Emergency Relief Valve PROTEGO® ER-V-LP

New Development for Low Pressure Settings up to + 3.4 mbar

Challenge
In an emergency – e.g. in a fire or in case of malfunction – it may become necessary for the extraordinarily high, suddenly occurring venting requirements to be met through the PROTEGO® ER-V-LP emergency relief valve. At the same time, there is the objective to minimize emission losses. The valves of PROTEGO®, given the 10% technology applied, guarantee both a safe function and extremely low emission losses at the lowest practical set pressures.

Fields of Application
- Used where the overpressure relief valves designed for normal operation fail to satisfy suddenly occurring venting requirements (Fig. 2).
- Used as an emergency pressure relief valve on storage tanks, vessels, silos, and process engineering equipment in the event of a fire (Fig. 2).
- Used with tank inert gas blanket systems to relieve excess gas in case of malfunction (Fig. 2).
- Used on tanks storing gas liquefied under cryogenic conditions so that - in the event of leakage in the product tank, gases resulting in the insulated tank are quickly relieved through the emergency relief valve (Fig. 1).

The patented valve pallet technology guarantees that minimum leakage-rate requirements can be met and, hence, least possible product losses and reduced impact on the environment are ensured.

fig. 1: typical protection of a storage tank for gases liquefied under cryogenic conditions
fig. 2: Tank protection by PROTEGO® VD/SV-PA pressure and vacuum relief valve, PROTEGO® ZM-R nitrogen control valve and PROTEGO® ER-V-LP emergency relief valve
PROTEGO® ER-V-LP feature persuasive quality and reliability

Features

- Patented valve pallet technology (EP 2 420 708) with metal-to-metal seal-tight features.
- Guaranteed excellently tight sealing; hence, least possible product losses and reduced impact on the environment.
- 10% Technology for minimum pressure increase until full lift.
- Set pressure close to the opening pressure; hence, best possible pressure management of the system.
- Low pressure range (+3.4 mbar through +15 mbar).
- High flow efficiency due to large opening cross-section (DN 200 / 8" through DN 700 / 28").
- Safely guided valve pallet.
- Valve pallet is guided within a closed system and, thus, protected from atmospheric exposure.
- Rugged body design.
- Suited for use in hazardous areas.
- Best technology for API tanks.

Construction and Design

1. Rugged body design with flange connection to ASME ISO, EN/DIN standards.
2. Valve pallet guided within a closed system.
3. Patented valve pallet with metal-to-metal seal-tight features.