

Class 5 Rotary Docking (API 17D) Torque Tool



Description

The Jupiter Subsea Intelligent Torque Tool - Class 5 Rotary Docking interfaces with subsea production systems, including project specific interfaces with different end effector sockets and is capable of producing torque up to 6 780N.m (5000lbf-ft).

The tool comprises a hydraulic motor, planetary gear box and removable end effectors. In addition the tool provides torque feedback, output turns count, optional docking latches and a visual indication of motor turns.

The tool is designed to allow seamless integration with Zetechtics manufactured Jupiter Subsea Control Systems, however the tool is capable of operating with other systems with suitable hydraulic and electrical interfaces.

When used with a Jupiter 2 Subsea Control System, with the correct software version and configuration, it is possible to determine direction of rotation from the internal quadrature sensors. This is encoded on the single turns count output using Zetechtics' proprietary turns count electrical interface.

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

- Standard Interface: Class 5 Rotary Docking interfaces to BS EN ISO 13628-8:2006 with socket to suit 50.8mm (2") square stem
- Modified client specific interfaces available
- Provides torque feedback, output turns count, optional docking latches and a visual indication of motor turns
- Seamless integration with Zetechtics manufactured Jupiter Subsea Control Systems
- Capable of operating with other systems with suitable hydraulic and electrical interfaces
- Maximum Working Torque: 6, 780N.m (5,000lbf-ft)
- Maximum Working Speed: 5 RPM
- Hydraulic: Max. Motor Supply: 160 Bar (2320 PSI) (Recommended)
- For Technical Specification and correct Operational Procedures, please refer to manual



System Specification

Interface (Standard):	Class 5 Rotary Docking interfaces to BS EN ISO 13628-8:2006 with socket to suit 50.8mm (2") square stem Modified client specific interfaces available	
Maximum Working Torque:	6,780N·m (5,000lbf-ft)	
Maximum Working Speed:	5RPM (Recommended)	
Torque Feedback (Nominally):	Sensitivity:	0.8mV/V @ 6 780N·m (5000lbf-ft)
	Accuracy:	±1.5% of Full Scale (10% to 100% FS) Typ. better than ±1% of FS when used with Jupiter Subsea Control System
	Zero Torque Variation:	Better than ±1% of FS (0 - 3,000 msw)
Output Turns Count:	20 pulses/ rev of output socket 80 pulses/rev of output socket using Zetechtics proprietary turns count electrical interface Ratio of visual motor turns indicator to output socket turns = 7.5 :1	
Material:	316 Stainless Steel with Steel Motor	
Size:	568 x 296 x 270mm	
Weight: (Modified client specific interfaces may be different)	Air:	81.7kg (180lbs) 85.5kg (188.5lbs) (inc. hydraulic fittings and comp oil)
	Water:	68.4kg (150.8lbs) (inc. hydraulic fittings and comp oil)
Temperature:	Operational:	-10 to +50°C
	Storage:	-20 to +60°C
Maximum Working Depth	3,000 msw	
Hydraulic:	Maximum Motor Supply:	160 Bar (2320 PSI)
	Maximum Latch Supply:	210 Bar (3045 PSI) (Min-150bar (2175PSI)
	Maximum Motor Case:	2 Bar (29 PSI)
	Recommended Fluids:	Shell Tellus 22 or 32 Castrol Hyspin® AWS 22 or 32 (or equivalent)
Compensation:	Volume & Pressure:	3.5 Litre (0.75 Gallon), up to 10 psi
	Recommended Fluid:	As recommended hydraulic fluid above
Electrical Interface:	Burton 55 Series 1508	