Intervention Y Fitting

Coiled tubing or wireline access – without downtime

The Oil States Intervention Y Fitting provides access to a riser or flowline for coiled tubing or wireline intervention without interrupting flow.

With its diverter plug in place, the fitting’s 5D main bore permits bi-directional pigging. The diverter plug is removed when hydrate formation or other flow assurance problems require intervention. The flowline remains in service because coiled tubing or wireline is introduced through the intervention branch.

The Intervention Y Fitting is manufactured from either a forged or cast body. The unique curved bore is machined to match a typical 5D bend and the pipe wall thickness.

Plug access without depressurization
Access into the pressurized cavity of the fitting for removing and installing the diverter plug is provided through a valve using a Plug Insertion and Removal Tool. This tool, which is designed for operation by either a diver or ROV, is attached to the valve, pressure is equalized, and the valve is opened, allowing the diverter plug to be extracted into the tool while the flowline remains pressurized. The block valve is then closed, and the tool and plug are recovered to the surface. The coiled tubing or wireline head is then installed on the valve for intervention operations, and the procedure is reversed to replace the diverter plug.

Design specifications
The Intervention Y Fitting is designed in accordance with ASME Pressure Vessel Code, Section VIII, Division 2, unless another recognized code is specified by the purchaser.
Typical Diverter Plug Removal Sequence

Intervention Y in normal operation mode, with the Diverter Plug in place.

Alter pressure is bled off and the annulus is purged and flushed, the blind flanges are removed. The Plug Installation and Removal Tool is installed, and seal integrity is tested.

After seawater is displaced, the block-and-tread valves are opened and the Screw-Jack Gearbox is operated to lower the Insertion/Removal Shaft to the Diverter Plug.

The Shaft engages the Actuator Bolt in the Diverter Plug. Shaft rotation raises the Actuator Bolt, retracting the Locking Dogs and releasing the Diverter Plug for removal.

The Screw-Jack Gearbox is operated in reverse to raise the Insertion/Removal Shaft, lifting the Diverter Plug out of the Intervention Y.