FAST-R Underreamer

Next generation of high performance underreaming

The FAST-R underreamer represents the next evolution of underreaming performance from NOV ReedHycalog. Built on the proven Anderreamer™ platform, the FAST-R underreamer integrates premium ReedHycalog PDC technology with an advanced cycling mechanism to deliver faster, more reliable underreaming in both conventional and RHE (rathole elimination) applications. This unique combination of high performance and fail-safe features delivers unmatched reliability, enabling one-trip underreaming operations.

Engineered for conventional and RHE applications

Operating Overview:

Activity	Standard Setup Default Open	RHE Reamer Default Closed
RIH and drillout	Tool locked in closed position	Tool remains retracted
Activation	Drop ball to unlock and activate	Flow cycle / downlink to activate
Underream	Tool resets at every connection	Time each connection to keep open
Pump out for hole cleaning	Flow cycle / downlink to close, Time each connection to keep closed	Pumps off for several min to close, Tool resets every connection
Resume URR	Pumps off for several min to open	Flow cycle / downlink to activate
Lock closed	Drop ball to deactivate for rest of run	Flow cycle closed (not locked)



Features and Benefits

Fast and simple flow cycling
Short and unique pumps off and on sequence to change tool position.

Clear pressure signals
Nozzle opens and closes when changing positions.

Never get lost
Pumps off for several minutes to reset back to home / default tool setting. Eliminates short trips and ledge tests to verify tool position.

Field proven reliability
Utilizes the existing Anderreamer tool body and cutter block expansion system.

Reduce NPT
No accidental cycles at connections and pump or pressure issues won't change tool position.

Blocks will never get stuck open
Three fail-safe cutter block retraction mechanisms: spring, overpull, and pump closed.

Numerous BHA Placement Options
Run above and or below MWD in RHE applications without losing nearbit sensor readings. Oversized thru-bore and shorter length allows for wired or short-hop communication with directional tools.

Configuration Options
1. Shoe Driller – Never trip due to activation issues. Drillout while closed, drop ball to activate, then flow cycling after.

2. Lock Closed –Improve or expand hole cleaning techniques after reaching TD. Drop ball to lock the tool closed for remainder of run.

3. 3D (Multi-diameter) – Reams cement sheath and underream with one tool instead of two. Ream cement sheath at intermediate diameter, then drop ball for full expansion.

4. Flow Activation – Reliably RIH and drill out with the reamer in the closed position. Once outside of the shoe, flow cycle the tool to the open position then begin underreaming (no activation ball required).

5. Rathole Elimination – Shorter version of the FAST-R that is setup for flow control, without the use of drop balls or RFID tags. Options available for using multiple FAST-R / flow-controlled tools in one BHA .

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