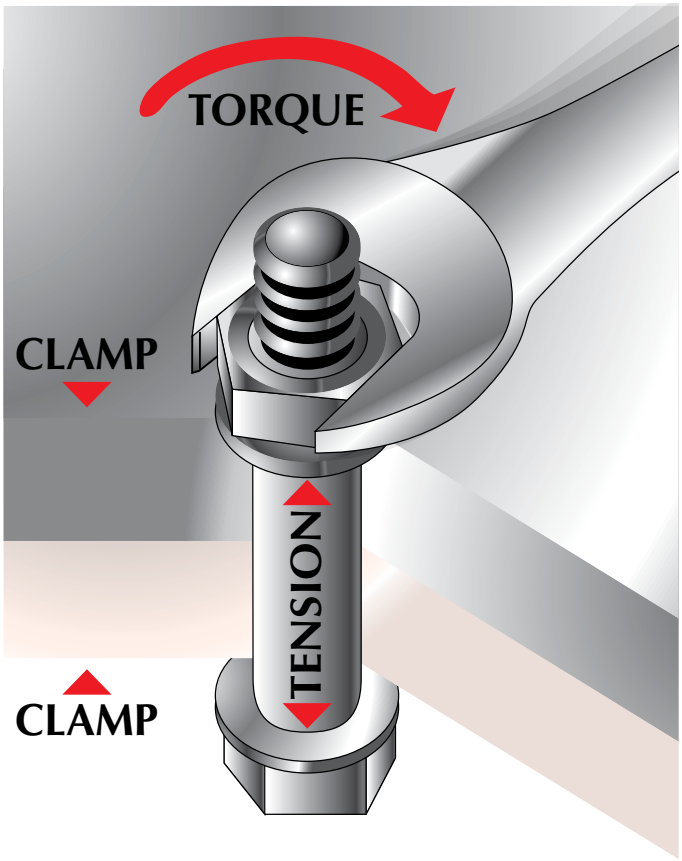
BRITOOL
Quality Since 1908

Torque Wrenches

Torque Wrenches – Technical

The torque wrench is an essential hand tool that is now fundamental in all garages and workshops.

The Britool torque wrench range has been carefully designed to provide a range of solutions to meet the needs of the torque-tightening user.



What is Torque ?

- Torque is a turning or twisting force, the result of a force applied at a given distance about a known centre
- It is recorded in units of force x distance

i.e. Nm = Newtons (force) x metres (distance) or

lbf/ft = lbf (force) x feet (distance) (1 Newton = 1kg m/s2)

Classic Mechanical Torque Wrenches

The Britool Classic torque wrench has won a reputation for reliability and quality established over 50 years. The unique mechanism has distinct advantages which ensure it remains a firm favourite with users worldwide.

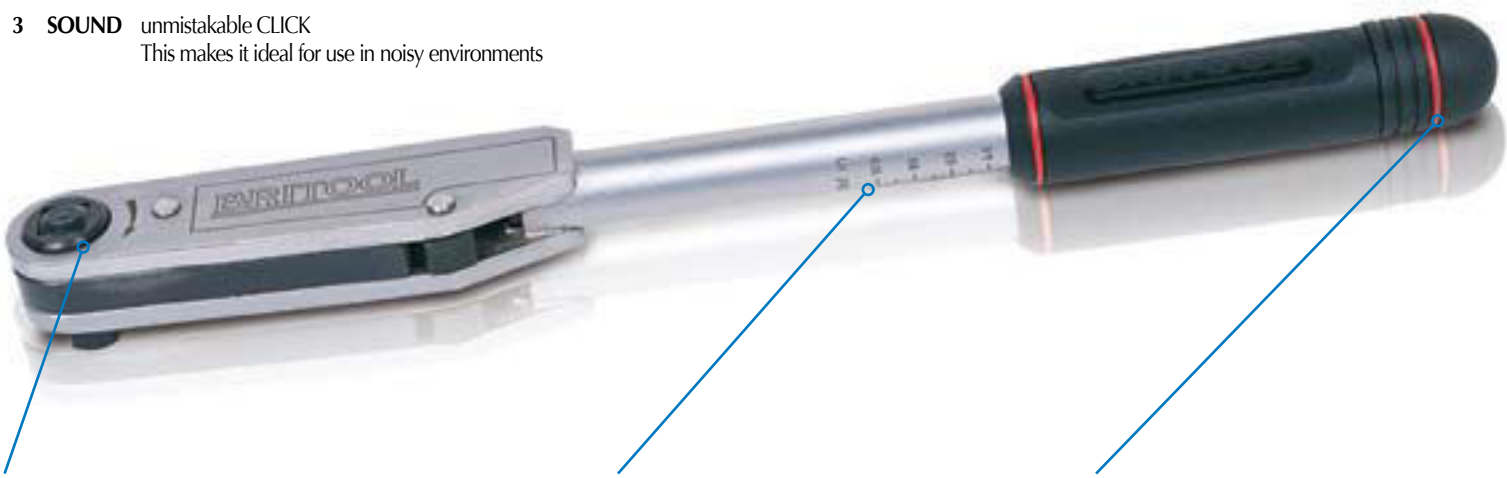
Unique 3-phase Mechanism

A progressive torque build-up to the selected setting is easily detected by three clear signals:

1 **SIGHT** see the mechanism progressively move towards the point of break as the load is applied

2 **TOUCH** feel the point of torque

3 **SOUND** unmistakable CLICK
This makes it ideal for use in noisy environments



ACCESSIBILITY
Compact design ideal for restricted access

DURABILITY
Proven to be one of the most robust products in the market, the first choice for arduous conditions

ACCURACY
Exceeds requirements of ISO 6789

SCALE
Multiple scales – Nm, kg.m, lbf.in and lbf.ft are branded into steel tube, giving readability for the life of the product

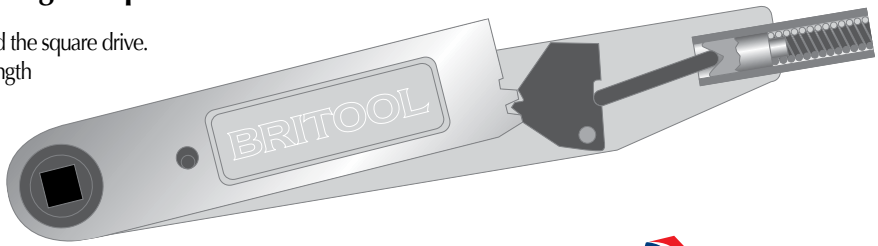
FLEXIBILTY
Push-through square drive for left and right hand operation

SETTING
Retractable adjuster knob cannot be altered by accident

SERVICE
Fully repairable with dedicated service kits

Classic Mechanical Torque Wrench – Non-Length Dependant

Unlike most other torque wrenches, the mechanism pivots around the square drive. This gives the major advantage in that the torque wrench is not length dependant. As a result there is no variation to the application of the preset torque value, no matter where the handle is grasped.



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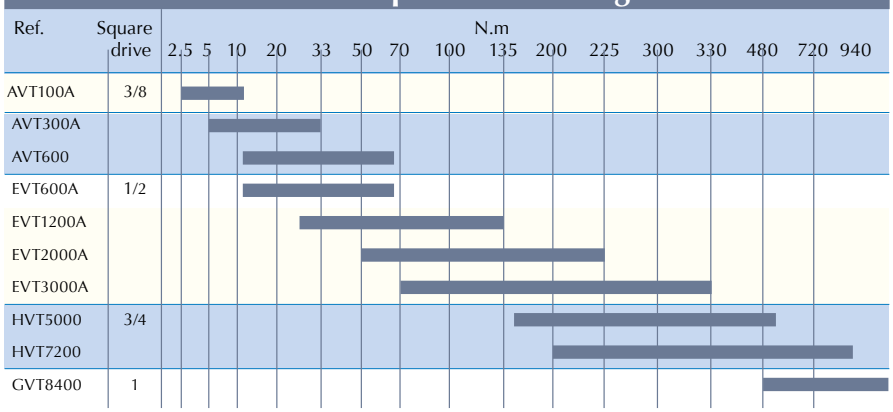
Classic Torque Wrench Ranges



Scale Divisions

Series	N.m	Kg.m	lbf.in	lbf.ft
100	0.5	0.1	10.0	1.0
300	1.0	0.1	10.0	1.0
600	2.0	0.2	20.0	2.0
1200	5.0	1.0	50.0	2.0
2000	5.0	1.0	50.0	2.0
3000	10.0	1.0	100.0	10.0
5000	10.0	-	100.0	10.0
8400	10.0	-	-	10.0

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A and E series adjustable torque wrenches are supplied in a sturdy plastic storage case.

How To Read The Britool Torque Wrench Code

Square drive size inches	Regular type	Torque Wrench	Maximum lbf.in	Scale type
E	**V**	**T**	**3000**	**A**
Aero 3/8 Engineers 1/2 Heavy 3/4 Giant 1	Variable (regular, adjustable type)			A denotes a production change to the latest model

The example code in the blue band is for a 1/2" variable torque wrench, maximum 3000 lbf.in

Torque Measurement Conversion Chart

TO CONVERT FROM	TO CONVERT TO								
	mN.m millinewton-metre	*cN.m* centinewton-metre	*N.m* newton-metre	*daN.m* decanewton-metre	*cm.kg* centimetre-kg	*m.kg* metre-kg	*in.oz* inch-ounce	*in.lb* inch-pound	*ft.lb* foot-pound
1mN.m	1	0.1	0.001	0.0001	0.0102	0.000102	0.1418	0.00886	0.000738
1cN.m	10	1	0.01	0.001	0.102	0.00102	1.418	0.0886	0.00738
1N.m	1000	100	1	0.1	10.2	0.102	141.8	8.863	0.738
1daN.m	10000	1000	10	1	102	1.02	1418	88.63	7.38
1cm.kg	98	9.8	0.098	0.0098	1	0.01	13.9	0.869	0.0724
1m.kg	9810	981	9.81	0.98	100	1	1390	86.90	7.24
1in.oz	7.05	0.705	0.00705	0.0007	0.072	0.0072	1	0.063	0.0052
1in.lb	112.8	11.28	0.1128	0.01128	1.152	0.0115	16	1	0.083
1ft.lb	1350	135	1.35	0.135	13.8	0.138	192	12	1

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3/8" Square drive								
MODEL								
	N.m	kg.m	lbf.in	lbf.ft	in	mm	mm	Kg
AVT100A	2.5-11	0.3-1.2	20-100	2-8	3/8	10	318	0.56
AVT300A	5-33	0.5-3.4	40-300	4-24	3/8	10	422	0.71

1/2" Square drive								
MODEL								
	N.m	kg.m	lbf.in	lbf.ft	in	mm	mm	Kg
EVT600A	12-68	1.2-7	100-600	10-50	1/2	12.5	476	1.02
EVT1200A	25-135	3-14	200-1200	20-100	1/2	12.5	546	1.62
EVT2000A	50-225	5-23	400-2000	40-160	1/2	12.5	597	2.38
EVT3000A	70-330	7-35	600-3000	50-250	1/2	12.5	825	3.12

3/4" Square drive						
MODEL						
	N.m	lbf.in	in	mm	mm	Kg
HVT5000	140-560	100-410	3/4	20	1130	6.58
HVT7200	200-810	150-600	3/4	20	1181	7.00
GVT8400	480-940	350-700	1	25	1397	12.7

Calibration Procedure

Calibration is performed by comparison with reference standards which have been calibrated and are traceable to National Standards. The limits shown and test equipment used for the calibration comply with the requirements of ISO6789. N.B. torque wrenches should be regularly checked on a test ring after a period of 12 months or 5,000 cycles.

Calibrated at the factory at ± 4% using the ISO6789 reference
TRACEABLE TO NATIONAL STANDARDS IN ACCORDANCE WITH BSENISO06789:2003
"For the first recalibration, the period of validity starts with user's first operation of the torque tool"

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