

## Permapak Tubing & Packer Accessories



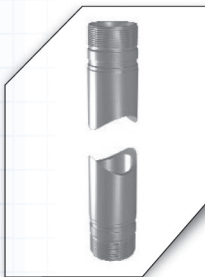
### Concentric Bottom

Used to connect a seal bore extension to a packer.



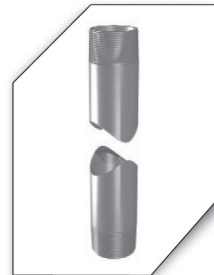
### Mill-Out Bottom

Used to connect Mill-Out Extension to packer.



### Seal Bore Extension

Used in installations where floating seals are required due to tubing contractions. This packer accessory allows for a continuous seal bore and is available in five to ten foot lengths.



### Mill-Out Extension

Used in installations where floating seals are required due to tubing contractions. In addition this packer accessory provides a larger inside diameter between a packer bore and a seal bore extension to allow for a packer plucker in cases where the packer is milled out.



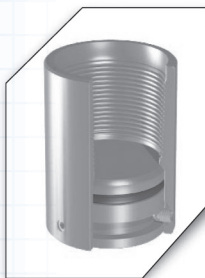
### Concentric Coupling

Used to connect seal bore extensions to increase length.



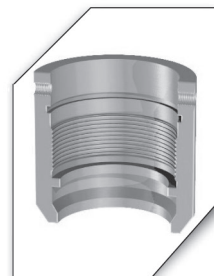
### Seal Bore to Mill-Out Coupling

Used to connect mill-out extensions to seal bore extensions.



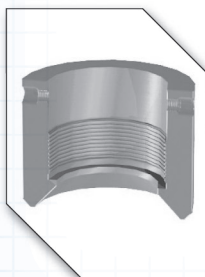
### Pump-Out Plug

Available with a choice of threads to allow the pump-out plug to be attached to a packer, seal bore extension, mill-out extension or tailpipe and hold pressure from below once the packer is set. Once the production string is landed, pressure is applied to the tubing and the pump-out plug is removed to allow full opening.



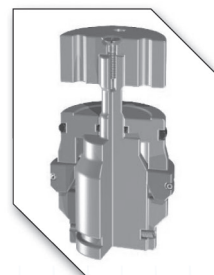
### Knock-Out Plug Bottom

When run below the packer, the knock-out plug allows a packer to serve as a bridge plug holding pressure from above and below.



### Wireline Re-Entry Bottom

Used as the packer bottom when extension below a packer is not required.

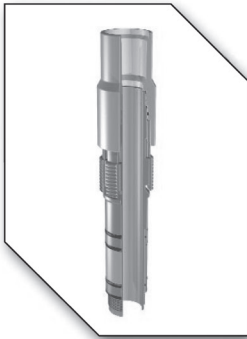
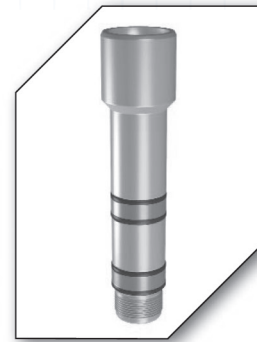


### Knock-Out Plug

The plug is knocked-out when the production string is landed.

### Locator Seal Assembly

The locator seal assembly is used in installations where floating seals are required. Once landed the seal locator prevents downward movement of the tubing while allowing the seal to move with tubing contraction.

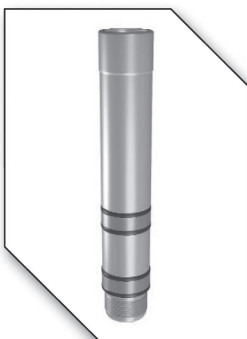
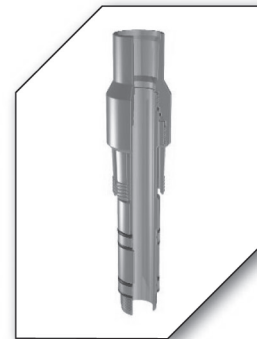


### Anchor Latch Assembly

The anchor latch seal assembly is used where floating seals are not required. This assembly allows the tubing string to be in tension or compression. Upon set down the anchor latches into the packer and can be removed with eight to ten right-hand turns.

### Snap Latch Assembly

Like our anchor latch seal assembly, the snap latch seal assembly latches into the packer upon set down. It can be removed with straight pull of 10,000 to 12,000 pounds above tubing weight. The snap latch seal assembly is used where a mechanical indication is required to verify the seal assembly is properly positioned in the packer bore.



### Seal Unit

Standard seal units are furnished with bonded nitrile rings and a 12-inch make-up length. These units may be ordered in various lengths and with severe service seal rings for high temperature and corrosive environmental conditions.

### Half Mule Shoe Guide

The half mule shoe guide is standard with the seal assembly to allow for easy entry into the packer bore.

