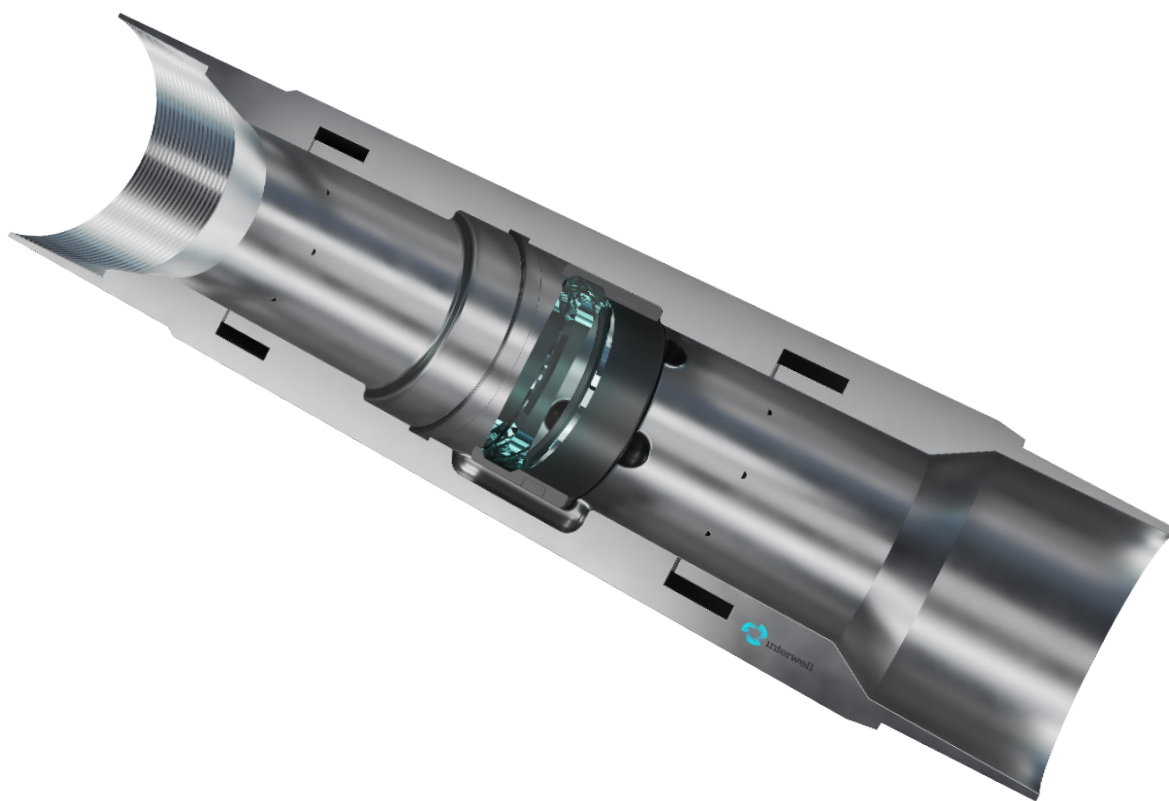


Inter Remote Bypass Valve (IRBV)



Description

The IRBV can be used to batch complete subsea wells and, at a later stage, batch install the vertical x-mas trees (VXT) with an Inspection Maintenance and Repair (IMR) vessel to avoid wireline (WL) intervention during the completion installation.

The IRBV is a completion string integrated barrier valve, with a control line bypass feature. The design is based on the field proven Inter Remote Shatter Valve (IRSV) glass plug technology. It operates with three positions: open, closed and then permanently open. The valve is installed with the bypass ports in open position. This ensures standard completion activities can be conducted and the operator can still accomplish bull heading in the event of a well control situation.

The valve is shifted to closed position after a predefined number of tubing pressure cycles have been run. Once the bypass is closed an ISO14310 Vo well bidirectional barrier is established. The glass barrier element, which requires only a small volume of glass to hold the load and which is designed to withstand extreme bidirectional loads and high temperatures is then shattered. It disintegrates into small particles after removal.

The valve then activates to its final state, resulting in full bore ID through the assembly for production and future intervention.

Inter Remote Bypass Valve (IRBV)

Application

The IRBV can be utilised in various applications such as a shallow barrier for BOP removal and VXT installation for both conventional and subsea completion. Or as a deep barrier allowing for communication down the tubing until the valve is closed, i.e. to avoid running upper completion closed ended or allowing for communication when, for example running standalone screens.

Benefits

- Installation as part of the completion string increases operational efficiency saving time and cost
- Passed a fluid erosion test prior to ISO 14310 Vo qualification
- Box/pin connections according to customer specifications
- Remotely activated; no WL intervention required
- Debris tolerant activation system
- No pyrotechnics

Technical Specifications

Model	ID	OD	Circ. rate	Bypass flow Area	Differential Pressure Rating (ISO 14310 Vo)	Temperature (ISO 14310 Vo)
596-882	5.965"	8.826"	500 l/min	1.77 sq. in	345 bar / 5000 psi	0-50 °C / 32-122 °F
610-882	6.103"	8.826"	1000 l/min	2.20 sq.in	345 bar / 5000 psi	0-50 °C / 32-122 °F
467-782	4.670"	7.819"	1000 l/min	2.20 sq.in	690 bar / 10000 psi	3-120 °C / 37-248 °F

- All sizes above can be delivered with suitable cable clamps (596/610-882 ROD=9.437") (467-782 ROD=8.378")
- Model 596-882 qualifies to 520 bar / 7500 psi ISO 14310 V6
- Temperature and pressure ratings match ISO 14310 Vo once bypass is closed. Pressure and temperature equates to internal premium threads prior to closing and after opening.

The product can be qualified to other specifications on request.