EcoMAXX VIGILEX

PRODUCT CODE: 50200

Explosion Isolation Valve EV-VF VIGIFLAP

APPLICATIONS

The **EV-VF VIGIFLAP** is an explosion isolation valve designed to prevent propagation of overpressure or flame front caused by an explosion downstream in vessels such as dust collectors, cyclones, and filters.

The valve is held open either by air flow or proprietary locking mechanism. As a result, the **VIGIFLAP** valve can be used as an explosion isolation device for both the inlet and oulet of a vessel.

The **Explosion Isolation Valve EV-VF VIGIFLAP** complies with **NFPA** guidelines and is an **ATEX Certified** device for the containment of explosion.

CERTIFICATIONS & STANDARDS

EN 16447
NFPA 69

STANDARD FEATURES

- **Body :** painted steel
- **100% stainless steel AISI 304**
- **Diameters : ø6" to ø52" / ø160 mm to ø1320 mm**
- **Gasket : EPDM (Silicone FDA 392°F/180°C option)**
- **Pressure drop :** Lower pressure drop with round domed flap

OPTIONAL FEATURES

The EV-VF is 100% NFPA 69 compliant with the following optional features :

- **Body :** Galvanized steel
- **Body :** Stainless steel
- **Frame silicone FDA :** 392ºF/200 ºC
- Dust level sensor to prevent dust accumulation
- Connection box installed on the body, according to the ATEX zone (opposite side of the locking mechanism)

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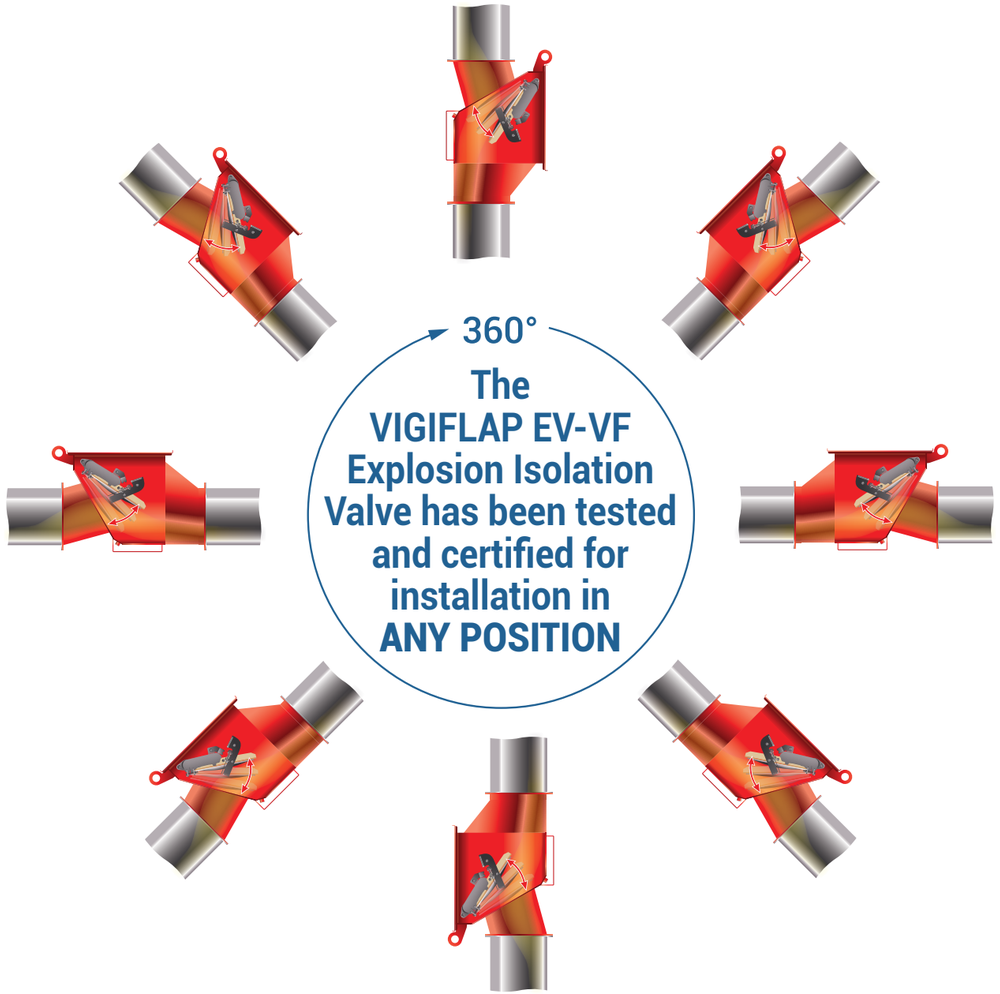
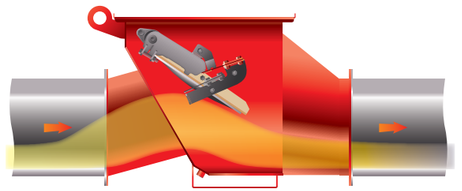
INSTALLATION

The **VIGIFLAP EV-VF Valve** has been tested and certified with the process pipe installed on up & downstream sides of the valve, simulating **REAL WORLD CONDITIONS**.

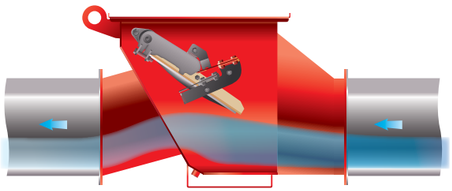


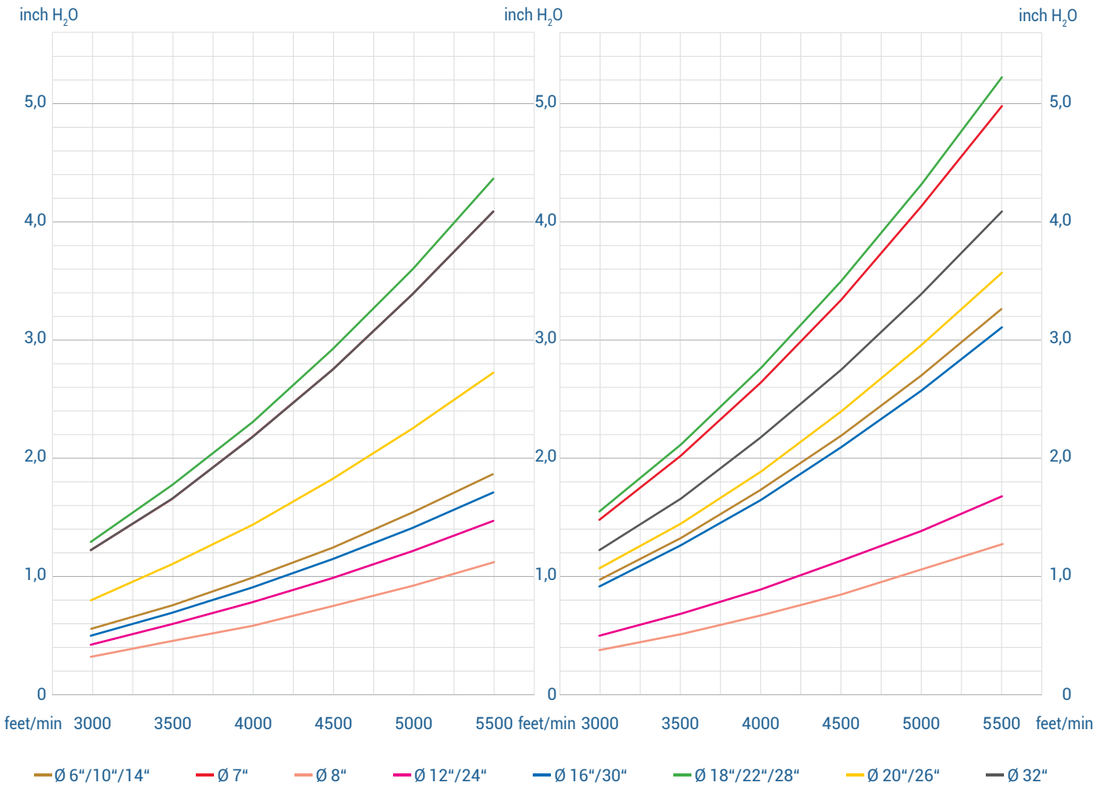
PRESSURE DROP CURVES

PRESSURE DROP / In Flow Process (Dirty Air)



PRESSURE DROP / Reverse Process (Clean Air)





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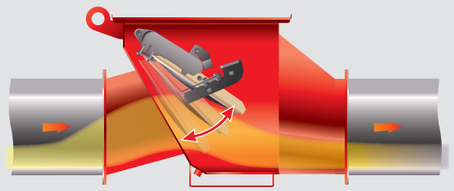
PROCESS FLOW POSITIONS

PROCESS FLOW

FLOW POSITIONS :

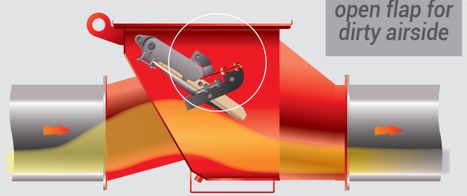
1 Flap is held open by process flow



Installation with floating flap

or

2 Flap locked in open position

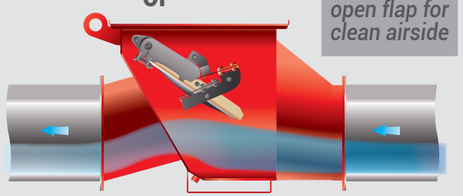


Installation with flap locked open

Locked open flap for dirty airside

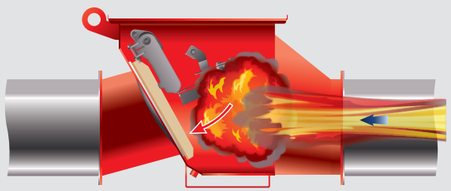
or

Locked open flap for clean airside



EXAMPLE DURING AN EXPLOSION EVENT

Explosion isolation is achieved by flap closure independent of being in free floating or locked open position



Manual locking mechanism reset is required

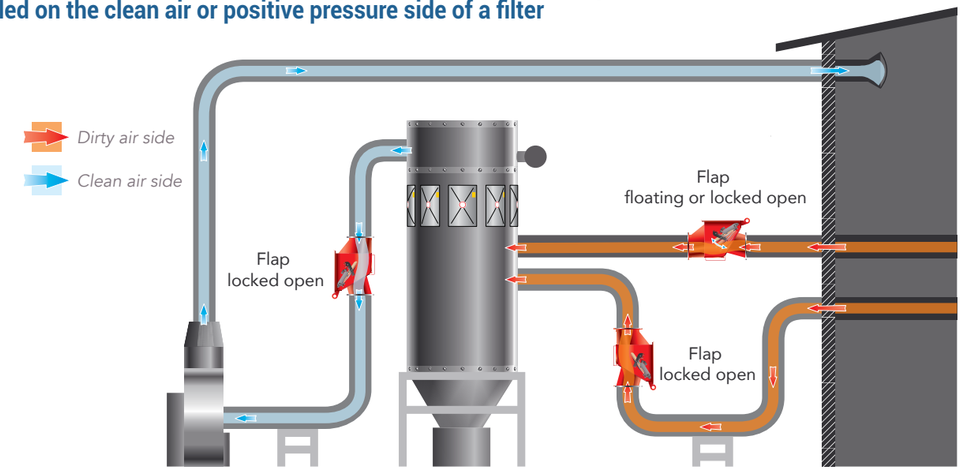
TECHNICAL INFORMATION

KST MAX	*ST3 > 250 bar.m/s*	**AMBIENT TEMPERATURE**	*-4°F... +140°F -20°C... +60°C*	**FLUX**	*Overpressure or vacuum*
PMAX	*145 psi ≤ 10 bar*	**SPEED FLOW**	*2950-6890 fpm 15m/s... 30m/s*	**INTERIOR**	*ATEX zone 20*
MESG	*1/16" 1.5 mm (ex: sulfur)*	**DUST CONCENTRATION**	*No limit*	**OPERATING TEMPERATURE**	*EPDM gasket : -30° C + 70° C*
DUST	*Any kind of dust*	**POSITION OF THE DEVICE**	*Vertical / Horizontal*		*Silicone gasket : -10° C + 180° C*

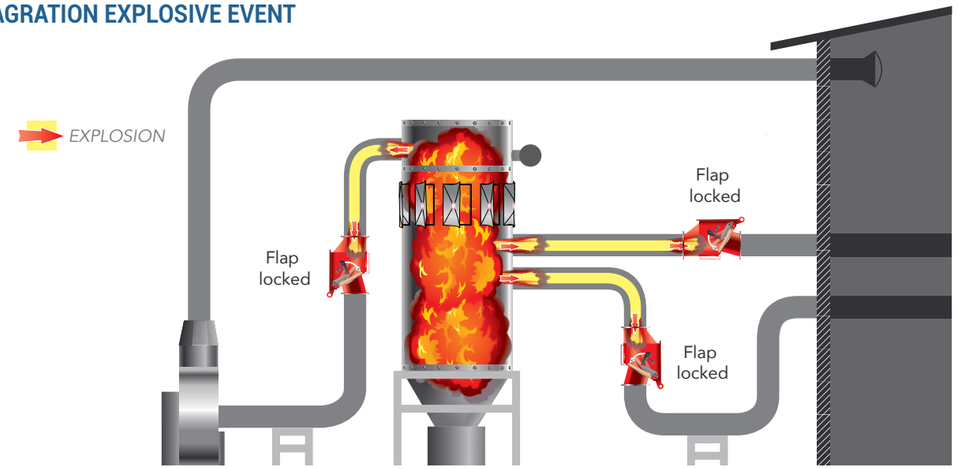
INSTALLATION EXAMPLES

THE EXPLOSION ISOLATION VALVE VIGIFLAP IS DESIGNED FOR USE ON THE INLET AND OUTLET SIDES OF A FILTER OR VESSEL

PROCESS FLOW (The VIGIFLAP is always set in the open locked position when installed on the clean air or positive pressure side of a filter



DEFLAGRATION EXPLOSIVE EVENT



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DIMENSIONS

DIMENSIONS				
DN [inch]	DN [mm]	Door gasket	Body gasket	Body
ø 6	ø 160	EPDM	EPDM	Mild steel
ø 7	ø 180	EPDM	EPDM	Mild steel
ø 8	ø 200	EPDM	EPDM	Mild steel
ø 10	ø 250	EPDM	EPDM	Mild steel
ø 12	ø 300	EPDM	EPDM	Mild steel
ø 14	ø 350	EPDM	EPDM	Mild steel
ø 16	ø 400	EPDM	EPDM	Mild steel
ø 18	ø 450	EPDM	EPDM	Mild steel
ø 20	ø 500	EPDM	EPDM	Mild steel
ø 22	ø 550	EPDM	EPDM	Mild steel
ø 24	ø 600	EPDM	EPDM	Mild steel
ø 26	ø 650	EPDM	EPDM	Mild steel
ø 28	ø 700	EPDM	EPDM	Mild steel
ø 30	ø 750	EPDM	EPDM	Mild steel
ø 32	ø 800	EPDM	EPDM	Mild steel
ø 34	ø 850	EPDM	EPDM	Mild steel
ø 36	ø 900	EPDM	EPDM	Mild steel
ø 38	ø 950	EPDM	EPDM	Mild steel
ø 40	ø 1000	EPDM	EPDM	Mild steel
ø 42	ø 1050	EPDM	EPDM	Mild steel
ø 44	ø 1100	EPDM	EPDM	Mild steel
ø 46	ø 1150	EPDM	EPDM	Mild steel
ø 48	ø 1200	EPDM	EPDM	Mild steel
ø 50	ø 1250	EPDM	EPDM	Mild steel
ø 52	ø 1300	EPDM	EPDM	Mild steel

** Units in inches rounded to the closest whole number*

MINIMUM INTERNAL DUST ACCUMULATION

The VigiFlap's unique inlet & outlet "Straight Through" design ensures very low static resistance and reduces dust accumulation.

FREE FLOW DESIGN

6729 GUADA COMA DR. - SCHERTZ, TX 78154 -USA - Main # 210-664-4200
info@bossproductsamerica.com

BOSS PRODUCTS LLC