Safety is for life.™

PRODUCT INFORMATION

ECONOMIC ISOLATION OF RAW GAS LINES TO FILTERS AND DUST COLLECTORS

Applications

In the event of an explosion, the Q-Flap RX™ explosion isolation flap valve effectively isolates plant components in almost all industrial sectors. The Q-Flap RX™ is also perfectly suited for the aspiration lines of filtering dust collectors, and for the suction intake lines of mills.

The nominal pipe sizes up to DN 400 are primarily used for decentralised extraction systems in the pharmaceutical and chemical industries, whereas nominal pipe sizes between DN 450 and DN 710 are also used for centralised dust extractors in the grain and food industry. Nominal pipe sizes from DN 800 to DN 1250 are used in the wood and heavy industry.

In order to meet the highly diverse requirements for the individual industries, the Q-Flap RX™ product range offers three different design versions. The nominal pipe sizes up to DN 710 feature an inspection flap, and the larger nominal pipe sizes have a modular design. This ensures that a maintenance and servicing of any pipe size can be carried out easily.

Your advantages

- **Quick maintenance without the need for a complete dismantling of the device,** simply by completely opening the inspection flap on pipe sizes up to DN 710.
- **Optionally: longer maintenance intervals** by integrating a supervision function.
- **Flexible use:** The Q-Flap RX™ is available for all common nominal pipe sizes up to DN 1250.

Made in Germany

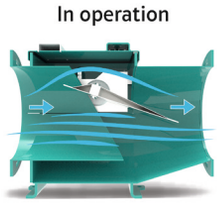
SWISS MADE

Mechanism (DN 140 to DN 710)

Basic position

When the system is shut down, the valve blade rests in an inclined position.

In operation



During normal operation, the explosion isolation flap valve is kept open by the air flow of the system.

In case of an explosion

In the event of an explosion, the valve blade is closed by the pressure wave of the explosion.

Certified in accordance with EN 16447

NFPA® Meets the requirements of **NFPA 69** (Option)

You can find detailed information and contact details for enquiries relating to Q-Flap RX™ at www.rembe.de.
Give us a call on: T +49 2961 7405-0 or contact us via email: info@rembe.de

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PRODUCT INFORMATION

Technical data**

Diameter nominal***		140	160	200	250	280	315	355	400	450
Dimensions [mm]	**Length L**	420	440	440	590	620	620	620	620	661
	Width W	314	334	374	466	496	531	571	616	642
	Height H	324	335	372	468	497	532	574	619	635
	Pivoting range S	230	251	291	369	398	434	473	518	303
	LK Ø	182	200	241	292	332	366	405	448	497
	nxM	8xM10	8xM10	8xM10	8xM10	8xM10	8xM10	8xM10	12xM10	12xM10
Weight	**kg**	21	22	23	48	55	59	65	71	90
Max. recoil forces	**kN**	11	12	15	19	21	24	17	19	24
Dust explosion class		St1 and St2								
Max. K_{St} value	**bar × m/s**	up to 300			230					250
Max. reduced explosion overpressure (Max. p_{red}) in the vessel	**bar**	1.9			1.5					0.95
Explosion pressure resistance of the explosion isolation flap valve* **	**bar**	3.4			2.0					1.46
Min. protected volume	**m³**	$K_{St} \leq 230 = 1{,}0$ $K_{St} > 230 = 4{,}4$			1.0					0.77
Min. mounting distance with St1	**m**	1.0			2.5					3.5
Min. mounting distance with St2	**m**	2.5			2.5					3.5
Max. mounting distance with St1	**m**	8.0			7.0					9.5
Max. mounting distance with St2	**m**	8.0			7.0					9.5

Diameter nominal***		500	560	630	710	800	900	1000	1120	1250
Dimensions [mm]	**Length L**	714	796	826	856	1303	1413	1551	O.r.*	O.r.*
	Width W	707	772	837	902	1105	1245	1375	O.r.*	O.r.*
	Height H	700	760	845	925	1105	1245	1375	O.r.*	O.r.*
	Pivoting range S	323	363	393	423	-	-	-	O.r.*	O.r.*
	LK Ø	551	629	698	775	861	958	1067	O.r.*	O.r.*
	nxM	12xM10	16xM12	16xM12	16xM12	24xM12	24xM12	24xM12	O.r.*	O.r.*
Weight	**kg**	100	120	140	150	266	350	462	O.r.*	O.r.*
Max. recoil forces	**kN**	20	25	31	40	40	45	50	O.r.*	O.r.*
Dust explosion class		St1 and St2							O.r.*	
Max. K_{St} value	**bar × m/s**	265				265			O.r.*	
Max. reduced explosion overpressure (Max. p_{red}) in the vessel	**bar**	0.77				0.9			O.r.*	
Explosion pressure resistance of the explosion isolation flap valve** **	**bar**	1.02				1.1			O.r.*	
Min. protected volume	**m³**	2.77							O.r.*	
Min. mounting distance with St1	**m**	3.5							O.r.*	
Min. mounting distance with St2	**m**	3.5							O.r.*	
Max. mounting distance with St1	**m**	9.5							O.r.*	
Max. mounting distance with St2	**m**	9.5							O.r.*	

Typ	Q-Flap RX™ without switch (Standard)	Q-Flap RX™ monitored with switches o.r.*	Q-Flap RX™ stainless steel with switches o.r.*
Certification	EU Directive 2014/34/EU (ATEX 114)	EU Directive 2014/34/EU and US Fire Protection Ordinance NFPA Standard 69	EU Directive 2014/34/EU and US Fire Protection Ordinance NFPA Standard 69
Mounting position	Horizontal, suction side (fan after flap "pull flow")		
Flow velocity	12 to 35 m/s		
Temperatures	-20 to +80 °C (+100 °C without switch)		
Materials	Housing: carbon steel | valve blade: stainless steel		
Raw gas dust concentration	DN 140 to DN 710: max. 100 g/m³ | DN 800 to DN 1250: no limitation		
Paint	RAL Design 190 60 45		

*On request
**Our specialists will gladly consult you personally in case of deviating operating conditions.
***Other nominal pipe sizes upon request
****Overpressure