

Flameless Explosion Vent



NO DANGER FROM EXPLOSIONS

EVN-Valves offer the highest degree of safety from damaging oil fog, gas or dust explosions. Explosions are short spurts of energy typically accompanied by rapid increases of pressure and temperature. The EVN-Valves provide a large opening allowing the combustion gases to be vented quickly.

The spring-loaded, frictionless guided valve plate assures quick release. The flame absorber which is made from laminated metal, traps flames and lowers the temperature of the effluent sufficiently so there is no danger to personnel. The valve cover acts as a deflector to direct the flow towards the equipment or any safe direction.

Contrary to rupture discs, the EVN-Valve opens and closes quickly and does not allow air to rush into the explosion chamber. This will greatly reduce the chance for secondary explosions.

CONTINUED OPERATION AFTER AN EXPLOSION

Because of careful, solid design and high quality materials the EVN-Valves are unaffected by explosions. Compared to other explosion relief devices the EVN-Valve is fully functional after an explosion occurs and operation of equipment can continue. Although it is recommended practice to examine the cause of the explosion, there is no need for maintenance after an explosion on the EVN-Valve, down time therefore is minimum.

PROTECTION AGAINST DUST EXPLOSIONS

In all industrial applications where pulverized or powder material is processed or stored there is the inherent danger of explosions. Conventional devices such as rupture discs and relief doors offer only limited protection. Rupture discs burst when explosions occur and metal fragments can break loose; the ruptured disc allows air to penetrate into the container and secondary explosions can easily occur. Rupture discs have to be replaced after every explosion and cause costly down time and replacement cost. They are also affected by the environment such as corrosion or weather influence (snow).

Conventional explosion relief doors offer no protection against flames and can generally only be mounted in one prescribed way. EVN-Valves vent the excess pressure in an explosion very quickly and the valve closes immediately as the pressure subsides.



QUALITY ASSURANCE

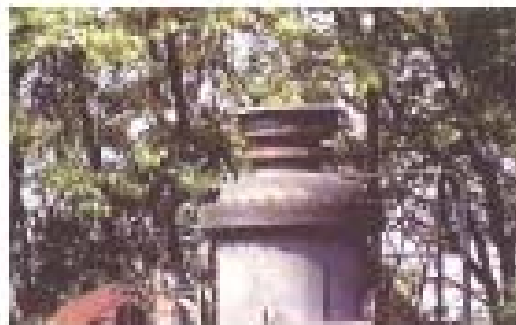
All EVN-Valves are ATEX certified according to applicable qualification standards. The manufacturing quality assurance program is to ISO 9001 standards and the company is certified by LLOYD'S REGISTER. EVN-Valves for dust explosions meet the essential requirements of EN14491, EN14797 and ENPr16009.

RECOGNISED SAFETY

In the marine industry the risk of crankcase explosions was recognised decades ago. Early on, insurance companies developed safety standards to reduce the risk. The standards mandate that relief devices react to a low differential pressure (less than 0.2 bar).

EVN-Valves open at a pressure of 0.05 barg.

The continued, reliable function of EVN-Valves is consistently monitored by recognized certification agencies.



INSTALLATION

EVN-valves can be installed in any position and axis, and provide an economical protection against any damage to people and equipment. The valves can be retrofitted to most containers, vessels, silos and conveyor systems.

MATERIALS OF CONSTRUCTION

The EVN-Valves are available in mild steel or INOX304 stainless steel.

LIMITS OF USE (DUST)

The EVN-Valve can be used for dusts with a maximum $K_{st}=300$ and a $P_{red}<3.0$ bar.

Sizes				
DN150	DN160	DN190	DN210	DN250
DN300	DN400	DN450	DN540	DN615
DN700				



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