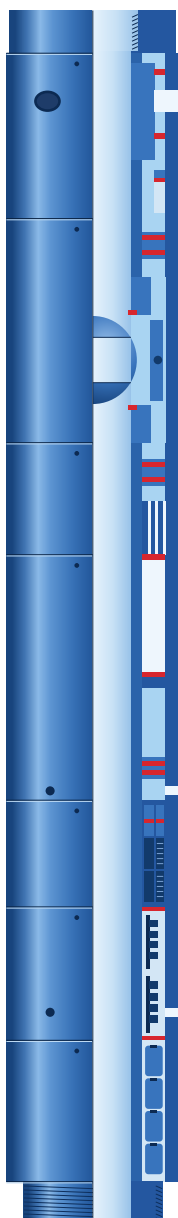


GLOW CIRCULATING TESTER VALVE

Electromechanical, pressure-pulse-operated tester and circulating valve in one tool



GLOW Electromechanical Circulating Tester Valve.

DESCRIPTION

The GLOW electromechanical circulating tester valve is a full-bore cased-hole testing tool that unites a tester (ball) valve and a multi-cycle circulating valve in one body. Both valves are driven from surface by small coded changes in annulus pressure; they are interlocked against opening together, yet each can be cycled on its own. Suited to DST and combined perforating, stimulation and testing jobs. Available in 10K and 15K versions.

OPERATION

A short pressure signature applied at surface is read by onboard electronics, which energize solenoid pilot valves. These direct well hydrostatic pressure onto the power pistons to shift the ball valve or the circulating sleeve. The tool carries no nitrogen charge; a lithium battery pack supplies the electronics for up to 600 hours.

FEATURES

- One command per valve cycle instead of 15 pressure cycles on a conventional multi-cycle circulating valve: over one third less operating time
- Pre-set sequences run unattended, e.g. close tester valve, wait 30 s, open circulating valve
- No nitrogen chamber, so no charge-pressure calculations and no gas seals to fail
- Low signal pressure keeps a wide margin for rupture-disk valve settings
- Sleep/wake-up mode isolates the valve while other annulus-operated tools are cycled
- Commands are read by pressure pattern: well temperature and pressure, hole angle, pipe movement and mud condition do not disturb them, also during stimulation
- Self-check and Override function allow the test to proceed after a fault
- Built-in recorder keeps command, valve, pressure and battery data for after-job review
- Operating logic can be changed in software
- Robust 5.25-in body and generous circulating flow area

SPECIFICATIONS

Tool OD, in [mm]	5.25 [133.4]	Control	Coded annulus pressure signals
Working pressure, psi [MPa]	10,000 [70] 15,000 [105]	Valves	Ball valve + circulating valve
Temperature rating, °F [°C]	350 [177] 400 [204]	Power supply	Lithium battery pack
Battery autonomy, h	600	Data	Built-in job recorder
Service	H ₂ S service	Nitrogen charge	Not required