

# MSF™ Liner Hanger Packer

Our NOV MSF™ liner top packer is designed specifically for the challenges of horizontal hydraulic multistage fracturing completions. Qualified to the rigorous standards of API 14310 V3, the MSF™ liner top packer can withstand high differential pressures and heavy tubing loads during stimulation. The slips, designed with nearly fully circumferential contact with the casing, ensure that the system will perform under stimulation pressures even in high-yield grades of casing. In addition, a one-piece sealing element helps to avoid swabbing and enables the higher circulation rates required to maintain hole cleanliness during deployment of the liner.

## Features

- Large bore liner top isolation packer suitable for Horizontal Multi-Stage Fracturing operations.
- Slips are set after the packing element is fully energized.
- Slips are nearly fully circumferential ensuring high load and pressure capacity.
- Liner Packer PBR is fitted with a latch profile so that stimulation tubing can be tied into the liner top.
- Packer is set on rugged hydraulic setting tool as part of the liner deployment string ensuring fast and reliable running.
- MSF Packer can be run with rotating liner systems allowing rotation of the lower completion through tight spots in the wellbore.
- Hardened slips to ensure setting in high grade casings
- One-piece mandrel with API threads

## Benefits

- Large bore and ability to tieback eliminates the need for a second production packer as liner isolation.
- Rotation ability ensures that the completion can be landed every time without problem.
- Hydraulic setting tool allows shallow setting depths without concerns about adequate element packoff force.
- Full bore design allows passage of any balls or darts for cementing or stimulation.

## Applications

- Cemented or open hole HMSF stimulation wells.
- High deviation or horizontal wells where the liner hanger is at 90° inclination.
- Lower completion tiebacks with stimulation or production tubing.
- ISO 14310 V3 qualified inside 7 in. 23-29# casing with HNBR

## Technical Data

MSF Liner Top Packer	OD in. (mm)	ID in. (mm)	Length in. (mm)	Material	Temperature °F (°C)	Pressure rating psi (MPa)	Thread <sup>1</sup>
4½ in. 13.5# x 7 in. 23-29#	5.945 (151.0)	3.827 (97.2)	4.921 (1,500)	P110 HNBR	300° F (150° C)	10,000 (68.9 MPa)	LTC Standard

<sup>1</sup>Premium connections available

