

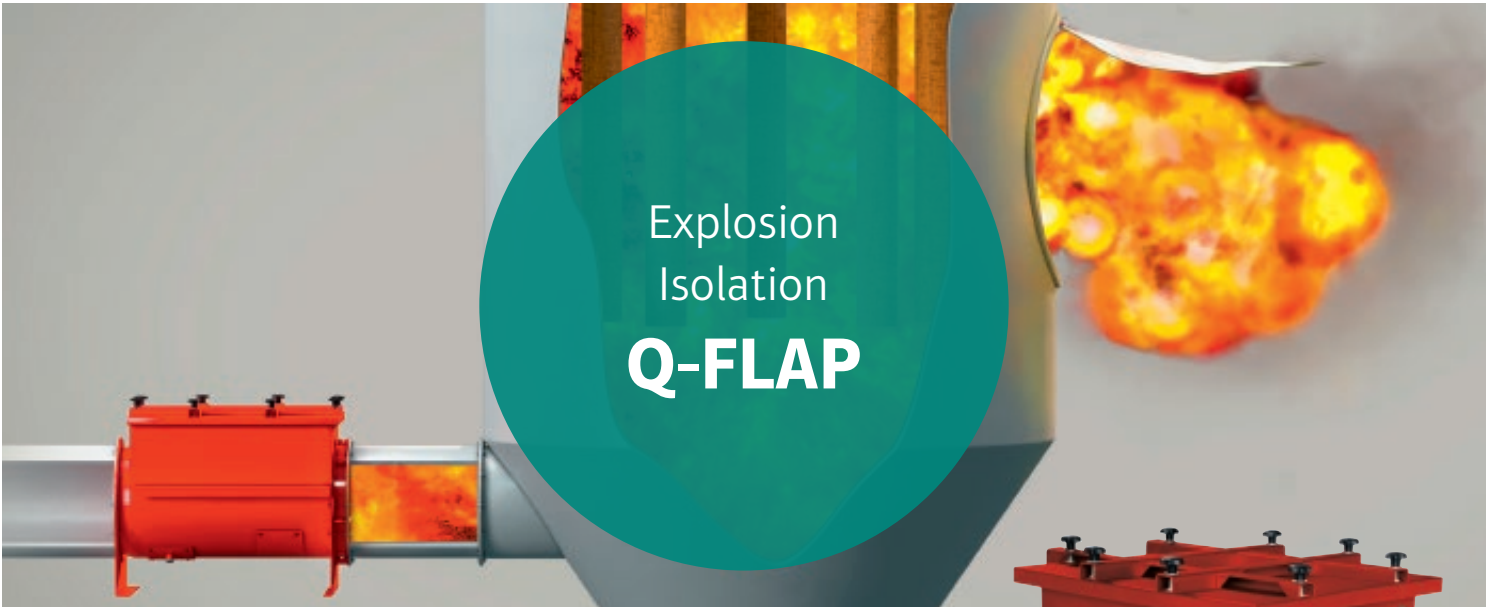


Safety is for life.

PRODUCT INFORMATION

Explosion Safety

Process Safety



COST-EFFECTIVE DECOUPLING OF RAW GAS PIPES AT FILTERS AND SEPARATORS

Q-Flap non-return explosion valves can be used to isolate explosions effectively in virtually all industries. It is suitable for use in aspiration filter suction lines and horizontal pipes.

Further possible applications:

- Explosion isolation of dry separators
 - in the wood processing industry
 - in the chemical and pharmaceutical industry
 - in grinding GRP components
 - for paint dusts etc.
 - for blasting machines
- Special applications, e.g. suction extraction in mills
- For dust concentrations above the lower explosion limits

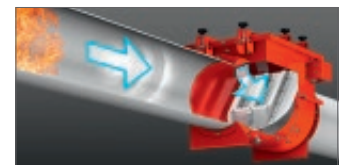
Made in Germany

Your advantages

- **Certified safety:** The first non-return valve for isolating explosions of organic and inorganic dusts (e.g. aluminium dusts) to be certified in accordance with EN 16447.
- Full opening of the inspection flap provides **quick access for maintenance without the complete removal of the unit.**
- **Flexible use in your process:** Q-Flap is available for all standard diameter nominal up to DN 1000.
- **Optional:** Integration of a monitoring function offers **longer service intervals** (Q-Flap Plus).



During normal operation, the non-return explosion valve is kept open by the flow of air in the plant.



When an explosion occurs, the valve flap is closed by the pressure wave of the explosion.



The non-return valve can be opened completely to provide quick access for maintenance without the complete removal of the unit.



Meets the requirements of NFPA 69



Certified in accordance with EN 16447



ATEX EC type examination certificate no. FTZÜ 07 ATEX 008 X



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Explosion Safety | Q-Flap

Technical data*										
Diameter nominal**		140	160	200	250	280	315	355	400	
Dimensions [mm]	Length L	420	470	530	590	630	660	730	750	
	Width W	380	400	440	490	520	570	630	680	
	Height H	430	462	505	530	552	590	642	695	
	Pivoting range S	390	420	460	480	520	540	590	645	
Weight	kg	36	41	46	55	60	69	89	99	
Pressure loss at 20 m/s	Pa	380	ca. 400	ca. 400	320	390	330	360	330	
Dust explosion class		St1 and St2							St1	
Max. K_{St} value	bar × m/sz	300							200	
Max. reduced explosion overpressure (Max. P_{red}) in the vessel (filter)***	bar	0.7							0.5	
Explosion pressure resistance of the non-return explosion valve****	bar	1.5	0.95				0.6			
Min. mounting distance with St1	m	2.6	2				2.6			
Min. mounting distance with St2	m	3.6	3.5				Not permitted			
Max. mounting distance with St1	m	6.6	7				6.6			
Max. mounting distance with St2	m	7	7.5				Not permitted			

Diameter nominal**		450	500	560	630	710	800	900	1000	
Dimensions [mm]	Length L	810	870	930	1090	1190	1320	1470	1625	
	Width W	730	790	850	1100	1180	1260	1360	1460	
	Height H	730	795	846	970	1060	1190	1295	1400	
	Pivoting range S	700	760	820	880	950	1060	1190	1310	
Weight	kg	112	127	145	255	295	344	395	455	
Pressure loss at 20 m/s	Pa	420	450	ca. 450	ca. 500					
Dust explosion class		St1								
Max. K_{St} value	bar × m/s	200								
Max. reduced explosion overpressure (Max. P_{red}) in the vessel (filter)***	bar	0.5								
Explosion pressure resistance of the non-return explosion valve****	bar	0.6								
Min. mounting distance with St1	m	2.6			3					
Min. mounting distance with St2	m	Not permitted								
Max. mounting distance with St1	m	6.6			7					
Max. mounting distance with St2	m	Not permitted								

Mounting position	Horizontal
Flow speed	15–30 m/s
Temperatures	-10 to +60 °C
Materials	Housing: S235JRG2, Valve flap: stainless steel
Paint	RAL 3000 "flame red"

*Our specialists will be pleased to assist you in finding a solution that matches your specific operating conditions.

**Other diameter nominals available on request.

***The pipe between the Q-Flap and the explosion-protected vessel must have at least the same explosion pressure resistance as the Q-Flap itself.

****Overpressure

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REMBE® GmbH Safety+Control

Gallbergweg 21 | 59929 Brilon, Germany | T +49 2961 7405-0 | F +49 2961 50714
info@rembe.de | www.rembe.de