



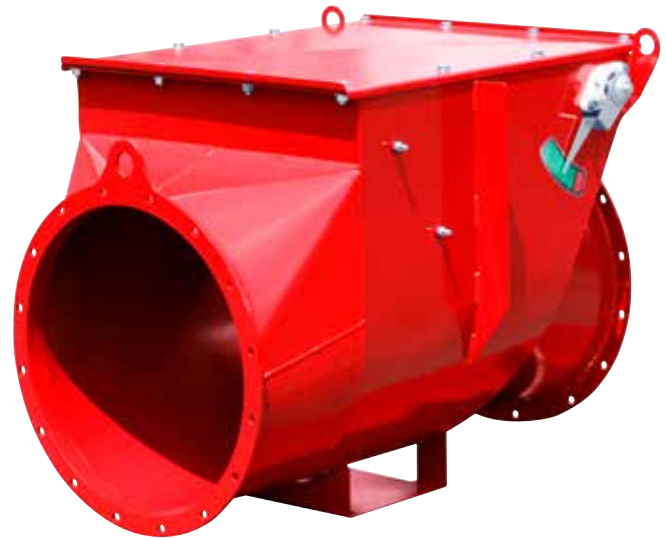
Explosion Isolation Valve VIGIFLAP

APPLICATIONS

The **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 outlet of a vessel.

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



CERTIFICATIONS & STANDARDS

EN 16447

NFPA 69 Compliant



STANDARD FEATURES

- Body : painted steel
- Diameters : $\phi 6''$ to $\phi 54''$ / $\phi 160$ mm to $\phi 1350$ mm
- Gasket : EPDM (Silicone FDA 356°F/180°C option)
- Pressure drop : Lower pressure drop with round domed flap

OPTIONAL FEATURES

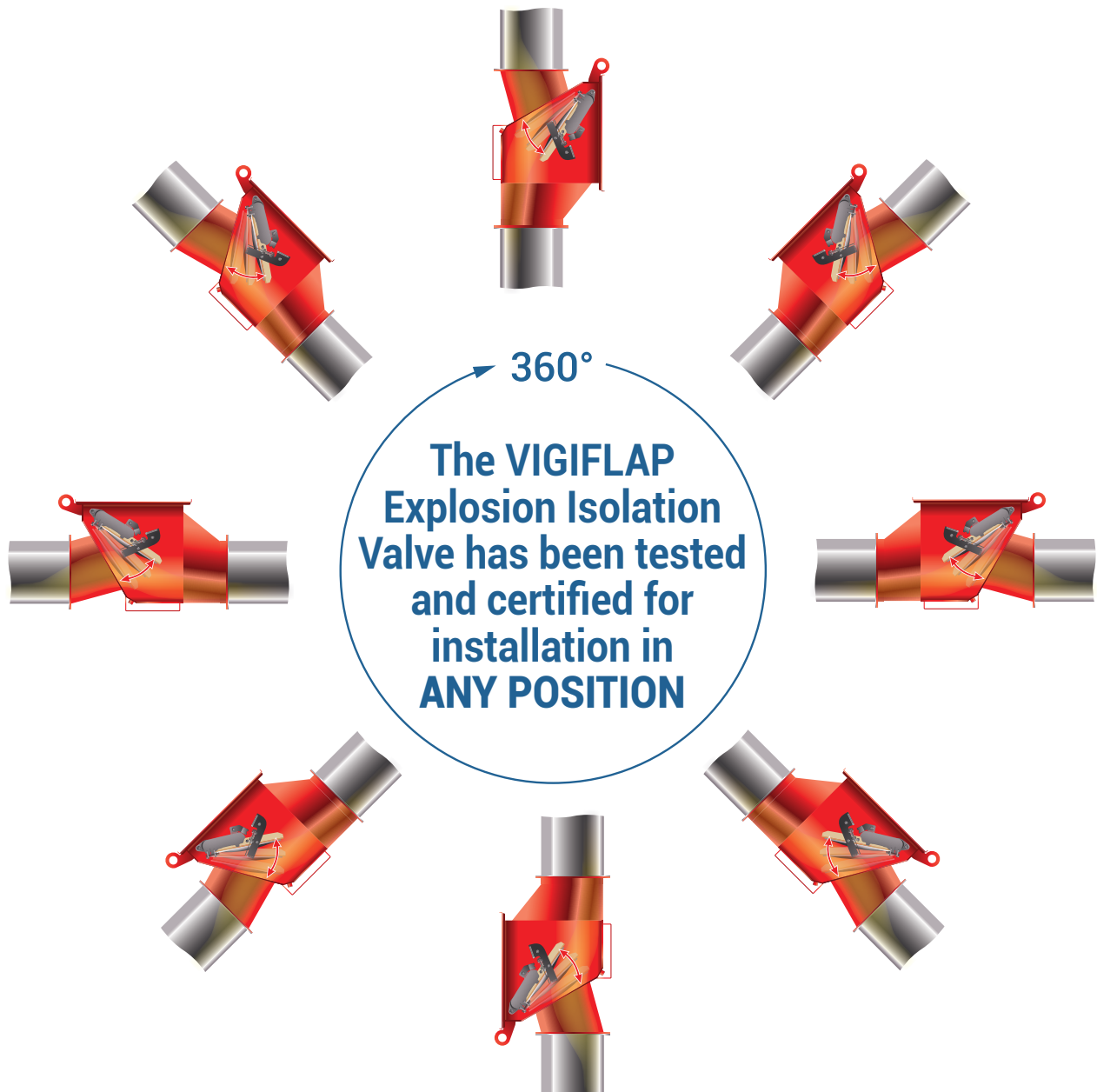
The VF is 100% NFPA 69 compliant with the following optional features :

- **Body** : Galvanized steel
- **Body** : Stainless steel
- **Frame silicone FDA** : 356°F/180 °C
- Dust level sensor to prevent dust accumulation
- Connection box installed on the body, according to the ATEX zone (opposite side of the locking mechanism)



INSTALLATION

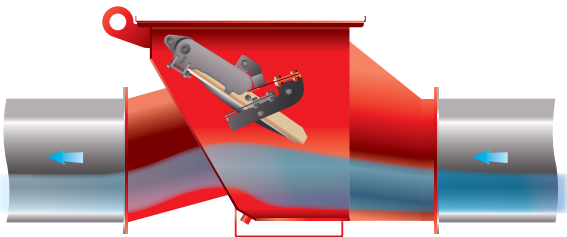
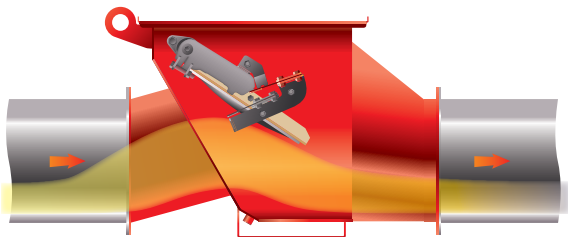
The **VIGIFLAP Valve** has been tested and certified with the process pipe installed on up & downstream sides of the valve, simulating **REAL WORLD CONDITIONS**.



PRESSURE DROP CURVES

PRESSURE DROP / In Flow Process (Dirty Air)

PRESSURE DROP / Reverse Process (Clean Air)



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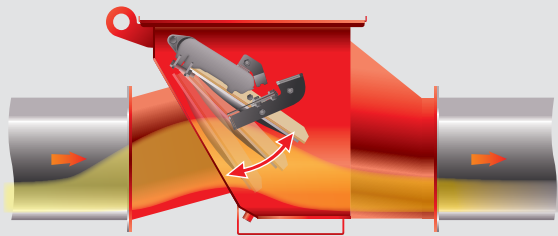
PROCESS FLOW POSITIONS

PROCESS FLOW

FLOW POSITIONS :

1 Flap is held open by process flow

Installation with floating flap



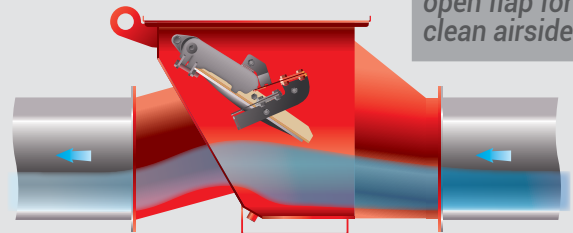
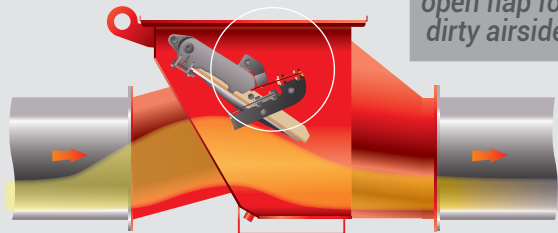
2 Flap locked in open position

Locked open flap for dirty airside

or

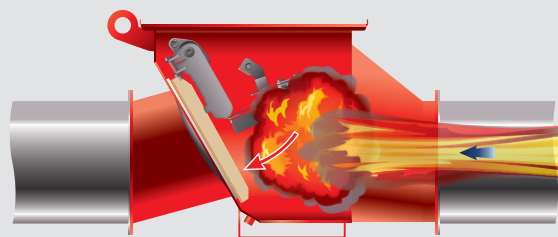
Locked open flap for clean airside

Installation with flap locked open



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

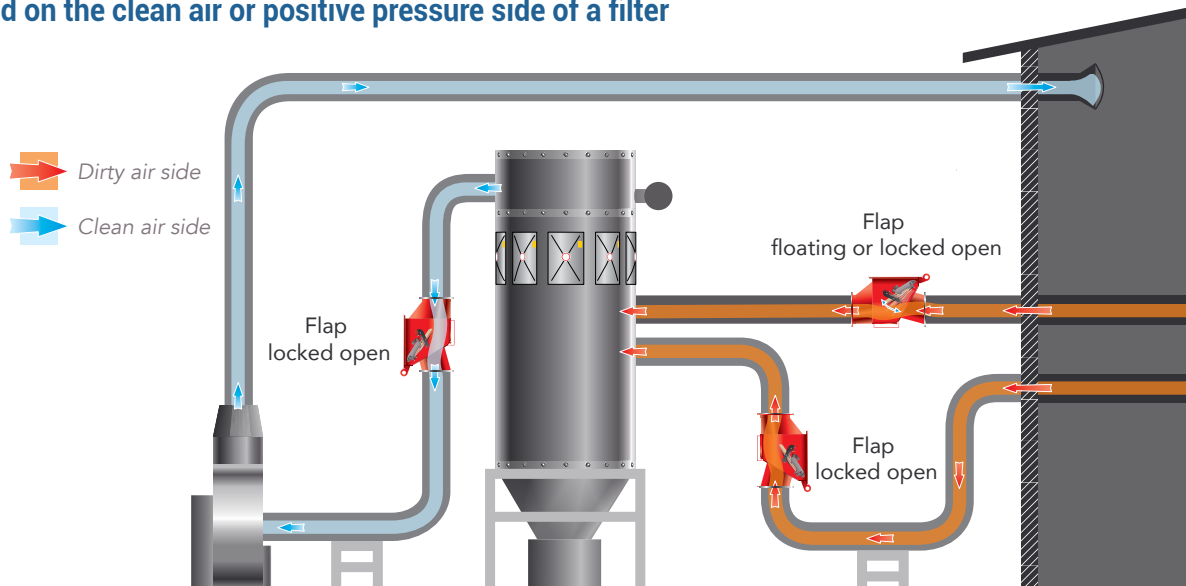
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KST MAX	ST3 > 250 bar.m/s	AMBIENT TEMPERATURE	-4°F +140°F	FLUX	Overpressure or vacuum
PMAX	145 psi ≤ 10 bar	SPEED FLOW	Clean Air ≤ 30 m/s Dirty Air ≤ 45 m/s	INTERIOR	ATEX zone 20
MESG	1/16" 1.5 mm (ex: sulfur)	DUST CONCENTRATION	No limit	OPERATING TEMPERATURE	EPDM gasket : -22°F +158°F
DUST	Any kind of dust	POSITION OF THE DEVICE	Vertical / Horizontal		Silicone gasket : 14°F +356°F

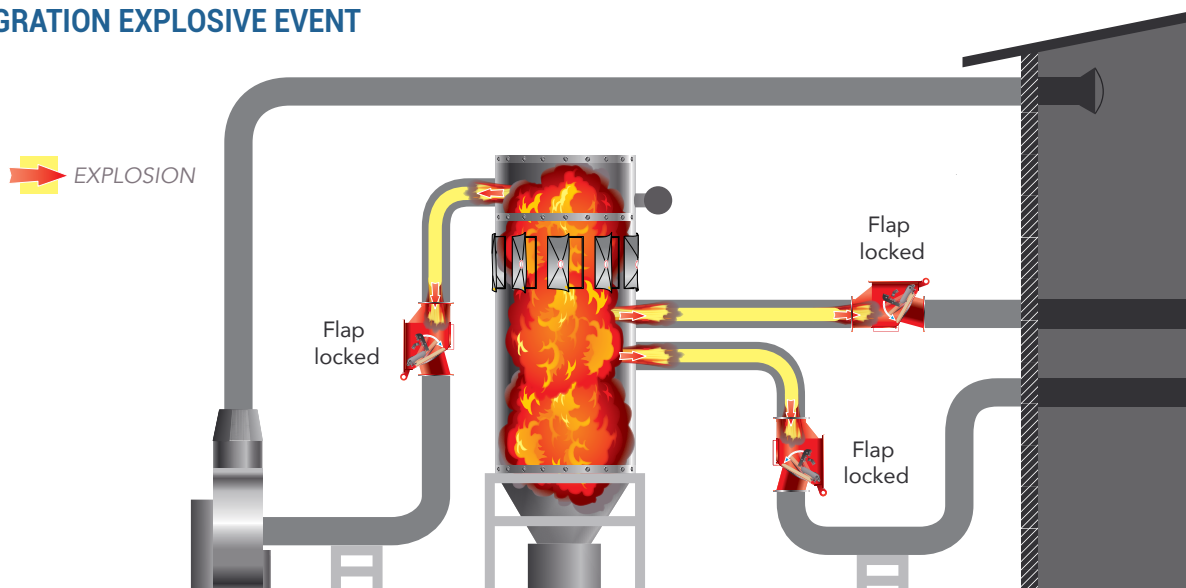
INSTALLATION EXAMPLES

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



DIMENSIONS

DIMENSIONS				
DN [inch]	DN [mm]	Door gasket	Body gasket	Body
ø 6	ø 160	EPDM	EPDM	Mild Steel
ø 7	ø 180			
ø 8	ø 200			
ø 10	ø 250			
ø 12	ø 300			
ø 14	ø 350			
ø 16	ø 400			
ø 18	ø 450			
ø 20	ø 500			
ø 22	ø 550			
ø 24	ø 600			
ø 26	ø 650			
ø 28	ø 700			
ø 30	ø 750			
ø 32	ø 800			
ø 34	ø 850			
ø 36	ø 900			
ø 38	ø 950			
ø 40	ø 1000			
ø 42	ø 1050			
ø 44	ø 1100			
ø 46	ø 1150			
ø 48	ø 1200			
ø 50	ø 1250			
ø 52	ø 1300			
ø 54	ø 1350			

* 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