



OptiSet™ FL Valve

Weatherford's *OptiSet* FL valve is a large-bore liner or production tool designed as a unidirectional barrier to prevent fluid loss to the formation during the installation and completion phases of well construction. After the completion is installed, the valve can be opened with hydraulic pressure alone. This unique capability eliminates the need for wireline or coiled-tubing intervention and saves the associated time, expense, and risks.

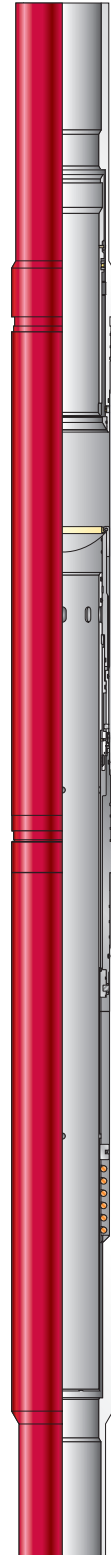
Applications

The *OptiSet* FL valve is ideally suited for several applications, including the following:

- Single-trip installations in deviated or horizontal wells
- Multiple openhole packer installations with liners
- Interventionless packer setting
- Conventional openhole sand-screen completions
- Expandable sand screen (ESS®) reservoir completions
- Slotted-liner completions

Features, Advantages and Benefits

- A shifting tool, deployed on an inner work string, activates the valve. The shifting tool can be configured to fit onto any work string.
- The contained curved flapper is fully enclosed while the valve is open to create a large-ID through bore, permitting larger-ID tubing for higher production rates and future well intervention access. The flapper is also protected from damage during installation.
- The flapper closes in any angle with its own spring-loaded hinge. The flapper remains closed unless pressure below overpowers the spring to open it, and then the flapper can stay open by “surfing” on the flow; therefore, the well can be brought on production without hydraulically or mechanically opening the valve.
- While closed, the flapper is a pressure barrier from above and can be used to pressure up against to set packers, saving operational time.

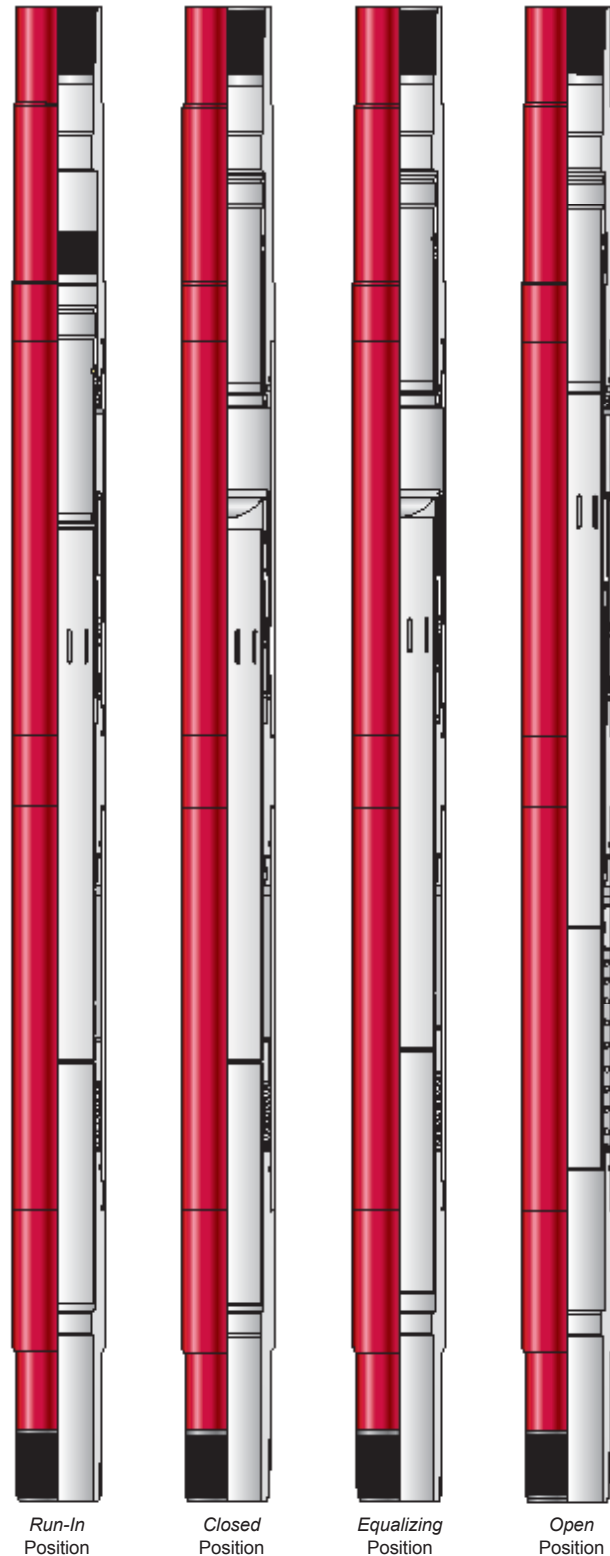




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Features, Advantages and Benefits (continued)

- Premium connections compatible with tubing connections are standard for reliable high-pressure, gas-tight, metal-to-metal seals.
- Premium metallurgy and elastomers are tailored to hostile well conditions and compatible with tubing material.
- Wire-locked threads make the valve suitable for use on a drill-in liner, saving valuable rig time.





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Specifications

Size	7 × 3-1/2	7 × 4-1/2	9-5/8 × 4-1/2	9-5/8 × 5-1/2	9-5/8 × 7
Casing size and weight	7 in., 29.0 lb/ft		9-5/8 in., 53.5 lb/ft	9-5/8 in., 47.0 lb/ft	
Tubing size and weight	3-1/2 in., 9.2 lb/ft	4-1/2 in., 12.6 lb/ft	4-1/2 in., 12.6 lb/ft	5-1/2 in., 17 lb/ft	7 in., 26 lb/ft
Body burst pressure rating (psi/MPa)	10,000 68.9	7,500 51.7	10,000 68.9		5,000 34.4
Body collapse pressure rating (psi/MPa)					
Flapper pressure rating (psi/MPa)	7,500 51.7	6,500 44.7	7,500 51.7	9,000 62.0	5,000 34.4
Maximum temperature rating (°F/°C)	325° 162°				
Tensile rating (lb/kg)	225,000 102,058	200,000 91,718	350,000 158,757		
Shear range (psi/MPa)	2,500 to 6,000 17.2 to 48.3				2,500 to 4,000 17.2 to 27.5
Body material	4140, 13 Cr (80-ksi min yield strength)	Super 13 Cr, Incoloy® 925, 4140 (110-ksi min yield strength)	4140, 13 Cr (80-ksi min yield strength)		Super 13 Cr, Incoloy 925, 4140 (110-ksi min yield strength)
Flapper	Flat	Curved	Flat	Curved	
Flapper material	Aluminum				
Flapper seal material	Teflon®				
Maximum OD (in./mm)	5.875 149.2	5.813 147.6	8.250 209.6	8.375 212.7	
Minimum ID (in./mm)	2.850 72.4	3.860 98.0	3.850 97.8	4.400 111.7	6.100 154.9
Overall length (in./mm)	145.0 3,683	93.5 2,375	88.0 2,235	114.0 2,896	120.0 3,048

For Internal Use:

Link to Endeca assembly part number: [OptiSet-FL Valve](#)

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