

OCTG Analysis System

The Torq-Tek™ ZI is a dual certified, ATEX & CSA-US Ex nA and AExnA Class 1, Zone 1 non-purged state-of-the-art OCTG Analysis system. The Torq-Tek™ system and all accessories are certified for: Zone 1 rig-floor operations.

Technical Specifications

- Windows bases user interface
- Ex II 2 (2) (1) G, CE marked
- Ex nA & AEx nA II
- 1/1000th of a turn measurement
- NEMA4X/IP66 waterproofing
- - 40° C to + 60° C op. temperature
- Main unit measures 15" x 11" x 4"
- Main unit weight < 33 lbs
- Touch screen as standard
- Universal 110-220V AC power cord

Software Features

- Windows bases user interface
- Torque Vs Turns
- VAM Shoulder Slope Detection
- Delta Turn Parameters
- Premium, API & Break-out modes
- Pressure testing mode (Hydro-test or Gas-test)
- Onshore reports package - hard or soft copy

Torq-Tek™ reduces the potential cost of possible remedial steps by making sure the correct torque is applied, and that faulty connections are immediately detected. Each make-up is viewed in real-time color graphics as it takes place. Coupled with the ability to analyze, control and record the make-up of premium and API tubular connections.

Torq-Tek's software is the most advanced available today, offering power tong, bucking unit, power swivel and Top Drive options as standard. Torq-Tek™ ZI meets or exceeds all of the requirements for Gulf of Mexico and Global operations.



Wireless Monitoring Sensor

Designed to work with Torq-Tek unit, Torq-Sub delivers accurate and reliable make-up torque and string working parameters, building well integrity.

Torq-Sub Wireless Sensor

Used in combination with any CRT, the wireless sensor records torque, turns and hook load for connection make-up or reaming operations. The intrinsically safe transmitter allows for monitoring and sending real time data through wireless communication to the Torq-Tek unit, eliminating the use of cables.

All the data transmitted wirelessly to the remote antenna is processed and visualized through the data Computer.

Standard Features:

- Designed to be installed on any Top Drive and CRT.
- Continuous logging if required for reaming or drilling operations.
- Higher accuracy during connection make-up.
- Two independent electronic wireless transmitters ensure a backup is always in place.
- High-capacity thread connections.



Specifications

Top Connection	4-1/2" NC50 DS Box up	6-5/8" DS Reg Box up
Bottom Connection	6-5/8" DS Reg Pin down	6-5/8" DS Reg Pin down
Maximum Torque	80K ft-lbs (Calibrated to 50K ft-lbs)	
Maximum Hoisting	500 ton	
Torque/Tension	Under $\pm 1\%$ of full scale	
Battery Life	14 days under normal operation	
Turns Resolution:	1,000 pulses per Revolution	
Ambient Range	-20°C to +60°C	
Design Standard	API 8C	
Compliance	ATEX Zone 1 / IECEx	
Length (ft.)	32-1/8"	
Total Weight (lbs.)	417 lb approx.	