

The range of Britool torque wrenches has been increased extensively to include a number of electronic, dial and enclosed mechanism models. The increase in the range has been made to meet the specific needs and expectations of the torque tightening market.

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Classic Mechanical Torque Wrenches

Safety in use. There is a progressive torque build-up to the selected setting, easily detected by three clear signals:

- 1 **SIGHT** – see the wrench start to break
- 2 **TOUCH** – feel the point of torque
- 3 **SOUND** – click!

Ideal for use in noisy environments

Consistent, reliable accuracy. The mechanism pivots on the square drive, this means accuracy is maintained wherever the handle is grasped.

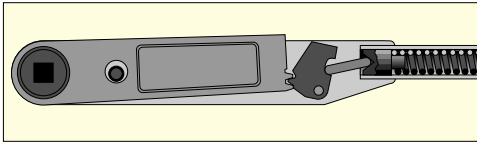
Durable. Hardwearing, heavy duty mechanism retains $\pm 3\%$ accuracy for up to 10,000 operations before recalibration. The robust construction resist accidental damage even in heavy use.

Comfortable. Handle is designed for controlled pulling effort at all settings.

Compact design. Ideal where access is restricted.

Convenient. Push-through, user replaceable square drive - just turn the wrench over to use for left hand threads.

Manoeuvrable. For minimal handle movement, smaller ratcheting models feature the unique Britool clutch roller bearing mechanism. Larger models utilise a 24-tooth double-pawl ratchet action.



View showing internal mechanism.

The gear link pivots around the axis of the square drive. This ensures a constant load can be applied from any point on the handle.



Easy to Read, Permanent Scale

Large, clear markings are branded into the handle - N.m, Kg.m, lbf.in and lbf.ft. Secure and rapid adjustment. The retracting torque adjuster cannot be altered by accident. This ensures consistently accurate settings.



Clutch Ratcheting Head

AVTR600 incorporates the unique feature of a roller clutch mechanism. This gives a fine ratcheting movement of less than 1° .



Fully Serviceable

All service parts are available - see page 90 - and there is a complete repair and calibration service.

Standard

ISO6789 : 1992

Sintered pinion link withstands the wear and tear of the break back action. This extends the life of the torque wrench and helps to keep the wrench within calibration.

The mechanism moves progressively as the load is applied. This gives a visual indication as the break point is reached.

Mechanical Torque Wrench Ranges

Ref.	Square drive	N.m																
		2.5	5	10	20	33	50	70	100	135	200	225	300	330	480	720	940	
AVT100A	3/8	█	█	█														
AVT300A			█	█	█	█												
AVTR600				█	█	█	█	█										
AVT600				█	█	█	█	█	█									
ACT70				█	█	█	█	█	█	█								
ACT100				█	█	█	█	█	█	█	█							
UCTSF70				█	█	█	█	█	█	█	█							
UCTSF100				█	█	█	█	█	█	█	█	█						
EVT600A	1/2			█	█	█	█	█	█	█	█	█						
EVT1200A				█	█	█	█	█	█	█	█	█	█					
EVTR1200				█	█	█	█	█	█	█	█	█	█					
EVT2000A					█	█	█	█	█	█	█	█	█	█				
EVT3000A						█	█	█	█	█	█	█	█	█	█			
EVTR3000						█	█	█	█	█	█	█	█	█	█			
ECT200							█	█	█	█	█	█	█	█	█			
ECT330								█	█	█	█	█	█	█	█	█		
ECT330PT									█	█	█	█	█	█	█	█		
UCTLF200									█	█	█	█	█	█	█	█		
UCTLF330										█	█	█	█	█	█	█		
HVT5000	3/4										█	█	█	█	█	█		
HVTR5000												█	█	█	█	█	█	
HVT7200													█	█	█	█	█	
HVTR7200														█	█	█	█	
GVTR400	1																█	█
GVTR8400																		█

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

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



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How to read the Britool Torque Wrench code					
D	V	T	R	100	N
Square drive size inches	Regular or Production type?	Torque Wrench	Ratcheting ?	Maximum lbf.in	Scale type
Dwarf 1/4 Aero 3/8 Engineers 1/2 Heavy 3/4 Giant 1	Variable (regular, adjustable type) or Fixed production type				N=N.m scale only A denotes a production change to the latest, red adjuster. If no letter used, = regular 4 scales type. (N.m, Kg m, lbf.in, lbf.ft)
The example code in the black band is for a 1/4" variable ratcheting torque wrench, maximum 100 lbf.in					

Production Torque Wrenches

These versions of the Britool classic torque wrench eliminate the risk of settings being altered on the production line. To prevent unauthorised alteration, wrenches are supplied preset to a specified load, then locked.

When required, they can be reset to a different torque load using a suitable test-rig.

Ratcheting and non-ratcheting operations are available.

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	0.000705	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

Convert 10 ft.lb to N.m, 10 ft.lb x 1.35 = 13.5 N.m

TORQUE WRENCHES TECHNICAL INFORMATION

Torque Calculation when using Adaptors and Attachments

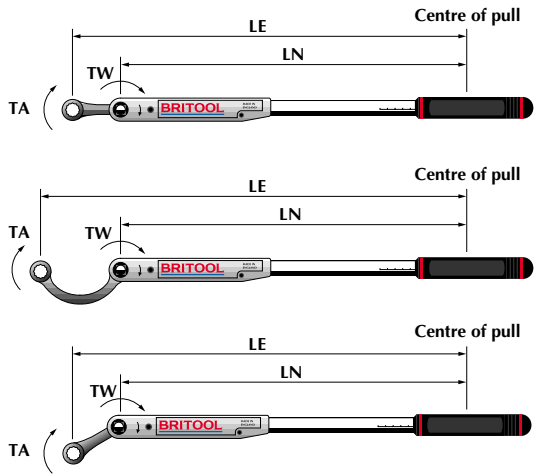
$$TW = TA \times \frac{LN}{LE}$$

- TW = Torque wrench setting.
- TA = Required torque for fastener.
- LN = Normal length from centre of pull to centre of square drive.
- LE = Length from centre of pull to centre of adaptor or attachment.

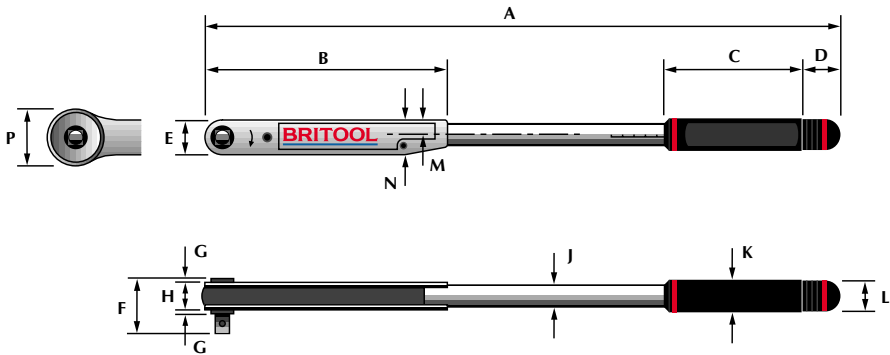
Example: TA = 150 N.m; LN = 500; LE = 750

$$TW = 150 \times \frac{500}{750} = 100 \text{ N.m}$$

Note: It is important to maintain a constant position of centre on pull as any change will result in output fluctuations.



Outline Dimensions of Classic Torque Wrenches



3/8" Square Drive see page 6.

Ref.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
AVT100A	315	112.7	72.8	23.8	23.5	32.8	1.0	18.9	15.8	22.9	18.0	10.6	28.0	-
AVT300A	424	112.6	109.8	23.8	23.5	33.1	1.0	18.9	15.8	22.9	18.0	10.6	28.0	-
AVTR600	483	185.0	109.8	23.8	37.4	43.4	5.0	19.2	15.9	22.9	18.2	10.1	28.1	26.0
AVT600	480	181.0	109.8	23.8	28.6	38.3	1.2	18.9	15.9	22.9	18.2	9.5	-	-

1/2" Square Drive see page 7.

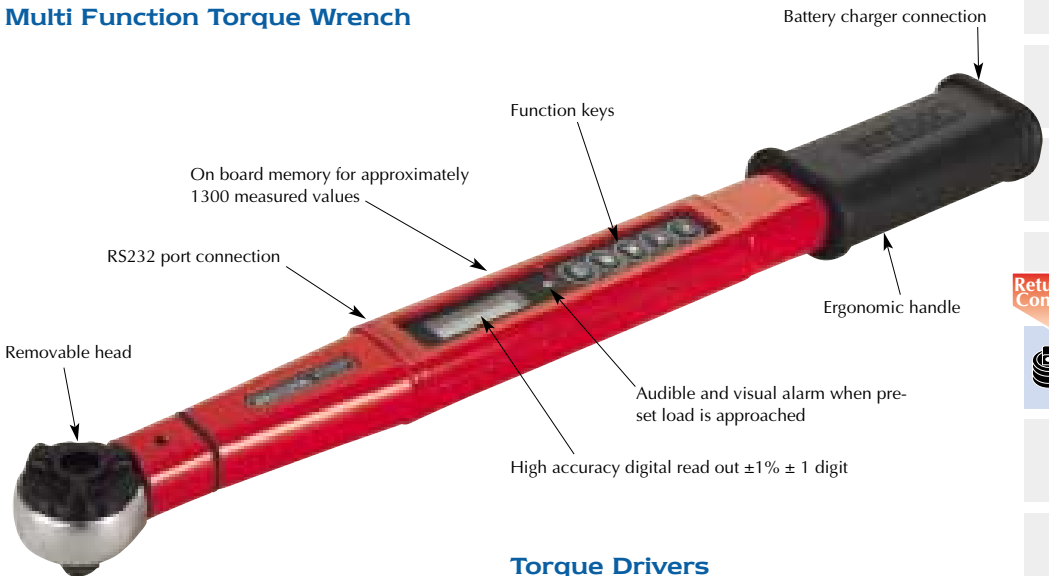
Ref.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
EV7600A	480	181	109.8	23.8	28.6	49.1	5.1	18.9	15.9	22.9	18.2	9.5	-	-
EV71200A	544	180	123.0	31.0	28.6	49.0	1.6	25.6	22.1	32.0	24.9	11.2	-	-
EVTR1200	554	187	123.0	31.0	31.4	55.0	5.5	26.3	22.1	32.0	25.5	11.1	-	45.6
EVT2000A	593	227	123.0	35.2	33.9	49.2	2.0	27.7	25.1	35.2	29.1	12.0	-	-
EVT3000A	809	223	199.3	35.2	33.9	49.2	2.1	27.8	26.2	35.2	28.8	13.1	-	-
EVTR3000	842	244	199.3	35.2	32.5	86.0	4.2	34.8	26.2	35.2	29.0	12.7	-	62.7

3/4" & 1" Square Drive see page 8.

Ref.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
HVT5000	1025	343	235	17.0	48.0	68.5	8.0	35.7	29.5	36.4	14.4	14.3	-	-
HVT7200	1087	405	235	17.0	48.0	68.5	8.0	35.7	29.5	36.4	14.4	14.3	-	-
GVTR8400	1410	394	624	25.4	63.5	75.0	9.5	41.9	34.7	41.6	20.5	25.4	-	-
HVTR5000	1093	413	235	17.0	48.0	68.5	8.0	35.7	29.5	36.4	14.4	14.3	-	71.5
HVTR7200	1155	475	235	17.0	48.0	68.5	8.0	35.7	29.5	36.4	14.4	14.3	-	71.5
GVTR8400	1485	469	624	25.4	63.5	75.0	9.5	41.7	34.7	41.6	20.5	25.4	-	75.8

All dimensions are in mm.

Multi Function Torque Wrench



Other features include:

- Automatic zeroing on power-up
- Preset values can be locked in by means of a pass code number
- Rechargeable battery
- Auto power-off after 60 seconds if not used
- Unit conversion – N.m, lbf.in and lbf.ft

Torque Drivers

- Manufactured to international torque driver standards ISO 6789: 1992
- Accuracy $\pm 6\%$ of displayed value
- Reliability – 5000 cycles of maximum torque
- Vernier scale gives extra reading
- Handle release when torque is reached prevents over torquing
- Mechanism automatically resets, facilitating rapid repetitive operations
- Handles except TD10 incorporate $\frac{1}{4}$ " female square which facilitates use of 'T' bar or ratchet handle TDH1 for more turning power

Dial Indicating Torque Wrench

- Patented torque beam design
- Follower needle dial
- Equal accuracy for left and right hand torquing
- Accuracy $\pm 3\%$ of indicated value over the full scale of the wrench
- Large, clear dial for ease of reading
- Metric and English imperial scales are on opposite sides of dial to avoid confusion
- Bi-directional operation for tightening and unscrewing
- Long life and reliability



Britool torque drivers are ideal for use assembling, maintaining and repairing small mechanical and electrical assemblies where low torques are required.

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$\frac{3}{8}$ "

CLASSIC MECHANICAL TORQUE WRENCHES

Manufactured to ISO 6789 standard.

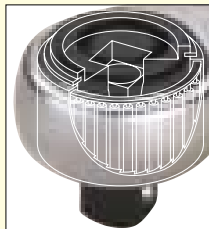
 $\frac{3}{8}$ " Square Drive

Ref.	Ratchet?	Torque Range				Square Drive		Length mm	Wt. kg
		N.m	Kg.m	lbf.in	lbf.ft	in	mm		
AVT100A	✗	2.5-11	0.3-1.2	20-100	2-8	$\frac{3}{8}$	10	318	0.56
AVT300A	✗	5-33	0.5-3.4	40-300	4-24	$\frac{3}{8}$	10	422	0.71
AVTR600	✓	12-68	1.2-7	100-600	10-50	$\frac{3}{8}$	10	476	1.02
AVT600	✗	12-68	1.2-7	100-600	10-50	$\frac{3}{8}$	10	476	1.02

All models are supplied complete with sturdy blow moulded box and a calibration certificate fully traceable to national standards and suitable for ISO 9000 assessment purposes.

For dimensions of $\frac{3}{8}$ " classic torque wrenches see page 4.

Clutch Ratcheting Mechanism



- Roller bearing mechanism gives less than 1° ratcheting movement for use in confined spaces
- Heavy duty roller bearing ensures loads exceeding BS standards
- Simple and robust mechanism for years of trouble free service
- Ratcheting models available – DVTR100, AVTR600

1/2"

CLASSIC MECHANICAL TORQUE WRENCHES

Manufactured to ISO 6789 standard.



1/2" Square Drive

Ref.	Ratchet?	Torque Range				Square Drive		Length mm	Wt. kg
		N.m	Kg.m	lbf.in	lbf.ft	in	mm		
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
EVTR1200	✓	25-135	3-14	200-1200	20-100	1/2	12.5	555	2.00
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
EVTR3000	✓	70-330	7-35	600-3000	50-250	1/2	12.5	840	4.00

All models are supplied complete with sturdy blow moulded box and a calibration certificate fully traceable to national standards and suitable for ISO 9000 assessment purposes.

For dimensions of 1/2" classic torque wrenches see page 4.

Ref.	Ratchet?	Torque Range				Square Drive		Length mm	Wt. kg
		N.m	Kg.m	lbf.in	lbf.ft	in	mm		
EFTR720	✓	27-82	2.8-8.3	200-720	20-60	1/2	12.5	475	1.62
EFTR1200	✓	68-136	6.9-13.8	600-1200	50-100	1/2	12.5	565	1.82
EFTR2000	✓	116-218	11.8-22	1000-2000	85-160	1/2	12.5	680	3.20
EFTR3000	✓	170-341	17.3-34.5	1500-3000	125-250	1/2	12.5	820	3.50
AFT100	✗	4.1-10.9	0.4-1.1	40-100	3-8	3/8	10.0	260	0.50
AFT300	✗	9.6-34	1.0-3.4	86-300	7-25	3/8	10.0	350	0.60
EFT720	✗	27-82	2.8-8.3	200-720	20-60	1/2	12.5	470	1.40
EFT1200	✗	68-136	6.9-13.8	600-1200	50-100	1/2	12.5	555	1.60
EFT2000	✗	116-218	11.8-22	1000-2000	85-160	1/2	12.5	680	2.60
EFT3000	✗	170-341	17.3-34.5	1500-3000	125-250	1/2	12.5	820	3.00
HFT5000	✗	136-610	13.8-62.2	1200-5400	100-450	3/4	20.0	970	5.65

All models are supplied complete with calibration certificate fully traceable to national standards and suitable for ISO 9000 assessment purposes.

Production Torque Wrenches



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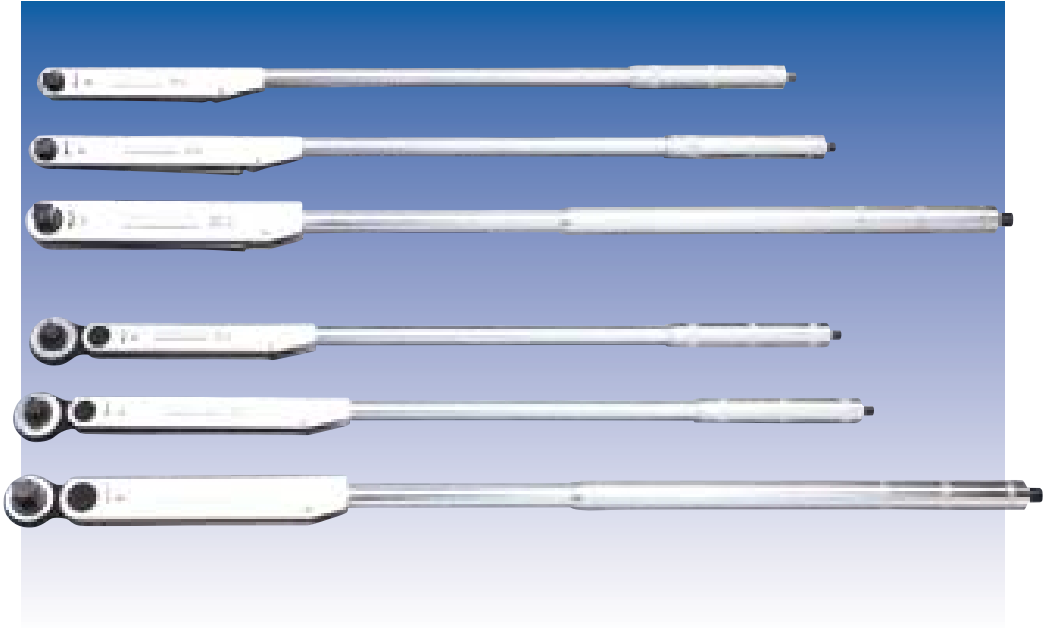


3/4"

1"

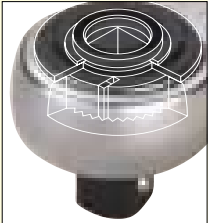
CLASSIC MECHANICAL TORQUE WRENCHES

Manufactured to ISO 6789 standard.



3/4" & 1" Square Drive

Ratchet Mechanism



- 40 teeth gives 9° ratcheting movement
- Twin pawls give extra strength exceeding British standards
- Push through (re-position) square drive
- Simple and robust mechanism for years of trouble free service
- Ratcheting models available – HVTR5000, HVTR7200 and GVTR8400

Ref.	Ratchet?	Torque Range		Square Drive		Length mm	Wt. kg
		N.m	lbf.ft	in	mm		
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	12.70
HVTR5000	✓	140-560	100-410	3/4	20	1210	5.90
HVTR7200	✓	200-810	150-600	3/4	20	1261	6.50
GVTR8400	✓	480-940	350-700	1	25	1471	11.30

All models are supplied complete with calibration certificate fully traceable to national standards and suitable for ISO 9000 assessment purposes.

For dimensions of 3/4" and 1" classic torque wrenches see page 4.

Torque Wrench Extensions



GTWX1500/2000 - 1" square drive torque wrench extensions. These products have been developed to meet the torque tightening needs in excess of 1000N.m. This method of increasing the range of the GVT8400 has the major benefit of being more manageable in terms of physically applying the torque load (often a two man job), and from a transport and storage point of view. The extension fits between the ratchet head and the socket. The required torque value is converted to the torque wrench reading using the supplied chart and the load is applied in the normal way.

Ref.	Torque Range		Square Drive		Length mm	Wt. kg
	N.m	lbf.ft	in	mm		
GTWX1500	900-1500	664-1107	1	25	740	6.5
GTWX2000	1000-2000	738-1476	1	25	1390	11.0



3/8"

1/2"

ELITE TORQUE WRENCHES


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Ref.	Torque Range		Square Drive		Length mm	Wt. kg
	N.m	lbf.ft	in	mm		
ACT70	10-70	100-410	3/8	10	420	1.37
ACT100	20-100	150-600	3/8	10	480	1.38
ECT100	20-100	150-600	1/2	12		
ECT200	40-200	350-700	1/2	12	535	1.71
ECT330	60-330	100-410	1/2	12	770	2.02
ECT330PT	60-330	150-600	1/2	12		

3/8" & 1/2" Square Drive Elite Range

Ref.	Torque Range		Length mm	Wt. kg
	N.m	lbf.ft		
UCTS70	10-70	100-410	420	1.37
UCTS100	20-100	150-600		
UCTL200	40-200	350-700	535	1.71
UCTL330	60-330	100-410	770	2.02

Elite Universal Range

Ref.	Torque Range		Spigot fitting mm	Length mm	Wt. kg
	N.m	lbf.ft			
UCTSF70	10-70	100-410	9 x 12	400	1.40
UCTSF100	20-100	150-600	9 x 12	455	1.54
UCLTF200	40-200	350-700	14 x 18	530	1.75
UCLTF330	60-330	100-410	14 x 18	760	2.27

Fixed Production Range

All models are supplied complete with sturdy blow moulded box and a calibration certificate fully traceable to national standards and suitable for ISO 9000 assessment purposes.