

PSHR

Pocket-slip rotational liner hanger

APPLICATIONS

- High-pressure environments
- Well applications requiring hanging heavy liners
- Well applications for which maintaining pressure integrity at the liner top is critical
- Offshore and onshore wells
- Well applications where rotation while running in hole is required to navigate around obstructions

BENEFITS

- Large fluid by-pass area aids hole cleaning and reduces circulation time.
- Large fluid by-pass area decreases trip time.
- Pocket slip system maximizes pressure integrity and safety.
- Ability to rotate liner when running in hole helps achieve target depth on schedule and minimize completion time.

FEATURES

- Slip design that minimizes stress in supporting casing and eliminates cone collapse
- System designed to hang heavy liners
- Compatibility of slip design and hardness with high-grade casing
- Liner hanger that can be run with or without a packer
- Drive slots in liner top to permit orientation around obstructions while running in hole
- Optional packer and tieback receptacle below the hanger that maximize pressure integrity of the system
- Elimination of close tieback sleeve tolerance
- Internal and external running bypass
- Integral liner running threads that eliminate setting adapter

The pocket-slip rotational liner hanger (PSHR), part of the COLOSSUS CMT* cemented liner hanger system, delivers high hanging capacities and optimizes the pressure integrity of the liner system. The tongue-and-groove slip design minimizes running interference and reduces the potential of casing deformation after the hanger is set. The slips also feature an effective cone angle two times greater than those found on conventional hangers, thereby reducing burst pressure exerted on the casing and allowing for longer and heavier liners to be hung in multistring or uncemented casing. Drive slots in the liner top permit rotation when running in the hole to navigate around obstructions.

Different from conventional liner hanger systems, the pocket-slip liner hanger system features the PSHR hanger positioned above the Frontier liner top packer (FSP) or the pocket-slip tieback receptacle (TP). This configuration eliminates differential pressure at the liner hanger. Thus, it improves pressure integrity below the liner top packer, reduces equivalent circulating density (ECD) and running interference, and increases hanging capacity. The PSHR is run with the pocket-slip rotating setting tool (STPR), which incorporates a hanger setting mechanism that can be activated hydraulically or mechanically during the deployment of the liner.

The PSHR uses standard 80,000-psi [552-MPa] through 125,000-psi [862-MPa] yield materials. Other yield strengths and materials are available by special request.



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PSHR Specifications

Liner × Casing Size, [†] in [mm]	Casing, lbm/ft [kg/m]
4½ × 7 [114.30 × 177.80]	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
	29 [43.20]
	32.00–35.00 [47.60–52.10]
	38 [56.50]
5 × 7 [127.00 × 177.80]	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
	29 [43.20]
	32.00–35.00 [47.60–52.10]
5 × 7¾ [127.00 × 193.80]	24.00–29.70 [35.70–44.20]
	33.70–39.00 [50.10–58.00]
	42.80–45.30 [63.70–67.40]
5½ × 7 [139.70 × 177.80]	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
	29 [43.20]
	32.00–35.00 [47.6–52.10]
7 × 9¾ [177.80 × 244.50]	32.30–40.00 [48.10–59.50]
	40.00–47.00 [59.50–69.90]
	47.00–53.50 [69.90–79.60]
	58.40 [86.90]
7¾ × 9¾ [193.70 × 244.50] and 7¾ × 9¾ [196.85 × 244.50]	32.30–40.00 [48.10–59.50]
	40.00–47.00 [59.50–69.90]
	47.00–53.50 [69.90–79.60]
	58.40 [86.90]
9¾ × 11¼ [244.50 × 298.50]	60.00–65.00 [89.30–96.70]
	48.00 [71.40]
9¾ × 13¾ [244.50 × 339.70]	54.50 [81.10]
	61.00 [90.80]
	68.00–72.00 [101.20–107.10]
	48.00 [71.40]
10¾ × 13¾ [244.50 × 339.70]	54.50 [81.10]
	61.00 [90.80]
	68.00–72.00 [101.20–107.10]
	48.00 [71.40]
11¼ × 13¾ [298.50 × 339.70]	54.50 [81.10]
	61.00 [90.80]
	68.00–72.00 [101.20–107.10]
	48.00 [71.40]

[†]Other sizes available on request.