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COMPLIANCE WITH 2008 EDITION NFPA 69 Section 12.2.3.2 ROTARY VALVES USED FOR DEFLAGRATION ISOLATION BY FLAME QUENCHING (CLOSE-CLEARANCE VALVES) PER THE FOLLOWING:

Maximum Rated Pressure (Pred): 14.9 PSI

Maximum Operating Temperature of housing and endplates: 100 Deg F.

Rotary Valve Housing and Endplates: Cast Iron or Cast Stainless Steel

Rotor Vanes and Shafts: A36 CS, 304SS, OR 316SS

Rotors have 8 vanes minimum with 2 on each side of the valve housing in a position of minimum clearance at all times.

Rotary valves are designed with a minimum clearance of .004 in and a maximum clearance of .006 in., which exceeds NFPA 69 requirement of .0079 in or less.

Bearings are mounted externally.

Required by Others:

Determination of Kst and Pmax of material being handled to confirm that it is lower than the Maximum Rated Pressure of 14.9 PSI.

An independent explosion detection device or interlock from another installed explosion prevention or control system on the same protected enclosure shall be interlocked to automatically stop the rotary valve upon a deflagration event.

Actual clearances between rotor vanes and housing are to be monitored using a predictive maintenance program such that the clearance between rotor vanes and housing does not exceed .0079 in. due to wear.

The authority having jurisdiction shall determine the need for performance testing of the valve design.

COMPLIANCE WITH 2008 EDITION NFPA 69 Section 12.2.3.4 ROTARY VALVE WITH MATERIAL BLOCKING

Rotary valves are designed with a minimum clearance of .004 in and a maximum clearance of .006 in., which exceeds NFPA 69 requirement of .0079 in or less.

Required by Others:

A level control switch shall be provided and interlocked to the rotary valve to maintain a minimum material layer above the inlet flange to be at least equal to a) the valve inlet equivalent diameter or

b) 0.3 m (1 ft.) whichever is greater.

Note:

This rotary valve is NOT intended for used as an isolation device for systems handling hybrid mixtures or gases.

Smoot will not warrant parts nor guarantee the rotary valve will be operational in the event of an explosion or fire. If an event such as this occurs, we recommend factory inspection and testing prior to re-commissioning of the rotary valve in a system.