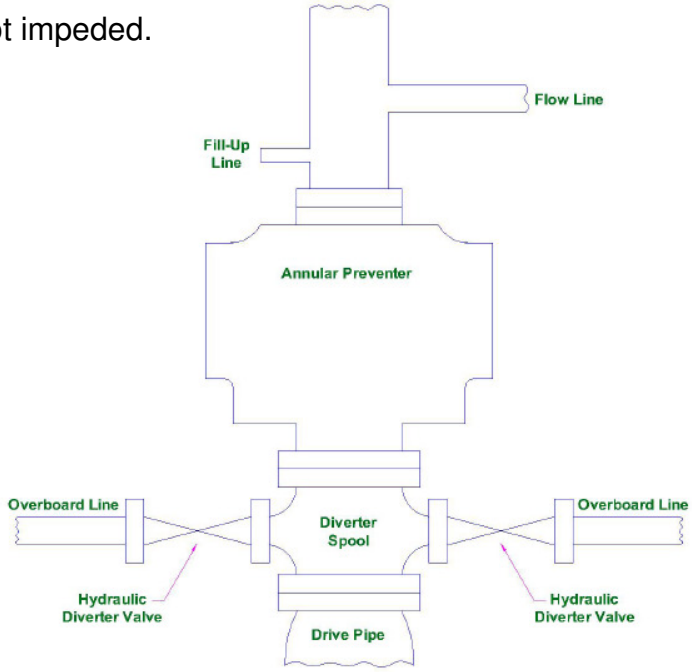
Diverter systems are used as a way to direct an uncontrolled flow from a shallow zone, not as means to kill the well. To minimize the chance of human error or equipment malfunction, the system must be kept as simple as possible. The system should consist of an annular preventer, drilling (diverter) spool and two diverter valves.

Diverter valves

The diverter valves should be installed immediately adjacent to the diverter spool. This is to compensate for an overboard line failure, since the valve being adjacent to the diverter spool it eliminates any chance of human problems in piping between spool and valve. Many valve failures have occurred due to internal rust build-up. Care to be taken to lubricate the actuator gearbox, bearings & valve spindle after every three month so that diverter valves are in good condition and not rusted so that full opening or full closure is not impeded.



Diverter System

All Diverter Valves should be hydraulically operated. The advantages of hydraulic operation are:

- They are consistent with control station.

Note: This is for understanding only. Please refer to JVS for detailed design & technical information.

- Hydraulic control lines will be less likely to be damaged during operations because they are high pressure lines and are part of the rig.
- A hydraulic actuator can develop a greater force using a smaller chamber as compared to an air-operated valve. This will result in more compact valve, which will be easier to handle and install.

Although the diverter valves will not be intended to close in the well, there is a distinct possibility that pressure may be held against a valve. Therefore, diverter valves must be of a pressure rating equal to or greater than that of the diverter system.

Basic material of construction is carbon / low alloy steel. For corrosion resistance, overlays like SS 316L or Inconel 625 on ring groove and hard chrome plating on ball can be incorporated to improve product life if required.

Testing – Diverter Ball Valve shall be pressure tested as per clause 11 of API 6D (23rd edition, April 2008). Pressure testing is to be carried out before coating of the valve. If the valve has been previously tested in accordance with this international standard, subsequent repeat testing may be performed without removal of the valve external coating. Supplementary tests shall be performed as per Annexure B of API 6D (23rd edition, April 2008).

Note: Refer JVS Standard Operating Procedure Manual Section No. QC-011 for testing of Diveter Ball Valve.

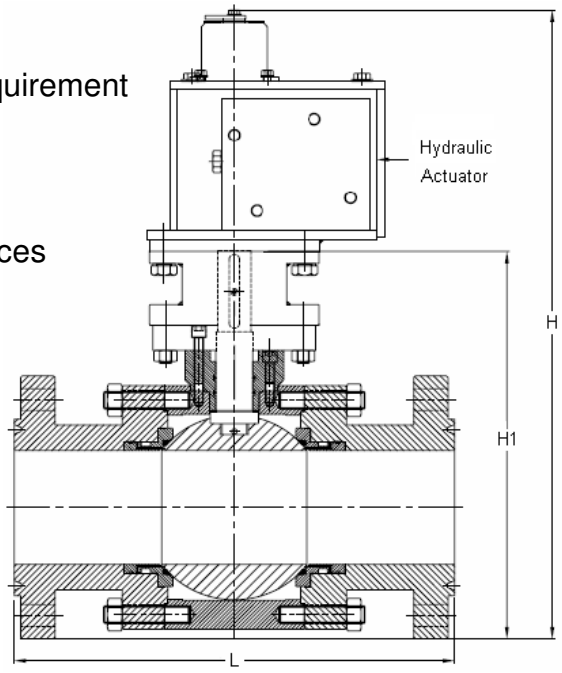
Product range

Size : As per customer requirement

ANSI Class : 900#

Material of Construction : As per API 6D

Service Condition : General, Sour Services



Diverter Ball Valve with hydraulic actuator

Note: This is for understanding only. Please refer to JVS for detailed design & technical information.