JETCO
A Stahlwille Group Company
Torque Tools LLC

CATALOG 2020

Industrial Torque Tools & Torque Testers

JETCO Management and its employees have the experience of more than 3 generations in the development and manufacturing of torque wrenches and torque testers.

Innovation, durability and ease of use is our primary product focus.

JETCO's highly skilled and experienced staff pride themselves on constant improvement to their existing line as well as, thanks to the latest state-of-the-art research, the development of unique and durable torque products. We start with stable, proven torque tool technology and apply the latest state-of-the-art circuitry to create accurate and durable electronic torque tools.

Industries served for over 30 years include Medical, Automotive, Industial, Aircraft, Theme Parks, Aerospace and Defense. Our products are used on production lines, in Laboratories and even on the International Space Station.

Designed and Built with pride in the U.S.A.

Editor: JETCO - Duarte, CA, USA

All pictures for this catalogue have been taken from tools from our actual stocks. The pictures have not been retouched. All details in the catalogue are updated (misprints expected) and not binding. Our philosophy of continuous improvements determines that we reserve the right to deviate from printed details and technical specifications without prior notice.

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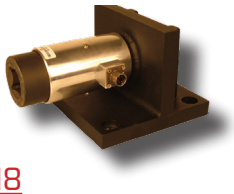

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Electronic Torque Wrenches
ED Series: Ranges up to 2000 ft-lb (2800 Nm)

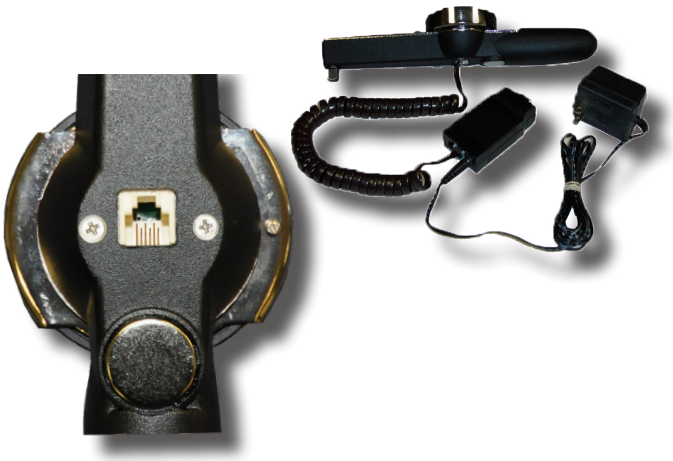
- Industry Leading Accuracy: +/-1% Indicated Value
- Industry Leading Usable Range: 10-100% of Full Scale
- Industry Leading Models Available: 5 in.lbs. to 2000 ft.lb.
- Industry Leading Sampling Rate: 2500-10,000 per second
- Torsion Drive Design=Non Length Dependant
- Maximum Metal Design (Very Few Plastic Parts)
- Large Easy to Read Digits: .5" High
- Patented Rotary Display: Read From All Directions
- Three Units Of Measure: in.lb., ft.lb., & Nm
- Automatic Display Clear
- Two Modes of Operation: Track, Peak Hold
- Programmable Tolerance: 1-10%
- Yellow, Green, Red Under-Within-Over torque LED's
- Audible Buzzer
- Quick and Easy to Learn
- 9 volt or 4-AAA battery operation
- N.I.S.T. Certification Supplied With Each Wrench
- Used in Quality Control AND Production Environments

Electronic Torque Wrenches: ED

Part #	Drive	in-lb	ft-lb	Nm	Dim.	Weight	Box
ED-50i	1/4"	5-50.00	.42-4.2	.56-5.6	11"	2 lb	Blow Molded
ED-75i	1/4"	7.5-75.00	.625-6.25	.85-8.5	11"	2 lb	Blow Molded
ED-100i	1/4"	10-100.0	.83-8.3	1.1-11.0	11"	2 lb	Blow Molded
ED-250i	3/8"	25-250.0	2.1-21	2.8-28.0	11"	2 lb	Blow Molded
ED-50F	3/8"	60-600.0	5-50	6.8-68	11"	2 lb	Blow Molded
ED-100F	1/2"	120-1200	10-100	13.5-135	24"	3.2 lb	Blow Molded
ED-250F	1/2"	34-340.0	25-250	300-3000	24"	3.2 lb	Blow Molded
ED-600F	3/4"	720-7200	60-600	81-810	44" *	11 lb	Blow Molded
ED-1000F	1"	*******	100-1000	135-1355	77" *	20 lb	Metal
ED-2000F	1"	*******	200-2000	280-2800	125" *	46 lb	Heavy C.B.

* Includes extension(s)

Electronic Torque Wrenches
ED-USB Series:



Each USB version has a connector machined into the body. This connects to a USB kit that attaches to a computer or main power supply (Db9-serial connector available).

Same Features as the ED Series Plus:

- Download and log data to a PC
- Recharge the batteries via USB port
- Recharge the batteries using a 110V-USB transformer
- Completely control the wrench remotely from a computer.
- Two-way remote control commands:
- Set the target
- Change the mode
- Change the units
- Change the tolerance
- Read the current torque real time
- Read the current Peak value
- And many more functions

See Appendix for list of serial commands for two-way control of wrench

Part #	Drive	in-lb	ft-lb	Nm	Dim.	Weight	Box
ED-50i-USB	1/4”	5-50	.42-4.2	.56-5.6	11”	2 lb	Blow Molded
ED-75i-USB	1/4”	7.5-75	.625-6.25	.85-8.5	11”	2 lb	Blow Molded
ED-100i-USB	1/4”	10-100	.83-8.3	1.1-11.0	11”	2 lb	Blow Molded
ED-250i-USB	3/8”	25-250	2.1-21	2.8-28.0	11”	2 lb	Blow Molded
ED-50F-USB	3/8”	60-600	5-50	6.8-68	11”	2 lb	Blow Molded
ED-100F-USB	1/2”	120-1200	10-100	13.5-135	24”	3.2 lb	Blow Molded
ED-250F-USB	1/2”	34-340	25-250	300-3000	24”	3.2 lb	Blow Molded
ED-600F-USB	3/4”	720-7200	60-600	81-810	44”	11 lb	Blow Molded
ED-1000F-USB	1”	-	100-1000	135-1355	77”	20 lb	Metal
ED-2000F-USB	1”	-	200-2000	280-2800	125”	46 lb	Heavy C.B.

* Includes extension(s)

All -USB models include communication port, rechargeable battery, USB cable and 110V power adapter

Electronic Rotary Head Torque Wrench
Revo Series: Ranges up to 250 ft-lb

- Accuracy: +/-2% I.V.
- Patented swiveling ratchet for all angle LCD viewing
- Small arc 45 tooth ratchet
- Industry leading usable range: 10-100% of Full Scale
- Industry leading sampling rate: 2500-10,000 per second
- Maximum metal design (Very few plastic parts)
- Large easy to read digits: .5" High
- Three units of measure: in.lb. Ft.lb. Nm
- Automatic display clear
- Two modes of operation: Track, Peak Hold
- Programmable tolerance: 1-10%
- Yellow, Green, Red Under-Within-Over torque LED's
- Audible beeper
- Quick and easy to Learn
- 4-AAA battery operation (Internal recharge option)
- Communication port (requires -USB kit)
- N.I.S.T. Certification Supplied With Each Wrench
- Used in Quality Control AND Production Environments

Part #	Drive	in-lb	ft-lb	Nm	Dim.	Weight	Box
Revo-250i	3/8"	25-250	2.1-21	2.8-28.0	14"	2 lb	Clear Sleeve
Revo-100F	3/8"	120-1200	10-100	14-140	15"	3.2 lb	Clear Sleeve
Revo-150F	1/2"	180-1800	10-100	13.5-135	19"	3.2 lb	Clear Sleeve
Revo-250F	1/2"	300-3000	25-250	34-340	21"	3.2 lb	Clear Sleeve

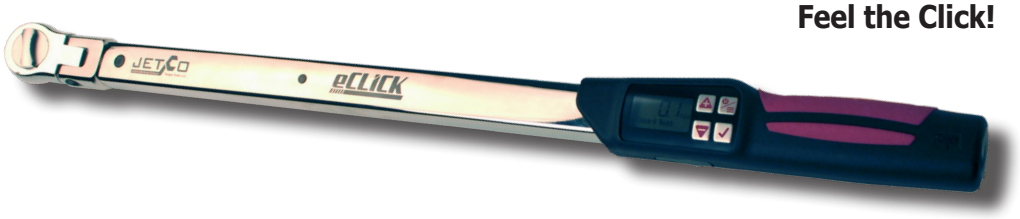
Revo-USB Communication and Rechargeable Kit

- internally rechargeable batteries
- Download and log data to a PC
- Recharge the batteries via USB port
- Completely control the wrench remotely from a computer.

Part Number: REVO-USB-KIT

Electronic "Clicker" Torque Wrench
Eclick: Ranges up to 150 ft-lb

Feel the Click!



Under Setting

Click Point

Over Torque After Click Warning

- Patented Electro-Mechanical Design
- NO torque springs, pawls or cams to wear out and change accuracy
- Same sound and feel as a mechanical click wrench without the well known problems
- Electronic precision with the desirable feel of a click wrench
- Wrench prompts the operator if over torque is sensed after click!
- Flex head design for enhanced accessibility
- NOT just a mechanical click wrench with a digital scale. The click is triggered electronically
- NOT just a "snapping" split beam type wrench-this wrench releases like a clicker
- Proven industrial design
- Backlit display
- Clockwise= Click +Buzzer+Display+LED's (Green and Red).
- Counterclockwise= Display+Buzzer+LED's (Green and Red)
- Display deviation value: +/-2%, +/- 1 digit
- Data output via sealed USB com port
- Memory for up to 7,500 fasteners
- Angle adapter available
- N.I.S.T Certification supplied with each wrench
- Password lock for production preset torque
- Don't settle for a vibration! GET THE CLICK BACK!

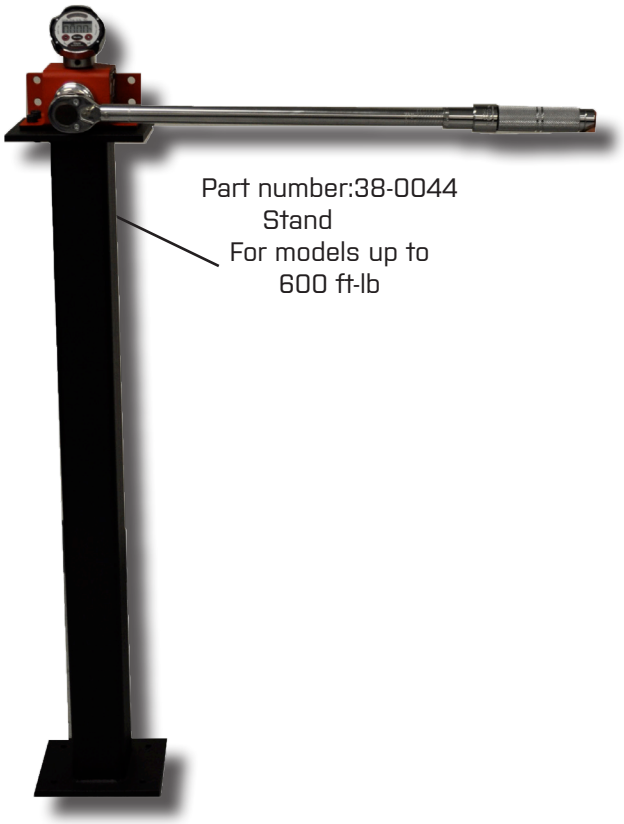
Part #	Drive Size	Range			Length	Grip	Accuracy
EC-75F	3/8"	7.5-75 ft.lbs	10-100 Nm	90-900 in.lbs	20"	Nylon/Rubber Cushion	2%
EC-150F	1/2"	15-150 ft.lbs	20-200 Nm	180-1800 in.lbs	23"	Nylon/Rubber Cushion	2%
EC-75F-FLEX	3/8" Flex	7.5-75 ft.lbs	10-100 Nm	90-900 in.lbs	21"	Nylon/Rubber Cushion	2%
EC-150F-FLEX	1/2" Flex	15-150 ft.lbs	20-200 Nm	180-1800 in.lbs	24"	Nylon/Ribber Cushion	2%

Electronic Torque Testers
TED Series: "Factory Floor" Torque Tester
Ranges up to 2000 ft-lb (2800 Nm)

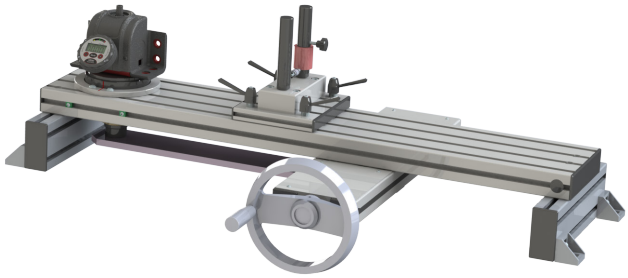
- Accuracy: +/-1% I.V. from 10-100% of range
- Expanded Usable Range: 10-100% of Full Scale
- Industry Leading Models Available: 10in-oz to 2000 ft.lb.
- Industry Leading Sampling Rate: 2500-10,000 per second
- Torsion Drive Design
- Large Easy to Read Digits: .5" High
- Patented Rotary Display: Read From All Directions
- Three Units Of Measure: in.lb. Ft.lb. Nm (in-oz available)
- Automatic Display Clear
- Three Modes of Operation: Track, Peak Hold, First Peak
- Programmable Tolerance: 1-10%
- Yellow, Green, Red Under-Within-Over torque LED's
- Audible Buzzer
- Quick and Easy to Learn
- 9 volt or 4-AAA battery operation
- N.I.S.T. Certification Supplied With Each Wrench
- Used in Quality Control AND Production Environments
- Memory for up to 1000 torque readings
- Real Time Clock

The TED series of torque testers are accurate, easy to use, robust and affordable. We understand that most users don't need many of the features that make other brands expensive, hard to use, and easy to break. These patented testers are 100% self-contained and can be mounted on a wall or bench with no extra brackets to purchase. They can also be mounted in our torque loaders. They specifically test all types of torque wrenches with a high performance circuit. Used by hundreds of large companies, from aerospace to theme parks, to calibrate and do daily torque verification on all types of torque wrenches. Now you can test a torque wrench prior to each use quickly and easily for traceability. No need to send out perfectly fine torque wrenches to be tested. With the included N.I.S.T traceable certification you can certify wrenches in-house.

Versatility of the TED series: Mount on stand or in our loaders

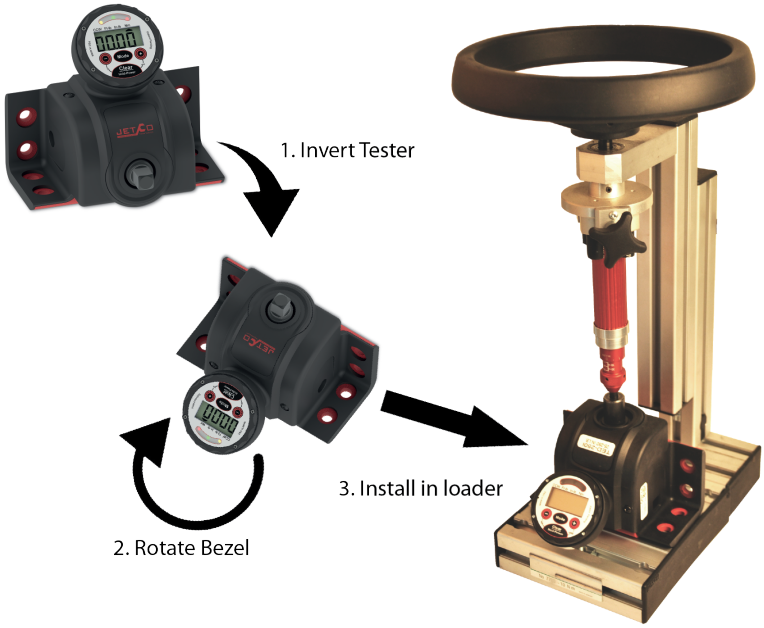


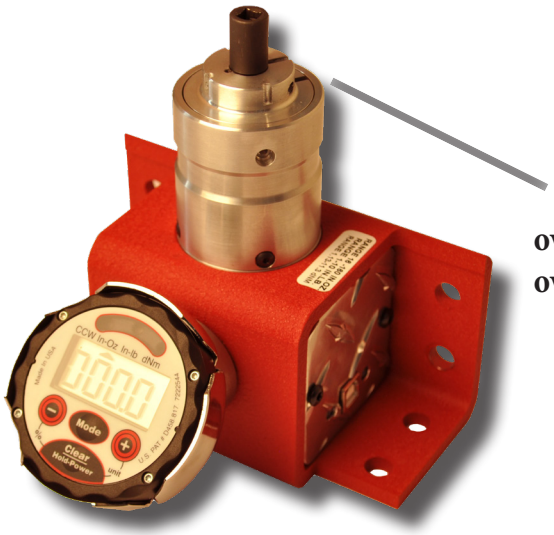
Part number:38-0044
Stand
For models up to
600 ft-lb



Mount in mechanical loader for a complete calibration system
See Pages 12-13 for more information on Torque Loaders

Versatility of the patented TED series torque tester: Mount horizontal for torque wrenches or flip and mount in our screwdriver loader for testing torque screwerivers.





In.Oz testers have an exclusive buit in overload slip clutch which reduces damage from overtorque

Electronic Torque Testers
TED Series: "Factory Floor" Torque Tester
Ranges up to 2000 ft-lb (2800 Nm)

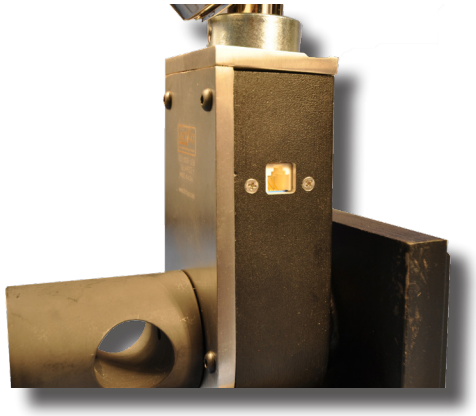
Battery Operation Only- Models up to 600 ft.lb. (800 Nm)

			Range				Increments					
JETCO #	Description	Accuracy	Nm	in.lb.	In. Oz	ft.lb.	in.lb.	ft.lb.	In. Oz	Nm	Dim.	Wt.
TED-100z	Torque Tester 1/4" 10-100 in.oz.	1.0%	0.7-7	.062-.625	10-100		0.01		0.01	.001	6"x6"x6"	6 lb
TED-50z	Torque Tester 1/4" 5-50 in.oz.	1.0%	0.35 -3.5	0.3-3.0	5-50		0.01		0.01	.001dNm	6"x6"x6"	6 lb
TED-160z	Torque Tester 1/4" 16-160 in.oz.	1.0%		1-10	16-160		0.01				6"x6"x6"	6 lb
TED-50i	Torque Tester 1/4" 5-50 in.lb.	1.0%	.68-6.8	5-50		.4-4	0.01	00.001		0.001	6"x6"x6"	6 lb
TED-75i	Torque Tester 1/4" 7.5-75 in.lb.	1.0%	0.85-8.5	7.5-75		0.625-6.25	0.01			0.001	6"x6"x6"	6 lb
TED-100i	Torque Tester 1/4" 10-100 in.lb.	1.0%	1-11	10-100		.8-8	0.01	0.1		0.001	6"x6"x6"	6 lb
TED-250i	Torque Tester 3/8" 25-250 In.Lb.	1.0%	2.8-28	25-250		2.1-21	0.1	0.01		0.01	6"x6"x6"	6 lb
TED-50F	Torque Tester 3/8" 5-50 ft.lb.	1.0%	6.8-68	60-600		5-50	0.1	0.01		0.01	6"x6"x6"	6 lb
TED-250F	Torque Tester 1/2" 25-250 ft.lb.	1.0%	34-340	300-3000	N/A	25-250	1	0.1		0.1	6"x6"x6"	6 lb
TED-600F	Torque Tester 3/4" 60-600 ft.lb.	1.0%	81-810	720-7200	N/A	60-600	1	0.1		0.1	6"x6"x6"	7 lb

Battery Operation Only- Models up to 2000 ft.lb. (2800 Nm)

			Range				Increments					
JETCO #	Description	Accu-racy	Nm	in.lb.	In.Oz	ft.lb.	in-.lb.	ft.lb.	In-.Oz	Nm	Dim.	Wt.
TED-1000F	Torque Tester 1" 100-1000 ft-lb	1.0%	140-1400			100-1000		1		1	8.5"x8"x6"	6 lb
TED-2000F	Torque Tester 1" 200-2000 ft-lb	1.0%	280-2800			200-2000		1		1	8.5"x8"x6"	6 lb

TED USB Models



The -USB models of the torque tester series have the added benefit of being able to plug into a standard USB port on a computer. This connection allows the user to communicate (USB to Serial connection) with a computer. In addition, the USB connection is used to power the tester AND recharge internally rechargeable batteries. If you do not wish to use a computer to power the unit you can use the supplied 110 volt-USB power adapter with the tester (much like charging a cell phone). In addition, there are a significant amount of serial commands that can be sent to the tester to control how it functions real-time (see serial commands attachment).

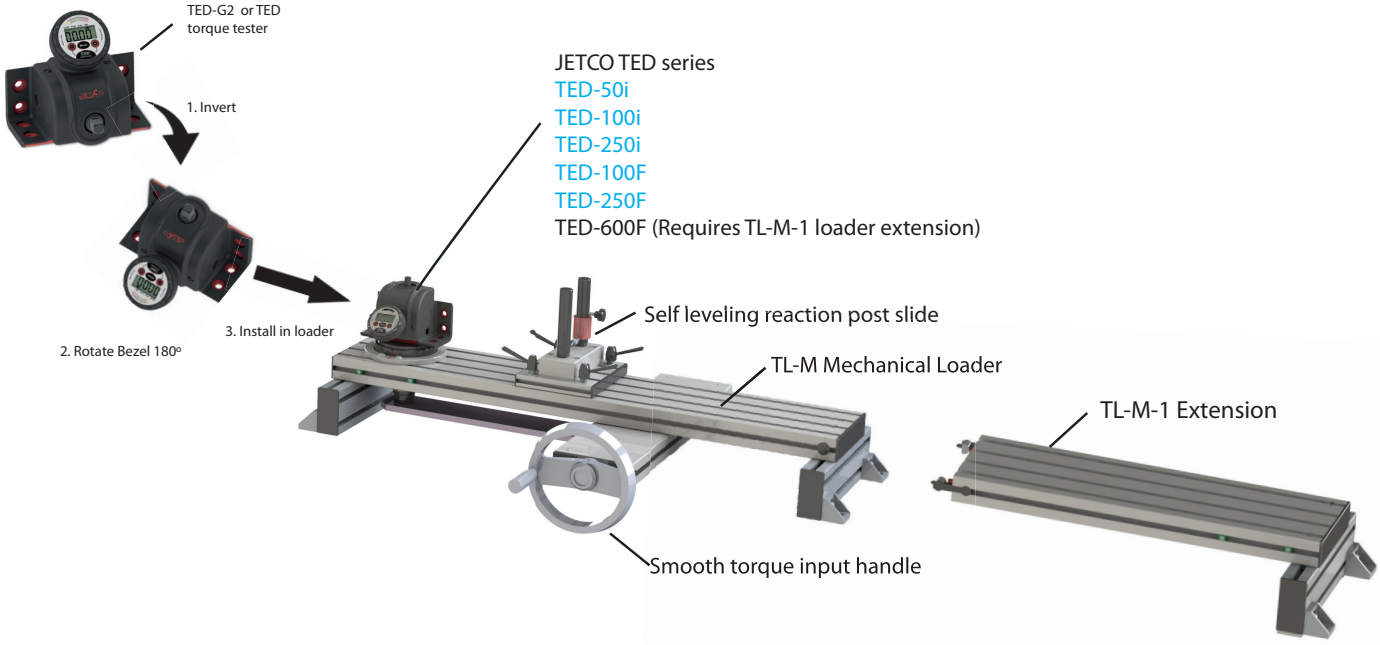
			Range			Increments					
JETCO #	Description	Accuracy	Nm	in.lb.	In.Oz	ft.lb.	in.lb.	ft.lb.	In.Oz	Nm	Dim.	Wt.
TED-50z-USB	Torque Tester 1/4" 5-50 in.oz. USB	1.0%	0.35 -3.5	0.3-3.0	5-50		0.01		0.01		6"x6"x6"	6 lb
TED-160z-USB	Torque Tester 1/4" 16-160 in.oz. USB	1.0%		1-10	16-160						6"x6"x6"	6 lb
TED-50i-USB	Torque Tester 1/4" 5-50 in.lb. USB	1.0%	.68-6.8	5-50		.4-4	0.01	0.001		0.001	6"x6"x6"	6 lb
TED-75i-USB	Torque Tester 1/4" 7.5-75 in.lb. USB	1.0%	0.85-8.5	7.5-75		0.625-6.25	0.01			0.001	6"x6"x6"	6 lb
TED--100i-USB	Torque Tester 1/4" 10-100 in.lb.	1%	1-11	10-100		.8-8	0.01	0.001		0.01	6"x6"x6"	6 lb
TED-250i-USB	Torque Tester 3/8" 25-250 In.Lb. USB	1.0%	2.8-28	25-250		2.1-21	0.1	0.01		0.01	6"x6"x6"	6 lb
TED-50F-USB	Torque Tester 3/8" 5-50 ft.lb. USB	1.0%	6.8-68	60-600		5-50	0.1	0.01		0.01	6"x6"x6"	6 lb
TED-250F-USB	Torque Tester 1/2" 25-250 ft.lb. USB	1.0%	34-340	300-3000	N/A	25-250	1	0.1		0.1	6"x6"x6"	6 lb
TED-600F-USB	Torque Tester 3/4" 60-600 ft.lb. USB	1.0%	81-810	720-7200	N/A	60-600	1	0.1		0.1	6"x6"x6"	7 lb

			Range			Increments					
JETCO #	Description	Accuracy	Nm	in.lb.	In.Oz	ft.lb.	in.lb.	ft.lb.	In.Oz	Nm	Dim.	Wt.
TED-1000F-USB	Torque Tester 1" 100-1000 ft-lb USB	1.0%	140-1400			100-1000		1		1	8.5"x8"x6"	6 lb
TED-2000F-USB	Torque Tester 1" 200-2000 ft-lb USB	1.0%	280-2800			200-2000		1		1	8.5"x8"x6"	6 lb
TED-600F-USB	Torque Tester 3/4" 60-600 ft-lb USB	1.0%	81-810	720-7200		60-600	.001	.001		.01	9"x9"x7"	8 lb

Torque Loaders

Mechanical Torque Loaders

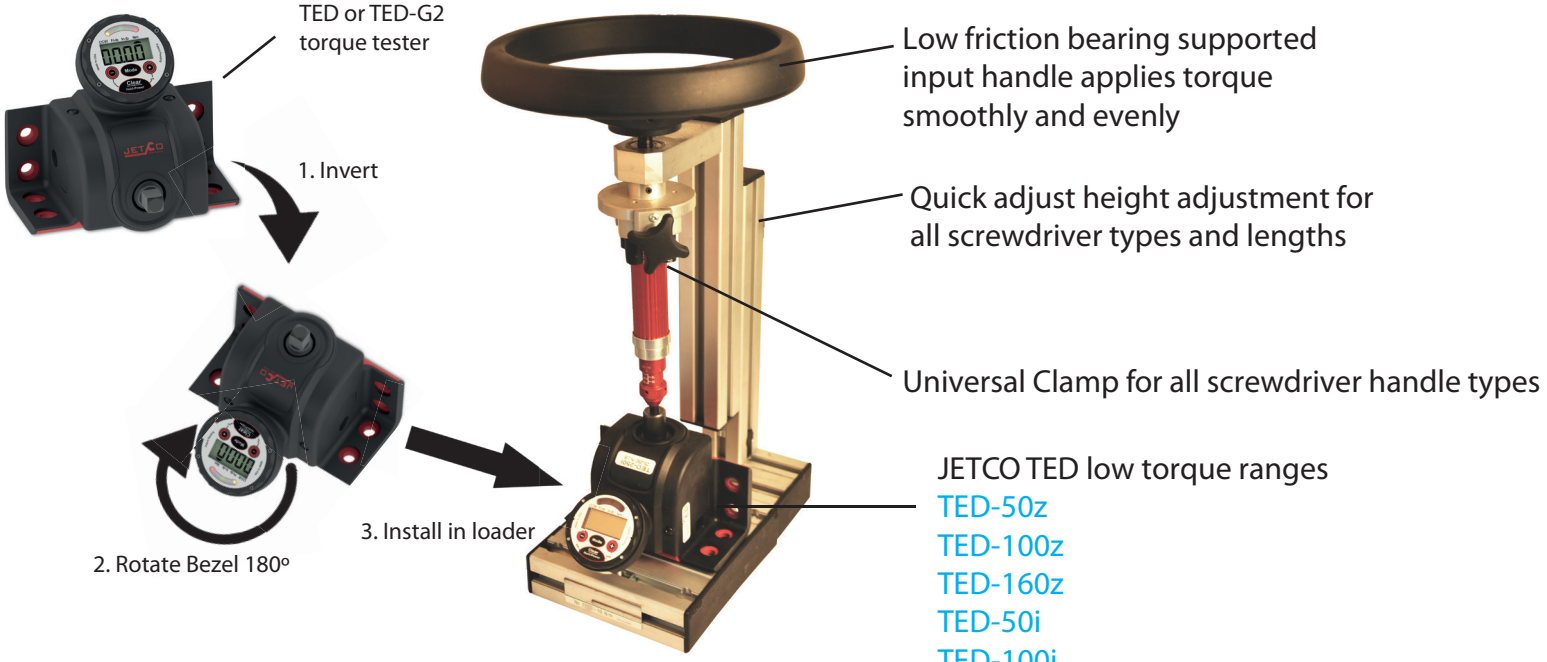
Heavy Duty Mechanical Torque Loaders for TED Torque Testers: Use these torque loaders to expand the capability of the TED Torque Tester. Removes operator error and isolates the torque wrench or torque screw-driver for significantly more repeatable readings. Reduces the chances of over-torque resulting in damage to the wrench under test or the torque tester. Mechanical advantage makes it easy to generate torque up to 600 ft-lb..



Part #	Capacity	T/W Length	Depth	Height	Width
TL-M	350 ft-lbs	32”	27”	15”	42”
TL-M-1	600 ft-lbs	54.75”	12”	5.5”	26.4”

Mechanical Torque Screwdriver Loader

Test all types of torque screwdrivers with this adjustable torque screwdriver loader. Reduces side load and unwanted user influences resulting in more repeatable readings. This is a perfect addition to the low torque TED line.



SL-M Torque Screwdriver Loader

Part #	Capacity	Width	Height	Depth	Weight
SL-M	100 in-lb	9.85”	17.5-23.5”	13.8”	18 Lbs

Electronic Torque Meters
TTS-2000 Series

The all new TTS-2000 is a hand held/bench mount torque meter with the performance and features of any high end torque testing system. This system is modular meaning that you can expand your torque range needs as your needs change. No need to buy a new electronic tester for every torque range. The meter will automatically detect the range of the transducer attached and set all calibration data automatically (smart transducers). This is the last torque tester you will ever need since it has all the necessary features and modes and will adapt to any torque transducer - we guarantee it!

- Extremely powerful torque meter
- Perfect for calibration labs or production
- 10,000 samples per second sampling rate
- .25% I.V. Accuracy
- Memory for up to 1300 readings
- Time Stamp
- Interchangeable Transducers
- Programmable filters for power tools
- 5 engineering units
- 10 point calibration curve
- Auto Clear function
- Test pulse power tools
- Test impact power tools
- Analog (DAC) output for controllers
- USB output for PC communication
- Articulating stand
- 1-4 mv/v transducer input
- Two way communication with PC
- Large serial communication command set
- Rechargeable Batteries (via USB port)
- 1300 Value Memory

				Range			Increments					
JETCO #	Description	Accuracy	Nm	in.lb.	In.Oz	ft.lb.	in.lb.	ft.lb.	In.Oz	Nm	Dim.	Wt.
TTS-2000	Torque Meter	0.25%*		9999				9999			3.5"x7.5"x2"	1.5 lb

*Combined Accuracy when used with G-2 Bench Mount Transducers

How to Order a TTS-2000 System:

1. Determine the ranges of the torque wrenches you need to test. Note the minimum and maximum torque range. The drive size is not important, as you can use drive adapters to adapt the transducer to the various wrench drives.
2. Order one TTS-2000 kit and select the proper number of torque testers to cover the ranges of your torque wrenches.

Ordering Example:

You have 250 ft.lb. clickers and 250 in.lb. clickers.

You want to order:
-TTS-2000 Torque Meter
-BMF-250
-BMI-250
-BKT-4

The range of a 250 ft-lb click wrench is 50-250 ft-lb. Therefore you would need to purchase a BMF-250 with a usable range of 25-250 ft-lb.

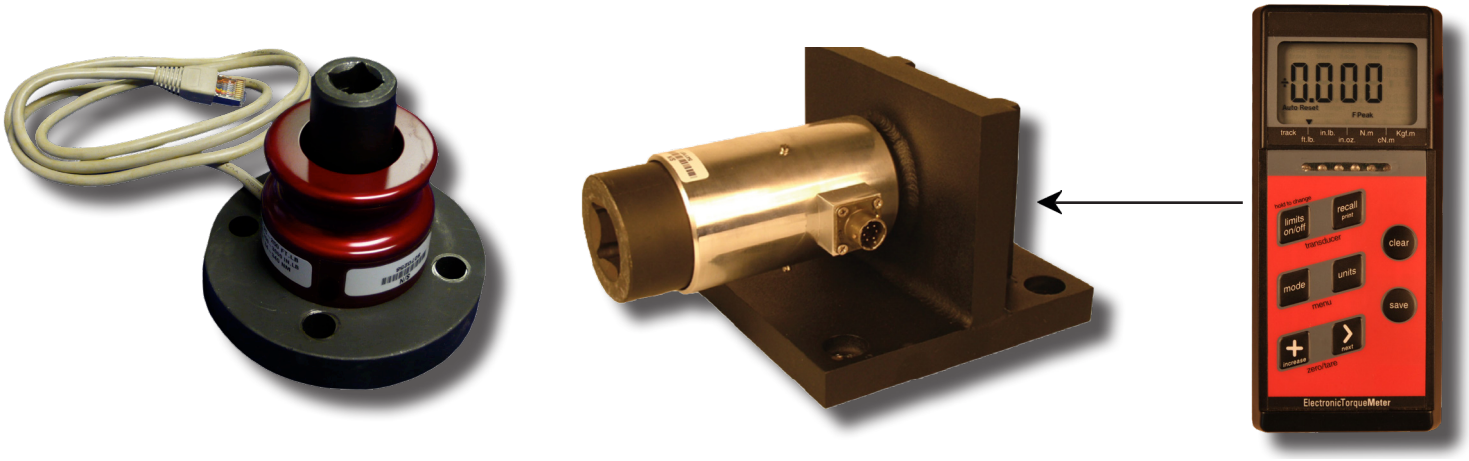
The range of a 250 in-lb click wrench is 50-250 in-lb. Therefore you would need to purchase a BMI-250 with a usable range of 25-250 in-lb.

You could also purchase a BKT-4 mounting bracket to mount the transducers to a bench.

In the future, if you find you need to test up to 1000 ft-lb, you would simply purchase a BMF-1000 to expand your range capacity.

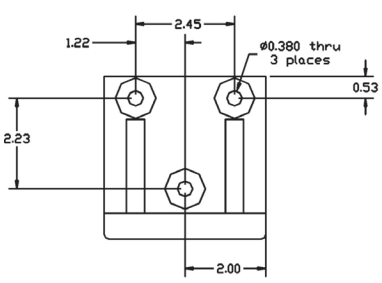
Electronic Torque Transducers
Bench Mount Ranges up to 2000 ft-lb (2800 Nm)

Plug-and-play bench mount transducers are designed specifically to be used as a torque standard when combined with a TTS-2000 tester. Used to calibrate and test torque tools such as hand type torque wrenches and also power tools. These transducers are mounted to a bench with a bracket included on BMF-1000 and BMF-2000 transducers) and have a female square drive for the attachment of torque tools with male square drives. Each transducer has a Smart Chip for storing calibration data and 10 point calibration curves for higher accuracy.

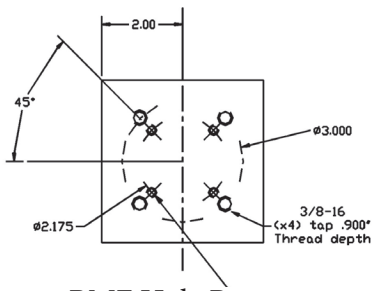


Part Number	Range (when used with TTS series meter)						Drive
	in-lb	ft-lb	Nm	in-oz	cNm	Kgf.m	
BMI-50	5-50	.4-4.2	.56-5.6	80-800	56-565	-	1/4”
BMI-100	10-100	.8-8.3	1.1-11.3	160-1600	113-1130	-	1/4”
BMI-250	25-250	2.0-21.0	2.8-28.0	-	282-2824	-	1/4”
BMF-50	60-600	5-50	6.8-68	-	-	.7-7	3/8”
BMF-100	120-1200	10-100	13.5-135	-	-	1.4-14	1/2”
BMF-250	300-3000	25-250	34-340	-	-	34-340	1/2”
BMF-500	60-6000	50-500	67-670	-	-	6.9-69	3/4”
BMF-600	72-7200	60-600	81-813	-	-	8.3-83	3/4”
Model BKT-4 mounting bracket required for above listed transducers (up to 600 ft-lb)							
BMF-1000	-	100-1000	135-1355	-	-	13.8-138	1”
BMF-2000	-	200-2000	271-2711	-	-	27.6-276	1”

Other ranges available upon request



BKT-4 Table Hole Pattern

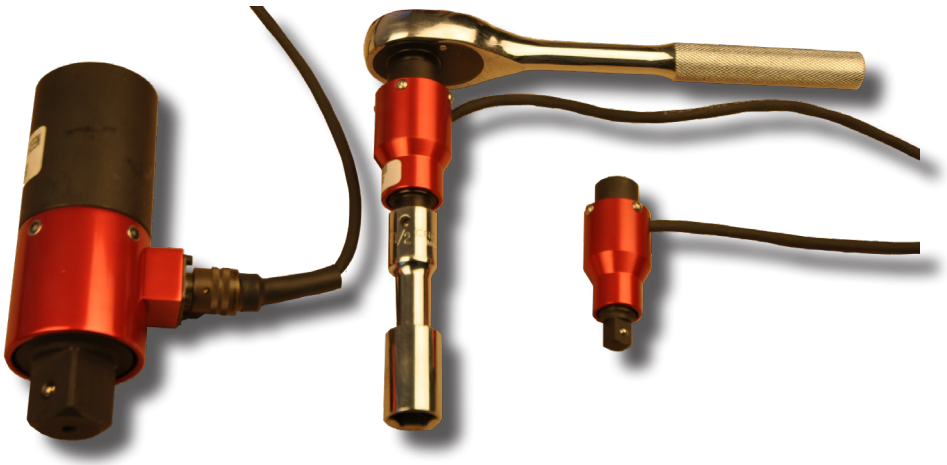


BMF Hole Pattern

Electronic Torque Transducers
Socket Style Ranges up to 2000 ft-lb (2800 Nm)

Plug-and-play socket style transducers are designed to be used with a ratchet wrench for real-time, accurate application of torque to any fastener. Also used to test "break-away" and torque auditing at the application. When used with the TTS-2000 you will have the most accurate and mobile torque application device available.

Accuracy is .5% or better with TTS-2000



Part Number	Range (when used with TTS series meter)						Drive
	in-lb	ft-lb	Nm	in-oz	cNm	Kgf.m	
IL-50i	5-50	0.41-4.1	0.56-5.6	-	56.4-564	-	1/4"
IL-250i	25-250	2.0-21.0	2.8-28.0	-	282-2824	-	3/8"
IL-50F	60-600	5-50	6.8-68	-	-	.7-7	3/8"
IL-250F	300-3000	25-250	34-340	-	-	34-340	1/2"
IL-1000F	-	100-1000	135-1355	-	-	13.8-138	1"
IL-2000F	-	200-2000	271-2711	-	-	27.6-276	1"
Other ranges available upon request							

Torque Tester Accessories

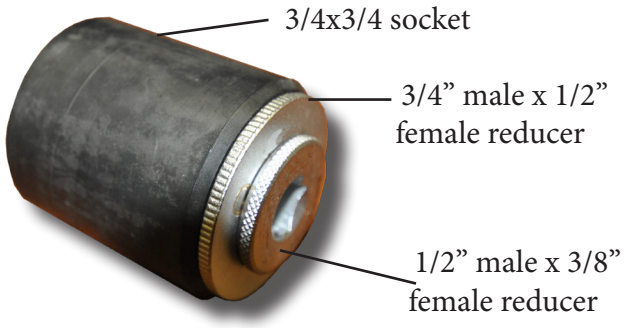
Socket Adapters:

Size" Female-Female	Part num.
1/4" sq. x 1/4" sq.	85-0110
1/4" sq. x 3/8" sq.	85-0120
3/8" sq. x 3/8" sq.	85-0097
3/8" sq. x 1/2" sq.	85-0119
1/2"sq. x 1/2" sq.	85-0098
3/4" sq. x 3/4" sq.	85-0103

Socket Reducers:

Use these reducers to turn any of the above sockets into the next smaller square size (See photo for 3/4" to 3/8" example):

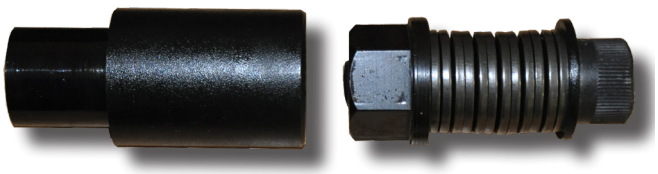
3/8" male sq. x 1/4" female	sq.	81-409M
1/2" male sq. x 3/8" female	sq.	81-7789
3/4" male sq. x 1/2" female "	sq.	81-514M



Joint Rate Simulators (For Testing Power Tools)

Joint Rate Simulators are used to simulate the tightening of a fastener when testing power tools on a torque tester or transducer. This assembly is needed so the power tool being tested has a chance to spin up to speed and then tighten a fastener with the same or similar characteristics as the application the tool is used on. The joint rate simulator is placed between the power tool and the torque tester or transducer. Power tools can have different torque outputs based on the type of joint they are being used on (a result mostly of inertia). For example, if two plates of steel are being fastened together the power tool will build up full power then "slam" the joint together. If two pieces of plastic are being fastened together the tool will slow down while the plastic compresses and have to work harder to generate the torque. These two conditions can be simulated with a joint rate simulator. Inserting varying types of spring washers can create different "rates" of joint simulations. To simulate a hard joint (two pieces of steel) you would remove the springs and use flat washers.

Part num.	Range	Input Type
JRS-50i	Up to 50 in.lb.	1/4" hex drive screw
JRS-250	Up to 250 in-lb	3/8" hex drive screw
JRS-50F	Up to 50 ft.-lb.	1/2 hex drive screw
JRS-150F	Up to 150 ft.-lb.	5/8" hex nut drive



Torque Tester Comparison Chart

Feature	TTS-2000	TED	TED-P	TED-USB
Accuracy	.25%	1%	1%	1%
Transducer	External	Internal	Internal	Internal
Usable Range	10-100%	10-100%	10-100%	10-100%
Memory	1300 values	None	100 values	100 values
Rechargeable Battery.	Yes	No	Yes	Yes
NIST Certification	Yes	Yes	Yes	Yes
Remote Control Command sets	Yes	No	Yes	Yes
Test Clickers	Yes	Yes	Yes	Yes
Test Dial Wrench	Yes	Yes	Yes	Yes
Test Screwdriver	Yes	Yes	Yes	Yes
Time Stamp	Yes	No	*Yes	*Yes
Sampling Rate	10,000 sps	2500 sps	2500 sps	2500 sps
Test Impact Wrenches**	Yes	No	No	No
Test Pulse Tools**	Yes	No	No	No
Test Pneumatic/Electric Tools (shutoff type)**	Yes	Yes	Yes	Yes
Programmable filters	Yes	No	No	No
Smart Transducers	Yes	N/A	N/A	N/A
Comm. Port Type	USB	N/A	RS232 Db9	USB
Input Power	Transformer	N/A	Transformer	USB
Display Type	LCD	LCD	LCD	LCD
Transducer Bracket Required	Yes	No	No	No
Future Range Expansion Capable	Yes	No	No	No
Go/No Go LED's	Yes	Yes	Yes	Yes
Low Battery Icon	Yes	Yes	Yes	Yes
Maximum Torque	9999	2000 ft.lb.	2000 ft.lb.	2000 ft.lb.
Units (TTS-2000: 5) (TED series: 3)	in-oz in-lb ft-lb Nm cmKg	in-lb ft-lb Nm in-oz	in-lb ft-lb Nm in-oz	in-lb ft-lb Nm in-oz

** Power tool testing requires Joint Rate Simulators

Heavy Duty Micrometer Adjustable and Preset Torque Screwdrivers: MAS & PAS Series

- Accuracy: +/-4% CW
- 6 clicks per revolution
- Anti-reverse torque mechanism
- CNC machined components
- 6061 billet aluminum components
- Highly repeatable
- Built to last
- Meets ANSI specs
- Positive pull down lock ring
- Pre-set versions
- Large easy to read scale

JETCO Preset-Adjustible (PAS) versions are unique in that they can be preset and the lock ring is locked so the production worker cannot change the setting. This version still has the exposed scale and adjustment mechanism, it just can't be changed by the user without removing a retaining ring. The torque setting can be changed by removing a retaining ring, pushing the lockring up, and indexing to the proper torque value as shown on the laser marked scale. This is different than most "factory" pre-sets where there is no scale. A typical "Factory" Pre-set does not have a scale requiring the screwdriver to be set on a torque tester. The JETCO USER adjustable does not need a torque tester to change the preset value as the all the increments are printed on the screwdriver.

Torque Screwdriver Models

Micrometer Adjustable (MAS)

T-Handle Models (MAS and PAS)

User Adjustable Pre-Set Models (PAS)

Part #	Description	in.oz	in.lb.	Increments	Drive	Length	Weight	Box
MAS-100z PAS-100z	Adjustable Torque Screwdriver Preset Adjustable Screwdriver	20-100		1 in-oz	1/4" Sq. +Hex Adapter	7"	1lb	Blow Molded
MAS-12i PAS-12i	Adjustable Torque Screwdriver Preset Adjustable Screwdriver		3-12	0.25 in-lb	1/4" Sq. +Hex Adapter	7"	1lb	Blow Molded
MAS-36i PAS-36i	Adjustable Torque Screwdriver Preset Adjustable Screwdriver		6-36	0.5 in-lb	1/4" Sq. +Hex Adapter	7"	1lb	Blow Molded
MAS-40i PAS-40i	Adjustable Torque Screwdriver Preset Adjustable Screwdriver		8-40	1 in-lb	1/4" Sq. +Hex Adapter	7"	1lb	Blow Molded
MAS-60I PAS-60i	Adjustable Torque Screwdriver* Preset Adjustable Screwdriver*		12-60	1 in-lb	1/4" Sq. + Hex Adapter	7.8"	1.1lb	Sleeve
			METRIC					
Part #	Description	cN-m		Increments	Drive	Length	Weight	Box
MAS-120CN PAS-120CN	Adjustable Torque Screwdriver Preset Adjustable Screwdriver	24-120		2cN-m	1/4" Sq. + Hex Adapter	7"	1lb	Blow Molded
MAS-300CN PAS-300CN	Adjustable Torque Screwdriver Preset Adjustable Screwdriver	60-300		5c-Nm	1/4" Sq. + Hex Adapter	7"	1lb	Blow Molded
MAS-600CN PAS-600CN	Adjustable Torque Screwdriver* Preset Adjustable Screwdriver*	120-600		10cN-m	Adjustable Torque Screw-driver + T handle	7.8"	1.2lb	Sleeve

*Includes T-handle

Interchangeable Head Pre-set "Clicker" Torque Wrenches

- Industrial Design Used for Production
- +/-4% Accuracy
- 4140 CNC Machined Cam for Durability
- Thick Wall Heat Treated Tube
- High Quality Spring
- High Alloy CNC Machined Pawl
- Set Using TED Series Torque Tester
- Industry Standard Shanks
- Thick Non-Slip Cushion Grip
- Meets or Exceeds ANSI B10714 2004

Part #	Range (ft-lb)		Range (Nm)		Shank	Length	Weight
	Min.	Max.	Min.	Max.			
J10T-I	3	9	5.6	28	J	6”	.7 lb
J50T-I	10	50	21	102	J	11”	1.3 lb
J100T-I	30	150	40	233	Y	19.5”	2.25 lb
J200T-I	40	200	54	271	Y	23.5”	2.4 lb

Notes

Mechanical Dial Torque Wrenches

- 4% accuracy standard (20-100% of range)
- NEW Secure Bezel Design (no more lost/broken bezels)
- Large no-glare scale
- Dual scale models mean fewer wrenches are needed
- Ergonomic handle
- Memory needle on every wrench (captures peak torque)
- Electric light and buzzer available on 1000 and 2000 ft-lb
- High Alloy TORSION drive design
- Non-length dependent application of torque (accurate no matter where you press on the handle
- Made in USA from US, German, and Globally Sourced Industrial Parts

D1 Series - Ranges up to 50 ft.lb (70 Nm)

Dual Scale Models (White Background Black Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D1-30i	0-30 in.lb.	.5 in.-lb.	1/4”	10.63”	Plastic Blow	1.6 lb	YES
	0-3.5 Nm	.1Nm		27mm	Molded	.73 kg	
D1-75i	0-75 in.lb.	1 in.-lb.	1/4”	10.63”	Plastic Blow	1.6 lb	YES
	0-9 Nm	.2Nm		27mm	Molded	.73 kg	
D1-150i	0-150 in.lb.	2 in.-lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
	0-18 Nm	.5 Nm		27mm	Molded	.73 kg	
D1-250i	0-250 in.lb.	5 in.-lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
	0-30 Nm	.5Nm		27mm	Molded	.73 kg	
D1-600i	0-600 in.lb.	10 in.-lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
	0-70 Nm	2 Nm		27mm	Molded	.73 kg	
D1-50F	0-50 ft-lb.	1 ft.lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
	0-70 Nm	2 Nm		27mm	Molded	.73 kg	

Single Scale Models (Black Background White Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D1-30i-SSD	0-30 in.lb.	.5 in.-lb.	1/4”	10.63”	Plastic Blow	1.6 lb	YES
D1-3.5Nm-SSD	0-3.5 Nm	.1Nm		27mm	Molded	.73 kg	
D1-75i-SSD	0-75 in.lb.	1 in.-lb.	1/4”	10.63”	Plastic Blow	1.6 lb	YES
D1-10Nm-SSD	0-10Nm	.2Nm		27mm	Molded	.73 kg	
D1-250i-SSD	0-250 in.lb.	5 in.-lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
D1-30Nm-SSD	0-30 Nm	.5Nm		27mm	Molded	.73 kg	
D1-600i-SSD	0-600 in.lb.	10 in.-lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES
D1-70Nm-SSD	0-70 Nm	2 Nm		27mm	Molded	.73 kg	
D1-50F-SSD	0-50 ft-lb.	1 ft.lb.	3/8”	10.63”	Plastic Blow	1.6 lb	YES

D3 Series - Ranges up to 250 ft.lb (350 Nm)

Dual Scale Models (White Background Black Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D3-100F	0-100 ft.-lb.	2 ft.lb	1/2”	22”	Plastic Blow	3.0 lb	YES
	0-140Nm	2.5Nm		56mm	Molded	1.4 kg	
D3-175F	0-175 ft.-lb.	5 ft.-lb.	1/2”	22”	Plastic Blow	3.0 lb	YES
	0-240 Nm	5 Nm		56mm	Molded	1.4 kg	
D3-250F	0-250 ft.-lb.	5 ft.-lb.	1/2”	22”	Plastic Blow	3.0 lb	YES
	0-350 Nm	10 Nm		56mm	Molded	1.4 kg	

Single Scale Models (Black or Green Background White Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D3-100F-SSD	0-100 ft.-lb.	2 ft.lb	1/2”	22”	Plastic Blow	3.0 lb	YES
D3-140NM-SSD	0-140Nm	2.5Nm	1/2”	56mm	Molded	1.4 kg	
D3-175F-SSD	0-175 ft.-lb.	5 ft.-lb.	1/2”	22”	Plastic Blow	3.0 lb	YES
D3-240NM-SSD	0-240 Nm	5 Nm	1/2”	56mm	Molded	1.4 kg	
D3-250F-SSD	0-250 ft.-lb.	5 ft.-lb.	1/2”	22”	Plastic Blow	3.0 lb	YES
D3-350NM-SSD	0-350 Nm	10 Nm	1/2”	56mm	Molded	1.4 kg	

D4 Series - Ranges up to 600 ft.lb (800 Nm)

Dual Scale Models (White Background Black Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D4-350F	0-350 ft.-lb.	10 ft.-lb.	3/4”	26.5”	Plastic Blow	7 lb	YES
	0-480 Nm	10 Nm		67 mm	Molded	3.15 kg	
D4-600F	0-600 ft.-lb.	10 ft.-lb.	3/4”	48”	Plastic Blow	7.5 lb	YES
	0-800 Nm	10 Nm		122 mm	Molded	4 kg	

Single Scale Models (Black Background White Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle
D4-350F-SSD	0-350 ft.-lb.	10 ft.-lb.	3/4”	26.5”	Plastic Blow	7 lb	YES
D4-480-SSD	0-480 Nm	10 Nm		67 mm	Molded	3.15 kg	
D4-600F-SSD	0-600 ft.-lb.	10 ft.-lb.	3/4”	48”	Plastic Blow	7.5 lb	YES
D4-800-SSD	0-800 Nm	10 Nm		122 mm	Molded	4 kg	

D4-600F supplied with 1 extension

D4-1000F supplied with 1 extension and high quality hinged metal case

Dual Scale Models (White Backgound Black Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle	Light and Buzzer
D4-1000F-E	0-1000 ft.-lb.	20 ft.-lb.	1”	77” with extension	Metal	20 lb	YES	YES
	0-1400 Nm	25 Nm	1”	196 mm		9 kg		

Single Scale Models (Black Backgound White Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle	Light and Buzzer
D4-1000F-SSD	0-1000 ft.-lb.	20 ft.-lb.	1”	77” with extension	Metal	20 lb	YES	YES
D4-1400NM-SSD	0-1400 Nm	25 Nm	1”	196 mm		9 kg		

D5-2000F supplied with 5 extensions. Use as T handle

D5 Series - Ranges up to 2000 ft.lb

Dual Scale Models (White Backgound Black Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle	Light and Buzzer
D5-2000F	0-2000 ft.-lb.	40 ft.-lb.	1”	125” with extension	Crdb	46 lb	YES	Yes
	0-2800 Nm	50 Nm		317.5 mm		21 kg		

Single Scale Models (Black Backgound White Letters):

Part Number	Range	Graduations	Drive	Length	Case	Weight	Memory Needle	Light and Buzzer
D5-2000F-SSD	0-2000 ft.-lb.	40 ft.-lb.	1”	125” with extension	Crdb	46 lb	YES	YES
D5-2800NM-SSD	0-2800 Nm	50 Nm		317.5 mm		21 kg		

Notes:

Technical Information

Communication Protocol For Testers and Wrenches:

TTS-2000:
19200 BPS, 8 data bits, no parity, 1 stop bit.
ED, REVO and TED series:
9600 BPS, 8 data bits, no parity, 1 stop bit
*Data can be received from the wrench/tester by sending a "?" mark followed by a carriage return.

For more information on capturing data visit our web site www.itorque.com

Typical data string sent from the torque tester or torque wrench:

The data sent is in ASCII text format. Testers and wrenches output at least the following information:

Torque and units, Set Point (target), Tolerance (%), Condition (Low, Pass, Fail).
Please refer to the torque tester operating manual for what each value refers to.

Output Example:
+25.12 ft-lbs, 25.00, 04%, PASS, Time Stamp

In the above example the tester is reading 25.12 ft-lbs, the target or set point is set to 25.00 and the tolerance is set to 4%. Since the reading of 25.12 is within +/- 4%, the last comment is "PASS".

Third Party "Wedge" Communication Programs for using Excel and Word processors:
To get the information directly into a spreadsheet or word processor program you can copy and paste, save and import text files (from Hyper-terminal) or you can purchase a "wedge" program that will send the data directly from the wrench/tester into whatever program you are running- just as if you typed the information on the keyboard. We recommend Winwedge or Winwedge Pro. With this third party program you can create your own certification forms and import torque data directly to ANY program. Visit www.taltech.com/winwedge for more information.

Note: With Winwedge you can "parse" out any information you don't need in your program. For example, if you only want to send the torque value and units to the spreadsheet you can disregard the additional information that is sent from the tester. Only the torque will be sent to, for example, the specific cell that is selected in an open spreadsheet.

Notes:

Warranty

JETCO 12-MONTH WARRANTY

JETCO torque products are warranted against defects in material and workmanship for a period of one year from date of delivery (warranty does not include calibration). During the warranty period JETCO will either repair or replace products, which prove to be defective, at its discretion and expense. Products must be returned freight prepaid with original proof of purchase.

LIMITATION OF WARRANTY

The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by the Customer, unauthorized modification or misuse, or improper site preparation and maintenance. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED. JETCO SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Agents of JETCO have no authority to make representations of any sort beyond those contained in this warranty.

EXCLUSIVE REMEDIES

THE REMEDIES PROVIDED HEREIN ARE THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES. JETCO SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER BASED OR CONTRACT, TORT, OR ANY OTHER LEGAL THEORY.

In no event shall JETCO be liable to the customer or anyone claiming through or against customer for any special damages (including, without limitation, lost profits, sales, interruption of business; or loss of business information).

Calibration Interval/Accuracy Statement

JETCO TORQUE TOOLS RECOMMENDED CALIBRATION INTERVAL/STATEMENT OF ACCURACY

JETCO recommends calibration at 6 months to 1 year intervals, however, actual intervals are User dependent and can vary based on cycles, environment, tool use, criticality of the application and other factors. It is the user's responsibility to determine the best calibration interval for their torque tools.

Accuracy Statements:

The following is a list of tool accuracies by series. Jetco torque tool accuracies are based on Indicated Value which means that the tool is guaranteed to meet or exceed this accuracy level at the reading within the given range.

Dial Wrenches: +/- 4% (both directions) from 20-100% of range.
Electronic Dial Wrenches (ED series): +/- 1% (both directions) from 10-100% of range.
SuperDuty/Revo Electronic Wrenches: +/- 2% (both directions) from 10-100% of range.
TED series Torque Testers: +/-1% (both directions) from 10-100% of range.
TTS-2000 Torque Meter when used with:
In-Line transducers: +/- .5% (both directions) from 10-100% of range.
Bench Mount Transducers: +/- .25% (both directions) from 10-100% of range.
Pre-set click wrenches: +/- 4% Clockwise and +/- 6% counterclockwise.
Micrometer click wrenches: +/- 4% Clockwise and +/- 6% counterclockwise.
Torque Screwdrivers: +/-6% Clockwise direction.

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JETCO

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