



ATEX Q-PEX Flameless Vent Systems

R-2.1

INTRODUCTION

The Q-PEX Flameless venting system was developed by Dr. Franz Alfert the President of ATEX Explosion Protection Systems to provide a complete system for the alternative protection of process equipment. Up to the development of the Q-PEX system users had to rely on standard vent systems placed outside, half systems or costly suppression systems. Dr. Alfert had designed and developed a flameless vent, which is sold by Rembe under the Q-Rohr product name. But in order for the flameless vent to be fully effective, isolation methods as required by NFPA must be considered. The Q-PEX system integrates the required venting and isolation systems to provide total protection.

CONCEPT

The Q-PEX System rather than protecting only a vessel, without regard to explosion propagation, combines ATEX Isolation Valves, Rico Isolation Valves and the Q-Rohr Vent to create a Flameless Vent System. When an explosion occurs the Q-Rohr provides pressure relief and flame containment for the vessel while the isolation valves stop the spread of the explosion to connecting ductwork and process equipment.

SYSTEM BENEFITS

- ✓ Protection of process equipment in facility
- ✓ Full compliance with NFPA requirements
- ✓ Total system protection as integrated unit
- ✓ Low cost reconditioning after actuation
- ✓ Low cost system maintenance



Rico Valve



ATEX Isolation Valve

CONSTRUCTION

The Isolation valves provide inlet and outlet isolation of the pressure and flame front propagation (See Data Sheet B1.2 for Details). Detection and control units integrate the system and provide simultaneous action of all components (See Data Sheet Y1.1 for Details).

The Q-Rohr vent is constructed of an integrated explosion vent and stainless steel mesh filter. The vent releases the explosive pressure and flame front into the filter in a gated manor. The stainless steel mesh filter stops the propagation of the flame front into the surrounding area and mitigates the heat and pressure being released into the facility to acceptable levels.



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