



## COMPLIANCE WITH 2019 EDITION NFPA 69 PER THE FOLLOWING CRITERIA:

### 12.2.4.2

Rotary Valve Design Criteria - Rotary valves intended for deflagration isolation systems are designed according to one of the following isolation concepts:

- 1) Deflagration isolation by flame quenching (close-clearance valves)

### 12.2.4.3\*

The design criteria in 12.2.4.3.1 through 12.2.4.3.7 shall apply to either concept defined in 12.2.4.2

#### 12.2.4.3.1

The valve body and rotor have sufficient strength to withstand the maximum anticipated explosion pressure,  $P_{red*}$

#### 12.2.4.3.4

There are at least six vanes on the rotor, diametrically opposed.

#### 12.2.4.3.5

At least two vanes on each side of the valve housing are in a position of minimum clearance at all times.

#### 12.2.4.3.6

The valve has a metal body and vanes unless, in some cases, it is shown by test data that nonmetallic or composite materials prevent flame passage.

#### 12.2.4.3.7

Rotary valve bearings are mounted externally

#### 12.2.4.5 & 12.2.4.5.1 & 12.2.4.5.3

Close-clearance rotary valves are designed with a clearance between vane and valve body less than or equal to 0.2mm (0.008in) where actual clearance of such rotary valves is measured before installation and operation and can be monitored using a predictive maintenance program such that the design clearance is not exceeded due to wear.

#### 12.2.4.5.2

The clearance between vane and valve body is small enough to prevent the passage of flame between the rotor and valve housing.

Note: Rotary Valves are NOT intended for use as an isolation device for systems handling hybrid mixtures or gases. Rotary Airlock will not warranty parts and valves, 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 recommissioning the system's rotary valves.