



Safety is for life.™

PRODUCT INFORMATION

Q-ROHR® DFE

Flameless Explosion Venting
for Dual-Fuel Engines



Consulting. Engineering. Products. Service.



Green energy revolution without downtimes

The situation:

Shutting down coal-fired power plants, decommissioning nuclear power stations and reducing CO₂ emissions are basic ideas of the green energy revolution. But this dramatic shift in energy production methods also requires solutions that guarantee the availability of a constant energy supply. The output of wind and solar plants is not constant. When it fails, other sources such as gas-fired power stations must make up the difference.

The challenge:

An incorrectly functioning gas-fueled engine can allow a flammable mixture of gas and oxygen to occur in the exhaust system. In the worst case scenario, this could ignite and cause an explosion – not only damaging the engine but also other components and creating a serious risk of injury to persons working in the generator building. Energy production and emergency power supplies would be out of action for an extended period. Unplanned stoppages of gas-fueled engines therefore pose a significant threat to the stability of the electricity grid and energy supply security.



Future-proof solutions from REMBE®!



Q-Rohr® DFE

REMBE® has used its many years of experience in explosion safety to develop a system specifically for protecting gas-fueled engines. It reduces downtimes to a minimum and thus increases power plant availability.

Q-Rohr® DFE permits flameless explosion venting in the generator building without the need for costly and complex venting ducts. If an explosion occurs, neither flames nor a pressure wave emerge from the vessel. Other areas of the plant and employees working in the building have the best possible protection. Normal operation of the power plant can recommence very quickly after an explosion occurs and the energy supply is secure.



The most cost-effective protection solution for Dual-Fuel Engines: Q-Rohr® DFE.



Your advantages:

- **Rapid restart of operations.**
- REMBE® stainless steel filter ensures a high level of noise reduction during normal operation and in the event of an explosion.
- **Eliminates the need for complex venting ducts and wall openings.**
- **100% seal tightness**, to eliminate danger of asphyxiation.
- **100% venting efficiency.**
- **Individually definable opening pressure.**
- 100% stainless steel for **corrosion resistance.**
- **Connection flange in accordance with DIN 86044.**
- **No separate safety zones required in outdoor areas.**
- **No maintenance required**, visual inspection by a technician is sufficient.

Q-Rohr® DFE

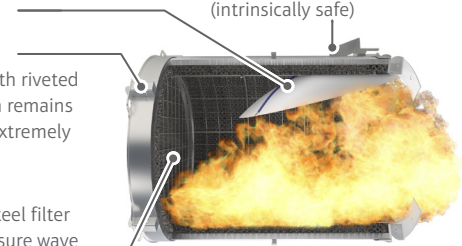
is the most cost-effective solution for flameless explosion venting that eliminates the need for expensive conversion and construction work, e.g. breaking through walls.

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 filter with integrated pressure wave absorber



Q-Rohr® DFE components.

Technical data*

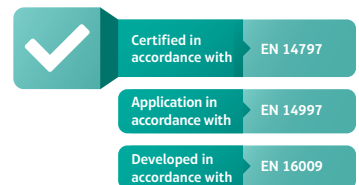
Burst pressure P_{stat}	0.1 to 0.5 bar
Operating temperature	14 to 1022 °F (-10 to +550 °C)

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

Certification



Patents:
DE 38 22 012;
US 7,905,244



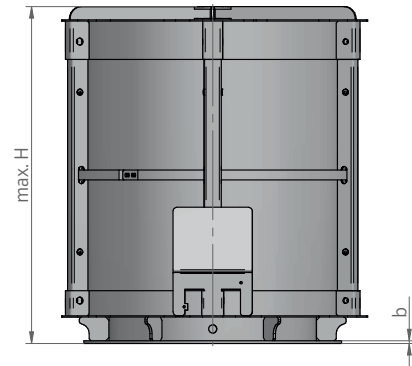
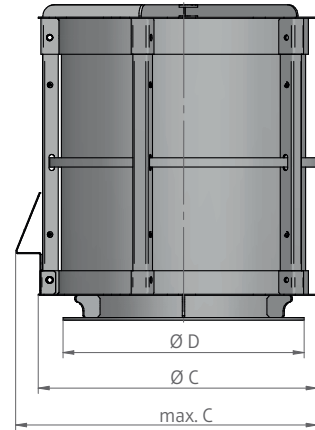
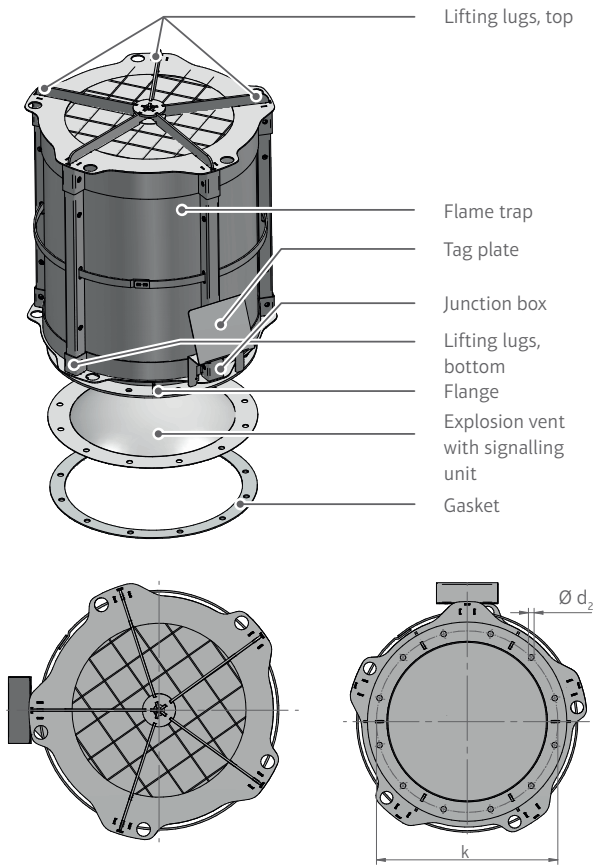
You can find detailed information and contact details for enquiries relating to Q-Rohr® DFE at www.rembe.us.
Give us a call on: T +1 704 716 7022, or contact us via email: info@rembe.us.





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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]
				Series 1	Series 2	Series 1	Series 2	Series 1	Series 2	Series 1	Series 2	Series 1	Series 2	Series 1	Series 2	
200	400	410	350	320	319	280	289	18	18	16	12	8	12	M16	M16	21
300	600	500	450	440	424	395	394	22	18	16	15	12	20	M20	M16	37
400	600	600	550	540	507	495	477	22	18	16	15	16	20	M20	M16	47
500	600	700	650	645	609	600	579	22	18	16	15	20	28	M20	M16	60
600	900	820	770	754	711	700	681	22	18	20	15	20	32	M20	M16	105
700	900	920	870	856	813	800	783	22	18	20	15	24	36	M20	M16	115
800	1200	1020	970	958	915	900	885	22	18	20	15	24	44	M20	M16	150
900	1200	1120	1070	1060	1017	1010	987	22	18	20	15	28	48	M20	M16	175
1000	1400	1220	1170	1162	1119	1110	1089	22	18	20	15	32	52	M20	M16	215
1100	1400	1320	1270	1266	1223	1210	1193	22	18	20	15	32	60	M20	M16	245
1200	1600	1430	1380	1366	1323	1310	1293	22	18	20	15	36	64	M20	M16	300
1300	1600	1530	1480	1466	1423	1410	1393	22	18	20	15	40	68	M20	M16	335
1400	1600	1630	1580	1566	1523	1510	1493	22	18	20	15	40	72	M20	M16	380

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