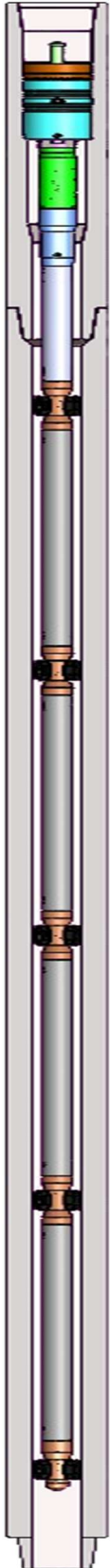


Hercules™ 200°C Extreme Temperature MWD System



Overview

Hercules 200°C MWD™ was purpose-built to deliver uncompromising reliability in the most extreme drilling environments—where elevated temperatures, severe shock, and harsh downhole conditions have historically compromised traditional systems. Engineered specifically to meet the demanding operational requirements of LNG export developments along the Gulf Coast of the United States, Hercules sets a new standard for durability and performance in high-temperature applications.

The fully integrated system, designed and developed entirely in-house, features proprietary surface and downhole technologies owned exclusively by Brawn Downhole Technology. Hercules MWD provides comprehensive services including Directional and Gamma Ray measurements ensuring reliable downhole visibility and precision wellbore placement and Advanced Drilling Dynamics measurements will be added in a near future release.

All manufacturing, testing, calibration, and retrofit operations are performed in-house by the original engineering and production team, ensuring uncompromising quality control, rapid innovation, and continuous performance optimization.

Features and Benefits

- **392°F / 200°C Rated** – Reliable performance in extreme high-temperature environments.
- **20,000+ psi Capability** – High-pressure rated; elevated ratings available upon request.
- **Precision Directional & Gamma** – Repeatable, verifiable measurements with proprietary drift-compensated gamma calibration.
- **Shock & Vibration Hardened** – Proprietary protection technology maximizes tool reliability in severe downhole conditions.
- **High-Power Rotary Vane Pulser** – Strong, stable telemetry with minimal sensitivity to LCM and fluid variability.
- **Variable Pulse Height** – Unique ability to alter pulse height via downlink without making changes to pulse width.
- **Available Soon! Real-Time Drilling Dynamics** – Fully rated and calibrated sensors enable immediate dysfunction mitigation and optimized ROP.
- **Available Soon! Battery-Free Power Architecture** – Proprietary wide-range alternator system eliminates lithium batteries and associated HSE exposure.

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Technical Specifications

Collar OD	5.25"	6.75"	8.25"
Tool Connections	XT-40	4 1/2" IF	6 5/8" Reg
Collar OD	5.25"	6.75"	8.25"
Collar ID	2.8125"	3.25"	3.50"
Probe OD	2"	2"	2"
Max Operating Temperature	200°C (392°F)	200°C (392°F)	200°C (392°F)
Max Sand Content	1%	1%	1%
Max Operating Pressure	20,000 psi	20,000 psi	20,000 psi

Sensor Specifications

Directional		
Measurement	Range	Accuracy
Inclination	0-180°	+/- .1°
Azimuth	0-360°	+/- .2°
Mag Tool Face	0-360°	+/- .1°
Gravity Tool Face	0-360°	+/- .1°
Dip	+/- 90°	+/- .12°
Temperature	0-220°C	+/- 1% (calibrated)

Gamma	
Parameter	Specification
Sensor Type	Scintillator
Vertical Resolution	6"
Accuracy	2% to 200°C
Memory	32M+
Sampling Period	Programmable

