

CEMENTED/SLOTTED LINER ASSEMBLIES

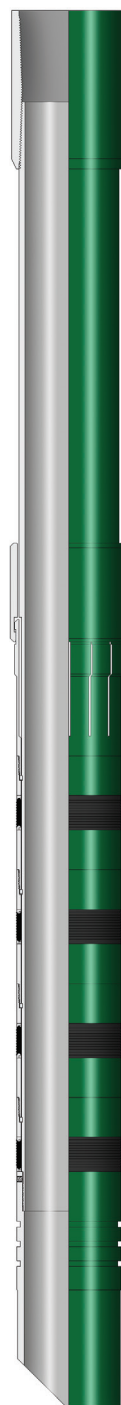
TIEBACK TBR SEAL NIPPLE AND ORIFICE FLOAT COLLAR

The Chancellor Tieback Receptacle (TBR) is usually run as an integral part of the Liner Top Packer or Setting Collar and at liner top. It has a special surface finish so as to provide a positive sealing bore for the seal nipple assembly during tubing string expansion and/or contraction in response to pressure to pressure and temperature. The Polish Bore Receptacle provides the maximum internal opening through the production tubing and sealing system.

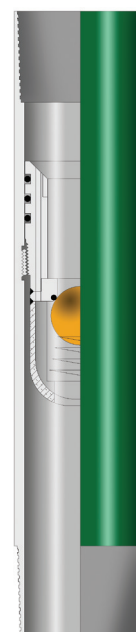
The Chancellor TBR Seal Nipple is the second part of the Tieback System and provides a unitized seal assembly on a stem which connects to the end of a tubing or casing string and to successfully create a packer less, free-end tubing to casing seal. When used in uncemented or frac applications, the seal integrity is maintained allowing tubing to expand and contract in response to pressure and temperature differences without affecting the integrity of the tubing to casing seal.

Typically a series V-ring (or Chevron) seal stacks are assembled on the seal nipple mandrel and separated by spacer rings. The orientation of the rings can be alternating to seal from both directions, or unidirectional to seal from only one direction. To prevent leakage, the unitized seal assembly mandrel has no threaded connections between seal units. The number of sealing rings per set and the material composition can be changed to match the well conditions or applications. The Seal Nipple consists of a locating collar on top which connects to the bottom of the tieback string. A mule Shoe is directly below the Seal Stem section to assist in the TBR entry. A guide ring keeps the seals from contact damage with the casing and especially important in highly deviated or horizontal wells. The guide ring is held in place with a Colette that collapses when in contact with the top of the TBR and allows the seal stem to enter TBR with seals intact and undamaged.

For cemented Tieback applications, the TBR Seal Nipple is combined with a stage collar or ported put and an Orifice float collar. The Orifice Float Collar is designed with small diameter drilled holes through the float valve to allow fluid bypass and preventing hydraulic lock as the Seal Nipple stabs into the TBR after cement is in place. A Polish Mill is run before to clean out TBR.



TIEBACK TBR
SEAL NIPPLE



ORIFICE FLOAT
COLLAR