# In-Tank Emergency Shut-Off Valves (TESO)



## SchuFI

#### Model 73BH - In Tank disc valve

- as required by API 625
- The disc safety valve is positioned inside at the bottom of the tank (generally "Cigar" Tank)
- A long segmented connection runs from the pneumatic actuator, positioned on the roof of the tank, to the disc valve located at the bottom
- The actuator keeps the valve in an open position, if the actuator fails a special weight or spring moves the disc downwards and closes the valve
- Fire safe design available
- Disc side mounted design available. See following page.
- Fulfills API 625 Standard adequate for "Tank System for Refrigerated Liquefied Gas Storage"

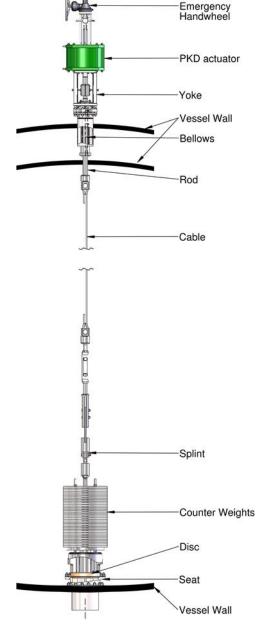


In case of an earthquake the spherical joint (pendulum pivot) allows the counterweights to swing freely reducing the effects on the valve and the tank.

The weights are located as low as possible to minimize the potential energy and consequently the forces.

Counter weights

Disc









73BH installed on a "Cigar" Tank



### Model 73ID – In-Tank plug valve

- As required by API 625

- The lift plug safety valve is positioned inside at the bottom of the tank (generally Cylinder Tank)
- A long segmented connection runs from the pneumatic actuator, positioned on the roof of the tank, to the plug valve located at the bottom
- The actuator keeps the valve in an open position, if the actuator fails a special weight or spring moves the plug downwards and closes the valve
- Fire safe design available

 Fulfills API 625 Standard – adequate for "Tank System for Refrigerated Liquefied Gas Storage"



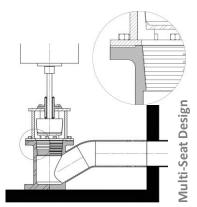
Examples of different construction for lateral tank connection:



Type 73ID

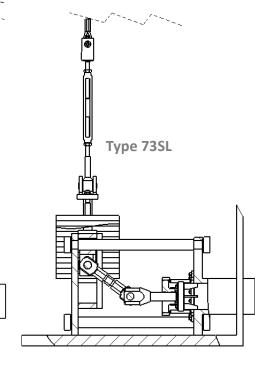
### **Multi Seat Design**

- Multi-sealing surfaces arrangement
- Improved sealing resistance





- For standard conditions reduced weight required to close the valve, and therefore less load on tank roof
- Applicable for high back pressure cases
- Available with swinging weights to meet Earthquake requirements
- Fulfills API 625 Standard





### **Tank Bottom Outlet Valves**

### Model 73IS – In tank shut-off valve with bolt on flange and in-lying spring

- The valve is held open by hydraulic or pneumatic pressure and closed by the in-lying spring
- The valve actuator combines with the disc
- For the hydraulically operated valve a pump is generally supplied with the valve
- Wetted parts are hard chrome plated or applied with Titanium Nitride
- The valve is available with fixed dimensions at short deliveries using our standard low temperature material (ASTM A352 LCC/LCB) or according to the customers specification
- Fire safe design available



### Model 29BH – Tank bottom outlet valve with in-lying spring

Valve seat welded into vessel bottom (generally Spherical Tank)

In emergency cases the spring inside the vessel closes the valve

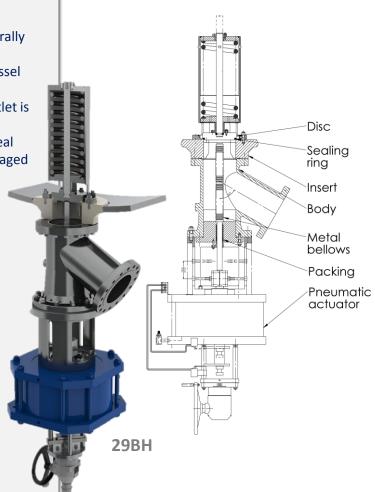
 The valve disc that is flush with the tank outlet is detachable from the valve spindle which is outside the tank wall. This ensures a tight seal even if the outer parts of the valve are damaged

Optionally with an extended pad seat

Fire safe design available

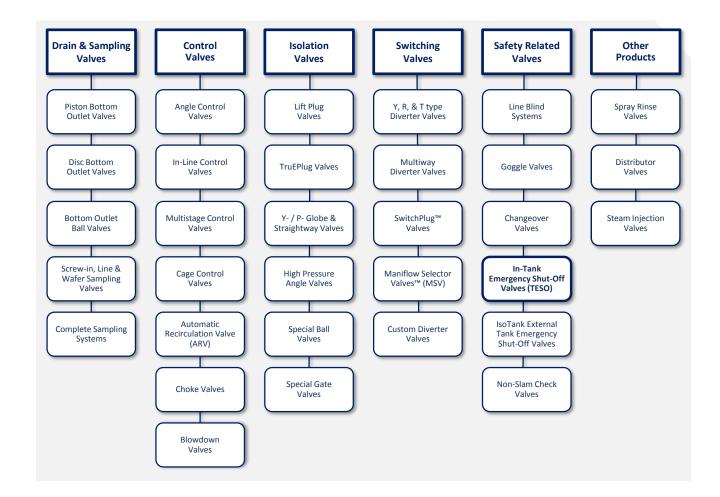








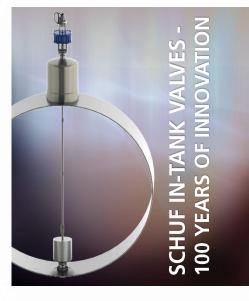
### **Product Portfolio Overview**



### **TESO Client List**

- Aluminium Pechiney
- Auriga Polymers
- BASF
- CFPSA
- Chang Chun Petrochemical
- China Textile
- CTCl Corp.
- Formosa Chemicals & Fibre
- Far Eastern New Century
- Hengli Petrochemical
- Hebi Huashi United Energy
- Ignite Energy Resources

- Jiangsu Hailun Petrochemical
- KBR Technology
- Lenzing
- Lurgi
- Nanjing Chemical
- OPTC
- Reliance Industries
- Renmatix
- SABIC Innovative Plastics
- Samsung Petrochemical
- Sichuan





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