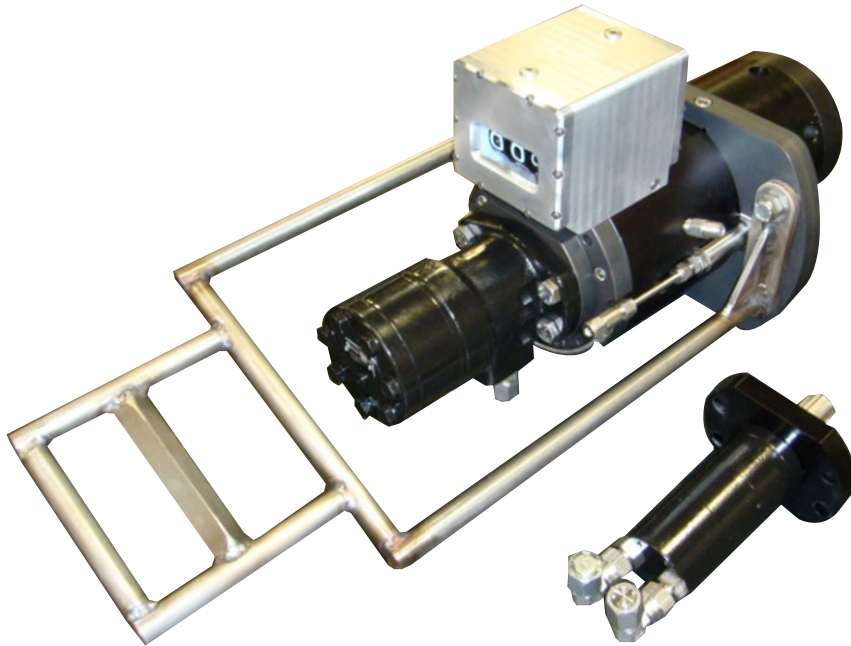


MECHANICAL TORQUE TOOL CLASS I-IV



Oceaneering's new Class 1-4 Torque Tools are designed to operate rotary valves from 15 - 2,000 ft-lbf, latch and handle MQC plates, SCM Override Tools etc. The tool can be mounted onto a Flying Lead Orientation Tool (FLOT) or be deployed by ROV manipulator. The Torque Tool is supplied with a Test Jig for surface calibration prior to subsea operation. The Torque Tool provides simple turns counts and direction. The tool itself has internal compensation, as does the counter. Motors can be changed without losing comp pressure and the tool can be quickly and easily disassembled for cleaning and maintenance.

Technical Data / Specifications

Latch Cylinder:

Pressure: 3,000 psi Maximum Input
 Flow: 1 gpm
 Connection Type: ¼ in JIC

Hydraulic Motors:

Pressure: 3,000 psi Maximum Input
 Flow: 5 gpm Maximum Input (3 gpm Maximum for 32 cc)
 Connection Type: ½ in JIC

Weight:

In Air: 94 lb
 In Saltwater: 74 lb

Dimensions:

Diameter: 11.75 in
 Length: 23.5 in

Specifications:

Torque Mult. Ratio: Norbar 5:1
 Depth Rating: 10,000 ft
 Turns Counter: 1/10 of Revolution
 Accuracy
 RPM Range: 32 cc Motor (Class 1-2)
 .5-3 gpm / 4.8-42 rpm
 115 cc Motor (Class 3) 1-5
 gpm / 4.7-33.5 rpm
 240 cc Motor (Class 4)
 1-5 gpm / 1.8-13.7 rpm

