

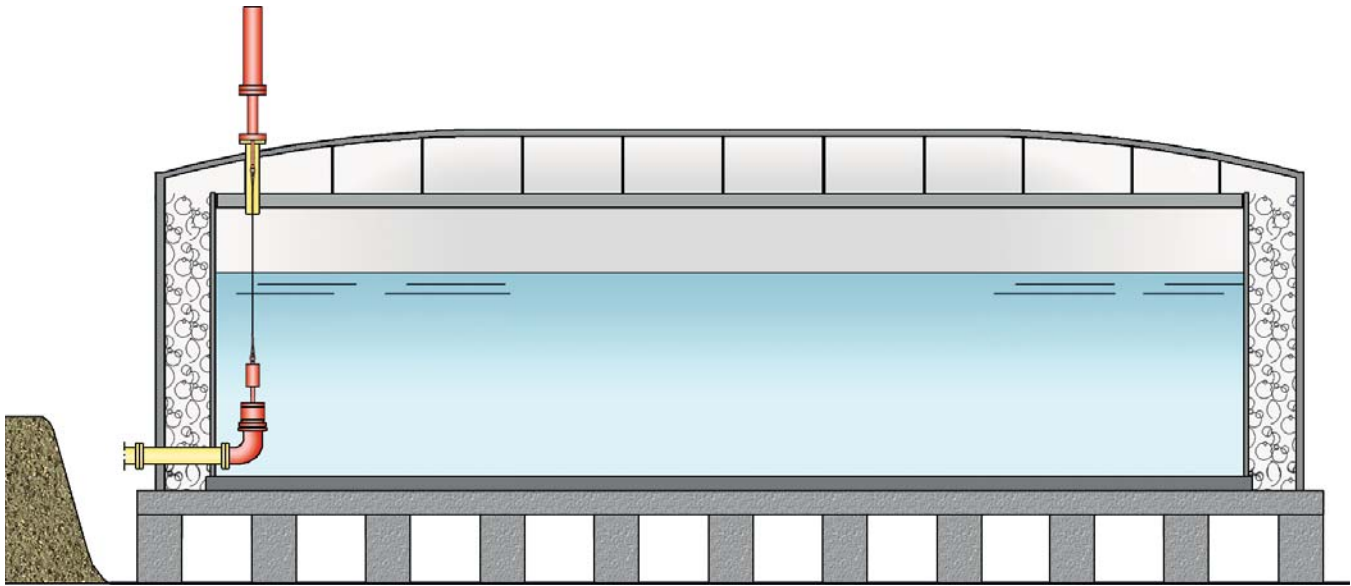


In-tank Valve with pneumatic actuator

PROTEGO® ITV-S



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In-Tank Valves



Function and Description

In-Tank Valves such as the PROTEGO® ITV-S are used in storage tanks for cryogenic liquids in order to seal off discharge lines in the event of an accident or emergency. These devices comply with the requirements of API 625.

The PROTEGO® ITV-S consists of a valve guide unit and valve seat which is mounted (flanged) on the inner tank wall via an elbow. When the unit actuates, the valve piston is lifted up and guided over the entire lift stroke. The seal between the valve seat and the valve disk is achieved by finely lapping both surfaces to achieve maximum tightness.

The actuating unit, installed on the tank roof, is specifically designed to the requirements of the application in order to actuate the valve pallet assembly by using suitable ropes or similar connecting elements.

During normal operation, the valves are kept in the open position. In case of emergency, the bottom assembly will rapidly close. This is achieved by interrupting the energy supply to the actuating unit, which will cause the valve piston to fall on the valve seat using the deadweight of the valve pallet (fail safe concept).

The design of the PROTEGO® ITV-S provides the tank designer the following benefits:

- Very light and compact design
- Connection through the tank wall via flange connection
- No support or stroke guide required in the tank
- Low actuating forces required for lifting the valve piston
- Extremely high valve seat tightness thanks to a lapped metal to metal seal

Design and Specification

The standard material of construction for the PROTEGO® ITV-S is stainless steel. Other materials of construction are available on request or depending on the operating data. The design is custom made to each application

Required Information for the custom made Design.

Solutions are available from DN250/10" to DN600/24".