

PosiTrieve

Retrievable compression-set downhole packer

APPLICATIONS

- Service packer for well testing operations
- Vertical and slightly deviated wells
- Cement squeeze jobs
- Leak protection
- Pressure testing

BENEFITS

- Long field experience demonstrates high reliability
- Easy redressing between operations reduces cost

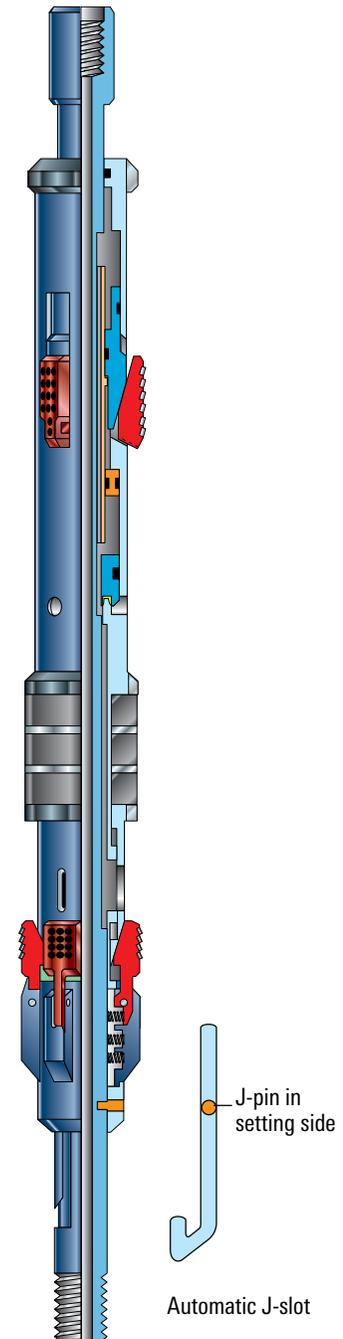
FEATURES

- Dependable dual-durometer three-element packing system
- Proven face seal on bypass valve
- Tungsten carbide slips that grip casing grades up to Q125
- Specially sized gauge rings
- Easy to set with a quarter turn to the right and release with a straight pull
- Manual or automatic option for setting

The PosiTrieve* retrievable compression-set downhole packer performs all the functions of a conventional packer and has an extra section that prevents it from being pumped uphole. The hydraulic hold-down section at the upper end of the tool automatically activates whenever tubing pressure exceeds annulus pressure. When this occurs, the differential pressure pushes down a sleeve, and the upper slips are pushed out against the casing wall. This prevents the tool from being pumped uphole. The same amount of differential pressure hydraulically locks the bypass closed.

When the applied tubing pressure is bled off, the differential pressure is reversed (annulus to tubing), and the upper slips are retracted. The bypass is maintained in the closed position by the weight of the drill collars. If the upper slips do not deactivate, an override occurs. At the end of the test when the string is picked up, an integral shoulder mechanically retracts the upper slips and allows the packer to be pulled loose after the bypass is opened.

The PosiTrieve packer is a rugged yet simple design. It is easily redressed between operations or converted for other casing weights. For more effective performance, the packer includes tungsten carbide slips, which grip casing grades up to Q125. The tool incorporates specially sized gauge rings, sets by rotating the tubing a quarter turn to the right, and releases by a straight pull. Some PosiTrieve packers are available with materials that are resistant to hydrogen sulfide. Applications for the PosiTrieve packer span pressure testing, stimulation, cement squeeze jobs, and leak detection.



PosiTrieve packer.

Specifications[†]

Model	PIPK-BJ	PIPK-DJ	PIPK-GJ
Casing, in, lbm/ft	5½, 13–23 5¾, 14–22.5 6, 15–23 6½, 26–32 7, 40	8%, 24–49 9%, 29.3–61	10%, 32.75–65.7 11¾, 42–60 13¾, 48–72
ID, in [mm]	1.93 [49.02]	3.00 [76.2] 2.38 [60.45] [‡]	3.00 [76.2]
Differential pressure, [§] psi [MPa]	8,500 [58.60]	9,000 [62.05]	11,000 [75.84]
Element differential, ^{††} psi [MPa]	7,000 [48.26]	7,500 [51.71] 10,000 [68.95] ^{††}	7,500 [51.71] 10,000 [68.95] ^{††}
ID test pressure, psi [MPa] (packer not set at surface)	6,000 [41.37]	7,000 [48.26] (3.0 ID)	7,000 [48.26]
Temperature, degF [degC]	300 [150]	300 [150]	300 [150]
Length, ft [m]	6.1 [1.86]	8.66 [2.64]	11.35 [3.46]
Service (NACE MR0175)	Standard	H ₂ S [‡]	Standard
Tensile load with test pressure, lbf [kN]	50,000 [222.41]	3-in ID: 50,000 [222.41] 2.38-in ID: 100,000 [444.82] [§]	3-in ID: 100,000 [444.82]
Tensile load, lbf [kN]	95,000 [422.58]	180,000 [800.68]	189,000 [840.71]
Connection			
Top	2¾ EUE	3½ IF or EUE	3½ EUE
Bottom	2¾ EUE	3½ EUE	3½ EUE

[†] The PosiTrieve packer rating is provided based on field history performance or validation testing or both following API 19TT V3-TP criterion.

[‡] Optional.

[§] Across the wall of the mandrel or body when packer is set in hole.

^{††} Element maximum differential pressure is typical, and the performance is dependent on temperature, job duration, fluids, deviation, casing size, casing condition, pressure reversals, and shock load.

^{‡‡} High-pressure kit required for rating; standard pressure rating is 7,500 psi.