



## FCR RING INSTALLATION

The FCR Rings are made to fit in the area at the connection center called the "J" area section and can be installed using a manual insertion tool.

**The TDI FCR Ring requires one size to perform the operations without having to change to new ones with different tolerances for each running thus saving Rig time and execute smooth operations using API make-up torque values.**

Installation of the TDI FCR Rings can be done on the rack and dropped into the collar whilst running in hole.

### FCR RING BENEFITS:

- Creates smooth inside diameter. Enable swabbing and swab cups to last longer
- Reduces friction
- Increases productivity
- Eliminates washout and damage to exposed collar threads
- More effective use of tools running and servicing
- Eliminates build up in coupling during cement squeezes
- Eliminates over torquing of the connection
- Allows rotating the tubing to drill out cement plugs
- Reduces annular turbulence
- Reduces risk of connection galling
- Allows you to set packers
- Reduces rod wear
- Allows multiple make and breaks
- Allows running through tubing guns with out hanging up in the J area
- Jetting tools to wash perforations and rotating
- Running of casing scraper
- Tubing pin shoulder of the FCR ring will give you better control on space out TD settings
- Using the tubing string for testing
- The benefits of using tubing 2 3/8", 2 7/8", 3 1/2" and 4 1/2" Fulcrum Center Torque Ring helps to control internal pressure. Allows for improved torquing resulting in a better connection makeup between tubing collar threads
- Strong connection makeup prevents backups and reduces the need for down hole tools and hardware such as "no-turn" tools
- Tough and very dependable, can be made up by power tongs on the rig floor or well servicing rigs