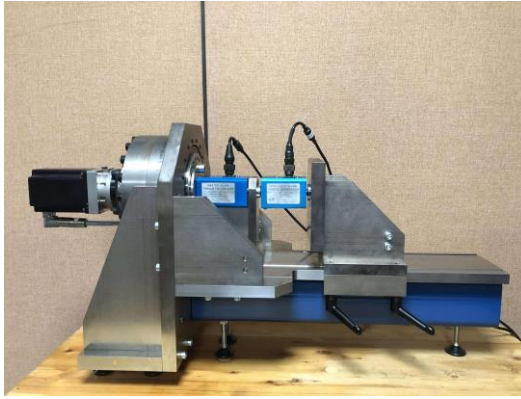# 2kNm Universal Torque Calibration Machine

Bench mounted machine with Torque Transducer Sliding Carriage and 100Nm Master Transducer, alongside the control box.

DESCRIPTION

The AWS 4Nm-2000Nm Universal Torque Calibration Machine (3020-UTCM) is designed to provide a compact, efficient way to calibrate torque measuring devices to BS EN 7882:2017, BS EN:7996:2018 or international standards without the need for beams and weights. The machine uses AWS Master Transducers (selected depending on range) with very high accuracy, stability and low uncertainty. The master transducers output to an extremely accurate 7.5 digit computing digital voltmeter to display the applied torque and to attain the required uncertainty of measurement (Certificate of calibration provided).

The UTCM uses a high ratio anti backlash gearbox and stepper motor drive to apply and hold up to 2kNm torque. This is controlled by a pushbutton pendant controller removing the need for the operator to apply weights altogether (eliminating operator fatigue) and speeding up the calibration. A torque tracking function allows the machine to maintain the set torque as the system relaxes.

An additional Torque Tester Extension carriage with horizontal or additionally vertical fittings or mounting plate for a variety of torque measuring devices is available as an option (Sold Separately).
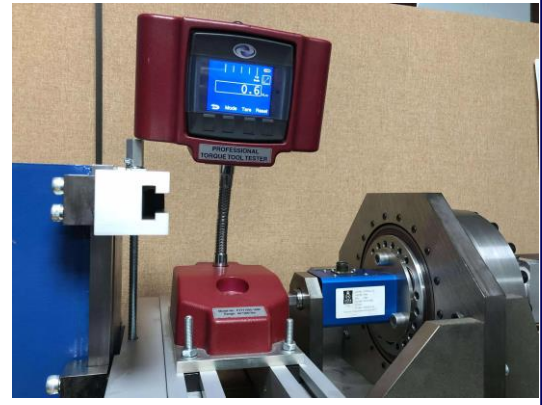
FEATURES

- **Electronic drive system and push button pendant control, eliminating the need for the operator to manually apply torque.**

- **Unique drive system to remove parasitic forces ensuring full applied torque.**

- **Easily interchangeable inline master transducers for high accuracy and low uncertainty readings of the nominal torque. Range from 4 Nm to 2kNm.**

- **High ratio anti-backlash gearbox for precise torque application.**

UTCM with Tool Tester Extension and Vertical Mounted Torque Tester fittings.

- **Greatly reduced calibration times.**

- **Sliding carriage for calibration of standard sized torque transducers up to a 1" square drive.**

- **Bench or Pedestal mounting options available.**

- **Optional additional sliding carriage and fittings or mounting plate for calibration of a wide variety of torque measuring and calibration devices. Multi-axis T slot system and/or mounting plate for pick up of a range of fixing positions.**

- **Use with AWS Precision Torque Adapters each designed to accurately fit the model of torque testing device, minimising the uncertainty of adapter alignment.**

- **Additional alternative bed positions for vertical height adjustment, covering the wide variety of torque measuring devices available.**

- **High accuracy 7½ digit meter used to display the nominal torque readout from the master transducers to attain the required uncertainty of measurement.**

- **Jog function to precisely apply small increments of torque.**

- **The torque applied by the UTCM is indicated by a computing nano-voltmeter converting to units of torque from the mV/V signal from the transducer. A stable voltage source energises the transducers.**

Torque Tester Extension with fittings for horizontal mount Torque Testers. AWS PTTT shown as device under test. (Sold separately)

The 7.5 digit computing nano-voltmeter and power supply to be used with the UTCM.

Options

	3020 - Universal Torque Calibration machine (UTCM)	Options	
		Tool Tester Extension	Vertical Mounting Extension (Requires Tool Tester Extension)
Model No.	3020	3020-E	3020-EV
Description	Calibration of torque transducers from 4Nm-2000Nm with square drives from ¼" to 1".	Additional fittings for calibration of vertical and horizontal mounting Torque Testers.	Additional fittings for calibration of large vertical or wall mounted Torque Testers.

Dimensions

Approx. dimensions for mounting on benches/tables: 94cm (length) x 34cm (width) x 40cm (height)

Approx. Weight (Kg):

Main Body (Without Transducers & Carriages)	Transducer Sliding Carriage	Torque Tester Sliding Carriage (Depending on options)
103.5	16.7	24 - 40.5

Manufacturer information	Supplier information
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