

Explosion Isolation Flap Valve CARZ-NS - protective system for combustible dust applications





Explosion Isolation Flap Valve type CARZ-NS prevents a transmission of explosion pressure wave and flames front from the filter to your workplace. By using our CARZ-NS Explosion Isolation Flap Valve, you reduce the risk from dust explosion for both people and equipment.

#### Function

During normal operation, the valve is kept open, and large opening angle ensure low pressure drop. In case of an explosion in the filter, the pressure wave will force to close the flap plate and lock in position. When flap plate is closed it makes an effective barrier against approaching flame front. This prevent the explosion from being transmitted from the filter to upstream work areas.

No matter what industry you are in or what type of dust is generated in your factory, we can provide the complete dust explosion protection solution of filters, and explosion isolation flap valves.

- Independently tested to latest and most stringent standards and regulations
- Compliant with international dust explosion protection codes (ATEX, NFPA69, IECEx)
- Widest range of sizes, applications and filter system configurations on the market (e.g. approval for positive and negative pressure systems, approval for metal dust, approval for St2 dust)
- Manufactured fully by Nederman under certified quality assurance system, ensuring highest level of quality and reliability

Product name	Explosion Isolation Flap Valve CARZ-NS Ø160-250mm
Material	Welded carbon steel, painted RAL5009
Operating temperature range	-20 - +70°C (0 - 160 F)
Ambient temperature range	-20 - +60°C (0 - 140 F)
Connection	FL
Note	Organic dust - PUSH & PULL; metal dust - PULL only
Explosion Class ATEX	St2
Dust Concentration in duct	organic dust: Any; metal dust: < LEL
Max velocity in duct (m/s)	35
Minimum velocity in duct	0
Minimum vessel size, push (m3)	0,46
Install type	Push and Pull
Minimum vessel size, pull (m3)	0,46
Dust type	[metallicorganic]
Kst (bar m/s)	organic dust: 300; metal dust: 260
Maximum reduced pressurem, Pred (bar)	0,5







Diameter (in)	[model]
160	73008486*
180	73008487*
200	73008488*
250	73008489*

<sup>\*</sup>Organic dust - PUSH & PULL; metal dust - PULL only



#### Patent protected product:

EP patent: EP 3 343 077

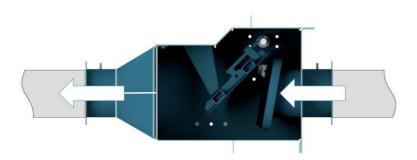
USA: US 10 315 059

China: 201711349554.2

Patent protected product



Explosion direction



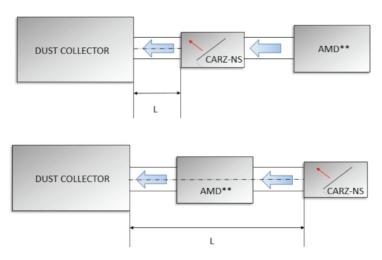
Suction direction





PULL configuration

\*\*AMD = Air moving device or fan



PUSH configuration

\*\*AMD = Air moving device or fan