

PRODUCT INFORMATION

EXPLOSION VENTING

TARGO-VENT

Pat. pend. EP 11 169 230.7



REMBE® GMBH
SAFETY+CONTROL



Intelligent explosion venting lowers hazard areas

Traffic routes within facilities and public roads play a critical role in planning and implementation of conventional, free explosion venting. With conventional explosion venting the pressure wave and flame blast must be deflected into protected areas. Since such effects would result in severe hazards in areas with access for people, the operator must provide for special safety measures or large-scale clearance. This additional requirement significantly increases operational expenditures or demands more costly solutions, such as flameless venting or what is referred to as explosion suppression

The TARGO-VENT has been developed in view of this situation and is an add-on module which limits the opening angle of an explosion panel. Explosion pressure wave, flames and heat are guided into secure areas. In this way the traffic routes can be safely used by individuals and vehicles.

TARGO-VENT does not require maintenance and does not cause continuous operating costs. Existing explosion panel installations can be retrofitted.

TARGO-VENT allows smaller set up due to decreased hazard areas. Consequently, the usable operating space is increased.



Features

- deflection of explosion pressure and flames into protected areas
- design tested IAW ATEX directive 94/9/EC
- material: stainless steel
- temperature range determined by explosion panel temperature parameters
- passive protection system
- maintenance-free



Hazard area with explosion venting



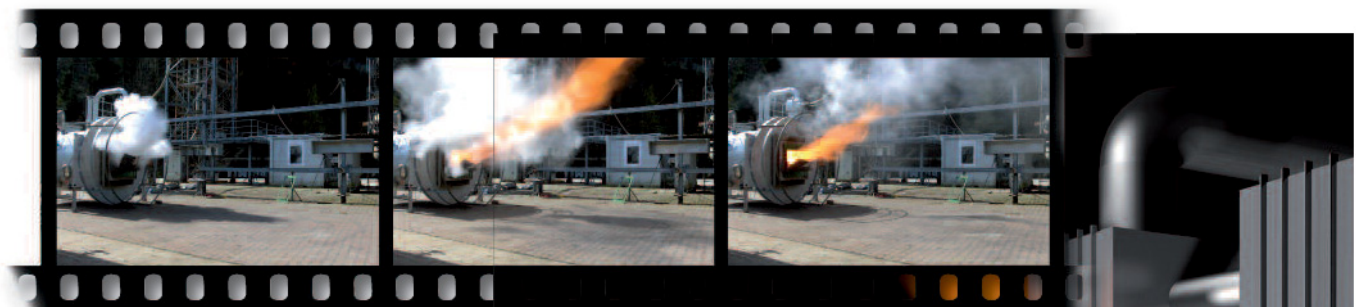
Applications

- add-on module for original equipment and retrofitting of outside installed explosion panels
- free explosion venting in hazard areas, e.g. in close proximity to traffic routes

Hazard-free access in the area is not ensured with conventional explosion venting, since it is not possible to deflect the explosion pressure wave, flames and heat.



Protected area with **TARGO-VENT**



Your Benefits

- lowering of hazard areas in front of relief openings
- gain of usable operating space
- retrofitting of previously installed explosion panels is possible

Directed explosion pressure venting with **TARGO-VENT**





Technical Data	
max. K_{St} -value	$\leq 200 \text{ bar} \times \text{m/s}$
max. P_{red}	$\leq 1.0 \text{ bar @ } 22 \text{ }^\circ\text{C}$

reduced explosion pressure (P_{red})	angle of deflection*	efficiency
0.2 bar @ 22 °C	approx. 45°	70%
1.0 bar @ 22 °C	approx. 30°	

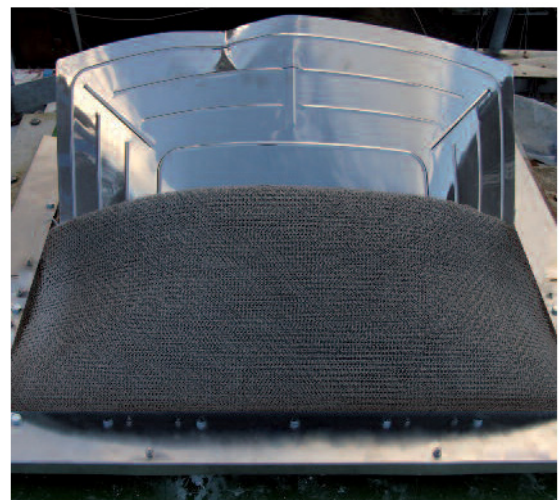
* linear behavior of the angle of deflection between reduced explosion pressure (P_{red}) of 0.2 bar and 1.0 bar

nominal venting dimensions [mm]	approx. weight [kg]
305 x 610	3
620 x 820	9
586 x 920	9
610 x 1118	10
920 x 920	14
915 x 1118	16

additional sizes available upon request



Before explosion venting:
Side view of TARGO-VENT



Intelligent explosion venting with TARGO-VENT lowers the hazard areas.

Quality and Certifications

All REMBE® protection systems and devices are tested and certified IAW EU directive 94/9/EG (ATEX 114). Each individual batch (lot) is manufactured and tested compliant with the requirements of EN 14797 and supplied with an inspection certificate in accordance with DIN-EN 10204.1.

Upon request, our engineers are available to calculate your required venting areas in compliance with the VDI guidelines 3673, EN 14491, EN 14994, NFPA 68, etc.

We are able to assist you by simulating explosions, calculating the required venting areas for your equipment and recommend correct product selections



After an explosion and venting:
The TARGO-VENT technology limits the relief angle of the explosion panel.