INTERCHANGEABLE HEAD, CLICK-TYPE TORQUE WRENCHES

Box End Heads, 10° Offset, 12-Point, mm

Center of fastener to retaining pin:
- QJXBM Series: 2.50"
- QYXBM Series: 3.00"

mm	Stock No.	Shank (dia.)	Maximum Recommended Working Torque, ft-lb
11	QJXBM11A	J (0.425")	60
12	QJXBM12A	J (0.425")	60
13	QJXBM13A	J (0.425")	60
14	QJXBM14A	J (0.425")	60
16	QJXBM16A	J (0.425")	60
18	QJXBM18A	J (0.425")	60
19	QJXBM19A	J (0.425")	60
18	QYXBM18A	Y (0.560")	160
24	QYXBM24A	Y (0.560")	160
28	QYXBM28A	Y (0.560")	160

Box End Heads, 40° Bend, 12-Point, mm

QYSBXM18A

Size, mm	Stock No.	Shank (dia.)	Center of Fastener to Retaining Pin
18	QYSBXM18A	Y (0.560")	QYSBXM Series – 3.00"
24	QYSBXM24A	Y (0.560")	QYSBXM Series – 3.00"

ISO/IZO Ratchet Head Inserts

Stock No.	Square Drive, inches (mm)	Width, mm	Insert Size, mm	Max Recommended Working Torque, N•m
IZTRAT9X12	1/4 (6)	37	9 x 12	25
IZFRAT9X12	3/8 (10)	38	9 x 12	160
IZSRAT9X12	1/2 (13)	38	9 x 12	160
IZSRAT14X18	1/2 (13)	40	14 x 18	265
IZLRAT14X18	3/4 (19)	40	14 x 18	960
QIZ16Q14X18	1/2 (13)	40	14 x 18	265

IZO Torque Insert Heads

Stock No.	Description (Chart)
IZ7OE9X12	7 mm OE insert 9 x 12
IZ8OE9X12	8 mm OE insert 9 x 12
IZ9OE9X12	9 mm OE insert 9 x 12
IZ10OE9X12	10 mm OE insert 9 x 12
IZ11OE9X12	11 mm OE insert 9 x 12
IZ13OE9X12	13 mm OE insert 9 x 12
IZ14OE9X12	14 mm OE insert 9 x 12
IZ15OE9X12	15 mm OE insert 9 x 12
IZ16OE9X12	16 mm OE insert 9 x 12
IZ17OE9X12	17 mm OE insert 9 x 12
IZ18OE9X12	18 mm OE insert 9 x 12
IZ19OE9X12	19 mm OE insert 9 x 12
IZ13OE14X18	13 mm OE insert 14 x 18
IZ14OE14X18	14 mm OE insert 14 x 18
IZ15OE14X18	15 mm OE insert 14 x 18

Stock No.	Description (Chart)
IZ17OE14X18	17 mm OE insert 14 x 18
IZ18OE14X18	18 mm OE insert 14 x 18
IZ19OE14X18	19 mm OE insert 14 x 18
IZ22OE14X18	22 mm OE insert 14 x 18
IZ24OE14X18	24 mm OE insert 14 x 18
IZ27OE14X18	27 mm OE insert 14 x 18
IZ30OE14X18	30 mm OE insert 14 x 18
IZ32OE14X18	32 mm OE insert 14 x 18
IZ36OE14X18	36 mm OE insert 14 x 18
IZ10IR9X12	10 mm Insert Ring 9 x 12
IZ11IR9X12	11 mm Insert Ring 9 x 12
IZ12IR9X12	12 mm Insert Ring 9 x 12
IZ13IR9X12	13 mm Insert Ring 9 x 12
IZ14IR9X12	14 mm Insert Ring 9 x 12
IZ15IR9X12	15 mm Insert Ring 9 x 12

Stock No.	Description (Chart)
IZ17IR9X12	17 mm Insert Ring 9 x 12
IZ19IR9X12	19 mm Insert Ring 9 x 12
IZ13IR14X18	13 mm Insert Ring 14 x 18
IZ14IR14X18	14 mm Insert Ring 14 x 18
IZ15IR14X18	15 mm Insert Ring 14 x 18
IZ17IR14X18	17 mm Insert Ring 14 x 18
IZ19IR14X18	19 mm Insert Ring 14 x 18
IZ22IR14X18	22 mm Insert Ring 14 x 18
IZ24IR14X18	24 mm Insert Ring 14 x 18
IZ27IR14X18	27 mm Insert Ring 14 x 18
IZ30IR14X18	30 mm Insert Ring 14 x 18
IZ32IR14X18	32 mm Insert Ring 14 x 18
IZ36IR14X18	36 mm Insert Ring 14 x 18
IZWI9X12	Welding insert 9 x 12
IZWI14X18	Welding insert 14 x 18

INTERCHANGEABLE HEAD

QJ022ARTH60

Center of fastener to retaining pin:
- QJO Series: 2.50"
- QYO Series: 3.00"

Thin Open End Heads, inches

in	Stock No.	Shank (dia.)	Maximum Recommended Working Torque, ft-lb
11/16	QJ022ARTH60	J (0.425")	60
7/8	QJO28ARTH	J (0.425")	60
15/16	QJO30ARTH	J (0.425")	60
1	QJO32ARTH	J (0.425")	60
1-1/16	QJO34ARTH	J (0.425")	60
1-1/8	QJO36ARTH	J (0.425")	60
1-3/16	QJO38ARTH	J (0.425")	60
1-1/4	QJO40ARTH	J (0.425")	60
1-3/8	QJO44ARTH	J (0.425")	60
1-1/2	QJO48ARTH	J (0.425")	60
1-9/16	QJO50ARTH	J (0.425")	60
1-5/8	QJO52ARTH	J (0.425")	60
1-3/4	QJO56ARTH	J (0.425")	60

in	Stock No.	Shank (dia.)	Maximum Recommended Working Torque, ft-lb
1-7/8	QJO60ARTH	J (0.425")	60
2	QJO64ARTH	J (0.425")	60
2-1/16	QJO66ARTH	J (0.425")	60
2-11/16	QJO86ARTH	J (0.425")	60
15/16	QYO30ARTH	Y (0.560")	160
1-1/16	QYO34ARTH	Y (0.560")	160
1-5/8	QYO52ARTH	Y (0.560")	160
1-3/4	QYO56ARTH	Y (0.560")	160
1-7/8	QYO60ARTH	Y (0.560")	160
2	QYO64ARTH	Y (0.560")	160
2-1/8	QYO68ARTH	Y (0.560")	160
2-1/4	QYO72ARTH	Y (0.560")	160

Open End Heads, mm

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990") Dual Pins	O.D., mm	Head Depth, mm
6	QJOM6A (5)	—	—	—	13	4
7	QJOM7A (6)	—	—	—	15	4
8	QJOM8A (10)	—	—	—	17	4
9	QJOM9A (14)	—	—	—	19	5
10	QJOM10A (22)	—	—	—	21	5
11	QJOM11A (33)	—	—	—	23	6
12	QJOM12A (36)	—	—	—	25	6
13	QJOM13A (41)	—	—	—	27	6
14	QJOM14A (55)	QYOM14A (55)	—	—	29	7
15	QJOM15A (60)	QYOM15A (74)	—	—	31	7
16	QJOM16A (60)	QYOM16A (88)	—	—	33	7
17	QJOM17A (60)	QYOM17A (103)	QXOM17A (103)	—	35	8
18	QJOM18A (60)	QYOM18A (115)	QXOM18A (115)	—	37	8
19	QJOM19A (60)	QYOM19A (138)	QXOM19A (138)	—	39	9
20	QJOM20A (60)	QYOM20A (160)	QXOM20A (160)	—	41	9
21	QJOM21A (60)	QYOM21A (160)	QXOM21A (180)	—	43	9
22	QJOM22A (60)	QYOM22A (160)	QXOM22A (206)	—	46	10
23	QJOM23A (60)	QYOM23A (160)	QXOM23A (229)	—	47	10
24	QJOM24A (60)	QYOM24A (160)	QXOM24A (240)	QZOM24ADP (250)	49	11
25	QJOM25A (60)	QYOM25A (160)	QXOM25A (240)	QZOM25ADP (275)	52	11
26	QJOM26A (60)	QYOM26A (160)	QXOM26A (240)	QZOM26ADP (298)	53	11
27	QJOM27A (60)	QYOM27A (160)	QXOM27A (240)	QZOM27ADP (319)	55	12
29	QJOM29A (60)	QYOM29A (160)	QXOM29A (240)	QZOM29ADP (379)	58	12
30	QJOM30 (60)	QYOM30A (160)	QXOM30A (240)	QZOM30ADP (413)	61	13
32	QJOM32 (60)	QYOM32A (160)	QXOM32A (240)	QZOM32ADP (480)	65	14
34	—	QYOM34A (160)	QXOM34A (240)	QZOM34ADP (480)	68	14
36	QJOM36A (60)	QYOM36A (160)	QXOM36A (240)	QZOM36ADP (480)	74	15
41	—	QYOM41 (160)	QXOM41A (240)	QZOM41ADP (480)	83	18
46	—	—	QXOM46A (240)	QZOM46ADP (480)	93	19
49	—	—	—	—	86	18
50	—	—	—	QZOM50ADP (480)	102	20
55	—	—	QXOM55A (240)	QZOM55ADP (480)	113	23
60	—	—	—	QZOM60ADP (480)	125	27
65	—	—	—	QZOM65ADP (480)	130	26
70	—	—	—	QZOM70ADP (480)	169	31

Value in parentheses is the Maximum Recommended Working Torque, ft-lb

QJOM27A

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

⚠WARNING

- Do not exceed rated torque.
- Do not use to break fasteners loose.
- Periodic recalibration is needed to maintain accuracy.
- Read Safety Precautions on pages W1–W4

INTERCHANGEABLE HEADS

QJ028A

QZ038ADP

Open End Heads, inches

	J (0.425")	Y (0.560")	X (0.735")	Z (0.990") Dual Pins	Head Depth, inches	O.D., inches
1/4	QJ08A (5)	—	—	—	9/64	17/32
9/32	QJ09A (7)	—	—	—	5/32	21/32
5/16	QJ010A (9)	—	—	—	11/64	21/32
3/8	QJ012A (18)	—	—	—	11/64	25/32
7/16	QJ014A (26)	—	—	—	11/64	29/32
1/2	QJ016A (34)	QY016A (58)	—	—	11/64	1-1/16
9/16	QJ018A (58)	QY018A (58)	—	—	9/32	1-1/16
5/8	QJ020A (60)	QY020A (70)	—	—	9/32	1-5/16
11/16	QJ022A (60)	QY022A (99)	—	—	5/16	1-7/16
3/4	QJ024A (60)	QY024A (125)	QX024A (125)	—	11/32	1-19/32
13/16	QJ026A (60)	QY026A (160)	QX026A (164)	—	3/8	1-23/32
7/8	QJ028A (60)	QY028A (160)	—	—	3/8	1-23/32
15/16	QJ030A (60)	QY030A (160)	QX030A (200)	—	13/32	1-29/32
1	QJ032A (60)	QY032A (160)	QX032A (240)	QZ032ADP (298)	7/16	2-1/32
1-1/16	QJ034A (60)	QY034A (160)	QX034A (240)	QZ034ADP (480)	15/32	2-3/16
1-1/8	QJ036A (60)	QY036A (160)	QX036A (240)	QZ036ADP (367)	15/32	2-5/16
1-3/16	QJ038A (60)	QY038A (160)	QX038A (240)	QZ038ADP (433)	15/32	2-5/16
1-1/4	QJ040A (60)	QY040A (160)	QX040A (240)	QZ040ADP (480)	17/32	2-9/16
1-5/16	—	QY042A (160)	QX042A (240)	QZ042ADP (480)	9/16	2-21/32
1-3/8	QJ044A (60)	QY044A (160)	QX044A (240)	QZ044ADP (480)	19/32	2-3/16
1-7/16	—	QY046A (160)	QX046A (240)	QZ046ADP (480)	19/32	3
1-1/2	QJ048A (60)	QY048A (160)	QX048A (240)	QZ048ADP (480)	5/8	3-1/16
1-9/16	—	QY050A (160)	QX050A (240)	QZ050ADP (480)	21/32	3-3/16
1-5/8	QJ052A (60)	QY052A (160)	QX052A (240)	QZ052ADP (480)	11/16	3-11/32
1-11/16	—	—	QX054A (240)	QZ054ADP (480)	23/32	3-13/32
1-3/4	—	QY056A (240)	QX056A (240)	QZ056ADP (480)	23/32	3-9/16
1-13/16	—	—	QX058A (240)	QZ058ADP (480)	13/32	3-21/32
1-7/8	—	QY060A (240)	QX060A (240)	QZ060ADP (480)	25/32	3-13/16
2	—	—	QX064A (240)	QZ064ADP (480)	27/32	4-1/16
2-1/8	—	—	QX068A (240)	QZ068ADP (480)	27/32	4-3/16
2-1/4	—	QY072 (240)	—	QZ072ADP (480)	15/16	4-9/16
2-3/8	—	—	—	QZ076ADP (480)	—	—
2-1/2	—	—	—	QZ080ADP (480)	1	5-1/16
2-7/8	—	QY092 (240)	—	—	5/8	5-31/32

Value in parentheses is the Maximum Recommended Working Torque, ft-lb

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

Box End Heads, 15° offset, 12-Point, inches

	J (0.425")	X (0.735")	Y (0.560")	Z (0.990")	O.D., inches	Head Depth, inches
7/32	QJX7A (10)	—	—	—	13/32	3/16
1/4	QJX8A (18)	—	—	—	13/32	3/16
9/32	QJX9A (41)	—	—	—	13/32	3/16
5/16	QJX10A (41)	—	—	—	1/2	7/32
3/8	QJX12A (60)	—	—	—	9/32	1/4
7/16	QJX14A (60)	—	QYX14A (60)	—	21/32	5/16
1/2	QJX16A (60)	—	QYX16A (75)	—	3/4	11/32
9/16	QJX18A (60)	—	QYX18A (112)	—	27/32	3/8
5/8	QJX20A (60)	QXX20A (171)	QYX20A (160)	—	15/16	13/32
11/16	QJX22A (60)	QXX22A (200)	QYX22A (160)	—	1-1/32	7/16
3/4	QJX24A (60)	QXX24A (219)	QYX24A (160)	—	1-1/8	15/32
13/16	QJX26A (60)	QXX26A (240)	QYX26A (160)	QZX26A (275) QZX26ADP (275)	1-3/16	17/32
7/8	QJX28A (60)	QXX28A (240)	QYX28A (160)	—	1-9/32	9/16
15/16	QJX30A (60)	QXX30A (240)	QYX30A (160)	QZX30A (300) QZX30ADP (300)	1-3/8	19/32
1	QJX32A (60)	QXX32A (240)	QYX32A (160)	—	1-15/32	21/32
1-1/16	—	QXX34A (240)	—	—	1-9/16	11/16
1-1/16	QJX34A (60)	—	QYX34A (160)	QZX34ADP (300)	1-9/16	11/16
1-1/8	—	QXX36A (240)	QYX36A (160)	QZX36ADP (480)	1-5/8	11/16
1-3/16	—	QXX38A (240)	QYX38A (160)	QZX38ADP (480)	1-3/4	11/16
1-1/4	QJX40A (60)	QXX40A (240)	QYX40A (160)	QZX40ADP (480)	1-9/16	11/16
1-5/16	—	QXX42A (240)	QYX42A (160)	QZX42ADP (480)	1-29/32	3/4
1-3/8	—	QXX44A (240)	QYX44A (160)	QZX44ADP (480)	2	3/4
1-7/16	—	QXX46A (240)	—	QZX46ADP (480)	2-1/16	7/8
1-1/2	—	QXX48A (240)	QYX48A (160)	QZX48ADP (480)	2-5/32	7/8
1-9/16	—	QXX50A (240)	—	QZX50ADP (480)	2-1/4	7/8
1-5/8	—	QXX52A (240)	QYX52A (160)	QZX52ADP (480)	2-11/32	7/8
1-11/16	—	QXX54A (240)	—	—	2-7/16	7/8
1-11/16	—	—	—	QZX54ADP (480)	2-7/16	7/8
1-3/4	—	QXX56A (240)	—	QZX56ADP (480)	2-17/32	1-1/32
1-13/16	—	QXX58A (240)	—	QZX58ADP (480)	2-5/8	1-1/32
1-7/8	—	QXX60A (240)	—	QZX60ADP (480)	2-11/32	1-1/32
2	—	QXX64A (240)	—	QZX64ADP (480)	2-7/8	1-1/32
2-1/16	—	—	—	QZX66ADP (480)	2-21/32	1-3/16
2-1/8	—	—	—	QZX68ADP (480)	3-1/16	1-3/16
2-3/8	—	—	—	QZX70ADP (240)	3-1/8	1-1/8
2-1/4	—	—	—	QZX72ADP (480)	3-7/32	1-3/16
2-3/8	—	—	—	QZX76ADP (480)	3-13/32	1-9/32
2-1/2	—	—	—	QZX80A (480) QZX80ADP (480)	3-19/32	1-5/16
2-9/16	—	—	—	QZX82A (480)	—	—

Value in parentheses is the Maximum Recommended Working Torque, ft-lb

QJX7A

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

Adaptor

QZD32A-1 Z Shank to 1" Drive Adapter
- Adaptor Z Shank to 1" Drive

QZD32A-1

Ratcheting Flare Nut Heads, 12-Point, mm

mm	Stock No.	Shank (dia.)
16	RTWHM16J	J (0.425")
16	RTWHM16JSL	J (0.425")

RTWHM16JSL

⚠WARNING
- Do not exceed rated torque.
- Do not use to break fasteners loose.
- Read Safety Precautions on pages W1–W4

INTERCHANGEABLE HEADS

QJXM9A

QXXM18A

Box End Heads, 12-Point, mm

mm	J (0.425")	X (0.735")	Y (0.560")	Z (0.990") Dual Pins	Head Depth, mm	O.D., mm
6	QJXM6A (15)	—	—	—	5	11
7	QJXM7A (20)	—	—	—	5	11
8	QJXM8A (22)	—	—	—	6	13
9	QJXM9A (30)	—	—	—	6	14
10	QJXM10A (53)	—	—	—	7	15
11	QJXM11A (59)	—	—	—	8	17
12	QJXM12A (60)	—	—	—	8	18
13	QJXM13A (60)	—	—	—	9	20
14	QJXM14A (60)	QXXM14A (117)	QYXM14A (117)	—	9	21
15	QJXM15A (60)	—	QYXM15A (148)	—	10	22
16	QJXM16A (60)	QXXM16A (183)	QYXM16A (160)	—	10	24
17	QJXM17A (60)	QXXM17A (197)	QYXM17A (160)	—	11	25
18	QJXM18A (60)	QXXM18A (224)	QYXM18A (160)	—	12	27
19	QJXM19A (60)	QXXM19A (238)	QYXM19A (160)	—	12	28
20	QJXM20A (60)	QXXM20A (240)	QYXM20A (160)	—	13	30
21	QJXM21A (60)	QXXM21A (240)	QYXM21A (160)	—	13	31
22	QJXM22A (60)	QXXM22A (240)	QYXM22A (160)	—	14	32
23	QJXM23A (60)	QXXM23A (240)	QYXM23A (160)	—	15	34
24	QJXM24A (60)	QXXM24A (240)	QYXM24A (160)	QZXM24ADP (375)	15	35
25	—	QXXM25A (240)	—	QZXM25ADP (413)	16	37
26	QJXM26A (60)	—	QYXM26A (160)	—	16	38
27	QJXM27A (60)	QXXM27A (240)	QYXM27A (160)	QZXM27ADP (480)	17	39
29	—	QXXM29A (240)	QYXM29A (160)	QZXM29ADP (480)	18	42
30	—	QXXM30A (240)	QYXM30A (160)	QZXM30ADP (480)	19	44
32	—	QXXM32A (240)	QYXM32A (160)	QZXM32ADP (480)	19	46
34	—	QXXM34A (240)	QYXM34A (160)	QZXM34ADP (480)	19	48
36	—	QXXM36A (240)	QYXM36A (160)	QZXM36ADP (480)	22	53
41	—	QXXM41A (240)	—	QZXM41ADP (480)	22.4	59.4
46	—	QXXM46A (240)	—	QZXM46ADP (480)	24.6	66.5
50	—	—	—	QZXM50ADP (480)	26.9	73.2
55	—	—	—	QZXM55ADP (480)	30.2	81.8
60	—	—	—	QZXM60ADP (480)	33.3	89.7

Value in parentheses is the Maximum Recommended Working Torque, ft-lb

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

RTWH104YSL

Ratcheting Flare Nut Heads, 12-Point, inches

	J (0.425")	Y (0.560")
3/8	—	RTWH24YSL
7/16	RTWH28JSL	—
1/2	RTWH32JSL	—
9/16	RTWH36JSL	—
9/16	—	RTWH36YSL
5/8	RTWH40JSL	—
5/8	—	RTWH40YSL
11/16	RTWH44JSL	—
11/16	—	RTWH44YSL
3/4	RTWH48JSL	—
3/4	—	RTWH48YSL
13/16	RTWH52JSL	—
13/16	—	RTWH52YSL
7/8	RTWH56JSL	—
7/8	—	RTWH56YSL
15/16	—	RTWH60YSL
1	—	RTWH64YSL
1-1/16	—	RTWH68YSL
1-1/8	—	RTWH72YSL
1-1/4	—	RTWH80YSL
1-3/8	—	RTWH88YSL
1-5/8	—	RTWH104YSL
1-1/2	—	RTWH96YSL

Center of fastener to retaining pin:●
- RTWH "J" Series – 2.50"
- RTWH "Y" Series – 3.00"●

Flare Nut Heads, 6-Point, inches

	J (0.425")	Y (0.560")	O.D., inches	Head Depth, inches
5/16	QJRXS10A (17)	—	21/32	9/32
3/8	QJRXS12A (29)	—	3/4	5/16
7/16	QJRXS14A (42)	—	27/32	11/32
1/2	QJRXS16A (54)	—	29/32	3/8
9/16	QJRXS18A (60)	—	1	13/32
5/8	QJRXS20A (60)	QYRXS20A (74)	1-3/32	7/16
11/16	QJRXS22A (60)	QYRXS22A (92)	1-5/32	15/32
3/4	QJRXS24A (60)	QYRXS24A (104)	1-1/4	1/2
13/16	QJRXS26A (60)	QYRXS26A (117)	1-5/16	7/32
7/8	QJRXS28A (60)	QYRXS28A (133)	1-13/32	9/16
15/16	QJRXS30A (60)	QYRXS30A (146)	1-1/2	19/32
1	QJRXS32A (60)	QYRXS32A (158)	1-9/16	5/8
1-1/8	—	QYRXS36A (160)	1-3/4	11/16

Value in parentheses is the Maximum Recommended Torque, ft-lb

QJRXS10A

Center of fastener to retaining pin:
- QJRXSM Series – 2.50"
- QYRXSM Series – 3.00"
- QJRXS Series – 2.50"
- QYRXS Series – 3.00"
- QYRX Series – 3.00"

Flare Nut Heads, 6-Point, mm

mm	J (0.425")	Y (0.560")	O.D., mm	Head Depth, mm
8	QJRXSM8A (17)	—	17	7
10	QJRXSM10A (33)	—	20	8
11	QJRXSM11A (42)	—	21	9
12	QJRXSM12A (50)	—	22	9
13	QJRXSM13A (58)	QYRXSM13A (58)	24	9
14	QJRXSM14A (60)	—	25	10
15	QJRXSM15A (60)	QYRXSM15A (71)	26	10
16	QJRXSM16A (60)	QYRXSM16A (75)	29	11
17	QJRXSM17A (60)	QYRXSM17A (83)	29	11
18	—	QYRXSM18A (94)	30	12
19	QJRXSM19A (60)	QYRXSM19A (104)	32	12
20	QJRXSM20A (60)	QYRXSM20A (113)	33	13

Value in parentheses is the Maximum Recommended Torque, ft-lb

QJRXSM8A

Center of fastener to retaining pin:
- QJRXSM Series – 2.50"
- QYRXSM Series – 3.00"
- QJRXS Series – 2.50"
- QYRXS Series – 3.00"
- QYRX Series – 3.00"

Flare Nut Heads, 12-Point, inches

	Y (0.560")	Head O.D, inches	Head Depth, inches
5/8	QYRX20A (79)	1-1/16	15/32
11/16	QYRX22A (92)	1-7/32	1/2
3/4	QYRX24A (104)	1-1/4	17/32
13/16	QYRX26A (117)	1-9/32	9/16
7/8	QYRX28A (133)	1-13/32	1-3/8
15/16	QYRX30A (146)	1-1/2	5/8
1	QYRX32A (158)	1-7/32	23/32
1-1/16	QYRX34A (160)	1-5/8	23/32
1-1/8	QYRX36A (160)	1-23/32	3/4
1-3/16	QYRX38A (160)	1-13/16	7/8
1-1/4	QYRX40A (160)	1-27/32	23/32
1-3/8	QYRX44A (160)	2	13/16
1-1/2	QYRX48A (160)	2-5/32	27/32
1-5/8	QYRX52A (160)	2-11/32	1

Value in parentheses is the Maximum Recommended Torque, ft-lb

QYRX20A

Center of fastener to retaining pin:
- QJRXSM Series: 2.50"
- QYRXSM Series: 3.00"
- QJRXS Series: 2.50"
- QYRXS Series: 3.00"
- QYRX Series: 3.00"

⚠WARNING

- Do not exceed rated torque; use only moderate force on flare nut wrenches.
- Do not use to break fasteners loose.
- Read Safety Precautions on pages W1–W4

GEARED HEAD MULTIPLIERS

MTMC1475

MTMB1990

MTMP4400

Manual Torque Multipliers

- Ideal for use in the oil and gas industry, mining, railroad, heavy fleet, power gen and aviation
- Compact dimensions allow excellent access and easy handling
- Maximum torque output range from 730–25,000 ft-lb (MTMP25000)
- Anti-Wind-Up Ratchet (AWUR) fitted as standard, except for MTMB740, MTMB950 and MTMB1990; keeps the multiplier loaded for easier operation
- MTMC units are calibrated to give exact multiplication ratio, and each MTMC unit is issued with unique Certificate of Calibration
- True torque multiplication, accuracy guaranteed better than ±4%
- A variety of alternative reaction fixtures are available

Specifications	MTMC730	MTMB740	MTMB950	MTMP14700	MTMC1475	MTMB1990
Reaction Type	Interchangeable	Bar and Cranked	Bar and Cranked	Plate	Interchangeable	Bar and Cranked
Torque Ratio	22:1	5:1	5:1	125:1	27:1	5:1
Certification	Yes	No	No	No	Yes	No
Anti-Wind-Up	Yes	No	No	Yes	Yes	125:1
Torque Output, Minimum ft-lb	74	74	96	1470	147	200
Torque Output, Maximum ft-lb	730	740	950	14,700	1,475	1,990
Torque Output, Minimum N•m	100	100	130	2,000	200	270
Torque Output, Maximum N•m	1,000	1,000	1,300	20,000	2,000	2,700
Input Drive Female Square, inches	3/8	1/2	1/2	1/2	1/2	3/4
Output Drive Male Square, inches	3/4	3/4	3/4	2-1/2	1	1

Specifications	MTMB2200	MTMP25000	MTMC2950	MTMB3300	MTMP4400	MTMC5100	MTMP7000
Reaction Type	Bar	Plate	Interchangeable	Bar	Plate	Interchangeable	Plate
Torque Ratio	15.5:1	87.5:1	25:1	26:1	25:1	25:1	135:1
Certification	No	No	Yes	No	No	Yes	No
Anti-Wind-Up	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Torque Output, Minimum ft-lb	220	2,500	295	330	450	516	700
Torque Output, Maximum ft-lb	2,200	25,000	2,950	3,300	4,400	5,100	7,000
Torque Output, Minimum N•m	300	3,400	400	450	610	700	950
Torque Output, Maximum N•m	3,000	34,000	4,000	4,500	6,000	7,000	9,500
Input Drive Female Square, inches	1/2	3/4	1/2	1/2	1/2	1/2	1/2
Output Drive Male Square, inches	1	2-1/2	1	1	1-1/2	1-1/2	1-1/2

TORQUE TESTERS

Electronic Torque Testers

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.

- Includes Track and Peak modes
- Can be used with nonimpacting power tools (joint rate simulators required)
- Dual scale (English/N•m or English/dN•m)
- Reads bidirectional (clockwise and counterclockwise)
- Uses rechargeable Ni-Cad batteries (2 Ni-Cad 9 V)
- Charger included
- Integral transducer and sturdy housing allow mounting in virtually any position
- Integral Transducer: Full bridge strain gauge, 350 ohms, 1,500 µE, 3 mV/V F.S., 7.5 V 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 (10–100% of full range) at 25 °C
- Display Accuracy: four digits, 9,999 counts
- Stability: +0.044% per °C

QC1ETT10

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

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

Digital Torque Testers (DTT Series)

- Can be mounted on a wall or in a bench-top vise
- Features an easy-to-use touchscreen to capture peak torque values during a test in real time
- Download stored torque data to a PC
- Testing options: quick check or ASME®-style test
- Refresh rate of 1,000 data points per second
- Record and track torque wrench test results by serial number, plus add traceability by using wrench serial numbers and technician I.D.
- Choose wrench type
- ±0.5% of indicated test value from 10–100% or rated capacity
- Memory Capacity: 500 records (complete check mode only)
- Includes AC/DC power supply, (6) AA alkaline batteries, USB cable and carrying case
- Highly accurate scale (±0.5% ±1 count 10–100% CW and CCW of indicated test value @ 25 °C)
- Ability to customize between units of measure (N•m, kg-cm, ft-lb, in-lb, in-oz), operation modes (Track, Peak, First Peak) and wrench type
- Operating temperature (10–32 °C/ 50–90 °F)
- Refresh rate of 1,000 data Points Per Second
- CSA/UL Requirements: Power supply listed under UL (C and US); 100–240V/ 50–60 Hz, 6 A input and 9 V/1.66 A output
- Includes a Certificate of Calibration

QC3DTT250

Stock No.	Description
DTS8269	AC Adaptor
2344-0050-03	Table Mounting Bracket For DTT Testers
DTS95095	Power Cord, UK
DTS95096	Power Cord, Australia
DTS95097	Power Cord, EU

NOTE: Must order the adaptor and appropriate power cord.

Specifications	QC2DTT250	QC3DTT250
Square Drive, inches	3/8	1/2
Range English	25–250 in-lb	25–250 ft-lb
Range, N•m	2.9–28.2	33.9–338.9
Accuracy	±0.5% of Indicated Test Value from 10–100% or Rated Capacity	±0.5% of Indicated Test Value from 10–100% or Rated Capacity
Operating Modes	TRACK, PEAK, FIRST PEAK	TRACK, PEAK, FIRST PEAK
Operating Temperature	32–122 °F (0–50 °C)	32–122 °F (0–50 °C)
Humidity	85% Relative Humidity @ 21 °C (70 °F)	85% Relative Humidity @ 21 °C (70 °F)
Power Supply	Included 9 V AC/DC Adaptor, (6) AA Batteries Included	Included 9 V AC/DC Adaptor, (6) AA Batteries Included
Data/Surge/Recall	Memory Capacity—500 Records (complete check mode only)	Memory Capacity—500 Records (complete check mode only)

NOTE: Must order the adaptor and appropriate power cord.

TBTT100A

TBT600A

Horizontal Torque Testers and Transducers

- Includes (3) transducers
- Full digital display
- Covers ft-lb, in-lb, in-oz, N•m, kg-m, kg-cm scales
- Peak hold and first peak hold capability
- NIST® traceable

Stock No.	Description	Range	Resolution
TBTT100A	Transducer	5–100	.01 ft-lb, 1 in-lb, 2 in-oz, .01 N•m, .001 kg-m, 1 kg-cm
TBTT16A	Transducer	7.5–200 in-lb	.002 ft-lb, 02 in-lb, .002 N•m., .0002 kg-m, .02 kg-cm
TBTT600A	Transducer	30–600 ft-lb	.05 ft-lb, 5 in-lb, 10 in-oz, 1 N•m, .01 kg-m., 1 kg-cm
TBT600A	Horizontal Torque Tester	5–600	—

⚠WARNING

- Do not exceed rated torque.
- Do not use to break fasteners loose.
- Periodic recalibration is needed to maintain accuracy.
- Read Safety Precautions on pages W1–W4

VERSATORQ® 2 TORQUE METERING AND DATA ACQUISITION SYSTEM

Versatorq® 2 System Torque Acquisition Meters

The Snap-on® Versatorq® 2 portable ATEX®/UL® certified electronic torque analyzer displays torque readings from sensors that attach between sockets and the driver. This highly versatile torque analyzer and data acquisition system can be used with various sockets, extensions, universal joints, and ratcheting drivers. Sensors, purchased separately, are available in eight ranges from 2–20 in-oz to 150–1,500 ft-lb and provide readings with an accuracy of 1% or 2% (dependent on the transducer).

Now "intrinsically safe" for use in hazardous environments (ATEX, UL®, ULC, CE compliant).

- Ideal for applying torque (CW and CCW) in confined spaces with tight access and jobs requiring repetitive torque applications
- Accuracy rating ±1% of reading (10–100% of sensor range). ±2% with VERSA1S10A and VERSA1S20A
- Track mode displays applied torque value and Peak mode displays highest torque value
- Non-volatile flash memory retains data for 10 years or more
- Plug-and-play mini USB for easy data download; no client software needed
- Customer calibration supports ASME® and ISO®
- Includes carrying case (PB57A), mini USB cable (USBATOMINIB), belt clip (276-61) and batteries
- Versatorq® 2 sensors (sold separately) enable accurate torque application using a standard ratchet or breaker bar of any length, with data readout and storage on the cable-connected Versatorq® 2 meter
- Versatorq® 2 sensors available from 2 in-oz up to 1,500 ft-lb with readings in seven popular measurement scales

VERSATORQ2

Versatorq® 2 System Torque Acquisition Meters

Specifications	VERSATORQ2
Display	4 Digit with Alpha and Numerical Function Flags
Display Capacity*	4 Digits
Accuracy	±1% of Reading (10–100% of Sensor Range) (±2% with VERSA1S10A and VERSA1S20A Sensors)
Units of Measure	in-oz, in-lb, ft-lb, n•m, cN•m, kg•cm, kg•m
Operating Temperature	40–110 °F (23–42 °C)
Storage Temperature	-2–122 °F (-20–22 °C)
Humidity	Up to 90% Non-Condensing
Dimensions	3" W x 2-1/2" D x 6" L

*Versatorq® display ignores torque input less than .5% of full scale in Track mode and 2.0% of full scale in Peak mode. Hazardous Location Designation: Class 1, Zone 2, Ex ic !!A. Temperature Class: T6

VERSATORQ2 Versatorq® 2 System

- Includes carrying case (PB57A), mini USB cable (USBATOMINIB), belt clip (276-61) and batteries
- Sensors sold separately

VERSA2S100A

Versatorq® 2 Sensors

Stock No.	Square Drive, inches	Range	Sensor Diameter, inches	Sensor Length, inches	Cable Length, inches (mm)
VERSA1S10A*	1/4	1–10 in-lb	.7	2.9	48 (1,219)
VERSA1S20A*	1/4	2–20 in-oz	.5	2.9	48 (1,219)
VERSA1S200A	1/4	20–200 in-lb	.9	2.1	48 (1,219)
VERSA1S50A	1/4	5–50 in-lb	.9	2.1	48 (1,219)
VERSA2S100A	3/8	10–100	1.2	2.4	48 (1,219)
VERSA3S250A	1/2	25–250 ft-lb	1.4	2.6	48 (1,219)
VERSA4S600A	3/4	60–600 ft-lb	2.0	3.9	96 (2,438)
VERSA5S1500A**	1	150–1,500 ft-lb	2.4	4.4	92 (2,336)

*Knurled handles allow for fingertip control. Heavy-duty coiled cord with four-pin MS-style connector. Original Versatorq® Sensors (without "A" suffix in the stock number) are compatible with the VERSATORQ2 meter, but the sensors require calibration.
Heavy-duty coiled cord with four-pin MS-style connector. Original Versatorq® Sensors (without "A" suffix in the stock number) are compatible with the VERSATORQ2 meter, but the sensors require calibration.
**Diameter does not include side-mounted connector. Heavy-duty coiled cord with four-pin MS-style connector. Original Versatorq® Sensors (without "A" suffix in the stock number) are compatible with the VERSATORQ2 meter, but the sensors require calibration.

VERSACABLE2

Versatorq® 1 System Accessories

Stock No.	Description
VERSACABLE	RS232 Serial Printer Cable
VERSACABLE2	PC Interface Cable

Please reference the VERSATORQ® 2 instruction manual for the sensor ranges and resolutions in different units of torque measurement.

VERSATEST

VERSATEST600

Versatest™

The Versatest™ indicator is a laboratory-grade monitor designed 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. Twelve transducers are available in ranges from 5 in-oz to 2,000 ft-lb. The 4-in-1 Transducer, with a range of 5 in-lb to 250 ft-lb is also available.

All transducers feature a built-in memory chip that identifies the transducer and maintains the calibration. Setup and calibration programming is entered via soft touch keys. The Versatest™ can store and recall up to 3,000 torque readings. Torque readings stored in memory can be downloaded to a computer with optional download cable and software.

Specifications	VERSATEST
Description	Electronic Torque Tester/Calibrator
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
Power Supply	Auto Switching 100–240 VAC, 50/60 Hz, 50 watts
Statistical Analysis	Max, Min, Range, Mean, Sigma N, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Accuracy	±0.25% of reading at 25 °C (with TTC Transducer calibration)
Modes	Track, Peak Hold, First Peak, Power Tool
Storage Temperature Range	-20–50 °C (-2–122 °F)
Select Keys	Increment, Decrement, Shift Left, Shift Right, Enter
Temperature Drift Percentage	+0.03 °C (+0.017 °F)
Sample Rate	2,000 samples per second
Analog Output	+(CW)/-(CCW) 1.8 V at Transducer Full Range Linearity, ±1% of Reading
Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions

Versatest™

VERSATEST Electronic Torque Tester/Calibrator

- Large LCD display
- Accuracy: ±0.25% of indicated value, CW and CCW, from 10–100% of full scale
- Two RS232C serial ports; for use with a printer and PC
- Data storage /recall (with date/time stamp) up to 3,000 readings
- Real-time clock
- Seven Torque Units: ft-lb, in-lb, in-oz, N•m, dN•m, kgm, kg-cm
- Will also load torque screwdrivers
- Smart Plug-and-Play transducers
- Analog output connect to oscilloscope or X-Y plotter
- External Printer can be mounted on top of the Versatest™ unit
- Four Modes: Track, Peak Hold, First Peak, Power Tool
- Transducers available from 5 in-oz to 2,000 ft-lb
- Statistic Process Control (SPC) built in
- Automatic or manual downloading
- All transducers are individually serialized with Certificate of Calibration traceable to NIST®
- Five Languages: English, Spanish, French, Japanese, German
- CE Conformity

VERSATEST600 Versatest™ Complete Electronic Torque Calibration System

- Provides high-speed monitoring of static and dynamic torque inputs
- Includes the Versatest™ Digital Monitor, VERSA600LDR2 600 ft-lb Mechanical Loader, TTC400 4-in-1 Transducer, TTC5000-1 Bracket and TTC12 3/4" 600 ft-lb Transducer

VERSA600LDR2 Versatest™ Mechanical Torque 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

⚠WARNING

- Do not exceed rated torque.
- Periodic recalibration is needed to maintain accuracy.
- Read Safety Precautions on pages W1–W4

ELECTRONIC TORQUE TESTER AND CALIBRATOR

Electronic Torque Tester and Calibrator

TTC2000 Master Torque Calibration System (Manual)
The system tests and calibrates most click-type, digital, dial torque wrenches as well as torque screwdrivers. Twelve transducers are available in ranges from 5 in-oz to 2,000 ft-lb. Also available is the 4-in-1 Transducer, with a range of 4 in-lb to 250 ft-lb. All transducers feature a built-in memory chip that identifies the transducer and maintains the calibration. Set up and calibration programming is entered via soft touch keys. The TTC2000 can store and recall up to 3,000 torque readings. Torque readings stored in memory can be downloaded to a computer with optional download cable and software. Optional kits are available to calibrate cable tensionmeters, tension and compression gauges and non-impact power tools.

TTC2800/TTC2822 Master Torque Calibration System (Motorized)
The TTC2800 has the same features as the TTC2000 series except for the following enhanced features:
- Electric motor powered crank for easy calibration
- Is offered in 110 V version (TTC2800/Complete TTC2800SYS or 220 V version (TTC2822/Complete system TTC2822SYS)

TTC2000SYS Complete Master Torque Calibration System (Manual) includes: TTC610 Digital Monitor, TTC600 2000 ft-lb Mechanical Loader, SM0773PU Tool Cabinet w/ Casters, TTC400 4-in-1 Transducer, TTC5000-1 Bracket, TTC12 3/4" 600 ft-lb Transducer, TTC14 1" 2000 ft-lb Transducer, TTC5500-1 Extension Arm, 2000-SW WedgeLink Software, TTC503 Download Cable.

TTC2800SYS Complete Master Torque Calibration System (Motorized) includes: TTC2800 Monitor, Loader and Tool Cabinet w/ Casters, TTC400 4-in-1 Transducer, TTC5000-1 Bracket, TTC12 3/4" 600 ft-lb Transducer, TTC14 1" 2,000 ft-lb Transducers, TTC5500-1 Extension Arm, 2000-SW WedgeLink Software, TTC503 Download Cable


TTC2000SYS


TTC2800SYS

Features
- Accuracy: ±0.25% of indicated value, CW and CCW, from 10–100% of full scale
- Units of Torque: ft-lb, in-lb, in-oz, N•m, dN•m, Kgm, Kg-cm
- Units of Force: lbf, ozf, n, dN, kp, gg
- Four Modes: TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
- Includes built-in low-profile serial printer
- Transducers available from 5 in-oz to 2,000 ft-lb
- Loader hand crank maximum input torque is 8 ft-lbs, maximum output is 2,000 ft-lb
- All transducers are individually serialized with certificates of calibration traceable to N.I.S.T.
- Programmable automatic or manual options for CLEAR, STORE or SEND
- RS232 serial port for downloading data to PC
- Operating Temperature: 10–32 ºC (50–90 ºF)
- Automatic lockup in the event of transducer overload
- Data storage/recall (with date/time stamp) up to 3,000 readings
- Dual Voltage: 110 V or 220 V • Real Time Clock
- Smart "Plug and Play" transducers
- NIST® traceable

Specifications	TTC2000SYS	TTC2800SYS
Accuracy	±0.25% of reading at 25 °C (with TTC Transducer calibration)	±0.25% of reading at 25 °C (with TTC Transducer calibration)
Maximum Range Display	2-line x 16 character 5 x 8 dot-matrix LCD used for MAX. Transducer range, Units, Calibration, Date/Time, Statistics, Torque/ Force or Torque Limits Set, Data Store/Recall, Printer Set Up	2-line x 16 character 5 x 8 dot-matrix LCD used for MAX. Transducer range, Units, Calibration, Date/Time, Statistics, Torque/ Force or Torque Limits Set, Data Store/Recall, Printer Set Up
Modes	Track, Peak Hold, First Peak, Power Tool	Track, Peak Hold, First Peak, Power Tool
Motorized Loader Modes	—	Manual; Auto Dial; Auto Click
Motorized Loader Power Supply	—	120 V AC ±10% Hz @ 3.14 A (including motor current); (optional step-down transformer for 240 V AC operation)
Power Supply	UL Approved, 120 VAC/220 VAC, 50/60 Hz	120 VAC ±10%, 50/60 Hz @3.14 A (including motor current). (Includes stepdown transformer for 240 VAC operation.)
Operating Temperature Range	10–32 °C (50–90 °F)	10–32 °C (50–90 °F)
Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud	RS232 (True), 300-19.2K Baud
Statistical Analysis	Max, Min, Range, Mean, SigmaN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo	Max, Min, Range, Mean, SigmaN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Temperature Drift Percentage	+0.03 °C (+0.017 °F)	+0.03 °C (+0.017 °F)
Torque/Force Display	Eight digit, alpha-numeric, super bright red LED, 0.55 inch character height	Eight digit, alpha-numeric, super bright red LED, 0.55 inch character height
Storage Temperature Range	-20–50 °C (-2–122 °F)	-20–50 °C (-2–122 °F)
Type	TTC2000 Manual Loader System	TTC2800SYS Motorized Control System
Analog Output	+(CW/-(CW) 1.8 V at Transducer Full Range Linearity, ±1% of reading	+(CW/-(CW) 1.8 V at Transducer Full Range Linearity, ±1% of reading
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	TORQUE: ft-lb, in-lb, in-oz, N•m, dN•m, kg•cm and kg•cm; FORCE: lbf, ozf, N, dN, kp and gf
Capacity, digits [counts] (bit A/D)	8 [±32,000] (16)	8 [±32,000] (16)
Computer Serial Com Port	RS232 (True), 300–19.2K Baud (Optional)	RS232 (True), 300–19.2K Baud (Optional)
Data Storage/Recall	3,000 Measurements	3,000 Measurements
Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions	Lower Set Limit, Upper Set Limit, 10 Divisions
Humidity	Up to 90% Non-Condensing	Up to 90% Non-Condensing
Loader Control Relays	Two, Normally Open, Form A, Rated 12 DVC @ 1/2 A close contact at 110% CW or CCW or torque/force transducer range	Two, Normally Open, Form A, Rated 12 DVC @ 1/2 A 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	Input torque 8 ft-lb Maximum, Output Torque 2,000 ft-lb Maximum

Total Uncertainty: Add 7.5–100% of Range and 8–100% of Range.
Training programs are available by location (P/N STRN01 to STRN07)

TTC2000

Electronic Torque Tester and Calibrator

TTC2000 Electronic Torque Tester/Calibrator

- Automatic sensor recognition with TTC series "Smart" transducers
- Range: 15 in-oz–2,000 ft-lb (bidirectional)
- Total uncertainty (10–100% of range): ± 0.25% of indicated torque value
- Alpha-numeric eight-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
- Modes: Track, Peak, First Peak and Power Tool
- Optional angle encoder
- RS232C port is standard
- Analog output is standard
- Full digital circuitry
- Eight 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
- NIST® traceable

TTC2800SYS

TTC2800SYS Motorized Torque Tester/Calibrator

- Front Panel Function Keys: SELECT Torque/Force; MODE, UNIT; ZERO TARE; CALIBRATION; DATE/TIME; SET LOW; STORE DATA; RECALL DATA; STATISTICS; SEND/AUTO SEND; AUTO CLEAR; MANUAL CLEAR; ENTER; VALUE increment; VALUE decrement; DIGIT left; DIGIT right
- Model TTC2800SYS includes: TTC2800 TTC Monitor, Motorized Loader, and Cabinet, TTC400 4-in-1 Transducer Kit (4 in-lb–250 ft-lb), TTC5000-1 4-in-1 Transducer Bracket, TTC12 Transducer Kit (60–600 ft-lb), TTC14 Transducer Kit (200–2,000 ft-lb), TTC5500-1 Extension Arm, 2000-SW WedgeLink Software and 2000-50-3 Download Cable
- NIST® traceable

TTC2000SYS Electronic Manual Torque Tester/Calibrator

- TTC2000SYS includes: TTC2000 Monitor, Mechanical Loader and Cabinet, TTC400 4-in-1 Transducer Kit (4 in-lb–250 ft-lb), TTC12 Transducer Kit (60–600 ft-lb), TTC14 Transducer Kit (200–2,000 ft-Lb), TTC5500-1 Extension Arm, TTC5000-1 4-in-1 Transducer Bracket, 2000-SW WedgeLink Software and 2000-50-3 Download Cable
- NIST® traceable

TTC2800-220V Motorized Torque Tester/Calibrator (220 V AC)

- Front Panel Function Keys: SELECT Torque/Force; MODE, UNIT; ZERO TARE; CALIBRATION; DATE/TIME; SET HIGH; SET LOW; STORE DATA; RECALL DATA; STATISTICS; SEND/AUTO SEND; AUTO CLEAR; MANUAL CLEAR; ENTER; VALUE increment; VALUE decrement; DIGIT left; DIGIT right
- NIST® traceable

TTC280220V Motorized Torque Tester/Calibrator (220 V AC)

- Front Panel Function Keys: SELECT Torque/Force; MODE, UNIT; ZERO TARE; CALIBRATION; DATE/TIME; SET HIGH; SET LOW; STORE DATA; RECALL DATA; STATISTICS; SEND/AUTO SEND; AUTO CLEAR; MANUAL CLEAR; ENTER; VALUE increment; VALUE decrement; DIGIT left; DIGIT right
- NIST® traceable

TTC610

TTC810

TTC610 Digital Indicator

- For electronic torque tester and calibrator

TTC810 Digital Indicator

TTC600 Loader

TTC800 Motorized Loader

TTC503 USB Download Cable for SureTest and TTC systems

⚠WARNING

- Do not exceed rated torque.
- Do not use to break fasteners loose.
- Periodic recalibration is needed to maintain and assure torque tester accuracy.
- Read Safety Precautions on pages W1–W4

ELECTRONIC TORQUE TESTER AND CALIBRATOR

TTC8

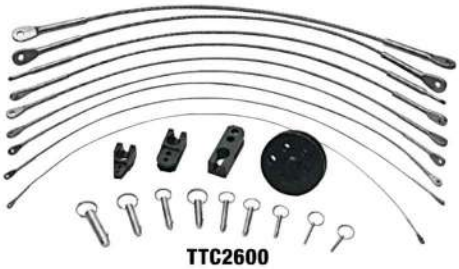
TTC400

Transducers

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

Stock No.	Description	Range	Bench Top Mounting Bracket
TTC4***	1/4" Drive Transducer	5–50 in-oz	TTC3421
TTC5	1/4" Drive Transducer	15–200 in-oz	TTC3421
TTC6	1/4" Drive Transducer	4–50 in-lb	TTC3421
TTC65	1/4" Drive Transducer	15–150 in-lb	TTC3421
TTC7	3/8" Drive Transducer	30–400 in-lb	TTC3421
TTC8	3/8" Drive Transducer	80–1,000 in-lb	TTC3421
TTC10	1/2" Drive Transducer	10–125 ft-lb	TTC3422
TTC11	1/2" Drive Transducer	20–250 ft-lb	TTC3422
TTC12	3/4" Drive Transducer	60–600 ft-lb	TTC3422
TTC13	1" Drive Transducer	100–1,000 ft-lb	TTC15002
TTC14	1" Drive Transducer	200–2,000 ft-lb	TTC15002
TTC400**	1/4", 3/8" and 1/2" Drive 4-in-1 Transducer	4 in-lb–250 ft-lb	N/A
TTC34325	4-in-1 Table Mounting Bracket	—	—
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 VERSA600LDR2. Total Uncertainty: Add 7.5–100% of Range and 8–100% of Range (to some transducers).
**Required for TTC400 4-in-1 Torque Transducer to be used on TTC600/TTC800 loaders. Total Uncertainty: Add 7.5–100% of Range and 8–100% of Range (to some transducers).
***Accuracy is +/-0.5% of indicated test value from 10–100% of indicated torque value. Total Uncertainty: Add 7.5–100% of Range and 8–100% of Range (to some transducers).



TTC2600

TTC2620

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

Stock No.	Description
TTC2600	Tensiometer Testing Kit
TTC2610	Tension Gauge Testing Kit
TTC2620	Compression Gauge Testing Kit
TTC26302	Force Arm Kit

Force testing feature can only be used with single transducers and CANNOT be used with the TTC400 4-in-1 multi transducer.

TTCCALKIT Calibration Kit

- Includes TTC3200 Weight Set (#1), TTC500 2-1/2" Calibration Wheel, TTC1510 5" Calibration Wheel, TTC1520 10" Butterfly Calibration Wheel, 2000-226-3 Adaptor (1/2" x 3/8"), TTC1540 40" Calibration Arm, 390-2-2 4 oz Calibration Weight Tray, TTC301 8 oz Calibration Weight Tray, TTC3040 7.5 lb Calibration Weight Tray, TTC3020 15 lb Calibration Weight Tray, TTC3030 50 lb Calibration Weight Tray and TTC25002 Calibration Stand Kit
- Kit can be used on all TTC Systems

Accessories

TTC900121 Smart Cable Replacement

Joint Rate Simulator Adaptors

- Use with torque tester when testing nonimpacting 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

QC1JRS50

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

390-2-2

Weight Sets

Used to calibrate any TTC Series transducer. All weights are NIST® (NBS) traceable.

Stock No.	Description
TTC3200	No. 1 Weight Set (for all transducers)
TTC3210	No. 2 Weight Set (200 in-oz–600 ft-lb)
TTC3220	No. 3 Weight Set (600–2,000 ft-lb)

Weight Hangers/Trays

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

Stock No.	Description
390-2-2	Weight Hanger (4 oz)
TTC301	Weight Hanger (1/2 lb)
TTC3020	Weight Tray (15 lb)
TTC3030	Weight Tray (50 lb)
TTC3040	Weight Tray (7.5 lb)

TORQUE COMPARATORS

Accessories

Stock No.	Description
TTC75002	Torque Screwdriver Testing Kit (for 2800 and 2000 Series Systems)
TTC75006	Torque Screwdriver Testing Kit (for VERSATEST600 Loader System)
2000-150-03	Transducer Mount (60–600 ft-lb to 200–2,000 ft-lb)
TTC3421	Tranducer Mount (5–50 in-oz to 80–1,000 in-lb)
TTC3422	Transducer Mount (10–125 ft-lb to 60–600 ft-lb)
TTC5500-1	Extension Arm (For 2000 and 2800 Series Loaders)
TTC25002	Complete Calibration Stand Kit (Including Adaptors)
TTC501	PC Cable
260-27	1/4" Hex x 1/4" Square Socket Adaptor
342-40	Female 1/4" Square x 1/4" Square Socket Adaptor
342-41-1	Female 1/4" Square x 3/8" Square Socket Adaptor
342-41-2	Female 3/8" Square x 3/8" Square Socket Adaptor
65-26-2	Female 1/2" Square x 3/8" Square Socket Adaptor
65-78-1	Female 1/2" Square x 3/4" Square Socket Adaptor
65-78-2	Female 3/4" Square x 3/4" Square Socket Adaptor
75-20	Female 1" Square x 1" Square Socket Adaptor
75-25-1	Female 1" Square x 3/4" Square Socket Adaptor
2000-0154-18	1-1/4" Male x 3/4" Female Square Drive Reducer
2000-152-3	1/2" Male x 3/8" Female Square Drive Reducer
2000-226-2	1" Male x 3/4" Female Square Drive Reducer
2000-226-3	3/4" Male x 1/2" Female Square Drive Reducer
TTC500	2-1/2" Calibration Wheel (max 50 in-oz)
TTC1510	5" Calibration Wheel (max 150 in-lb)
TTC1520	10" Butterfly Wheel (max 250 ft-lb)
TTC1530	1/2" and 3/8" Drive 20" Calibration Arm
TTC1540	1-1/4" Drive 40" Calibration Arm

TTC25002

2000-150-03

260-27

2000-0154-18

TTC1540

⚠WARNING

- Do not exceed rated torque.
- Periodic recalibration is needed to maintin and assure torque tester accuracy.
- Read Safety Precautions on pages W1–W4

TORQUE COMPARATORS


QCDTC3250


TCR175C


TCR600C

Torque Digital Checker

QCDTC3250 Electronic Torque Digital Checker—1/2 and 3/8" (25–250 ft-lb)

- Easy method to check a 1/2 or 3/8" drive torque wrench
- Highly Accurate: ± 1% CW and ± 1% CCW of indicated value
- Large, easy-to-read backlit LCD screen
- Three measurement modes: ft-lb, in-lb, N•m
- Three primary torque checking modes—Track, Peak Hold, First Peak
- Integrated exercise adaptor on mounting plate to "break in" mechanical torque wrenches before testing
- Includes GAF2A 3/8" adaptor with storage pocket for convenience when testing 3/8" drive torque wrenches
- Integrated exercise adaptor on mounting plate (allows user to break-in for accurate results per ASME® B107-300 standard)
- Battery powered by 3 AA alkaline batteries—optional AC adaptor available (DTS8269)
- Adjustable shut-off feature
- CE approved
- Includes Certificate of Calibration

TCR175C Torque Comparator (Certificate of Calibration)

- Determine if a torque wrench requires calibration to maintain proper application of torque
- 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 B107-300 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 A2A or GAF2A adaptor

TCR600C Torque Comparator (Certificate of Calibration)

- 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
- 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

WTE4G72L9

PTM1000

Pneumatic Torque Wrenches

PTM Features:

- Twin motor technology allows the PTM to be both lightweight and fast
- Compact and powerful, allowing excellent access to a variety of treaded fasteners
- The secondary trigger ensures hands are away from pinch points during operation
- Run-down speeds up to 224 RPM (for PTM370)
- A wide variety of reaction fixtures are available, making this an extremely versatile tool
- These are nonimpacting tools with low vibration levels
- Operate at noise levels below 85 dB (under load)
- Gearbox rotates independently from the handle so reaction forces are never transferred back to the operator
- All tools are supplied with a Certificate of Calibration and torque vs. pressure chart
- PTM Series offers a wide range of torque output, from 74–4,500 ft-lb
- Accuracy of ±5%
- Includes case, cranked reaction fixture, tool hanger, secondary handle and male quick connect

Stock No.	Description	Square Drive Size	Torque Range (ft-lb)	Torque Range (N•m)
PTM370	Pneumatic Torque Wrench	3/4	74–370	100–500
PTM590	Pneumatic Torque Wrench	3/4	118–590	160–800
PTM740	Pneumatic Torque Wrench	3/4	147–740	200–1,000
PTM1000	Pneumatic Torque Wrench	1	200–1,000	270–1,350
PTM1475	Pneumatic Torque Wrench	1	295–1,475	400–2,000
PTM1990	Pneumatic Torque Wrench	1	400–1,990	540–2700
PTM2950	Pneumatic Torque Wrench	1-1/2	590–2,950	800–4,000
PTM3300	Pneumatic Torque Wrench	1-1/2	660–3,320	900–4,500
PTM4400	Pneumatic Torque Wrench	1-1/2	885–4,425	1200–6,000
WTE4G72L9	9" Wheel Torque Extension (for PTM740)	1	1,000 (1,350)	—


PTQ1WTCPBWD1


PTQ1WTCUPD30


PTQ1WTCPD362


PTQ1WTCUP482


PTQ1WTCPD562


WTE4G72L9

Pneumatic Torque Wrench Wheel Torque Accessories

• Wheel extension and cup combine to create a reaction point when torquing lug nuts on trucks and heavy equipment

Stock No.	Description	Use with Snap-on Sockets
PTQ1WTCPBWD1	Deep well cup to fit 13/16" Budd wheel studs	BW626A, BWD482
PTQ1WTCPBWD2	Deep Well Cup to fit 21 mm Budd wheel studs	BWDM412
PTQ1WTCUPD30	Deep Well Cup to fit 30 mm lugs	SIMM302
PTQ1WTCUP342	Standard Cup	IM322A, IM342A
PTQ1WTCUPD35	Deep Well Cup	SIM382, SIM402, SIM422, SIM442, SIMM302, SIMM322 SIMM332, SIMM352
PTQ1WTCUP362	Standard Cup	IM362
PTQ1WTCPD362	Deep Well Cup	SIM322, SIM342, SIM362
PTQ1WTCUP482	Standard Cup to fit 38 mm and 1-1/2" lugs	IM482, IMM382
PTQ1WTCUP542	Standard Cup	IM502, IM522, IM542
PTQ1WTCUP562	Standard Cup to fit 41 mm and 1-3/4" lugs	IM562, IMM412
PTQ1WTCPD562	Deep Well Cup to fit 1-7/16" and 1-3/4" lugs	SIM462, SIM482, SIM522, SIM562
WTE4G72L9	9" Wheel Torque Extension (for PTM740)	—

Pneumatic Torque Filter/Regulators

PTMFRL Filter/Regulator Unit

- Filter and lubricator in one unit
- Large pressure gauge allows the operator to easily select the appropriate pressure
- Adjustable lubricator provides the proper amount of lubrication for PTM Series of tools


PTMFRL

⚠WARNING

- Do not exceed rated torque.
- Periodic recalibration is needed to maintin and assure torque tester accuracy.
- Read Safety Precautions on pages W1–W4