

Torque Measuring Tools

Introduction

Torque Measuring Tools are used in many manufacturing and engineering businesses to check, determine or apply the correct level of torque, using a dial or digital readout. They perform a crucial role in Audit, Inspection, Production, Quality Control, Research & development and Servicing environments.

Engineering and manufacturing depend upon the accurate application of torque to nuts, bolts and fasteners. In fact, torque is essential for process conformity, product safety and total reliability: service problems and product failure can often be the result of insufficient or excessive torque. Gedore Torque Measuring Tools minimise these problems by ensuring that the correct torque settings can be applied and checked, with absolute and repeatable accuracy.

Types of Measuring Tool

Torque Measuring Tools are available as Torque Screwdrivers or Torque Wrenches. They are fitted with a dial, or digital readout, which enables Torque to be measured as it is applied (Track mode) or when the maximum torque value has been reached (Peak mode).

The application of Torque Measuring Tools

Torque Measuring Tools are used in many engineering, manufacturing and service environments, where adherence to the correct level of torque is essential for process conformity.

In Research & development, Torque Measuring Tools can be used to determine what level of torque should be applied to a nut or bolt.

They can also be used in Auditing, Inspection and Quality Control in a manufacturing environment, to ensure that the correct level of torque has been applied.

Torque Measuring Tools can also be used to give absolute and repeatable accuracy in Production and Servicing, where operators may be required to tighten fasteners to various torque values.

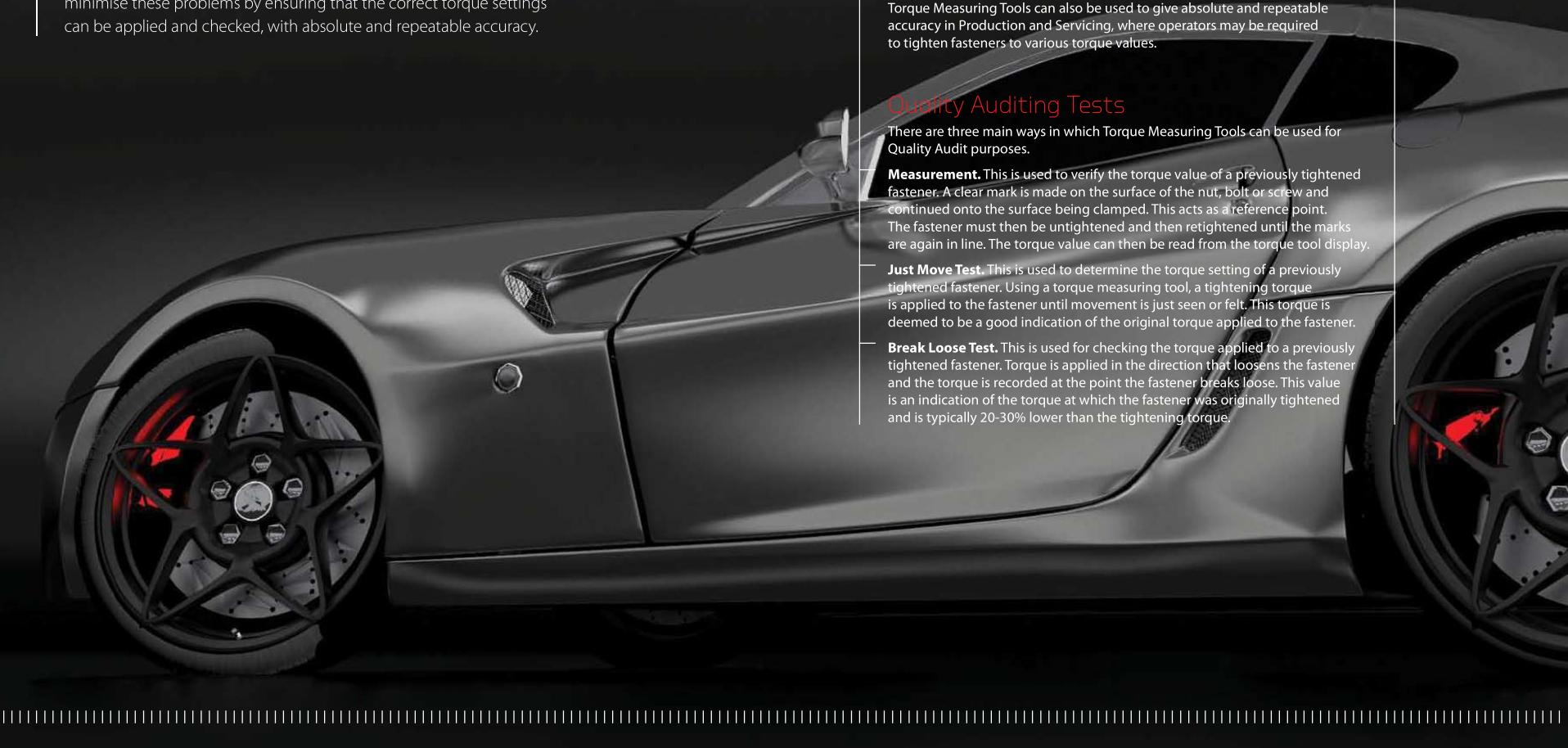
Quality Auditing Tests

There are three main ways in which Torque Measuring Tools can be used for Quality Audit purposes.

Measurement. This is used to verify the torque value of a previously tightened fastener. A clear mark is made on the surface of the nut, bolt or screw and continued onto the surface being clamped. This acts as a reference point. The fastener must then be untightened and then retightened until the marks are again in line. The torque value can then be read from the torque tool display.

Just Move Test. This is used to determine the torque setting of a previously tightened fastener. Using a torque measuring tool, a tightening torque is applied to the fastener until movement is just seen or felt. This torque is deemed to be a good indication of the original torque applied to the fastener.

Break Loose Test. This is used for checking the torque applied to a previously tightened fastener. Torque is applied in the direction that loosens the fastener and the torque is recorded at the point the fastener breaks loose. This value is an indication of the torque at which the fastener was originally tightened and is typically 20-30% lower than the tightening torque.





TT Dial Measuring Torque Screwdrivers

Torque range from 0.1 to 5 N.m

The Gedore Torque range of Dial Measuring Torque Screwdrivers is designed for torque evaluation and torque verification, in order to ensure process conformity, product safety and absolute reliability. These low

cost and versatile tools provide accuracy, reliability and economy in a wide range of Maintenance and Repair, Quality Control, R & D and Assembly operations in any engineering or manufacturing environment.



Versatile Torque Measuring Screwdrivers for any manufacturing environment

Absolute accuracy. Unique torsion bar mechanism to ensure total precision

Dual scale. Dial provides efficient measurement in Metric and Imperial torque units in both directions, delivering flexibility and minimising tool investment

Ease of use. Lightweight materials. Tools can be used by operators at any skill level

Long tool life. High quality, robust construction: stainless steel shaft, attractive coloured aluminium handle and sturdy dial

Measure Process Conformity. Unique memory function enables these tools to carry out the Just Move and Break Loose Quality Auditing Tests

No risk of tool damage. Overload Protection System with unique positive contact mechanism

Operational versatility. Torque can be measured as it is applied (Track mode) or when the maximum torque value has been recorded (Peak mode)



Additional features

Calibration Service enables tools to be kept accurate and up to date. **See page 82**

Two year warranty provides additional peace of mind

Range of accessories provides versatility. **See pages 72-79**

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?



Watch our video

Order Code	Model	Calibrated Range				Drive	mm	inch	g	Accuracy	ISO 6789 Class	✓
		ISO	Imperial	Drive	Drive							
017400	TT 50 FH	10-50 cN.m	2 cN.m	14-70 ozfin	2 ozfin	6	178	190	+/- 6%	1D	✓	
017500	TT 100 FH	20-100 cN.m	4 cN.m	28-140 ozfin	4 ozfin	6	178	190	+/- 6%	1D	✓	
017600	TT 250 FH	50-250 cN.m	10 cN.m	4-20 lbf/in	0.5 lbf/in	6	250	465	+/- 6%	1D	✓	
017700	TT 500 FH	100-500 cN.m	20 cN.m	8-40 lbf/in	1 lbf/in	6	250	465	+/- 6%	1D	✓	

Dial Measuring Torque Wrenches

Torque range from 0.8 to 2000 N.m

BDS 80 E

ADS 25 S



Durable storage case for ADS and BDS models

The Gedore Torque range of Dial Measuring Torque Wrenches is designed to verify or monitor torque, in order to ensure process conformity, product safety and absolute reliability. The slave pointer on the dial captures the finishing torque applied to a fastener with a memory pointer. These low cost, durable and versatile tools can be used for Maintenance, Repair, Quality Control and Assembly in any engineering or manufacturing environment.



ADS, BDS, CDS, DDS & EDS

Signal versions available. All ADS models are **EPA compliant**

Robust and versatile tools Dial Measuring Torques

Dual scale. Dial provides effective measurement in Metric and Imperial torque units in both directions, delivering flexibility and minimising tool investment

Ease of use. Lightweight materials. Tools can be used by operators at any skill level

Long tool life. High quality construction and robust design with a two year warranty

No risk of tool damage. Overload Protection System. Recessed dial minimises damage to the dial display

Versatile usage. Use for Maintenance, Repair, Assembly and Quality Control

Wide range of applications. Tightening and untightening measurement is possible, with double-ended ratchet as standard (except EDS versions)

Additional features

Calibration Service enables tools to be kept accurate and up to date.

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Special extension spanners.

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Optional audio visual signal system. Clear indication is given when the target torque has been reached



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

Order Code	Model	Calibrated Range				Drive	k	mm	lb	kg	Accuracy	ISO 6789 Class	Signal	Signal
		ISO	Imperial	lb	kg									
010100	ADS 4	0.8-40 N.m	0.1 N.m	7-35 lbf.in	1 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010108	ADS 4 S	0.8-40 N.m	0.1 N.m	7-35 lbf.in	1 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010120	ADS 8	1.6-8.0 N.m	0.25 N.m	14-75 lbf.in	1 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010128	ADS 8 S	1.6-8.0 N.m	0.25 N.m	14-75 lbf.in	1 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010140	ADS 12 D	2.4-12 N.m	0.5 N.m	24-120 lbf.in	2 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010148	ADS 12 DS	2.4-12 N.m	0.5 N.m	24-120 lbf.in	2 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010160	ADS 12 A	2.4-12 N.m	0.5 N.m	24-120 lbf.in	2 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010168	ADS 12 AS	2.4-12 N.m	0.5 N.m	24-120 lbf.in	2 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010180	ADS 25	5-25 N.m	1 N.m	48-240 lbf.in	10 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010188	ADS 25 S	5-25 N.m	1 N.m	48-240 lbf.in	10 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010200	ADS 25 F	5-25 N.m	1 N.m	4-20 lbf.ft	0.5 lbf.ft	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010208	ADS 25 FS	5-25 N.m	1 N.m	4-20 lbf.ft	0.5 lbf.ft	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010220	ADS 40	8-40 N.m	1 N.m	72-360 lbf.in	10 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010228	ADS 40 S	8-40 N.m	1 N.m	72-360 lbf.in	10 lbf.in	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010240	ADS 40 F	8-40 N.m	1 N.m	6-30 lbf.ft	1 lbf.ft	1/4	244	0.52	0.52	0.52	+/- 3%	1B	X	✓
010248	ADS 40 FS	8-40 N.m	1 N.m	6-30 lbf.ft	1 lbf.ft	1/4	244	0.52	0.52	0.52	+/- 3%	1B	✓	✓
010300	BDS 80 A	16-80 N.m	2 N.m	12-60 lbf.ft	1 lbf.ft	1/2	435	1.35	1.35	1.35	+/- 3%	1B	X	X
010380	BDS 80 AS	16-80 N.m	2 N.m	12-60 lbf.ft	1 lbf.ft	1/2	440	1.47	1.47	1.47	+/- 3%	1B	✓	X
010320	BDS 80 E	16-80 N.m	2 N.m	12-60 lbf.ft	1 lbf.ft	1/2	435	1.36	1.36	1.36	+/- 3%	1B	X	X
010400	BDS 80 ES	16-80 N.m	2 N.m	12-60 lbf.ft	1 lbf.ft	1/2	440	1.49	1.49	1.49	+/- 3%	1B	✓	X
010410	BDS 100 EF	20-100 N.m	2 N.m	14-70 lbf.in	2 lbf.in	1/2	515	1.41	1.41	1.41	+/- 3%	1B	X	X
010415	BDS 100 E	20-100 N.m	2 N.m	168-840 lbf.in	24 lbf.in	1/2	515	1.41	1.41	1.41	+/- 3%	1B	X	X
010340	BDS 160	32-160 N.m	2.5 N.m	24-120 lbf.in	2 lbf.in	1/2	515	1.41	1.41	1.41	+/- 3%	1B	X	X
010420	BDS 160 S	32-160 N.m	2.5 N.m	24-120 lbf.in	2 lbf.in	1/2	520	1.54	1.54	1.54	+/- 3%	1B	✓	X
010360	BDS 200	40-200 N.m	5 N.m	30-160 lbf.in	5 lbf.in	1/2	515	1.41	1.41	1.41	+/- 3%	1B	X	X
010440	BDS 200 S	40-200 N.m	5 N.m	30-160 lbf.in	5 lbf.in	1/2	520	1.54	1.54	1.54	+/- 3%	1B	✓	X
010520	CDS 400 S	80-400 N.m	10 N.m	60-300 lbf.in	10 lbf.in	1/2	710	3.20	3.20	3.20	+/- 3%	1B	✓	X
010620	DDS 800 S	160-800 N.m	20 N.m	120-600 lbf.in	20 lbf.in	1/2	1000	4.90	4.90	4.90	+/- 3%	1B	✓	X
010700	EDS 1400 S	280-1400 N.m	25 N.m	200-1000 lbf.in	25 lbf.in	1	2040	16.7	16.7	16.7	+/- 3%	1B	✓	X
010720	EDS 2000 S	400-2000 N.m	50 N.m	300-1500 lbf.in	50 lbf.in	1	2040	16.7	16.7	16.7	+/- 3%	1B	✓	X



Torcotronic Digital Torque Wrench with Angle

Torque range from 10 to 350 N.m

Torcotronic Digital Torque Wrenches provide highly accurate and controlled bi-directional tightening, suitable for Production, Quality Auditing, Research & Development, and Maintenance and Repair applications. These microprocessor-controlled tools have

built-in memory which stores data for download to analysis software. A comprehensive range of accessories ensures that these robust, versatile precision assembly tools provide accuracy across a wide range of applications.



Robust, versatile tightening - plus data collection and auditing capability

Accuracy. Exceptionally high levels of accuracy of +/-1% of reading between 10% and 100% of full scale

Bi-directional tightening. Supplied with reversible ratchet as standard

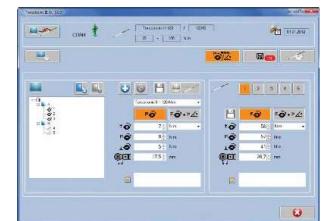
Control. High levels of accuracy give confidence that the tightening process is under control, hence also controlling rework and warranty costs with the added benefit of five programmable preset values

Data collection. The built-in memory can store 2,000 data points ready for download to analysis software. This also makes the tools faster and easier to use

Long tool life. High quality construction and robust design

Process traceability. Historic data storage and management features of easy to use PC software, available in 11 languages

Versatility. Tools integrate with 9x12 and 14x18 wrench fittings. Torque and angle capability ensures suitability for a broad range of applications across Production, Quality Auditing, Research & Development, and Maintenance and Repair



Data Analysis



Torcotronic 120 with Angle

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



Order Code	Model	ISO	Calibrated Range	Imperial	Drive	Adaptors	k	mm	kg	Accuracy	ISO 6789 Class
021640	120	10-120 N.m	7-88 lbf.ft	1/2	64	565	1.01	+/- 1%	1C		
021650	350	70-350 N.m	51-258 lbf.ft	1/2	64	701	1.18	+/- 1%	1C		