

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, NFPA68, 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) |
| 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 |
| Install type | Push and Pull |
| Minimum vessel size, push (m3) | 0,46 |
| Minimum vessel size, pull (m3) | 0,46 |
| Kst (bar m/s) | organic dust: 300; metal dust: 260 |
| Maximum reduced pressurem, Pred (bar) | 0,5 |







| Diameter (mm) | Connection | [model] |
|---------------|------------|-----------|
| 250 | QF | 73008405* |
| 250 | NW | 73008406* |
| 160 | FL | 73008218* |
| 160 | QF | 73008219* |
| 160 | NW | 73008220* |
| 180 | FL | 73008398* |
| 180 | QF | 73008399* |
| 180 | NW | 73008400* |
| 200 | FL | 73008401* |
| 200 | QF | 73008402* |
| 200 | NW | 73008403* |
| 250 | FL | 73008404* |

^{*}Organic dust: PUSH & PULL; metal dust: PULL only



| | [accessory] | [partno] |
|----------|-------------------------------------|----------|
| * | CARZ support frame suspended 160 | 73001558 |
| * | CARZ support frame suspended 180 | 73001559 |
| * | CARZ support frame suspended 200 | 73001560 |
| * | CARZ support frame suspended 250 | 73001561 |
| * | CARZ support frame suspended 315 | 73001562 |
| * | CARZ support frame suspended 350 | 73001563 |
| * | CARZ support frame suspended 400 | 73001564 |
| * | CARZ support frame suspended 450 | 73001565 |
| * | CARZ support frame suspended 500 | 73001566 |
| * | CARZ support frame suspended 600 | 73001567 |
| * | CARZ support frame suspended 710 | 73001568 |
| * | CARZ support frame suspended 800 | 73001569 |
| * | CARZ support frame suspended 900 | 73001570 |
| * | Carz support frame suspended 1000 | 73001571 |
| * | CARZ support frame suspended 1000 | 73001572 |
| ** | CARZ support frame wall-hanging 160 | 73001573 |
| ** | CARZ support frame wall-hanging 180 | 73001574 |
| *** | CARZ support frame wall-hanging 200 | 73001575 |
| ** | CARZ support frame wall-hanging 250 | 73001576 |
| ** | CARZ support frame wall-hanging 315 | 73001577 |
| *** | CARZ support frame wall-hanging 350 | 73001578 |
| ** | CARZ support frame wall-hanging 400 | 73001579 |



| | [accessory] | [partno] |
|----|--------------------------------------|----------|
| ** | CARZ support frame wall-hanging 450 | 73001580 |
| ** | CARZ support frame wall-hanging 500 | 73001581 |
| ** | CARZ support frame wall-hanging 560 | 73001582 |
| ** | CARZ support frame wall-hanging 630 | 73001583 |
| ** | CARZ support frame wall-hanging 710 | 73001584 |
| ** | CARZ support frame wall-hanging 800 | 73001585 |
| ** | CARZ support frame wall-hanging 900 | 73001586 |
| ** | CARZ support frame wall-hanging 1000 | 73001587 |



Patent protected product:

EP patent: EP 3 343 077

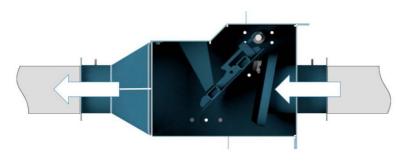
USA: US 10 315 059

China: 201711349554.2

Patent protected product



Explosion direction



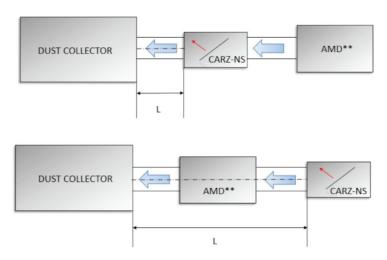
Suction direction





PULL configuration

**AMD = Air moving device or fan



PUSH configuration

**AMD = Air moving device or fan