



High-Pressure Liner-Top Packer *5 × 7 in. and 7 × 9-5/8 in.*

Weatherford's high-pressure liner-top packer is run as an integral part of the liner-hanger assembly to provide a reliable, high-integrity seal that isolates the annulus between the liner OD and the host-casing ID. This reliable liner-top packer isolates the cement, preventing gas migration or flow while the cement sets.

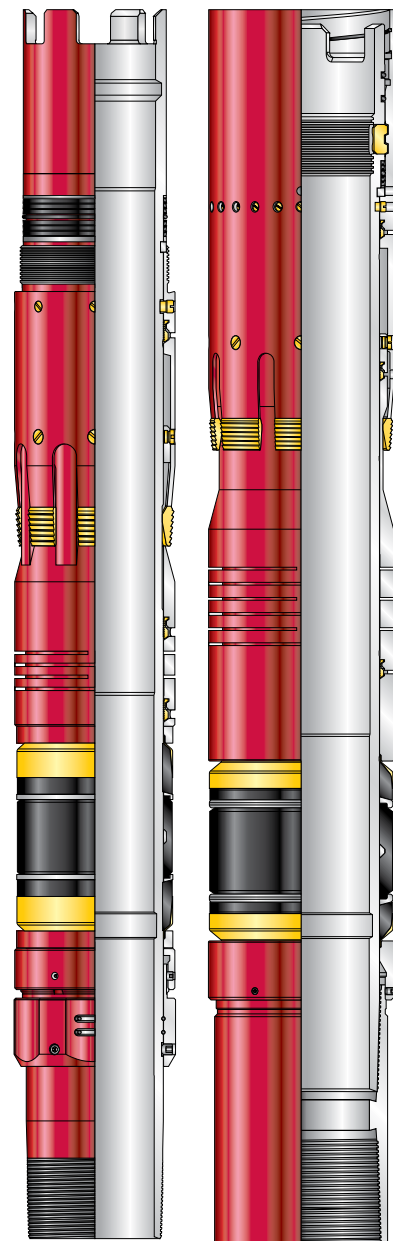
The packer incorporates the profile and sealbore for Weatherford's retrievable cementing packoff and, when a liner setting sleeve is not run, is the means by which the running tool connects to the liner.

The high-pressure liner-top packer is usually set by setting down weight on the tieback polished-bore receptacle with the packer actuator after the running tool is released. The weight is transferred to the liner-top packer, setting the element and holddown slips.

Weatherford's high-pressure liner-top packer is 10,000-psi (68.9-MPa) V0-rated at 350°F (177°C) and available in 5- and 7-in. (127.0- and 177.8-mm) sizes. The 5-in. (127.0-mm) models are WTSP4R3 and WTSP4H3, and the 7-in. (177.8-mm) models are TSP5R3 and TSP5H3.

Applications

- Any cemented liners
- Uncemented liners for which a seal between the liner OD and the host-casing ID is necessary or advantageous
- Tieback packers
- High-pressure applications within the specified temperature rating



WTSP4H3

TSP5R3



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Features, Advantages and Benefits

- Integral beam spring stores an internal force that helps maintain the setting load in the element under dynamic loading conditions, such as temperature or pressure changes. This process helps maintain seal integrity.
- Three-piece packing elements create a reliable seal that isolates gas migration in the cement below the packer from the annulus above, saving the cost of a liner-top squeeze.
- High-torque, one-piece mandrel is equipped with premium connections that meet or exceed the torque of the liner connections.
- XYLAN® coated filler rings reduce the setting force required for energizing the packing element. This advantage is useful in applications such as extended-reach wells that present a challenge to getting enough weight down to set the liner-top packer.
- Holddown slips and an integral body lock-ring ratchet system positively lock in the applied setting forces to ensure that the packer remains set.
- The high-pressure liner-top packer incorporates the profile and sealbore for Weatherford's WRSM and RSM retrievable cement packoffs. This feature eliminates the need for—and cost of—a separate assembly. It also facilitates retrieval of the packoff because it does not have to be retrieved through a premium connection.
- One liner-top packer can be set inside host casings of the same size but varying weights. This design provides operational flexibility.
- A mechanical locking mechanism is available in 7-in. (177.8-mm) models that use the R running tool. The lock ensures that the liner-top packer cannot be set until the liner running tool has been released. This feature dramatically reduces the potential for nonproductive time.
- TSP5 series packers include a lock wire that mechanically locks the packer to the TSP5 PBR, securing it in position while rotating the liner.

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Specifications

Contact an authorized Weatherford representative.

Options

- Available in two sizes, the liner-top packers have a running profile for either the R or HNG running tools.
- Standard metallurgies in most sizes are L-80 and P-110 (125 ksi/862 MPa). Other metallurgies are available upon request.

Standard Connection is VAM® TOP® HT

Size (in./mm)		Weight (lb/ft, kg/m)		TSP5R3	TSP5H3	WTSP4R3	WTSP4H3
Liner	Casing	Liner	Casing				
5.000 127	7.000 178	15 to 18 22.32 to 26.79	26 to 32 38.69 to 47.61			x	x
			35 to 38 52.40 to 56.55			x	x
7.000 178	9.625 244	29 to 32 43.25 to 47.72	47 to 53.5 69.94 to 79.62	x	x		

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