



Explosion Venting ETX™

SELF-RECLOSING AND REUSABLE EXPLOSION DOOR

Applications

Drying processes in the food industry are often associated with the generation of explosive atmospheres. The application of explosion protective systems is imperative, in particular due to the high probability-occurrence of glowing embers and hot surfaces.

As a result of the function-related elongated design of ring dryers, post-explosion-fires in ring dryers are boosted by the so-called chimney effect, if the pressure relief devices remain open after an explosion.

The REMBE® explosion door ETX™ prevents post-explosion-fires by self-reclosing after the explosion pressure has been relieved, thus preventing the supply of oxygen to the air. After successful relief the ETX™ will remain undamaged and will be ready for the next usage.

Mechanism

The explosion door ETX™ is based on the air cushion principle. In the event of an explosion, the hinged lid will open extremely quickly, and will then be stopped by the integrated baffle plate. The integrated air cushion dampens the transmission of the kinetic energy to the rigid parts of the ETX™, and ensures that the lid of the ETX™ returns to its original, closed normal position after the explosion pressure has been relieved.

Your advantages

- Prevents chimney-effect related **post-explosion-fires**.
- **Self-reclosing**.
- **Reusable**.
- **High venting efficiency**.
- **Trace heating** to maintain a snow and ice freeness (optional).

■ Made
■ in
■ Germany



Autonomous safety device with trace heating, certified and type-examined according to ATEX 2014/34/EU

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

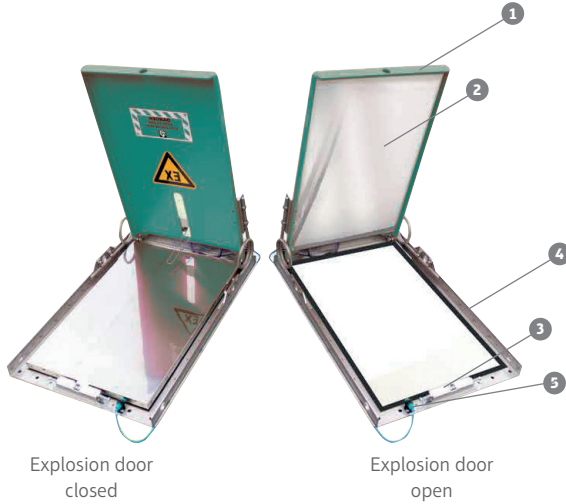




Safety is for life.™

PRODUCT INFORMATION

Function principle



- 1 Baffle plate
- 2 Lid
- 3 Locking device
- 4 Frame
- 5 Proximity switch

Use in drying plants

Ring dryer

An optimal and safe pressure relief is achieved by attaching the ETX™ to the deflection hood or ring duct.

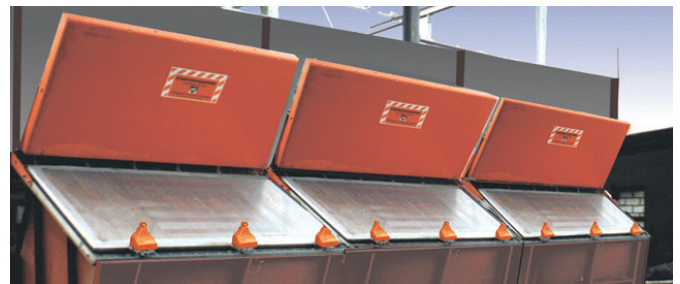
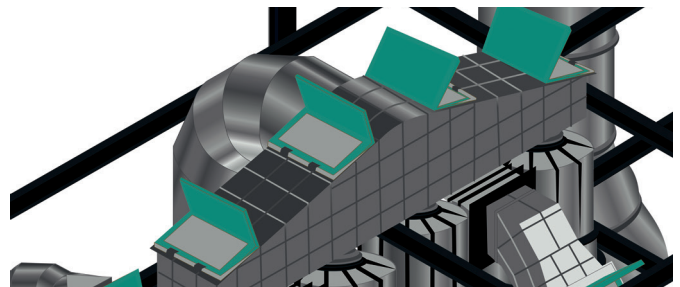
Cyclone (multistage)

The most effective arrangement of explosion vents for inertial separators is directly above the immersion pipe.

Bag filter

In the case of bag filters, special care must be taken to ensure that the venting devices are placed below the filter elements. This ensures that filter elements do not block the vent areas.

Technical data				
Certification	Autonomous safety device with trace heating, certified and type-examined according to ATEX 2014/34/EU			
Housing	1.4404			
Gasket	Silicon with FDA approval			
Burst pressure	variable			
Standard vacuum resistance	2500 mm WC			
Dust explosion class	St1 and St2			
Total weight	48 kg			
Door lid weight	9,0 kg			
Inner opening of the door body	500 x 800 mm			
Geometric vent area: A	0,4 m ²			
Venting efficiency:	K _{St}	0-88	89-145	146-300
bar*m*s ⁻¹	E _F	93%	95%	100%
Effective vent area: AW	AW	0,37m ²	0,38m ²	0,4m ²
Relief direction	horizontal and vertical			
Maximum reduced explosion pressure P _{red}	max. 2,35 bar g			
K _G -Value	K _G -value: ≤ 100 bar*m*s ⁻¹			
Gas explosion class	IIA			
Static burst pressure P _{stat}	0,05 bar g			
Temperatures	Ambient temperature: -40 °C bis +50 °C temperatures below 0 °C only permitted with heating. Process temperature: +160 °C bei max. +50 °C ambient temperature			



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REMBE® GmbH Safety+Control

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