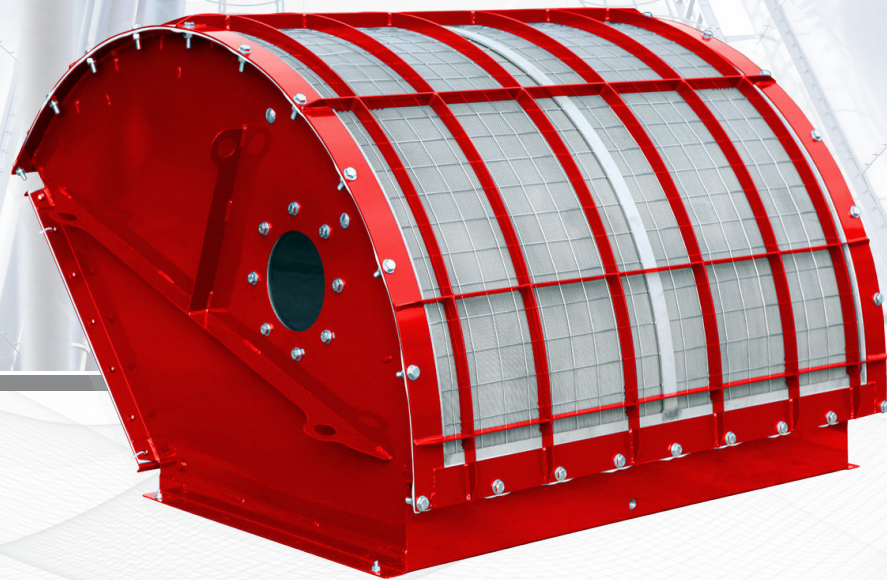




Catalog #77- 8028

W. T. Maye, Inc. (WTMI)
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R-IQ[™] Rectangular FlameFree[™] Explosion Relief Vents

US and International Patents pending.



R-IQ™ Rectangular FlameFree™ Explosion Relief Vent

US and International Patents pending.

Model (Size in mm)	Nominal Vent Size (inches)	Vent Area
<input type="checkbox"/> R-IQ 170 X 470	7 X 19	0,0785 m2 (0,845 sq ft)
<input type="checkbox"/> R-IQ 270 X 458	11 X 18	0,1220 m2 (1,315 sq ft)
<input type="checkbox"/> R-IQ 300 X 500	12 X 20	0,1480 m2 (1,595 sq ft)
<input type="checkbox"/> R-IQ 305 X 610	12 X 24	0,1840 m2 (1,980 sq ft)
<input type="checkbox"/> R-IQ 350 X 650	14 X 26	0,2250 m2 (2,425 sq ft)
<input type="checkbox"/> R-IQ 490 X 590	19 X 23	0,2865 m2 (3,084 sq ft)
<input type="checkbox"/> R-IQ 610 X 610	24 X 24	0,3695 m2 (3,975 sq ft)
<input type="checkbox"/> R-IQ 457 X 890	18 X 35	0,4040 m2 (4,349 sq ft)
<input type="checkbox"/> R-IQ 586 x 920	23 X 36	0,5360 m2 (5,770 sq ft)
<input type="checkbox"/> R-IQ 645 X 1130	25 X 44.5	0,7250 m2 (7,804 sq ft)
<input type="checkbox"/> R-IQ 920 x 920	36 X 36	0,8425 m2 (9,068 sq ft)
<input type="checkbox"/> R-IQ 1130 x 1130	44.5 X 44.5	1,2720 m2 (13,696 sq ft)

Housing Options
<input type="checkbox"/> Carbon Steel (standard). Painted BS&B red.
<input type="checkbox"/> Stainless Steel
<input type="checkbox"/> Curved mounting option for cylindrical vessels
<input type="checkbox"/> Sanitary Weather/Dust Cover

Housing Strength (Max Pred) Options
<input type="checkbox"/> 0.5 Bar (Standard) All Sizes (for Pstat = 0,1 to 0,3 bar)
<input type="checkbox"/> 2.3 Bar Up to R-IQ Up to size 586 x 920 (for Pstat = 0,1 to 0,5 bar) (1.85 Bar for R-IQ Sizes 645 X 1130, 920 x 920, and 1130 x 1130)

Vacuum Resistance Options
<input type="checkbox"/> VSP-L (Standard) minus 20"W.C. (0.05 bar)
<input type="checkbox"/> VSP-D minus 80"W.C. (0.2 bar)
<input type="checkbox"/> VSP-HV minus 200"W.C. (0.5 bar)



Access door for vent installation and inspection.

Vent Material Options
<input type="checkbox"/> 304L S/S (Standard)
<input type="checkbox"/> 316 S/S

Vent panel Burst Pressure Options
<input type="checkbox"/> 0.1 Bar (Standard)
<input type="checkbox"/> Other – Specify

Gasket Options
<input type="checkbox"/> Black EPDM: -40°F +176°F (-40°C +80°C)
<input type="checkbox"/> White Silicone FDA: -76°F +392°F (-60°C +200°C)

Switch Options
<input type="checkbox"/> SEC (Standard): Burst Sensor Switch 2-wire NC circuit
<input type="checkbox"/> IND: Burst proximity sensor 4-wire inductive having NO and NC output

Vent Sizing Options
<input type="checkbox"/> NFPA 68-2018
<input type="checkbox"/> EN 14491 EN 14994
<input type="checkbox"/> VDI 3673

Design Advantages

- Provides a passive solution for Explosion Protection.
- Explosion Panel can be inspected via inspection door.
- Vent panel installed after housing is installed, reducing potential for damage. Installed through inspection door.
- Integral Vent Sensor (used to shutdown process).
- Flames quenched by stainless steel mesh.
- Install in most orientations.

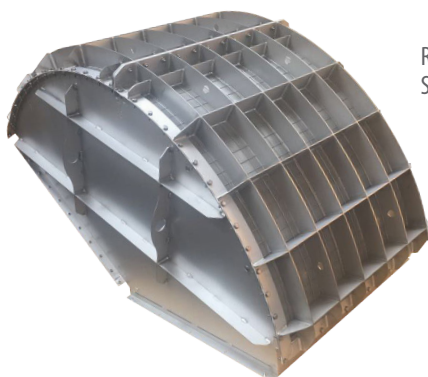
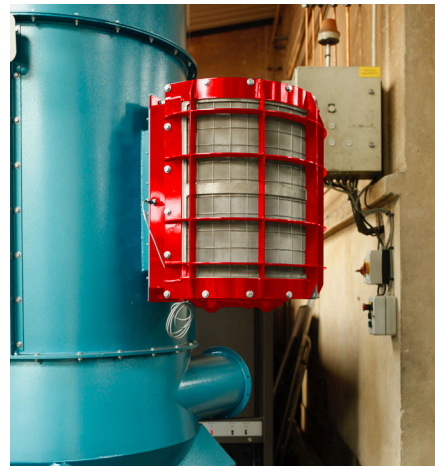
The R-IQ™ Rectangular Flamefree™ Explosion Relief Vent protects process equipment by safely releasing the rapidly expanding gases generated by a dust explosion through a stainless-steel mesh, while preventing the ejection of flame into the surrounding area. This makes it suitable for equipment, such as dust collectors, which are located inside a building. The R-IQ™ consists of an explosion panel, which seals the process equipment, and an outer housing incorporating a stainless steel mesh element. The housing is available in painted carbon steel or stainless steel for reduced explosion pressures up to 2.3 bar and includes an inspection door for inspecting the vent panels as required by NFPA 68-2018. Most importantly this inspection door also enables easy installation of the vent panel after heavier mesh housing is mechanically installed on the protected equipment. The housing option rated to 0.5 bar incorporates a convenient inspection window. The explosion panels are available for vacuum conditions from 20" w.c. (0.05 bar) to full vacuum.

The R-IQ™ is certified for venting combustible dusts having Kst dust explosibility values up to 500 bar.m/s. It is suitable for a wide range of combustible dust applications requiring a passive method of protection in areas where flame retention is required. This includes installations both inside and outside where people or combustible materials are present. A discharge safety zone applies.

To ensure that the correct vent model and vent size is selected for your application, please contact BS&B for assistance.



R-IQ™ with carbon steel body 0-5 bar Pred with inspection window.



R-IQ with Stainless Steel Body

Operating Parameters

- Kst max 500 bar.m/s
- Pmax ≤ 10 bar (145 psi)
- Pred ≤ 0.5 bar (7.25 psi), 1.85 bar (26.8 psi), or 2.3 bar (33.35) psi
- Pstat = 0.1 bar (1-1/2 psi)
- Vacuum Resistance = 0.05 bar (20" w.c.) to full vacuum according to explosion vent selected

Codes and Standards



Certified to
EN 16009



For additional information contact:

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