



Safety is for life.™



New

Q-Box® R3leaf™
Flameless venting

Sustainable flameless venting of dust explosions

Like its two previous models, the new Q-Box® R3leaf™ guarantees safe indoor explosion venting in manned areas. The flames are instantly quenched inside the Q-Box® R3leaf™ by the high efficiency cooling design. The Q-Box® R3leaf™ is designed for dust explosion-prone equipment applications that include low design strength equipment and the need for large vent areas such as would be required for dust collectors, dryers, sifters, elevators or silos. The Q-Box® R3leaf™ complements the product line of REMBE® flameless explosion venting devices product line with its optimized performance and sustainability. By the application of innovative design and new materials, the venting efficiency, maximum protected volume and certified K_{st} range are significantly improved. This means fewer flameless venting devices are required, especially for large vessels.

The main focus during the development of the Q-Box® R3leaf™ was on sustainability and the following core question: How can we truly challenge the status "Q(uo)"? Responsibility and respect for our natural resources drove us to develop the Q-Box® R3leaf™ fabricated entirely from stainless steel free from paint, coatings or welded seams. This enables simplified recycling and reduced logistical impact. Compact shipping of prefabricated components, coupled with assembly and supply at your local REMBE® warehouse, builds strength in domestic manufacturing and a greatly reduced carbon footprint. The remaining emissions that arise during the manufacturing process

of a Q-Box® R3leaf™ and cannot be further reduced due to the process are offset by supporting a wind power project and purchasing corresponding certificates.

Advantages

- ✓ Proven reliability and safety in a new, more efficient and sustainable design
- ✓ Maximum process efficiency for the protected plant due to the flexible use
- ✓ Perfect protection for people, property, process and the environment
- ✓ Economical alternative to vent ducts
- ✓ Maximum reduction in TCO (total cost of ownership) thanks to low maintenance requirements
- ✓ Long service life due to increased corrosion resistance
- ✓ Sustainability through product design, logistics and maximum venting efficiency
- ✓ Easier recycling compared to painted steel
- ✓ No false activations





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Technical data

Static operating overpressure P_{stat}	0.1 bar g
Process temperature	-22 °F to +356 °F (-30 °C to +180 °C)
Ambient temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Dimensions	305x610, 420x520, 520x520, 520x820, 586x920
Dimensions (w x d x h)	305x610: 600x720x540 420x520: 835x630x775 520x520: 960x630x875 520x820: 960x930x875 586x920: 1050x1030x950
Housing material	stainless steel
K_{St} value	up to 300 bar × m/s
Dust explosion class	St 1, St 2
Weight	305x610: approx. 99 lbs (45 kg) 420x520: approx. 152 lbs (69 kg) 520x520: approx. 176 lbs (80 kg) 520x820: approx. 231 lbs (105 kg) 586x920: approx. 260 lbs (118 kg)
ATEX category	II D

Certification



Meets the requirements of NFPA 68



ATEX
EU-type examination
certificate no.
BVS 23 ATEX H 033 X

Certified in accordance with

EN 16009
EN 14797

360° sustainability

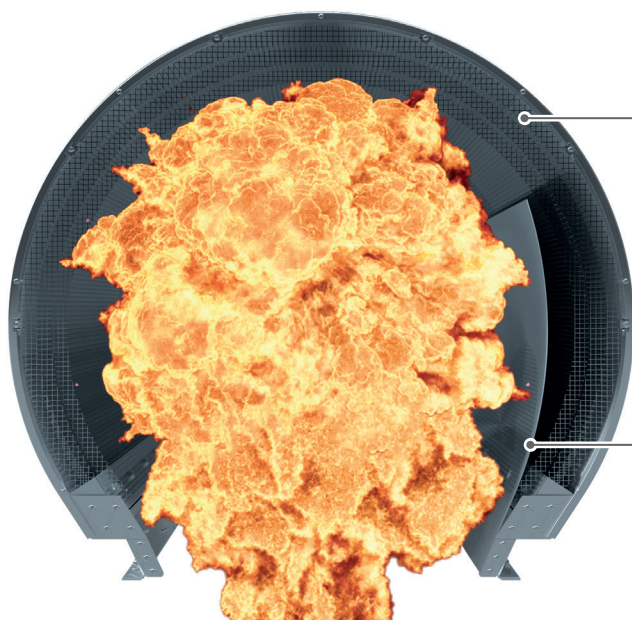
90% reduction of chemicals

90% reduction of transport + logistics

up to 90% venting efficiency

up to 90% reduction of carbon footprint

100% climate neutrality



Q-Box® R3leaf™ cross section

Stainless steel flame quenching element with integrated pressure wave absorber

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

Visit rembe.us for detailed information and your personal contact.

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REMBE® Sustainability:

Not only do we provide professional safety for your plant and machinery and protect human life, but our products also avoid harmful emissions sustainably eliminate leaks and/or reduce noise pollution. You can find more information on sustainability at rembe-green.de.

