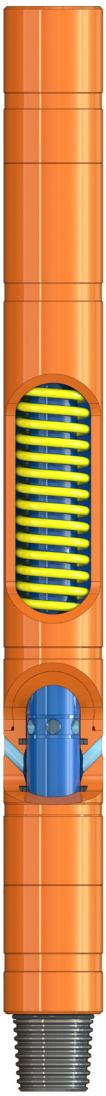
Reservoir Group's Tidal Force Tool (TFT) enhances wellbore cleanout efficiency with increased annular velocities.



The Tidal Force Tool (TFT) is a proprietary flow-activation technology that diverts flow to the annulus isolating the motor below. The TFT can be configured for a wide range of flow rates. All fluid is passed thru the TFT to the BHA (bottom hole assembly) below. Once the flow rate is increased above the predetermined set rate all fluid is diverted to the annulus isolating the BHA below. Positive indication of tool cycling is noticeable at surface.

It's full flow-through technology diverts flow through the side ports of the tool—significantly improving hole cleaning and management of debris. The TFT is ideal for milling, cleanouts, and jetting applications.

Its design enables superior performance with unlimited number of cycles and functioning the TFT is achieved by simply increasing or reducing the flow to the predetermined cycle rate. No drop balls or shut down of pumps are required.

Features	Benefits
High flow capability and lower circulating pressures	Increased annular velocity for improved hole cleaning
Eliminates the need for drop-balls or pressure equalization to cycle	Increased efficiency and saves time between operations
Unlimited number of cycles	Allows for continuous operation and eliminates the need to trip out of hole due to limited cycles
Ability to isolate flow to the motor	Reduces motor wear and extends the motor life
Effectively manages debris	Reduces the risk of becoming stuck in hole
Short tool length	Limited impact to BHA length

Product Specifications

Tools OD (inches)	Length (inches)	Torsional Yield (ft lbs)	Differential Pressure Rating	Max. Closed Flow Rate	Max. Open Flow Rate	Temperature Rating	Standard Connection
2 7/8"	30	3,100	5,000 psi	750 L/min 4.7 bpm	1200L/min 7.6 bpm	190°C	2 3/8" STD PAC Box & Pin
3 1/8"	33.5	3,875	5,000 psi	750 L/min 4.7 bpm	1200L/min 7.6 bpm	190°C	2 3/8" REG Box & Pin

Based on water at 8.34 ppg

Tidal Force Tool for Demanding Applications

- Milling-Jetting-Cleanouts Applications
- Increase annular velocities
- No drop balls or shut down of Pumps
- Unlimted Cycles
- Ideal for SSD and Frac Sleeve washing

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