



## Description

The Zetechtics Jupiter™ Subsea Torque Tool Control Systems led to the development of a range of stand-alone battery powered Torque Verification Systems (TVS). The systems are available in both subsea and deck specific configurations and interface with standard torque tools or project specific tooling.

Current TVS systems include:

- API 17D Class 1 – 4
- API17H
- Petrobras
- Class 5

Zetechtics Class 5 TVS buckets are designed to accept both the Zetechtics latched, and unlatched Class 5 Torque Tools.

The Deck TVS is designed for use in workshops and on a ship's deck. The industry standard Norbar TTL-HE (Harsh Environment) display instrument provides a powerful and comprehensive user interface and a system that is protected against water jets / temporary immersion. This system can be interfaced with a Jupiter Torque Tool Control System to calibrate the torque tool.

## The leaders in subsea control

Zetechtics are world leaders in subsea control systems for ROV Intervention tooling to the oil and gas energy markets, providing proven industry solutions many of which are continually working in high integrity applications.

## Features & Benefits

- Simple set up and operation
- Highly Accurate
- Rugged Design
- 3000m (sea water) rated
- When used with Jupiter software, allows integrated auto calibration functionality
- Stand-alone or integrated verification
- Seamless integration with Zetechtics manufactured Jupiter Class 5 Torque Tool systems
- Capable of operating with other Class 5 Torque Tool's systems
- Maximum Interface Torque  $0 \pm 6780\text{N.m}$  (5,000lbf.ft)
- For Technical Specification and correct Operational Procedures, please refer to manual



## System Specification

<b>Torque Measurement Accuracy:</b>	± 1.5% of full scale (From 10% to 100% of full scale)
<b>Zero Torque Offset Variation:</b>	± 1.0% of full scale
<b>Maximum Working Torque:</b>	6 780N-m (5 000lbf-ft)
<b>Typical System Calibration Frequency:</b>	1 year
<b>Environment:</b>	0 to +50°C Operational -20 to +60°C Storage
<b>Material:</b>	6082 Aluminium Hard Anodised Stainless Steel
<b>Size:</b>	371x355x270mm - Interface 200x145x45mm – Display
<b>Weight:</b>	41.0kg (in air)
<b>Maximum Working Depth:</b>	3000m
<b>Measurement System:</b>	The measurement system consists of a Torque Transducer and Norbar TTL-HE Harsh Environment Display Instrument.
<b>Compensation Oil:</b>	N/A

### SYSTEM CALIBRATION:

Please note: only use the TVS if calibrated with a valid certificate. It is the responsibility of the end user to determine suitable recalibration intervals.

Specific recalibration intervals depend on a number of factors including:

- Accuracy requirements set by customers.
- Requirements set by contract or regulation.
- Inherent stability of the specific instrument or device.
- Environmental factors that may affect the stability.

For further information please contact the Zetechtics Sales Team: on +44 (0)1653 602020