

# EXPLOSION VENTING SYSTEM

fire and explosion protection



Efficient protection for process  
equipment handling combustible dust against  
rupture and destruction during explosion.

The storage and handling of combustible dust is often related to potential danger of explosion. RSBP equipment for explosion relief is a perfect solution to lower this risk and reduce losses that follow such explosions. RSBP explosion relief panels offer very effective and economical solution for protection against damage resulting from a dust explosion.

The explosion relief panel is a device intended for protection of industrial equipment against explosion overpressure danger. For safety explosion vent panels require a zone (usually outdoors), where the explosion fireball would be released. **These devices are primarily suitable for protection of:** filters, storage tanks, mills, crushers, separators, cyclones, and other equipment endangered by a risk of dust explosion.

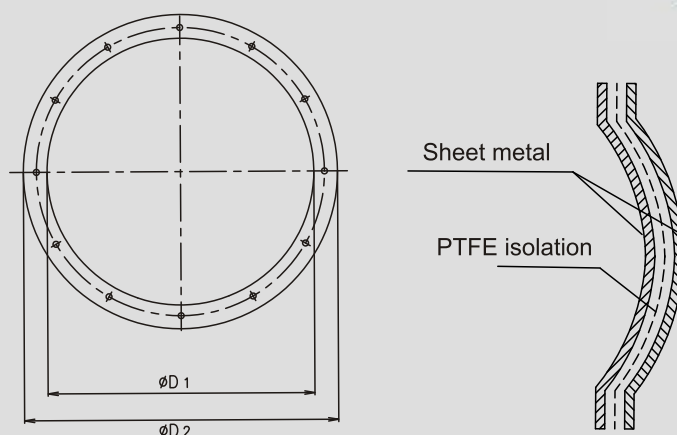
#### Function of the system:

Under normal operating conditions the equipment relief opening is covered by an explosion relief panel. If an operational pressure is exceeded inside of the equipment, panels on its surface open and relieve the pressure. The protected equipment is, thus, exposed to lesser pressure than its pressure resistance and it will not be breached.

- ADVANTAGES**
- » highly effective and reliable
  - » long service life
  - » resistant to abrasion, mechanical particle impacts, and weather conditions
  - » simple installation, replacement, and easy availability of spare parts
  - » opening pressure can be customized
  - » wide range of sizes
  - » economically advantageous solution

### VMP - Domed Round Panels

- domed three layer panel with PTFE isolation
- for equipment with operational temperature of up to 240 °C
- high vacuum resistance
- stainless steel or carbon steel with anti-corrosion finish
- suitable also for equipment with pressure pulses

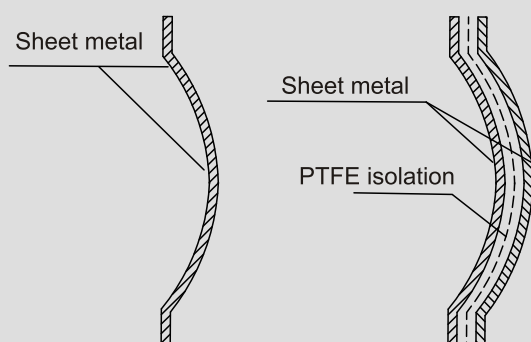


Technical data - round VMP panels

Type	Relief area (m <sup>2</sup> )	$\phi D 1$ Inside flange dimension (mm)	$\phi D 2$ Outside flange dimension (mm)
VMP 300-U	0,07	320	380
VMP 350-U	0,08	342	422
VMP 400-U	0,12	410	490
VMP 450-U	0,14	450	530
VMP 510-U	0,19	510	590
VMP 600-U	0,26	600	680
VMP 630-U	0,29	630	710
VMP 750-U	0,43	770	850
VMP 800-U	0,53	820	940
VMP 880-U	0,58	880	960
VMP 900-U	0,61	900	1000
VMP 1000-U	0,75	1000	1100
VMP 1100-U	0,91	1100	1200

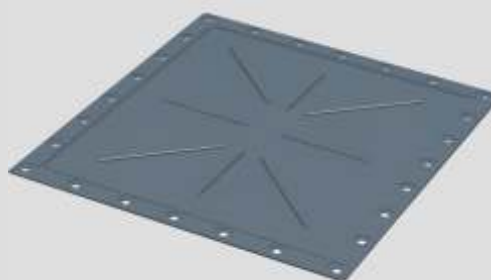
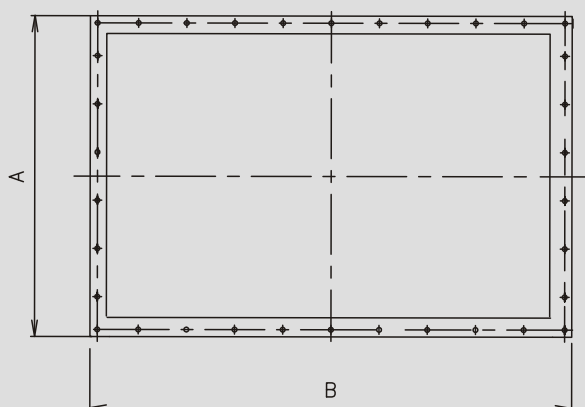
## VMP - Domed Rectangular Panels

- one layer construction for equipment with operational temperature of up to 100 °C
- three layer construction with high vacuum resistance and PTFE isolation for temperatures of up to 240 °
- stainless steel or carbon steel with anti-corrosion finish
- suitable also for equipment with pressure pulses



## PMP - Flat Rectangular Panels

- suitable for applications with low operational pressure (up to 50 % of safety opening pressure)
- for equipment with operational temperature of up to 100 °C
- suitable for equipment with low pressure pulses
- possibility of frameless installation
- stainless steel
- economical solution



Technical data - rectangular VMP and PMP panels

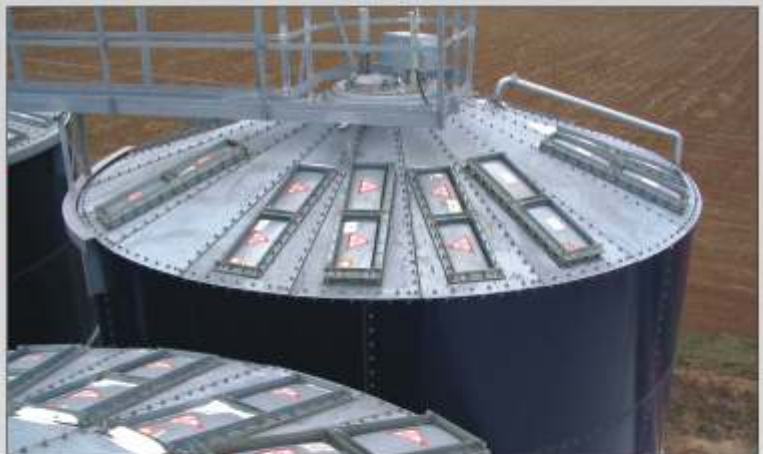
Type	Relief area (m <sup>2</sup> )	A - Outside panel dimension (mm)	B - Outside panel dimension (mm)
VMP 150x600 / PMP 150x600	0,08 / 0,08	220 / 235	670 / 684
VMP 305x457 / PMP 305x457	0,12 / 0,12	375 / 396	527 / 547
VMP 450x800 / PMP 450x800	0,34 / 0,34	550 / 540	900 / 890
VMP 490x590 / PMP 490x590	0,27 / 0,27	565 / 570	665 / 670
VMP 586x920 / PMP 586x920	0,51 / 0,51	661 / 676	995 / 1010
VMP 610x290 / PMP 610x290	0,16 / 0,16	385 / 382	705 / 700
VMP 2x610x290 / PMP 2x610x290	0,32 / 0,32	385 / 382	1385 / 1382
VMP 630x310 / PMP 630x310	0,18 / 0,18	385 / 393	705 / 712
VMP 2x630x310 / PMP 2x630x310	0,36 / 0,36	385 / 393	1405 / 1393
VMP 915x1118 / PMP 915x1118	0,98 / 0,98	990 / 1005	1193 / 1208
VMP 920x920 / PMP 920x920	0,81 / 0,81	995 / 1010	995 / 1010
VMP 1020x1020 / PMP 1020x1020	1,00 / 1,00	1095 / 1110	1095 / 1110

## ACCESSORIES

- » panel opening indicator
- » optional temperature isolation
- » optional frame for VMP panels



## Application examples



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