

# PSH

## Pocket-slip 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

### BENEFITS

- Large fluid bypass area aids hole cleaning, reduces circulation time, and decreases trip time.
- System maximizes pressure integrity and safety.

### FEATURES

- Slip design minimizes stress in supporting casing and eliminates cone collapse.
- System is designed to hang heavy liners.
- Slip design and hardness are compatible with high-grade casing.
- Liner hanger can be run with or without a packer.
- Optional packer and tieback receptacle below the hanger maximize pressure integrity of system.
- Close tieback sleeve tolerance is eliminated.
- Hanger has internal and external running bypass.
- Integral liner running threads eliminate setting adapter.

The pocket-slip liner hanger (PSH), 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 casing and allowing for longer and heavier liners to be hung in multistring or uncemented casing.

Different from conventional liner hanger systems, the pocket-slip liner hanger system features the PSH 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 PSH is run with the pocket-slip setting tool (STP), which incorporates a hanger setting mechanism that can be activated hydraulically or mechanically during the deployment of the liner.

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



*PSH pocket-slip liner hanger .*



**PSH Specifications**

Liner x Casing, <sup>†</sup> in [mm]	Casing lbm/ft [kg/m]
3½ x 5 [88.90 x 127.00]	11.50 [17.30]
	13.00 [19.30]
	15.00 [22.30]
	18.00 [26.80]
3½ x 5½ [88.90 x 139.70]	14.00 [20.80]
	15.50 [23.10]
	17.00 [25.30]
	20.00 [29.30]
	23.00 [34.20]
	23.80 [35.40]
4 x 5 [101.60 x 127.00]	26.00 [38.70]
	11.50 [17.10]
	13.00 [19.30]
	15.00 [22.30]
4 x 5½ [101.60 x 139.70]	18.00 [26.80]
	14.00 [20.80]
	15.50 [23.10]
	17.00 [25.30]
	20.00 [29.30]
	23.00 [34.20]
4½ x 5½ [114.30 x 139.70]	23.80 [35.40]
	26.00 [38.70]
	14 [20.80]
	15.50 [23.10]
4½ x 7 [114.30 x 177.80]	17 [25.30]
	20 [29.30]
	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
	29 [43.20]
5 x 7 [127.00 x 177.80]	32.00–35.00 [47.60–52.10]
	38 [56.50]
	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
5 x 7½ [127.00 x 193.80]	29 [43.20]
	32.00–35.00 [47.60–52.10]
	38 [56.50]
5½ x 7 [139.70 x 177.80]	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 x 7½ [139.70 x 193.70]	17.00–20.00 [25.30–29.80]
	23.00–26.00 [34.20–36.70]
	29 [43.20]
5½ x 7 [139.70 x 177.80]	32.00–35.00 [47.60–52.10]
	38 [56.50]
	24.00–29.70 [35.70–44.20]
5½ x 7½ [139.70 x 193.70]	33.70–39.00 [50.10–58.00]
	42.80–45.30 [63.70–67.40]
	24.00–29.70 [35.70–44.20]

**PSH Specifications, continued**

Liner x Casing, <sup>†</sup> in [mm]	Casing lbm/ft [kg/m]
7 x 9½ [177.80 x 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]
7 x 10¼ [177.80 x 273.00]	58.40 [86.90]
	40.50–45.50 [60.30–67.70]
7½ x 9½ [193.70 x 244.50] and 7¾ x 9½ [196.85 x 244.50]	51.50–55.50 [76.60–82.60]
	60.70–65.70 [90.30–97.80]
7½ x 10¼ [193.70 x 273.00]	32.30–40.00 [48.10–59.50]
	40.00–47.00 [59.50–69.90]
9½ x 11¼ [244.50 x 298.50]	47.00–53.50 [69.90–79.60]
	58.40 [86.90]
9½ x 13¾ [244.50 x 339.70]	40.50–45.50 [60.30–67.70]
	51.50–55.50 [76.60–82.60]
10¼ x 13¾ [244.50 x 339.70]	60.70–65.70 [90.30–97.80]
	9½ x 11¼ [244.50 x 298.50]
10¼ x 13¾ [244.50 x 339.70]	60.00–65.00 [89.30–96.70]
	48.00 [71.40]
11¼ x 13¾ [298.50 x 339.70]	54.50 [81.10]
	61.00 [90.80]
13¾ x 16 [339.70 x 406.40]	61.00 [90.80]
	68.00–72.00 [101.20–107.10]
16 x 20 [406.40 x 508.00]	48.00 [71.40]
	54.50 [81.10]
16 x 20 [406.40 x 508.00]	61.00 [90.80]
	68.00–72.00 [101.20–107.10]
16 x 20 [406.40 x 508.00]	55.00–70.00 [81.80–104.20]
	75.00–84.00 [111.60–125.00]
16 x 20 [406.40 x 508.00]	109.00–118.00 [162.20–175.60]
	146.00 [217.20]
16 x 20 [406.40 x 508.00]	94.00–106.50 [139.90–158.50]
	117.00–133.00 [174.10–197.90]
16 x 20 [406.40 x 508.00]	147.00 [218.70]
	169.00 [251.50]

<sup>†</sup>Other sizes available on request.

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