

Valves (Gage Cocks): Flat Glass and Tubular Glass

Offset and straight pattern designs for flat glass and tubular glass gages

Penberthy offers offset and straight pattern valves that isolate the gage chamber from the liquid contents of the vessel.

Offset valves have an advantage of permitting the inside of the gage glass to be cleaned easily with a minimum of disassembly. By removing the vent and drain plugs (or other connection), a straight passage through the gage chamber is opened. A brush can be inserted through the valve vent and drain for glass cleaning.

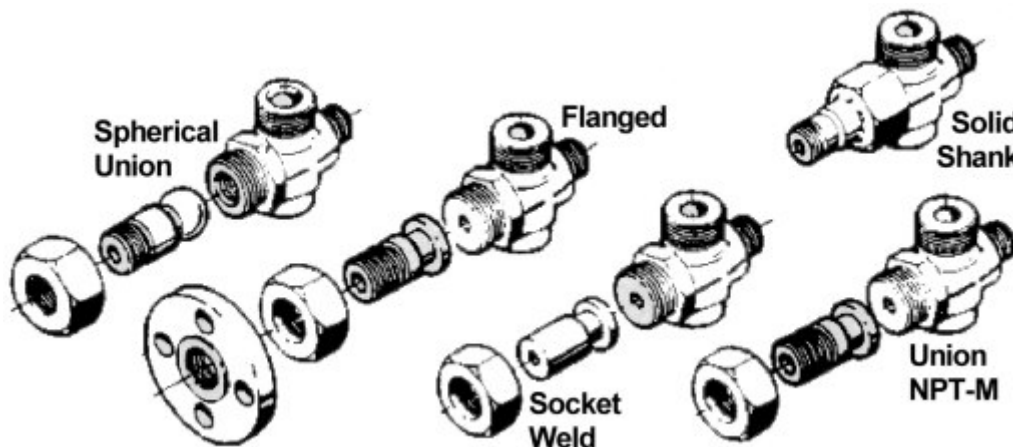
To prevent rapid loss of fluid in the event of accidental glass breakage, Penberthy supplies its valves with automatic ball check shut-off. Should the glass break, the pressure drop causes the ball checks to seat to prevent loss of tank contents.

To unseat these ball checks during the liquid level readings, the tip of the valve stem has an extension that pushes the ball away from its seat while allowing the gage column to fill as liquid contents pass around the ball. Stainless steel retainers prevent reverse seating of balls or loss of balls during installation.

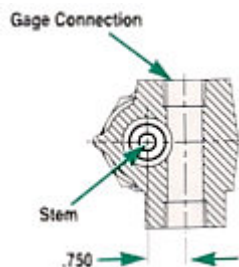
Both upper and lower valves in each set are equipped with horizontal ball checks. Balls are located on the vessel side of the valve seat.

Valves with ball checks omitted meet ASME boiler requirements. As an alternative method to meet ASME boiler requirements, the lower valve is available with an optional vertical rising ball check located in the offset portion of the valve body, and the upper valve has a leaky seat.

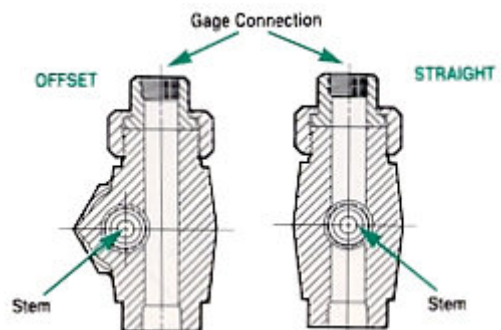
Valve Connections



Valve Bodies



**(x)30 Series
Offset Pattern**



**(x)20 Series Offset
and Straight Pattern**

Series 100, 200, 300, 400 and 600 Valves

These valves have inside screw threads that are wetted by the liquid. They are offered with a wide range of features in both straight and offset pattern designs (600 Series -- offset only).

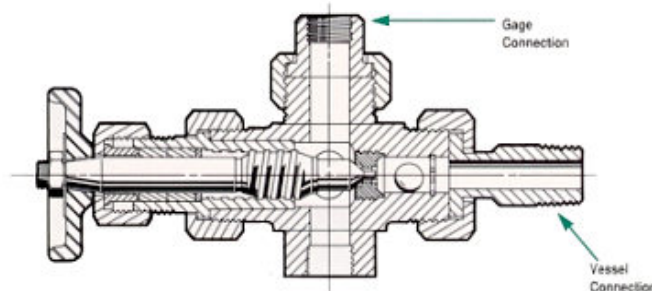
Series 500 and 700 Valves -- OS&Y

These are outside screw and yoke valves that are used for high-temperature or corrosive-liquid applications. The OS&Y design isolates the stem threads from the liquid. The stem seats in a reciprocative instead of a rotary fashion.

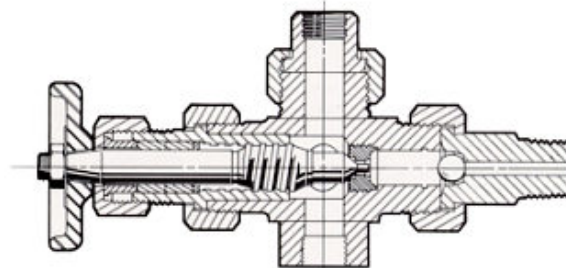
Series N2, K2, K3, N6 and N7 Valves

Penberthy tubular glass gage valves are for use in lower pressure applications. They are available with many of the same combinations of features described above for a range of uses, including union or solid shank vessel connections and a choice of stuffing box sizes for various glass diameters. All stuffing box connections are designed for positive seal with minimum radial compression. Both straight and offset pattern valves are offered.

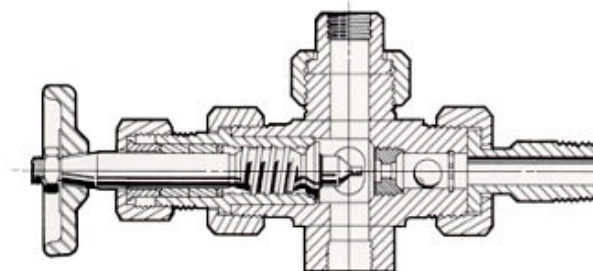
Standard Valve



Vacuum Seat



Backseating Stem (Union Bonnet Valves only)



Vertically Rising Ball Check

