Known For Getting The Job Done Right The First Time.

Your reputation depends on your ability to deliver precise results. Snap-on offers the largest selection of torque tools available, providing the accuracy you need to turn more fasteners and tighten them to spec.

Torque In Less Time.

- TechAngle®—Electronic torque wrench does the job of multiple torque wrenches and an angle gauge to complete precise "torque to yield" specifications. Angle calculation is based on the same gyroscope technology that keeps helicopters flying level.
- Techwrench®—Hand tool that revolutionized the industry. Electronic easy-to-use push button tool that precisely measures torque applied to the fastener. Measures ft. lbs., in. lbs. and Nm.
- Click-type torque wrenches—Provide consistently accurate readings and rugged, trouble-free performance.

Techwrench® Torque Wrenches

TechAngle® torque wrenches are truly revolutionary. They do the job of multiple torque wrenches and an angle gauge to complete precise t orque plus turn specifications at a fraction of the cost. Even better, it saves you some serious time on every head bolt or connecting rod nut. www.torqueinlesstime.com

TechAngle

Eliminates the need for angle gauges and protractors, providing the most accurate and fastest way to achieve torque plus angle tightening sequences now specified by many manufacturers.

- Digital readout shows torque setting then changes to the follow-up angle
- Not affected by ratcheting
- Angle calculation based on the same gyroscope technology that keeps helicopters flying level
- Torque accuracy: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S. 8% CW, 10% CCW from 5-9% F.S.
- Angle accuracy ±1% of reading ±1°@ angular velocity >10°/sec <180°/sec.
- Display resolution 1°
- More information at www.snapon.com/torque/techangle and www.torqueinlesstime.com

ATECH2FR100

Techwrench (all models)

- Manual preset and automatic track and peak hold modes
- Torque units conversion: N•m, ft-lb, in-lb.
- Audible (tone) and tactile (vibrating handle) preset alerts
- Display resolution: 0.1 ft-lb, 0.1 N•m, 1 in-lb.
- Each button has only one function (power on, preset increase, preset decrease, unit of measure select)
- Comfortable, non-slip grip
- Stand on handle bottom keeps tool from rolling off flat surface
- Sealed flex head ratchets move ±15°
- Three "AA" alkaline cells included
- Low battery indicator and auto shut-off (after 2 minutes idle)
- Operating temperature 40-110°F (5-42°C)
- Storage temperature 0-122°F (-20-50°C)
- Humidity up to 90% non-condensing
- Designed to withstand shocks without failure
- Splash-proof, protects against water and most automotive shop fluid
- EU/CE-DE, ES, FR, IT, NL, PT, UK and Japanese language manual
- ISO-6789-2003 and ASME B107-28-2005 standards compliant
- Certificate of N.I.S.T. traceability for 20% to 100% of full scale
- Includes storage case
- More information at www.snapon.com/torque/techwrench

TECH2R100

TechAngle Models/2% Accuracy/Flex Head

Specifications	ATECH2FR100	ATECH3FR250
Square Drive, inches	3/8	1/2
Head Type	Sealed Flex Head	Sealed Flex Head
Gear Teeth	36	36
Gear Action	10°	10°
Range, in. lb.	60-1,200	150-3,000
Range, ft. lb.	5-100	12.5-250
Range, N•m	13.5-135.0	17.5-340
Angle Range	5°-360°	5°-360°
Head Depth, inches	5/8	3/4
Head Width, inches	1 5/32	1 5/8
Operating Temperature	40-110°F (5-42°C)	40-110°F (5-42°C)
Storage Temperature	0-122°F (-20-50°C)	0-122°F (-20-50°C)
Humidity	up to 90% non-condensing	up to 90% non-condensing
Housing Color	Grey	Grey
Length, inches	17	26
Ratchet Service Kit	RKRF936	RKRS936

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.

Standard Models/2% Accuracy/Fixed Head

Specifications	TECH1R240	TECH2R100	TECH3R250
Square Drive, inches	1/4	3/8	1/2
Head Type	Sealed Fixed Ratchet	Sealed Fixed Ratchet	Sealed Fixed Ratchet
Gear Teeth	36	36	36
Gear Action	10°	10°	10°
Range, in. lb.	24-240	60-1,200	300-3,000
Range, ft. lb.	2-20	5-100	25-250
Range, N•m	2.7-27.12	6.7-135	34-339
Head Depth, inches	7/16	5/8	3/4
Head Width, inches	7/8	1 5/32	1 5/8
Housing Color	Red	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4
Ratchet Service Kit	RKRT936	RKRF936	RKRS936

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.

Standard Models/2% Accuracy/Flex Head

Specifications	TECH1FR240	TECH2FR100	TECH3FR250	TECH4R600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head	Sealed Fixed Ratchet
Gear Teeth	36	36	36	32
Gear Action	10°	10°	10°	11°
Range, in. lb.	24-240	60-1,200	300-3,000	720-7,200
Range, ft. lb.	2-20	5-100	25-250	60-600
Range, N•m	2.7-27.12	6.7-135	34-339	81-813
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Housing Color	Red	Grey	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4	48
Ratchet Service Kit	RKRT936	RKRF936	RKRS936	RKRQC4

The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale.

Techwrench (standard models)

- Torque accuracy ratchet head models: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S. 8% CW, 10% CCW from 5-9% F.S. (TECH2 only)
- Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20-100% F.S. 8% CW, 12% CCW from 10-19% F.S. 16% CW, 20% CCW from 5-9% F.S. (TECH Y only)
- Tolerance (early preset alert) - 2% of torque setting

TECH2FR100

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Techwrench® Torque Wrenches

Techmemory™ electronic torque wrenches include TORQLOG®, a downloading software on CD for IBM PCs and a 6 RS232 serial cable. 2 Microsoft® Excel® templates are also in the CD for customer convenience. The download template provides basic statistical analysis of dumped readings. The date/time template adds a date and time stamp to each reading while the wrench is attached to the PC. Templates can be customized to suit specific user needs.
6 button operation. RS232 port for downloading data to computer for analysis. All models include 3 "AA" batteries for power. Comfortable, non-slip grip. Stand on handle bottom keeps tool from rolling off flat surface. Flex head ratchet moves 15 . All models have a low battery indicator and auto shutoff (after 2 minutes idle). Designed to withstand shocks without failure. Splash-proof to protect against water and most automotive shop fluid. Includes storage case. EU/CEDE, ES, FR, IT, NL, PT, UK all models. Complies with ISO-6789-2003 and ASME B107-28-2005 Standards. Additional technical information is available at www.snapon.com/torque/techwrench.

Techmemory™ Features:

- Torque accuracy TECH1, 2 and 3 ratchet head models: 1% CW, 1.5% CCW 2% CW, 3% CCW from 10-19% F.S. 4% CW, 8% CCW from 5-9% F.S. (TECH2 only)
- Torque accuracy TECH4 ratchet head model: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S.
- Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20-100% F.S. 8% CW, 12% CCW from 10-19% F.S. 4% CW, 20% CCW from 5-9% F.S. (TECH Y only)
- Manual peak store, recall, clear and print functions
- Memory capacity: 1000 peak readings
- TechLog™ download software CD included
- Excel Download Template with basic statistics
- Date/time Excel download template (wrench connected to PC)
- Serial RS232, with selectable 1200 to 19.2K baud rate
- Serial cable: 6 with 9 pin PC interconnect included

Applications:

- Automotive servicepr intout provides assurance that lug nuts, head bolts, etc. have been tightened to specification
- Assembly operationsga ther data to manage quality
- Manufacturing ISO and SPCge nerate statistics for technical files and process auditing
- Militarydo cument compliance with maintenance schedules and inspections
- Aviationinc lude torque data in maintenance reports

Techwrench Features: *(all "D" models)*

- Hidden torque preset adjustment (momentary displays at Zero/Tare)
- Hidden tolerance adjustment + and 1 to 16% of preset value

TECH2Y100

TECH3XD250

Standard Models/4% Accuracy/Interchangeable Head and D Models

Stock No.	Range, in. lb.	Range, ft. lb.	Range, N•m	Shank Diameter	Housing Color	Length, inches
TECH1J240	24-240	2-20	2.7-27.12	J (0.425")	Red	13 3/4
TECH2Y100	60-1,200	5-100	6.7-135	Y (0.560")	Red	15 1/2
TECH3X250	300-3,000	25-250	34-339	X (0.735")	Red	23 3/4
TECH4Z600	720-7,200	60-600	81-813	Z (0.990")	Red	42
TECH1JD240	24-240	2-20	2.7-27.12	J (0.425")	Grey	13 3/4
TECH2YD100	60-1,200	5-100	6.7-135	Y (0.560")	Grey	15 1/2
TECH3XD250	300-3,000	25-250	34-339	X (0.735")	Grey	23 3/4
TECH4ZD600	720-7,200	60-600	81-813	Z (0.990")	Grey	42

Wrench length specification does not include the length of interchangeable heads.
The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.
See pg 237-239 for Interchangeable Tool Heads.

TECH2FRM100

Memory Models/1% Accuracy/Ratcheting/Flex Head

Specifications	TECH1FRM240	TECH2FRM100	TECH3FRM250	TECH4RM600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Flex Head	Flex Head	Flex Head	Fixed Ratchet
Gear Teeth	36	36	36	32
Gear Action	10°	10°	10°	11°
Range, in. lb.	24-240	60-1,200	300-3,000	720-7,200
Range, ft. lb.	2-20	5-100	25-250	60-600
Range, N•m	2.7-27.12	6.7-135	34-339	81-813
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Torque Setting Resolution	0.1 ft. lb. (0.1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)
Overall Length, in. (mm)	15 (381)	17 (432)	26 (660)	48 (1,219)
Ratchet Service Kit	RKRT936	RKRF936	RKRS936	RKRQC4
Housing Color	—	Grey	Red	—
Weight, lbs. (kg)	1.7 (.77)	2.2 (.98)	3.7 (1.68)	10.0 (4.54)

The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale.

TECH2YM100

TECH2YDM100

Memory Models/4% Accuracy/Interchangeable Head and D Models

Specifications	TECH1JM240	TECH1JDM240	TECH2YM100	TECH2YDM100	TECH3XM250	TECH3XDM250
Head Type	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable
Range, in. lb.	24-240	24-240	60-1,200	60-1,200	300-3,000	300-3,000
Range, ft. lb.	2-20	2-20	5-100	5-100	25-250	25-250
Range, N•m	2.7-27.12	2.7-27.12	6.7-135	6.7-135	34-339	34-339
Shank Dia.	J (0.425")	J (0.425")	Y (0.560")	Y (0.560")	X (0.735")	X (0.735")
Torque Setting Resolution	0.1 ft. lb. (0.1 N•m, 1 in lb.)	0.1 ft. lb. (0.1 N•m, 1 in lb.)	1 ft. lb. (1 N•m, 1 in lb.)	1 ft. lb. (1 N•m, 1 in lb.)	1 ft. lb. (1 N•m,1 in lb.)	1 ft. lb. (1 N•m, 1 in lb.)
Housing Color	Red	Grey	Red	Grey	Red	Grey
Overall Lgth., in. (mm)	13 1/2 (343)	13 1/2 (343)	15 1/2 (394)	15 1/2 (394)	23 1/2 (597)	23 1/2 (597)
Weight, lbs. (kg)	1.6 (.73)	1.6 (.73)	1.9 (.86)	1.9 (.86)	2.9 (1.32)	2.9 (1.32)

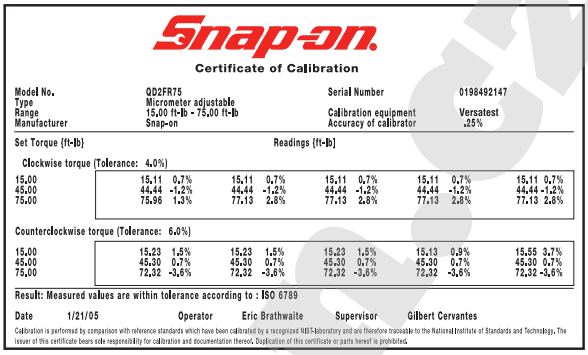
Wrench length specification does not include the length of interchangeable heads. The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale.
See pg 237-239 for interchangeable tool heads.

Adjustable Click-Type

The QD Series of click-type Torque Instruments features an innovative design that provides consistently accurate readings and rugged, trouble-free performance.

Features:

- **Certificate of Calibration.** A Certificate of Calibration (right) is packed with every QD series torque instrument. Actual certification readings and individual instrument serial number are included. Each torque instrument, as calibrated at the factory, is certified to meet the accuracy specified in ASME and was calibrated on a torque standard traceable to the National Institute of Standards Technology (NIST)
- **Accuracy.** All QD series torque instruments are accurate to ±4% clockwise and ±6% counterclockwise from 20% of full scale to full scale
- **Long Life Ratchet Head.** QD series torque instruments feature the Snap-on® high strength sealed ratchet head. Sealed ratchet heads keep out dirt and moisture while being virtually maintenance free. Applies to all QD series ratchet head models. (U.S. Patent 6,125,722) applies to 1/4", 3/8" and 1/2" drive ratchet head models only
- **Minimal Friction Hour Glass Cam.** Retains and releases lubricant where needed to reduce friction



Snap-on

Certificate of Calibration

Model No. QD2FR75 — Serial Number 0198492147
Type Micrometer adjustable
Range 15.00 ft-lb - 75.00 ft-lb — Calibration equipment Versatest
Manufacturer Snap-on — Accuracy of calibrator .25%

Set Torque (ft-lb)	Readings (ft-lb)				
Clockwise torque (Tolerance: 4.0%)					
15.00	15.11 0.7%	15.11 0.7%	15.11 0.7%	15.11 0.7%	15.11 0.7%
45.00	44.44 -1.2%	44.44 -1.2%	44.44 -1.2%	44.44 -1.2%	44.44 -1.2%
75.00	75.96 1.3%	77.13 2.8%	77.13 2.8%	77.13 2.8%	77.13 2.8%
Counterclockwise torque (Tolerance: 6.0%)					
15.00	15.23 1.5%	15.23 1.5%	15.23 1.5%	15.13 0.9%	15.56 3.7%
45.00	45.30 0.7%	45.30 0.7%	45.30 0.7%	45.30 0.7%	45.30 0.7%
75.00	72.92 -2.8%	72.92 -2.8%	72.92 -2.8%	72.92 -2.8%	72.92 -2.8%

Result: Measured values are within tolerance according to : ISO 6789

Date 1/21/05 — Operator Eric Brathwaite — Supervisor Gilbert Cervantes

Calibration is performed by comparison with reference standards which have been calibrated by a recognized NIST-laboratory and are therefore traceable to the National Institute of Standards and Technology. The issuer of this certificate bears sole responsibility for calibration and documentation thereof. Duplication of this certificate or parts hereof is prohibited.

- **Laser Marked Scale.** Easier reading with varying light sources
- **Positive Stop.** Instrument cannot be accidentally disassembled if wound down past scale
- **Long-Term Protection.** Each instrument includes a storage case

QD2100

QD2R100

QD2RN50

U.S. Torque Instruments (in. lb.)/±4% Accuracy

Square Drive, Inches	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, min.	Range, max.	Increments	Length, in.	Head Width, in.	Head Depth, in.	Storage Case	Ratchet Service Kit
1/4	QD150	Fixed	—	—	10 in. lb.	50 in. lb.	.5 in. lb.	9 3/4	5/8	13/16	PBQD1	—
1/4	QD1R50	Fixed Ratchet	36	10°	10 in. lb.	50 in. lb.	.5 in. lb.	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1200	Fixed	—	—	40 in. lb.	200 in. lb.	1 in. lb.	10 15/16	5/8	13/16	PBQD1	—
1/4	QD1R200	Fixed Ratchet	36	10°	40 in. lb.	200 in. lb.	1 in. lb.	11 1/16	7/8	7/16	PBQD1	RKRT936
3/8	QD2R200	Compact Ratchet	36	10°	40 in. lb.	200 in. lb.	1 in. lb.	11 1/16	7/8	7/16	PBQD1	RKRFC936
3/8	QD21000	Fixed	—	—	200 in. lb.	1,000 in. lb.	5 in. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R1000	Fixed Ratchet	36	10°	200 in. lb.	1,000 in. lb.	5 in. lb.	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3R1600	Fixed Ratchet	36	10°	320 in. lb.	1,600 in. lb.	10 in. lb.	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD32500	Fixed	—	—	500 in. lb.	2,500 in. lb.	10 in. lb.	18 1/8	1	1 1/4	PBQD3	—
1/2	QD3R2500	Fixed Ratchet	36	10°	500 in. lb.	2,500 in. lb.	10 in. lb.	19 1/8	1 5/8	3/4	PBQD3	RKRS936

U.S. Torque Instruments (ft. lb.)

3/8	QD275	Fixed	—	—	15 ft. lb.	75 ft. lb.	.5 ft. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2FR75	Flex Ratchet	36	10°	15 ft. lb.	75 ft. lb.	.5 ft. lb.	15 3/4	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2100	Fixed	—	—	20 ft. lb.	100 ft. lb.	.5 ft. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R100	Fixed Ratchet	36	10°	20 ft. lb.	100 ft. lb.	.5 ft. lb.	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3150	Fixed	—	—	30 ft. lb.	150 ft. lb.	1 ft. lb.	18	1	1 1/4	PBQD3	—
1/2	QD3R150	Fixed Ratchet	36	10°	30 ft. lb.	150 ft. lb.	1 ft. lb.	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3250	Fixed	—	—	50 ft. lb.	250 ft. lb.	1 ft. lb.	23 3/16	1	1 1/4	PBQD3	—
1/2	QD3R250	Fixed Ratchet	36	10°	50 ft. lb.	250 ft. lb.	1 ft. lb.	24 3/16	1 5/8	3/4	PBQD3	RKRS936
1/2	BRUTUS3R250D	Fixed Ratchet	36	10°	50 ft. lb.	250 ft. lb.	1 ft. lb.	28	1 3/8	3/4	—	RKRS936
3/4	QD4400	Fixed	—	—	80 ft. lb.	400 ft. lb.	2.5 ft. lb.	33 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R400	Fixed Ratchet	32	11°	80 ft. lb.	400 ft. lb.	2.5 ft. lb.	35 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
3/4	QD4600	Fixed	—	—	120 ft. lb.	600 ft. lb.	5 ft. lb.	40 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R600	Fixed Ratchet	32	11°	120 ft. lb.	600 ft. lb.	5 ft. lb.	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
1	QD5R1000	Fixed Ratchet	30	12°	200 ft. lb.	1,000 ft. lb.	5 ft. lb.	71	3 1/8	1 1/2	PBQC5	RKRQC5

Metric Torque Instruments (kg•m, kg•cm)

3/8	QD2RM1000	Flex Head	36	10°	200 kg•cm	1,000 kg•cm	5 kg•cm	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RM30	Fixed Ratchet	36	10°	6 kgm	30 kgm	.2 kgm	19	1 5/8	3/4	PBQD3	RKRS936

Newton Meter Torque Wrenches/±4% Accuracy

1/4	QD1RN6	Fixed Ratchet	36	10°	12 dN•m	60 dNvm	.5 dN•m	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1RN25	Fixed Ratchet	36	10°	50 dN•m	250 dNvm	1 dN•m	11 3/4	7/8	7/16	PBQD1	RKRT936
3/8	QD2RN25	Compact Ratchet	36	10°	50 dN•m	250 dN•m	1 dN•m	11 3/4	7/8	7/16	PBQD2	RKRFC936
3/8	QD2RN50	Fixed Ratchet	36	10°	10 N•m	50 Nt•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2RN100	Fixed Ratchet	36	10°	20 N•m	100 N•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RN200	Fixed Ratchet	36	10°	40 N•m	200 N•m	2 N•m	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3RN350	Fixed Ratchet	36	10°	70 N•m	350 N•m	2 N•m	24 3/16	1 5/8	3/4	PBQD3	RKRS936
3/4	QD4RN800	Fixed Ratchet	32	11°	150 N•m	800 N•m	5 N•m	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Adjustable Click-Type, TQ Series

TQ Thumb Wheel Series:

- Flex Head Models — offer sealed Snap-on® ratchets, which flex up to 15° to provide knuckle and obstruction clearance
- Fixed Ratchet Models — offer a sealed Snap-on ratchet that is rigidly fixed in line with the torque body
- Snap-on Sealed Ratchet Head — virtually maintenance free; more time working with the tool, less time on tool maintenance
- Thumb Screw Type Adjustment — faster than cycling through a micrometer style torque wrench. Guard prevents setting from being changed accidentally. Setting is displayed in window. Conversion table to N•m displayed on handle
- Sealed Neck — keeps dust and grit away from the torque mechanism for longer tool life
- Split Beam Measuring Element — provides accurate, reliable readings and eliminates the heavy coil spring used in conventional click type wrenches. This yields fewer moving parts, reducing friction and wear
- Cushion Grip Handle — provides comfort plus control and resists most automotive fluids
- Designed for measuring torque in a clockwise direction only. Wrench is not reversible
- EU — GB, FR, ES, DE

Guaranteed Accuracy:

TQ Series - Accurate within ±4% of any clockwise setting from 20% of full scale to full scale.

TQR400E/TQR600E

- Only ±4% of setting when used in the following orientations:
- Main body vertical orientation
- Torque wrench square drive axis with vertical orientation
- In all other positions, guaranteed accuracy is ±5%. Accuracy is guaranteed in the clockwise direction from 20% of capacity to full capacity

TQFR100B

TQFR250E

TQR600E

U.S. Reading Torque Wrenches with Conversion Scale/±4% Accuracy

Square Drive, in.	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, max.	Range, min.	Increments	Length, inches	Head Width, inches	Head Depth,* inches	Ratchet Service Kit
3/8	**TQFR50B**	Flex Head	30	12°	600 in. lb.	120 in. lb.	10 in. lb.	17 5/8	1 1/8	9/16	**RKQJA2D**
3/8	**TQFR100B**	Flex Head	30	12°	100 ft. lb.	20 ft. lb.	2 ft. lb.	17 5/8	1 1/8	9/16	**RKQJA2D**
3/8	**TQR100B**	Fixed Ratchet	30	12°	100 ft. lb.	20 ft. lb.	2 ft. lb.	18 5/8	1 5/32	5/8	**RKRF936**
1/2	**TQFR250E**	Flex Head	36	10°	250 ft. lb.	50 ft. lb.	5 ft. lb.	22 3/8	1 5/8	3/4	**RKRS936**
1/2	**TQR250E**	Fixed Ratchet	36	10°	250 ft. lb.	50 ft. lb.	5 ft. lb.	22 3/8	1 5/8	3/4	**RKRS936**
3/4	**TQR400E****	Detach Ratchet	32	11°	400 ft. lb.	80 ft. lb.	10 ft. lb.	38 1/8	2 1/2	1 1/4	**RKRTQ4**
3/4	**TQR600E****	Detach Ratchet	32	11°	600 ft. lb.	120 ft. lb.	10 ft. lb.	48 5/8	2 1/2	1 1/4	**RKRTQ4**

Newton Meter Torque Wrenches with Conversion Scale/±4% Accuracy

3/8	**TQFRN130B**	Flex Head	30	12°	130 N•m	25 N•m	5 N•m	17 5/8	1 1/8	9/16	**RKQJA2D**
3/8	**TQFRN68B**	Flex Head	30	12°	68 N•m	14 N•m	2 N•m	17 5/8	1 1/8	9/16	**RKQJA2D**
1/2	**TQFRN350D**	Flex Head	32	11°	350 N•m	70 N•m	5 N•m	22 1/8	1 5/8	3/4	**R33BFRK**

Metric Torque Wrenches with Conversion Scale/±4% Accuracy

1/2	**TQFRM34D**	Flex Ratchet	32	11°	5.0 kg•m	34 kg•m	1.0 kg•m	22 1/8	1 5/8	3/4	**RKTQ3**
3/4	**TQRM80C**	Detach Ratchet	32	11°	26.0 kg•m	80 kg•m	2.0 kg•m	48	2 3/8	1 1/4	**RKRQC4**

All wrenches are non-reversible. *Does not include square drive dimension. **3-piece construction disassembles for storage/transport.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

TE50FUA

TE175L

U.S. Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow-up Models Stock No.	Signal Models Stock No.	Range	Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TE1A	TE1FUA		15 in. lb.	1/4 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TE3A	TE3FUA		30 in. lb.	1/2 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TE6A	TE6FUA		75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE12A	TE12FUA	TE12LA	150 in. lb.	2 1/2 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25A	TE25FUA	TE25LA	300 in. lb.	5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50A	TE50FUA	TE50LA	600 in. lb.	10 in. lb.	12 1/2	2 11/16	1 1/4	PB9
3/8	TE12FA	TE12FFUA	TE12FLA	12 ft. lb.	1/2 ft. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25FA	TE25FFUA	TE25FLA	25 ft. lb.	1/2 ft. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50FA	TE50FFUA	TE50FLA	50 ft. lb.	1 ft. lb.	12 1/2	2 11/16	1 1/4	PB9
1/2	TE51	TE51FU	TE51L	600 in. lb.	10 in. lb.	15	2 11/16	1 5/16	
1/2	TE51F	TE51FFU	TE51FL	50 ft. lb.	1 ft. lb.	15	2 11/16	1 5/16	
1/2	TE100	TE100FU	TE100L	100 ft. lb.	1 ft. lb.	16	2 3/4	1 3/8	PBR5
1/2	TE175	TE175FU	TE175L	175 ft. lb.	2 1/2 ft. lb.	18 3/4	2 3/4	1 3/8	PBR5
1/2	TE250	TE250FU	TE250L	250 ft. lb.	5 ft. lb.	23 3/4	2 3/4	1 3/8	PB8A
3/4	TE352A	TE352FUA	TE352LA	350 ft. lb.	5 ft. lb.	29 7/8	3 1/4	1 25/32	
3/4	TE602A	TE602FUA	TE602LA	600 ft. lb.	10 ft. lb.	40 7/8	3 1/4	1 25/32	PB39
1	TE803**	TE803FU**	TE803L**	800 ft. lb.	10 ft. lb.	66 13/16	3 9/16	2 1/32	
1	TE1003**	TE1003FU**	TE1003L**	1,000 ft. lb.	10 ft. lb.	66 13/16	3 9/16	2 1/32	
1	TE1503	TE1503FU	TE1503L	1,500 ft. lb.	25 ft. lb.	80	4 13/32	2 1/8	
1	TE2003	TE2003FU	TE2003L	2,000 ft. lb.	25 ft. lb.	80	4 13/32	2 1/8	
1 1/2	TE2005	TE2005FU	TE2005L	2,000 ft. lb.	25 ft. lb.	80	3 9/16	2 3/8	
1 1/2	TE3005	TE3005FU	TE3005L	3,000 ft. lb.	50 ft. lb.	140	5 1/2	2 13/16	

TESI75

TESI75L

Newton Meter Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow-up Models Stock No.	Signal Models Stock No.	Range, N•m	Increments, N•m	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TESI5	TESI5FU	TESI5L	5	.2	9 29/32	2 11/16	1 1/4	PB9
1/4	TESI10	TESI10FU	TESI10L	10	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI20	TESI20FU	TESI20L	20	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI30	TESI30FU	TESI30L	30	1	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI60	TESI60FU	TESI60L	60	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI70	TESI70FU	TESI70L	70	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI75	TESI75FU	TESI75L	75	1	12 1/2	2 11/16	1 1/4	PB9
1/2	TESI125	TESI125FU	TESI125L	125	5	16	2 11/16	1 3/8	PBR5
1/2	TESI200	TESI200FU	TESI200L	200	5	18 3/4	2 3/4	1 3/8	PBR5
1/2	TESI250	TESI250FU	TESI250L	250	5	18 3/4	2 3/4	1 3/8	PBR5
3/4	TESI500A	TESI500FUA	TESI500LA	500	10	29 7/8	3 1/4	1 25/32	PB39
3/4	TESI800A	TESI800FUA	TESI800LA	800	20	40 7/8	3 1/4	1 25/32	PB39
1	TESI1360**	TESI1360FU**	TESI1360L**	1,360	20	66 13/16	3 9/16	2 1/32	
1		TESI2803FU	TESI2803L	2,800	50	80	4 13/32	2 1/8	
1 1/2	TESI2805			2,800	50	80	4 25/32	2 3/8	
1 1/2		TESI4000FU	TESI4000L	4,000	100	140	5 1/2	2 13/16	

*Does not include square drive dimension.
**Includes separately packed 92TQPA 4 tubular extension handle.
Inc ludes separately packed 93TQPA 5 tubular extension handle.

Guaranteed Accuracy:

Standard 2% models are accurate within ±2% of the reading from 20% of full scale to full scale clockwise and counterclockwise.

WARNING

• Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

TORQOMETER®

TER175

TER175L

Combination U.S./Newton Meter Reading - Precise 1% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	N•m Range	N•m Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
¼	TER1A	TER1FUA		1.7 N•m	.05 N•m	15 in. lb.	.5 in. lb.	9 29/32	2 11/16	1 ¼	PB9
¼	TER3A	TER3FUA		3.5 N•m	0.1 N•m	30 in. lb.	1 in. lb.	9 29/32	2 11/16	1 ¼	PB9
¼	TER6A	TER6FUA		8.4 N•m	0.2 N•m	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TER12A	TER12FUA	TER12LA	17 N•m	.5 N•m	150 in. lb.	5 in. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TER25A	TER25FUA	TER25LA	3,200 N•cm	50 N•cm	300 in. lb.	5 in. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TER50A	TER50FUA	TER50LA	60 N•m	1 N•m	600 in. lb.	20 in. lb.	12 ½	2 11/16	1 ¼	PB9
½	TER51	TER51FU	TER51L	60 N•m	1 N•m	600 in. lb.	20 in. lb.	15	2 11/16	1 5/16	
½	TER100	TER100FU	TER100L	140 N•m	5 N•m	100 ft. lb.	2 ft. lb.	16	2 ¾	1 ⅜	PBR5
½	TER175	TER175FU	TER175L	230 N•m	10 N•m	175 ft. lb.	5 ft. lb.	18 ¾	2 ¾	1 ⅜	PBR5
½	TER250		TER250L	340 N•m	10 N•m	250 ft. lb.	10 ft. lb.	23 ¾	2 ¾	1 ⅜	PB8A
¾	TER352A	TER352FUA	TER352LA	480 N•m	10 N•m	350 ft. lb.	5 ft. lb.	29 ⅞	3 ¼	1 ⅜	PB39
¾	TER602A	TER602FUA	TER602LA	800 N•m	20 N•m	600 ft. lb.	20 ft. lb.	40 ⅞	3 ¼	1 25/32	PB39
1	TER1003**	TER1003FU**	TER1003L**	1,360 N•m	20 N•m	1,000 ft. lb.	20 ft. lb.	66 13/16	3 9/16	2 1/32	

TEC175

TEC175L

Combination U.S./Metric Reading - Standard 2% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	Metric Range	Metric Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
¼	TEC1A	TEC1FUA		16 kg•cm	1 kg•cm	15 in. lb.	.5 in. lb.	9 29/32	2 11/16	1 ¼	PB9
¼	TEC3A	TEC3FUA		35 kg•cm	1 kg•cm	30 in. lb.	1 in. lb.	9 29/32	2 11/16	1 ¼	PB9
¼	TEC6A	TEC6FUA		90 kg•cm	2.5 kg•cm	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TEC12A	TEC12FUA	TEC12LA	175 kg•cm	5 kg•cm	150 in. lb.	5 in. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TEC25FA	TEC25FFUA	TEC25FLA	350 kg•cm	10 kg•cm	25 ft. lb.	1 ft. lb.	9 29/32	2 11/16	1 ¼	PB9
⅜	TEC50A	TEC50FUA	TEC50LA	700 kg•cm	20 kg•cm	600 in. lb.	20 in. lb.	12 ½	2 11/16	1 ¼	PB9
½	TEC51	TEC51FU	TEC51L	700 kg•cm	20 kg•cm	600 in. lb.	20 in. lb.	15	2 11/16	1 5/16	
½	TEC100	TEC100FU	TEC100L	14 kg•m	.5 kg•m	100 ft. lb.	2 ft. lb.	16	2 ¾	1 ⅜	PBR5
½	TEC175	TEC175FU	TEC175L	25 kg•m	1 kg•m	175 ft. lb.	5 ft. lb.	18 ¾	2 ¾	1 ⅜	PBR5
½	TEC250	TEC250FU	TEC250L	35 kg•m	1 kg•m	250 ft. lb.	10 ft. lb.	23 ¾	2 ¾	1 ⅜	PB8A
¾	TEC352A	TEC352FUA	TEC352LA	50 kg•m	1 kg•m	350 ft. lb.	10 ft. lb.	29 ⅞	3 ¼	1 25/32	PB39
¾	TEC602A	TEC602FUA	TEC602LA	80 kg•m	2 kg•m	600 ft lb	20 ft. lb.	40 ⅞	3 ¼	1 25/32	PB39
1	TEC803**	TEC803FU**	TEC803L**	110 kg•m	2 kg•m	800 ft. lb.	25 ft. lb.	66 13/16	3 9/16	2 1/32	
1		TEC1003FU**	TEC1003L**	136 kg•m	2 kg•m	1,000 ft. lb.	20 ft. lb.	66 13/16	3 9/16	2 1/32	
1		TEC1503FU	TEC1503L	200 kg•m	5 kg•m	1,500 ft. lb.	25 ft. lb.	80	4 13/32	2 ⅛	
1		TEC2003FU	TEC2003L	280 kg•m	5 kg•m	2,000 ft. lb.	50 ft. lb.	80	4 13/32	2 ⅛	
1 ½	TEC2005	TEC2005FU	TEC2005L	280 kg•m	5 kg•m	2,000 ft. lb.	50 ft. lb.	80	4 13/32	2 ⅜	
1 ½		TEC3005FU	TEC3005L	400 kg•m	5 kg•m	3,000 ft. lb.	50 ft. lb.	140	5 ½	2 13/16	

*Does not include square drive dimension.
**Includes separately packed 92TQPA 4 tubular extension handle.

Inc ludes separately packed 93TQPA 5 tubular extension handle.

Guaranteed Accuracy:

Precise 1% models are accurate within ±1% of the reading from 20% of full scale to full scale clockwise and counterclockwise.
Standard 2% models are accurate within ±2% of the reading from 20% of full scale to full scale clockwise and counterclockwise.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

T-handle TORQOMETER®


TEX602TLA


TEXC2003TFU


85TQP

U.S. Reading Standard 2% Accuracy

Input Drive Female Sq., in.	Output Drive Male Sq., in.	Follow up Models Stock No.	Light Signal Models Stock No.	U.S. Range, ft. lb.	U.S. Increments, ft. lb.	Metric Range kg•m	Metric Increments, kg•m	Length, inches	Width, inches	Head Depth, inches	Optional T Bars/Extension Handles: T Bars	Length, inches	Ext., inches	Length, inches
¾	¾	**TEX602TFUA**	**TEX602TLA**	600	10			9	3 ¼	3 ¾	**79TQP**	45		
¾	1	**TEX1003TFUA**	**TEX1003TLA**	1,000	10			9 ⅞	3 ⅝	4 ⅛	**81TQP**	66		
1	1		**TEX2003TL**	2,000	25			10 ⅞	4 ⅜	4 7⁄16	**82TQP**	18	**85TQP**	31
1	1 ½	**TEX2005TFU**		2,000	25			10 ⅞	4 ⅜	4 7⁄16	**82TQP**	18	**85TQP**	31

Combination U.S./Metric Reading

¾	¾	**TEXC602TFUA**	**TEXC602TLA**	600	20	80	2	9	3 ¼	3 ¾	**79TQP**	45		
¾	1	**TEXC1003TFUA**	**TEXC1003TLA**	1,000	20	136	2	9 ⅞	3 ⅝	4 ⅛	**81TQP**	66		
1	1	**TEXC2003TFU**	**TEXC2003TL**	2,000	50	280	5	10 ⅞	4 ⅜	4 7⁄16	**82TQP**	18	**85TQP**	31

TORQOMETER Torque Drivers - 1/4" Drive


TQSC4FUA


TQSSC4FUA

U.S. Reading Standard 2% Accuracy

Standard Basic Models Stock No.	Standard Follow up Models Stock No.	Length, inches	Stubby Basic Models Stock No.	Stubby Follow up Models Stock No.	Length, inches	Range	Increments
TQS025A	**TQS025FUA**	7 ¾	**TQSS025A**	**TQSS025FUA**	5 ¼	48 in. oz./3 in. lb.	1 in. oz./ 1⁄16 in. lb.
TQS050A	**TQS050FUA**	7 ¾	**TQSS050A**	**TQSS050FUA**	5 ¼	96 in. oz./6 in. lb.	2 in. oz./ ⅛ in. lb.
TQS1A	**TQS1FUA**	7 ¾	**TQSS1A**	**TQSS1FUA**	5 ¼	192 in. oz./12 in. lb.	4 in. oz./ ¼ in. lb.
TQS2A	**TQS2FUA**	7 ¾	**TQSS2A**	**TQSS2FUA**	5 ¼	384 in. oz./24 in. lb.	8 in. oz./ ½ in. lb.
TQS2.5A	**TQS2.5FUA**	7 ¾	**TQSS2.5A**	**TQSS2.5FUA**	5 ¼	480 in. oz./30 in. lb.	12 in. oz./1 in. lb.
TQS4A*	**TQS4FUA***	8 11⁄16	**TQSS4A***	**TQSS4FUA***	5 ¼	50 in. lb.	1 in. lb.
TQS6A*	**TQS6FUA***	8 11⁄16	**TQSS6A***	**TQSS6FUA***	5 ¼	75 in. lb.	1 in. lb.

Combination U.S./Metric Reading - Standard 2% Accuracy

	TQSC1FUA	7 ¾		**TQSSC1FUA**	5 ¼	17 kg•cm/15 in. lb.	.5 kg•cm/.5 in. lb.
	TQSC2.5FUA	7 ¾		**TQSSC2.5FUA**	5 ¼	35 kg•cm/30 in. lb.	1 kg•cm/1 in. lb.
	TQSC4FUA*	8 11⁄16		**TQSSC4FUA***	5 ¼	56 kg•cm/50 in. lb.	2 kg•cm/2 in. lb.
	TQSR6FUA			**TQSSC6FUA***	5 ¼	90 kg•cm/75 in. lb.	3 kg•cm/5 in. lb.

Combination U.S./Newton Meter Reading - Standard 2% Accuracy**

	TQSR1FUA	7 ¾				160 N•cm/15 in. lb.	5 N•cm/.25 in. lb.
	TQSR2.5FUA	7 ¾				3.4 N•m/30 in. lb.	.1 N•m/1 in. lb.
	TQSR4FUA*	8 11⁄16				550 N•cm/50 in. lb.	10 N•m/1 in. lb.
	TQSR6FUA*	8 11⁄16				8.4 N•m/75 in. lb.	.2 N•m/5 in. lb.

All drivers come in PB47 Plastic Case. *Includes 1/4" internal square drive in handle.
** Precise 1% models are available on special order.
ANSI Spec. B107.14.2004 applies to all these models.

Torque Angle Gauges

TA358 Torque Angle Gauge.
- Determines angle controlled torque tightening
- Allows user to follow manufacturer s specifications
- Use on automotive, diesel and industrial equipment plus head bolts and rod bolts on motorcycles
- 3/8" square drive

TA362 Torque Angle Gauge.
- Allows user to follow manufacturer's specifications
- Calibrated in degrees in large, easy-to-read increments
- 3/4" square drive

TA360 Torque Angle Gauge.
- Similar to TA362 except 1/2" square drive


TA362

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to597

Torque Screwdrivers

QDRIVER3P

QDRIVER3

Preset Torque Screwdrivers/±6% Accuracy

- Ideal for low torque assemblies and precision application
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam-over torque limiting clutch free wheels when set torque is achieved
- Accuracy is ±6% from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic tri-lobe grip and magnetic bit retention
- Not supplied with certificate of calibration

Stock No.	Range, minimum	Range, maximum	Length, inches
QDRIVER1P	6 in. oz. (4 N•cm)	32 in oz. (22 N•cm)	4 9/16
QDRIVER2P	10 in. oz. (7 N•cm)	100 in. oz. (70 N•cm)	5 5/8
QDRIVER3P	1.5 in. lb. (16 N•cm)	15 in. lb. (169 N•cm)	5 5/8
QDRIVER4P	4 in. lb. (45 N•cm)	40 in. lb. (451 N•cm)	6

Adjustable Torque Screwdrivers/±6% Accuracy

- Ideal for low torque assemblies, precision applications and dash/under dash work on most domestic and imported vehicles
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam-over torque limiting clutch free wheels when set torque is achieved
- Accuracy is ±6% from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic tri-lobe grip and magnetic bit retention

Stock No.	Range	Resolution	Length, inches
QDRIVER2	20 - 100 in. oz. (14 - 70 N•cm)	1 in. oz.	5 7/16
QDRIVER3	3 - 15 in. lb. (34 - 169 N•cm)	.2 in. lb.	5 7/16
QDRIVER4	5 - 40 in. lb. (56 - 451 N•cm)	.5 in. lb.	6 11/16
QDRIVER4NM	90 - 450 N•cm		6 11/16

Torque Limiting Drivers/±4% Accuracy

QTS135 Adjustable Limiting Driver.

- Micrometer type adjustment
- Clutch allows 25° of free rotation on reaching set torque
- Guaranteed accuracy: within ±4% of setting from 20% of capacity to full capacity clockwise and counterclockwise

Stock No.	Range, minimum	Range, maximum	Increments	Length, inches
QTS135	5 in. lb.	35 in. lb.	0.5 in. lb.	7

QTS135

QTSP135 U.S. Preset Limiting Driver.

- Clutch mechanism to help prevent over torquing by allowing free rotation upon reaching the set torque value
- Ideal selection for assembly line work where the same requirement is constant
- Can be reset at different torque values or readjusted for accuracy whenever necessary

Interchangeable Head, Click Type Torque Wrenches

- Selection—there are 2 adjustable models for quickly setting desired torque and 8 preset models for assembly line work
- Slim profile—each torque body is thin enough and long enough to get into tight areas
- Micrometer type adjustment—ensures fast, accurate settings and changes
- Guaranteed accuracy—all QC series interchangeable torque wrenches are accurate ±4% clockwise and ±6% counterclockwise from 20% of full scale to full scale

QC1I200

QC1P300

QC3P200

Interchangeable heads permit ratcheting, fixed, or open end torquing capability with either adjustable or preset torque wrench bodies. A push of the locking pin provides quick change action, with a wide range of head styles to choose from.

Torque Wrench Bodies/Adjustable/±4% Accuracy

Stock No.	Model Type	Shank Dia.	Range	Increments	Length, inches
QC1I200	Adjustable	J (0.425")	40-200 in. lb.	1 in. lb.	9 3/8
QC2I75	Adjustable	J (0.425")	5-75 ft. lb.	.5 ft. lb.	13

Torque Wrench Bodies/Pre-Set/±4% Accuracy

Stock No.	Model Type	Shank Dia.	Range	Length, inches
QC1P60	Preset	J (0.425")	10-60 in. lb. (11-66 dN•m)	6
QC1P100	Preset	J (0.425")	15-100 in. lb. (17-113 dN•m)	8
QC1P300	Preset	J (0.425")	60-300 in. lb. (68-339 dN•m)	10
QC2P75	Preset	J (0.425")	5-75 ft. lb. (7-100 N•m)	11
QC3P150	Preset	Y (0.560")	30-150 ft. lb. (41-203 N•m)	23
QC3P200	Preset	Y (0.560")	40-200 ft. lb. (55-270 N•m)	23
QC4P300	Preset	X (0.735")	60-300 ft. lb. (82-400 N•m)	27

Heads for Interchangeable Head, Click-Type


QJD12A

Square Drive Heads/Ratcheting

Allow use of torque wrench bodies on previous page with sockets, crowfoot wrenches, or other similar attachment.

Square Drive, inches	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Head O.D., in.	Depth, in.	Center of Fastener to Retaining Pin	Ratchet Service Kit
1/4	**QJD8A-72**** (350)	—	—	—	17/32	9/64	**QJD Series** - 2.50"	**RKRT936**
3/8	**QJD12A**** (900)	**QYD12A**** (1,200)	—	—	21/32	11/64	**QYD Series** - 3.00"	**RKRF936**
1/2	**QJD16A**** (900)	**QYD16A**** (2,400)	**QXD16A**** (3,000)	—	21/32	11/64	**QXD Series** - 4.50"	**RKRS936**
3/4	—	—	**QXD24A** (3,600)	**QZD24B** (7,200)	25/32	11/64	**QZD Series** - 5.75"	**RKRQC4**
1	—	—	**QXD32A** (3,600)	**QZD32B** (7,200)	29/32	11/64	—	**RKRQC5**

(** U.S. Patent 6,125,722 applies to these ratchet heads.)
Value in parentheses in chart is the Maximum Recommended Working Torque, in. lb.

Square Drive Heads/Fixed

Allow use of torque wrench bodies on previous page with sockets, crowfoot wrenches, or other similar attachments.

Square Drive, inches	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Center of Fastener to Retaining Pin
1/4	**QJSD8A** (350)	—	—	—	**QJD Series** - 2.50"
3/8	**QJSD12A** (900)	**QYSD12A** (1,200)	—	—	**QYD Series** - 3.00"
1/2	**QJSD16A** (900)	**QYSD16A** (2,400)	**QXSD16A** (3,000)	—	**QXD Series** - 4.50"
3/4	—	—	**QXSD24A** (3,600)	**QZSD24A** (7,200)	**QZD Series** - 5.75"
1	—	—	**QXSD32A** (3,600)	**QZSD32A** (7,200)	—


QYSD16A

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

Open End Heads

	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	**QJ08A*** (55)	—	—	—	17/32	9/64
5/16	**QJ010A** (110)	—	—	—	21/32	11/64
3/8	**QJ012A** (220)	—	—	—	25/32	11/64
7/16	**QJ014A** (310)	—	—	—	29/32	11/64
1/2	**QJ016A** (410)	—	—	—	1 1/16	11/64
9/16	**QJ018A** (695)	**QY018A** (695)	—	—	1 1/16	11/64 [QJ018A = 9/32]
5/8	**QJ020A** (835)	**QY020A** (835)	—	—	1 5/16	11/64 [QJ020A = 9/32]
11/16	**QJ022A** (900)	**QY022A** (1,185)	—	—	1 7/16	11/64 [QJ022A = 5/16]
3/4	**QJ024A** (900)	**QY024A** (1,500)	**QX024A** (1,500)	—	1 19/32	11/64 [QJ024A = 11/32]
13/16	**QJ026A** (900)	**QY026A** (2,310)	**QX026A** (1,965)	—	1 23/32	3/8
7/8	**QJ028A** (900)	**QY028A** (2,310)	—	—	1 23/32	3/8
15/16	**QJ030A** (900)	**QY030A** (2,400)	**QX030A** (2,400)	—	1 29/32	13/32
1	**QJ032A** (900)	**QY032A** (2,400)	**QX032A** (3,575)	**QZ032A** (3,575)	2 1/32	7/16
1 1/16	**QJ034A** (900)	**QY034A** (2,400)	—	—	2 3/16	15/32
1 1/8	—	**QY036A** (2,400)	**QX036A** (3,600)	**QZ036A** (4,400)	2 5/16	15/32
1 3/16	—	—	—	**QZ038A** (5,200)	2 7/16	1/2
1 1/4	—	**QY040A** (2,400)	**QX040A** (3,600)	**QZ040A** (5,775)	2 9/16	17/32
1 5/16	—	**QY042A** (2,400)	—	**QZ042A** (5,600)	2 21/32	9/16
1 3/8	—	**QY044A** (2,400)	**QX044A** (3,600)	—	2 3/16	19/32
1 7/16	—	**QY046A** (2,400)	**QX046A** (3,600)	**QZ046A** (7,200)	3	19/32
1 1/2	—	**QY048A** (2,400)	**QX048A** (3,600)	**QZ048A** (7,200)	3 1/16	5/8
1 9/16	—	**QY050A** (2,400)	**QX050A** (3,600)	**QZ050A** (7,200)	3 3/16	21/32
1 5/8	—	**QY052A** (2,400)	**QX052A** (3,600)	**QZ052A** (7,200)	3 11/32	11/16
1 11/16	—	—	**QX054A** (3,600)	**QZ054A** (7,200)	3 13/32	23/32
1 3/4	—	—	**QX056A** (3,600)	**QZ056A** (7,200)	3 9/16	23/32
1 13/16	—	—	**QX058A** (3,600)	**QZ058A** (7,200)	3 21/32	13/32
1 7/8	—	—	**QX060A** (3,600)	**QZ060A** (7,200)	3 13/16	25/32
2	—	—	**QX064A** (3,600)	**QZ064A** (7,200)	4 1/16	27/32
2 1/16	—	—	—	**QZ066A** (7,200)	4 3/16	27/32
2 1/8	—	—	—	**QZ068A** (7,200)	4 5/16	5/8
2 1/4	—	—	—	**QZ072A** (7,200)	4 9/16	15/16
2 1/4	—	—	—	**QZ080A** (7,200)	5 1/16	1

Center of fastener to retaining pin:
* **QJO** Series - 2.50"
* **QYO** Series - 3.00"
* **QXO** Series - 4.50"
* **QZO** Series - 5.75"


QJO28A

Value in parentheses is the Maximum Recommended Working Torque, in. lb.
*Use with QC1P100 and QC1I200 Torque Bodies only; other heads may be used with all listed torque bodies.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Interchangeable Head, Click-Type

Open End Heads, mm

QJOM11A

Center of fastener to retaining pin:
* **QJOM** Series - 2.50"
* **QYOM** Series - 3.00"
* **QXOM** Series - 4.50"
* **QZOM** Series - 5.75"

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	**QJ0M6A*** (60)	—	—	—	13.5	3.6
7	**QJ0M7A*** (75)	—	—	—	13.5	3.6
8	**QJ0M8A*** (120)	—	—	—	16.5	3.3
9	**QJ0M9A** (170)	—	—	—	19.8	4.8
10	**QJ0M10A** (265)	—	—	—	19.8	4.8
11	**QJ0M11A** (400)	—	—	—	22.9	5.6
12	**QJ0M12A** (430)	—	—	—	26.9	6.1
13	**QJ0M13A** (495)	—	—	—	26.9	6.1
14	**QJ0M14A** (665)	**QY0M14A** (665)	—	—	29.5	6.6
15	**QJ0M15A** (885)	**QY0M15A** (885)	—	—	33.3	6.9
16	**QJ0M16A** (900)	**QY0M16A** (1,060)	—	—	33.3	6.9
17	**QJ0M17A** (900)	**QY0M17A** (1,235)	—	—	37.1	7.3
18	**QJ0M18A** (900)	**QY0M18A** (1,375)	**QX0M18A** (1,375)	—	37.1	7.3
19	**QJ0M19A** (900)	**QY0M19A** (1,650)	**QX0M19A** (1,650)	—	40.4	7.6
20	—	**QY0M20A** (1,925)	**QX0M20A** (1,925	—	43.7	9.2
21	**QJ0M21A** (900)	**QY0M21A** (2,160)	**QX0M21A** (2,160)	—	43.7	9.2
22	**QJ0M22A** (900)	**QY0M22A** (2,400)	**QX0M22A** (2,470)	—	43.7	9.2
23	**QJ0M23A** (900)	**QY0M23A** (2,400)	**QX0M23A** (2,745)	—	47	10
24	**QJ0M24A** (900)	**QY0M24A** (2,400)	**QX0M24A** (2,970)	**QZ0M24A** (2,970)	49	11
25	**QJ0M25A** (900)	**QY0M25A** (2,400)	—	**QZ0M25A** (3,295)	52	11
26	**QJ0M26A** (900)	—	**QX0M26A** (3,570)	**QZ0M26A** (3,570)	53	11
27	**QJ0M27A** (900)	**QY0M27A** (2,400)	—	**QZ0M27A** (3,825)	55	12
29	—	**QY0M29A** (2,400)	**QX0M29A** (3,600)	**QZ0M29A** (4,550)	58	12
30	—	**QY0M30A** (2,400)	**QX0M30A** (3,600)	**QZ0M30A** (4,950)	61	13
32	—	**QY0M32A** (2,400)	**QX0M32A** (3,600)	**QZ0M32A** (5,755)	65	14
34	—	**QY0M34A** (2,400)	**QX0M34A** (3,600)	**QZ0M34A** (6,595)	68	14
36	—	**QY0M36A** (2,400)	**QX0M36A** (3,600)	**QZ0M36A** (7,200)	74	15

Value in parentheses is the Maximum Recommended Working Torque, in. lb.
*Use with QC1P100 and QC1I200 Torque bodies only; other heads may be used with all listed torque bodies.

12-Point Box End Heads, inches

QJX12A

QXX52A

Center of fastener to retaining pin:
* **QJX** Series - 2.50"
* **QYX** Series - 3.00"
* **QXX** Series - 4.50"
* **QZX** Series - 5.75"

	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	**QJX8A** (220)	—	—	—	13/32	3/16
9/32	**QJX9A** (250)	—	—	—	13/32	3/16
3/8	**QJX12A** (490)	—	—	—	9/32	1/4
7/16	**QJX14A** (715)	—	—	—	21/32	5/16
1/2	**QJX16A** (900)	—	—	—	3/4	11/32
9/16	**QJX18A** (900)	**QYX18A** (1,340)	—	—	27/32	3/8
5/8	**QJX20A** (900)	**QYX20A** (2,050)	—	—	15/16	13/32
11/16	**QJX22A** (900)	**QYX22A** (2,400)	—	—	1 1/32	7/16
3/4	**QJX24A** (900)	**QYX24A** (2,400)	**QXX24A** (2,630)	—	1 1/8	15/32
13/16	**QJX26A** (900)	**QYX26A** (2,400)	—	—	1 3/16	17/32
7/8	**QJX28A** (900)	**QYX28A** (2,400)	**QXX28A** (3,600)	—	1 9/32	9/16
15/16	**QJX30A** (900)	**QYX30A** (2,400)	**QXX30A** (3,600)	—	1 3/8	19/32
1	**QJX32A** (900)	**QYX32A** (2,400)	**QXX32A** (3,600)	—	1 15/32	21/32
1 1/16	**QJX34A** (900)	**QYX34A** (2,400)	—	**QZX34A** (5,940)	1 9/16	11/16
1 1/8	—	—	**QXX36A** (3,600)	**QZX36A** (6,430)	1 5/8	11/16
1 3/16	—	**QYX38A** (2,400)	—	**QZX38A** (7,200)	1 3/4	3/4
1 1/4	—	**QYX40A** (2,400)	**QXX40A** (3,600)	**QZX40A** (7,200)	1 13/16	3/4
1 5/16	—	—	—	**QZX42A** (7,200)	1 29/32	3/4
1 7/16	—	—	**QXX46A** (3,600)	**QZX46A** (7,200)	2 1/16	7/8
1 1/2	—	**QYX48A** (2,400)	**QXX48A** (3,600)	**QZX48A** (7,200)	2 5/32	7/8
1 9/16	—	—	—	**QZX50A** (7,200)	2 1/4	7/8
1 5/8	—	**QYX52A** (2,400)	**QXX52A** (3,600)	**QZX52A** (7,200)	2 11/32	7/8
1 3/4	—	—	—	**QZX56A** (7,200)	2 17/32	1 1/32
1 13/16	—	—	**QXX58A** (3,600)	**QZX58A** (7,200)	2 5/8	1 1/32
1 7/8	—	—	**QXX60A** (3,600)	**QZX60A** (7,200)	2 11/32	1 1/32
2	—	—	**QXX64A** (3,600)	**QZX64A** (7,200)	2 7/8	1 1/32
2 1/16	—	—	—	**QZX66A** (7,200)	2 21/32	1 3/16
2 1/8	—	—	—	**QZX68A** (7,200)	3 1/16	1 3/16
2 1/4	—	—	—	**QZX72A** (7,200)	3 7/32	1 3/16
2 1/2	—	—	—	**QZX80A** (7,200)	3 19/32	1 5/16

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

12-Point Box End Heads, mm

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	**QJXM6A** (180)	—	—	—	11	5
7	**QJXM7A** (240)	—	—	—	11	5
8	**QJXM8A** (265)	—	—	—	13	6
9	**QJXM9A** (355)	—	—	—	14	6
10	**QJXM10A** (630)	—	—	—	15	7
11	**QJXM11A** (710)	—	—	—	17	8
12	**QJXM12A** (805)	—	—	—	18	8
13	**QJXM13A** (900)	—	—	—	20	9
14	**QJXM14A** (900)	**QYXM14A** (1,400)	—	—	21	9
15	**QJXM15A** (900)	**QYXM15A** (1,770)	—	—	22	10
16	**QJXM16A** (900)	**QYXM16A** (2,195)	—	—	24	10
17	**QJXM17A** (900)	**QYXM17A** (2,365)	**QXXM17A** (2,365)	—	25	11
18	**QJXM18A** (900)	**QYXM18A** (2,400)	**QXXM18A** (2,690)	—	27	12
19	**QJXM19A** (900)	**QYXM19A** (2,400)	**QXXM19A** (2,860)	—	28	12
20	**QJXM20A** (900)	**QYXM20A** (2,400)	**QXXM20A** (3,070)	—	30	13
21	**QJXM21A** (900)	**QYXM21A** (2,400)	**QXXM21A** (3,295)	—	31	13
22	**QJXM22A** (900)	**QYXM22A** (2,400)	**QXXM22A** (3,600)	—	32	14
23	**QJXM23A** (900)	**QYXM23A** (2,400)	**QXXM23A** (3,600)	—	34	15
24	**QJXM24A** (900)	**QYXM24A** (2,400)	**QXXM24A** (3,600)	**QZXM24A** (4,505)	35	15
25	—	—	—	**QZXM25A** (4,950)	37	16
26	**QJXM26A** (900)	**QYXM26A** (2,400)		**QZXM26A** (5,380)	38	16
27	**QJXM27A** (900)	**QYXM27A** (2,400)	**QXXM27A** (3,600)	**QZXM27A** (5,940)	39	17
29	—	**QYXM29A** (2,400)	—	**QZXM29A** (6,640)	42	18
30	—	**QYXM30A** (2,400)	**QXXM30A** (3,600)	**QZXM30A** (7,035)	44	19
32	—	**QYXM32A** (2,400)	**QXXM32A** (3,600)	**QZXM32A** (7,200)	46	19
34	—	**QYXM34A** (2,400)	—	**QZXM34A** (7,200)	48	19
36	—	**QYXM36A** (2,400)	—	**QZXM36A** (7,200)	53	22

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

QYXM21A

Center of fastener to retaining pin:
* **QJXM** Series - 2.50"
* **QYXM** Series - 3.00"
* **QXXM** Series - 4.50"
* **QZXM** Series - 5.75"

Flare Nut Heads, 6-Point, inches

	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
7/16	**QJRXS14A** (500)	—	27/32	11/32
15/16	**QJRXS30A** (900)	—	1 1/2	19/32
5/8	—	**QYRXS20A** (950)	1 3/32	7/16
11/16	—	**QYRXS22A** (1,100)	1 5/32	15/32
3/4	—	**QYRXS24A** (1,245)	1 1/4	1/2
13/16	—	**QYRXS26A** (1,400)	1 5/16	17/32
7/8	—	**QYRXS28A** (1,600)	1 13/32	9/16
15/16	—	**QYRXS30A** (1,750)	1 1/2	19/32
1	—	**QYRXS32A** (1,900)	1 9/16	5/8
1 1/8	—	**QYRXS36A** (2,200)	1 3/4	11/16

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

Flare Nut Heads, 6-Point, mm

mm	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., mm	Head Depth, mm
10	**QJRXSM10A** (400)	—	20	8
11	**QJRXSM11A** (500)	—	21	9
12	**QJRXSM12A** (600)	—	22	9
13	**QJRXSM13A** (700)	—	24	9
14	**QJRXSM14A** (740)	—	25	10
16	—	**QYRXSM16A** (900)	27	11
17	**QJRXSM17A** (900)	**QYRXSM17A** (1,000)	29	11
18	—	**QYRXSM18A** (1,125)	30	12
19	—	**QYRXSM19A** (1,250)	32	12
20	—	**QYRXSM20A** (1,350)	33	13

Value in parentheses is the Maximum Recommended Torque, in. lb.

Flare Nut Heads, 12-Point, inches

	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
9/16	**QYRX18A** (800)	1	13/32
5/8	**QYRX20A** (950)	1 3/32	7/16
11/16	**QYRX22A** (1,100)	1 5/32	15/32
3/4	**QYRX24A** (1,245)	1 1/4	1/2
13/16	**QYRX26A** (1,400)	1 11/32	17/32
7/8	**QYRX28A** (1,600)	1 13/32	9/16
15/16	**QYRX30A** (1,750)	1 1/2	19/32
1	**QYRX32A** (1,900)	1 19/32	21/32
1 1/16	**QYRX34A** (2,050)	1 21/32	11/16
1 1/8	**QYRX36A** (2,200)	1 3/4	23/32
1 3/16	**QYRX38A** (2,400)	1 7/16	3/4
1 1/4	**QYRX40A** (2,400)	1 29/32	25/32

Value in parentheses is the Maximum Recommended Torque, in. lb.

QJRX18A

Center of fastener to retaining pin:
QJRXS Series - 2.50"
QYRXS Series - 3.00"
QJRXSM Series - 2.50"
QYRXSM Series - 3.00"
QJRX Series - 2.50"
QYRX Series - 3.00"
QJRO Series - 2.50"
QYRO Series - 3.00"
QJROM Series - 2.50"
QYROM Series - 3.00"

Open End Heads/Ratcheting, mm

mm	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., mm	Head Depth, mm
10	**QJROM10A** (245)	—	20	6

Value in parentheses is the Maximum Recommended Torque, in. lb.

Open End Heads/Ratcheting, inches

	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
5/16	**QJRO10A** (130)	—	5/8	3/16
7/16	—	**QYRO14A** (415)	7/8	1/4
1/2	—	**QYRO16A** (515)	1	9/32
9/16	**QJRO18A** (720)	**QYRO18A** (720)	1 1/8	9/32
5/8	—	**QYRO20A** (1,100)	1 7/32	5/16

Value in parentheses is the Maximum Recommended Torque, in. lb.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Geared Head Multipliers

Geared Head Multipliers X4 Models

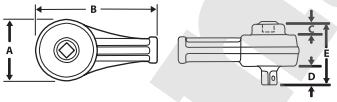
- Use singularly or stack up to three X4s
- Stacking multiplies, not adds, torque ratios—resulting torque can be considerable
- Only the torque ratio changes; total capacity is equal to and does not exceed the capacity of the largest wrench in the stack

Specifications	GA184A	GA185	GA190
Reaction Type	Bar	Bar	Bar
Output Capacity, ft. lb.	1,000	2,000	2,000
Input Capacity, ft. lb.	249	588	588
Gear Ratio	4.0:1	4.0:1	4.0:1
Torque Ratio	3.4:1**	3.4:1**	3.4:1**
Reductions	1		1
Input Drive Female Square, inches	1/2	3/4	3/4
Output Drive Male Square, inches	3/4	1	1
Dimension A, O.D., inches	3 1/2	3 3/4	3 3/4
Dimension B, Length, inches	6 5/8	6 5/8	6 5/8
Dimension C, Head Height, inches	1/2	3/4	1 1/2
Dimension D, Drive End Height, inches	3/4	1	1
Dimension E, Overall Height, inches	3 11/32	4 3/8	5
Overall Length, inches	22	25	25
Anti-Backlash			Yes

**Accuracy of Torque Ratio is ±10%.
NOTE: Handle or other anchor plate serves as a reaction bar and must be placed against a strong fixed object.


GA184A


GA190



Geared Head Multipliers

- Some models feature a replacement square drive to protect components by automatically shearing when rated output is exceeded by 3% to 10%
- All models include an input/output conversion chart in ft. lb. and N•m


YA391


YA394

Specifications	YA290PLUS	YA300	YA391	YA292	YA392	YA393	YA394	YA395
Reaction Type	Bar	Bar	Bar	Bar	Bar	Bar	Plate	Plate
Output Capacity, ft. lb.	750	1,000	1,200	2,000	2,200	3,200	5,000	8,000
Input Capacity, ft. lb.	227	303	200	500	162	173	189	154
Gear Ratio	1:4	4.0:1	6.3:1	4.27:1	15.0:1	20.25:1	29.25:1	60.0:1
Torque Ratio	1:3.3	3.3:1**	6.0:1*	3.7:1**	13.6:1*	18.5:1*	26.5:1*	52.0:1*
Reductions	1	1	1	1	2	3	2	2
Input Drive Female Square, inches	1/2	1/2	1/2	3/4	1/2	1/2	1/2	1/2
Output Drive Male Square, inches	3/4	3/4	3/4	1	1	1	1 1/2	1 1/2
Bearings			Needle		Needle	Needle	Needle	Needle
Length, inches	8 3/4	17 1/2	20	19 1/2	20	20	15	15 1/2
Width, inches	2 3/4	2 13/16	4	4 1/2	4	4	8 5/8	6
Height, inches	3 1/4	3 5/16	4 1/16	3 3/4	5 13/16	6 1/2	8 3/4	10 3/4
Storage Case	Yes		Yes		Yes	Yes	Yes	Yes
Angle Protractor			Yes		Yes	Yes		
Anti-Backlash					Yes	Yes	Yes	Yes
Replacement Square Drive	No		YA391RK		YA392RK	YA393RK	YA394RK	YA395RK

*Accuracy of Torque Ratio is ±5%. **Accuracy of Torque Ratio is ±10%.
NOTE: Handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.


YA390

YA390 Reversible Air Motor.

- Provides up to 200 ft. lb. of input power for each of the YA Series Gear Multipliers
- Output drive: 1/2"
- Maximum operating air pressure: 60 PSIG
- Free speed: 70 RPM, Dimensions: 16 1/4" x 3 1/8" x 4 3/4"

Electronic Torque Wrenches

Electronic Dial Type Torque Wrenches


ED2600

- Great for worldwide automotive, nuclear, military and industrial markets
- Digital accuracy is + / - 1% from 20% to 100% of full scale in both directions
- Three-step LED visual signal system: Over torque alarm (Red), Approaching target warning signal when getting close (Yellow at 90% of target), and target achieved signal when desired torque is obtained (Green)
- Secondary audible alarm goes off when desired torque is reached

Stock No.	Square Drive, inches	Range, maximum	Range N•m
ED1050	1/4	50 in. lb., 4.17 ft. lb., 57.61 Kg•cm	5.65 N•m
ED2250	3/8	250 in. lb., 20.83 ft. lb., 288.03 Kg•cm	28.25 N•m
ED2600	3/8	600 in. lb., 50 ft. lb., 691.27 Kg•cm	67.8 N•m

Features:

- Display can be turned 180º to allow left hand usage
- 4 units of measurement on the same torque wrench: in. lb., ft. lb., N•m, Kg•cm
- Large 2 inch easy to read single scale eliminates confusion on conversion scales
- Tough polycarbonate body ensures durability
- Comfort cushion grip reduces strain for prolonged use
- Rubber boot protects work piece
- The durable, composite and steel body beam provides years of accurate service
- Packaged in storage box for maximum protection
- 9 Volt battery with long life and easy replacement, 80 hours
- Battery cover designed to be FOD proof
- EU/CE - DE, ES, FR, IT, GB (all units)

*All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.*

Electronic Torque Wrenches

- Largest storage capacity available±memory stores up to 4,000 torque values
- Downloading capability±individual torque values and store values in memory may be directly downloaded to a printer or data logger via an RS-232 connection
- Selectable modes of operation±pe ak hold and t rack modes of operation are standard
- Range±available from 5 in. lb. to 600 ft. lb. engineering units can be selected through the keypad (in. oz., in. lb., ft. lb., N•m, dN•m, k•gm, and kg•cm)
- Accuracy±±1% from 10% to 100% of scale
- Quality Construction±proven industrial quality. All Electrotork electronic torque wrenches are designed for continuous use
- 9V alkaline battery included

QCE215A

Electrotork® Torque Wrenches

High degree of accuracy, clockwise or counterclockwise regardless of handhold position. Easy to read scales and sealed membrane keypad enhance operator usefulness. Each wrench includes a storage case.

Stock No.	Square Drive, inches	Range	Increments	Length, inches
QCE115A	1/4	5-50 in. lb., 5.6-56 dNm, 5.7-57 kg•cm, 80-800 in. oz	.01 in. lb., .01 dN•m, .01 kg•cm, .10 in. oz.	13 1/2
QCE215A	3/8	25-250 in. lb., 28-282 dN•m, 29-288 kg•cm	.01 in. lb., .10 dN•m, .10 kg•cm	14 7/8
QCE225A	3/8	5-50 ft. lb., 68-677 dNm, 69-691 kg•cm, 60-600 in. lb.	.01 ft. lb., .10 dN•m, .10 kg•cm, .10 in. lb.	14 7/8
QCE325A	1/2	25-250 ft. lb., 34-338 N•m, 3.4-34 kg•m	.10 ft. lb., .10 N•m, .01 kg•m	21 1/2
QCE425A	3/4	60-600 ft. lb., 81-813 N•m, 8.3-83 kg•m	.10 ft. lb., .10 N•m, .01 kg•m	46 1/2

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.
P11350 Optional PC download cable is available.

Electronic Torque Testers

Designed to be a sturdy, low cost tester, these electronic torque testers can be placed on the wall in the factory or on a bench to allow operators to test torque wrenches or power tools without having to leave their station.

- Integral transducer and sturdy housing allow mounting in virtually any position
- Integral transducer: Full bridge strain gauge, 350 ohms, 1500 µE, 3mV/V F.S., 3.75V excitation
- Unique neck design allows operator to see display when testing long torque wrenches
- Accuracy: ±0.5% of reading ±1 count in the least significant digit (10% to 100% of full range) at 25° C
- Display accuracy: 4 digits, 9,999 counts
- Stability: +0.044% per °C
- Track and peak modes
- Can be used with non-impacting power tools (joint rate simulators required)
- Dual scale (English/N•m or English/dN•m)
- Auto/manual display reset
- Reads bi-directional (clockwise and counterclockwise)
- Uses rechargeable NiCad batteries. Charger included
- All testers include power adaptor cord, socket adaptor (internal to internal) and PB1ETT storage case

QC1ETT50

Stock No.	Square Drive, inches	Range, English	Range, N•m
QC1ETT10	1/4	10-100 in.oz.	7.0-70.6 cN•m
QC1ETT400	1/4	40-400 in. oz.	28-280 cN•m
QC1ETT50	1/4	5-50 in. lb.	5.6-56 dN•m
QC1ETT100	1/4	10-100 in. lb.	11.3-113 dN•m
QC2ETT250	3/8	25-250 in. lb.	28-280 dN•m
QC2ETT1000	3/8	100-1,000 in. lb.	113-1,130 dN•m
QC3ETT250	1/2	25-250 ft. lb.	34-339 N•m
QC4ETT600	3/4	60-600 ft. lb.	81-813 N•m

The certification of accuracy provided per ASME and ISO Standards is 10% to 100% of full scale.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Versatorq® Torque Metering/Data Acquisition System

The Versatorq system can be used for any job requiring repetitive torque applications or regular inspection of fastener torque. This system can also be used to verify pneumatic and mechanical torque wrench accuracy. Peak torque can be captured by using a rotary sensor with a non-impact power tool operating at less than 1,000 RPM and being driven into a soft joint. Inspectors can check critical fastener torque and record data for quality audits. Perfect for process quality control. The Versatorq system can internally perform statistical analysis, including histograms, and print to a serial printer.

- **Versatile** - battery operated and lightweight, with available ranges from 2 in. oz. to 20 in. oz. to 150 ft. lb. to 1,500 ft. lb. and 7 units of measure: in. oz., in. lb., ft. lb., N•m, d•Nm, kgm, and kgcm. The Versatorq system can be used with sockets, extensions, universal joints, ratcheting drivers or any of these combined
- **Data Aquisition** - store and recall up to 3,500 readings. An internal memory backup battery retains setup and last memory data for up to 10 years
- **Track or Peak Mode** - track mode displays applied torque value and peak mode displays highest torque value
- **Easily Calibrated** - customer calibration supports ISO9000. Instructions for step by step calibration provided in the users manual
- **Smart Sensors** - built in EEPROM memory chip stores sensor identification and calibration factors. Factory calibrated, a sensor retains its accuracy with all Versatorq meters; just plug in the desired sensor. Periodic recalibration is necessary
- **120VAC/220VAC, 60 Hz Adaptor** - rechargeable battery and belt clip allow you to take it to the task or use it at the bench with the optional table stand and AC adaptor
- **PC Statistical Analysis Output** - download histogram, minimum and maximum reading, mean, sigma N, sigma, Cp, Cpk, % error and number of readings under and over tolerance
- **Serial Port Interface with Computer or Printer** - true RS-232 communications port for downloading to computer or serial printer or configurable to MITUTOYO statistical printer protocol
- **Visual and Audio Cues** - analog bar graph at top of display provides a live indication of applied torque. An OVER warning flag comes on to indicate that maximum sensor range has been exceeded. Green MIN LED indicates lower tolerance has been achieved, and Red MAX LED indicates upper tolerance has been exceeded. Audio alarm produces a distinctive 2 kHz tone. Includes an audio output jack for optional headphones in a noisy environment

VERSATORQ
Torque Acquistion Meter
Includes VERSACHARGE1 charger and PB57A case.

Sensors sold separately.

Versameter
Electronic Torque Acquistion Meter
Performs most of the same functions as the Versatorq Torque Acquisition Meter. Will not perform the data storage/recall, statistical analysis and histogram functions and does not offer the serial output port feature.

VERSAMETER

Versatorq System Accessories

Stock No.	Description
VERSACHARGE1	Power Pack, 120VAC to 9VDC
VERSACHARGE2	Power Pack, 220VAC to 9VDC (Europe)
VERSACHARGE3	220VAC to 9VDC Power Pack / Charger (Australia / United Kingdom)
VERSAPHONE	Head Phones
VERSACABLE	RS-232 Serial Printer Cable
VERSACABLE2	PC Interface Cable
PB57A	Carrying Case

VERSA2S100

Versatorq1®/Versameter® System Specifications

Specifications	Description
VERSATORQ	120VAC Charger, and Carrying Case.
VERSATORQ1	Basic Torque Acquisition Meter
Modes - VERSAMETER	TRACK, PEAK HOLD
Display	4 digit with alpha and numeric function flags
Display Capacity*	+/- 4 digits, 8,000 counts
Accuracy	±1% of Reading (10 to 100% of Sensor Range) (+/- 2% with VERSA1S10 and VERSA1S20 Sensors)
Push-Button Keypad	MIN/MAX Alarm, ZERO TARE, SET-UP, UNITS, STORE/RECALL/CLEAR, SEND, STATISTICS, ENTER
Units Of Measure	in. oz., in. lb., ft. lb., N•m, dN•m, kg•m, kg•cm
Operating Temperature	5°C to 42°C (40°F to 110°F)
Storage Temperature	-10°C to 50°C (-2°F to 12°F)
Humidity	Up to 90%, non-condensing
Dimensions	3" W, 2.5" H (3" with belt clip), 6" D
Weight	1 lb.
Charge Life (full charge to shutoff)	20 hours continuous
Battery Charger	120VAC or 220VAC, 50-60 Hz
Data Storage/Recall	3,500 measurements
Battery Charger Output	9VDC, 200mA
Serial Output Port - VERSATORQ1	RS-232 (True), 300-19.2K baud, and Mitutoyo (statistical protocol)
Statistical Analysis - VERSATORQ1	MAX, MIN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Histogram - VERSATORQ1	Lower set limit, upper set limit, 10 divisions

*Versatorq display ignores torque input less than .5% of full scale in track mode and 2.0% of full scale in peak mode.

NOTE: Please reference the Versatorq instruction manual for the sensor ranges and resolutions in different units of torque measurement.

Versatorq Sensors

Stock No.	Square Drive, inches	Range	Sensor Diameter, inches	Sensor Length, inches	Cable Length, inches
VERSA1S20*	1/4	2-20 in. oz.	.5	2.9	48
VERSA1S10*	1/4	1-10 in. lb.	.7	2.9	48
VERSA1S50	1/4	5-50 in. lb.	.9	2.1	48
VERSA1S200	1/4	20-200 in. lb.	.9	2.1	48
VERSA2S100	3/8	10-100 ft. lb.	1.2	2.4	48
VERSA3S250	1/2	25-250 ft. lb.	1.4	2.6	48
VERSA4S600	3/4	60-600 ft. lb.	2.0	3.9	96
VERSA5S1500**	1	150-1,500 ft. lb.	2.4**	4.4	92

*Knurled handles allow for fingertip control.
**Diameter does not include side mounted connector.
Heavy duty coiled cord with 4-pin MS-style connector.

Versatest™ Electronic Torque Tester

VERSATEST

The Versatest Indicator is a laboratory grade instrument used for precise, in house torque wrench testing and calibration. High precision torque transducers provide system readings with an accuracy of +/- 0.25% of indicated value. Transducers are available in ranges from 15-200 in. oz. to 200-2,000 ft. lb. and feature a special built in memory chip that identifies the range and maintains the calibration between all Versatest Indicators. Setup and calibration programming is entered via front panel membrane keys. The Versatest can store and recall up to 3,000 different torque/force readings. Statistical analysis stored in memory can be downloaded to a computer or serial printer. A hard wired lithium battery keeps the internal memory and the date/time clock operating for up to 10 years.

Versatest Specifications

Specifications	Description
Display	Large 5.5" x 1.5" backlighted LCD graphics display (240 x 64 dot matrix, 0.67" torque digits character height)
Capacity	5 significant digits +/- 32,000 counts (16 bit A/D)
Sample Rate	2,000 samples per second
Display Rate	5 updates per second
Accuracy*	+/- 0.25% OF READING AT 25° C (with TTC Transducer calibration)
Temperature Drift	+ 0.03% / °C (+0.017% / °F)
Bar Graph	100 segment analog of applied torque scaled to Limits Set value
Units Of Measure	in. oz., in. lb., ft. lb., N•m, dN•m, kg•cm and kg•m
Modes	TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
Soft Key User Interface	Units, Calibration, Date/Time, Statistics, Hi/Low Limits Set, Data Store, Data Recall, Printer Setup, Zero, Auto/Manual Store/Send/Clear
Select Keys	Increment, Decrement, Shift Left, Shift Right, Enter
Operating Temperature	10 to 32° C (50 to 90° F)
Storage Temperature	-20 to 50° C (-2 to 122° F)
Humidity	85% Relative Humidity @ 21° C (70°F)
Dimensions	10" wide x 4" high x 10.5" deep (including carry handle)
Power Supply	Auto Switching 100VAC-24-VAC, 50/60 Hz, 50 watts
Data Storage/Recall	3,000 Measurements
Statistical Analysis	Max, Min, Range, Mean, Sigma N, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions
Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
Computer Serial Com Port	RS232 (True), 300-19.2K Baud
Analog Output	+(CW)/-(CCW) 1.8V at Transducer Full Range Linearity, +/-1% of reading
Loader Control Relays	Two, Normally Open, Form A, Rated 12VDC @ 1/2A close contact at 110% CW or CCW or torque/force transducer range

* TTC Transducers used with, but not calibrated to, the Versatest Indicator provide a system accuracy of +/- 0.5% of reading @ 25° C.

Refer to Transducer Chart on page 245 for additional information.

Features:

- Automatic downloading
- RS232C serial port - use with printer or PC
- Data storage/recall (with date/time stamp) holds up to 3,000 measurements
- Real time clock
- Smart transducers
- Analog outputco nnect to oscilloscope or X-Y plotter
- External printer can be mounted on top of the Versatest unit
- Remote foot switch interface for send/print functions
- Four modesTRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
- Statistic Process Control (SPC) built in

VERSATEST600

VERSATEST600 Electronic Torque Metering System. Provides high speed monitoring of static and dynamic torque inputs. Includes the Versatest indicator, VERSA600LDR2 loader, TTC12 transducer, TTC400 4-in-1 transducer and TTC5000-1 4-in-1 adaptor plate.

VERSA600LDR2 Mechanical Loader. Unit will load dial, micrometer, beam and electronic torque wrenches. Maximum capacity of 600 ft. lb. Use with any TTC series transducer from 15 in. oz. to 600 ft. lb.

Accessories

TTC3421	Mounting Bracket A
TTC3422	Mounting Bracket B
TTC15002	Mounting Bracket C
TTC1121	Serial Printer
TTC501	Connects TTC610 Digital Indicator to PC
TTC502	Connects TTC610 Digital Indicator to printer
TTC75006	Torque Screwdriver Testing Kit

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Versatest™ Electronic Torque Tester

TTC2000
Basic System.
Optional accessories on next page.

- Automatic sensor recognition with TTC series Sm art transducers
- Range: 15 in. oz. to 2,000 ft. lb. (bi-directional)
- Total uncertainty (10% to 100% of range): +/- 0.25% of indicated torque value
- Alpha-numeric 8 digit display
- Memory to 3,000 values
- Includes low profile serial printer
- Date and time stamp for stored values
- Statistical analysis performed on stored data
- Programmable manual or automatic options for clear, store and print functions
- Recall and review of stored torque values
- ModesTRACK, PEAK, FIRST PEAK and POWER TOOL
- Optional angle encoder
- RS232C port is standard
- Analog output is standard
- Full digital circuitry
- 8 torque measurement units: in. oz., in. lb., ft. lb., cN•m, dN•m, N•m, kg•cm and kg•m
- Automatic lock up for transducer protection
- Automatic zero
- Automatic transducer recognition
- Operates on 120VAC or 240VAC

TTC2000/TTC2800 System Specifications

TTC2000 Manual Loader System	**Torque/Force Display**	Eight digit, alpha-numeric, super bright red LED, 0.55 inch character height
	Capacity	8 digits +/- 32,000 counts (16 bit A/D)
	Accuracy*	+/- 0.25% of reading at 25° C (with TTC Transducer calibration)
	Temperature Drift	+ 0.03% / C (+ 0.017% / F)
	Units Of Measure	TORQUE: ft. lb., in. lb., in. oz., N•m, dN•m, kg•cm and kg•cm; FORCE: lbf, ozf, N, dN, kp and gf
	Maximum Range Display	2-line x 16 character 5 x 8 dot-matrix LCD used for MAX. Transducer range, Units, Angle, Calibration, Date/Time, Statistics, Torque/Force or Torque/Angle Limits Set, Data Store/Recall, Printer Set Up
	Modes	Track, Peak Hold, Angle, First Peak, Power Tool
	Operating Temperature	10 to 32° C (50 to 90° F)
	Storage Temperature	-20 to 50° C (-2 to 122° F)
	Humidity	Up to 90%, Non-condensing
	Power Supply	120VAC +/-10%, 50/60Hz @ 3.14A (including motor current)
	Data Storage/Recall	3,000 Measurements
	Statistical Analysis	Max, Min, Range, Mean, SigmaN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
	Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions
	Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
	Computer Serial Com Port	RS232 (True), 300-19.2K Baud (Optional)
	Analog Output	+(CW/-(CW) 1.8V at Transducer Full Range Linearity, +/-1% of reading
	Loader Control Relays	Two, Normally Open, Form A, Rated 12DVC @ 1/2A close contact at 110% CW or CCW or torque/force transducer range
	Loader Hand Crank	Input torque 8 ft. lb. Maximum, Output Torque 2,000 ft. lb. Maximum
TTC2800 Motorized Control Loader System	**Motorized Loader Modes**	Manual; Auto Dial; Auto 1st Peak
	Motorized Loader Power Supply	120VAC +/- 10% Hz @ 3.14A (including motor current); (optional step down transformer for 240VAC operation)

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated) All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.*

TTC2000/TTC2800 System Components

	Stock No.	Description	Application
TCC2000 Components	**TTC600**	Mechanical Loader	Applies load to torque wrenches for testing on TTC2000. Includes loader, torque indicator stand, torque pin, protective shield, small transducer adaptor, and power cord. 45" W x 24" D x 9.5" H
	TTC610	Digital Indicator	Torque tester for the TTC2000 System.
	KRL762PY	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually
TTC2800 Components	**TTC800**	Motorized Loader	Applies load to torque wrenches for testing on TTC2800 System
	TTC810	Digital Indicator	Torque Tester for the TTC2800 System
	KRL762PY	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually

Electronic Torque Tester and Calibrator

TTC8 TTC400

Transducers

All TTC series transducers include the correct adaptor for the indicated torque range.

Stock No.	Description	Sq. Drive Size	Range	Bench Top Mounting Bracket
TTC5	Transducer	1/4	15-200 in. oz.	TTC3421
TTC6	Transducer	1/4	4-50 in. lb.	TTC3421
TTC65	Transducer	1/4	15-150 in. lb.	TTC3421
TTC7	Transducer	3/8	30-400 in.lb.	TTC3421
TTC8	Transducer	3/8	80-1,000 in. lb.	TTC3421
TTC10	Transducer	1/2	10-125 ft. lb.	TTC3422
TTC11	Transducer	1/2	20-250 ft. lb.	TTC3422
TTC12	Transducer	3/4	60-600 ft. lb.	TTC3422
TTC13	Transducer	1	100-1,000 ft. lb.	TTC15002
TTC14	Transducer	1	200-2,000 ft. lb.	TTC15002
TTC400*	4-in-1 Transducer	1/4 3/8 3/8 1/2	4-50 in. lb. 30-400 in. lb. 80-1,000 in. lb. 20-250 ft. lb.	
TTC5000-1**	4-in-1 Adaptor Plate			

*TTC400 requires the TTC5000-1 adaptor plate when used with the TTC600 manual loader, TTC800 motorized loader and VERSA600LDR.

**Required for TTC400 4-in-1 torque transducer to be used on TTC600/TTC800 loaders.

Calibration Wheels/Arms

Use to calibrate any TTC series transducer. Arms are certified to manufacturer s standards.

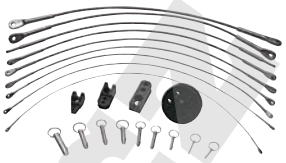
TTC500	2.5" Calibration Wheel, 1/4" sq. dr.
TTC1510	5" Calibration Wheel, 1/4" drive (includes 3/8" adaptor)
TTC1520	10" Calibration Butterfly, 1/2" square drive
TTC1540	40" Calibration Arm, 1 1/4" square drive (includes 3/4" adaptor)

TTC25002

Accessories

Stock No.	Description
TTC501	Connects TTC610 Digital Indicator to PC
TTC502	Connects TTC610 Digital Indicator to printer
TTC25002	Free standing calibration stand with mounting block and hardware for use with TTC2000/TTC2800 Systems and all TTC Series Transducers
TTC75002	Torque Screwdriver Testing Kit
TTC5500-1	Extension Arm (required for wrenches longer than 45")

TTC2620



TTC2600

TTC2610

TTC26302

Force Testing Equipment

- Reaction arms, cables, mounting plates and fixtures are available for testing tensiometers plus compression and tension gauges. The TTC600 and TTC800 loaders and TTC series transducers can be configured to deliver compression and tension loads
- The TTC610/TTC810 indicator also provides measurement, display, storage and statistical analysis for FORCE inputs

TTC2600	Tensiometer Testing Kit
TTC2610	Tension Gauge Testing Kit
TTC2620	Compression Gauge Testing Kit
TTC26302	Force Arm Kit (Only one is needed for any Force Testing Kit)

Weight Sets

Use to calibrate any TTC series transducer. All weights are NIST (NBS) traceable.

TTC3200	Weight Set #1 (Use for all TTC Series Transducers)
TTC3210	Weight Set #2 (For 200 in. oz. to 250 ft. lb. TTC Series Transducers)
TTC3220	Weight Set #3 (For 600 ft. lb To 2,000 ft. lb. TTC Series Transducers)

Weight Hangers/Trays

Use to calibrate any TTC series transducer. Weight trays certified as to weight.

TTC301	Weight Hanger, 8 oz.
TTC3040	Weight Tray, 7.5 lb.
TTC3020	Weight Tray, 15 lb.
TTC3030	Weight Tray, 50 lb.

Joint Rate Simulator Adaptors

- Use with torque tester when testing non-impacting power tools
- Square drive adaptor is placed on top of square drive of the torque tester and tightened with a set screw
- Adaptor bit is inserted into the power tool and mated to the top of the joint adaptor
- By stacking the belleville washers in set patterns, the joint rate adaptor can simulate soft, medium, or hard joints

Stock No.	Square Drive, inches	Capacity, in. lb.	Adaptor Bit	Load Screw
QC1JRS50	1/4	50	1/4" Hex x 3/16" Hex	1/4" x 28 x 1
QC2JRS400	3/8	400	3/8" Square Internal x 3/8" Hex	7/16" x 20 x 1.5
QC2JRS1000	3/8	1,000	3/8" Square Internal x 1/2" Hex	5/8" x 18 x 1.5

QC2JRS400

WARNING • Do not exceed rated torque • Do not use to break fasteners loose
• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

Electronic Bench Top Torque Testers

TBT600A

Horizontal Torque Testers and Transducers

- TBT600A designed to be a complete and flexible calibration solution
- Peak hold feature incorporates hands free mode to increase efficiency
- Certificate generation function allows unit to print certifications directly to a printer or computer
- NTEP certified scale is independently traceable to NIST standard Handbook 44 and stored data of tester calibration for auditing purposes

Stock No.	Description	Range	Resolution
TBTT16A	Transducer	7.5 in. lb. to 200 in. lb.	.002 ft. lb., 02 in. lb., 025 in. oz., .002 N•m., .0002 kg•m., .02 kg•cm
TBTT100A	Transducer	5 ft. lb. to 100 ft. lb.	.01 ft. lb., 1 in. lb., 2 in. oz., .01 N•m., .001 kg•m, 1 kg•cm
TBTT600A	Transducer	30 ft. lb. to 600 ft. lb.	.05 ft. lb., 5 in. lb., 10 in. oz., 1 N•m., .01 kg•m., 1 kg•cm

TCR175

TCR600

Torque Comparators

TCR175 Torque Comparator.

- To determine if a torque wrench requires calibration to maintain proper application of torque
- Large and easy to read dial and simple operation makes the tester quick and easy to use for everyday verification of torque calibration
- 1/2" female square drive input and 175 ft. lb. capacity with 5 ft. lb. graduations and 230 N•m capacity with 10 N•m increments is a perfect fit for the most popular torque wrenches
- Integrated exercise adaptor makes it easy to break in simple, providing the most accurate results (as per B107.14M standard)
- 2% accurate within ± 2% of the reading from 20% of full scale to full scale clockwise and counterclockwise
- Can check a 3/8" drive torque wrench by using an adaptor A2A or adaptor GAF2A
- Includes certificate of calibration compliance

TCR600 Torque Comparator.

Similar to TCR175 except for these differences:

- 3/4" female square drive input and 600 ft. lb.capacity with 10 ft. lb. graduations and 800 N•m capacity with 20 N•m increments is a perfect fit for the most popular torque wrenches
- Compact design with 1/4" steel mounting plate allows for convenient installation in any direction - horizontally on a bench, vertically on a wall, or on any other sturdy, flat surface
- Use on most 3/4" drive torque wrenches including these popular Snap-on® models: TECH4R600/TECH4RM600, QD4400/QD4R400, QD4600/QD4R600, TQR400E/TQR600E, TE352A/TE602A series and TEC352A/TEC602A series

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.