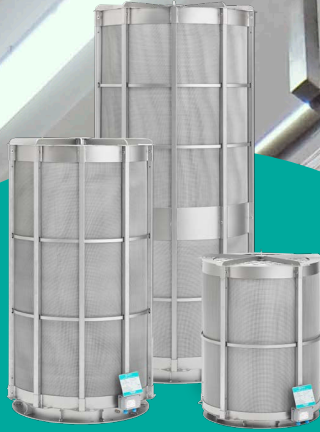




Safety is for life.™

PRODUCT INFORMATION



Flameless explosion venting
for dust and gas explosions

Q-ROHR®



Consulting. Engineering. Products. Service.



FLAMELESS EXPLOSION VENTING

Safe and cost-effective solution for indoor applications

Safety and operating efficiency go hand in hand. The Q-Rohr® enables you to implement flame arresting and particulate retention explosion venting indoors. No complicated ducts for outdoor venting or associated restructuring of production equipment are required. **With the Q-Rohr® there is now nothing to prevent you from using the optimum layout for your production plant while guaranteeing the best possibility in explosion safety.** In addition, Q-Rohr® is unrivaled in its low operating costs. Eliminating vent ducts saves you money not only on installation but also on servicing and maintenance.

Applications

The Q-Rohr® is ideal for indoor plants that are at risk of dust and gas explosions. Many new plants are equipped with the Q-Rohr® prior to commencing production since it offers a wide range of flexible installation options. Retrofitting is simple as well. **The Q-Rohr® can be used to protect filters, dryers, cyclones and can be used with gases, hybrid mixtures, metal dusts, melting dusts or fibers.**



Optional sanitary cover prevents accumulation/contamination of the Q-Rohr® flame trap mesh in dusty areas.

Q-Rohr® is available in the sizes DN 200 to DN 800.



REMBE® offers a much more cost-effective solution!



Mechanism

The special stainless steel mesh filter inlet developed by REMBE® cools the hot flame gases extremely efficiently up to 2732 °F (1500 °C). This reduces the volume of gas ejected and extinguishes the explosion.

Please note!

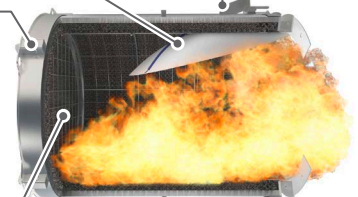
The combination of the Q-Rohr® and isolation systems prevents pressure waves and flames from propagating to other parts of the plant.

Integrated REMBE® explosion vent incl. signaling unit and pre-installed gasket

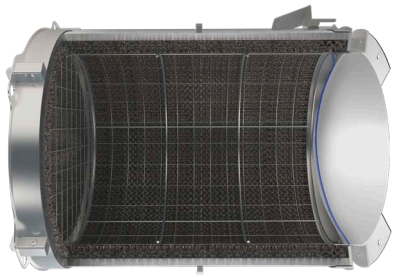
Pre-wired junction box with transformer isolated barrier (intrinsically safe)

Explosion-proof housing structure with riveted retention rails, which remains stable even during extremely dynamic explosions

Reusable stainless steel dust filter with integrated pressure wave absorber



Q-Rohr® components.

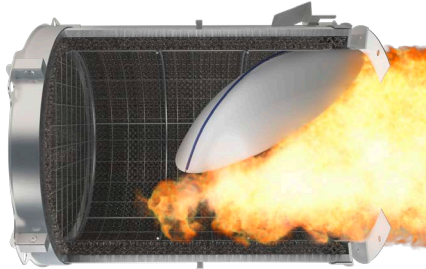


0 ms

5 ms

15 ms

20 ms

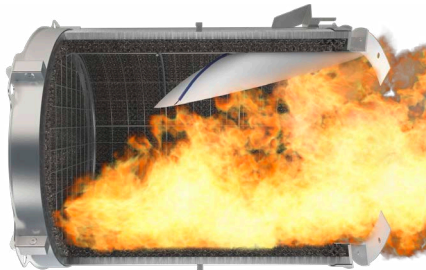


25 ms

40 ms

55 ms

75 ms

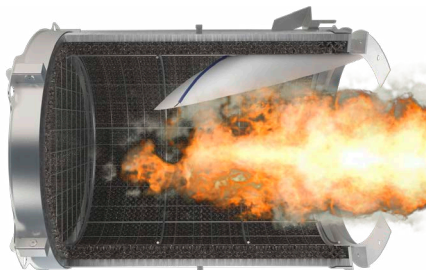


90 ms

125 ms

150 ms

175 ms

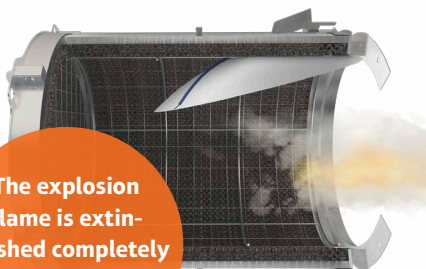


200 ms

275 ms

350 ms

425 ms



500 ms

The explosion flame is extinguished completely in just 500 milliseconds (ms).

The Q-Rohr® stainless steel mesh filter eliminates explosions in just a few milliseconds.

Your advantages

- **Maximum protection of the surrounding area.** Guaranteed flame arresting and particulate retention - no hazardous pressure wave effects.
- **REMBE® is the first manufacturer in the world to be certified for metal dusts.**
- **The complete production process remains in the building.**
- **No running costs** for vent ducts or external maintenance, a visual inspection is sufficient.
- The Q-Rohr® is a **flexible solution** – it can even be used in the middle of your production areas. Proximity to an external wall is not required.
- **Integrated signaling unit** for reliable monitoring.
- **Reduces the noise level and pressure rise typically associated with explosions** to acceptable levels.
- **Immediately reusable** and operational after cleaning the flame filter and replacing the explosion vent.

Your competitive advantages

- **Process-optimized plant layout**
- **No external maintenance costs**

Certification

Patents:

DE 38 22 012;
US 7,905,244



Meets the requirements of NFPA 68



Certified in accordance with EN 16009 EN 14797



ATEX EC type examination certificate no. IBExU 11 ATEX 2152 X

SIL equivalent SIL 2

Technical data*

Burst pressure P_{stat}	0.1 bar at 72 °F (22 °C)
Max. red. explosion pressure P_{red}	0.1 bar to 2.0 bar
Max. K_{St} value	≤ 400 bar × m/s
Operating temperature	14 to 446 °F (-10 to +230 °C)

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

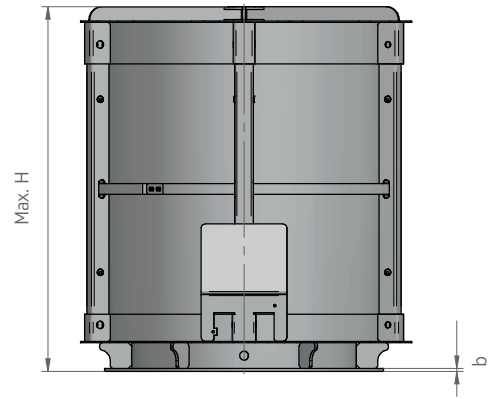
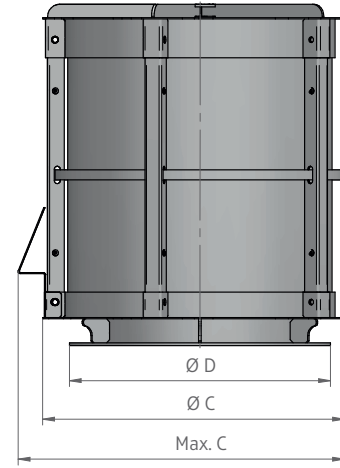
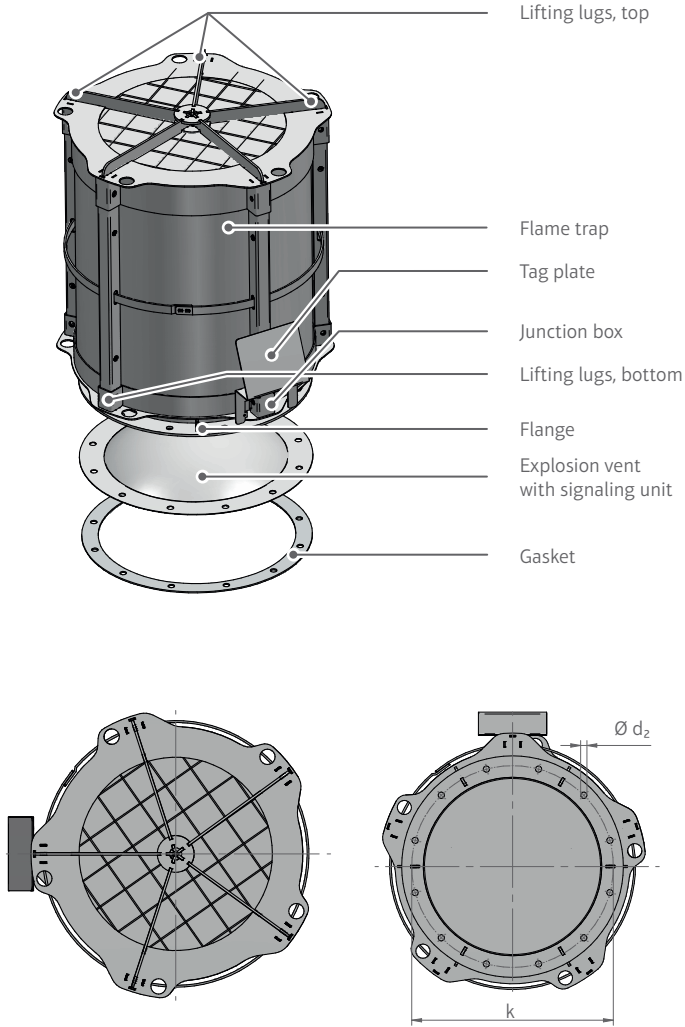
You can find detailed information and contact details for enquiries relating to Q-Rohr® at www.rembe.us. Give us a call on: T +1 704 716 7022 or contact us via email: info@rembe.us.





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PRODUCT INFORMATION



Technical data

DN	Max. H		Max. C		Ø C		Ø D		k		Ø d ₂		b		No. of bolts	Recommended bolts	Weight		
	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]			[lbs]	[kg]	
8	200	23.6	600	16.2	410	13.7	350	10.6	268	9.6	243	0.33	8.5	0.157	4	8	M8	55	25
12	300	23.6	600	19.7	500	17.7	450	15.4	390	13.9	355	0.43	11	0.197	5	12	M8	66	30
16	400	35.4	900	23.6	600	21.6	550	19.7	500	17.4	443	0.51	13	0.197	5	16	M10	106	48
20	500	35.4	900	27.6	700	25.5	650	23.7	600	21.5	544	0.51	13	0.197	5	20	M10	132	60
24	600	55.1	1400	31.9	810	29.9	760	27.6	700	25.4	646	0.51	13	0.197	5	20	M10	276	125
28	700	74.8	1900	35.8	910	33.8	860	31.5	800	29.6	752	0.51	13	0.197	5	28	M10	430	195
32	800	86.6	2200	39.7	1010	37.7	960	35.5	900	33.6	854	0.51	13	0.197	5	28	M10	529	240

Other dimensions available on request.

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