

MEASUREMENT & CALIBRATION

FLANGE MOUNTED TRANSDUCERS (FMT)

- Classified to BS7882:2017, typically better than Class 1 for the primary classification range ($\pm 0.5\%$ of reading from 20% to 100% of full scale)
- Smart - TST, TTT, TTL-HE and T-Box instruments will automatically recognise calibration details
- Supplied with UKAS accredited certificate
- Transducers are supplied with precision made square drive adapters

STATIC TORQUE TRANSDUCERS

- Robust, heat treated, alloy steel torsion shaft design
- Calibration up to 100,000 N·m with a UKAS accredited certificate
- Smart transducers have a built in memory circuit which contains essential information about the transducer. This information can be read by Norbar's TST, TTT, TTL-HE & T-Box™ 2 instruments

TORQUE WRENCH CALIBRATOR (TWC)

For accurate torque wrench testing and calibration
Available in both auto and manual versions

- TWC Auto is a powered and automated loader with intelligent rate control. Programmable workflow guides the user through the ISO 6789-2:2017 calibration or can support bespoke workflows
- Enables torque wrench calibration or testing in accordance with ISO 6789:2017 Part 1 and 2
- Counterbalance Reaction system is designed to allow the tool to level to reduce parasitic loads or movements

- TWC Auto supplied with a powerful yet simple touchscreen user interface
- Works with Flange Mounted Transducers and Static Transducers
- During calibration, the TWC maintains a fixed position on the handle of the torque wrench
- Rotating transducer design ensures that the load is applied 90° to the torque wrench handle. The benefit of this precise alignment is that forces are applied squarely to the load point of the handle

TWC 1500 N·m Auto shown with Counterbalance Reaction Post



Patented in the UK, Germany, France and Italy (EP2864745) and in the USA (US9921122)

SERVICE & SPECIALS

CALIBRATION SERVICES

- UKAS accredited calibration services
- Service Replacement Policy
Our policy is that all Norbar wrenches will, at Norbar's discretion, either be repaired or a 'service replacement tool' will be offered.



ENGINEER TO ORDER


Our wide range of standard equipment notwithstanding, there are applications when something special is required. As an ISO 9001 accredited company, Norbar will undertake the design and manufacture of special equipment against agreed customer specifications.


For more information on Norbar's Engineer to Order service please email your enquiry to technical@norbar.com or visit www.norbar.com/Services/Engineer-to-Order


GLOBAL SERVICE


Norbar is the only torque equipment manufacturer capable of offering tool and instrument calibration services to the original factory standard on four continents.

Accredited laboratories in Australia, USA, Singapore, China and India operate the same equipment and procedures as the UKAS accredited laboratory within our headquarters in the UK.

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NORBAR PRODUCT PORTFOLIO

-  Torque Screwdrivers
-  Torque Wrenches
-  Electronic Torque Wrenches
-  Manual Torque Multipliers
-  Pneumatic Torque Tools
-  Electronic Torque Tools
-  Battery Torque Tools
-  Torque Measurement Instruments
-  Torque Transducers
-  Ultrasonic Bolt Measurement
-  Calibration Services



TORQUE TOOLS FOR INDUSTRY



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TORQUE WRENCHES

PROFESSIONAL

Setting the standard for accuracy and ease of use

- Accurate to $\pm 3\%$ of reading which meets the requirements of ISO 6789-2:2017
- Large scale for better visibility and more accurate setting
- Light and fast adjustment saves operator time and effort
- Ergonomic handle with a high proportion of soft-feel, high grip material
- Unique on a torque wrench, the TimeStrip® gives a visual indication that the wrench is due for re-calibration
- Fine tooth ratchet and torque handle versions for interchangeable fittings available

NORTORQUE®

Efficient, affordable, quality torque wrench

- Accurate to $\pm 3\%$ of reading which meets the requirements of ISO 6789-1:2017
- Light and fast adjustment saves operator time and effort
- Micrometer scale applying to the primary torque units for simple and error free setting
- Fine tooth ratchet and torque handle versions for interchangeable fittings available
- Push/pull lock is fast and intuitive to use and prevents accidental adjustment of the set torque
- Convenient hanger feature for tool storage also aids wrench unlocking and adjustment

INDUSTRIAL

Simple to accurately set and split for ease of transportation

- Robust construction gives accurate results to $\pm 4\%$, even in arduous working conditions meeting the requirements of ISO 6789-1:2017
- Easy to read scale is shielded from dust, dirt and spray
- Unique profiled cam and reaction plate gives much clearer 'torque break point' reducing the possibility of over-torqueing
- Push-through ratchet allows two direction torqueing
- Can be split and packed into two parts for a smaller, easier to transport package

New Professional Torque Wrenches range from 15 - 400 N-m.

Production 'P' Type wrenches also available



NorTorque® Torque Wrenches



Left to Right:
16 mm Spigot End, Female Torque Handle
and Push-Through Ratchet



New Generation Industrial

TORQUE MULTIPLIERS

HANDTORQUE®

For reducing the effort of applying high torque safely

- Mean torque multiplication accuracy of better than $\pm 4\%$
- Multipliers consist of one or more precisely engineered gear stages
- HandTorques are typically offered in ratios of 5:1, 27:1 or 135:1 for easy calculation of input torque
- Anti Wind-Up Ratchets that eliminate backlash for safer and more comfortable operation are available on most models
- A wide selection of reaction arms make HandTorque® multipliers adaptable for most applications
- Electronic torque transducers available for most models for precise torque control

PNEUTORQUE®

For accurate torque control with minimal noise and vibration

- PneuTorques consist of a durable air motor driving a Norbar epicyclic gearbox
- Depending on the ratio of the attached gearbox, torque from 100 - 300,000 N-m can be generated
- Tools are supplied with their own, unique air pressure versus torque graph and traceable calibration certificate
- Electronic torque transducers for precise torque monitoring or closed loop 'shut-off' systems are available
- PneuTorques offer reduced operator fatigue and make a massive contribution to the reduction of noise and vibration in the workplace compared with other tightening methods

EVOTORQUE®

Highly accurate, user friendly, versatile torque tools

EvoTorque® 2

- Multiple units of torque measurement, N-m, lbf-ft, ft-lb and kgf-m
- Torque, Torque & Angle and Torque Audit modes available
- Complimentary PC software EvoLog for data management and tool configuration
- USB and Bluetooth® 4.0 data transfer (also called Bluetooth® Smart)

EvoTorque® Battery Tool

- Tool is not constrained by power cable or hose, improving safety convenience and versatility
- 18V, 5.0Ah battery and efficient motor give outstanding fastening performance per charge
- Traceable calibration certificate for torque & angle provided as standard
- Available in single speed and two speed configurations



Compact Series
HandTorque® Multipliers

PneuTorque®
PTS™ Multiplier



EvoTorque® Battery Tool

MEASUREMENT & CALIBRATION

TRUCHECK™ 2

For simple, cost effective testing of screwdrivers and torque wrenches

- Allows torque wrench performance to be monitored as part of your strategy to keep wrenches in peak condition
- Two versions available, TruCheck™ 2 and TruCheck™ 2 Plus
- Basic version has no settable options. Ideal for non-expert users
- TruCheck™ 2 Plus allows selection of torque units and modes for 'click' and dial type wrenches
- Plus version allows operator to set a target value and tolerance
- Supplied with traceable calibration certificate



Above: TruCheck™ 2 Plus 0.1 - 3 N-m

Below: TruCheck™ 2 Plus 10 - 350 N-m



PRO-TEST

For high accuracy, robust construction and versatile mounting

- The first choice of industrial, military and laboratory customers worldwide
- Tough, cast aluminium casing
- 2 part display / transducer unit allows for numerous mounting possibilities
- User can select language of operation (most European languages available)
- Pictorial mode selection incorporated for ease of use
- Memory function displays the 5 previous readings taken
- Supplied with a UKAS accredited calibration certificate



Pro-Test

T-BOX™ 2

For the complete solution to torque and angle measurement and data collection

- Features a 10.1" multi-touch screen with on-screen graphic icons for simple and easy tool navigation and selection
- User configurable to allow a selection of Torque, Torque and Angle, Rate Targets and the ability to set thresholds
- 2 transducer ports gives you the ability to perform 2 tasks simultaneously
- Can export reading and graphs to CSV and JSON format allowing for third party software integration
- Continuous output of up to 100 readings per second via RS-232 or USB virtual serial devices
- Includes 6 modes for torque tool measurement: Track, Click, Dial & Electronic, Stall, Screwdriver and Hydraulic
- Ability to network via USB adapter



T-Box™ 2