SmartLift

MPLT JET CLAW PUMP SERVICE TECHNICAL DATA SHEET

SmartLift is a brownfield diagnostics solution that integrates Sertepec's Jet Claw® Pump with MPLT technology in a compact, slickline-deployable jet-lift system. Designed for low-flow rate wells, SmartLift enables rapid, accurate diagnostics in applications where conventional MPLT acquisition is often not feasible.

By combining Scientific Drilling's SlimFlow MPLT flow logging system with Sertepec's Jet Claw® Pump, SmartLift enhances reservoir insight, accelerates well evaluation, and delivers more informative diagnostics.

SmartLift enables production evaluation data acquisition and dynamic reservoir diagnostics in producing wells. For wells utilizing artificial lift systems such as PCP and ESP, conventional interventions typically require a Y-tool to access the reservoir. SmartLift eliminates the Y-tool requirement, enabling swift, efficient acquisition of critical reservoir data.

In addition, SmartLift is readily deployed through a sliding side door and captures high-quality pressure, temperature, and flow data, helping pinpoint producing zones and evaluate inflow under both static and dynamic conditions.

For more information on Scientific Drilling's range of cased hole services, please contact your Scientific Drilling sales representative or visit us at: **http://scientificdrilling.com/cased-hole-services**

MARKET + APPLICATIONS

- \+ Brown Field Reservoir Management
- \+ Low Pressure Wells
- \+ High Water-Cut Wells
- \+ Space-Limited Offshore Installations

DESIGN + PERFORMANCE

- \+ Quick Data Turnaround for Subsequent Workover Operations
- \+ Deployable MPLT When Artificial Lift Systems Fail
- \+ No Compromise on Data Quality

SOLUTION REQUIREMENTS

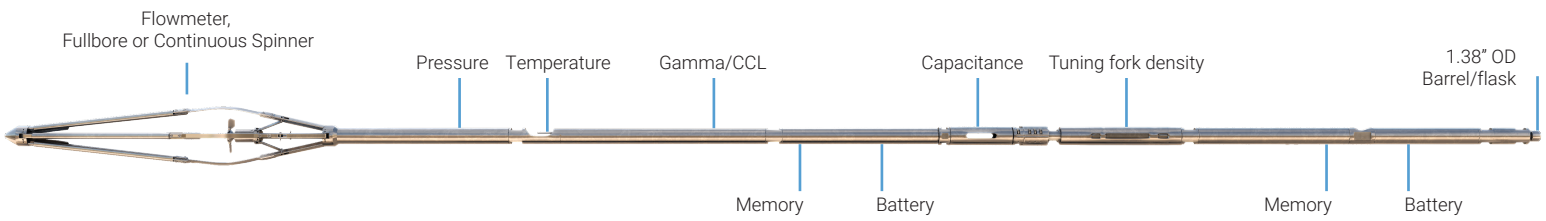
- \+ Sliding Side Door
- \+ Slickline Cable

MPLT SPECIFICATIONS	
MAXIMUM TEMPERATURE**	325°F (163°C)
MAXIMUM PRESSURE	16,000 psi (110,316 kPa)
MEMORY	Non-Volatile, 48 MB
TEMPERATURE SENSOR ACCURACY/RESOLUTION	High-accuracy platinum resistance ±1.8°F (1°C) / 0.02°F (0.01°C)
PRESSURE SENSOR ACCURACY/RESOLUTION	High-Accuracy Quartz ±3.0 psi / 0.01 psi
FULLBORE SPINNER RESOLUTION, TYPE, COLLAPSED OD	Minimum 0.1 rps with Direction, 4-Arm / 6-Arm, 1.5 in
CONTINUOUS SPINNER RESOLUTION & OD RANGE	Minimum 0.1 rps with Direction 1.44 - 1.5 in
GAMMA RAY CRYSTAL DETECTOR	Sodium Iodide (NaI) Scintillation
CASING COLLAR LOCATOR TYPE & MEASUREMENT FREQUENCY	Magnetic Flux 50 samples per second
TUNING FORK DENSITY ACCURACY/ RESOLUTION, RANGE, CAGE OD	0.03 g/cc / ±0.001 g/cc 0.0 g/cc – 1.2 g/cc, 1.5 in
CAPACITANCE RANGE	0 - 100% (Dependent on Water Hold-Up)
HOUSING DIAMETER	1.38 in (35.0 mm)

SERTEPEC JET CLAW PUMP SPECIFICATIONS	
LENGTH	7.5 Ft (2.286 m)
MINIMUM OD	2.25" (57.15 mm)
MAXIMUM OD	2.872" (72.95 mm)
RAW MATERIAL	M303 / SCr 13
BURST PRESSURE	10,101 psi (695 bar)
COLLAPSE PRESSURE	12,521 psi / 863 bar
AXIAL LOAD CAPACITY	70,000 (lbf)

*Specifications are subject to change without notice
**Max. temperature rating dependent on run duration

Additional Information

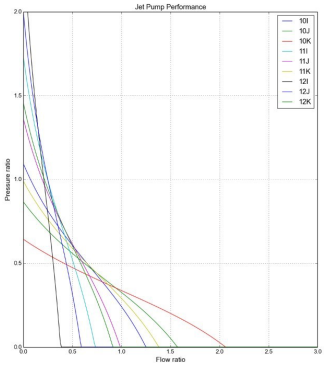


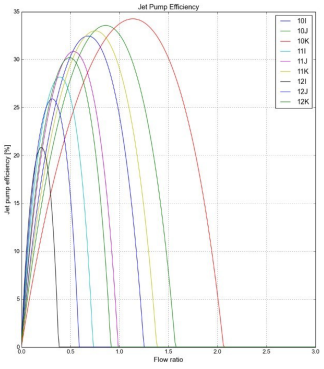
SDI SLIMFLOW MPLT SENSORS

Casing Collar Locator, Gamma Ray, Pressure, Temperature, Spinner Flowmeter, Fluid Capacitance, Tuning Fork Density

JET CLAW PUMP OUTPUT CONSIDERATIONS

The Jet Claw® pump output flow and discharge pressure are defined by the performance curves of each jet pump design.





Jet pumps configured for high volumetric lifting, the performance curves shift to the right, indicating higher flow rates at lower pressure ratios. Conversely, jet pumps designed to deliver higher head, the curves shift to the left, reflecting lower flow rates at higher pressure ratios.

Sertecpet proprietary software, SYAL® is used to perform simulations based on wellbore conditions. The software is capable of running sensitivity analyses to accurately select the optimal nozzle-throat combination, enabling the identification of the best achievable well performance.

JET CLAW PUMP INPUT CONSIDERATIONS

The Jet Claw® pump can operate across a wide range of powered fluid rates to match well production requirements. Pump selection and sizing are primarily determined by two parameters: powered fluid rate and powered fluid pressure. The Jet Claw® system can handle approximately 500 bpd to more than 7,000 bpd, depending on the nozzle–throat configuration.

Sertecpet Jet Claw® pumps are designated by a number, indicating the nozzle size, and a letter, indicating the throat size. The nozzle–throat combination defines the jet pump's lifting capability, whether the application requires higher head (pressure) or higher volumetric output (flow rate).

JET CLAW PUMP CODING								
6	7	8	9	10	11	12	13	14
F	G	H	I	J	K	L	M	N

SERTECPET **JET CLAW® PUMP**