

## Explosion duct valve



The explosion duct valve is used in order to prevent that an explosion in the plant will be channelled back to the production premises and machines. The explosion duct valve is mounted on the duct section between the plant and the dust source. The explosion duct valve stops explosions that occur in both flow directions of the normal flow. This means that the explosion duct valve can be mounted on both the inlet side and the outlet side on the dust separator. The dust separator covers filters, silos and industrial exhausters which are already protected with explosion relief or explosion suppression system.

It is delivered with position switch. The explosion duct valve is painted in RAL 3020.

Tested og approved:

- Dust explosion class St. 1
- EN 16447: 2014 - Explosion insulation systems
- EN 14460: 2018 Explosion resistant equipment
- EN 1127-1: 2019 Explosion prevention and protection - Part 1
- 2014/34/EU ATEX regulation

Certifications:

- ISO9001: 2015 Quality management

### Dimensions & installation distance

DN (mm)	DN (inch)	Minimum Vessel Volume	LMin* min. mounting distance	LMin+2m** min. mounting distance
160	6"	0,70 m <sup>3</sup>	4,0m	6,0m
160	6"	1,35 m <sup>3</sup>	3,0m	5,0m
180	7"	0,70 m <sup>3</sup>	4,0m	6,0m
180	7"	1,35 m <sup>3</sup>	3,0m	5,0m
200	8"	1,35 m <sup>3</sup>	4,6m	6,6m
250	10"	1,35 m <sup>3</sup>	4,0m	6,0m
300	12"	2,90 m <sup>3</sup>	4,6m	6,6m
350	14"	2,90 m <sup>3</sup>	4,2m	6,2m
400	16"	4,50 m <sup>3</sup>	5,2m	7,2m
450	18"	4,50 m <sup>3</sup>	4,7m	6,7m
500	20"	6,05 m <sup>3</sup>	5,8m	7,8m
550	22"	6,05 m <sup>3</sup>	5,5m	7,5m
600	24"	7,65 m <sup>3</sup>	7,2m	9,2m
650	26"	7,65 m <sup>3</sup>	6,7m	8,7m
700	28"	7,65 m <sup>3</sup>	6,4m	8,4m
750	30"	10,00 m <sup>3</sup>	7,3m	9,3m
800	32"	10,00 m <sup>3</sup>	6,9m	8,9m

\* Floating in horizontal position: Flap valve activated by the working air flow

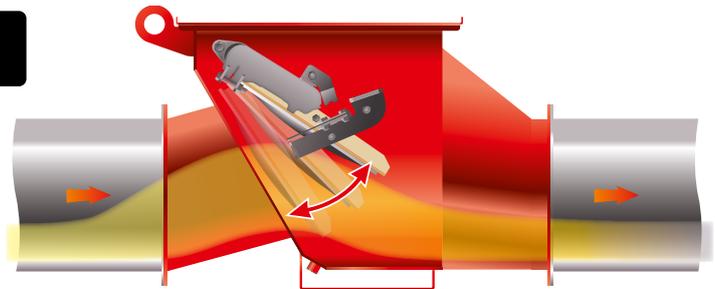
\*\* Vertical position / With elbows / Flap valve kept open by its spring blade system.

## Explosion duct valve

### > Product process flow

**1** Flap is held open by process flow

Installation with floating flap



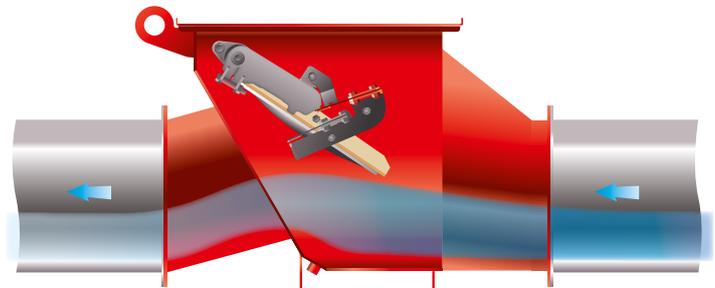
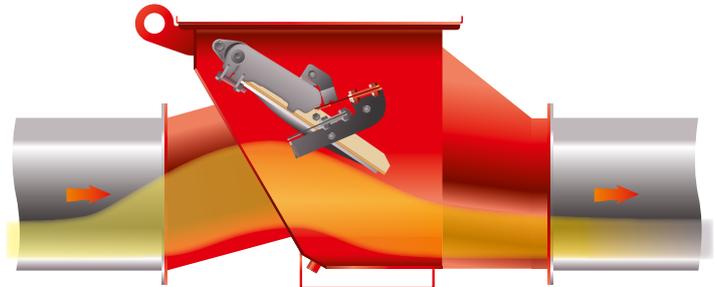
**2** Flap locked in open position

Installation with flap locked open

Locked open flap for dirty airside

OR

Locked open flap for clean airside



### > During an explosion event

Flap is closed by the explosion pressure wave and locked in place. Manual locking mechanism reset is required

