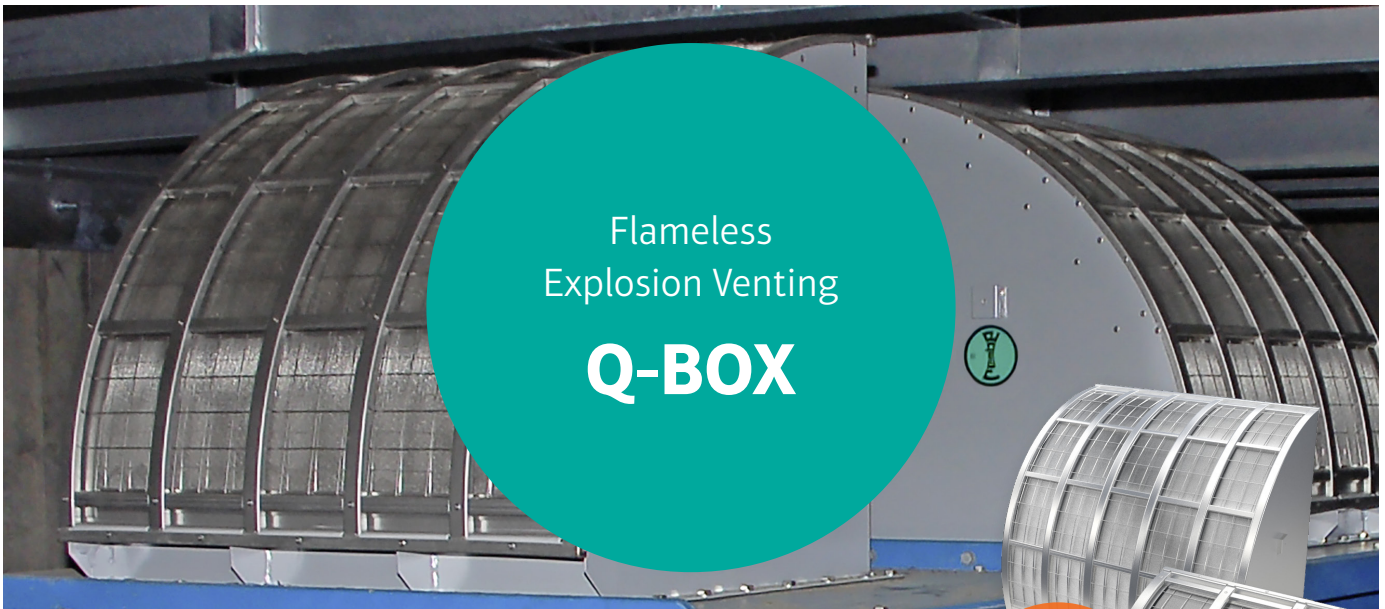




Safety is for life.™

## PRODUCT INFORMATION



Also suitable for outdoor applications!

## COST-EFFECTIVE INDOOR EXPLOSION VENTING FOR DUST EXPLOSIONS

The Q-Box guarantees safe explosion venting in production facilities. The flames are instantly extinguished inside the Q-Box by efficient cooling from the metal mesh.

The Q-Box is designed for safe explosion venting of indoor or outdoor plant equipment, such as filters, elevators or silos, used in processes that entail a risk of combustible dust explosions.

### Your Advantages

- Flexible use of the Q-Box permits **process-efficient plant design**.
- **Perfect protection of the surrounding area:** Neither heat, dusts nor a dangerous pressure wave emerge from the vessel – everything stays in the Q-Box.
- **Reduced downtime:** Access to the protected plant does not require a safety interlock (LOTO).
- **Cost-effective alternative to vent ducts:** No running costs for vent ducts and external maintenance, a visual inspection is sufficient.
- **Integrated signaling unit** for reliable monitoring.
- **Flexible solution for indoor and outdoor use.**
- **Simple retrofitting to existing explosion panel installations.**
- **Reduces noise levels.**

### Please note:

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



NFPA Compliant



ATEX  
EC type examination certificate no.  
BVS 16 ATEX H 021 X

SIL equivalent SIL 2

USPI-QB-15901/3 | © REMBE® | All rights reserved | Valid from 23.03.2022 | Subject to technical change without notice



Safety is for life.™

## PRODUCT INFORMATION

### Technical data\*

$K_{St}$ -Value	≤ 200 bar × m/s
$P_{max}$	≤ 9 bar
Minimum ignition energy	≥ 3 mJ
Minimum ignition temperature	≥ 716 °F (380 °C)
Static response pressure ( $P_{stat}$ )	0.1 bar (other pressures available)
Max. red. explosion pressure $P_{red}$	≤ 2.0 bar (305 × 610 mm)
	≤ 0.7 bar (586 × 920 mm)
Ambient temperature	– 104 to + 140 °F (– 40 to + 60 °C)
Process temperature	– 22 to 356 °F (– 30 to + 180 °C) (higher temperatures available on request)

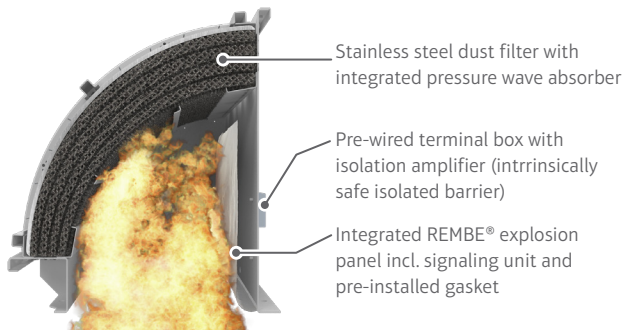
\*Our specialists will be pleased to assist you in finding a solution that matches your specific operating conditions.

### Dimensions and weight

Q-Box Nominal width [mm]	Height		Weight	
	[mm]	[in]	[lbs approx.]	[kg approx.]
<b>305 × 610</b>	500	19.7	62	28
<b>586 × 920</b>	780	30.7	170	77

## Competitive advantages

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



Q-Box components.



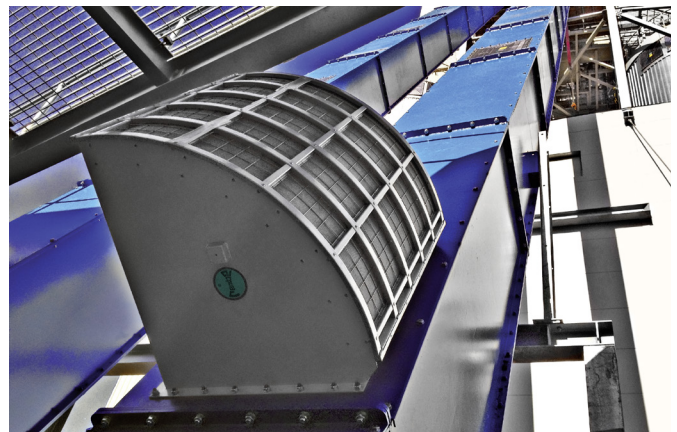
The sanitary cover protects the Q-Box against dust from outside sources.



Explosion venting of a chip bunker using the Q-Box to protect the surrounding infrastructure.



Flameless explosion venting on a grinder machine.



Explosion Safety of a trough chain conveyor using the Q-Box in a biomass power plant.

Consulting. Engineering. Products. Service.

REMBE® Inc.

9567 Yarborough Road | Fort Mill, SC 29707, USA | T +1 704 716 7022 | F +1 704 716 7025  
info@rembe.us | www.rembe.us