

# RQ-112-TT – Class 1-4 Torque Tool



## Key Features:

- ISO 13628-8 (API 17D Class 1-4)
- Max Torque 2,700Nm (2,000 ft lbs)
- Dual Range
- Failsafe mechanism built in for self-release.

## WHATS INCLUDED

Torque Tool  
 Class 1 & 2 Sockets (11/16").  
 Class 3 Socket (1-1/8").  
 Class 4 Socket (1-1/2").  
 Cage for USD mount.  
 ROV handle.  
 Operational hoses.  
 Operations Manual.

## OPTIONS

Torque Tool Control System.  
 Surface Verification Unit.  
 Subsea Verification Unit.  
 Control Manifold.  
 Subsea Display.

## Description

Available for rental from ROVQUIP we have the Forum Subsea torque tool. It has been specifically developed to provide the highest level of performance. It has integral torque and turns counting sensors for closed loop control. When matched with a torque tool control manifold, it can provide precise feedback on torque response of any subsea operation.

These can alternatively be utilised by connecting a Universal Subsea Display, which would give a visual read-out of live torque feedback and/or turns counter.

The tool conforms to the ISO 13628-8 Fig 18 Class 1-4 bucket interface used extensively in the subsea industry for valve overrides operated by ROV. The tool has latching wings allowing the tool to hold on to the interface.

The latching wings are hydraulically driven forward and spring retracted. Thus in the case of a loss of hydraulic power the wings will release. The tool uses a high specification drive mo-tor for consistent torque output characteristics, even if used with direct hydraulic pressure control without the feedback sensor. The motor shares casing oil with the gearbox therefore avoiding the need for a separate compensator.

Note that for applying torques less than 108Nm (80 ft lbs) the class 1&2 tool is rec-comended.

# RQ-112-TT – Class 1-4 Torque Tool

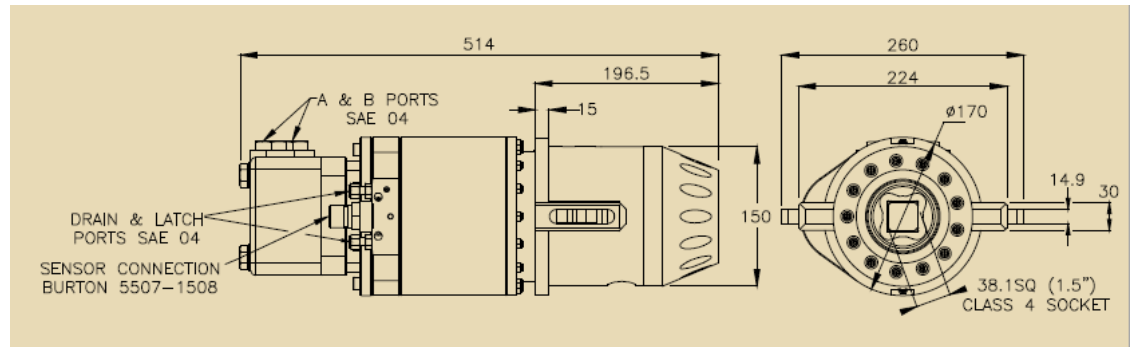
Overall Specifications	
Weight in Air	43/35kg
Torque Interface	ISO 13628-8 fig 18 Class 1-4
Toqrue Range	540-2700Nm (400-2000 ft lbs) (gearbox fitted) 108-540Nm (80-400 ft lbs) (direct drive)
Motor Size	236cc
Latch Strength	1 tonne @ 160 bar
Electric Sensor	8 Pin Burton

## WHATS INCLUDED

- Torque Tool
- Class 1 & 2 Sockets (11/16").
- Class 3 Socket (1-1/8").
- Class 4 Socket (1-1/2").
- Cage for USD mount.
- ROV handle.
- Operational hoses.
- Operations Manual.

## OPTIONS

- Torque Tool Control System.
- Surface Verification Unit.
- Subsea Verification Unit.
- Control Manifold.
- Subsea Display.



# RQ-112-TTCS – Torque Tool Control System (TTCS)



## Key Features:

- 1 Bi-Directional Pressure and Flow Control Output
- 3 Bi-Directional Output
- Strain gauge and turns counter
- Rated to 4000m

## WHATS INCLUDED

System Split between 2 boxes.

Box 1: TTSC.

Box2: Toughbook PC.

Interconnect cables.

KK485 Converter.

Operations Manual.

## OPTIONS

Various Torque tools.

## Description

The Torque Tool Control System allows the user, from the surface, to adjust the torque and speed. This system is particularly suitable for deepwater operations where torque required for a particular operation may be uncertain, or has multiple values for different operations on the same dive.

The actual torque and speed is user controlled and measured at all times and recorded as a signature of the subsea operation for future reference.

The controller can be used with any Forum torque tool.

The system can also be used as a pressure/flow controller for tools not equipped with feedback sensors.

# RQ-112-TTCS – Torque Tool Control System (TTCS)

Overall Specifications	
Outputs	3 NG3 Mini & 1 Proportional Pressure and Flow
Pressure Sensor	One on Proportional Pressure Line
Electrical Inputs	Strain Gauge & Turns Counter
Protection	Internal ground fault detection & external relief valve
Hydraulic Input	20LPM @ 200 Bar (6gpm @ 3000 PSI)
Hydraulic Output	8LPM @ 200 Bar (per station)
Electrical Supply	110 VAC, 2A Maximum
Weight	18kg in air / 14 kg in water

## WHATS INCLUDED

System Split between 2 boxes.

Box 1: TTCS.

Box2: Toughbook PC.

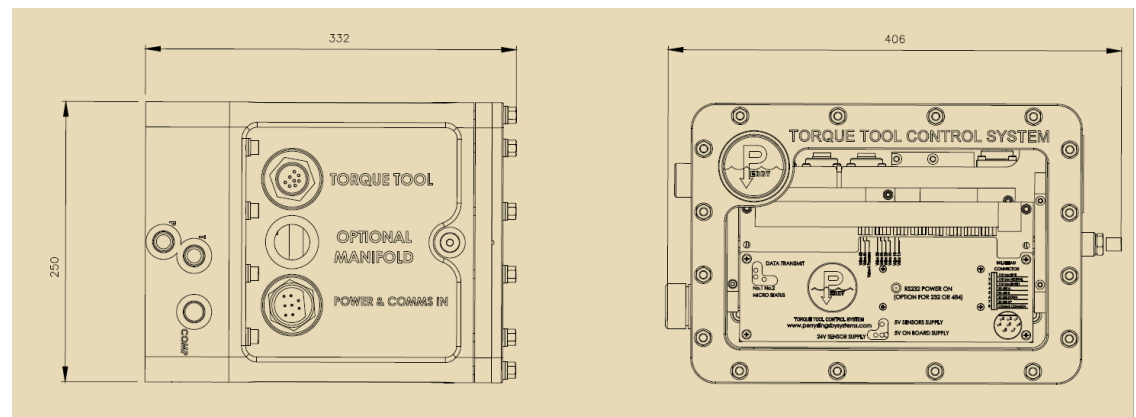
Interconnect cables.

KK485 Converter.

Operations Manual.

## OPTIONS

Torque Tool Control System.



# RQ-112-SVS – Surface Verification System



## Key Features:

- Built to ISO 13628-8 Fig 18 (API 17D) Class 1-4
- Max Torque 2,700Nm (2,000ft lbs)
- Hand Held Digital Read Out
- USB Output to Torque Tool Control System
- Includes Easy interchangeable shafts to suit the full range

## WHATS INCLUDED

Surface Verification System.  
 Class 1-2 Adaptor (11/16").  
 Class 3 Adaptor (1-18").  
 Class 4 Adaptor (1-1/2").  
 Handheld Display.  
 Bucket to Display Cable.  
 Operations Manual.

## OPTIONS

Subsea Version.

## Description

This unit is used to give pre-dive surface confirmation of the torque tool calibration. It consists of a standard ISO class 1-4 torque reaction bucket with sturdy base and built in torque sensor. The unit comes complete with USB cable to connect to the Torque Tool Control System for Auto Calibration.

