



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 in closed rooms. 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 possible explosion safety.** In addition, Q-Rohr® is unrivaled in terms of running 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 directly with the Q-Rohr® as it offers a wide range of flexible installation options. Retrofitting is also simplicity itself. **The Q-Rohr® can be used to protect filters, dryers, cyclones and can be used with gases, hybrid mixtures, metal dusts, melting dusts or fibres.**



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.

Made in Germany

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 1500 °C (2732 °F). This reduces the volume of gas ejected and extinguishes the explosion.

Important!

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

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

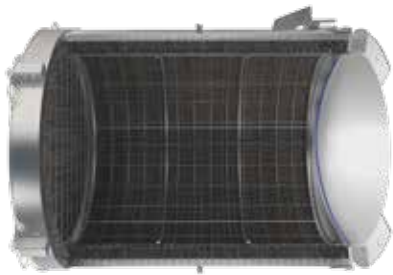
Pre-wired junction box with transformer isolated barrier (intrinsically safe)

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.

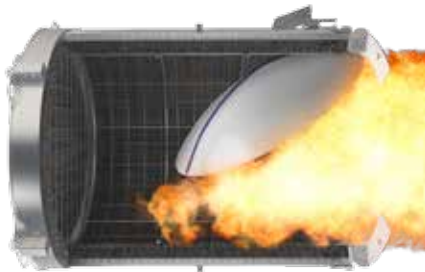


0 ms

5 ms

15 ms

20 ms



25 ms

40 ms

55 ms

75 ms

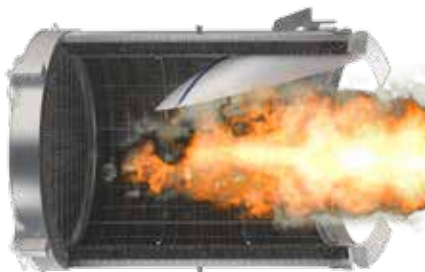


90 ms

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

- **Perfect 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 halls. Proximity to an external wall is not required.
- **Integrated signalling unit** for reliable monitoring.
- **Noise level and rise of pressure typically associated with explosions are greatly reduced** to an acceptable harmless level.
- **Immediately reusable** and operational after cleaning of the flame filter and replacement of the explosion vent.

Your competitive advantages

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

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

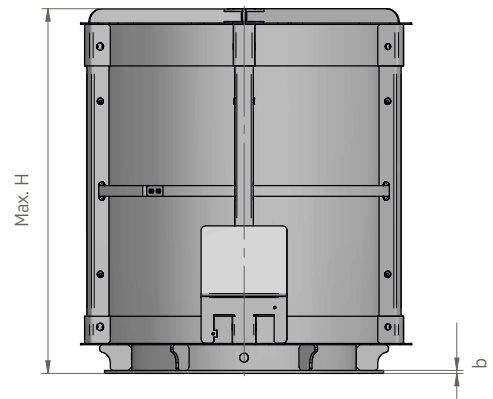
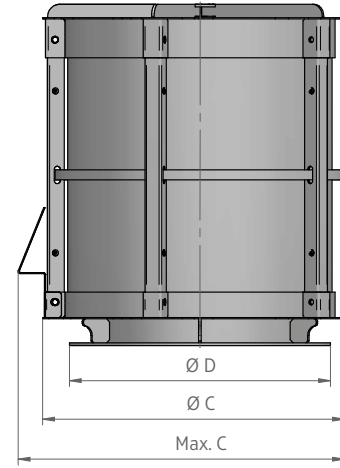
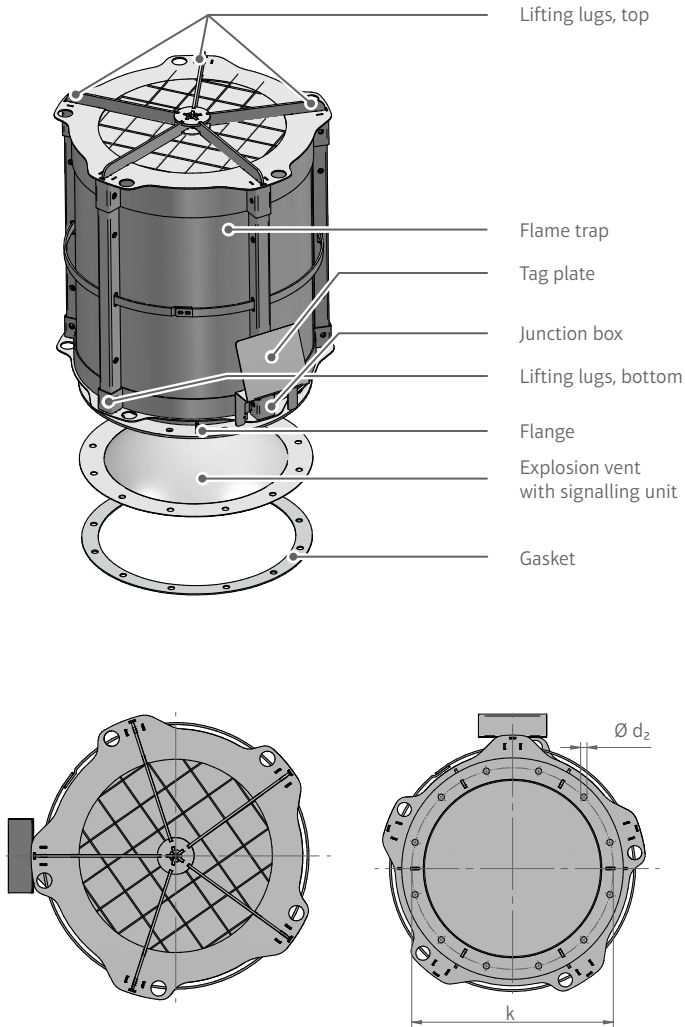
You can find detailed information and contact details for enquiries relating to Q-Rohr® at www.rembe.de. Give us a call on: T +49 2961 7405-0 or contact us via email: info@rembe.de.





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Technical data

DN [mm]	Max. H [mm]	Max. C [mm]	Ø C [mm]	Ø D [mm]	k [mm]	Ø d ₂ [mm]	b [mm]	No. of bolts	Recommended bolts	Weight [kg]
200	600	410	350	268	243	8.5	4	8	M8	25
300	600	500	450	390	355	11	5	12	M8	30
400	900	600	550	500	443	13	5	16	M10	48
500	900	700	650	600	544	13	5	20	M10	60
600	1400	810	760	700	646	13	5	20	M10	125
700	1900	910	860	800	752	13	5	28	M10	195
800	2200	1010	960	900	854	13	5	28	M10	240

Other dimensions available on request.

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REMBE® GmbH Safety+Control

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