

# **Insert Pump Anchor**

Weatherford's insert pump anchor provides a trouble-free method of anchoring and packing off a pump in wells where a pump-seating nipple has not been provided. These design features add flexibility and economy to many pumping installations, making the anchor a logical choice for many operators. The pump anchor enables the operator to select the best pump setting depth after the well is completed and tubing has been run. Additionally, it eliminates the need to pull tubing for deep tubing leaks or replacing a faulty shoe or seating nipple.

The pump anchor's robust design provides durability that makes planned multistep programs—lowering the pump setting depth in steps as the fluid level declines—practical for further economies to improve operational efficiency.

### **Applications**

- As a casing packer in slimhole completions or as a removable packoff in subsurface hydraulic-pump installations
- 2 3/8-, 2 7/8-, and 3 1/2-in. tubing strings

### Features, Advantages and Benefits

- The insert pump anchor offers complete vertical action—sets, packs off, releases, and resets without rotation—eliminating the need to pull tubing for proper depth setting of the pump.
- Self-locking collet design sets and releases packing and slips without jamming or presetting, enhancing operational safety.
- The split cone ensures a reliable initial hold-down force, and is backed up with an alloy retainer ring to provide the strength characteristics of a solid cone.
- An improved compression packing element is bonded to a threaded steel insert, eliminating damage to the packoff when the anchor is set, released, or reset.
- The anchor is automatically positioned for resetting when released and can be raised, lowered, and reset without pulling from the tubing, maximizing operational efficiency.



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#### **Options**

- · Furnished with a standard 24-in. setting stroke in all sizes
- Available with a long 48-in. stroke in the 2 3/8-in. and 2 7/8-in. sizes
- For high-temperature applications, Viton® packing element is available

### **Specifications**

OD (in <i>./mm</i> )	Makeup Length	Minimum Yield (lb/kg)	Tensile Strength (Ib/kN)	Working Pressure (psi <i>/bar</i> )
1-11/16 <i>4</i> 2.86	Variable	51,800 <i>23,496</i>	59,800 266.0	5,000 345
2 50.80		79,900 36,242	92,200 <i>410.1</i>	
2-1/2 63.50		77,800 35,289	97,900 <i>4</i> 35.5	

### **Operating Sequence**

- Record pump stroke and the setting stroke (24 in. or 48 in.) of the anchor. These two figures represent the upward movement of the rod string necessary to transfer the dowel pin from the running slot to the setting slot.
- 2. Attach the anchor to the pump and start installing into the tubing with the dowel pin in the starting position.
- 3. Run the pump to the desired depth, attach the polished rod, and lower to the point established for bottom of the stroke.
- Raise the polished rod the distance established in Step 1 and then lower the full weight of the rods onto the anchor to set and preload the packoff.

To reset the anchor, unseat with a straight pull on the rod string, raise or lower to the desired setting position, and then reset as in Step 3.

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