Torque Calibration

Introduction

This section covers the comprehensive range of Torque Calibration equipment manufactured by Gedore Torque.

Torque calibration equipment is used for the testing, calibration and recalibration of Torque Tools. This ensures that torque equipment operates to peak performance and guarantees absolute and consistent accuracy and adherence to national and international standards. It also ensures that potential tooling problems are identified before they arise, hence ensuring that lifetime ownership costs are minimised. Torque Calibration equipment is also used to predict the behaviour of fasteners and to recommend optimum torque.

As an alternative to purchasing calibration equipment, the Gedore Torque Calibration Service offers a wide range of Calibration Services. These can be carried out at our UKAS accredited Calibration Laboratory or at your own premises.

Torque Calibration Analysers

Torque Calibration equipment is based upon Torque Calibration Analysers, of which there are two basic types: Electronic and Mechanical.

Electronic Torque Calibration Analysers
Our modern range of Digital Torque Calibration Equipment is highly accurate, reliable and easy to use. It enables the user to download test results, test power tools, select different units of measurement and carry out calibration beyond the scope of mechanical calibration devices.

Mechanical Torque Calibration Analysers
Mechanical Torque Analysers offers the user a low cost, robust and easy to use device, that's designed to set and calibrate low range torque tools. These Analysers will give many years of accurate and reliable service.

Functions of Torque Calibration Analysers

This chart summarises the functions of the various Torque Calibration Analysers. Further details are on the following pages.

Torque Calibration Analysers	Screwdriver Testing	Wrench Testing	Powered Tool Testing	Memory Capability	PC Download Capability	Interchangeable Sensors
CAPTURE System	✓	✓	✓	✓	✓	✓
ET-cal II Compact	✓	✓	✓	✓	✓	-
MTP	✓	-	-	-	-	-
MTS	✓	✓	-	-	-	-
DREMOTEST E	✓	✓	-	-	✓	-

New CAPTURE Hub for 2017

In 2017, the new **Gedore Torque CAPTURE Hub** joins the industry-leading Capture range of calibration equipment. Portable and robust, this lineside torque analyser provides highly accurate measurement for Power Torque Tools (as well as hand tools) and incorporates an integrated Display and Sensor.

Capture

CAPTURE Display

This intuitive easy to use Display can be integrated with your existing Sensors. This enables you to benefit from the industry-leading CAPTURE system, whilst minimising investment.

- **Cost-effective.** Minimise investment, as the CAPTURE Display is designed to integrate with customers' existing industry standard nominal 2mV/V Sensors
- **Carry Case included.** To protect the CAPTURE Display when not in use it is supplied complete in a high impact plastic carry case
- **Ease of use.** Designed to allow users to become productive quickly due to its intuitive features, such as easy to navigate menus, tool database and Plug & Play integration with CAPTURE Sensors
- **Fully Inclusive.** The following items are included with the Display and are stored in the Carry Case - USB Power Cable (for charging from Mains or PC and also used for data transfer), Power Supply (multi-national), Calibration Certificate, Start Up Guide and Instructions
- **Long Life Battery.** Work for longer between battery charges as the unit is fitted with a long life Lithium-ion battery and has an auto power down mode
- **Memory.** CAPTURE Display can store 500 tools and 2000 data readings in the onboard memory
- **Versatility.** Design allows static laboratory use and mobile data collection using an onboard memory and rechargeable battery. The data can then be transferred to PC via USB connection

CAPTURE Display will change from red to blue in Jan 2017

CAPTURE Manager

Order Code	Model
036710	CAPTURE Manager - PC Software
036700	CAPTURE Display
036226	CAPTURE Cable - CAPTURE Display to Custom Sensor
036246	CAPTURE Cable - CAPTURE Display to Capture Sensor
036251	CAPTURE Cable - CAPTURE Display to SDX Screwdriver
036256	CAPTURE Cable - CAPTURE Display to ETX Wrench

CAPTURE Sensor

Torque Range from 0.2 to 1500 N.m

The CAPTURE Sensor is part of the industry-leading CAPTURE system, providing highly accurate torque measurement for Hand and Power Torque Tools.

Order Code	Model
036771	CAPTURE Sensor ISO 1500/90° Adaptor
D18205	CAPTURE Sensor ISO-A Mount
036772	CAPTURE Sensor Quick Change Plate

CAPTURE Sensor will change from red to blue in Jan 2017

- Calibrated range: 10% to 100% of capacity
- **Carry Case.** To protect the Sensor when not in use it is supplied in a high impact plastic carry case
- **Flexible.** Built-in flexibility as the sensor can be mounted horizontally or vertically without the need for any accessories
- **Ease of Use.** Fast to set up when used with a CAPTURE Display due to the imbedded Quicktec technology that passes all the Sensor information to the Display
- **Easy to Repair.** Modular design allows for simple component replacement
- **Optional Torque Loading System.** Remove human error from testing by using the CAPTURE Sensor with the ISO 1500/90° Torque Loading System **(Adaptor required – see page 67)**
- **Quick Change Plate.** For users with limited space who need to change Sensors between tests the Quick Change Plate increases calibration productivity
- **UKAS Certification.** Sensors come complete with UKAS certificate to BS 7882:2008 Class 1 or better

New for 2017

CS1 1.N.m sensor

For more information: Tool Selector; **gedore-torque.com/tool-selector** Telephone; **+44 (0) 1483 894 476**
Videos; **www.youtube.com/gedore-torque** Email; **salesandrepairs@gedore-torque.com**

Want to know how to use this tool? YouTube Watch our video

Order Code	Model	Range	Drive	mm H x W x D	kg	Hole Centres (mm)	Mounting Hole Size	Fixings Supplied	
036805	CS 2	0.2-2 N.m	1/4	62 x 85 x 65	0.50	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036807	CS 5	0.5-5 N.m	1/4	62 x 85 x 65	0.50	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036810	CS 10	1-10 N.m	1/4	62 x 85 x 65	0.50	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036815	CS 25	2.5-25 N.m	3/8	62 x 85 x 65	0.50	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036820	CS 50	5-50 N.m	3/8	62 x 85 x 65	0.57	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036825	CS 100	10-100 N.m	1/2	62 x 85 x 65	0.60	56	M8 x 1.25 (10 Deep Min)	M8 x 50 *	P34320
036830	CS 250	25-250 N.m	1/2	82 x 120 x 87	1.45	79	M12 x 1.75 (16 Deep Min)	M12 x 1.75 *	P34330
036835	CS 500	50-500 N.m	3/4	82 x 120 x 87	1.6	79	M12 x 1.75 (16 Deep Min)	M12 x 1.75 *	P34330
036845	CS 1500	150-1500 N.m	1	100 x 165 x 134	4.00	125	M16 x 2.0 (20 Deep Min)	M16 x 90 *	P34340

* Socket Cap Head Screw

CAPTURE Hub

The Gedore Torque CAPTURE Hub is the latest addition to the industry-leading Capture range of calibration equipment and is available from 2017. A lineside torque analyser for production power tools, it provides highly accurate measurement both clockwise or anti clockwise, as well as hand tools if required, and incorporates an integrated Screen and Sensor. It is portable enough to be used as part of a mobile calibration centre and robust enough to be used in a production environment. The new CAPTURE Hub will replace the existing ET-cal II.

New for 2017

To include innovative rundown fixture system

Capture Hub: the latest addition to the Capture range

- **Calibrated range.** 10% to 100% of capacity
- **Easy to Repair.** Modular design allows for simple component replacement
- **Cost-effective.** Minimise investment, as the CAPTURE Hub is designed to be a standalone solution, or to integrate with customers' existing Capture components as well as other industry standard nominal 2mV/V Sensors
- **Ease of use.** Intuitive software design is similar to Capture Display allowing existing Capture users to be familiar with the architecture and new users to become productive quickly, with its easy to use menus and Plug & Play functionality
- **Flexibility.** The CAPTURE Hub can integrate with the existing CAPTURE Manager PC software and users with extra Sensors can plug them into the external port be used with the Hub. The unit can also be mounted horizontally or vertically to meet the existing setups of customers
- **Long Life Battery.** Work for longer between battery charges as the unit is fitted with an improved long life Lithium-ion battery and has a customisable auto power down mode
- **Carry Case.** To protect the Sensor when not in use it is supplied in a high impact plastic carry case
- **UKAS Certification.** System come complete with UKAS certificate to BS 7882:2008 Class 1 or better
- **Versatility.** The design allows static laboratory use and mobile data collection using an on-board memory and rechargeable battery. This means that the system can be used as part of mobile calibration centre and also at the point of use. The data can be transferred to PC via USB connection
- **Yet more versatility.** Can be used with Optional Torque Loading System. Remove human error from testing by using the CAPTURE HUB with the ISOA Loading System **(Adaptor required – see page 63)**

For more information: Tool Selector; **gedore-torque.com/tool-selector** Telephone; **+44 (0) 1483 894 476**
Videos; **www.youtube.com/gedore-torque** Email; **salesandrepairs@gedore-torque.com**

Want to know how to use this tool? YouTube Watch our video

Order Code	Model	Range	Drive	mm H x W x D	kg	Hole Centres (mm)
-	CH 2	0.2-2 N.m	1/4	50 x 200 x 110	0.50	56
-	CH 5	0.5-5 N.m	1/4	50 x 200 x 110	0.50	56
-	CH 25	2.5-25 N.m	3/8	50 x 200 x 110	0.50	56

Capture

CAPTURE Manager

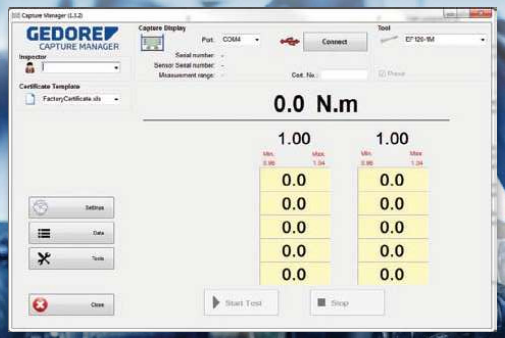
The CAPTURE Manager is PC Software that allows storage, management and analysis of tools and data readings. It is part of the industry-leading CAPTURE system, providing highly accurate torque measurement for Hand and Power Torque.

Data management and analysis. Manage tool and test data through the CAPTURE Manager PC software. The software also makes analysing the data quick and easy through integration with Microsoft Excel®

Data storage. The CAPTURE Manager PC software allows unlimited storage of tools and data readings that can be uploaded and downloaded to the CAPTURE Display via USB connection

Test Wizard. Ensures tools are performing to the required standard through the ISO 6789:2003 test wizard. This clear and easy to use feature guides the user through the test procedure

Tool Calibration Certificates. Tool traceability can be achieved as the CAPTURE Manager PC software can generate customised calibration certificates to the requirements of ISO 6789:2003



CAPTURE Manager

Order Code	
036710	CAPTURE Manager - PC Software

Rotary Torque Sensors

Torque range from 0.2 to 1400 N.m

These Sensors provide highly accurate torque measurement for Hand and Power Torque Tools. They can be used in conjunction with our CAPTURE Display or with your current Torque Analyser. Connect between tool and joint, to measure the actual torque being applied from the joint to the fastener.

Accurate measurement. These Sensors are designed to ensure your tightening process is within acceptable limits with a high degree of certainty. The Rotary Torque Sensor is the ideal torque-auditing tool for testing the actual torque being applied on the assembly application. By connecting a rotary torque sensor between an electric or pneumatic tool and assembly application, you can monitor the torque being applied from the tool to fastener or bolt

Inline connection. Designed to be placed inline with the tooling, they measure the actual torque being applied on the assembly application, accurate to 0.3% of maximum torque applied. By connecting a rotary torque sensor between an electric or pneumatic tool and assembly application, you can monitor the torque being applied from the tool to fastener or bolt

UKAS certificates. Rotary Sensors come complete with UKAS certificates to BS7882: 2008

Versatile. These Sensors are designed to be compatible with most industry standard devices

Work with most Torque Analysers. A cost effective solution, as in most cases, there is no need to upgrade

To download detailed Product Card go to www.gedore-torque.com

For more information: Tool Selector; **gedore-torque.com/tool-selector** Telephone; **+44 (0) 1483 894 476**
Videos; **www.youtube.com/gedore-torque** Email; **salesandrepairs@gedore-torque.com**

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Order Code	Model	Calibrated Range ISO	Drive	Maximum RPM Continuous	Maximum RPM Intermittent	Width mm	Height mm	Depth mm	kg
036510	XR 2 HD	0.2-2 N.m	1/4	5000	11000	116	56.0	68.0	0.21
036520	XR 5 HD	0.5-5 N.m	1/4	5000	11000	116	56.0	68.0	0.21
036530	XR 20 HD	2-20 N.m	1/4	5000	11000	116	56.0	68.0	0.21
036540	XR 20 SD	2-20 N.m	1/4	5000	11000	71.5	56.0	71.5	0.20
036550	XR 75 SD	7.5-75 N.m	3/8	2500	10000	77.0	56.0	74.0	0.24
036560	XR 180 SD	18-180 N.m	1/2	2500	7600	87.0	58.0	82.5	0.43
036570	XR 500 SD	50-500 N.m	3/4	2000	5000	106	60.0	93.5	0.78
036580	XR 1400 SD	140-1400 N.m	1	1000	4400	125	64.5	104	1.50

ET-cal II

ET-cal II Compact Torque Calibration Analysers

Torque range from 0.1 to 17 N.m

Compact and versatile portable Hand and Power Torque Tool Analysers, with multiple units of measurement and test modes, that can be used for a wide range of applications across most industries.

Note: this product will be REPLACED by the Capture Hub (page 60) in 2017.

- **Accurate measurement.** These Analysers are designed to monitor Torque Tool performance, for both Hand and Power Tools. Their high accuracy of +/- 1% of reading together with the supplied PC software make them perfect for testing, storing and analysing tool data with capacity of 150 data points
- **Battery or Mains Powered.** Can be used for Calibration Laboratories and Production Lines
- **Ease of use.** These Analysers enable users to become proficient swiftly by minimising product training times, due to their ease of use
- **Efficient.** Torque Tools can be calibrated at the point of use, using battery power and onboard memory, hence minimising recalibration timescales
- **Versatile.** The flexible design minimises investment, as the ET-cal II is designed to calibrate a wide range of Torque Tools including both Power and Hand Tools, as well as Electric Torque Screwdrivers. Designed to test torque in both clockwise and anticlockwise directions

ET-cal II

Order Code	Model	Calibrated Range ISO	Imperial	Drive	kg
035270	ET-cal 1	0.1-1 N.m	0.8-8.8 lbf.in	1/4" + 1/4"	2.00
035280	ET-cal 5	0.5-5 N.m	4.4-44 lbf.in	1/4" + 1/4"	2.00
035290	ET-cal 10	1-10 N.m	8.8-88 lbf.in	1/4" + 1/4"	2.00
035295	ET-cal 17	1.7-17 N.m	15-150 lbf.in	1/4" + 1/4"	2.00

MTP & MTS Mechanical Torque Testers

Torque range from 0 to 25 N.m

Mechanical Torque Calibration Analysers that can be used in a many different situations to provide accurate measurement of torque values for hand-operated Torque Tools. These testers are portable, robust and do not require power.

- **Accurate measurement.** Designed to monitor low torque values for Hand operated Torque Tools
- **Ease of use.** Perfect for use by operators of any skill level, as the robust design eliminates the fear of damage caused by overloading
- **Fast results.** The MTS Testers are designed to quickly give confidence that your Torque Tools are operating within limits. The easy to read analogue dial, peak torque and limit pointers all work together to give the operator instant confirmation of tool performance
- **Versatile.** Able to operate in a wide variety of environments and situations from shop floor to field operations as the MTS and MTP have no requirement for power

MTS 1200

MTP 10

For more information: Tool Selector; **gedore-torque.com/tool-selector** Telephone; **+44 (0) 1483 894 476**
Videos; **www.youtube.com/gedore-torque** Email; **salesandrepairs@gedore-torque.com**

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Order Code	Model	Calibrated Range ISO	سلسلا	Imperial	سلسلا	Drive	kg	Accuracy
058100	MTP 10	0-10 cN.m	0.5 cN.m	0-14 ozf.in	1 ozf.in	1/4"	0.98	+/- 2%
058110	MTS 35	7-35 cN.m	0.5 cN.m	10-50 ozf.in	0.5 ozf.in	1/4" + 1/4"	3.20	+/- 2%
058120	MTS 130	26-130 cN.m	2 cN.m	36-180 ozf.in	2 ozf.in	1/4" + 1/4"	3.20	+/- 2%
058130	MTS 400	0.8-4 N.m	0.05 N.m	7-36 lbf.in	0.5 lbf.in	1/4" + 1/4"	3.20	+/- 2%
058140	MTS 1200	2.4-12 N.m	0.2 N.m	24-120 lbf.in	2 lbf.in	1/4" + 3/8"	3.20	+/- 2%
058150	MTS 2500	5-25 N.m	0.5 N.m	44-220 lbf.in	5 lbf.in	1/4" + 3/8"	3.20	+/- 2%

DREMOTEST E

DREMOTEST E Torque Calibration Analysers

Torque range from 0.2 to 3000 N.m

Robust, accurate Torque Calibration Analysers that are ideal for Hand Torque Tools covering a wide torque range, in a Workshop or Repair environment.

- **Accurate measurement.** Easy to use, robust Torque Calibration Analysers providing +/-1% accuracy
- **Data management capability.** A RS 232 output allows data to be exported to Hyper Terminal Software
- **Full set of Accessories.** Drive adaptor, mains lead, connectors and Certificate of Calibration all included
- **Long Service Life.** Simple lightweight design, backed up by a full Aftersales and Recalibration Service
- **Versatility.** Five models available covering a range from 0.2 to 3000 N.m
- **Value for money.** A comprehensive package, at a competitive price compared to traditional Mechanical Analysers

Order Code	Model	Calibrated Range ISO	Resolution	Imperial	Resolution	Drive	kg	Accuracy
035205	DREMOTEST E 12	0.2-12 N.m	0.001 N.m	1.8-106 lbf.in	0.001 lbf.in	1/4 + 1/4 + 3/8	2.60	+/- 1%
035220	DREMOTEST E 55	0.9-55 N.m	0.01 N.m	0.7-40 lbf.ft	0.01 lbf.ft	1/4 + 3/8	2.60	+/- 1%
035210	DREMOTEST E 320	9-320 N.m	0.1 N.m	7-236 lbf.ft	0.1 lbf.ft	3/8 + 1/2	2.60	+/- 1%
035230	DREMOTEST E 1100	90-1100 N.m	1 N.m	66-811 lbf.ft	1 lbf.ft	1/2 + 3/4	10.0	+/- 1%
035240	DREMOTEST E 3000	500-3000 N.m	1 N.m	369-2214 lbf.ft	144 lbf.ft	1"	26.0	+/- 1%

ISO 1500/90° & ISO-A

Torque Loading Systems

Versatile Torque Loading Systems that enable precise Torque calibration and testing, up to a surprisingly high level of torque, to be undertaken on your own premises. Accurate and easy to use, the possibility of human error or variation is eliminated.

- **Accurate.** These Torque Loading Systems enable the accurate testing of all Torque Wrenches within their given range, whilst removing the possibility of human error or variation
- **Adaptable.** An easy adjustment system to suit the individual Torque Wrench being calibrated
- **Easy to use.** 1400:1 Gearbox requires low operator effort, therefore torques as high as 1500 N.m can be achieved with ease
- **Improved in-house capability.** Torque calibration and testing can be carried out on your own premises, eliminating the need to use external suppliers
- **ISO accreditation.** Meets the International Standard ISO 6789:2003 for the calibration of Torque Wrenches

ISO 1500/90° Torque Loading System

ISO-A Torque Loading System

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Videos; **www.youtube.com/gedore-torque** Email; **salesandrepairs@gedore-torque.com**

Want to know how to use this tool? YouTube Watch our video

Order Code	Model	Maximum Capacity ISO	Imperial	Maximum Tool Length mm	kg
014300	ISO 1500/90° Torque Loading System	1500 N.m	1107 lbf.ft	1350	32.0
014400	Torque Master ISO-A Torque Loading System	30 N.m	22 lbf.ft	300	8.75
D18204	ET-cal 15 Mounting Kit	30 N.m	22 lbf.ft	300	1.60
D18205	Capture Sensor & ET-cal Compact ISO-A Mount	30 N.m	22 lbf.ft	300	3.40
036771	Capture Sensor ISO 1500/90° Adaptor	1500 N.m	1107 lbf.ft	–	2.60