



The leaders in subsea electronics

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

The Jupiter Electric Torque Tool is the culmination of many years of development to deliver a full functionality tool that is easy to use and features comprehensive fail-safe systems to ensure reliable operation in the field.

Description

The Jupiter Subsea Electric Torque Tool – API 17D Class 1 - 4 interfaces with subsea production systems and can produce precisely controlled torque up to 2,711N.m (2,000 lbf-ft).

The tool integrates an electric motor, gear box and sprung loaded, nested, multi-class sockets (up to 1.5" square stem) with a powerful motor controller.

The tool also incorporates electrically controlled latches (optional) to allow FLOT operations, the latches do not require external hydraulics.

The tool interfaces via an Ethernet connection to a laptop providing comprehensive control, feedback, datalogging and diagnostics.

Features & Benefits

- Electrically controlled latches
- Maximum Working Speed: 3.5 RPM
- Standard 115VAC ROV supply and Ethernet or RS485 interface to Windows PC GUI
- Option for 48VDC and Ethernet or RS485 interface direct to Torque Tool without IPP
- Detailed diagnostic & alarm features incorporated with GUI together with comprehensive datalogging facilities
- The tool has standard Jupiter tool functions such as pre-set turns, pre-set torque, torque limits, nudge control and emergency stop
- Optional ROV mounted power pod incorporates interlocks to isolate tool power in the event of water ingress, low IR or low compensation



System Specification

Interface:	API 17D Class 1 - 4 Rotary Docking interface to BS EN ISO 13628-8:2006	
Max. Working Torque:	2,711N.m (2,000 lbf-ft)	
Socket Sizes:	Class 1 (67N.m) & Class 2 (271N.m)	17.5mm (0.0687")
	Class 3 (1,355N.m)	28.6mm (1.125")
	Class 4 (2,711N.m)	38.1mm (1.5")
Max. Working Speed:	3.5 RPM (fully variable)	
Torque Control:	Accuracy:	±1% of Torque Demand (10% to 100% FS)
Torque Feedback:	Accuracy:	±1.5% of Full Scale (10% to 100% FS)
		±10N.m (from 30N.m to 300N.m)
	Zero Torque Variation:	Better than ±1% FS (0 – 3,000 msw)
Socket Position:	Absolute socket position resolved to 1 degree	
	Zero position can be reset for operational convenience	
Socket Turns:	Socket Turns resolved to 1 degree	
	Turns can be reset for operational convenience	
Material:	Anodised Aluminium, 316 Stainless Steel	
Size:	585 x 227 x 215mm	
Tool Weight:	Air:	34kg
		36.5kg (inc. comp oil)
	Water:	26kg (inc. comp oil)
Lift Capability	0.5 Tonne (Axial)	
Temperature:	Operational:	-10 to +50°C
	Storage:	-20 to +60°C
Maximum Working Depth:	3,000 msw	
Compensation:	Volume & Pressure:	2.5 Litre @ 10 psi
	Recommended Fluid:	Built-in comp pressure sensor Shell Diala S4/ Transformer Oil (environmentally friendly oils)
Intelligent Power Pod Electrical:	Data:	Ethernet 10 / 100 Base T or RS485
	Power:	115VAC @ 800W
	Connector:	SubConn BH12MSS
Intelligent Power Pod Mechanical:	Size (mm):	320 x Ø183mm
	Weight:	16.7kg (air) 10.2kg (water)
	Material:	Titanium Ti-6Al-4V
Direct Torque Tool Electrical Interface:	Data:	Ethernet 10 / 100 Base T or RS485
	Power:	48VDC @ 600W continuous, 750W peak
	Connector:	Burton 5507-2013-PE04

