



Model 943

End-of-Line Vacuum Relief Vent/Valve

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Drawing on extensive experience in the pressure relief field, the BS&B FlameSaf® relief vent/valve offers a dependable, internationally certified and precisely engineered design to prevent excessive vacuum build-up and implosion of valuable tankage during normal operations of emptying or from atmospheric changes. Designed for the highest standards of precision and safety, these vents use FEP diaphragms to provide tight seals between pallet and seat, which coupled with the 10% overpressure feature result in reliable and accurate response to even minimal changes in vacuum. Users benefit from optimized operating conditions close to MAWV (Maximum Allowable Working Vacuum) while ensuring operation that safeguard both personnel and environment.

Features

- Side-mount design
- Suitable for normal vacuum relief
- Complies with API 2000 Seventh Edition / EN ISO 28300
- Certified to ATEX – Directive 94/9/EC
- Weight-loaded pallet design; intake from atmosphere
- Achieves full open (flowing pressure) at just 10% overvacuum
- Provides premium sealing with FEP diaphragms (metal-to-metal available for special requirements or higher settings)
- Leakage rates much tighter than API 2000/EN ISO 28300 requirements
- Screen protects valve internals from environment and contamination
- Pallet, seat & stem-guide made from stainless steel
- Modular design reduces requirements for inventory of spare parts

Protection

Gas/air or steam/air mixtures II ½ G c IIB T X

Flange Connection Type

EN or DIN: ISO 7005 - PN10

JIS B 2220 - 10k

ANSI: ANSI B.16.5 - 150 RF

Other types available upon request

Materials of Construction				
	FEP	Ductile Iron	Stainless Steel	Other Materials on request
Diaphragm	✓		✓	✓
Valve Set/ Pallet			✓	✓
Valve Seat			✓	✓
Body		✓	✓	✓



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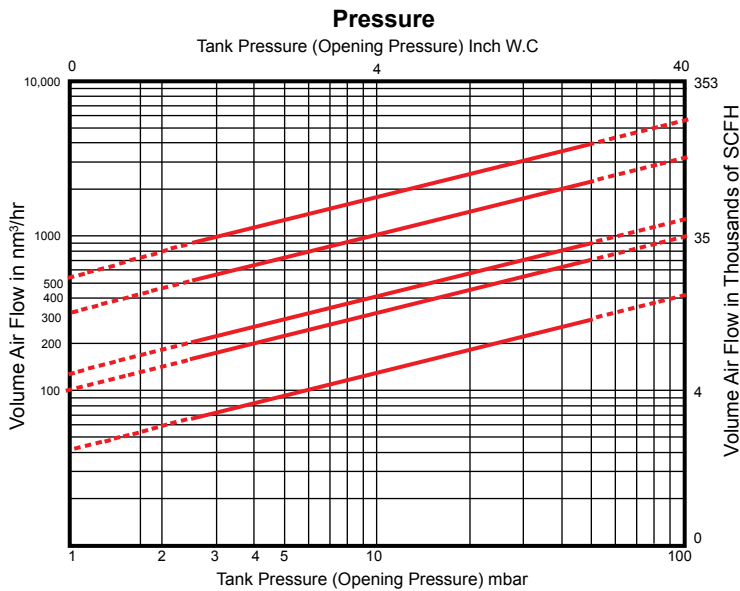
EC Type Examination	
Designation	943 DN 50 to 250
Protective System	Vacuum (Under Pressure) Relief Valve (End-of-Line / Side-Mount)
ATEX Certificate Number	IBExU14ATEX1121 X

Operating Conditions	
Temperature	-4 °F (-20 °C) – 320 °F (160 °C)
Maximal 80% of ignition temperature stored medium	
Pressure: Atmospheric	0.8 bar [11.6 psi] to 1.1 bar [15.95 psi] (absolute)

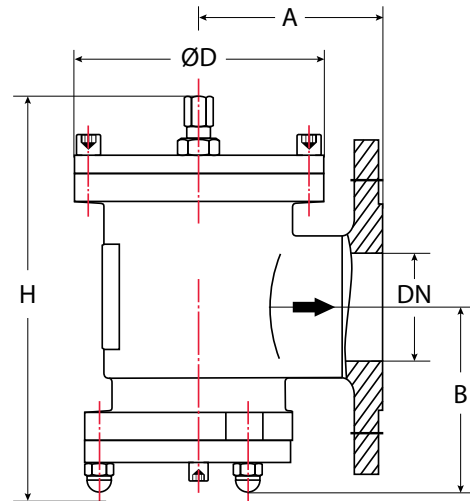
Valve Settings	
Set Pressure	-50 mbar [-20 inch W.C.] to -2.5 mbar [-1 inch W.C.]

Valve - Maximum Pressure Rating	
1 bar [g] (14.5 psig) – all sizes/settings	

Tank Pressure/Volume Flow Chart



Dimensional Drawing



Dimensions (in mm / inches)

DN	50 / 2	80 / 3	100 / 4	150 / 6	200 / 8
A	125 / 4.92	160 / 6.29	163 / 6.42	210 / 8.27	248 / 9.76
B	95 / 3.74	107 / 4.21	119 / 4.69	140 / 5.51	165 / 6.49
Ø D	170 / 6.69	225 / 8.86	225 / 8.86	320 / 12.59	375 / 14.76
H	200 / 7.87	265 / 10.43	290 / 11.42	310 / 12.20	355 / 13.98

To select the nominal size (DN), please use the Tank Pressure / Volume Flow Charts above

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