

# OptiPkr™ Production Packer

Combines the robust performance of a permanent packer with the flexibility of a retrievable packer in one tool for demanding wellbore conditions

## Applications

- Conventional, monobore, and stacked completions
- Liner-top isolations
- Subsea environments
- Extended-reach, deviated, and high-pressure, high-temperature wells

## Features and Benefits

- The slip-element-slip configuration enables the packer to withstand pressures up to 10,000 psi (69 MPa) and temperatures up to 350°F (177°C), and to achieve a reliable seal by locking the element in place under variable loads and pressure cycling.
- The simple three-piece element design enhances tool reliability by incorporating a patented fold-backup system to provide extrusion protection.
- The mechanical interlock is actuated before the packer is set. This mechanism reduces the risk of premature setting or pin shearing if the packer encounters obstructions as it runs downhole.
- The option to set the packer hydraulically or hydrostatically, or to actuate the packer electronically with a radio-frequency-identification (RFID) trigger, enhances tool versatility.
- The large inside diameter (ID) of the packer accommodates monobore completions.
- The packer eliminates mandrel movement while setting, which enables stacked completions.
- The patent-pending slip design offers near-360° casing contact, which reduces slip-to-casing stress and minimizes internal casing damage.
- The upper slips are set up in sequence to minimize overpull and to simplify removal.
- Cut-to-release technology enables easy removal even after the packer has been placed under extreme loads.
- An anti-reset mechanism prevents the slips or element from resetting during retrieval.
- Rotationally locked features reduce mill-up time, if milling is necessary.

## Tool Description

The Weatherford OptiPkr production packer combines the robust performance of a permanent packer with the flexibility of a retrievable packer into one tool. It provides a reliable seal between the outside of the production tubing and the inside of the casing in demanding wellbore conditions. The packer has a modular design that adapts to most applications and wellbore conditions, and enables conversion between hydraulic-, hydrostatic-, and RFID-setting modes. It exceeds ISO 14310 Level V0 standards for load and pressure.



*The Weatherford OptiPkr production packer provides a reliable production tubing-to-casing seal that withstands the most demanding wellbore conditions, and it can be retrieved for enhanced operational flexibility.*



# OptiPkr™ Production Packer

## Specifications

Outside Diameter (OD)		7 in. (177.8 mm)					9-5/8 in. (244.5 mm)			10-3/4 in. (273 mm)		
Weight		23 to 26 lb/ft (34.2 to 38.7 kg/m)	29 to 32 lb/ft (43.1 to 47.6 kg/m)	32 to 35 lb/ft (47.6 to 52.1 kg/m)	29 to 32 lb/ft (43.1 to 47.6 kg/m)	32 to 35 lb/ft (47.6 to 52.1 kg/m)	35 to 38 (52.1 to 56.6 kg/m)	47 to 53.5 lb/ft (69.9 to 79.6 kg/m)			60.7 to 65.7 lb/ft (90.3 to 97.7 kg/m)	
Minimum ID		6.187 in. (157.10 mm)	5.990 in. (152.10 mm)	5.892 in. (149.60 mm)	5.990 in. (152.10 mm)	5.892 in. (149.60 mm)	5.801 in. (147.35 mm)	8.405 in. (213.50 mm)			9.417 in. (239.20 mm)	
Maximum ID		6.466 in. (164.20 mm)	6.293 in. (159.80 mm)	6.208 in. (157.90 mm)	6.293 in. (159.80 mm)	6.208 in. (157.90 mm)	6.123 in. (155.52 mm)	8.822 in. (224.00 mm)			9.819 in. (249.40 mm)	
Maximum OD		6.000 in. (152.40 mm)	5.910 in. (150.10 mm)	5.820 in. (147.80 mm)	5.910 in. (150.10 mm)	5.820 in. (147.80 mm)	5.735 in. (145.67 mm)	8.310 in. (211.10 mm)			9.345 in. (237.40 mm)	
Standard thread connection		3 1/2-in. VAM® TOP			4 1/2-in. VAM® TOP		3 1/2-in. VAM® TOP	4 1/2-in. VAM® TOP	5 1/2-in. VAM® TOP HC	7-in. VAM® TOP HC	5 1/2-in. VAM® TOP HC	7-in. VAM® TOP HC
Minimum ID		2.962 in. (75.23 mm)			3.833 in. (97.40 mm)		2.720 in. (69.09 mm)	3.894 in. (98.91 mm)	4.650 in. (118.10 mm)	6.060 in. (149.20 mm)	4.750 in. (120.60 mm)	6.060 in. (149.20 mm)
80-ksi material	Differential pressure rating	10,000 psi (69 MPa)			8,400 psi (58 MPa)		N/A	8,000 psi (55 MPa)		6,700 psi (46 MPa)	6,500 psi (45 MPa)	
	Tensile rating	200,000 lb (890 KN)			178,128 lb (792 KN)		N/A	400,000 lb (1,779 KN)	360,380 lb (1,603 KN)	302,264 lb (1,345 KN)	400,000 lb (1,779 KN)	
95-ksi material	Differential pressure rating	10,000 psi (69 MPa)			15,000 psi (103 MPa)		8,000 psi (55 MPa)		6,500 psi (45 MPa)			
	Tensile rating	200,000 lb (890 KN)			212,546 lb (945 KN)		212,000 lb (943 KN)	400,000 lb (1,779 KN)	360,380 lb (1,603 KN)	400,000 lb (1,779 KN)		
110-ksi material	Differential pressure rating	10,000 psi (69 MPa)			15,000 psi (103 MPa)		8,000 psi (55 MPa)		6,500 psi (45 MPa)			
	Tensile rating	200,000 lb (890 KN)			212,546 lb (945 KN)		212,000 lb (943 KN)	400,000 lb (1,779 KN)				
Element type		HNBR		HNBR	HNBR & AFLAS	AFLAS	HNBR					
Flow-test rating at 80°F (27°C)		N/A			10 bbl/min (1.6 m³/min)		N/A		14 bbl/min (2.2 m³/min)			
Flow-test rating at 176°F (79°C)		N/A					10 bbl/min (1.6 m³/min)					
Temperature range		80 to 350°F (27 to 177°C)				200 to 400°F (93 to 204°C)		80 to 350°F (27 to 177°C)				
ISO 14310-tested		V0										

The above ratings are not combined loading and are for the OptiPkr production packer with a hydraulic module. Consult with applications engineering for packer ratings with different setting modules.

\* VAM is a registered trademark of Vallourec Mannesmann Oil & Gas France Corporation.

