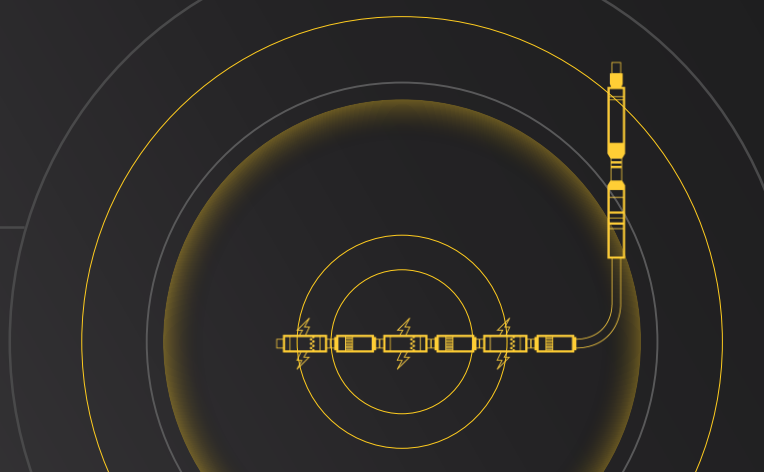


TECH DATA SHEET

F1 LINER HANGER PACKER

4-1/2" x 7" API 19LH VI Qualified



OVERVIEW

F1 Rotating Liner Hanger-Packer utilizes multiple sets of constrained slips to enable increased load rating. Constrained slips also allow for rotation while running the liner downhole, and are held firmly to the cone preventing slip damage.

FEATURES

- API 19LH V1 Qualified
- 15,000psi Pressure Rating
- Multiple slip sets provide for increased load rating
- Allows rotation while running
- Anti Preset Feature
- Fully hardened, mechanically constrained slips
- Integral Liner Packer and Liner Hanger provides the shortest in the industry overall length for use in deviated applications
- Reliable hydraulic slip activation
- No weld construction and Non-swabbing, bonded packing element
- Field adjustable setting pressures
- Equipped with a positive stop to prevent the cylinder from over stroking
- A premium double threaded locking ring system assures the packing element stays firmly set and sealed



F1 Liner Hanger Packer

Other sizes are available on request.
ID may vary depending on connecting configuration selected.

Liner Size	Casing Size	Casing Weight Range		Max. OD Packer	
		lbs/ft	kg/m	in	mm
4 1/2	7	26 - 32	34.23 - 47.62	5.890	149.606

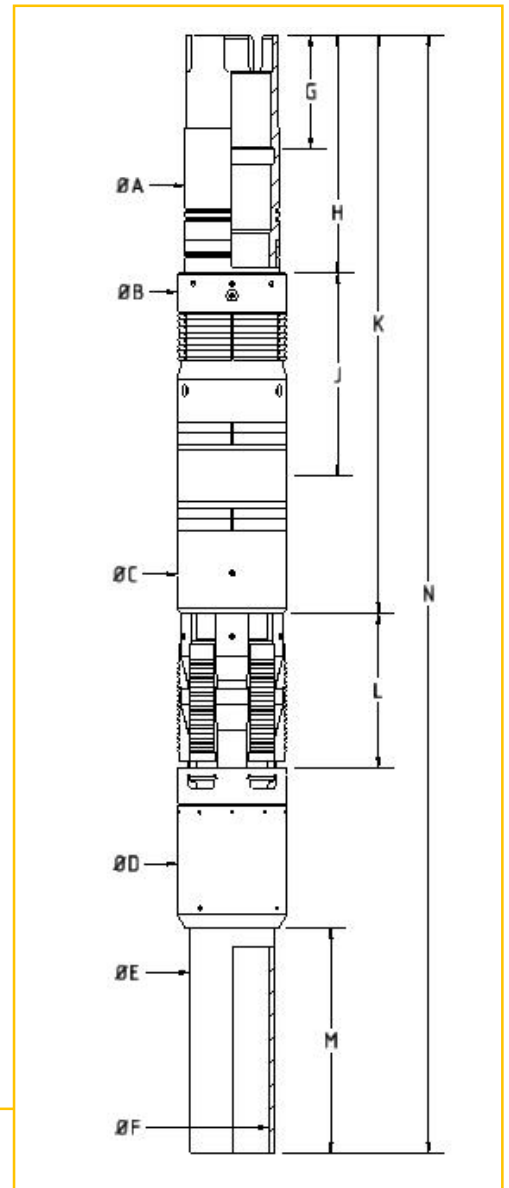


**4.50" 13.5# X 7.00" 26-32# F1 ROTATING LINER HANGER
PACKER, W/ INTEGRAL HYDRAULIC PROFILE, W/ HOLD DOWN
SLIPS, HNBR, W/ VAM TOP PIN DOWN, F/5.00" ID TBR, 3000 PSI
MAX SHEAR (300 PSI PER SCREW)**

Dimensions, in (mm)	
ØA	4.993 (126.822)
ØB	5.890 (149.606)
ØC	5.825 (147.955)
ØD	5.890 (149.606)
ØE	4.520 (114.808)
ØF	3.920 (98.628)
G	6.10 (154.940)
H	12.81 (325.374)
J	10.88 (276.352)
K	38.420 (975.868)
L	8.31 (211.074)
M	12.0 (304.800)
N	60.0 (1524.000)

4-1/2: 13.5# Liner Hanger will drift 11.6# (3.875")

Dimensions Map
Dimensions & Additional
Specifications



4.50" 13.5# X 7.00" 26-32# F1 ROTATING LINER HANGER SYSTEM SPECIFICATIONS

HANGING CAPACITIES HOST CASING (UNSUPPORTED CASING)				
CSG	WT/FT	L-80	P-110	Q-125
7	26	173,000	238,000	270,000
	29	224,000	308,000	350,000
	32	270,000	372,000	422,000

PRESSURE RATINGS			
	YIELDS	BURST	COLLAPSE
MANDREL	L-80	10,120	8,980
MANDREL	P-110	14,890	13,120
CYLINDER	L-80	12,060	10,480
CLYINDER	P-110	16,590	14,410

MECHANICAL RATINGS	
MAX TORQUE (FT-LBS)	20,000
CYLINDER MAX COMPRESSION (LBS)	50,000
MAX HOLD-DOWN CAPACITY (LBS)	200,000



4.50" 13.5# X 7.00" 26-32# F1 ROTATING LINER HANGER SYSTEM SPECIFICATIONS

HANGER SETTING PRESSURE		
PRESSURE PER SCREW (PSI)	300	1 SCREW
MIN SETTING PRESSURE (PSI)	900	3 SCREWS
MAX SETTING PRESSURE (PSI)	3,000	10 SCREWS

BYPASS AREAS (AT HANGER SLIPS)			
CSG	WT/FT	UN-SET (IN2)	SET (IN2)
7	26	6.13	4.37
	29	5.23	3.78
	32	4.37	3.24

PACKER RATINGS	
STANDARD SETTING WEIGHT (LBS)	24,000
MAX DIFFERENTIAL PRESSURE (GAS) L-80 (PSI)	8,000
MAX DIFFERENTIAL PRESSURE (GAS) P110 (PSI)	10,000
MAX DIFFERENTIAL PRESSURE (Oil) P110 (PSI)	12,500
MAX TEMPERATURE (°F)	300

