 75 psig, depending on size
Metal Construction Options	304, 316L Stainless Steel, Aluminum, and or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Patent No. 7163191

Application Specific Modifications

SC	Material contact is 304 Stainless Steel. Replace HR Carbon Steel Insert Flange and Ring, Upper Main Flange, Forward Liner, Forward Bonnet Seal Retainer, and Outlet Return Pan with 304 Stainless Steel.
S	Material contact is 316L stainless steel. Replace HR Carbon Steel Insert Flange and Ring, Upper Main Flange, Forward Liner, Forward Bonnet Seal Retainer, and Outlet Return Pan with 316LStainlessSteel.
MG	Air cylinder has a magnetic ring, which activates a magnetic reed position indication switch.
PET	PET replaces Nylon for the Blade Support Guides.
DIN	Replace Inlet ANSI pattern Flange with flange pattern to match DIN mounting pattern.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
SSI	Add welded integral Special Service Inlet to standard Insert Flange and Insert Ring Assembly.

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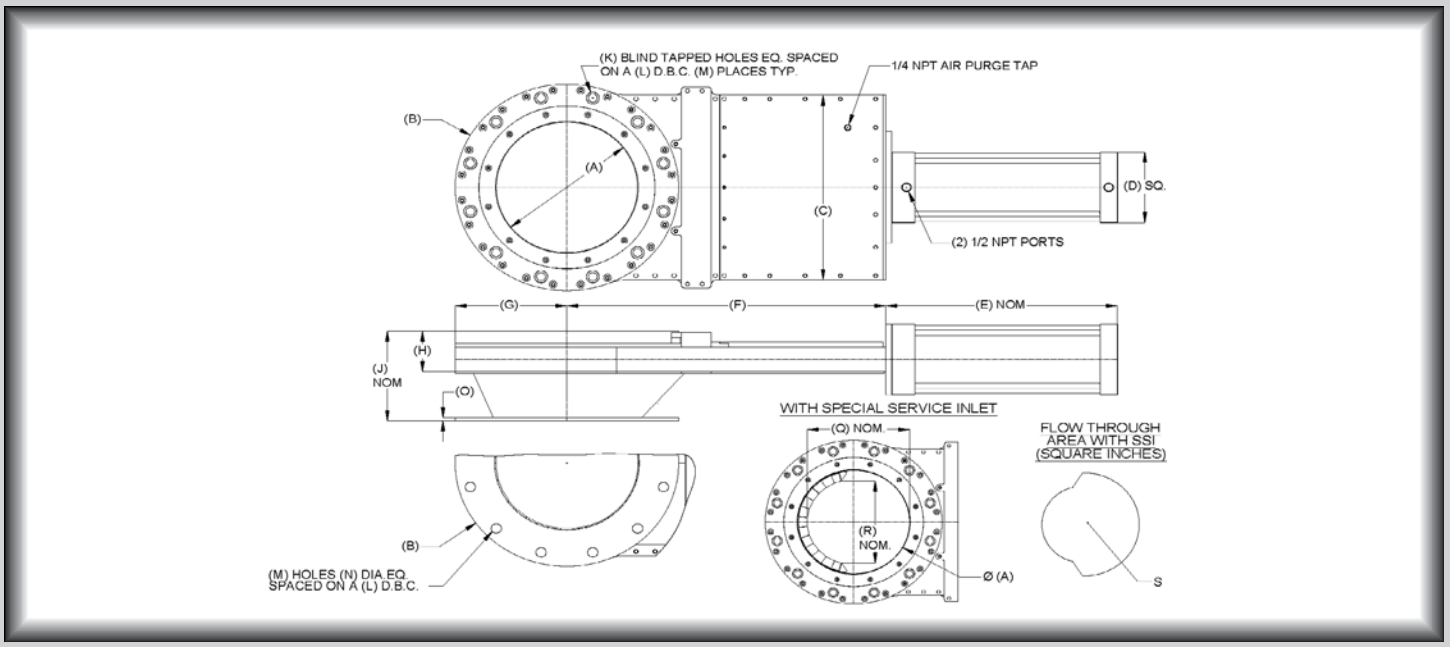
VORTEX® HDP® SLIDE GATE™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	WT (Lbs)
HDP04	4	9	9	5 1/8	10 1/2	13-3/4	4 1/2	3 3/4	7 3/4	5/8-11 x .625	7 1/2	8	3/4	1/4	3 3/4	2	7.67	75
HDP06	6	11	11	5 1/2	12 3/4	16-5/8	5 1/2	3 3/4	7 3/4	3/4-10 x .75	9 1/2	8	7/8	1/4	5	3 7/8	20.48	100
HDP08	8	13-1/2	13	5 1/2	14 1/4	20	6 3/4	3 3/4	7 3/4	3/4-10 x .75	11 3/4	8	7/8	1/4	7	5 3/4	39.78	130
HDP10	10	16	15	6 1/2	17 3/4	23-3/4	8	3 3/4	7 3/4	7/8-9 x 1	14 1/4	12	1	1/4	9	7 3/4	65.3	175
HDP12	12	19	17	6 1/2	19 3/4	27-1/8	9 1/2	3 3/4	8 1/4	7/8-9 x 1	17	12	1	1/4	11 5/8	9 5/8	97.14	225
HDP14	14	21	20-1/2	8 1/2	22	31-5/8	10 1/2	3 3/4	9 1/8	1-8 x 1.25	18 3/4	12	1 1/8	1/2	13 1/8	11 5/8	134.27	340
HDP16	16	23-1/2	22-1/2	8 1/2	24 1/2	36-1/8	11 3/4	3 3/4	9 1/8	1-8 x 1.25	21 1/4	16	1 1/8	1/2	15 1/8	13 1/2	178.58	425

All dimensions are in inches, Information subject to change without notice.

VORTEX® CLEAR ACTION GATE™

The patented Vortex® Clear Action Gate™ is a problem solver specifically designed for demanding dry bulk material applications. Patented design concepts, specialized machining, and materials of construction produce a high quality yet economical valve for use in pneumatic conveying systems up to 15 PSIG (1 Barg). Traditional knife gates or butterfly valves are designed to handle gases and liquids, not dry materials. These valves rely on soft rubber seals, which erode or tear away during use, allowing leakage of air and material through the valve or into the plant's atmosphere. This causes the frequent need for valve maintenance, production inefficiencies, and unsanitary plant environments. The Clear Action Gate™ is designed to eliminate these problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Clear Action Gate™ Features

- Self-Cleaning Action on Closure, No Material Build-Up
- Positive Seal Across the Valve to Atmosphere
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Blast Abrasion
- Accurate Metering of Materials with Optional Metering Controls
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	6", 8", 10", 12", 14", 16" Diameters
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Stud Pattern, ANSI, DIN, JIS, Custom Flanges Available
Media Temperature	Up to 250°F continuous to 300°F intermittent service
Media Pressure	Up to 15 psig, -0.1 MPa +0.1 MPa, 1 barg, depending on size
Metal Construction Options	304 or 316L Stainless Steel, or Aluminum
Seal/Seat Material Options	Nylon, PET, Natural Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, Hand Crank
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Patent No. 4938250

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
GP	Internal welds and surfaces are ground and polished.
P	The gate inlet and outlet have 7 gauge flanges with bolt pattern to match a #125/150 ANSI bolt pattern
WS1	Gate Slide Blade is electro-polished. Polyethylene Terephthalate (PET) dust seals are used to replace Nylon.

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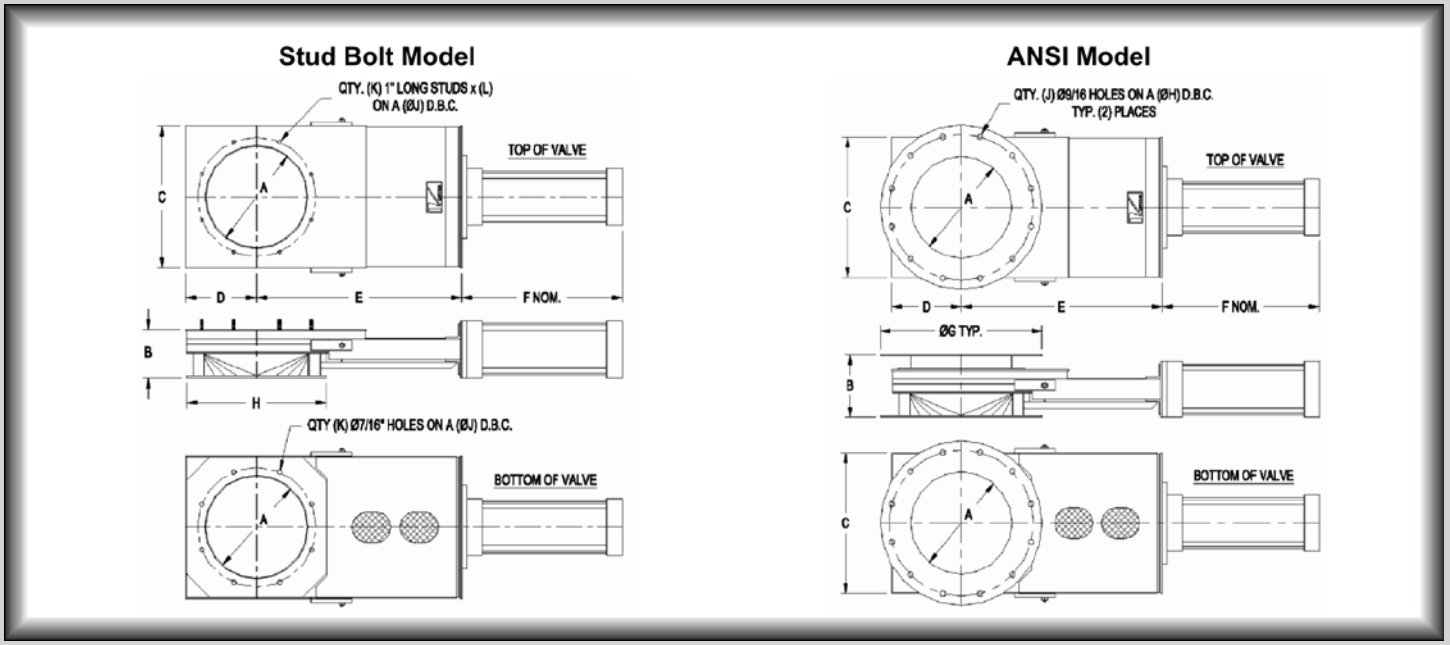
VORTEX® CLEAR ACTION GATE™ DIMENSIONAL INFORMATION



Stud Bolt Model	A	B	C	D	E	F	G	H	J	K	L	WT (Lbs)
JA06	5 7/8	3 3/4	9 3/4	4 7/8	13 7/8	11 5/8	6	9 1/2	7 1/2	8	5/16 UNC	55
JA08	7 7/8	3 3/4	11 3/4	5 7/8	16 7/8	13 5/8	8	11 1/2	9 1/2	8	5/16 UNC	65
JA10	9 7/8	4 5/8	13 3/4	6 7/8	19 7/8	16 1/2	10	13 1/2	11 1/2	8	5/16 UNC	75
JA12	11 7/8	5 3/8	15 3/4	7 7/8	22 7/8	18 3/4	12	15 1/2	13 13/16	12	5/16 UNC	90
JA14	13 7/8	5 7/8	17 3/4	8 7/8	25 7/8	20 1/2	14	17 1/2	15 13/16	12	3/8 UNC	130
JA16	15 7/8	6 3/8	19 1/2	9 3/4	29	22 3/4	16	19 1/2	18	16	3/8 UNC	165

ANSI Model	A	B	C	D	E	F	G	H	J	WT (Lbs)
JA06-P	5 7/8	5 1/4	9 3/4	4 7/8	13 7/8	11 1/2	11	9 1/2	8	60
JA08-P	7 7/8	5 1/4	11 3/4	5 7/8	16 7/8	13 1/2	13 1/2	11 3/4	8	70
JA10-P	9 7/8	6 1/8	13 3/4	6 7/8	19 7/8	16 1/2	16	14 1/4	12	80
JA12-P	11 7/8	6 3/8	15 3/4	7 7/8	22 7/8	18 3/4	19	17	12	100
JA14-P	13 7/8	7 1/4	17 3/4	8 7/8	25 7/8	20 1/2	21	18 3/4	12	140
JA16-P	15 7/8	7 7/8	19 1/2	9 3/4	29	22 3/4	23 1/2	21 1/4	16	180

All dimensions are in inches, Information subject to change without notice.

G & H Dimensions are for I.D and O.D of mating flange, respectively

VORTEX® QUICK CLEAN ORIFICE GATE™

The Vortex® Quick Clean Orifice Gate™ is a Clean Out of Place gate valve designed for frequent cleaning. The valve features a full-port opening and self-cleaning design. It can be disassembled and assembled in minutes without any tools. The valve can be modified to a USDA Dairy Standard Accepted rating and is an excellent choice for applications requiring daily sanitation of equipment. The Quick Clean Orifice Gate™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Quick Clean Orifice Gate™ Features

- FDA Approved Materials, USDA Dairy Standard Accepted Available
- Positive Seal of Dust and Fine Powders
- Valve Internals Accessed without Tools
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2, 3, 4, 5, 6, and 8 inch Diameter
Media	Powder, Pellets, Granulars
Connection	Ferule Connection, and/or Tube Stub
MediaTemperature	Up to 180°F continuous service, Modifications allow up to 250°F continuous service
Media Pressure	Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel Valve Body
Seal/Seat Material Options	PET, Silicon Sponge, and/or USDA Dairy rated Silicon
Drive/Actuation Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch
Compliance/Approvals	CE, ATEX, FDA, USDA
Industry Use	Pharmaceuticals, Pigments, Chemicals, Dairy

Patent No. 5938175

Application Specific Modifications

S	Material contact is 316L stainless steel.
NP	Nickel plated aluminum air cylinder.
SAN	USDA Dairy Standard Accepted.

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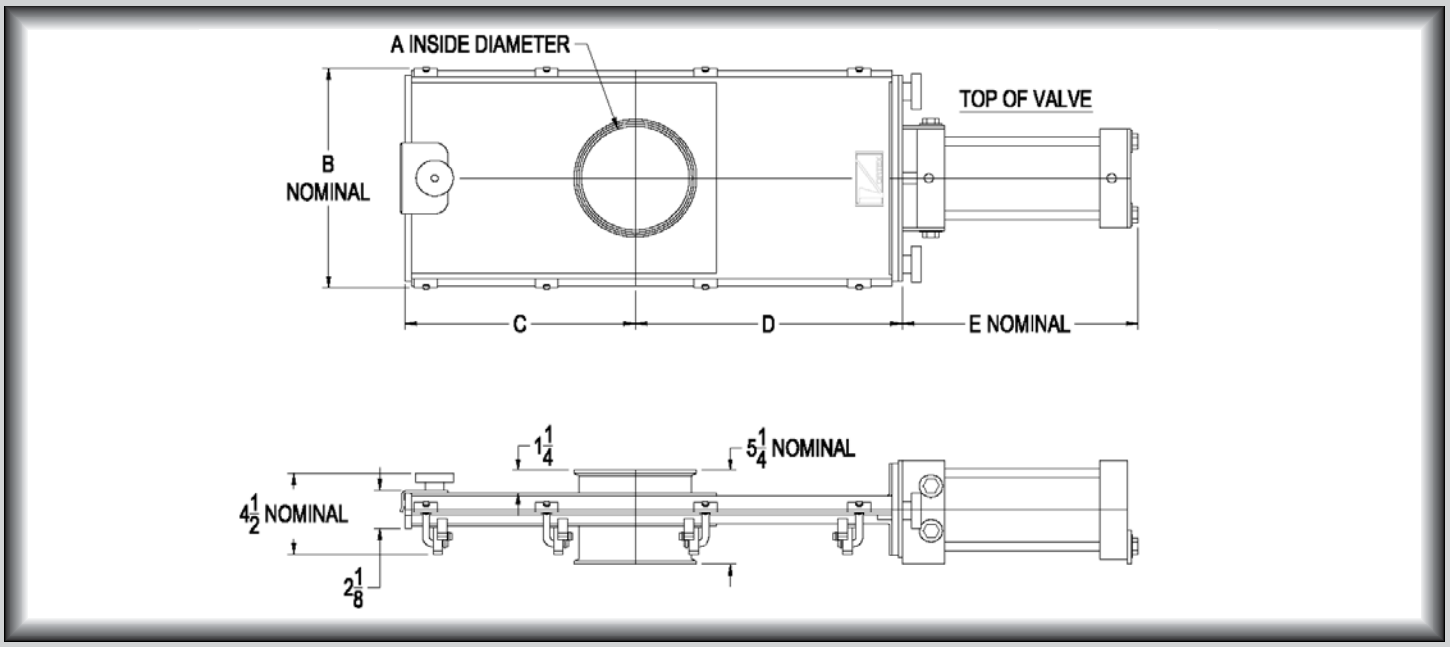
VORTEX® QUICK CLEAN ORIFICE GATE™ DIMENSIONAL INFORMATION



Model	Tube Size	A	B	C	D	E	WT (Lbs)
Q02	2	1 7/8	8	6 3/8	8 3/8	8 3/8	30
Q03	3	2 7/8	9 1/8	7 7/8	9 7/8	9 3/8	40
Q04	4	3 7/8	10 1/4	9 3/8	11 3/8	10 3/8	50
Q05	5	4 7/8	11 1/4	10 7/8	12 7/8	11 5/8	60
Q06	6	5 7/8	12 1/4	12 3/8	14 3/8	12 5/8	80
Q08	8	7 7/8	14 1/8	15 3/8	17 3/8	14 5/8	110

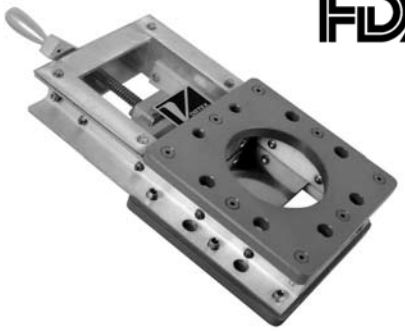
All dimensions are in inches, Information subject to change without notice.

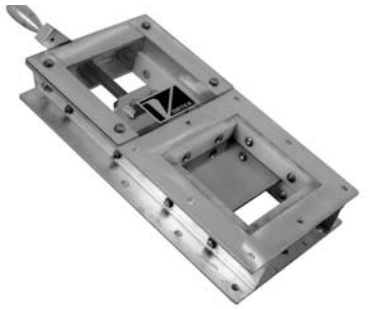
VORTEX® MAINTENANCE GATE™

The Vortex® Maintenance Gate offers quality features at an economical price. This gate is the best choice when material needs to be positively isolated in a hopper or silo, while maintenance is being performed on equipment below. In the open position, the Vortex® Maintenance Gate positively seals conveying air to atmosphere. Available in a wide variety of configurations, including round inlet/outlet transitions, the Maintenance Gate is your best insurance policy against equipment failure.

Vortex® Maintenance Gate Features

- Self-Cleaning Action on Closure, No Material Build-Up
- Positive Seal Across the Valve to Atmosphere
- Live-Loaded, Wear Compensating Seals
- Narrow Profile
- Easy Installation and Maintenance





Valve Specifications

Size/Bore Options	6”, 8”, 10”, 12”, 14” and 16” Round or Square
Media	Powder, Pellets, Granulars
Connection Options	SVC Flange, ANSI, DIN, JIS, or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	Up to 15 psig, -0.1 MPa +0.1 MPa, 1 barg depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Hand Crank
Position Confirmation	Visual Indication, Proximity Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

S	Material contact is 316L stainless steel (MSC only).
SC	Slide Blade and gate liner are made of 304 stainless steel (MRC models only).
S-SC	Slide Blade and gate liner are made of 316L stainless steel (MRC models only).
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
WS	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) seals are used to replace nylon.

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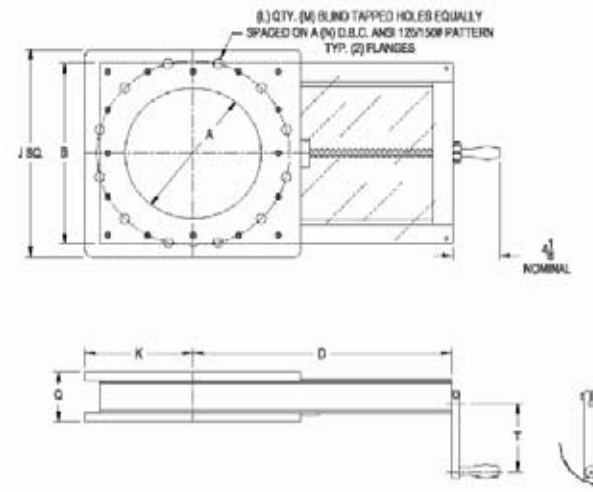
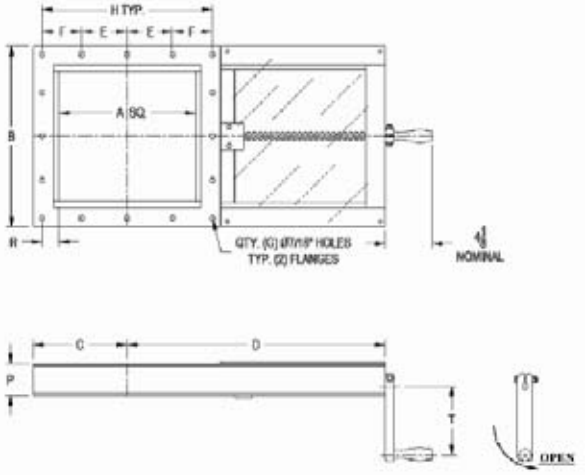
Web: www.vortexvalves.com

VORTEX® MAINTENANCE GATE™ DIMENSIONAL INFORMATION

MRC Model



MSC Model



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	T	WT (Lbs) MSC	WT (Lbs) MRC
6	6	10 1/2	5 1/4	13 3/4	4 1/2	--	8	9	11	5 1/2	8	3/4 UNC	9 1/2	3	4 1/2	1 1/2	4 1/4	15	76
8	8	12 1/2	6 1/4	16 3/4	5 1/2	--	8	11	13 1/2	6 3/4	8	3/4 UNC	11 3/4	3	4 1/2	1 1/2	4 1/4	23	82
10	10	14 1/2	7 1/4	19 3/4	3 1/4	--	16	13	16	8	12	7/8 UNC	14 1/4	3	4 1/2	1 1/2	6 1/4	30	100
12	12	16 1/2	8 1/4	22 3/4	4	3 1/2	16	15	19	9 1/2	12	7/8 UNC	17	3	4 1/2	1 1/2	6 1/4	35	130
14	14	18 1/2	9 1/4	25 3/4	4 1/4	--	16	17	21	10 1/2	12	1 UNC	18 3/4	3	4 1/2	1 1/2	6 1/4	42	165
16	16	21 1/2	10 3/4	28 3/4	4 3/4	--	16	19	23 1/2	11 3/4	16	1 UNC	21 1/4	4	5 1/2	1 1/2	8 1/4	49	201
18	18	23 1/2	11 3/4	31 3/4	5 1/4	--	16	21	25	12 1/2	16	1-1/8 UNC	22 3/4	4	5 1/2	1 1/2	10 1/4	60	215

All dimensions are in inches, Information subject to change without notice.

VORTEX® ROLLER GATE™

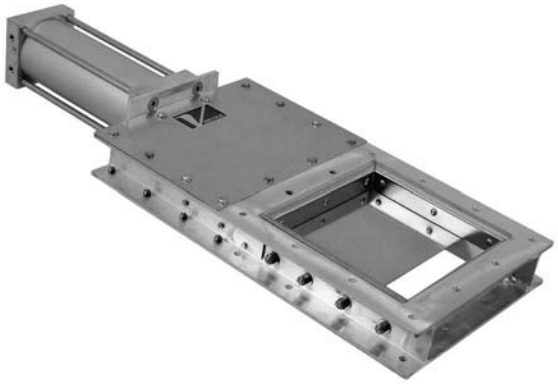
The Vortex® Roller Gate™ offers quality features at an economical price. This gate is your best choice for handling dry material in gravity flow applications where positive material shut-off and dust tight sealing are required in compact locations. The Vortex® Roller Gate™ is available in a wide variety of configurations to meet customer requirements, including rectangular sizes and customer specific hole patterns.

Vortex® Roller Gate™ Features

- Narrow Profile
- Positive Seal of Dust and Fine Powders
- Seals and Cam Adjustable Nylon Rollers Protected from Abrasion
- Accurate Metering of Material with Optional Metering Controls
- Easy Installation, Maintenance, and in-place Bonnet Seal Replacement

Valve Specifications

Size/Bore Options	6" thru 30", and larger in Square, or Rectangular sizes
Media	Powder, Pellets, Granulars
Connection Options	SVC Flange, CEMA Flange, and/or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450° F intermittent service
Media Pressure	0 PSIG Differential, Gravity Flow Only
Metal Construction Options	Aluminum, 304 or 316L Stainless Steel, and Carbon Steel. Material contact is 304 or 316L Stainless Steel.
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, Hydraulic Actuator, Hand Crank, or Chain Wheel
Position Confirmation	Magnetic Reed, Proximity, or Mechanical Limit Switches
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HS	Hardened steel cam rollers replace standard nylon cam rollers.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450°F intermittent service.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) dust seals are used to replace nylon.
SB	Bonnet is manufactured with solid covers and has a gasket. (Allows the valve to accept air purge.)
RS	Access ports are provided for removing/replacing worn bonnet seals.

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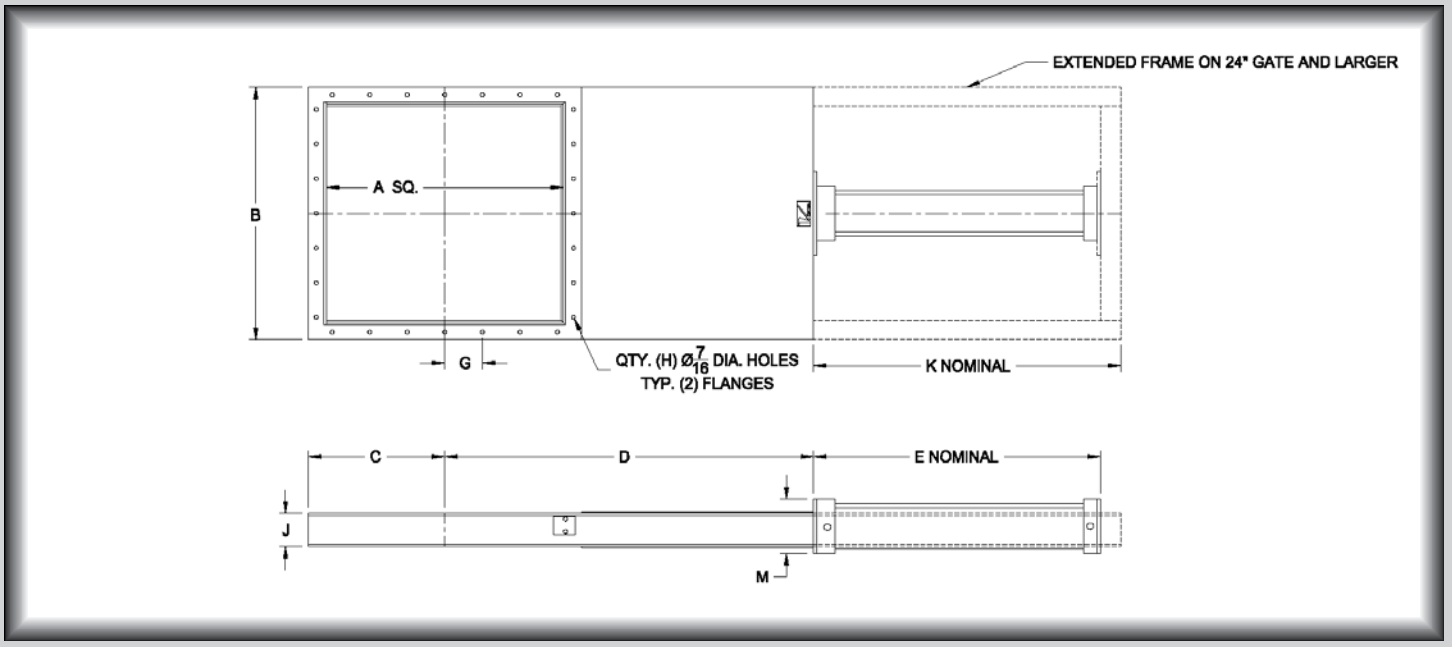
VORTEX® ROLLER GATE™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	WT (Lbs)
S06	6	10	5	12	11	4 1/2	4 1/8	8	3	--	32
S08	8	12	6	15	13	4 1/2	3 1/2	12	3	--	37
S10	10	14	7	18	15	4 1/2	4 1/2	12	3	--	45
S12	12	16	8	21	17	4 1/2	2 3/4	20	3	--	49
S14	14	18	9	24	19	4 1/2	3 1/4	20	3	--	59
S16	16	20	10	27	21	5 1/2	3 3/4	20	3	--	74
S18	18	22	13	30	23	5 1/2	4 1/4	20	3	--	84
S20	20	24	12	33	25	5 1/2	3	28	3	--	99
S22	22	26	16	36	27	5 1/2	3 1/2	28	3	--	140
S24	24	29	14 1/2	39	--	5 1/2	3 3/4	28	4	32	170
S30	30	35	17 1/2	48	--	5 1/2	3 5/8	36	4	37 3/4	200

Model	A	CONVEYOR DIAMETER	B	C	D	E	F	G	H	J	K	L	M	P	WT (Lbs)
S07	7	6	11	3	--	2 13/16	5 1/2	13 1/2	12	7/16	12	3	4 1/2	--	37
S09	10	9	14	4	--	4	7	18	15	7/16	12	3	4 1/2	--	45
S11	11	10	15	4 3/8	--	4 5/16	7 1/2	19 1/2	16	7/16	12	3	4 1/2	--	47
S13	13	12	17	5 1/4	--	5 1/8	8 1/2	22 1/2	18	7/16	12	3	4 1/2	--	51
S15	15	14	19	3 1/2	3 1/2	3 1/2	9 1/2	25 1/2	20	7/16	20	3	4 1/2	--	64
S17	17	16	21	4	4	3 3/4	10 1/2	28 1/2	22	7/16	20	3	5 1/2	--	84
S19	19	18	23	4 3/8	4 3/8	4 7/16	11 1/2	31 1/2	24	9/16	20	3	5 1/2	--	94
S21	21	20	25	4 3/4	4 3/4	4 7/8	12 1/2	34 1/2	26	9/16	20	3	5 1/2	--	106
S25	25	24	30	5 1/2	5 5/8	5 5/8	15	40 1/2	--	9/16	20	4	5 1/2	32 3/4	185

All dimensions are in inches, Information subject to change without notice.

VORTEX® HAND SLIDE ORIFICE GATE™

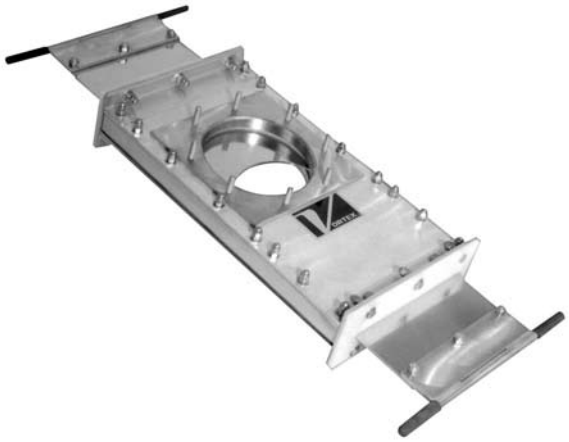
The Vortex® Hand Slide Orifice Gate™ is designed specifically to handle dry bulk solids in gravity flow conveying. A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow or cause material bridging. The gate seat and live loaded seals are shielded from blast abrasion by a metal insert. By design, the valve "self cleans" material from the seat on each stroke of the valve blade, improving overall seat life. The Hand Slide Orifice Gate™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Hand Slide Orifice Gate™ Features

- Self-Cleaning Action, No Material Build-Up
- Narrow Profile
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2", 3", 4", 5", 6", 8", 10" and 12" Diameters
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Stud Pattern, ANSI, DIN, JIS, Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	0 PSIG, Gravity Only
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Hand Slide
Position Confirmation	Visual Detection
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

S	Material contact is 316L stainless steel.
P	Mounting studs are removed and special mounting holes matching an ANSI pattern are provided for bolting through the gate flange.
HT3	Modifications are made allowing 250°F continuous to 450°F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450°F intermittent service.
WS1	Gate blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals are used to replace nylon.

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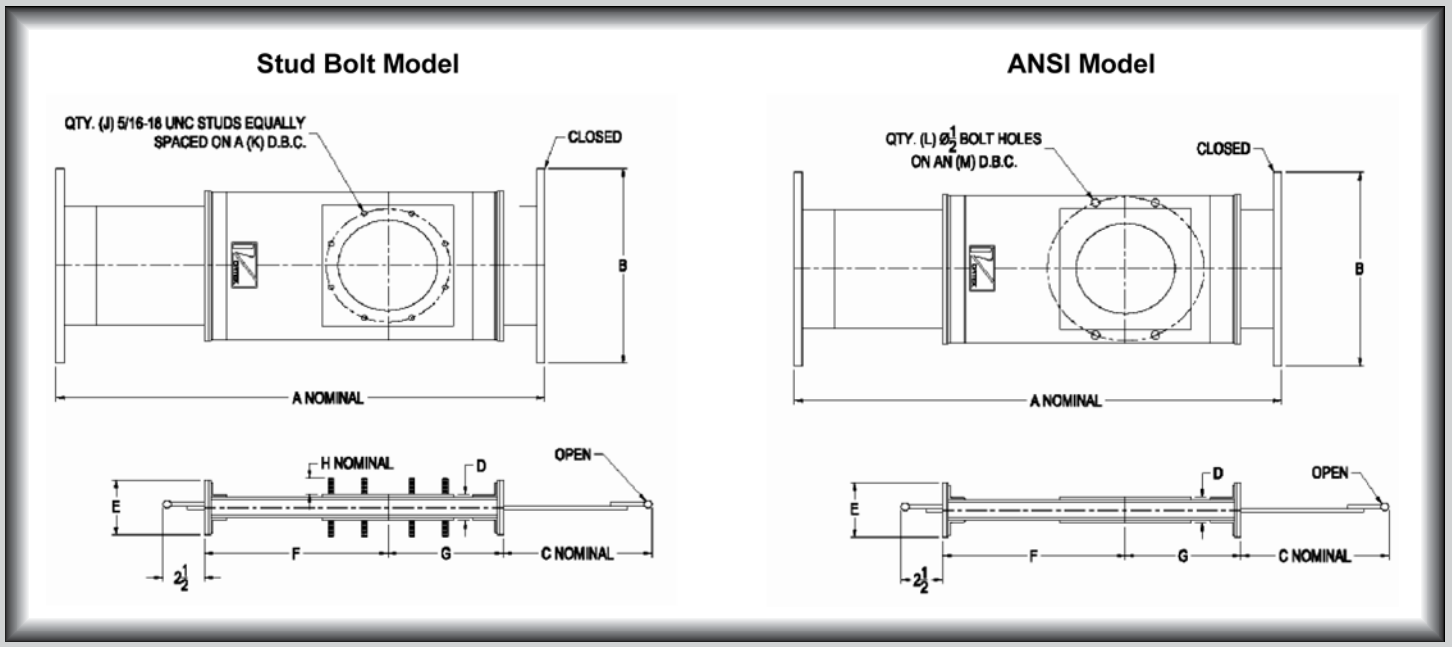
VORTEX® HAND SLIDE ORIFICE GATE™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	ANSI Model L	ANSI Model M	WT (Lbs)
HS02	16 1/8	8 7/8	5	1 3/4	3 1/2	4 3/4	3 7/8	1 1/8	4	3 7/8	2	4 3/4	10
HS03	19 1/4	10 1/8	6	1 3/4	3 5/8	6 1/4	4 1/2	1 1/8	4	5	2	6	12
HS04	22 5/8	11 1/8	7 1/8	1 3/4	3 1/2	8	5	1 1/8	6	5 1/2	4	7 1/2	16
HS05	26	11 7/8	8	1 3/4	3 5/8	10 5/8	5 7/8	1 1/8	8	6 1/2	4	8 1/2	20
HS06	29 5/8	12 7/8	9	1 3/4	3 5/8	11 1/8	7	1 1/8	8	7 1/2	4	9 1/2	27
HS08	35 1/2	14 7/8	11 1/4	1 3/4	3 1/2	14 1/8	7 7/8	1 1/8	8	9 1/2	4	11 3/4	35
HS10	41 5/8	16 7/8	13	1 3/4	3 5/8	17 1/4	8 7/8	1 1/4	8	11 1/2	4	14 1/4	60
HS12	47 3/4	18 7/8	15	1 7/8	4 3/4	20 1/8	9 7/8	1 1/4	12	13 13/16	4	17	72

All dimensions are in inches, Information subject to change without notice.

VORTEX® DUAL CYLINDER ROLLER GATE™

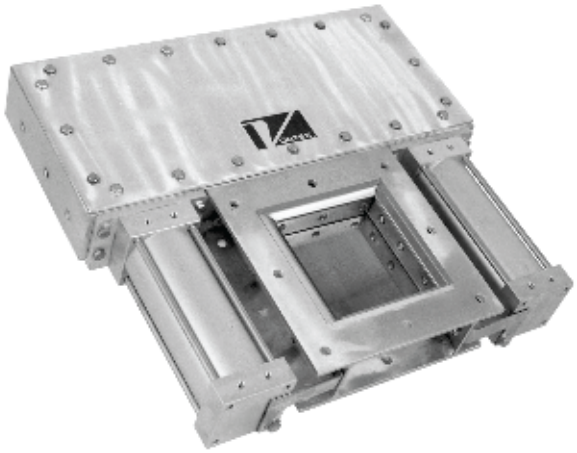
The Vortex® Dual Cylinder Roller Gate ™ offers quality features at an economical price. This gate is your best choice for handling dry material in gravity flow applications where positive material shut-off and dust tight sealing are required in compact locations. The Vortex® Dual Cylinder Roller Gate ™ is available in a wide variety of configurations, including rectangular sizes and round inlet/outlet transitions.

Vortex® Dual Cylinder Roller Gate™ Features

- Narrow Profile
- Positive Seal of Dust and Fine Powders
- Seals Protected from Abrasion
- Accurate Metering of Material with Optional Metering Controls
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	6" to 30" Square, Round, or Rectangular
Media	Powder, Pellets, Granulars
Connection Options	SVC Flange, CEMA Flange, and/or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service.
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HS	Hardened steel rollers replace standard nylon rollers and bonnet seal protector is installed.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing up to 400°G continuous to 450°F intermittent service.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals are used to replace nylon.
SB	Bonnet is manufactured with solid, gasket covers. (Allows the valve to accept air purge.)
RS	Access ports are provided for removing worn bonnet seals.

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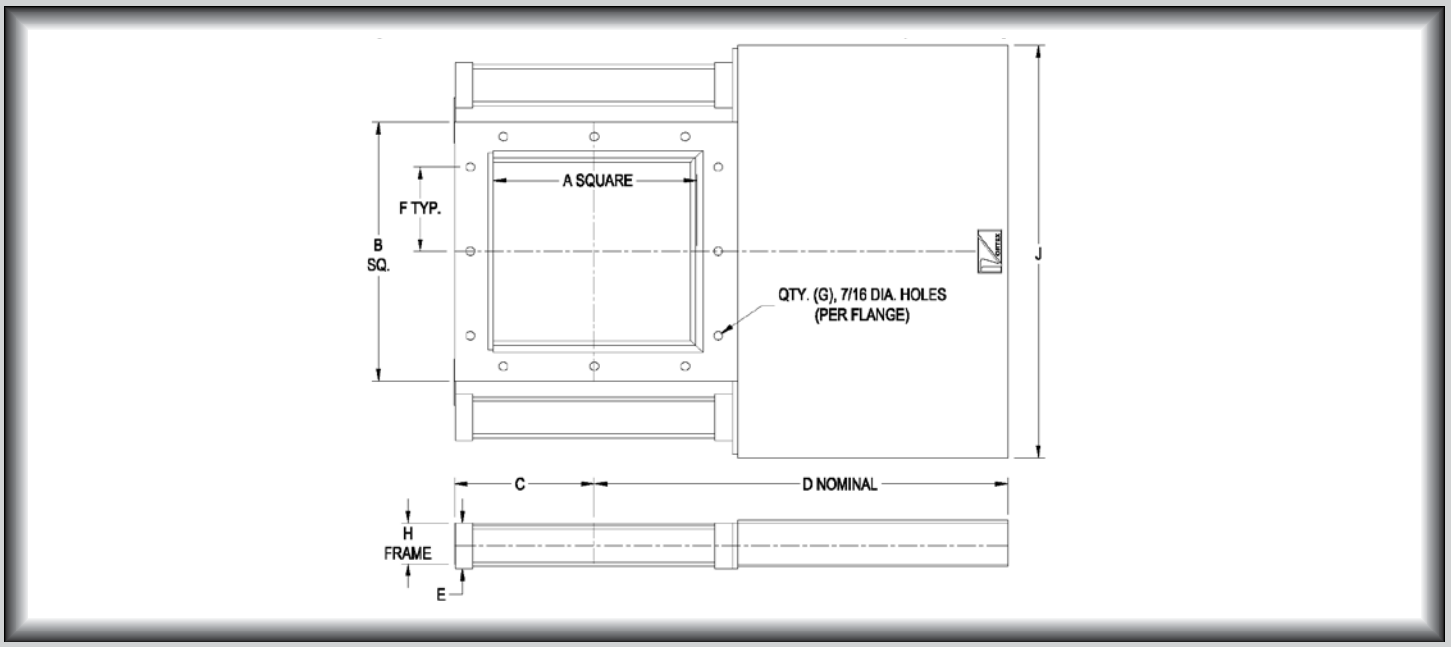
VORTEX® DUAL CYLINDER ROLLER GATE™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	WT (Lbs)
SD06	6	10	5	14 5/8	3 3/8	4 1/8	8	3	21 1/4	40
SD08	8	12	6	17 5/8	3 3/8	3 1/2	12	3	23 1/4	45
SD10	10	14	7	20 5/8	3 3/8	4 1/2	12	3	25 1/4	50
SD12	12	16	8	23 5/8	3 3/8	2 3/4	20	3	27 1/4	60
SD14	14	18	9	26 5/8	3 3/8	3 1/4	20	3	29 1/4	65
SD16	16	20	10 5/8	30 1/4	4 1/8	3 3/4	20	3	32 3/4	80
SD18	18	22	11 5/8	33 1/4	4 1/8	4 1/4	20	3	34 3/4	90
SD20	20	24	12 5/8	36 1/4	4 1/8	3	28	3	36 3/4	105
SD22	22	26	13 5/8	39 1/4	4 1/8	3 1/2	28	3	38 3/4	115
SD24	24	29	14 1/2	42 7/8	5 1/8	3 3/4	28	4	44 1/4	125
SD30	30	35	17 1/2	51 7/8	5 1/8	3 5/8	36	4	50 1/4	175

Model	A	B	C	D	E	F	G	H	J	K	L	M	WT (Lbs)
SD07	7	11	3	--	2 13/16	5 1/2	16 1/8	7/16	12	3	3 3/8	22 1/4	42
SD09	9	14	4	--	4	7	20 5/8	7/16	12	3	3 3/8	25 1/4	47
SD11	11	15	4 3/8	--	4 5/16	7 1/2	22 1/8	7/16	12	3	3 3/8	26 1/4	55
SD13	13	17	5 1/4	--	5 1/8	8 1/2	25 1/8	7/16	12	3	3 3/8	28 1/4	62
SD15	15	19	3 1/2	3 1/2	3 1/2	9 1/2	28 1/8	7/16	20	3	3 3/8	30 1/4	72
SD17	17	21	4	4	3 3/4	10 1/2	31 3/4	7/16	20	3	4 1/8	33 3/4	85
SD19	19	23	4 3/8	4 3/8	4 7/16	11 1/2	34 3/4	9/16	20	3	4 1/8	35 3/4	97
SD21	21	25	4 3/4	4 3/4	4 7/8	12 1/2	37 1/4	9/16	20	3	4 1/8	37 3/4	100
SD25	25	30	5 1/2	5 5/8	5 5/8	15	44 3/8	9/16	20	4	5 1/8	45 1/4	130

All dimensions are in inches, Information subject to change without notice.

VORTEX® AGGREGATE GATE™

The Vortex® Aggregate Gate™ is designed to meet the demanding applications associated with handling material such as sand, gravel, whole grains, and coal. The narrow profile, choice of actuators, and custom rectangular size make this slide gate adaptable to most existing installations. Optional round inlets or outlets flanges and dust return pans are also available. Aggregate Gate™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Aggregate Gate™ Features

- Hardened Steel Rollers with Grease Fittings
- Designed for Tough Aggregate Handling
- Positive Seal of Material
- Seals Protected from Abrasion
- Accurate Metering of Material with Optional Metering Controls
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	6” to 40”, Square, Rectangular, or Round
Media	Aggregates, Granulars
Connection Options	ANSI 150LB, DIN/PN10/PN40, JIS/10K, Custom Flanges Square or Rectangular
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 500°F continuous to 580°F intermittent service.
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 Stainless Steel, Carbon Steel, and/or Abrasion Resistant Carbon Steel
Seal/Seat Material Options	Nylon, PET, Glass Filled Teflon, Carbon Steel
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, Hydraulic, Hand Wheel, or Chainwheel
Position Confirmation	Magnetic Reed Switch, Proximity Switch, Mechanical Switch
Compliance/Approvals	CE, ATEX
Industry Use	Plastics, Petrochemicals, Chemicals, Minerals, Textiles, Agriculture

Application Specific Modifications

SC	Slide Blade and frame are 304 stainless steel. Rollers are 440 stainless steel and roller stud bolts are 304 or 18-8 stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 580°F intermittent service.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
HT6	Modifications are made allowing 500°F continuous to 580°F intermittent service.
AR	Slide Blade is made of AR plate for handling more abrasive materials.
DS	The dust seal will help to eliminate or reduce dusting to atmosphere. The Enhanced Bonnet Seal option would be preferred for handling rocks with dust present.

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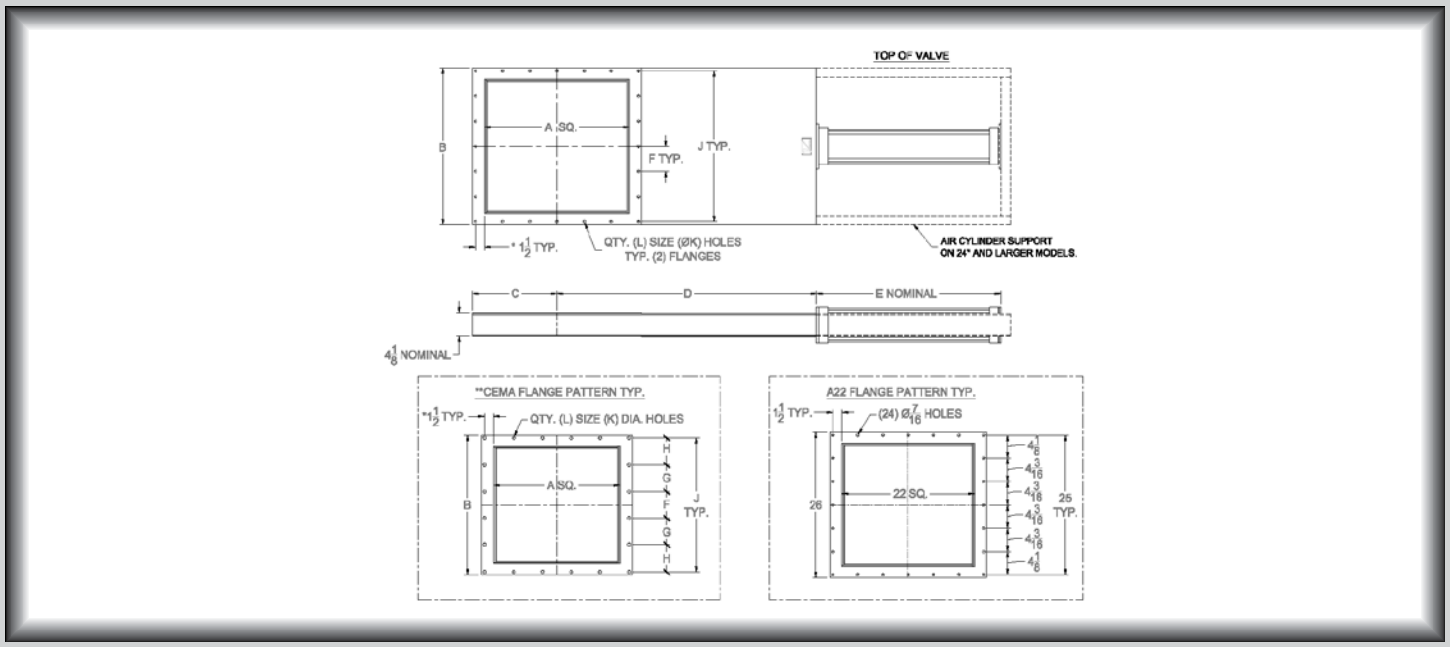
Web: www.vortexvalves.com

VORTEX® AGGREGATE GATE™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	L	WT (Lbs)
A06	6	10	5	16	11	4 1/2	--	--	9	7/16	8	65
A08	8	12	6	19	13	5 1/2	--	--	11	7/16	8	75
A10	10	14	7	22	15	3 1/4	--	--	13	7/16	16	95
A12	12	16	8	25	17	3 3/4	--	--	15	7/16	16	110
A13**	13	17	8 1/2	26 1/2	18	5 1/4	--	5 1/8	15 1/2	7/16	12	130
A14	14	18	9	28	19 1/4	4 1/4	--	--	17	7/16	16	150
A15**	15	19	9 1/2	29 1/2	20 1/4	3 1/2	3 1/2	3 1/2	17 1/2	7/16	20	170
A16	16	20	10	31	21 1/4	4 3/4	--	--	19	7/16	16	190
A17**	17	21	10 1/2	32 1/2	22 1/4	4	4	3 3/4	19 1/2	7/16	20	210
A18	18	22	11	34	23 1/4	5 1/4	--	--	21	7/16	16	230
A19**	19	23	11 1/2	35 1/2	24 1/4	4 3/8	4 3/8	4 7/16	22	9/16	20	250
A20	20	24	12	37	25 1/4	5 3/4	--	--	23	7/16	16	270
A21**	21	25	12 1/2	38 1/2	26 1/4	4 3/4	4 3/4	4 7/8	24	9/16	20	290
A22	22	26	13	40	27 1/4	4 3/16	--	4 1/8	25 1/8	7/16	24	310
A24	24	28	14	43	32 1/8	4 1/2	--	--	27	7/16	24	395

All dimensions are in inches, Information subject to change without notice.
*Typical dimension except for A19, A21, & A22. (Dimension = (J - A) / 2)
**Indicates CEMA standard flange.

VORTEX® METERING CONTROLS AND ACCESSORIES

Vortex® offers a variety of controls that allow variable positioning of the gate blade on the opening or closing strokes. Metering controls are an ideal solution for Volume Metering Applications. These assemblies provide more Accurate Batchweights, and Reducing Fill Times. Assemblies can be ordered for the following standard Vortex® Valves: Orifice Gate™, Clear Action Gate™, Roller Gate, Aggregate Gate™, and Gravity Vee Diverter™. Note the Orifice Gate™ must be cycled to the full open position to utilize its self-cleaning feature and avoid packing of material in the seal area.

Vortex® Variable Position Applications

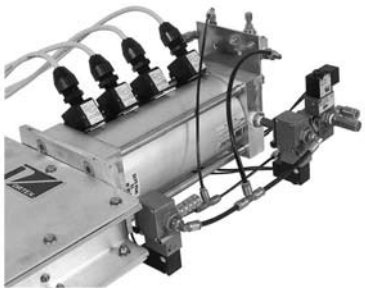
- Batching
- Metering into Screw Conveyors
- Dribble Flow
- Scaling Operations
- Loss in Weight Feeders
- Truck/Rail Loading

Infinite Variable Position

Positions	Infinite open or closed
Control Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve and Fail Safe Close Solenoid
Air Pressure	80 psig Constant Air Pressure to Operate Controls
Accuracy	+/- 2% of Total Stroke in Remote Mode or +/- 4% in Manual Mode
Position Confirmation	Input / Output Signal Via Control Panel. Input / Output Signal can be Either 4-20mA or 0-10VDC
Compliance/Approvals	NEMA 4 or NEMA 7/9 with Control Panel Mounted in a Non-Hazardous Environment.
System Requirements	PLC with 4-20 mA Input / Output Card or Local Control Only Via Supplied Control Panel

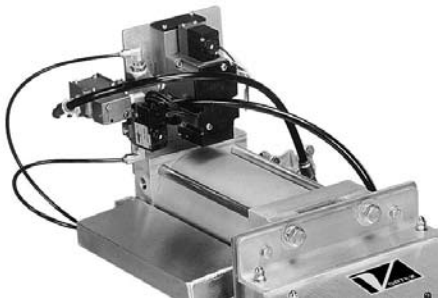
Adjustable Variable Position

Positions	Adjustable Open or Closed Positions for Each Magnetic Reed Switch
Control Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve and Fail Safe Close Solenoid
Air Pressure	80 psig Constant Air Pressure to Operate Controls
Accuracy	+/- 3/16" of Set Point
Position Confirmation	Cylinder Mounted Magnetic Reed Switches
Compliance/Approvals	NEMA 4 / NEMA 7/9
System Requirements	PLC with Relay Input / Output Card



Variable Position Open (VPO) / Closed (VPC)

Positions	Adjustable Open / Closed Positions for Each Pneumatic Trip Switch
Control Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve
Air Pressure	80 psig Constant Air Pressure to Operate Controls
Accuracy	+/- 1/16" of Set Point
Position Confirmation	Cylinder Mounted Magnetic Reed Switches
Compliance/Approvals	NEMA 4 / Intrinsically Safe / NEMA 7/9
System Requirements	Scale Controller



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Air Controls

Valve Configuration	2 Position 4-Way
Compliance/Approvals	NEMA 4, NEMA 7/9, Intrinsically Safe
Air Pressure	25-150 psig, 80 psig Required to Operate Slide Gate
Configuration	Single Coil, Double Coil, Air Pilot
Temperature Range	0°F to 120°F
Lubrication	Not required, medium range aniline oil is recommended if used.
Operating Characteristics	*24VDC, 24VAC, 110VAC, 220VAC 50/60 Hz

Magnetic Reed Position Switches

Function	SPST - Normally Open
Compliance/Approvals	NEMA 6, IP67, *CSA Class I Div 2 Gr. A, CE mark
Temperature Range	-20°C to 80°C
Operating Characteristics	*24-240 VAC 4 Amps max, 5-240 Volts AC/DC 1 Amp max, 5 mA min, 0-120 Volts AC/DC 0.5 amps max

Proximity Switch

Function	*SPST - NO, SPDT – NO/NC
Compliance/Approvals	*NEMA 3,4X, 6P, IP68, UL Class I Div 1 Gr. A, UL, CSA, CE mark, ATEX Approved - Consult Factory for specific switch rating
Temperature Range	*-25°C to 70°C, -40°C to 105°C
Operating Characteristics	*24-240 VAC/DC 300 mA max 5 mA min, 5-240 Volts AC/DC 2 Amp max
Sensing Range	18mm Barrel 5 mm, 5/8-18 Barrel 2.5mm

Mechanical Switch

Function	*SPDT – NO/NC, DPDT – 2NO/2NC
Compliance/Approvals	*NEMA 4, 6P, UL listed Class I Div 1 Gr. B, UL, CSA, CE mark, ATEX Approved - Consult Factory for specific switch rating
Temperature Range	*-30°C to 85°C
Operating Characteristics	*0-600 VAC/DC 10A max
Connection Type	½ NPT Conduit

Pre Wire Terminal Box

Application	Can be applied to all slide gates and diverter valves. Pre-wired to all air controls and switches. Can be used with metering control assemblies.
Compliance/Approvals	*Nema 4, Nema 7/9 - Consult Factory for specific rating
Temperature Range	*-20°C to 70°C
Terminal Box	**Painted Carbon Steel, Fiberglass or similar
Connection Type	½ Conduit, Strain Relief Connectors,

*Consult Factory for specific information and configuration
**Custom configurations available

VORTEX® QUANTUM™ SERIES 2-WAY WYE LINE DIVERTER™

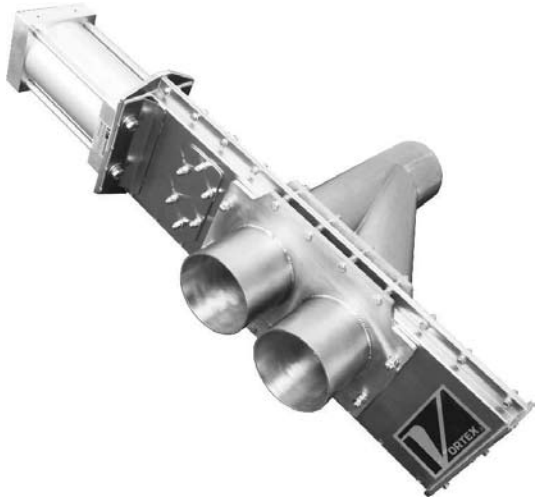
The patent pending Vortex® Quantum™ Series Wye Line Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems with pressures up to 15 psig (1 barg). A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow. The diverter seat and live-loaded seals are shielded from abrasion by a metal insert, which provides superior shearing action. The Wye Line Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Quantum™ Series Wye Line Diverter™ Features

- Ability to Shift without Shutting Down Blower
- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2", 2.5", 3", 4", 5", Diameters Pipe or 2" through 6" Tube. Consult Factory for 6" to 12" Pipe and 8" to 12" Tube Models
Media	Powder, Pellets, Granulars
Connection Options	ANSI, DIN, JIS, or Compression Couplings
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400° F continuous to 450° F intermittent service.
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, Handwheel, or Chainwheel
Position Detection	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Patent Pending

Application Specific Modifications

S	Material contact is 316L stainless steel.
SL	Diverter has straight through conveying line designed for easier "in line" installation and less system conveying pressure drop when using multiple diverters.
MG	Air cylinder has a magnetic piston, which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450°F intermittent service.
P10	Diverters are made with schedule 10 Pipe throughout.
P20	Diverters are made with schedule 20 Pipe throughout.
P40	Diverters are made with schedule 40 Pipe throughout.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

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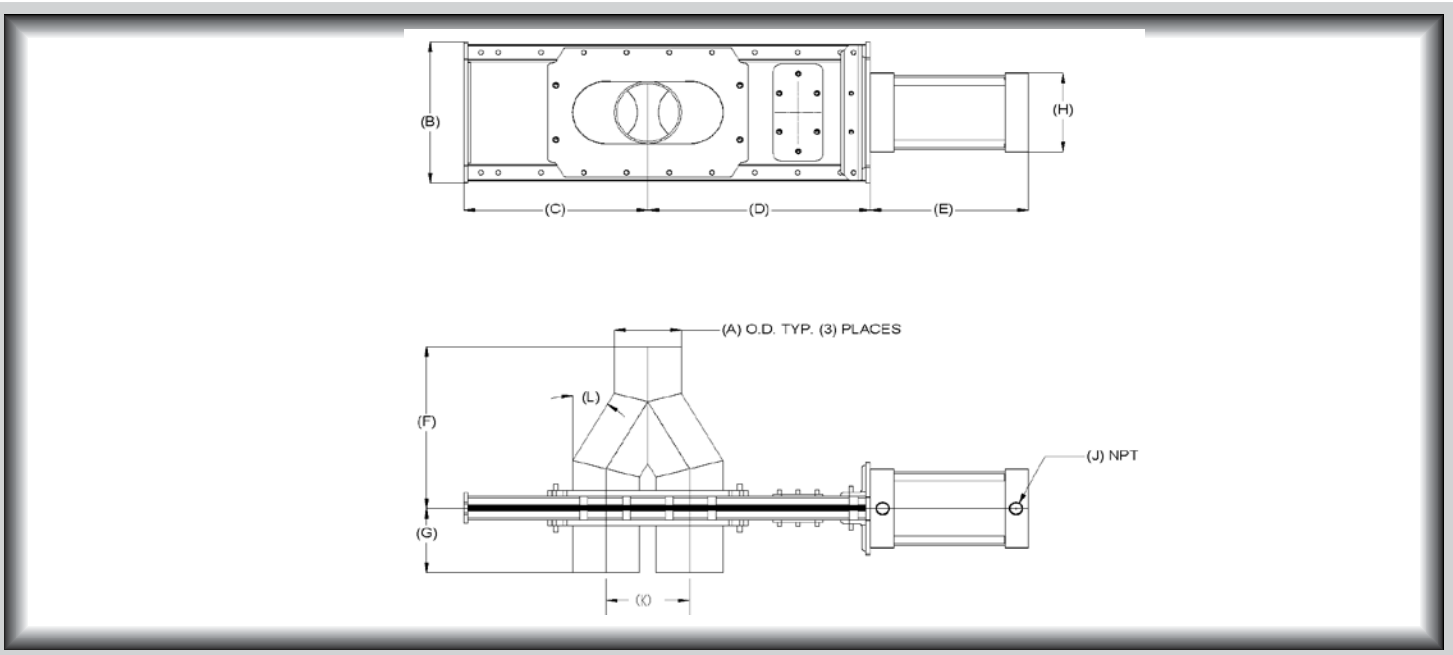
VORTEX® 2-WAY WYE LINE DIVERTER™ DIMENSIONAL INFORMATION

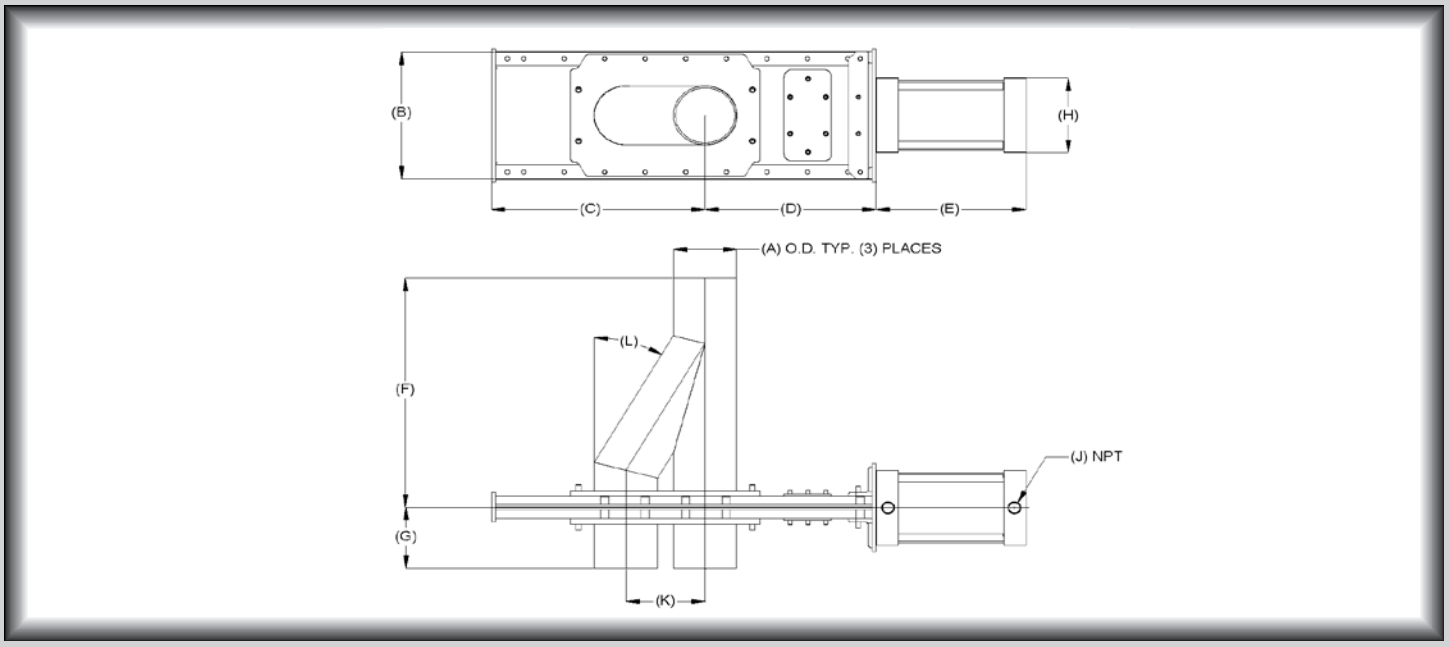


Tube Model	A	B	C	D	E	F	G	H	J	K	L
DR2-2(XX)	2	7 1/8	6 1/2	8 1/4	6 1/4	7 1/4	4 1/4	3 1/2	3/8	2 1/2	30
DR2.5-2(XX)	2 1/2	8 1/8	8 1/2	11	8	8	4 1/4	4 1/8	1/2	3 1/2	30
DR3-2(XX)	3	8 1/8	8 1/2	11	8	8 3/4	4 1/4	4 1/8	1/2	3 1/2	30
DR4-2(XX)	4	9 1/8	11	13 3/8	9 1/2	10 1/2	4 1/4	5 1/8	1/2	5	30
DR5-2(XX)	5	10 1/8	13	15 1/2	10 3/4	12 3/4	5 1/4	5 1/2	1/2	6	30
DR6-2(XX)	6	11 1/8	15	17 1/2	11 3/4	14	5 1/4	5 1/2	1/2	7	30

Pipe Model	A	B	C	D	E	F	G	H	J	K	L
DR2-2(XX)-PXX*	2 3/8	8 1/8	8 1/2	11	8	10 1/4	4 3/4	4 1/8	1/2	3 1/2	30
DR2.5-2(XX)-PXX*	2 7/8	8 1/8	8 1/2	11	8	10 1/4	5 1/8	4 1/8	1/2	3 1/2	30
DR3-2(XX)-PXX*	3 1/2	9 1/8	11	13 3/8	9 1/2	12 7/8	6 1/4	5 1/8	1/2	5	30
DR4-2(XX)-PXX*	4 1/2	10 1/8	13	15 1/2	10 3/4	13 7/8	6 1/4	5 1/2	1/2	6	30
DR5-2(XX)-PXX*	5 5/8	11 1/8	15	17 1/2	11 3/4	15 1/4	6 1/2	5 1/2	1/2	7	30

All dimensions are in inches, Information subject to change without notice.
(XX) Material of construction, aluminum (AL), carbon steel (CS), or stainless steel (SS).
*Select pipe schedule 10, 20, or 40.

VORTEX® 2-WAY WYE LINE DIVERTER™ DIMENSIONAL INFORMATION



Tube Model	A	B	C	D	E	F	G	H	J	K	L
DR2-2(XX)-SL	2	7 1/8	7 3/4	7	6 1/4	9 3/4	4 1/4	3 1/2	3/8	2 1/2	30
DR2.5-2(XX)-SL	2 1/2	8 1/8	10 1/4	9 1/4	8	10 1/4	4 1/4	4 1/8	1/2	3 1/2	30
DR3-2(XX)-SL	3	8 1/8	10 1/4	9 1/4	8	11 3/4	4 1/4	4 1/8	1/2	3 1/2	30
DR4-2(XX)-SL	4	9 1/8	13 1/2	10 7/8	9 1/2	15 3/4	4 1/4	5 1/8	1/2	5	30
DR5-2(XX)-SL	5	10 1/8	16	12 1/2	10 3/4	17 3/4	5 1/4	5 1/2	1/2	6	30
DR6-2(XX)-SL	6	11 1/8	18 1/2	14	11 3/4	20 1/4	5 1/4	5 1/2	1/2	7	30

Pipe Model	A	B	C	D	E	F	G	H	J	K	L
DR2-2(XX)-SL-PXX*	2 3/8	8 1/8	10 1/4	9 1/4	8	13 1/4	4 3/4	4 1/8	1/2	3 1/2	30
DR2.5-2(XX)-SL-PXX*	2 7/8	8 1/8	10 1/4	9 1/4	8	13 1/8	6 1/4	4 1/8	1/2	3 1/2	30
DR3-2(XX)-SL-PXX*	3 1/2	9 1/8	13 1/2	10 7/8	9 1/2	17 1/4	6 1/4	5 1/8	1/2	5	30
DR4-2(XX)-SL-PXX*	4 1/2	10 1/8	16	12 1/2	10 3/4	19 1/4	6 1/4	5 1/2	1/2	6	30
DR5-2(XX)-SL-PXX*	5 5/8	11 1/8	18 1/2	14	11 3/4	21 1/4	6 1/2	5 1/2	1/2	7	30

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VORTEX® 3-WAY WYE LINE DIVERTER™

The Vortex® 3-Way Wye Line Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems with pressures up to 15 psig (1 barg). A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow. The diverter seat and live-loaded seals are shielded from abrasion by a metal insert, which provides superior shearing action. The Wye Line Diverter ™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Wye Line Diverter™ Features

- Ability to Shift without Shutting Down Blower
- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

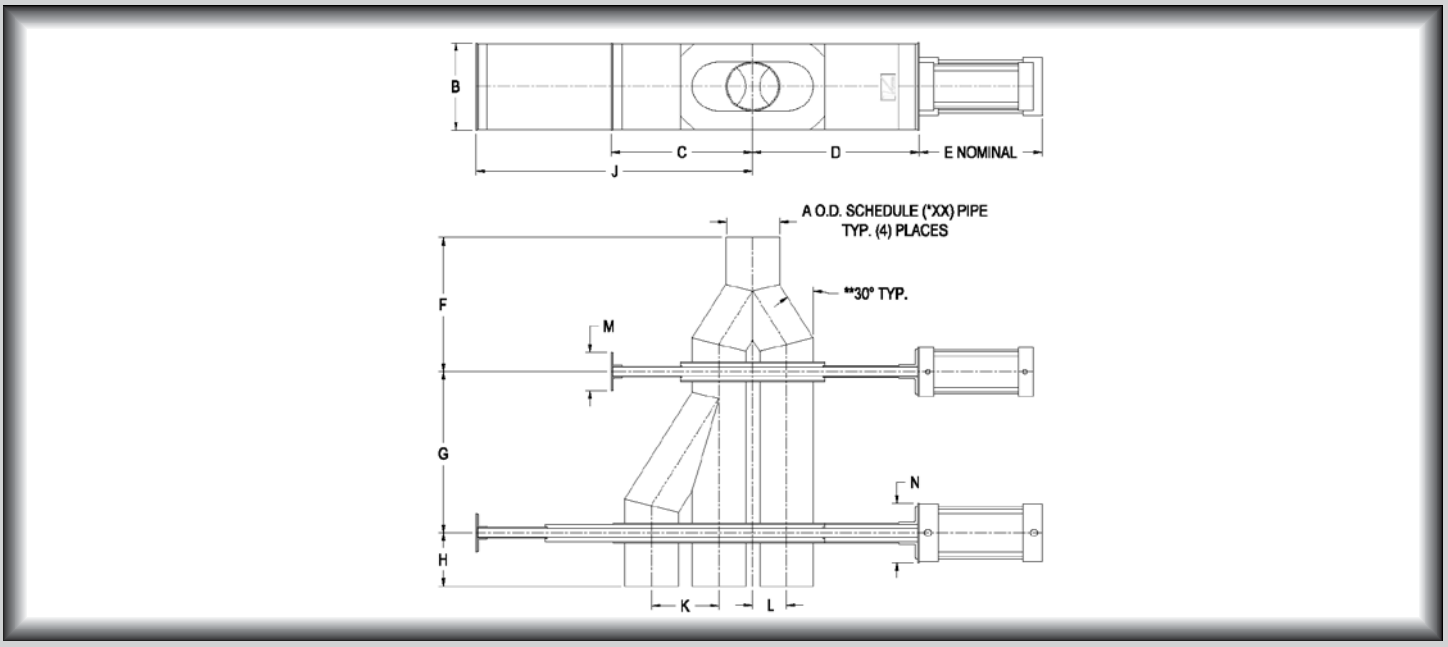
Valve Specifications

Size/Bore Options	2", 3", 4", 5", 6", 8" Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Coupling
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service.
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch or Proximity Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
P10	Diverters are made with Schedule 10 Pipe.
P40	Diverters are made with Schedule 40 Pipe.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

VORTEX® 3-WAY WYE LINE DIVERTER™ DIMENSIONAL INFORMATION



Tube Model	A	B	C	D	E	F	G	H	J	K	L	M	N
D2-3(XX)Y	2	5 1/4	5 3/4	7 7/8	6 1/4	7 1/4	8	4 1/8	10 3/4	2 1/2	1 1/4	4 1/8	4 1/2
D3-3(XX)Y	3	6	7 3/4	9 7/8	8	8 5/8	10	4 1/8	14 3/4	3 1/2	1 3/4	4 5/8	4 3/8
D4-3(XX)Y	4	7 1/4	10 3/8	12 3/4	10 1/4	10 3/8	13 1/4	4 1/8	20 3/8	5	2 1/2	4 1/2	5 1/2
D5-3(XX)Y	5	8 7/8	12 3/4	15 3/8	10 1/2	12 5/8	15 1/2	5 1/8	24 3/8	6	3	4 3/8	6 3/4
D6-3(XX)Y	6	9 7/8	14 3/4	18 3/8	12 3/4	13 7/8	18 1/4	5 1/8	28 3/4	7	3 1/2	4 3/8	6 3/4

Pipe Model	A	B	C	D	E	F	G	H	J	K	L	M	N
D2-3(XX)Y-P*	2 3/8	6	7 3/4	9 7/8	8	10 1/8	10	5 1/8	14 3/4	3 1/2	1 3/4	4 5/8	5 1/2
D3-3(XX)Y-P*	3 1/2	7 1/4	10 3/8	12 3/4	10 3/8	12 3/4	13 1/4	6 1/8	20 3/8	5	2 1/2	4 1/2	6 1/2
D4-3(XX)Y-P*	4 1/2	8 7/8	12 5/8	15 3/8	11 3/4	13 5/8	15 1/8	6 1/8	24 3/4	6	3	4 3/8	6 3/4
D5-3(XX)Y-P*	5 9/16	9 7/8	14 3/4	17 3/8	11 7/8	15 1/4	18 1/4	6 1/8	28 3/4	7	3 1/2	4 3/8	6 3/4
D6-3(XX)Y-P*	6 5/8	11 1/2	21 5/8	23 1/2	15 3/4	15 1/2	17 3/8	7	40 3/8	10	5	3	9

All dimensions are in inches, Information subject to change without notice.

(XX) Material of construction, aluminum (AL), carbon steel (CS), or stainless steel (SS).

*Select pipe schedule 10, 20, or 40.

** 6" model has 45° angle.

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VORTEX® 4-WAY WYE LINE DIVERTER™

The Vortex® 4-Way Wye Line Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems with pressures up to 15 psig (1 barg). A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow. The diverter seat and live-loaded seals are shielded from abrasion by a metal insert, which provides superior shearing action. The Wye Line Diverter ™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Wye Line Diverter™ Features

- Ability to Shift without Shutting Down Blower
- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

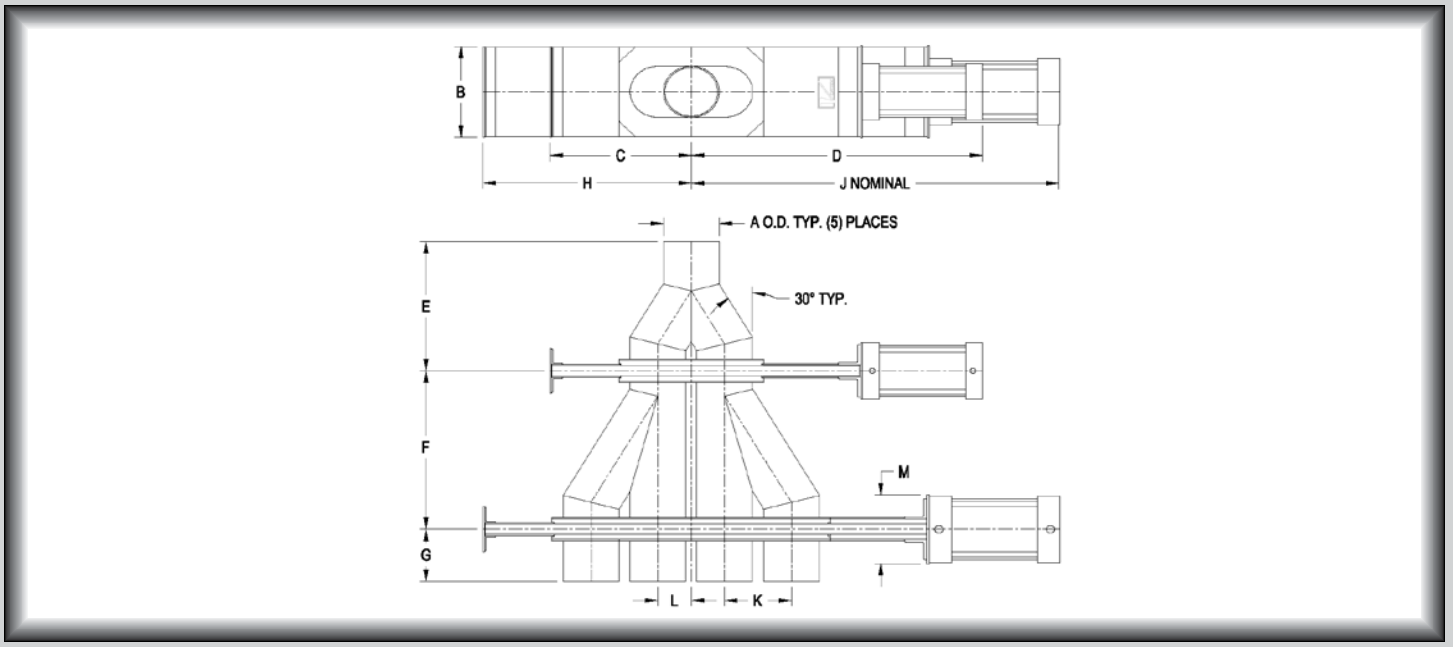
Valve Specifications

Size/Bore Options	2", 3", 4", 5", 6", 8" Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Coupling
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 300° F intermittent service.
HT4	Modifications are made allowing 400°F continuous to 450° F intermittent service.
P10	Diverters are made with Schedule 10 Pipe.
P40	Diverters are made with Schedule 40 Pipe.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

VORTEX® 4-WAY WYE LINE DIVERTER™ DIMENSIONAL INFORMATION



Tube Model	A	B	C	D	E	F	G	H	J	K	L	M
D2-4(XX)Y	2	5 1/4	5 3/4	14 1/8	7 1/4	8	4 1/8	8 1/4	17 1/2	2 1/2	1 1/4	4 1/2
D3-4(XX)Y	3	6	7 3/4	17 7/8	8 5/8	10 7/8	4 1/8	11 1/4	20 1/2	3 1/2	1 3/4	5 1/2
D4-4(XX)Y	4	7 1/4	10 1/2	23	10 1/2	13 1/4	4 1/8	15 1/2	29 7/8	5	2 1/2	7
D5-4(XX)Y	5	9	12 3/4	26 1/8	12 5/8	15 1/2	5 1/8	18 3/4	33 1/8	6	3	7
D6-4(XX)Y	6	10	14 3/4	29 1/8	16 7/8	18 1/4	5 1/8	21 3/4	37 1/8	7	3 1/2	7

Pipe Model	A	B	C	D	E	F	G	H	J	K	L	M
D2-4(XX)Y-P*	2 3/8	6 1/4	7 3/4	17 7/8	10 1/8	10	5 3/8	11	21 3/4	3 1/2	1 3/4	5 1/2
D3-4(XX)Y-P*	3 1/2	7 1/4	10 1/2	23	12 3/4	13 1/4	6 1/8	15 1/2	29	5	2 1/2	7
D4-4(XX)Y-P*	4 1/2	9	12 3/4	26 1/8	13 3/4	15 1/2	6 1/8	18 3/4	33 1/8	6	3	7
D5-4(XX)Y-P*	5 9/16	10	14 3/4	29 1/8	13 7/8	18 1/4	5 1/8	21 3/4	37 1/8	7	3 1/2	7
D6-4(XX)Y-P*	6 5/8	11 1/2	21 5/8	39 1/4	15 1/2	17 3/8	7	30 3/8	49 1/4	10	5	7

All dimensions are in inches, Information subject to change without notice.

(XX) Material of construction, aluminum (AL), carbon steel (CS), or stainless steel (SS).

*Select pipe schedule 10, 20, or 40.

** 6" model has 45° angle.

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VORTEX® MULTI-PORT WYE LINE DIVERTER™

The Vortex® Multi-Port Wye Line Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems with pressures up to 15 psig (1 barg). A full flow orifice provides unrestricted conveying of material with no disk or ledges to impede flow. The diverter seat and live-loaded seals are shielded from abrasion by a metal insert, which provides superior shearing action. The Wye Line Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment cost.

Vortex® Wye Line Diverter™ Features

- Ability to Shift without Shutting Down Blower
- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2", 3", 4", 5", 6", 8" Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Coupling
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
P10	Diverters are made with Schedule 10 Pipe.
P40	Diverters are made with Schedule 40 Pipe.
SM	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

VORTEX® 2-WAY FLEX TUBE DIVERTER™

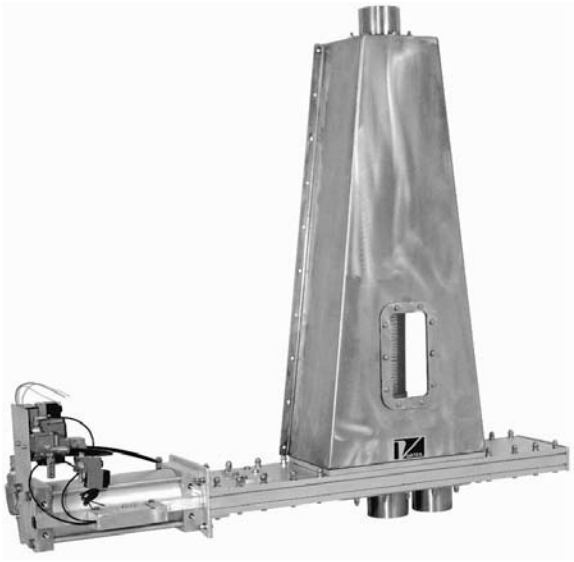
The Vortex® Flex Tube Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems up to 15 psig (1 barg). The unique design eliminates material cross contamination by a positive seal across the closed port and the elimination of internal ledges and pockets where material can lodge and remain trapped. A smooth unobstructed transition from inlet to outlet shields the wear compensating seals from abrasion. The Flex Tube Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Flex Tube Diverter™ Features

- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seals Protected from Abrasion
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2", 2.5", 3", 4", 5", 6", and 8" Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Coupling, ANSI, DIN, JIS, Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 250°F continuous to 300°F intermittent service
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, or Hand Wheel
Position Confirmation	Magnetic Reed Switch or Proximity Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

FS1	304 Stainless Steel directional flex hose is installed for material to run through the valve from one port to two ports.
FS2	304 Stainless Steel directional flex hose is installed for material to run through the valve from two ports to one port.
S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 400°F continuous to 450°F intermittent service.
SM	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.
P1/P4	Utilizing Schedule 10 or Schedule 40 Pipe.
OF 45/30	Inlets and outlets are flanged with ANSI, DIN or JIS connections. The outlet opposite the air cylinder is offset at 45 or 30 degrees.

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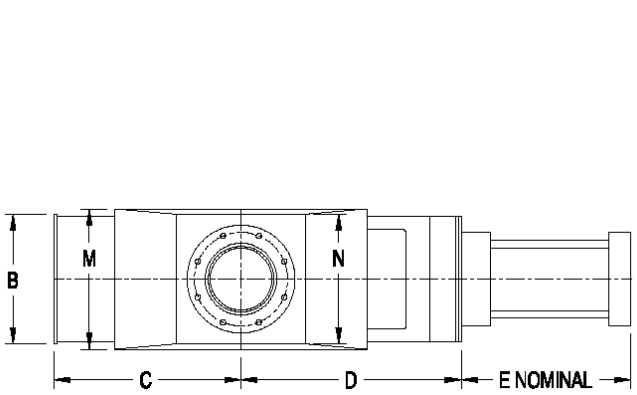
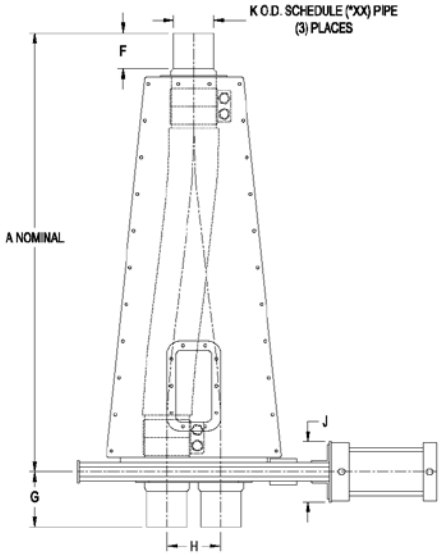
VORTEX® 2-WAY FLEX TUBE DIVERTER™ DIMENSIONAL INFORMATION





MODEL	TUBE SIZE	A	B	C	D	E	F	G	H	J	K	M	N	WT (Lbs)
T2-2(XX)Y	2	30 1/2	5	5 7/8	7 3/4	7 1/4	3	4 1/4	2 1/2	4 3/4	2	6 1/4	5	80
T2.5-2(XX)Y	2 1/2	35 1/4	6 1/2	7 3/4	9 7/8	8	4 1/8	5 1/4	3 1/2	5 1/4	2 1/2	8	6 5/8	90
T3-2(XX)Y	3	34 1/8	6 1/2	7 3/4	9 7/8	8	2 7/8	4 1/8	3 1/2	6 1/4	3	8	6 5/8	95
T4-2(XX)Y	4	43 5/8	7 1/2	10 5/8	13 3/8	9 3/4	3 1/8	4 1/4	5	5 1/2	4	8 1/2	7 1/8	125
T5-2(XX)Y	5	47 3/4	9	13	15 3/8	11 3/4	3 3/4	5 1/8	6	6 3/4	5	9 3/4	9 1/8	145
T6-2(XX)Y	6	60 1/8	10 3/8	14 7/8	17 3/8	12 3/4	4	5 1/8	7	6 3/4	6	11 3/4	10 1/8	215
T8-2(XX)Y	8	65 1/2	12 1/2	21 1/2	23	16	3 7/8	9 1/4	10	7 5/8	8	13 1/8	13 1/8	265

MODEL	PIPE SIZE	A	B	C	D	E	F	G	H	J	K	M	N	WT (Lbs)
T2-2(XX)Y-P*	2	35 1/4	6 1/2	7 3/4	9 7/8	8	3	5 1/4	3 1/2	6 1/4	2 3/8	8	6 5/8	100
T2.5-2(XX)Y-P*	2 1/2	35 1/4	6 1/2	7 3/4	9 7/8	8	3	5 1/4	3 1/2	6 1/4	2 7/8	8	6 5/8	100
T3-2(XX)Y-P*	3	45 5/8	7 1/2	10 5/8	13 3/8	9 1/4	4	6 1/4	5	5 1/2	3 1/2	8 1/2	7 1/8	130
T4-2(XX)Y-P*	4	49	9	13	15 3/8	11 3/4	4	6 1/4	6	6 3/4	4 1/2	9 3/4	9 1/8	150
T5-2(XX)Y-P*	5	61 1/8	10 3/8	14 7/8	17 3/8	12 3/4	4	6 1/8	7	6 3/4	5 9/16	11 3/4	10 1/8	220
T6-2(XX)Y-P*	6	61 5/8	10 3/8	14 7/8	17 3/8	12 3/4	4	7 3/8	7 5/8	6 3/4	6 5/8	11 3/4	10 1/8	220
T8-2(XX)Y-P*	8	69 1/4	12 1/2	21 1/2	23	16	6	9 1/2	10	7 5/8	8 5/8	13 1/8	13 1/8	270

All dimensions are in inches, Information subject to change without notice.

VORTEX® 3-WAY FLEX TUBE DIVERTER™

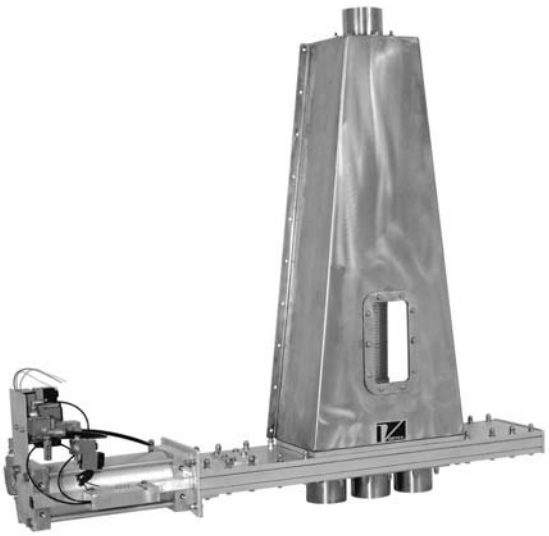
The Vortex® Flex Tube Diverter™ is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems up to 15 psig (1 barg). The unique design eliminates material cross contamination by a positive seal across the closed port and the elimination of internal ledges and pockets where material can lodge and remain trapped. A smooth unobstructed transition from inlet to outlet shields the wear compensating seals from abrasion. The Flex Tube Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Flex Tube Diverter™ Features

- Improves Conveying Efficiency
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	2", 2.5", 3", 4", 5", 6", 8" Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Coupling, ANSI, DIN, JIS, Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 250°F continuous to 300°F intermittent service
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Rubber, and/or Silicon
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve, Electric Actuator, or Hand Wheel
Position Confirmation	Magnetic Reed Switch or Proximity Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

FS1	304 Stainless Steel directional flex hose is installed for material to run through the valve from one port to two ports.
FS2	304 Stainless Steel directional flex hose is installed for material to run through the valve from two ports to one port.
S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
SM	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.
P1/P4	Utilizing Schedule 10 or Schedule 40 Pipe.

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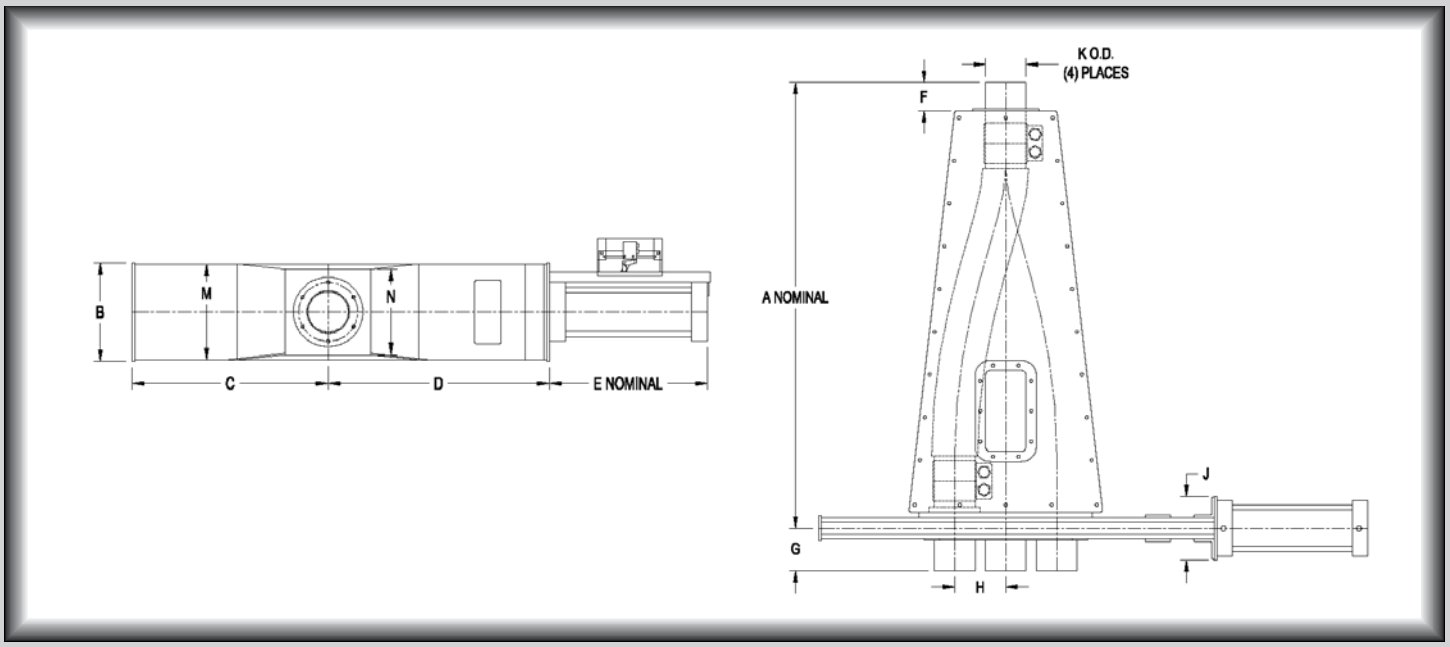
VORTEX® 3-WAY FLEX TUBE DIVERTER™ DIMENSIONAL INFORMATION



MODEL	TUBE SIZE	A	B	C	D	E	F	G	H	J	K	M	N	WT (Lbs)
T2-3(XX)Y	2	30 3/8	7 1/4	10 3/4	13	9 3/4	3	4 1/8	2 1/2	5	2	7 1/4	5	100
T2.5-3(XX)Y	2 1/2	36 1/4	8 7/8	13 1/8	15 7/8	14 3/8	3	5 1/4	3 1/2	6 1/4	2 1/2	8 5/8	6 5/8	130
T3-3(XX)Y	3	35	8 7/8	13 1/8	15 7/8	14 3/8	2 7/8	4 1/4	3 1/2	6 1/4	3	8 7/8	6 5/8	130
T4-3(XX)Y	4	44	9	18 3/8	20 3/4	14 3/4	2 5/8	4 1/8	5	6 1/4	4	9	7 1/2	160
T5-3(XX)Y	5	48 3/8	10 5/8	21 1/8	24 5/8	17 3/4	3 5/8	5 1/4	6	7 1/4	5	10 5/8	9 1/8	200
T6-3(XX)Y	6	72	11 1/4	25 1/4	27 3/4	19 3/4	3 7/8	5 1/8	7	6 3/4	6	11 1/4	10	260
T8-3(XX)Y	8	86 3/4	13 1/4	36 1/2	38 1/4	25 7/8	3 7/8	9 1/4	10	15 3/8	8	14	13 1/8	320

MODEL	PIPE SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	WT (Lbs)
T2-3(XX)Y-P*	2	36 1/4	8 7/8	13 1/8	15 7/8	14 3/8	3	5 1/4	3 1/2	6 1/4	2 3/8	3	8 5/8	6 5/8	130
T2.5-3(XX)Y-P*	2 1/2	36 1/4	8 7/8	13 1/8	15 7/8	14 3/8	3	5 1/4	3 1/2	6 1/4	2 7/8	3	8 5/8	6 5/8	130
T3-3(XX)Y-P*	3	46 3/8	9 1/4	18 3/8	20 3/4	14 3/4	4	6 1/8	5	5 1/2	3 1/2	4	9	7	160
T4-3(XX)Y-P*	4	49 1/2	10 5/8	22 1/8	24 5/8	17 3/4	4	6 3/8	6	7 1/4	4 1/2	5	10 1/4	9 1/8	200
T5-3(XX)Y-P*	5	61	11 1/4	25 1/4	27 3/4	19 3/4	4	6 1/8	7	6 1/2	5 9/16	6	11	10	260
T6-3(XX)Y-P*	6	73 3/4	11 1/4	25 1/4	27 3/4	19 3/4	5 3/4	**	7 1/4	6 3/4	6 5/8	6	11	10	275
T8-3(XX)Y-P*	8	90 3/4	13 1/4	36 1/2	38 1/4	25 7/8	6	9 1/2	10	15 3/8	8 5/8	8	14	13 1/8	500

All dimensions are in inches, Information subject to change without notice.

** - For T6-3(XX)Y-P* the (G) dimension for outside ports is 7 3/8, (G) dimension for center port is 14 7/8 to allow for Morris couplings.

VORTEX® FILL PASS DIVERTER™

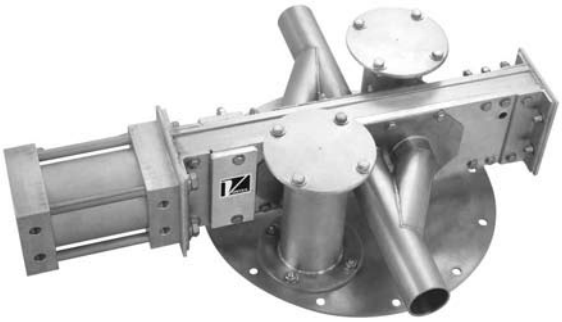
The Vortex® Fill Pass Diverter is specifically engineered to handle dry bulk solids in vacuum or dilute phase pneumatic conveying systems with pressures up to 15 psig (1 barg). It provides a versatile and reliable method for filling one or more "in-line" weigh hoppers when material is conveyed pneumatically through a closed loop system. The Fill Pass Diverter is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Fill Pass Diverter Features

- Superior Air/Material Separation
- Improves Weighing Efficiency and Accuracy
- Smooth, Unobstructed Bore for Unrestricted Flow of Material
- Seal Protected from Abrasion
- Ability to Shift without Shutting Down Blower

Valve Specifications

Size/Bore Options	2", 3", 4", 5", 6", and 8", Diameters, Pipe or Tube
Media	Powder, Pellets, Granulars
Connection Options	Compression Couplings
Media Temperature	Up to 250°F continuous to 300°F intermittent service
Media Pressure	-0.1 MPa +0.1 MPa, 1 barg, 15 psig, depending on size
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder and Solenoid Operated Air Control Valve
Position Confirmation	Magnetic Reed Switch or Proximity Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture



Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
P1	A standard tube size diverter is modified with pipe size inlets and outlets. The -P1 modification would match schedule 10 pipe.
P4	A standard tube size diverter is modified with pipe size inlets and outlets. The -P4 modification would match schedule 40 pipe.
SM	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) pressure plate seals replace Nylon.

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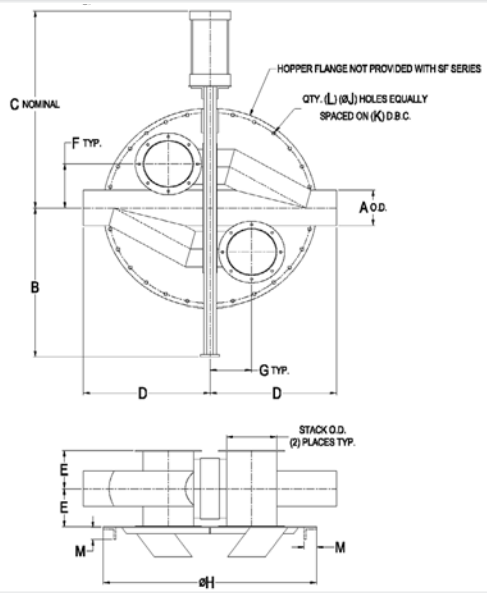
VORTEX® FILL PASS DIVERTER™ DIMENSIONAL INFORMATION



Series	Model	A	B	C	D	E	F	G	H	J	K	L	M
HOPPER COMPACT HC SERIES	D23-3SSHC	2	4 3/8	16 1/8	9 5/8	3 1/2	3	3	15 1/8	7/16	13 13/16	12	1 1/2
	D33-4SSHC	3	13 1/8	19 5/8	11 7/8	4	4	4	19 3/4	7/16	18 1/8	16	1 3/4
	D43-4SSHC	4	16 7/8	27 5/8	15 5/8	5	5	5	23 3/4	7/16	22 1/8	20	1 3/4
HOPPER STACKABLE HS SERIES	D23-6SSHS	2	4 3/8	16 1/8	9 5/8	3 1/2	6 1/2	6 5/8	30	7/16	28 1/2	24	2
	D23-8SSHS	2	9 3/8	16 1/8	9 5/8	3 1/2	7 1/2	6 5/8	34	7/16	32 1/2	28	2
	D33-6SSHS	3	12 7/8	19 5/8	11 7/8	4	6 1/2	6 5/8	30	7/16	28 1/2	24	2
	D33-8SSHS	3	12 7/8	19 5/8	11 7/8	4	7 1/2	6 5/8	34	7/16	32 1/2	28	2
	D43-6SSHS	4	16 7/8	27 5/8	15 5/8	5	6 1/2	6 5/8	30	7/16	28 1/2	24	2
	D43-8SSHS	4	16 7/8	27 5/8	15 5/8	5	7 1/2	6 5/8	34	7/16	32 1/2	28	2
	D53-8SSHS	5	21 3/4	30 1/8	17 5/8	6	7 1/2	6 5/8	34	7/16	32 1/2	28	2
	D63-8SSHS	6	25 1/4	33 5/8	20 1/8	6 1/2	7 1/2	6 5/8	34	7/16	32 1/2	28	2
STACKABLE FLANGE SF SERIES	D23-6SSSF	2	9 3/8	16 1/8	9 5/8	3 1/2	6 1/2	6 5/8	--	--	--	--	--
	D23-8SSSF	2	9 3/8	16 1/8	9 5/8	3 1/2	7 1/2	6 5/8	--	--	--	--	--
	D33-6SSSF	3	12 7/8	19 5/8	11 7/8	4	6 1/2	6 5/8	--	--	--	--	--
	D33-8SSSF	3	12 7/8	19 5/8	11 7/8	4	7 1/2	6 5/8	--	--	--	--	--
	D43-6SSSF	4	16 7/8	27 5/8	15 5/8	5	6 1/2	6 5/8	--	--	--	--	--
	D43-8SSSF	4	16 7/8	27 5/8	15 5/8	5	7 1/2	6 5/8	--	--	--	--	--
	D53-8SSSF	5	21 3/4	30 1/8	17 5/8	6	7 1/2	6 5/8	--	--	--	--	--
	D63-8SSSF	6	25 1/4	33 5/8	20 1/8	6 1/2	7 1/2	6 5/8	--	--	--	--	--

All dimensions are in inches, Information subject to change without notice.

Reference A (Nominal Size O.D. tubing)

VORTEX® 2-WAY SEAL TITE DIVERTER™

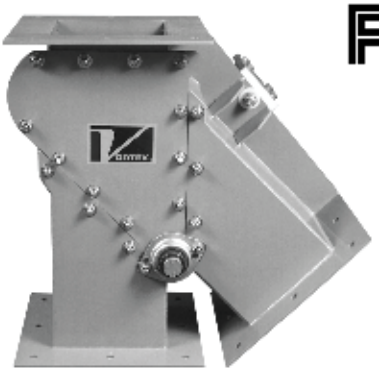
The Vortex® 2-Way Seal Tite™ Diverter is designed for use in gravity flow applications where material can be diverter from one source to either of two destinations. The Seal Tite™ Diverter offers a removable access door for replacement of blade and shaft seals. All internal ledges have been eliminated to promote cleanliness. The Seal Tite™ Diverter's superior design promotes efficiency, durability, and long service life.

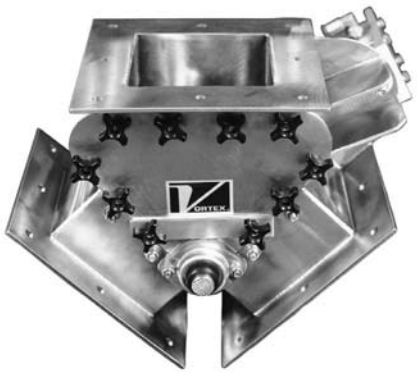
Vortex® Seal Tite™ Diverter Features

- Positive Seal of Dust and Fine Powders
- Leading Edge of Blade Seal Protected from Abrasion
- Access Door for Internal Inspection, Cleaning, or Maintenance
- Easy Installation and in-place Maintenance

Valve Specifications

Size/Bore Options	4", 6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", Diameter Round, Square, or Rectangular
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Flange, ANSI, DIN, JIS, or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, and Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, Kryptane, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve, Electric Actuator, or Hand Lever
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture





Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing up to 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450°F intermittent service.
CIP	Access panel and fasteners allow for quicker access to the interior of the valve for more frequent inspection, cleaning or sanitation.
RT	Round transitions with SVC bolt hole pattern are mounted to the inlet and two outlets of the valve.
RTP	Round transitions with ANSI, DIN, or JIS bolt hole pattern are mounted to the inlet and two outlets of the valve.
45 / 30	The angle the outlets are offset (45 or 30) degrees.
KS	Kryptane blade seal for more abrasive materials.

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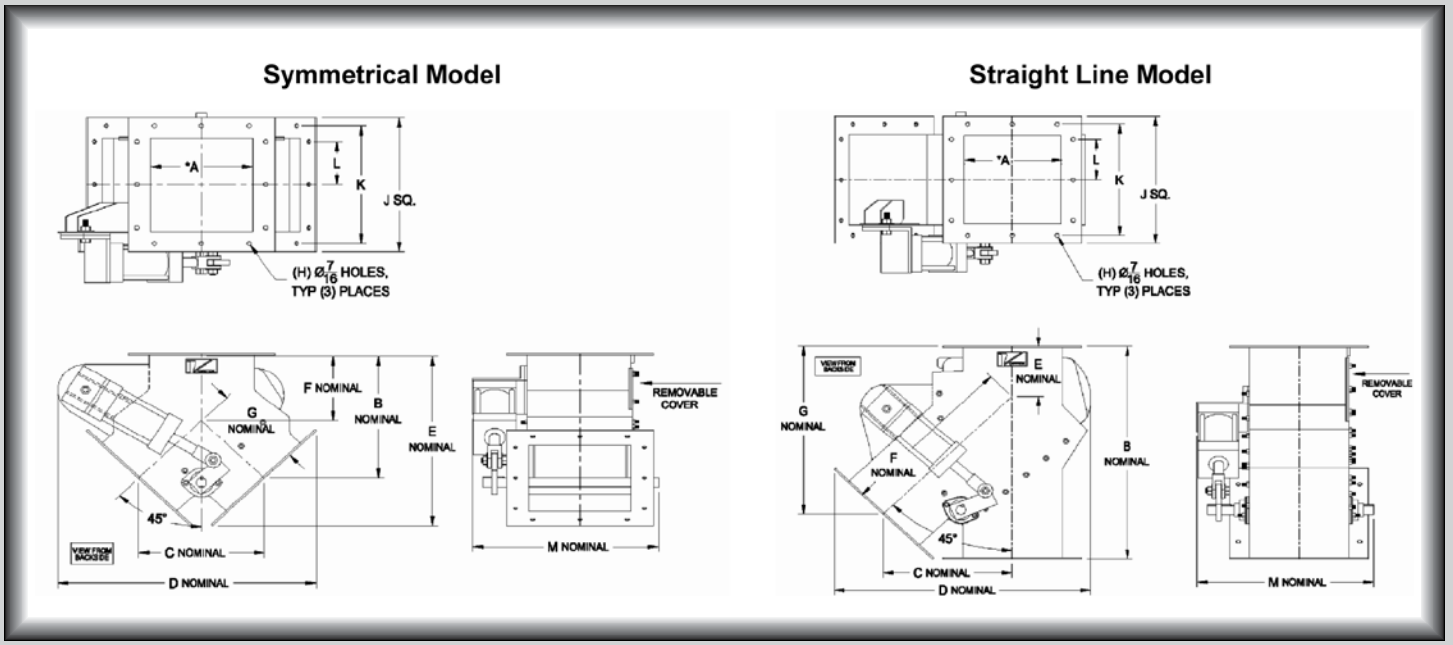
VORTEX® 2-WAY SEAL TITE DIVERTER™ DIMENSIONAL INFORMATION



Symmetrical	A	B	C	D	E	F	G	H	J	K	L	M	WT (Lbs)
Z04-2XX-45	4	9	7 1/2	15 7/8	11 7/8	5 1/4	5 1/4	8	8	6 1/4	3 1/8	12	40
Z06-2XX-45	6	10 1/4	9	18	13 3/4	5 3/4	6 3/8	8	10	8 1/4	4 1/8	13 3/4	50
Z08-2XX-45	8	11 1/2	10 1/2	19 1/2	15 3/4	6 1/4	7 3/8	12	12	10 1/4	3 1/2	15 3/4	65
Z10-2XX-45	10	13	12	24 5/8	18	7	8 1/2	12	14	12 1/4	4 1/2	17 3/4	80
Z12-2XX-45	12	14 1/4	13	26 1/2	19 7/8	7 3/4	9 1/4	20	16	14 1/4	2 3/4	19 3/4	95
Z14-2XX-45	14	15 3/4	14 1/2	27 1/2	22 1/8	8 1/2	10 1/4	20	18	16 1/4	3 1/4	24	120
Z16-2XX-45	16	17	16	30 1/8	24 1/8	9	11 3/8	20	20	18 1/4	3 3/4	26	140
Z18-2XX-45	18	19	19	34 1/2	26 3/4	9 1/2	13 3/8	20	22	20 1/4	4 1/4	28	460
Z20-2XX-45	20	21 1/2	22	39	30	10 1/2	15 1/2	28	24	22 1/4	3	30	185
Z22-2XX-45	22	23	24	42 3/8	32 1/4	11	17	28	26	24 1/4	3 1/2	32	210
Z24-2XX-45	25	25 1/2	29	49 1/2	35 3/4	11	20 1/2	28	29	26 1/4	3 3/4	36 1/2	360
Z26-2XX-45	26	27	31	53	38	11 1/2	22	28	31	28 1/4	4 1/8	38 1/2	430
Z28-2XX-45	28	29 3/4	33	56 3/8	41 3/8	13 1/4	23 3/8	28	33	30 1/4	4 1/4	40 1/2	500
Z30-2XX-45	30	30 1/2	35	59 3/4	42 7/8	13	24 3/4	36	35	32 1/4	3 5/8	42 1/2	570

Straight Line Model	A	B	C	D	E	F	G	H	J	K	L	M	WT (Lbs)
Z04-2XX-45-SL	4	15 1/4	8	15 1/8	4 1/2	11 3/8	12 3/8	8	8	6 1/4	3 1/8	12	50
Z06-2XX-45-SL	6	18 1/4	9 3/4	18 1/4	4 1/2	13 3/4	14 3/4	8	10	8 1/4	4 1/8	13 3/4	65
Z08-2XX-45-SL	8	21	11 1/2	22 1/8	5 1/4	16 1/4	16 3/4	12	12	10 1/4	3 1/2	15 3/4	75
Z10-2XX-45-SL	10	23 1/2	13	25 7/8	5 1/2	18 3/8	18 1/2	12	14	12 1/4	4 1/2	17 3/4	110
Z12-2XX-45-SL	12	26 1/4	14 3/4	29 3/8	5 7/8	20 7/8	20 5/8	20	16	14 1/4	2 3/4	19 3/4	130
Z14-2XX-45-SL	14	29 1/4	16 1/2	31 7/8	6 1/4	23 3/8	22 7/8	20	18	16 1/4	3 1/4	24	180
Z16-2XX-45-SL	16	32 3/4	18 1/2	36 7/8	7 1/8	26 1/8	25 5/8	20	20	18 1/4	3 3/4	26	220
Z18-2XX-45-SL	18	36	20 1/2	41 1/2	7 3/4	29	28 1/4	20	22	20 1/4	4 1/4	28	260
Z20-2XX-45-SL	20	39 1/2	22 1/2	45 7/8	8 1/2	31 7/8	31	28	24	22 1/4	3	30	300
Z22-2XX-45-SL	22	43	24 1/2	49 1/4	9 3/8	34 5/8	33 7/8	28	26	24 1/4	3 1/2	32	350
Z24-2XX-45-SL	24	46 1/2	27	53 3/8	9 1/4	38 1/8	36 1/4	28	29	26 1/4	3 3/4	36 1/2	500
Z26-2XX-45-SL	26	50	29	58 3/8	10	41	39	28	31	28 1/4	4 1/8	38 1/2	700
Z28-2XX-45-SL	28	53	31	62 1/8	10 3/8	43 7/8	41 3/8	28	33	30 1/4	4 1/4	40.5	900
Z30-2XX-45-SL	30	54	31 7/8	64 5/8	9 7/8	45 1/8	42 1/8	36	35	32 1/4	3 5/8	42 1/2	1100

All dimensions are given in inches, Information subject to change without notice.
* less material thickness.

VORTEX® 3-WAY SEAL TITE DIVERTER™

The patented Vortex® 3-Way Seal Tite™ Diverter is designed for use in gravity flow applications where material can be diverter from one source to either of three destinations. The Seal Tite™ Diverter offers a removable access door for replacement of blade and shaft seals. All internal ledges have been eliminated to promote cleanliness. The Seal Tite™ Diverter's superior design promotes efficiency, durability, and long service life.

Vortex® Seal Tite™ Diverter Features

- Positive Seal of Dust and Fine Powders
- Leading Edge of Blade Seals Protected from Abrasion
- Access Door for Internal Inspection, Cleaning, or Maintenance
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	4", 6",8", 10", 12", 14", 16", 18", Diameter Round, Square, or Rectangular
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Flange, ANSI, DIN, JIS, or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, and/or Carbon Steel
Seal/Seat Material Options	PET, UHMW, Natural Rubber, Kryptane, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve, Electric Actuator, or Hand Lever.
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Patent No. 7290566

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT3	Modifications are made allowing up to 250°F continuous to 300° F intermittent service.
HT4	Modifications are made allowing up to 400°F continuous to 450° F intermittent service.
CIP	A special access panel and fasteners that allow for quicker access to the interior of the valve for inspection, cleaning or sanitation.
RT	Round transitions with SVC bolthole pattern are mounted to the inlet and two outlets of the valve.
RTP	Round transitions with ANSI, DIN, or JIS bolt hole pattern are mounted to the inlet and two outlets of the valve.
45 / 30	The angle the outlets are offset (45 or 30) degrees.
KS	Kryptane blade seal for more abrasive materials.

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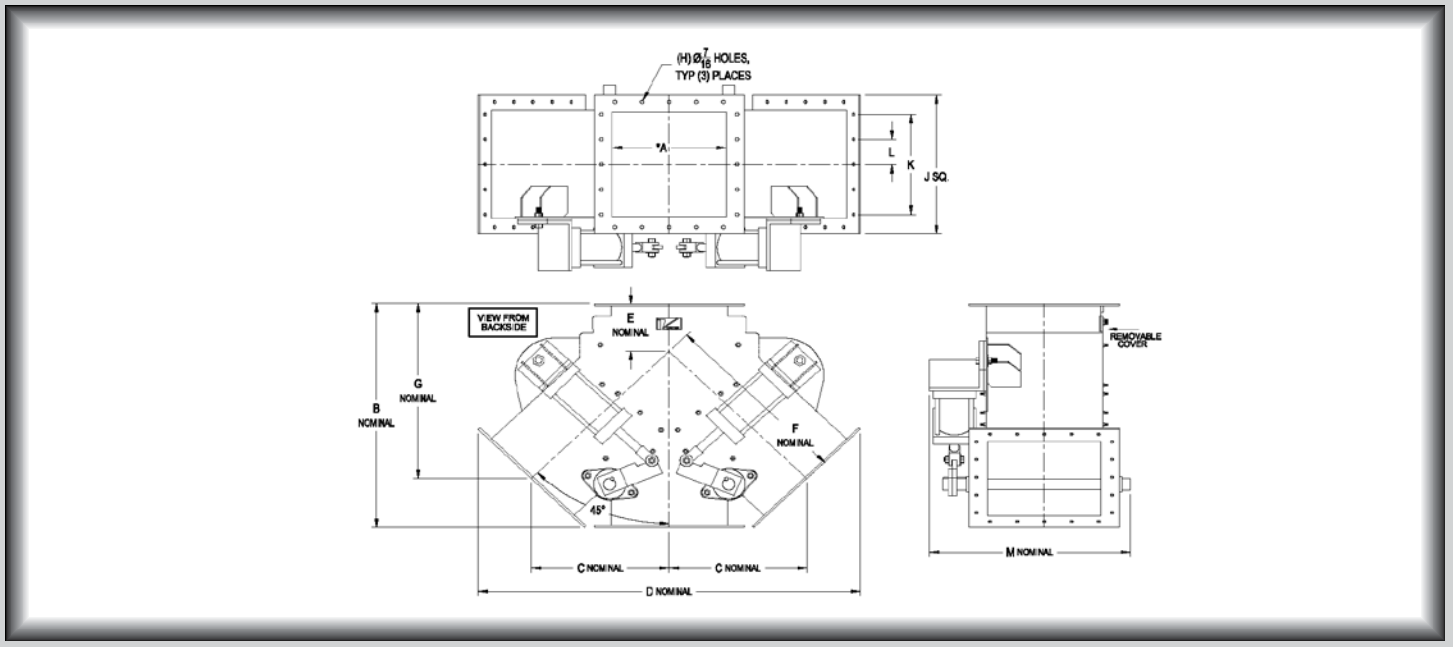
VORTEX® 3-WAY SEAL TITE DIVERTER™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	L	M	WT (Lbs)
Z04-3XX-45	4	15 1/4	8	21 5/8	4 1/2	11 3/8	12 3/8	8	8	6 1/4	3 1/8	12	100
Z06-3XX-45	6	18	9 3/4	26 5/8	4 3/4	13 3/4	14 1/2	8	10	7 1/4	4 1/8	13 3/4	150
Z08-3XX-45	8	21	11 1/2	31 1/2	5 1/4	16 1/4	16 3/4	12	12	10 1/4	3 1/2	14 3/4	200
Z10-3XX-45	10	23	13	35 7/8	5	18 3/8	18	12	14	12 1/4	4 1/2	17 3/4	250
Z12-3XX-45	12	26	14 3/4	40 7/8	5 1/2	20 7/8	20 3/8	20	16	14 1/4	2 3/4	19 3/4	300
Z14-3XX-45	14	29	16 1/2	45 3/4	6 1/8	23 3/8	22 5/8	20	18	16 1/4	3 1/4	24	450
Z16-3XX-45	16	32 1/2	18 1/2	51 1/8	7	26 1/8	25 3/8	20	20	18 1/4	3 3/4	26	525
Z18-3XX-45	18	36	20 1/2	56 1/2	7 3/4	29	28 1/4	20	22	20 1/4	4 1/4	28	600

All dimensions are given in inches, Information subject to change without notice.
* less material thickness.

VORTEX® AGGREGATE DIVERTER™

The Vortex® Aggregate Diverter™ is designed to meet the demanding applications associated with handling material such as sand, gravel, whole grains, and coal. This diverter has been engineered to address the problems associated with typical aggregate or "bucket" diverters. The removable access door and abrasion resistant wear liners allow for a "maintenance friendly" diverter. The Aggregate Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Aggregate Diverter™ Features

- Heavy Duty Construction
- Seals and Body Protected from Abrasion
- Access Door for Internal Inspection, Cleaning, or Maintenance
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	6" to 40" Diameter Round, Square, or Rectangular
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Flange, ANSI, DIN, JIS, or Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 400°F continuous to 450°F intermittent service
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Chute Rubber, Belted Rubber, Kryptane, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve, Electric Actuator, or Hand Lever
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE
Industry Use	Plastics, Petrochemicals, Chemicals, Minerals, Textiles, Agriculture

Application Specific Modifications

45 / 30	The angle the outlets are offset (45 or 30) degrees.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
DP	Carbon steel special service inlet with built-in dead pocket deflector.
PL	Replaceable abrasion resistant polymer liner on bucket legs.
HL	AR400 carbon steel honeycomb liner on bucket legs.
HB	AR 400 carbon steel honeycomb liner on bucket.
RT	Round transitions with Vortex Standard flange patterns are mounted to the inlet and two outlets of the valve.
RTP	Round transitions with ANSI, DIN, or JIS flange patterns are mounted to the inlet and two outlets of the valve.

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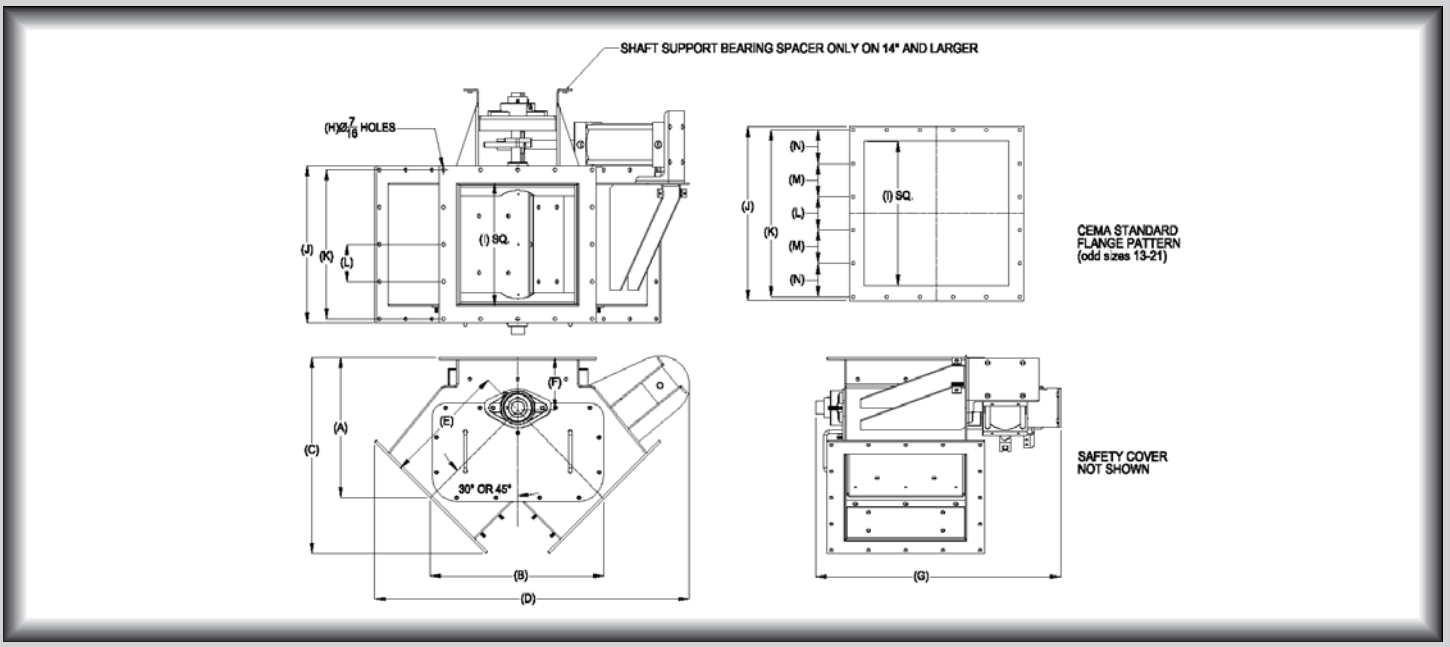
VORTEX® AGGRERATE DIVERTER™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	WT (Lbs)
BD06-2CS-45	11 1/2	12	15	23 3/4	8 1/2	5 1/2	14	8	5 5/8	10	9	4 1/2	--	70
BD08-2CS-45	12 1/2	14	16 3/4	25 1/2	9 7/8	5 1/2	16	8	7 5/8	12	11	5 1/2	--	100
BD10-2CS-45	13 1/2	16	18 1/2	30 3/8	11 3/8	5 1/2	18	16	9 5/8	14	13	3 1/4	--	130
BD12-2CS-45	14 1/2	18	20 1/8	32	12 3/4	5 1/2	20	16	11 5/8	16	15	3 3/4	--	180
BD14-2CS-45	16	20	22 3/8	36	14 1/8	6	24	16	13 5/8	18	17	4 1/4	--	240
BD16-2CS-45	17	22	24 1/8	39	15 1/2	6	30	16	15 5/8	20	19	4 3/4	--	280
BD18-2CS-45	18	24	25 3/4	43	17	6	32	16	17 5/8	22	21	5 1/4	--	320
BD20-2CS-45	21	26	29 7/8	46 3/8	18 3/8	8	35	16	19 1/2	25	23	5 3/4	--	575
BD22-2CS-45	22	28	31 1/2	49 1/4	19 3/4	8	36 1/4	24	21 1/2	27	25	4 3/16	4 1/8	625
BD24-2CS-45	26 1/2	36	36 7/8	58 1/8	25 1/2	8 1/2	40	24	23 1/2	29	27	4 1/2	--	700

All dimensions are in inches, Information subject to change without notice.

VORTEX® GRAVITY VEE DIVERTER™

The Vortex® Gravity Vee Diverter™ is designed for diversity when diverting the flow of dry bulk solids in a gravity flow conveying system. The design allows for material flow through both outlets simultaneously, one outlet at a time, or a complete shut-off of flow. The Gravity Vee Diverter™ is also capable of metering flow in both or either direction. The Gravity Vee0 Diverter™ is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Gravity Vee Diverter™ Features

- Positive Seal of Dust and Fine Powders
- Seals Protected from Abrasion
- Accurate Metering of Material with Optional Metering Controls
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	5", 6", 8", 10", 12", 14", 16", 18", and 24" Diameter Round, Square, or Rectangular
Media	Powder, Pellets, Granulars
Connection Options	SVC Standard Flange, ANSI, DIN, JIS, Custom Flanges
Media Temperature	Up to 180°F continuous to 250°F intermittent service, Modifications allow up to 250°F continuous to 300°F intermittent service
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, Aluminum, and/or Carbon Steel
Seal/Seat Material Options	Nylon, PET, UHMW, Glass Filled Teflon, Natural Rubber, and/or Silicon Rubber
Drive/Actuation Options	Double Acting Air Cylinder with Solenoid Operated Air Control Valve, Electric Actuator, or Hand Wheel
Position Confirmation	Magnetic Reed Switch, Proximity Switch, or Mechanical Switch
Compliance/Approvals	CE, ATEX, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Application Specific Modifications

S	Material contact is 316L stainless steel.
MG	Air cylinder has a magnetic ring which activates a magnetic reed position indicating switch.
WS1	Slide Blade is electro-polished. Polyethylene Terephthalate (PET) dust seals replace Nylon.
HT3	Modifications are made allowing 250°F continuous to 300°F intermittent service.
HT4	Modifications are made allowing 400°F continuous to 450°F intermittent service.
HS	Hardened steel rollers replace standard nylon rollers.
SB	Bonnet is manufactured with solid, gasket covers. (Allows the valve to accept air purge.)
AD	Modifications are made to handle medium abrasive products. Includes flow deflector and 5mm 304 stainless steel blade.

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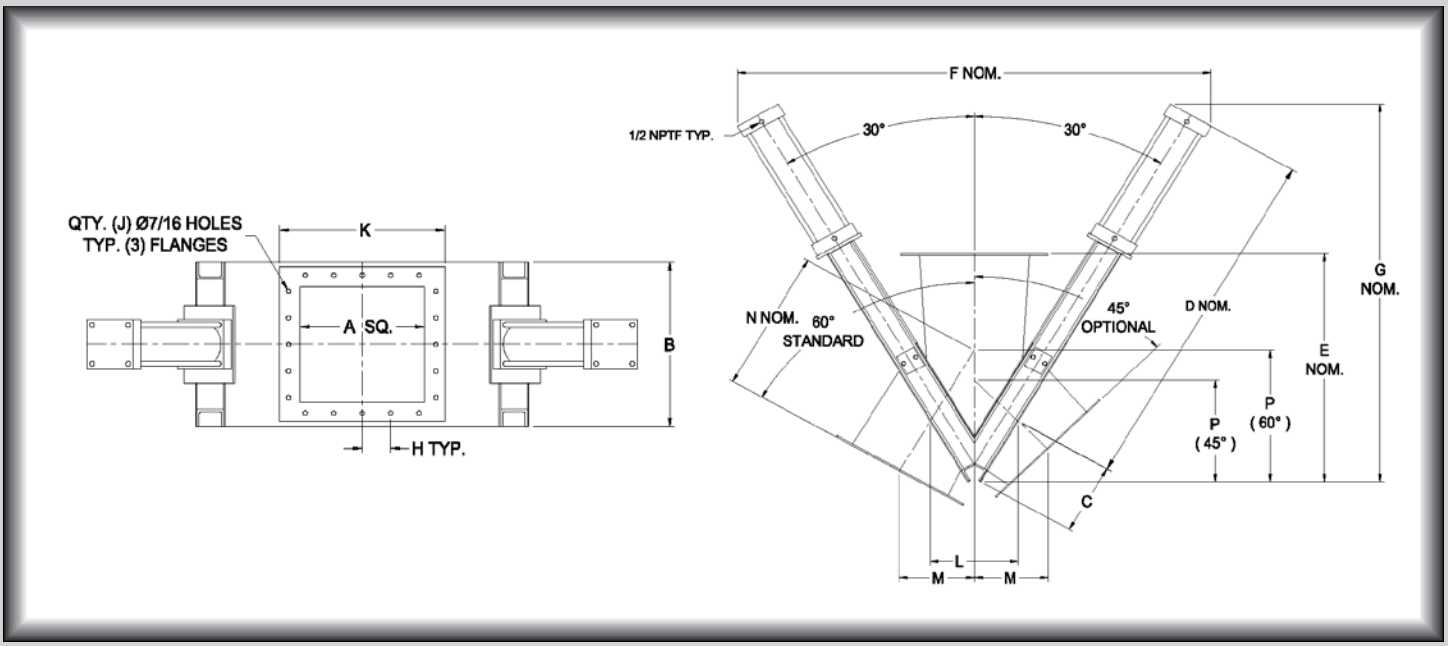
VORTEX® GRAVITY VEE DIVERTER™ DIMENSIONAL INFORMATION



Model	A	B	C	D	E	F	G	H	J	K	L	M (60°)	M (45°)	N (60°)	N (45°)	P (60°)	P (45°)	WT (Lbs)
V06-2(XX*) S-60-NR	6	11	5 1/4	25 3/8	17 3/8	32 7/8	28 1/4	4 1/8	8	10	6 1/2	5 3/4	5 7/8	11 1/2	8 3/8	10 1/4	7 7/8	140
V08-2(XX*) S-60-NR	8	13	6 1/4	30 3/8	20 7/8	38 7/8	34	3 1/2	12	12	7 1/2	6 3/8	6 5/8	12 3/4	9 1/4	12	9 1/4	170
V10-2(XX*) S-60-NR	10	15	7 1/4	35 3/8	24	44 7/8	39	4 1/2	12	14	8 1/2	7 3/8	7 1/2	14 3/4	10 1/2	13 3/4	10 5/8	200
V12-2(XX*) S-60-NR	12	17	8 1/4	40 3/8	26 3/4	50 7/8	44 1/4	2 3/4	20	16	9 1/2	8 3/16	8 1/8	16 3/8	11 3/8	15 3/8	12	230
V14-2(XX*) S-60-NR	14	19	9 1/4	45 3/8	30 7/8	56 7/8	49 1/2	3 1/4	20	18	10 1/2	9 1/16	9 3/16	18 1/8	13	17 1/8	13 3/8	260
V16-2(XX*) S-60-NR	16	21	10 1/4	50 3/8	35 3/8	63	54	3 3/4	20	20	11 5/8	9 5/16	9 1/2	15 5/8	13 3/8	19	14 3/4	290
V18-2(XX*) S-60-NR	18	23	11 1/4	55 3/8	37	69 7/8	60	4 1/4	20	22	12 5/8	10 13/16	10 3/16	21 5/8	14 3/8	20 5/8	16	320

All dimensions are in inches, Information subject to change without notice.

VORTEX® IRIS VALVE™

The patented Vortex® Iris Valve is designed specifically to handle dry bulk solids in gravity discharge of free-flowing material from bins, bulk bags, chutes, and hoppers. The Vortex® Iris Valve is constructed with stainless steel control rings, metal handle and trigger lock, and nylon shim for durability and smooth actuation. A form fitted fabric sleeve provides a dust tight seal and product barrier, which prevents material leakage to atmosphere. The Iris Valve is designed to eliminate problems, enabling you to meet your objectives by increasing production, while decreasing labor and equipment costs.

Vortex® Iris Valve Features

- No Binding or Galling. Smooth Actuation
- Unobstructed Bore for Unrestricted Flow of Material
- Fabric Sleeve Prevents Material Degradation
- Easy Installation and Maintenance

Valve Specifications

Size/Bore Options	4", 6", 8", 10", 12", 15", and 18", Diameters
Media	Powder, Pellets, Granulars
Connection Options	Std. Flange Pattern, Tube Stub, or Ferrule Couplings
Media Temperature	Up to 120°F continuous to 250°F intermittent service
Media Pressure	0 PSIG, Gravity Flow Only
Metal Construction Options	304 or 316L Stainless Steel, and/or Aluminum
Sleeve Material Options	Nylon, Teflon, Urethane, or Rubber
Drive/Actuation Options	Infinite Position Hand Lever , Quick Lock Hand Lever, or Tote Handle
Position Confirmation	Visual, Proximity Switch
Compliance/Approvals	CE, FDA
Industry Use	Plastics, Petrochemicals, Chemicals, Foods, Minerals, Textiles, Agriculture

Patent No. 7021604

Application Specific Modifications

SC	All steel material contact components are 304 Stainless Steel alloy.
S-SC	All steel material contact components are 316L Stainless Steel alloy.
UR	Valve Sleeve is a 4 oz. nylon that is urethane coated.
TF	Valve Sleeve is an 8 oz. Teflon material.
FP	Optional bolt-hole pattern is specified.

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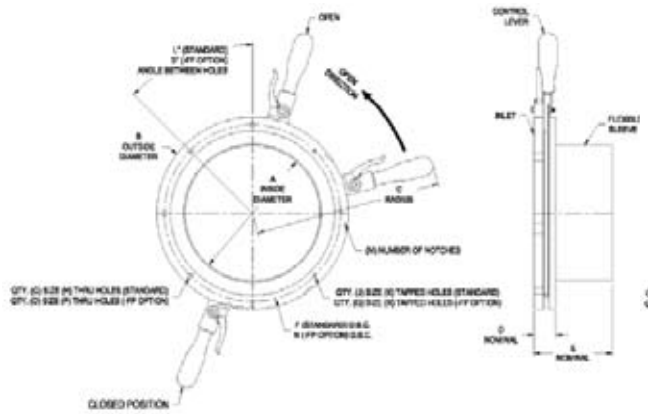
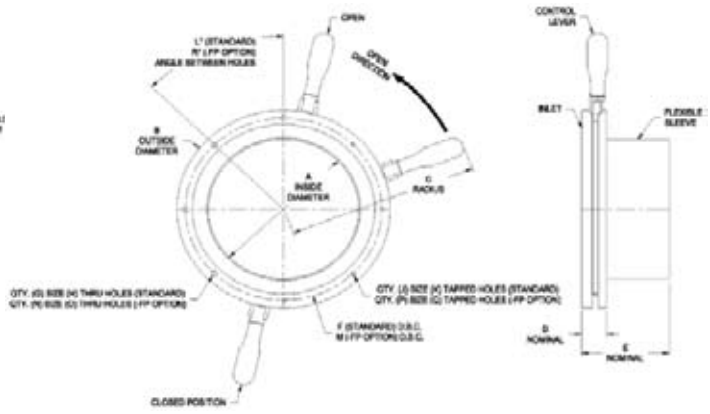
VORTEX® IRIS VALVE™ DIMENSIONAL INFORMATION

Quick Lock Model



Infinite Position Model



Quick Lock Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	WT (Lbs)
UB04QL	4	7	10 1/8	1 5/8	2 1/4	6	3	11/32	3	5/16-18 UNC	60	4	--	--	--	--	--	--	3
UB06QL	6	9	11 1/8	1 5/8	3 1/2	8	3	11/32	3	5/16-18 UNC	60	4	8 1/2	3	9/32	3	1/4-20 UNC	60	6
UB08QL	8	11	12 1/8	1 5/8	4 1/2	10	4	11/32	4	5/16-18 UNC	45	4	10 1/2	3	9/32	3	1/4-20 UNC	60	7
UB10QL	10	14	13 5/8	1 5/8	5 3/4	12 7/8	4	11/32	4	5/16-18 UNC	45	4	12 3/4	4	13/32	4	3/8-16 UNC	45	10
UB12QL	12	16	14 5/8	1 5/8	6 1/2	14 7/8	4	11/32	4	5/16-18 UNC	45	4	15 1/4	4	13/32	4	3/8-16 UNC	45	16
UB15QL	15	19 1/2	16 3/8	1 5/8	8	18 1/2	6	11/32	6	5/16-18 UNC	30	4	18 1/2	4	13/32	4	3/8-16 UNC	45	25
UB18QL	18	22	17 5/8	1 5/8	10 1/2	20 7/8	6	11/32	6	5/16-18 UNC	30	4	--	--	--	--	--	--	34

Infinite Position Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	WT (Lbs)
UB04IP	4	7	9 1/8	1 5/8	2 1/4	6	3	11/32	3	5/16-18 UNC	60	--	--	--	--	--	--	3
UB06IP	6	9	10 1/8	1 5/8	3 1/2	8	3	11/32	3	5/16-18 UNC	60	8 1/2	3	9/32	3	1/4-20 UNC	60	6
UB08IP	8	11	11 1/8	1 5/8	4 1/2	10	4	11/32	4	5/16-18 UNC	45	10 1/2	3	9/32	3	1/4-20 UNC	60	7
UB10IP	10	14	12 5/8	1 5/8	5 3/4	12 7/8	4	11/32	4	5/16-18 UNC	45	12 3/4	4	13/32	4	3/8-16 UNC	45	10
UB12IP	12	16	13 5/8	1 5/8	6 1/2	14 7/8	4	11/32	4	5/16-18 UNC	45	15 1/4	4	13/32	4	3/8-16 UNC	45	16
UB15IP	15	19 1/2	15 3/8	1 5/8	8	18 1/2	6	11/32	6	5/16-18 UNC	30	18 1/2	4	13/32	4	3/8-16 UNC	45	25
UB18IP	18	22	16 5/8	1 5/8	10	20 7/8	6	11/32	6	5/16-18 UNC	30	--	--	--	--	--	--	34

All dimensions are in inches, Information subject to change without notice.

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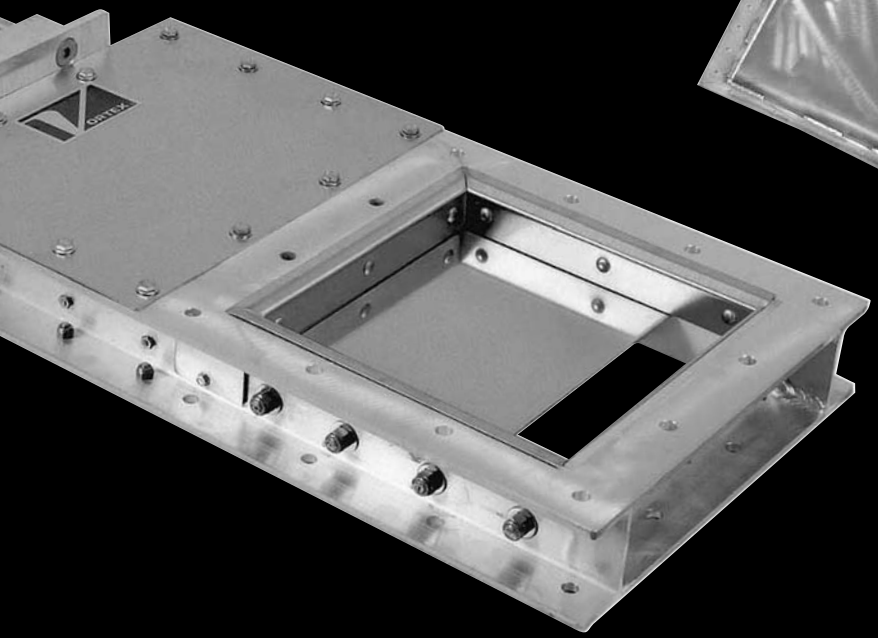
Slide Gates, Diverter Valves, Iris and Butterfly Valves



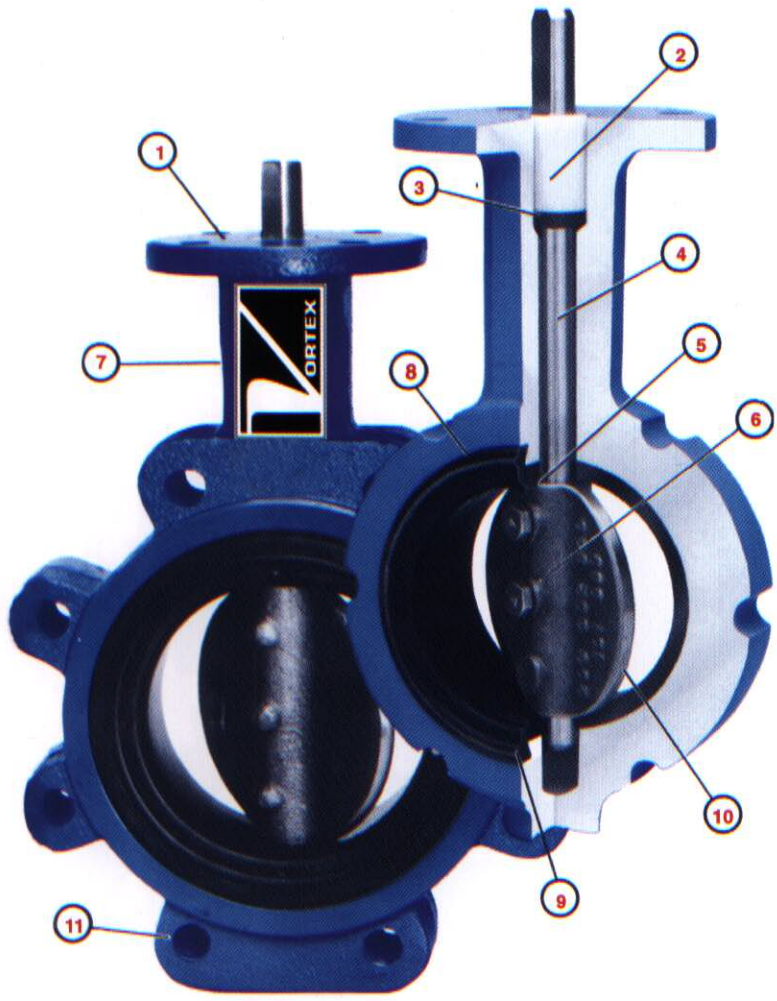
www.vortexvalves.com

BUTTERFLY VALVE

Vortex ED Butterfly Valve

For General Purpose Industrial Applications

The Vortex model ED Butterfly Valve offers customers an inexpensive, one piece valve for non-abrasive applications. This valve model is for use in gravity flow applications.



- *Vortex Butterfly Valves offer many standard features as shown.*
- *A choice of options are available to handle a wide variety of applications.*

1 **Cast body**
Precision Machined

2 **Stem bushings**
Impact/corrosion resistant

3 **Double "V" stem Packing**
Self-adjusting

4 **stem**
Machined for proper alignment

5 **Stem/body isolation**
Stem and body are isolated from line media by seal between disc and seat

6 **cap screw O-ring seal**
Creates a positive connection and prevents leakage of material into stem area

7 **Long Valve Neck**
Allows for insulation requirements

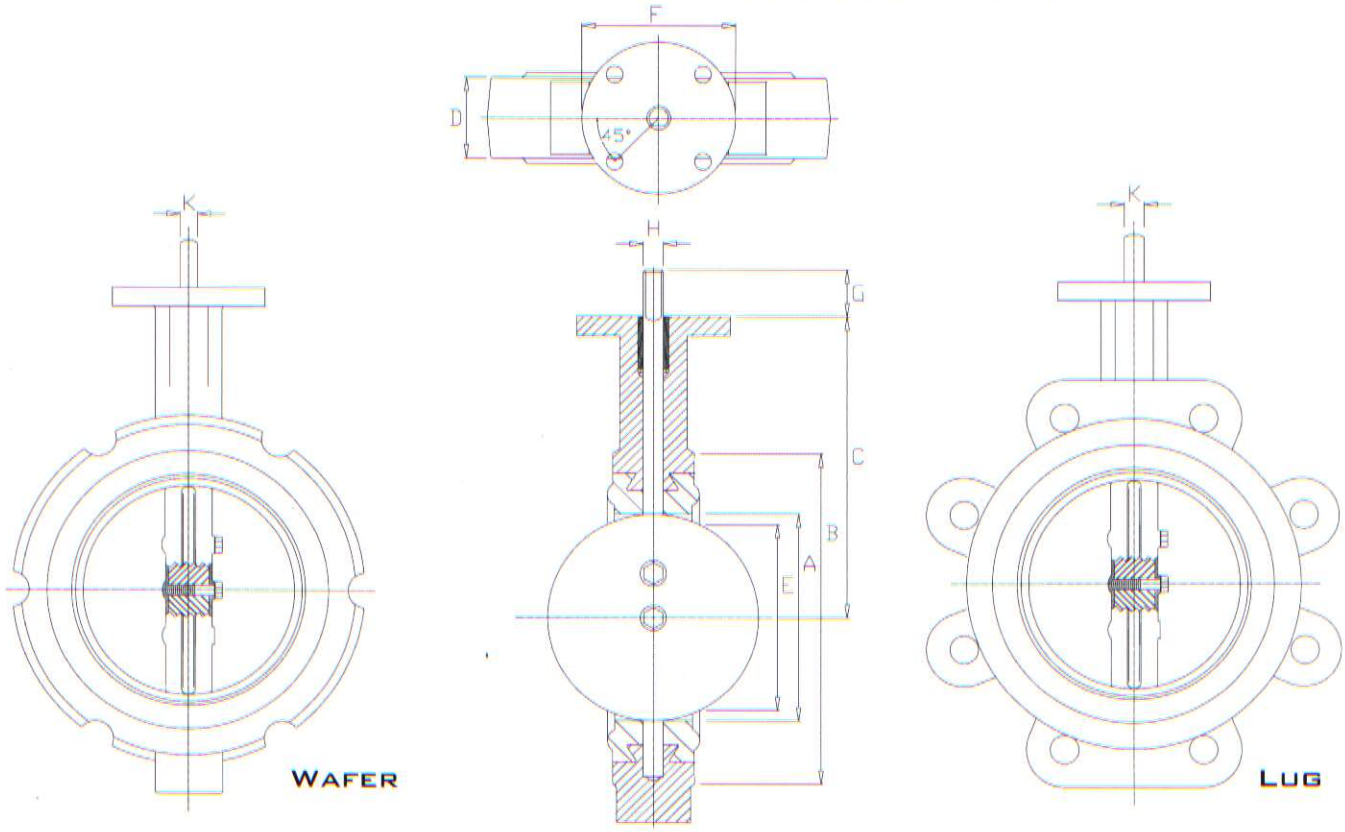
8 **Special Seat Design**
Replaceable Seat "snaps" in place without bonding.

9 **Molded O-Ring in Seat**
Forms seal against ANSI flanges. Additional gasketing is eliminated.

10 **Machined Disc Edge**
Provides a superior seal and extends seat life.

11 **Drilled/Tapped Lugs**
125/150 ANSI pattern

VALVE DIMENSIONS - ED



Valve Size	DIMENSIONS										WEIGHT (Pounds)		TOP PLATE DRILLING			TAPPED LUG DATA		
	A	B	C	D	E	F	G	H	K	Keyway	Wafer	Lug	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap
2	2 1/8	4 1/8	5 1/2	1 5/8	1 11/16	4	1 1/4	9/16	3/8		6	7 1/2	3 1/4	4	7/16	4 3/4	4	5/8-11 UNC
2 1/2	2 9/16	4 7/8	6	1 3/4	2 3/16	4	1 1/4	9/16	3/8		8	10	3 1/4	4	7/16	5 1/2	4	5/8-11 UNC
3	3 1/8	5 3/8	6 1/4	1 3/4	2 7/8	4	1 1/4	9/16	3/8		9	11	3 1/4	4	7/16	6	4	5/8-11 UNC
4	4 1/8	6 7/8	7	2	3 7/8	4	1 1/4	5/8	7/16		13	17	3 1/4	4	7/16	7 1/2	8	5/8-11 UNC
5	5 3/16	7 5/8	7 1/2	2 1/8	5	4	1 1/4	5/8	7/16		15	21	3 1/4	4	7/16	8 1/2	8	3/4-10 UNC
6	6 1/8	8 3/4	8	2 1/8	6	4	1 1/4	5/8	7/16		19	26	3 1/4	4	7/16	9 1/2	8	3/4-10 UNC
8	8 1/8	11	9 1/2	2 1/2	8	6	1 1/4	3/4	1/2		31	42	5	4	9/16	11 3/4	8	3/4-10 UNC
10	10 1/8	13 3/8	10 3/4	2 1/2	10 1/16	6	1 1/4	7/8	5/8		47	65	5	4	9/16	14 1/4	12	7/8- 9 UNC
12	12 3/32	16 1/8	12 1/4	3	11 15/16	6	2	1 1/8		1/4x1/8	88	108	5	4	9/16	17	12	7/8- 9 UNC

Information subject to change without notice.

CONSTRUCTION SPECIFICATIONS:

BODY: CAST IRON (STANDARD FOR BOTH), DUCTILE IRON (AVAILABLE FOR LUG BODY STYLE), ALUMINUM (AVAILABLE FOR WAFER BODY STYLE).
DISC: 316 STAINLESS, ALUMINUM BRONZE, DUCTILE IRON, DUCTILE IRON/EPOXY COATED.
STEM: 416 STAINLESS STEEL, 316 STAINLESS STEEL, CARBON STEEL
SEAT: EPDM, BUNA-N, VITON,
(OTHER MATERIALS AVAILABLE UPON REQUEST)
STEM BUSHING: TEFLON/GRAPHITE
CAP SCREW O-RING SEAL: BUNA-N
DISC SCREWS: 316 STAINLESS STEEL
STEM PACKING: BUNA-N

NOTES:

- THE 12" VALVE UTILIZES A ROUND STEM WITH A 1/4" X 1/4" KEY.
- THESE MODELS CANNOT BE USED ON A PIPE OR FLANGE HAVING LESS THAN THE "E" DIMENSION FOR THAT PARTICULAR PIPE SIZE.
- VALVE RATED TO 150 PSIG (UNDERCUT DISC REDUCES PRESSURE TO 50 PSIG)

Vortex EL Butterfly Valve

For General Purpose Industrial Applications

The Vortex model EL Butterfly Valve offers customers an inexpensive, one piece valve for larger size diameters. This model can be used in abrasive or non-abrasive applications.

- *Precision built valves for larger size applications (14" - 20").*
- *Thin profile disc provides superior flow characteristics.*

1 **Cast body**
Precision Machined

2 **Stem bushings**
Impact/corrosion resistant

3 **Double "V" stem Packing**
Self-adjusting

4 **Upper/lower stem**
Provides an internal drive for greater strengh

5 **Stem/body isolation**
Stem and body are isolated from line media by seal between disc and seat

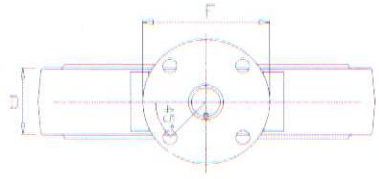
6 **Special Seat Design**
Replaceable Seat "snaps" in place without bonding.

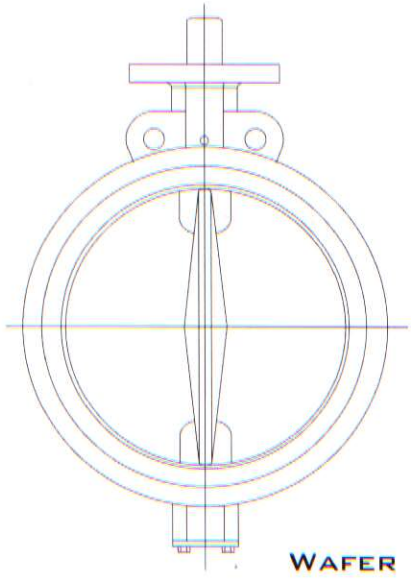
7 **Molded O-Ring in Seat**
Forms seal against ANSI flanges. Additional gasketing is eliminated.

8 **Machined Disc Edge**
Provides a superior seal and extends seat life.

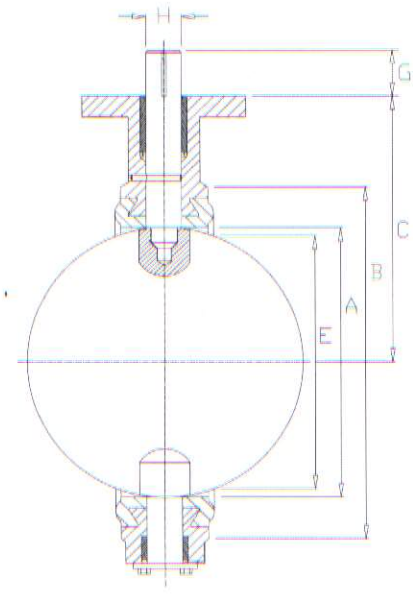
9 **Drilled/Tapped Lugs**
125/150 ANSI pattern

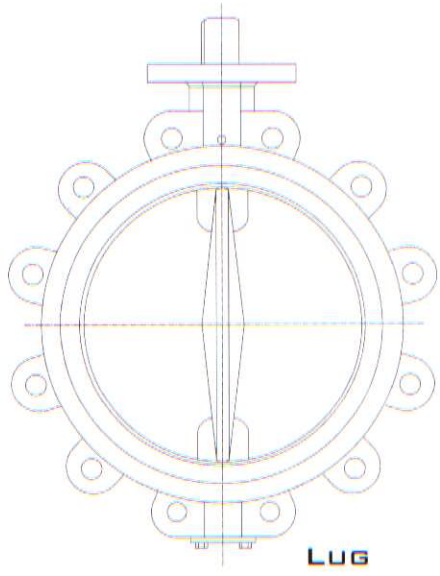
VALVE DIMENSIONS - EL





WAFER





LUG

Valve Size	DIMENSIONS									TOP PLATE DRILLING			TAPPED LUG DATA			WEIGHT (Pounds)	
	A	B	C	D	E	F	G	H	Key	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap	Wafer	Lug
14	13¼	17 9/16	12	3	13 1/8	6	2¼	1 1/8	5/16 x 5/16	5	4	9/16	18¾	12	1 - 8 UNC	93	115
16	15¼	20 1/8	12 61/64	4	15	6	2¼	1 1/8	3/8 x 3/8	5	4	9/16	21¼	16	1 - 8 UNC	150	187
18	17¼	21½	14½	4¼	16 7/8	8	3	1 7/8	½ x 3/8	6½	4	13/16	22¾	16	1 1/8 - 7 UNC	195	233
20	19¼	23¾	15 7/8	5	18¾	8	3	2 1/8	½ x 3/8	6½	4	13/16	25	20	1 1/8 - 7 UNC	267	322

Information subject to change without notice.

CONSTRUCTION SPECIFICATIONS:

BODY: CAST IRON
DISC: 316 STAINLESS, DUCTILE IRON, DUCTILE IRON/EPOXY COATED, 17-4 STAINLESS
STEM: 17-4 STAINLESS
SEAT: EPDM, BUNA-N, VITON, TEFLON, WHITE NEOPRENE (OTHER MATERIALS AVAILABLE UPON REQUEST)
STEM BUSHING: ACETAL
STEM PACKING: BUNA-N

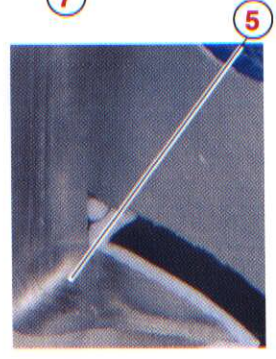
NOTES:

- VALVE RATED TO 150 PSIG (UNDERCUT DISC REDUCES PRESSURE TO 50 PSIG)
- THESE MODELS CANNOT BE USED ON A PIPE OR FLANGE HAVING LESS THAN THE "E" DIMENSION FOR THAT PARTICULAR PIPE SIZE.

Vortex ET Butterfly Valve

Split Body - Chemical & Food Applications

The Vortex model ET Butterfly Valve offers customers a wide variety of seat materials, as well as an encapsulated disc. It is an excellent choice for applications requiring chemical resistance or sanitary features.



- *Split body design accommodates thin profile, one-piece stem disc for improved material flow and cleanliness.*

- *Valve can be manufactured to Handle a wide variety of chemical or food applications.*

1 **Cast body**
Precision Machined

2 **Stem bushings**
Impact/corrosion resistant

3 **Double "V" stem Packing**
Self-adjusting

4 **Stem**
Machined for proper alignment

5 **Ring seal on Teflon seat**
Creates positive seal around stem and between seat and valve body. Eliminates migration of material.

6 **Special Seat Design**
Replaceable Seat "snaps" in place without bonding.

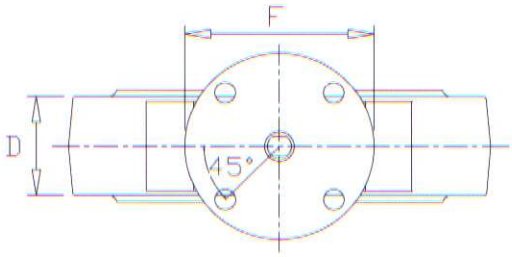
7 **Improved disc/stem Design**
Prevents distortion of disc under High pressure.

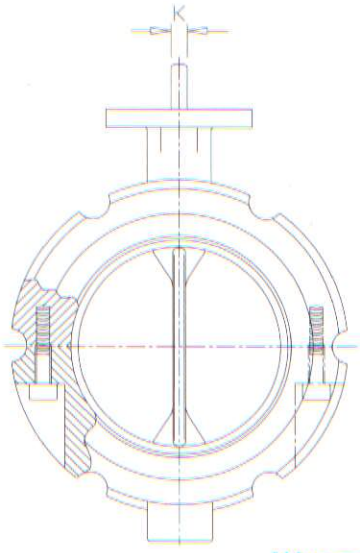
8 **Two piece body/ 1 piece stem**
Quick replacement of stem if necessary.

9 **Machined disc edge**
Provides for a superior seal and extends seat life.

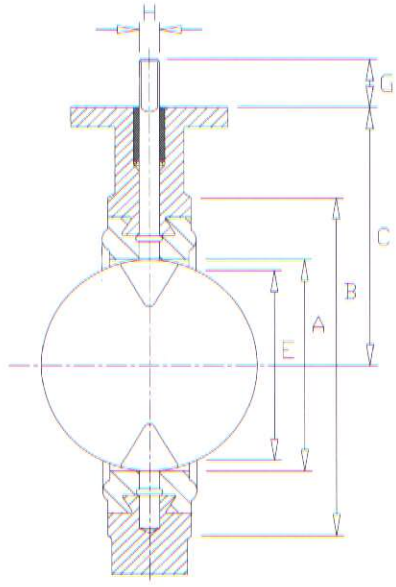
10 **Molded O-Ring in Seat**
Forms seal against ANSI flanges. Additional gasketing is eliminated.

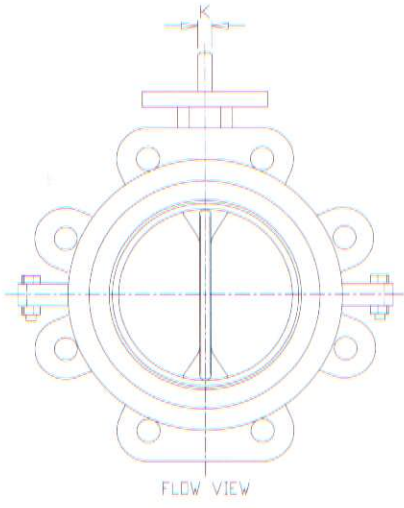
VALVE DIMENSIONS - ET





WAFER





LUG

Valve Size	DIMENSIONS										TOP PLATE DRILLING			TAPPED LUG DATA			WEIGHT (Pounds)	
	A	B	C	D	E	F	G	H	K	Keyway	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap	wafer	lug
2	2 1/8	4 1/8	3 15/16	1 5/8	1 11/16	4	1¼	9/16	3/8		3¼	4	7/16	4¾	4	5/8-11 UNC	6	7½
2½*	2 9/16	4 7/8	4½	1¾	2 1/8	4	1¼	9/16	3/8		3¼	4	7/16	5½	4	5/8-11 UNC	8	9
3	3 1/8	5 1/8	4 7/8	1¾	2 1/8	4	1¼	9/16	3/8		3¼	4	7/16	6	4	5/8-11 UNC	9	11
4	4 1/8	6 7/8	6	2	3 7/8	4	1¼	5/8	7/16		3¼	4	7/16	7½	8	5/8-11 UNC	11	17
5*	5 1/16	7 5/8	6	2 1/8	5	4	1¼	5/8	7/16		3¼	4	7/16	8½	8	¾-10 UNC	15	23
6	6 1/8	8¾	6½	2 1/8	6	4	1¼	¾	½		3¼	4	7/16	9½	8	¾-10 UNC	17	26
8	8 1/8	11	8 5/16	2½	8	6	1¼	7/8	5/8		5	4	9/16	11¾	8	¾-10 UNC	29	42
10	10 1/8	13 3/8	9	2½	10 1/16	6	1¼	1 1/8		¼ x 1/8	5	4	9/16	14¼	12	7/8-9 UNC	44	65
12	12 3/32	16 1/8	10 9/32	3	11 15/16	6	2	1 1/8		¼ x 1/8	5	4	9/16	17	12	7/8-9 UNC	85	108

* Not available with Teflon® or elastomer coated disc.

Information subject to change without notice.

CONSTRUCTION SPECIFICATIONS:

BODY: CAST IRON, ALUMINUM (WAFER ONLY), 316 STAINLESS

DISC: 316 STAINLESS, 17-4 STAINLESS, TEFLON/17-4, ELASTOMER/17-4

STEM: 316 STAINLESS, 17-4 STAINLESS

SEAT: EPDM, BUNA-N, VITON, TEFLON, NATURAL RUBBER, WHITE NEOPRENE

(OTHER MATERIALS AVAILABLE UPON REQUEST)

STEM BUSHING: GRAPHITE IMPREGNATED TEFLON

STEM PACKING: BUNA-N, VITON

NOTES:

- VALVE RATED 50-150 PSIG (DEPENDING ON DISC/STEM AND SEAT MATERIAL)
- THESE MODELS CANNOT BE USED ON A PIPE OR FLANGE HAVING LESS THAN THE "E" DIMENSION FOR THAT PARTICULAR PIPE SIZE.
- THE 10" AND 12" VALVES UTILIZE A ROUND STEM WITH A ¼ X ¼ KEY.

Vortex EI Butterfly Valve

Economy Butterfly Valve

The Vortex model EI Butterfly Valve offers customers a more economical valve that can be modified to handle a wide variety of commercial or industrial applications in sizes 2" through 24".

- *Quality features in a less expensive valve*
- *Excellent for general service applications*

Many Quality Features

1 **Cast body**
Precision Machined

2 **Stem bushing**
Impact / corrosion resistant Graphite-Teflon impregnated (self lubricating / wear resistant)

3 **Double "V" stem Packing**
Self-adjusting

4 **Stem**
Machined for proper alignment

5 **Improved stem to Disc Design**
Positive engagement / Internally driven (no external pins to vibrate loose)

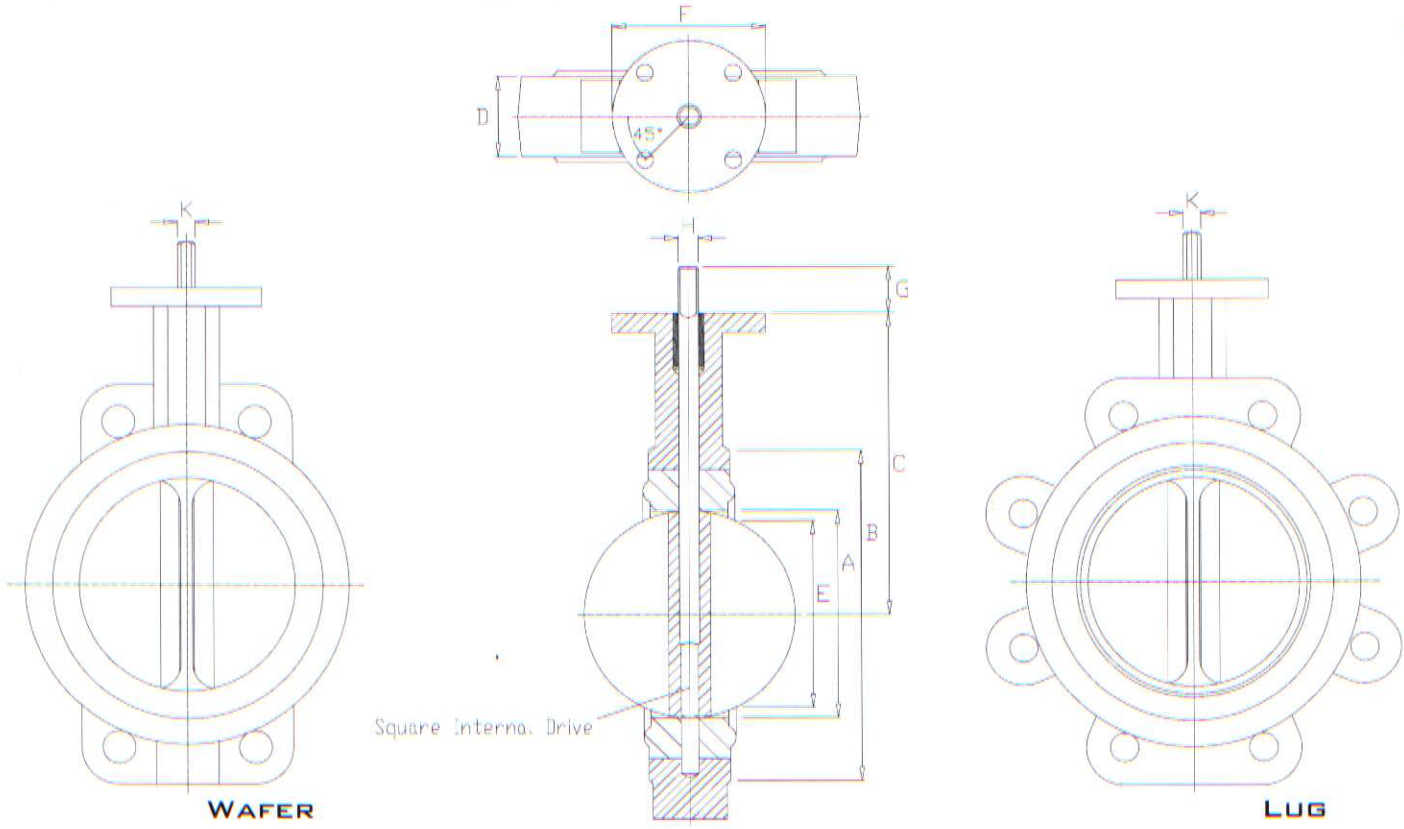
6 **One piece body**

7 **Machined disc edge**
Provides for a superior seal and extends seal life

8 **Molded Seat**
Non-collapsible, strech-resistant, blowout proof.

9 **Molded O-Ring in Seat**
Forms seal against ANSI flanges.
Additional gasketing is eliminated.

VALVE DIMENSIONS - EI



WAFER LUG

Valve Size	DIMENSIONS										TOP PLATE DRILLING			TAPPED LUG DATA			WEIGHT (pounds)	
	A	B	C	D	E	F	G	H	K	Key	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap	Wafer	Lug
2	2	3 1/2	5 1/2	1 5/8	1 5/8	4	1 1/4	9/16	3/8	-	3 1/4	4	7/16	4 3/4	4	5/8 - 11 UNC	7	7 1/2
2.5	2 1/2	4 1/4	6	1 3/4	2 1/16	4	1 1/4	9/16	3/8	-	3 1/4	4	7/16	5 1/2	4	5/8 - 11 UNC	9	9 1/2
3	3	4 1/4	6 1/4	1 3/4	2 1/16	4	1 1/4	9/16	3/8	-	3 1/4	4	7/16	6	4	5/8 - 11 UNC	10	10
4	4	5 1/8	7	2	3 5/8	4	1 1/4	5/8	7/16	-	3 1/4	4	7/16	7 1/2	8	5/8 - 11 UNC	13	18
5	5	7 1/8	7 1/2	2 1/8	4 3/4	4	1 1/4	3/4	1/2	-	3 1/4	4	7/16	8 1/2	8	3/4 - 10 UNC	18	22
6	5 1/4	8 3/16	8	2 1/8	5 1/2	4	1 1/4	3/4	1/2	-	3 1/4	4	7/16	9 1/2	8	3/4 - 10 UNC	20	26
8	7 3/4	10 1/4	9 1/2	2 1/2	7 1/2	6	1 1/4	7/8	5/8	-	5	4	9/16	11 3/4	8	3/4 - 10 UNC	35	42
10	9 3/4	12 1/16	10 1/4	2 1/2	9 19/32	6	2	1 1/8	-	1/4 x 1/8	5	4	9/16	14 1/4	12	7/8 - 9 UNC	46	60
12	11 3/4	14 3/4	12 1/4	3	11 9/16	6	2	1 1/8	-	1/4 x 1/8	5	4	9/16	17	12	7/8 - 9 UNC	70	90

Information subject to change without notice.

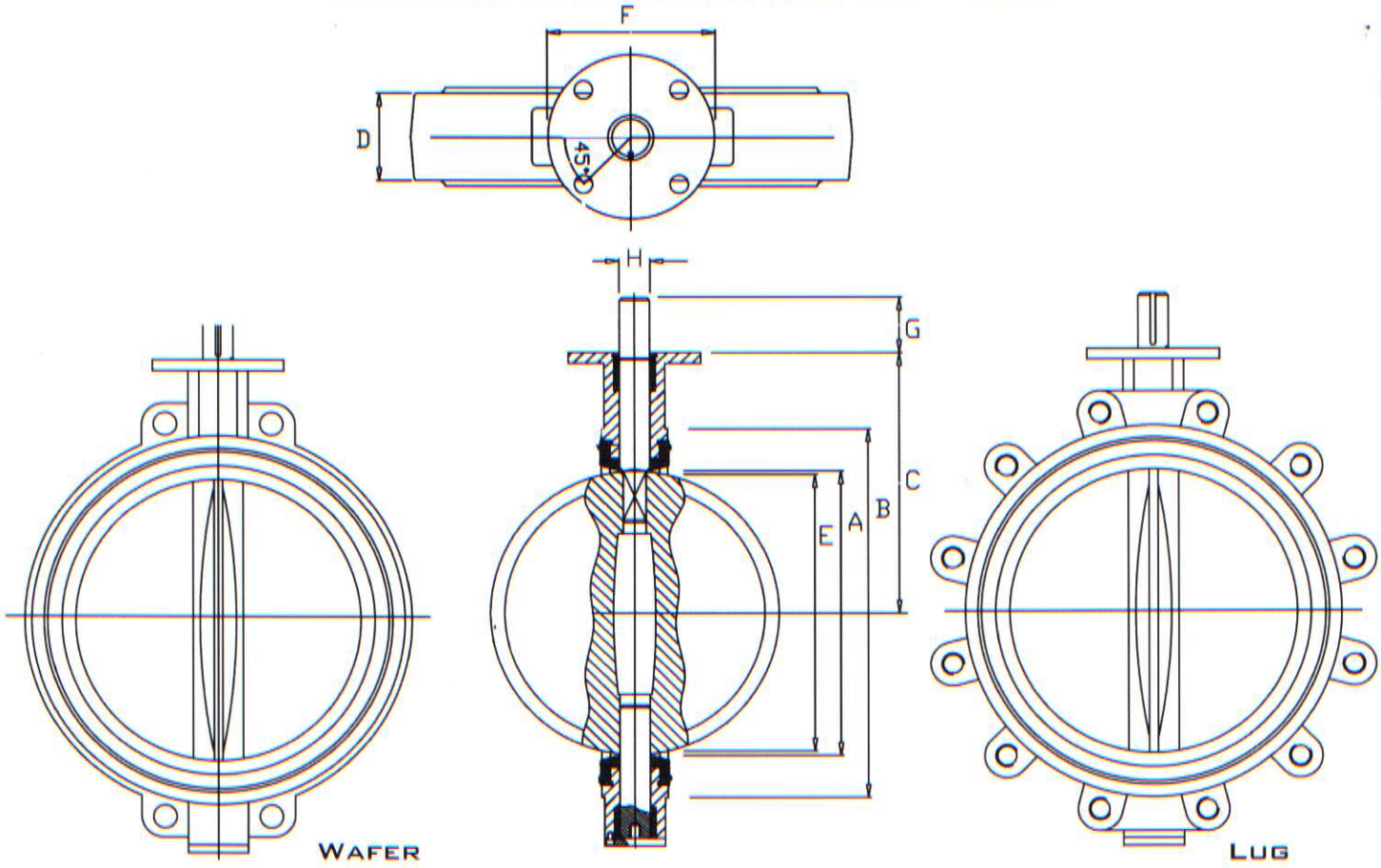
CONSTRUCTION SPECIFICATIONS:

Body: Cast Iron (2"-12"), Ductile iron (14" and above)
Disc: 316 Stainless, Aluminum/Bronze, Ductile Iron/Nickel plated, Ductile iron/ nylon II coated
Stem: 416 Stainless (standard), 316 Stainless
Seat: EPDM, Buna-N, Viton
Stem Bushing: Graphite Impregnated Teflon
Stem Packing: Buna-N

NOTES:

- 2"-12" valves rated 200 psig; 14"-24" rated at 150 psig. Over 24" - consult factory.
- These models cannot be used on a pipe or flange having less than the "E" dimension for that particular pipe size.
- 2"-8" utilize "Double D" stem; larger sizes utilize round stem with key.
- 2"-24" rated for full dead end pressure and full vacuum.

VALVE DIMENSIONS - EI



Valve Size	DIMENSIONS									TOP PLATE DRILLING			TAPPED LUG DATA			WEIGHT (pounds)	
	A	B	C	D	E	F	G	H	Key	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap	Wafer	Lug
14	13¼	17 9/16	12	3	13 1/8	6	2¼	1 3/8	5/16 X 5/16	5	4	9/16	18¾	12	1 - 8 UNC	93	115
16	15¼	20 1/8	12 61/64	4	15	6	2¼	1 5/8	3/8 X 3/8	5	4	11/16	21¼	16	1 - 8 UNC	154	180
18	17¼	21½	14½	4¼	16 7/8	8	3	1 7/8	½ X ½	6½	4	13/16	22¾	16	1 1/8 - 7 UNC	204	244
20	19¼	23¾	15 7/8	5	18¾	8	3	2 1/8	½ X ½	6½	4	13/16	25	20	1 1/8 - 7 UNC	216	270
24	24 1/2	27¾	22 1/4	6	22 5/8	8	3	2 1/8	½ X ½	6½	4	13/16	29 1/2	20	1 1/4 - 7 UNC	328	498

Information subject to change without notice.

CONSTRUCTION SPECIFICATIONS:

Body: Cast Iron (2"-12"), ductile iron (14" and above)
Disc: 316 Stainless, aluminum/bronze, ductile iron/nickel plated, ductile iron/nylon II coated
Stem: 416 Stainless (standard), 316 stainless
Seat: EPDM, Buna-N, Viton
Stem Bushing: Graphite Impregnated Teflon
Stem Packing: Buna-N

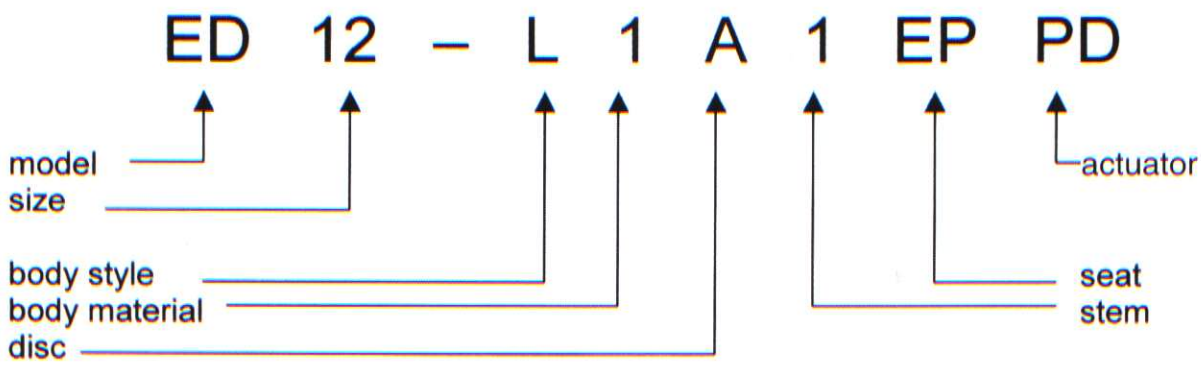
- Consult factory for sizes over 24"

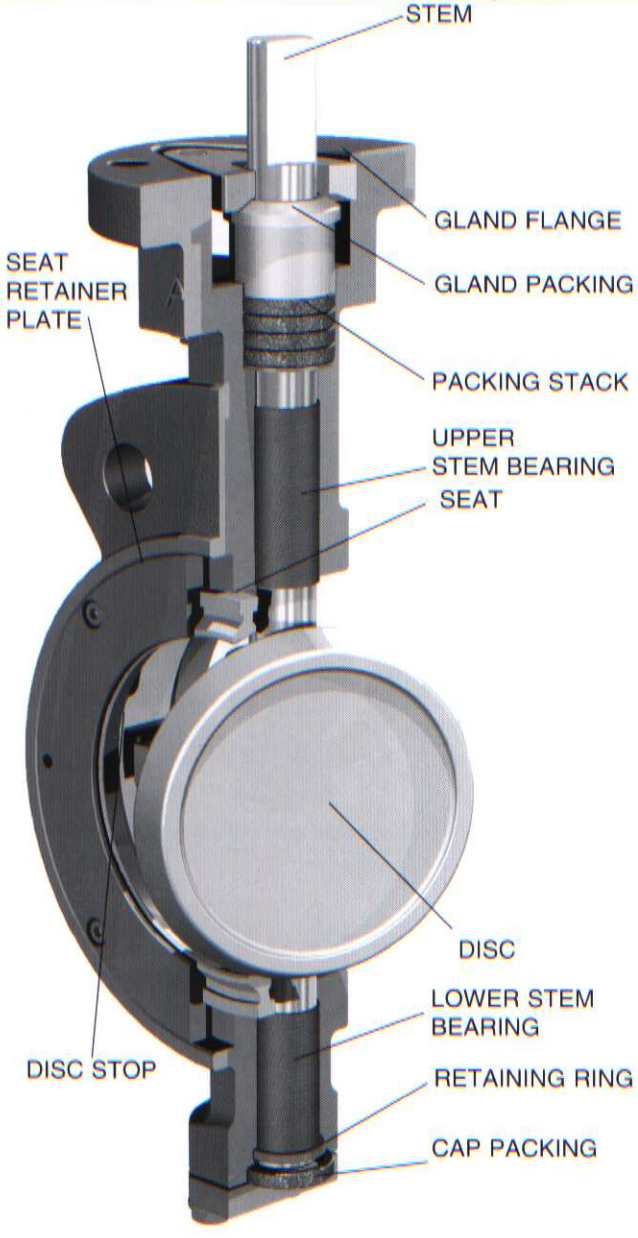
NOTES:

- 2"-12" valves rated 200 psig; 14"-24" rated at 150 psig. Over 24" - consult factory.
- These models cannot be used on a pipe or flange having less than the "E" dimension for that particular pipe size.
- 2"-8" utilize "Double D" stem; larger sizes utilize round stem with key.
- 2"-24" rated for full dead end pressure and full vacuum.

Vortex "E Series" Butterfly Valves

Vortex butterfly valves are available in a variety of modifications to handle a range of applications. The valve product code identifies models and modifications.





Also Available

Vortex "EP Series" Butterfly Valve (Double Offset)

Ideal for:

- Higher Temperatures (up to 1200°F)
- Hot water & Steam Applications
- Higher Pressures (1440 psig)

150 Class 300 Class 600 Class

Available Sizes 2" - 24"

Multiple Modifications Available

Contact factory

Warning!

Follow OSHA recommended safety procedures when operating and maintaining any butterfly valves.

Actuators for Vortex Butterfly Valves

Handle

gear / Hand wheel

Vortex Butterfly valves may be ordered with choice of actuator: handle, Gear (hand wheel or square), pneumatic (spring return or double acting), electro-hydraulic and electric (120 VAC, 220 VAC, 440 VAC, 24 VAC, 24 VDC or 12 VDC - TENV and IIG available.

Actuators are interchangeable, allowing conversion from manual to automated.

Pneumatic actuator/limit switch

Pneumatic actuator/positioner

Electric worm gear drive actuator

Vortex Manufacturers

- Slide Gates
- Diverter Valves
- Iris Valves

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