

NOVEx III – Explosion isolation flap valve

The **NOVEx III** passive-acting flap isolation valve has been designed to isolate dust explosions and hybrid mixtures in industrial ducts and protect the equipment connected to the installation.

Its operation is based on automatic closure due to overpressure: in the early stages of a deflagration, the pressure wave moves the flap until it closes, blocking the passage of the flame and combustion gases, preventing the explosion from spreading to other equipment.

The NOVEx III is supplied in a normally open configuration, allowing continuous process operation with low pressure drop. Its compact design and robust construction facilitate integration into new or existing installations, ensuring a high level of safety and reliability in demanding industrial conditions.

Key Advantages

- Passive isolation system, no power supply required.
- High installation flexibility, suitable for horizontal mounting and positive/negative pressure settings (PULL).
- Certified installation with various changes in the direction of the pipe or duct before and/or after the valve.
- Particularly suitable for highly explosive dusts, including metal dusts with Kst up to 550 bar·m/s.
- Low pressure drop during normal operation.
- Compact design and robust construction, suitable for demanding industrial conditions.
- Easy integration into new or existing installations, reducing duct modifications and downtime.
- Certified according to European explosion isolation standards.
- Compatibility with NFPA69 and NFPA 660.

Standards & Certification

- ATEX Certification (pending): in accordance with EN 16447 – Explosion isolation flap valves and EN 15089 – Explosion isolation systems
- ATEX Marking: Ex II D EN 16447 EN 15089
- Compliance with NFPA 69 and NFPA 660 (Additional conditions may apply to meet NFPA 69. Consult ADIX.)

Applications

NOVEx III is suitable for industrial processes with a risk of dust explosion or hybrid mixtures, where it is necessary to isolate ducts between equipment and prevent the transmission of deflagrations.

Typical applications:

- Dust extraction and filtration systems (bag filters, cartridge filters, cyclones)

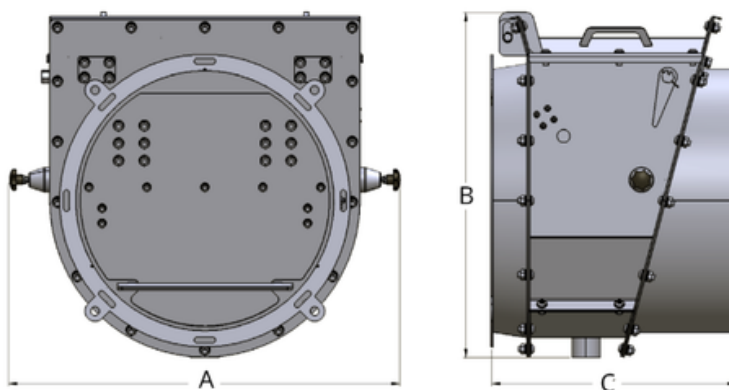


Main Characteristics

Dust type	Organic and inorganic powders, including metallic powders K _{st} ≤ 550 bar·m/s (MIT ≥ 220 °C)												
Dust concentration	máx. 500 g/m ³												
Materials	Painted carbon steel AISI304 stainless steel AISI316 Anti-abrasive or high-temperature options available on request												
Nominal duct diameter	DN 150 to DN 710 (DIN 24154 / R2, T2)												
Installation	Horizontal												
Assembly	Positive / negative pressure												
Working temperature	-20 °C to + 90°C												
Diameter DN	150	160	200	250	300	315	355	400	450	500	560	630	710
P _{red} (permissible reduced pressure)	1 bar										0.7 bar		
Min. distance PULL	2.5 m	3.5 m											
Max. distance	15 m												
Minimum installation volume (m³)	0.5	1										2	

***Note:** The information contained in this datasheet is preliminary and may be updated upon completion of the certification process.

Dimensions



Diameter DN	150	160	200	250	300	315	355	400	450	500	560	630	710
Width a (mm)	397	407	447	497	547	562	602	647	697	747	807	877	957
Height b (mm)	306	316	366	416	466	481	521	566	616	665	726	796	861
Length c (mm)	390	392	399	409	418	421	428	437	451	473	545	608	679
Weight (kg)	17.6	18.4	22.1	26.3	32.1	33.8	37.8	42.2	47.6	56	66.9	79.9	95.2
Screw size	M8 (EN12220) or M10 (DIN24154/R2, T2) minimum resistance 8.8												



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