

RFID Optibarrier™ Ball Valve

Controls wellbore flow through unlimited mechanical opening and closing functionality

Applications

- Isolating the lower completion system for upper completion installation or workovers
- Hydraulically setting production packers
- Deepset barriers
- Fluid loss applications

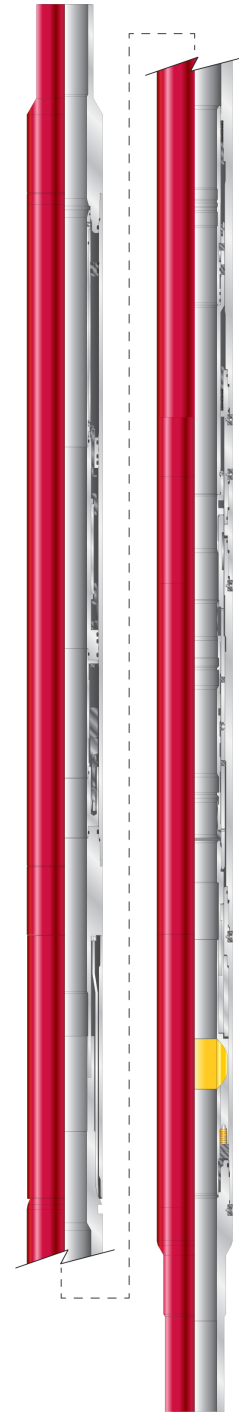
Features and Benefits

- The RFID Optibarrier ball valve can be operated using industry-standard shifting tools for operational flexibility.
- The ball valve has increased differential opening capacity.
- The ball valve provides unlimited mechanical opening and closing functionality.
- The fullbore inside diameter (ID) of the ball valve maximizes production and enhances access to the formation.
- The bidirectional sealing mechanism provides a robust downhole barrier.
- The ball mechanism rotationally locks to facilitate contingency milling.

Tool Description

The Weatherford Optibarrier ball valve is a tubing-mounted bidirectional ball valve that can be opened and closed remotely using a radio-frequency identification (RFID) enabled control module. It can also be opened mechanically using industry-standard shifting tools or a stinger module assembled into an upper completion or workstring.

Tested beyond the International Organization for Standardization (ISO) 28781-V1 standards and in accordance with the American Petroleum Institute (API) specification 19-V, the bidirectional sealing mechanism provides a reliable downhole barrier. When open, the fullbore ID maximizes flow area and enables access to the formation. The ball valve can be manufactured in a variety of metallurgies, ranging from basic 4140 to high-nickel premium alloys.



The Weatherford Optibarrier mechanical ball valve has a modular design that is compatible with other Optibarrier products.



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Specifications

Size	Maximum OD	Minimum ID	Maximum Differential Rating Across Ball*	Temperature	Connections	Qualification Standard
4.50 in. (114.30 mm)	7.75 in. (196.85 mm)	3.75 in. (95.25 mm)	10,000 psi (68.90 MPa)	39 to 302°F (4 to 150°C)	4-1/2 in. (114.3 mm) premium	ISO 28781-V1
5.50 in. (216 mm)	8 in. (203.20 mm)	4.63 in. (117.60 mm)	7,500 psi (51.70 MPa)		5-1/2 in. (139.7 mm) premium	
5.50 in. (216 mm)	8.25 in. (209.55 mm)	4.25 in. (107.95 mm)	10,000 psi (68.90 MPa)		5-1/2 in. (139.7 mm) premium	

*The maximum differential ratings across the ball are metallurgy dependent.

