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Status: Release	Product Data Sheet: Hydraulic Tool Calibration Fixture Kit	
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### Key Features for Hydraulic Tool Test Bench

- Torque range from 100 to 7.000Nm (Pending calibration)
- The transducers are fitted into a special housing with needle roller bearings and dust shields.
- The fixture is fitter with holes for bench mounting.
- Stainless steel reaction post with four bushed locations, a 'T-Box XL' Torque Tool Tester instrument and connecting leads.
- The test bench is supplied with a case for instrument and transducers. This will provide a secure transport case when instrument and transducers are to be sent for calibration.

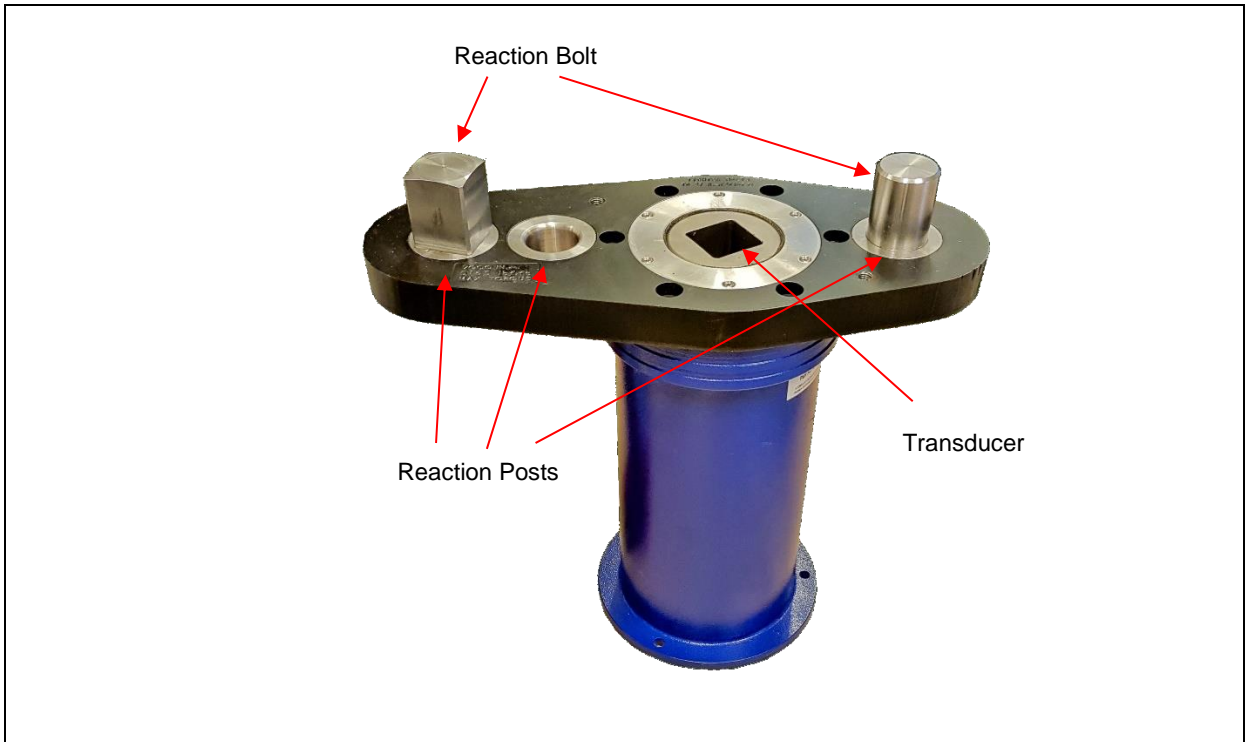
### Key Features for Instrument

The TTT Series 3 instrument has all the features of the Series 2 instruments, but now offers 3 transducer inputs, rather than 2. This will be particularly ideal for customers using the TTT with the TWL1500 loader and full compliment of three FMT Transducers.

Any transducer from Norbar's 'SMART' range and most mV/V calibrated transducers from Norbar or other manufacturers can be connected to the TTT. The 'SMART' feature means that once a transducer has been connected, the instrument will automatically recognise calibration details such as mV/V output, serial number and capacity.

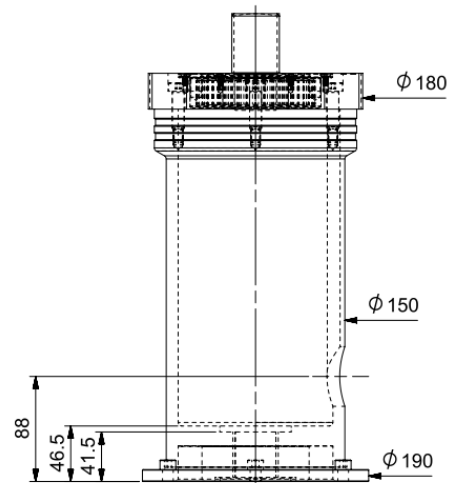
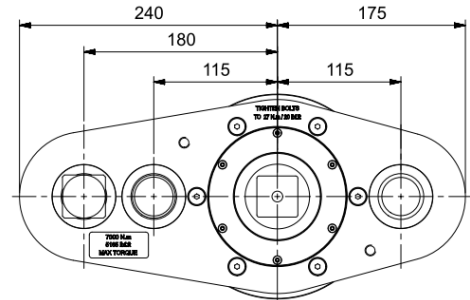
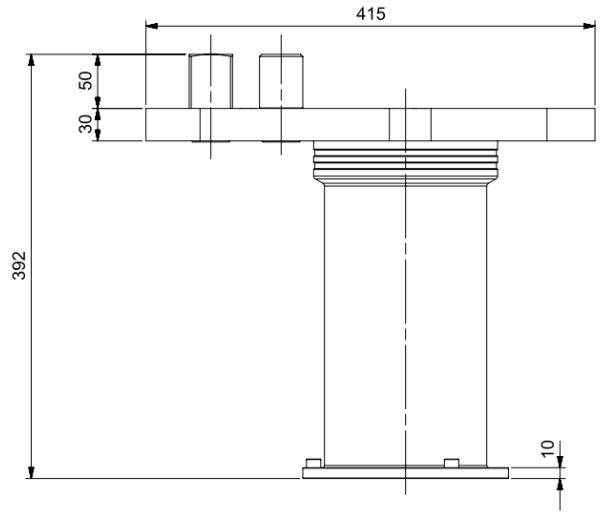
- Pictorial display panel for easy mode selection.
- Limit detection with low, pass and fail indication. Up to 12 target values can be set.
- Digital limit state output for control of external tools.
- Operation from fast charge internal battery pack (maximum time of 3 hours 20 minutes for full charge) or a.c. supply (90 to 264 Volts).
- RS-232-C serial data interface for connection to a printer or PC. Continuous RS 232 output when used in track mode (up to 11 readings per sec).
- 'SMART' intelligence for transducer recognition, now displays transducer capacity, units and Serial No.
- Memory for calibration details of 20 non-'SMART' mV/V calibrated transducers.
- Analogue output allows the instrument to be used as part of a process control system for performance analysis.
- All user selectable features have password protection. The instrument can be issued to users with only the required modes of operation and units of measure enabled. This feature can virtually eliminate operator induced errors.
- Series 3 users can set up their own measurement units, making it possible to interface with non torque transducers, for example load or pressure.

Kit Design



**Specifications**

- 115V / 230V
- Metric or imperial torque units.
- Weight: 39 Kg (Incl. Transducer)



**Features**

The hydraulic test bench is built to fit a variety of standard hydraulic torque tools from most manufactures, including Hydratight, Hytorc, Enerpac and Torcup. Depending on the reaction arrangement the test operator chose what reaction post to use. The results are fed into the TTT read-out instrument and later in to a computer with Norbars Torque Data Management System (TDMS) Software to make calibration individual calibration certificates for each tool.

Norbar TTT (Torque Tool Tester) and TDMS (Torque Data Management System) software together provide the complete torque audit system.

The TTT is a stand-alone measuring instrument with a user-friendly touch interface. Both hand and powered tools can be measured, calibrated and results viewed in graph mode. This comprehensive instrument functions in 11 languages, has all common torque units,



## References

- ISO 9001 – Quality management certificate no. Q6228
- BS EN ISO/IEC 17025:2005 – Calibration laboratory operation / technical competence
- Transducer UKAS calibration (certificate no. 0256) to Class 5 – BS7882:2008

## Design Standards and Design Codes

- BS EN ISO/IEC 17025:2005 – Calibration laboratory operation / technical competence
- Transducer UKAS calibration (certificate no. 0256) to Class 1 – BS7882:2008

## Accessories

Calibration Hex Adaptors for Test Bench

