

Emergency Vent 942-EV

Instructions for operating and maintenance

REV 1.0

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For the pressure vent type 942-EV catalogue data sheets as "Dimension sheet", "Technical data" and "Pressure drop/volume flow charts" are available including the technical data, constructions and dimensions.

1. Use

Pressure vent 942-EV complies with standard

DIN EN 13463 Non-electrical equipment for potentially explosive atmospheres

Part 1: Basics methods and requirements: 2009Part 5: Protection by constructional safety "c": 2004

The general suitability as pressure vent for device group II, category 1/2 when used with inflammable gas/air mixtures and vapour/air mixtures of inflammable liquids of explosion group IIB (standard gap width ≥ 0.5 mm) had been verified by tests executed at the Institute for Safety Technology IBExU GmbH Freiberg and the results were confirmed by the issued EC prototype test certificate IBExU14ATEX1069 X.

The following valve insert settings have to be considered:

Set-pressure for pressure: 2,5 up to 70 mbar *) *) factory pre-set default

Operating temperature: -20 up to 160°C

surface temperature ≤ 80% of ignition temperature medium

(please attend data sheet)

On delivery of the devices the technical parameter of the valve with stating the EC prototype test certificate number are documented in the works test certificate according to EN 10204. In the declaration of compliance it is referred to the accordance with the harmonized standard EN 13463-1/-5. The maintenance of the basic safety requirements according to directive 2014/34/EU has been confirmed.

2. Construction

The vent consists of a flange (1) with pressed in valve seat (6) and equipped with pressure valve inserts (5) which is guided by mounted guide rods (2) and a metal hood (4). For protection against effects of weather the vent is equipped in addition to the metal cover (4) with a protective strainer (3).

The valve inserts are pre-set for the customer's specific set-up pressure via weight discs. They can be equipped with FEP sealing foil or with a metallic sealing surface.

3. Marking

The information for marking the vent are arranged on the nameplate (page 4).

The following data are indicated:

- Name and address of the manufacturer
- Type (including version number)
- Serial number and year of production
- Number of the certificate (EC prototype certificate-no.)
- EN number
- The specific mark for prevention of explosions in connection with the mark indicating the group of devices II, category 1/2 and the letter "G" (for areas where explosive gas, vapour, air mixtures are available)
- protection class "c" for design safety
- The CE mark with the number of the indicated inspection authority, which act during production
- Set-up pressure, opening pressure and volume flow at opening pressure

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4. Installation

The arrangement and the installation of the vent into the plant shall be done under observance of the rules applicable to the relevant range of use. Especially the instructions for accident prevention have to be observed. A vertical installation position of the vent has to be kept under any circumstances.

The vent is equipped with a flange connection PN10 Form C or ANSI 150 RF.

For the flanged joints flat gaskets with a sealing parameter $k_0k_D \le 25_{bD}$ are recommended. While flanging be careful that the sealing strips are not damaged and there is no foreign matter or dirt between the flanges, so that no gap to the atmosphere can occur.

The valve has to be included in the equipotential bonding of the vessel or plant.

To prevent transportation damage, the valve insert is blocked with a transportation safeguard, which must be removed before beginning of operating:

Uninstall metal cover (4) by loosening the cap nuts (7) Remove transportation safeguard on top of the insert (5) by regarding the protective strainer (3) Install back the valve insert (5) and check for easy mobility and proper location Install strainer and metal cover and pull cap nuts tight

Always regard "Transportation guard page"!

5. Maintenance

The maintenance includes a periodic visual control of the vent with regard to contamination and appearance. The intervals for the maintenance works depend on the operating conditions and the kind how the individual media tend to contamination. The interval of maintenance has to be defined by the operating company.

For cleaning purposes, the vent must be opened as follows:

Remove the cap nuts (15) to uninstall metal cover (4) and strainer (3). In case of major contamination a flushing with a cleaning agent can be carried out. After cleaning all parts shall be blown dry. During the cleaning works, no mechanical modifications may be done on all elements or the housing, else they has to be replaced by a new one.

All works in connection with repair and replacement of components shall be executed only by trained and authorized skilled personnel.

Valve seats and valve plates shall be checked for contamination and damages and examined in particular for intactness as well. Damages to the valve seat shall be eliminated by expert grinding and smoothing. Depending on the sealing system, the FEP seal or metallic sealing surface should indicate not damaging, else they has to be replaced by a new one.

Opening and re-installing shall be performed as described under 4.

It is recommended to hold a spare parts respective seals ready for each vent. In case of replacement of structural units only original spare parts listed in the spare parts list shall be installed to ensure the required safety.

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6. Spare part listTable 1 : Spare parts for 942-EV

Item	Description	Otre	Material	Order-No.		
No.	Description	Qty.		DN50	DN80	DN100
2	Guide rod	3 4	NSt	172037200	172037900	172038500
3	Protective strainer	1	NSt	172037300	172038000	172038600
4	Metal cover	1	NSt	999636100	542013400	542013700
5	pressure valve insert – FEP - valvedisk - FEP-seal surface	1	NSt/FEP	FET15415148 812071100 722088000	FET15416010 812071700 722088500	FET15416505 812071900 722088300
	pressure valve insert – metall - valvedisk - metall-seal surface	1	NSt	FET15415149 812071100 FET999648600	FET15416011 812071700 FET992874000	FET1516515 812071900 FET992876000
7	Cap nut	3 4	NSt	202043600	202012700	
8	Stud halt	4	8.8 NSt	310915123 310915223		
0	Stud bolt	8	8.8 NSt		310915323 310915423	

Item No.	Description	04	Material	Order-No.		
	Description	Qty.		DN150	DN200	DN250
2	Guide rod	4	NSt	172040300	172041200	172042700
3	Protective strainer	1	NSt	172040400	172041300	172042800
4	Metal cover	1	NSt	172040500	172041000	172043000
5	pressure valve insert – FEP - valvedisk - FEP-seal surface	1	NSt/FEP	FET15417207 812072100 722088700	FET15417587 812072300 722088900	FET15418207 812072500 722089000
	pressure valve insert – metall - valvedisk - metall-seal surface	1	NSt	FET15417210 812072100 FET999671400	FET15417590 812072300 FET993108100	FET15418210 812072500 FET993166000
7	Cap nut	4	NSt	202012700	202012700	202012700
8	0. 11 1	8	8.8 NSt	310915523 310915623	310915523 310915623	
0	Stud bolt	12	8.8 Nst			310915523 310915623

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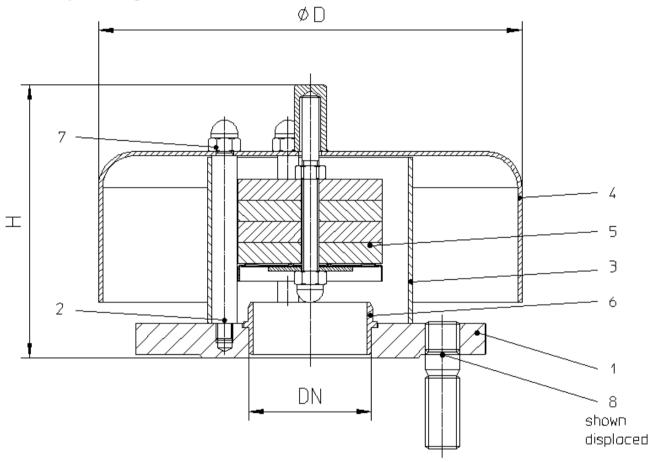
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Material marks

St steel	LM light metal	FPM Viton	FEP Fluoride plastic	
NSt stainless steel	K plastic	NBR Perbunan(N)	PTFE Fluoride plastic	

Assembly drawing 942-EV



DN			ø D [mm]	H [mm]
50	/	2"	200	131
80	/	3"	250	156
100	/	4"	300	171
150	/	6"	360	248
200	/	8"	434	273
250	/	10"	535	330

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