



PRECISION TORQUE

There are times when being obsessive is a real virtue – like when you're designing and building torque wrenches. Just consider what these tools are asked to do. When a wrench tightens a bolt the rotational force, or torque, actually causes the bolt to stretch a bit as the threads seat tightly against one another. The trick is to put enough force on the threads that the bolt won't work loose, yet not enough that you risk cracking the metal. This "tolerance" range can be quite narrow, and staying within it may be the difference between a smooth running machine and one stopped dead in its tracks. In the case of military equipment or an aircraft it can literally be a matter of life and death. A torque wrench has to make sure that fasteners are tightened within their tolerance range, and it has to continue doing so even after many uses.

Because they're so important, we spare no effort to make our wrenches accurate. We manufacture wrench parts from high-grade steel, then heat treat critical parts to make them even more durable and wear-resistant. Then we assemble them according to the most precise manufacturing specs.

Our workhorse torque wrench is the easy-to-use micrometer or "click" style wrench, and a great example of our attention to detail is that wrench's internal spring. The spring holds the wrench's tang, tilt block and plunger in place until the set torque is reached, after which those components snap off center with a "click" that the user can hear and feel. A worn spring will throw a wrench out of calibration, so Proto goes to great lengths to manufacture springs that keep their original shape over tens of thousands of uses.

Proto[®] micrometer torque wrenches are offered in three different product series: "C" series wrenches are designed for normal torque applications in industrial and manufacturing settings while "CX" series wrenches are calibrated for use where extreme precision and accuracy is required, such as in aerospace, aviation, and military applications. The CXCERT series wrenches include documents certifying N.I.S.T. (National Institute of Standards and Technology) traceability.

Other features include:

- Scales with metric and English numbers on select models.
- A positive locking mechanism that tells users when they have locked in the desired torque.
- A thin head design that fits into tight areas.
- Long handles, which let the user reach the set torque using less force.
- A large, comfortable-to-use grip.

These wrenches are calibrated to $\pm 3\%$ of torque setting clockwise and $\pm 6\%$ of the torque setting counterclockwise at 20% to 100% of full scale. You can also special order models certified to $\pm 2\%$ in the clockwise direction. Pre-set torque wrenches are also available on special request, and are ideal for assembly work where torque requirements stay constant.

In addition, we make a number of other torque products, for applications ranging from general manufacturing to engine maintenance. These products include Electronic Torque Wrenches, Dial Torque Wrenches, and even Torque Screwdrivers. We also have full-featured electronic Torque Meters and transducers.

PRODUCT FEATURES AND BENEFITS

MICROMETER TORQUE WRENCHES

- 1/4" to 1" drives available, in ratchet and fixed head styles.
- Torque ranges from 10 in. lb. to 2,000 ft. lb., and 16-800 Newton meters.
- Positive locking mechanism makes it easy to dial and lock in the desired torque.
- Calibrated to $\pm 3\%$ of the torque setting clockwise and $\pm 6\%$ of the torque setting counterclockwise at 20% to 100% of full scale.
- Micrometer wrenches certified to $\pm 2\%$ in the clockwise direction may be special ordered.
- Pre-set wrenches also available as special order.
- Accuracy meets or exceeds ASME B107.14M-1994.

DIAL TORQUE WRENCHES

- Accuracy of $\pm 4\%$ of torque reading from 20% to 100% of full scale both directions. Meets or exceeds ASME B107.14M-1994
- Certified models may be special ordered. They are traceable to the National Institute of Standards and Technology.
- Torsion drive design provides exceptional accuracy independent of hand position on the handle and will withstand up to 25% accidental overload without losing calibration.
- Models up to and including 600 ft. lb. include a memory needle that pinpoints peak torque attained.
- Dual scale allows quick, easy torque readings in either English or Metric values.
- Large, easy-to-read dials are protected by metal guards.
- Secure bezel design with integral steel guard for dial protection.

TORQUE MULTIPLIERS

- Help reduce the effort needed to generate high torque.
- Proto offers multipliers with maximum outputs ranging from 750 ft. lbs. to 8,000 ft. lbs.



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TORQUING TIPS

All Proto® torque wrenches come with detailed use instructions and a wrench calibration form except for J6060A, J6023 and J6025. Some general tips include the following:

- Use a smooth steady pull, holding the wrench at the center of the grip.
- When the torque preset is reached, take pressure off of the handle. The wrench will automatically reset itself.
- Do not continue to pull the wrench after reaching the torque pre-set, as this could damage the part being torqued.
- When not in use, set the torque wrench to the 20% setting on the primary scale.
- Assemblies held together by a number of fasteners should be tightened a little at a time.
- Never use a torque wrench on an already-tightened nut.
- Choose a torque multiplier that has enough reserve capacity to loosen the fasteners you have tightened. Break-out torques are usually much greater than the make torque (on average 1 1/2 – 2 times greater than the make torque value).
- When using a torque multiplier, a torque wrench should be used for applying input torque (tightening) or break-out torque (loosening) in order to determine when proper output torque has been achieved. Never use an impact wrench on a torque multiplier.
- The output shear drive is designed to twist off if the torque multiplier's maximum output capacity is exceeded by 3-10%.
- When selecting a multiplier for production application, select one that will be used at about 50% of the multiplier's maximum rated capacity.
- It is recommended that all torque wrenches be recalibrated at least once a year – or more depending on usage.

SAFETY TIPS

- Use safety goggles. Serious eye injury is possible.
- Do not use cheater bars, hammers, or any other damaging object.
- Do not exceed rated torque capacity of wrench.



- Proto offers certified recalibration and maintenance service for all our torque wrenches. For more information about Proto® services, please contact our customer service center at 1-800-800-TOOL, (2195 East View Parkway, Suite #103, Conyers, GA 30013)

- Do not use a torque wrench to break fasteners loose.
- Pull the wrench toward you. Do not push.
- Do not use torque multipliers with impact wrenches.

TORQUE ADAPTER USAGE

HOW TO USE PROTO® TORQUE ADAPTERS

Proto® torque adapters are designed with a center-to-center dimension of 2". This means that the distance from the center of the square drive of the mating torque wrench to the center of the fasteners is exactly 2". This constant dimension serves to simplify the process of calculating the torque applied.

The steps as required to calculate torque when using a Proto® torque adapter are as follows:

- (1) Determine the amount of torque required to properly set the fastener
- (2) Determine the length of the torque wrench from the center of the grip to the center of the square drive (remember that this changes as you adjust the torque wrench setting).
- (3) Multiply the amount of torque you are trying to apply (1) by the length of the torque wrench from (2) above.
- (4) Add 2" for the torque adapter length to (2).
- (5) Divide the result from (3) by the result from (4). The result is the torque wrench setting required to properly torque the fastener.

For example, you want to torque a grade 8 fastener with a thread diameter of 3/8" and a hex size of 9/16", using a Proto® 6006AB torque wrench.

- (1) From the Standard Torque Value Chart in the Proto® catalog, the recommended bolt torque is 47 foot-pounds.
- (2) The 6006AB torque wrench dimension is 10".
- (3) The torque, 47 foot-pounds, multiplied by the length of 10 inches is 470.
- (4) Adding 2" for the torque adapter to the torque wrench length of 10" equals 12".
- (5) Dividing 470 by 12 results in a torque wrench setting of 39 foot-pounds. This will result in the desired 47 foot-pounds at the fastener.

Following this procedure results in an accuracy of W2% (added to the accuracy of the torque wrench it becomes W6% total). For greater accuracy, another iteration can be performed using a measurement of the torque wrench from the center of the grip (set at 39 foot-pounds) to the center of the square drive.

STANDARD TORQUE VALUE CHART FOR METRIC FASTENERS (TORQUE—KILO-NEWTON)

CLASS	PROOF LOAD MPa	Dia (in.)	M1.6x0.35 (0.063)	M2x0.4 (0.079)	M2.5x0.45 (0.098)	M3x0.5 (0.118)	M3.4x0.6 (0.138)	M4x0.7 (0.157)	M5x0.8 (0.197)	M6.3x1 (0.248)	M8x1.25 (0.315)	M10x1.5 (0.394)	M12x1.75 (0.472)	M14x2 (0.551)	M16x2 (0.630)	M20x2.5 (0.787)	M24x3 (0.945)	M30x3.5 (1.181)	M36x4 (1.417)
4.6	225								3.20	5.09	8.24	13.10	19.00	25.90	35.30	55.10	79.40	126.00	184.00
4.8	310		0.39	0.64	1.05	1.56	2.10	2.72	4.40	7.01	11.30	18.00	26.10	35.70	48.70				
5.8	380								5.40	8.59	13.90	22.00	32.00	43.70	59.70	93.10	134.00		
8.8	600													94.20	147.00	212.00	337.00	490.00	
9.8	650		0.83	1.35	2.20	3.27	4.41	5.71	9.23	14.70	23.80	37.70	54.80	74.80	102.00				
10.9	830								11.80	18.80	30.40	48.10	70.00	95.40	130.00	203.00	293.00	466.00	678.00
12.9	970		1.23	2.01	3.29	4.88	6.58	8.52	13.80	21.90	35.50	56.30	81.80	112.00	152.00	238.00	342.00	544.00	792.00

CONVERSION GUIDANCE

Class 4.6 is approximately equal to SAE Grade 1, and ASTM A307, Grade A.

Class 5.8 is approximately equal to SAE Grade 2.

Class 8.8 is approximately equal to SAE Grade 5, and ASTM A449.

Class 9.8 has properties approximately 9 percent stronger than SAE Grade 5, and ASTM A449.

Class 10.9 is approximately equal to SAE Grade 8, and ASTM A354, Grade BD.

STANDARD TORQUE VALUE VS PROTO® MICROMETER TORQUE WRENCH OFFERING

FASTENER DIAMETER INCHES	TORQUE FT-LBS		J6061C J6062C J6063C J6064C	J6005C J6006C J6008C J6065C J6066C	J6012C	J6015C J6016C J6068C	J6013C J6014C J6072C	J6018AB	J6017B J6020AB	J6022B	J6023	J6025
	GRADE 5 ■	GRADE 8 ■										
1/4	10	14	↕ ↕									
5/16	19	29		↕ ↕	↕ ↕							
3/8	33	47		↕ ↕	↕ ↕	↕ ↕						
7/16	54	78		↕ ↕	↕ ↕	↕ ↕	↕ ↕					
1/2	78	119		↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕				
9/16	114	169				↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕		
5/8	154	230				↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕	
3/4	257	380					↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕
7/8	382	600						↕ ↕	↕ ↕	↕ ↕	↕ ↕	↕ ↕
1	587	900							↕ ↕	↕ ↕	↕ ↕	↕ ↕
1-1/8	794	1430									↕ ↕	↕ ↕
1-1/4	1105	1975										↕ ↕
1-3/8	1500	2650										↕ ↕
1-1/2	1775	3200										↕ ↕

CAUTION

There are many varying factors which affect torque. The above estimated torque calculations are only offered as a guide. Use of its content by anyone is the sole responsibility of that person and they assume all the risk.

Precision Torque

MICROMETER TORQUE WRENCH - RATCHETING HEAD

- In / Lbs.
- Calibrated to +/- 3% clockwise direction and +/- 6% counter clockwise direction at 20% to 100% of full scale.
- Calibration is accomplished by manually loading the torque wrench.
- Manufactured to meet standard industrial torque applications such as general industry, heavy equipment and maintenance.



Product ID No.	Drive Size	Torque Range			Head Length	Head Width	Head Depth	Weight lbs.	Storage Case	Ratchet Repair Kit	ASME Spec.
		Min.	Max.	Increments							
J6060A	1/4 Inch	10 in. lbs.	50 in. lbs.	1 in. lbs.	9-1/2"	1-1/16"	7/8"	1.2 lbs.	J6006PBF	J6062RK	B107.14M
J6062C	1/4 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-7/8"	1-1/32"	3/4"	2.6 lbs.	J6006PBF	J6062RK	B107.14M
J6064C	3/8 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-7/8"	1-1/32"	7/8"	2.6 lbs.	J6006PBF	J6064RK	B107.14M
J6066C	3/8 Inch	200 in. lbs.	1000 in. lbs.	5 in. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	B107.14M
J6068C	1/2 Inch	360 in. lbs.	1800 in. lbs.	10 in. lbs.	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	B107.14M
J6072C	1/2 Inch	600 in. lbs.	3000 in. lbs.	10 in. lbs.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	B107.14M

MICROMETER TORQUE WRENCH - FIXED HEAD

- In / Lbs.
- Calibrated to +/- 3% clockwise direction and +/- 6% and counter clockwise direction at 20% to 100% of full scale.
- Calibration is accomplished by manual loading the torque wrenches.
- Manufactured to meet standard industrial torque applications, general industry, heavy equipment, and maintenance.



Product ID No.	Drive Size	Torque Range			Head Length	Head Width	Head Depth	Weight lbs.	Storage Case	ASME Spec.
		Min.	Max.	Increments						
J6061C	1/4 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	3/4"	2.6 lbs.	J6006PBF	B107.14M
J6063C	3/8 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	7/8"	2.6 lbs.	J6006PBF	B107.14M
J6065C	3/8 Inch	200 in. lbs.	1000 in. lbs.	5 in. lbs.	15-13/64"	55/64"	7/8"	3 lbs.	J6006PBF	B107.14M



Precision Torque



MICROMETER TORQUE WRENCH - RATCHETING HEAD

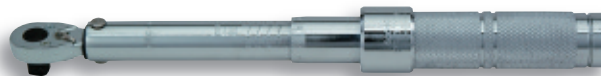
- Ft / Lbs.
- Calibrated to +/- 3% clockwise direction and +/- 6% counter clockwise at 20% to 100% of full scale.
- Calibration is accomplished by manual loading the torque wrenches.
- Manufactured to meet standard industrial torque applications, general industry, heavy equipment, and maintenance.



Product ID No.	Drive Size	Torque Range			Head Length	Head Width	Head Depth	Weight lbs.	Storage Case	Ratchet Repair Kit	ASME Spec.
		Min.	Max.	Increments							
J6006C	3/8 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	B107.14M
J6012C	3/8 Inch	20 ft. lbs.	100 ft. lbs.	0.5 ft. lbs.	17"	1-7/16"	1-1/64"	3.3 lbs.	J6006PBF	J6006RK	B107.14M
J6008C	1/2 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-7/32"	3 lbs.	J6006PBF	J6008RK	B107.14M
J6016C	1/2 Inch	30 ft. lbs.	150 ft. lbs.	1 ft. lbs.	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	B107.14M
J6014C	1/2 Inch	50 ft. lbs.	250 ft. lbs.	1 ft. lbs.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	B107.14M
J6018AB	3/4 Inch	60 ft. lbs.	300 ft. lbs.	2 ft. lbs.	32-23/32"	2-5/8"	2-1/16"	14 lbs.	J6007PBF	J6018RK	B107.14M
J6020AB	3/4 Inch	120 ft. lbs.	600 ft. lbs.	2 ft. lbs.	41-9/16"	2-5/8"	2-1/16"	15.5 lbs.	J6007PBF	J6018RK	B107.14M
J6022B	1 Inch	140 ft. lbs.	700 ft. lbs.	2 ft. lbs.	46-27/32"	2-5/8"	2-5/16"	20.5 lbs.	J6007PBF	J6022RK	B107.14M

MICROMETER TORQUE WRENCH - RATCHETING HEAD

- Metric.
- Calibrated to +/- 3% clockwise direction and +/- 6% counter clockwise direction at 20% to 100% of full scale.
- Calibration is accomplished by manual loading the torque wrenches.
- Manufactured to meet standard industrial torque applications, general industry, heavy equipment, and maintenance.



Product ID No.	Drive Size	Torque Range			Head Length	Head Width	Head Depth	Weight lbs.	Storage Case	Ratchet Repair Kit	ASME Spec.
		Min.	Max.	Increments							
J6006NMC	3/8 Inch	16 Nm	80 Nm	.5 Nm	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	B107.14M
J6006MC	3/8 Inch	16 Nm	80 Nm	.5 Nm	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	B107.14M
J6016NMC	1/2 Inch	40 Nm	200 Nm	1 Nm	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	B107.14M
J6014NMC	1/2 Inch	70 Nm	350 Nm	1 Nm	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	B107.14M
J6014MC	1/2 Inch	70 Nm	350 Nm	1 Nm	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	B107.14M
J6016MC	1/2 Inch	40 Nm	200 Nm	1 Nm	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	B107.14M
J6020NM	3/4 Inch	120 Nm	800 Nm	4 Nm	41-9/16"	2-5/8"	2-1/16"	15.5 lbs.	J6007PBF	J6018RK	B107.14M

Precision Torque

MICROMETER TORQUE WRENCH - FIXED HEAD

- Ft / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% counter clockwise direction at 20% to 100% of full scale.
- Calibration is accomplished by manual loading the torque wrenches.
- Manufactured to meet standard industrial torque applications, general industry, heavy equipment, and maintenance.



Product ID No.	Drive Size	Torque Range			Length	Head Width	Head Depth	Weight lbs.	Storage Case	ASME Spec.
		Min.	Max.	Increments						
J6005C	3/8 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-13/54"	55/64"	7/8"	3 lbs.	J6006PBF	B107.14M
J6013C	1/2 Inch	50 ft. lbs.	250 ft. lbs.	1 ft. lbs.	26-23/32"	1-1/8"	1-7/32"	5.9 lbs.	J6014PBF	B107.14M
J6015C	1/2 Inch	30 ft. lbs.	150 ft. lbs.	1 ft. lbs.	21-1/8"	1-1/8"	1-7/32"	5 lbs.	J6014PBF	B107.14M
J6017B	3/4 Inch	120 ft. lbs.	600 ft. lbs.	2 ft. lbs.	41-11/64"	1-7/8"	1-7/8"	15.5 lbs.	J6007PBF	B107.14M

MICROMETER TORQUE WRENCH - FIXED HEAD

- In / Lbs.
- Calibrated to +/- 3% clockwise direction and +/- 6% counter clockwise direction.
- Calibration is accomplished by mechanical loading of each wrench in a horizontal position, and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Manufactured to meet precision/highly accurate applications such as military and aerospace.



Product ID No.	Drive Size	Torque Range			Length	Head Width	Head Depth	Weight lbs.	Storage Case	TO Spec.
		Min.	Max.	Increments						
J6061CX	1/4 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	3/4"	2.6 lbs.	J6006PBF	T033K6-4-2193-1
J6063CX	3/8 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	7/8"	2.6 lbs.	J6006PBF	T033K6-4-2193-1
J6065CX	3/8 Inch	200 in. lbs.	1000 in. lbs.	5 in. lbs.	15-13/64"	55/64"	7/8"	3 lbs.	J6006PBF	T033K6-4-2193-1



Precision Torque



MICROMETER TORQUE WRENCH - RATCHETING HEAD

- In / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% in counter clockwise direction.
- Calibration is accomplished by mechanical loading of each wrench in a horizontal position, and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Manufactured to meet precision/ highly accurate applications such as military and aerospace.



Product ID No.	Drive Size	Torque Range			Length	Head Width	Head Depth	Weight lbs.	Storage Case	Ratchet	
		Min.	Max.	Increments						Repair Kit	Spec.
J6062CX	1/4 Inch	40 in. lbs.	200 in. lbs.	1 in. lb.	11-7/8"	1-1/32"	3/4"	2.6 lbs.	J6006PBF	J6062RK	T033K6-4-2193-1
J6064CX	3/8 Inch	40 in. lbs.	200 in. lb.	1 in. lb.	11-7/8"	1-1/32"	7/8"	2.6 lbs.	J6006PBF	J6064RK	T033K6-4-2193-1
J6066CX	3/8 Inch	200 in. lbs.	1000 in. lb.	5 in. lb.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	T033K6-4-2193-1
J6072CX	1/2 Inch	600 in. lbs.	3000 in. lb.	10 in. lb.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1

MICROMETER TORQUE WRENCH - RATCHETING HEAD

- Ft / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% counter clockwise direction.
- Calibration is accomplished by mechanical loading each wrench in a horizontal position and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Manufactured to meet precision/highly accurate applications such as military and aerospace.

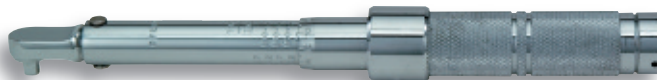


Product ID No.	Drive Size	Torque Range			Length	Head Width	Head Depth	Weight lbs.	Storage Case	Ratchet	
		Min.	Max.	Increments						Repair Kit	Spec.
J6006CX	3/8 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	T033K6-4-2193-1
J6008CX	1/2 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-7/32"	3 lbs.	J6006PBF	J6008RK	T033K6-4-2193-1
J6014CX	1/2 Inch	50 ft. lbs.	250 ft. lbs.	1 ft. lbs.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1
J6016CX	1/2 Inch	30 ft. lbs.	150 ft. lbs.	1 ft. lbs.	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1
J6018CX	3/4 Inch	60 ft. lbs.	300 ft. lbs.	2 ft. lbs.	32-23/32"	2-5/8"	2-1/16"	14 lbs.	J6007PBF	J6018RK	T033K6-4-2193-1
J6020CX	3/4 Inch	120 ft. lbs.	600 ft. lbs.	2 ft. lbs.	41-9/16"	2-5/8"	2-1/16"	15.5 lbs.	J6007PBF	J6018RK	T033K6-4-2193-1

Precision Torque

MICROMETER TORQUE WRENCH - FIXED HEAD

- In / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% in counter clockwise direction.
- Calibration is accomplished by mechanical loading of each wrench in a horizontal position, and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Certification documents traceable to N.I.S.T. (National Institute of Standards and Technology).
- Manufactured to meet precision/highly accurate applications such as military and aerospace.



Product ID No.	Drive Size	Torque Range			Length	Head	Head	Weight lbs.	Storage	Spec.
		Min.	Max.	Increments		Width	Depth		Case	
J6061CXCERT	1/4 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	3/4"	2.6 lbs.	J6006PBF	T033K6-4-2193-1
J6063CXCERT	3/8 Inch	40 in. lbs.	200 in. lbs.	1 in. lbs.	11-45/64"	25/32"	7/8"	2.6 lbs.	J6006PBF	T033K6-4-2193-1
J6065CXCERT	3/8 Inch	200 in. lbs.	1000 in. lbs.	5 in. lbs.	15-13/64"	55/64"	7/8"	3 lbs.	J6006PBF	T033K6-4-2193-1

MICROMETER TORQUE WRENCH - RATCHETING HEAD

- In / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% in counter clockwise direction.
- Calibration is accomplished by mechanical loading of each wrench in a horizontal position, and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Certification documents traceable to N.I.S.T. (National Institute of Standards and Technology).
- Manufactured to meet precision/highly accurate applications such as military and aerospace.



Product ID No.	Drive Size	Torque Range			Length	Head	Head	Weight lbs.	Storage	Ratchet	Spec.
		Min.	Max.	Increments		Width	Depth		Case	Repair Kit	
J6062CXCERT	1/4 Inch	40 in. lbs.	200 in. lb.	1 in. lbs.	11-7/8"	1-1/32"	3/4"	2.6 lbs.	J6006PBF	J6062RK	T033K6-4-2193-1
J6064CXCERT	3/8 Inch	40 in. lbs.	200 in. lb.	1 in. lbs.	11-7/8"	1-1/32"	7/8"	2.6 lbs.	J6006PBF	J6064RK	T033K6-4-2193-1
J6066CXCERT	3/8 Inch	200 in. lbs.	1000 in. lb.	5 in. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	T033K6-4-2193-1
J6072CXCERT	1/2 Inch	600 in. lbs.	3000 in. lb.	10 in. lbs.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1

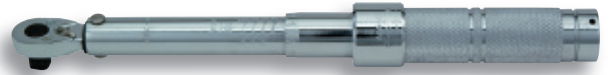


Precision Torque



MICROMETER TORQUE WRENCH - RATCHETING HEAD

- Ft / Lbs.
- Calibrated to +/- 3% in clockwise direction and +/- 6% in counter clockwise direction.
- Calibration is accomplished by mechanical loading of each wrench in a horizontal position, and performing a three click test at 20%, 60% and 100% of maximum instrument capacity.
- Certification documents traceable to N.I.S.T. (National Institute of Standards and Technology).
- Manufactured to meet precision/highly accurate applications such as military and aerospace.



Product ID No.	Drive Size	Torque Range			Length	Head		Weight lbs.	Storage Case	Ratchet	
		Min.	Max.	Increments		Width	Depth			Repair Kit	Spec.
J6006CXCERT	3/8 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6006RK	T033K6-4-2193-1
J6008CXCERT	1/2 Inch	16 ft. lbs.	80 ft. lbs.	0.5 ft. lbs.	15-1/2"	1-7/16"	1-1/64"	3 lbs.	J6006PBF	J6008RK	T033K6-4-2193-1
J6016CXCERT	1/2 Inch	30 ft. lbs.	150 ft. lbs.	1 ft. lbs.	21-1/2"	1-7/8"	1-13/32"	5 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1
J6014CXCERT	1/2 Inch	50 ft. lbs.	250 ft. lbs.	1 ft. lbs.	27-1/8"	1-7/8"	1-13/32"	5.9 lbs.	J6014PBF	J6014RK	T033K6-4-2193-1
J6018CXCERT	3/4 Inch	60 ft. lbs.	300 ft. lbs.	2 ft. lbs.	32-23/32"	2-5/8"	2-1/16"	14 lbs.	J6007PBF	J6018RK	T033K6-4-2193-1
J6020CXCERT	3/4 Inch	120 ft. lbs.	600 ft. lbs.	2 ft. lbs.	41-9/16"	2-5/8"	2-1/16"	15.5 lbs.	J6007PBF	J6018RK	T033K6-4-2193-1

FOOT POUND TORQUE WRENCH - FIXED HEAD

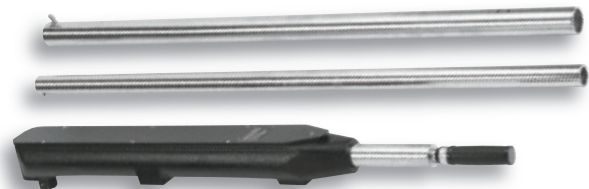
- Includes an extension handle.
- Torque wrench is 40" long. Weight and over all length are for torque wrench with the extension handle.
- Packaged in a metal box for easy storage.
- Calibrated $\pm 3\%$ of torque reading clockwise and $\pm 6\%$ counter clockwise at 20% to 100% of full scale.
- Certified wrenches to $\pm 2\%$ one direction are available upon request.



Product ID No.	Drive Size	Torque Range			Length	Head		Weight lbs.	ASME Spec.
		Min.	Max.	Increments		Width	Depth		
J6023	1 Inch	200 ft. lbs.	1000 ft. lbs.	5 ft. lbs.	69"	1-7/8"	2-1/4"	24.5 lbs.	B107.14M

FOOT POUND TORQUE WRENCH - FIXED HEAD

- Includes two extension handles, each 43" long.
- Torque wrench is 34-1/4" long. Weight and overall length are for torque wrench assembled with both extension handles.
- Calibrated $\pm 3\%$ of torque reading clockwise and $\pm 6\%$ counter clockwise at 20% to 100% of full scale.
- Certified wrenches to $\pm 2\%$ one direction are available upon request



Product ID No.	Drive Size	Torque Range			Length	Head		Weight lbs.	ASME Spec.
		Min.	Max.	Increments		Width	Depth		
J6025	1 Inch	400 ft. lbs.	2000 ft. lbs.	10 ft. lbs.	107-1/2"	3-1/16"	4-1/8"	53.1 lbs.	B107.14M

Precision Torque

TORQUE SCREWDRIVER - INCH OUNCE

- Calibrated to $\pm 6\%$ of torque reading, clockwise at 20% to 100% of full scale.
- 1/4" Square to 1/4" Hex Adapter included for use with insert bits.
- Packaged in blow molded plastic box for protection and easy storage.



Product ID No.	Torque Range in. - oz.	Graduations in. - oz.	Drive Size	Length	Weight lbs.	ASME Spec.
J6104	20-100	2 in. - oz.	1/4 Inch	7-3/16"	.8 lbs.	B107.14M
J6104CERT	20-100	2 in. - oz.	1/4 Inch	7-3/16"	.8 lbs.	B107.14M

TORQUE SCREWDRIVER - INCH POUND

- Calibrated to $\pm 6\%$ of torque reading, clockwise at 20% to 100% of full scale.
- 1/4" Square to 1/4" Hex Adapter included for use with insert bits.
- Packaged in blow molded plastic box for protection and easy storage.



Product ID No.	Drive Size	Torque Range in. - lbs.	Graduations in. - lbs.	Length	Weight lbs.	ASME Spec.
J6106	1/4 Inch	7-36	1 in. - lbs.	7-3/16"	.8 lbs.	B107.14M
J6106CERT	1/4 Inch	7-36	1 in. - lbs.	7-3/16"	.8 lbs.	B107.14M



Precision Torque



DIAL TORQUE WRENCH INCH POUND/CENTIMETER KILOGRAM

- 0-30 in./lb thru 0-600 in./lb / 0-35 cm thru 0-700 cm kg.
- Includes protective blow molded box
- Accurate to $\pm 4\%$ of torque reading in both directions at 20% to 100% of full scale.
- Torsion drive design - - accuracy not effected by hand position.
- Dual scale (English/metric) with clockwise and counterclockwise operation - - fewer wrenches needed to complete job.
- Memory needles are standard on all wrenches except electric light models.
- Easy-to-read, high contrast scale.



Product ID No.	Drive Size	Torque Range		Graduations		Weight lbs.	ASME Spec.
		English	Metric	English	Metric		
J6168F	1/4 Inch	0-30 in./lb	0-35cmkg	.5 in./lb	1cmkg	10"	1.0 lbs. B107.14M
J6169F	1/4 Inch	0-75 in./lb	0-90cmkg	1 in./lb	2cmkg	10"	1.4 lbs. B107.14M
J6177F	3/8 Inch	0-250 in./lb	0-280cmkg	5 in./lb	5cmkg	10"	1.3 lbs. B107.14M
J6181F	3/8 Inch	0-600 in./lb	0-700cmkg	10 in./lb.	20cmkg	10"	2.2 lbs. B107.14M

DIAL TORQUE WRENCH FOOT POUND/METER KILOGRAM

- 0-50 ft/lb thru 0-2000 ft/lb / 0-7 mkg thru 0-280 mkg.
- Accurate to $\pm 4\%$ of torque reading in both directions at 20% to 100% of full scale.
- Torsion drive design - - accuracy not effected by hand position.
- Dual scale (English/metric) with clockwise and counterclockwise operation - - fewer wrenches needed to complete job.
- Memory needles are standard on all wrenches except electric light models.
- Electric light and buzzer on 1000 ft.lb. and 2000 ft.lb. models.
- Easy-to-read, high contrast scale.
- J6133F and J6141F include 1 Extension Handle.
- J6149F includes 5 Extension Handles.



Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.	ASME Spec.
	English	Metric	English	Metric				
J6113F	0-50 ft/lb	0-7mkg	1ft/lb.	.2mkg	3/8 Inch	14-7/8"	2.2 lbs.	B107.14M
J6121F	0-175 ft/lb	0-24mkg	5 ft/lb	.5mkg	1/2 Inch	21-1/2"	4.0 lbs.	B107.14M
J6125F	0-250 ft/lb	0-35mkg	5 ft/lb	1 mkg	1/2 Inch	21-1/2"	3.8 lbs.	B107.14M
J6133F	0-600 ft/lb	0-80mkg	10 ft/lb	2 mkg	3/4 Inch	46-1/2"	9.9 lbs.	B107.14M
J6134F	0-350 ft/lb	n/a	10 ft/lb	n/a	3/4 Inch	27-7/8"	7.1 lbs.	B107.14M
J6141F	0-1000 ft/lb	0-140mkg	20 ft/lb	2.5 mkg	1 Inch	74-1/4"	27.0 lbs.	B107.14M
J6149F	0-2000 ft/lb	0-280mkg	40 ft/lb	5mkg	1 Inch	110-3/4"	48.0 lbs.	B107.14M

Precision Torque

DIAL TORQUE WRENCH - NEWTON METER/INCH POUND, FOOT POUND

- 0-10Nm thru 0-250 Nm / 0-250 in. lb. thru 0-175 ft. lb.
- Accurate to $\pm 4\%$ of torque reading in both directions at 20% to 100% of full scale.
- Torsion drive design - accuracy not effected by hand position.
- Dual scale (Metric/English) with clockwise and counterclockwise operation - fewer wrenches needed to complete job.
- Memory needles are standard on all wrenches except electric light models.
- Easy-to-read, high contrast scale.



Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.	ASME Spec.
	Nm	English	Nm	English				
J6169NMF	0 - 10 Nm	0 - 250 in. lb.	.2 Nm	1 in. lb.	1/4 Inch	10"	1.3	B107.14M
J6177NMF	0 - 30 Nm	0 - 250 in. lb.	.5 Nm	5 in. lb.	3/8 Inch	10"	1.5	B107.14M
J6113NMF	0 - 70 Nm	0 - 50 ft. lb.	2 Nm	1 ft. lb.	3/8 Inch	14-7/8"	2.1	B107.14M
J6121NMF	0 - 250 Nm	0 - 175 ft. lb.	5 Nm	5 ft. lb.	1/2 Inch	21-1/2"	4.0	B107.14M

ELECTRONIC TORQUE WRENCH

- Extended operation range and ft-lb, In-lb and Nm units.
- Easy to use by production line or quality control inspector.
- $\pm 1\%$ accuracy (of reading from 10-100% of maximum range).
- Large easy to read digits.
- Patented rotary bezel allows for easy viewing of the large display at any angle.
- Non length dependent.
- Pull on the handle any where and retain accuracy.
- Three auto convert engineering units (ft-lb, in-lb, Nm)
- Three way light system (yellow, green, red) with buzzer and target zone for obtaining the desired torque.
- One button target torque setting.
- Operates on standard 9 volt battery.
- Replaceable torsion drive.
- Built on durable chrome (not painted) body with nylon-6 rotary bezel and cover.
- Ergonomically designed for user comfort.
- Peak hold and track modes standard.
- Durable platform without internal moving parts.



Product ID No.	Torque Range			Graduations			Drive Size	Length in.	Weight lbs.
	ft-lbs	in-lbs	Nm	ft-lbs	in-lbs	Nm			
J6345	2.1-21	25-250	2.8-28	0.01	0.1	0.01	3/8 Inch	10-5/8"	1 lb
J6346	25-250	300-3000	34-340	0.1	1	0.1	1/2 Inch	22"	2.8 lbs



Precision Torque



SET NO J5100 - 3/8" DRIVE 9 PC. TORQUE ADAPTER SET - 12 POINT

- Designed for easy torque calibrations.
- Adapters measure 2" from the center of the square drive to the center of the adapter opening.
- Special heat-treated alloy steel helps to increase strength and durability.
- Box end wall thickness is specially engineered to provide strength while still allowing ample room for access to reach difficult fasteners.
- Weight: 1.32 lbs.



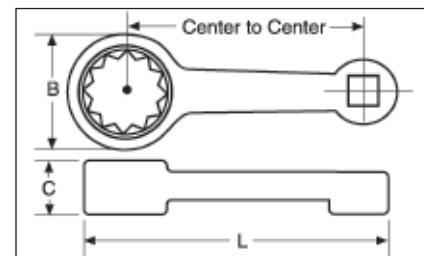
Product		
ID No.	Contents	Description
J5100	J5112	Torque Adapter 3/8" drive 3/8"
	J5114	Torque Adapter 3/8" drive 7/16"
	J5116	Torque Adapter 3/8" drive 1/2"
	J5118	Torque Adapter 3/8" drive 9/16"
	J5120	Torque Adapter 3/8" drive 5/8"
	J5122	Torque Adapter 3/8" drive 11/16"
	J5124	Torque Adapter 3/8" drive 3/4"
	J5126	Torque Adapter 3/8" drive 13/16"
	J5128	Torque Adapter 3/8" drive 7/8"
J2599	Socket Bar for Torque Adapters	

3/8" DRIVE TORQUE ADAPTERS

- Designed for easy torque calibrations.
- Adapters measure 2" from the center of the square drive to the center of the adapter opening.
- Special heat-treated alloy steel helps to increase strength and durability.
- Box end wall thickness is specially engineered to provide strength while still allowing ample room for access to reach difficult fasteners.



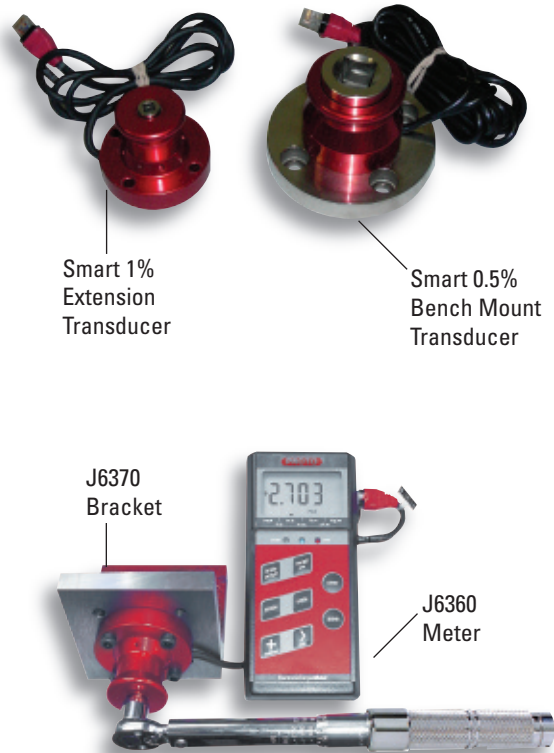
Product					Weight	
ID No.	Size (In)	B	C	L	lbs.	AS Spec.
J5112	3/8"	9/16"	17/64"	2-11/16"	0.08 lbs.	AS954E S3.8.1
J5114	7/16"	21/32"	19/64"	2-47/64"	0.10 lbs.	AS954E S3.8.1
J5116	1/2"	47/64"	21/64"	2-25/32"	0.10 lbs.	AS954E S3.8.1
J5118	9/16"	13/16"	23/64"	2-13/16"	0.12 lbs.	AS954E S3.8.1
J5120	5/8"	29/32"	25/64"	2-55/64"	0.12 lbs.	AS954E S3.8.1
J5122	11/16"	1"	27/64"	2-29/32"	0.12 lbs.	AS954E S3.8.1
J5124	3/4"	1-5/64"	29/64"	2-61/64"	0.12 lbs.	AS954E S3.8.1
J5126	13/16"	1-11/64"	31/64"	2-63/64"	0.14 lbs.	AS954E S3.8.1
J5128	7/8"	1-17/64"	33/64"	3-1/32"	0.16 lbs.	AS954E S3.8.1



Precision Torque

ELECTRONIC TORQUE METER/CALIBRATOR

- The Proto® Electronic Torque Meter is one of the world's first true all-in-one torque meters. The Proto Electronic Torque Meter provides the maximum flexibility in lab and production applications. This system meets a broad range of needs from demanding users and can eliminate the need for multiple electronic torque wrenches and testers. The system grows as the demands of the user grows.
- Ideal for use in production (application of torque), quality control (verification of torque) and for the calibration and/or verification of torque wrench accuracy (calibration labs and kit rooms).
- Easy to learn and use. Anyone can be up and running in seconds. Unit designed with the user in mind.
- Accuracy. Four to eight times more accurate than a conventional torque wrench or tester.
- Accuracy to .5% with bench mounted transducers.
- "Plug and play" torque transducers. Automatic set-up of transducers means user friendly operation and less down time.
- Versatile all-in-one unit can be used as both an accurate torque wrench and as an accurate torque tool tester. No need to buy separate torque testers and electronic torque wrenches.
- First peak of torque mode allows hand calibration of click type torque wrenches.
- Memory for traceability.
- Standard rechargeable 9 volt battery.



Product ID No.	Description	Weight lbs.
J6360	Electronic/Calibrator Torque Meter	2.34 lbs.
J6361	Smart 1% Extension Transducer - 20 - 250 in. lb. 3/8" Drive	.52 lbs.
J6362	Smart 1% Extension Transducer - 5 - 50 ft. lb. 3/8" Drive	.55 lbs.
J6363	Smart 1% Extension Transducer - 15 - 150 in. lb. 1/2" Drive	.79 lbs.
J6364	Smart 1% Extension Transducer - 25- 250 ft. lb. 1/2" Drive	.89 lbs.
J6370	Bench Mount For 6360 Series Transducer	5.75 lbs.
J6365	Smart .5% Bench Mount Transducer - 10 - 100in. lb. 1/4" Drive	.90 lbs.
J6366	Smart .5% Bench Mount Transducer - 25 - 250 in. lb. 3/8" Drive	.83 lbs.
J6367	Smart .5% Bench Mount Transducer - 5 - 50 ft. in. 3/8" Drive	1.13 lbs.
J6368	Smart .5% Bench Mount Transducer - 25 - 250ft. in. 1/2" Drive	3.14 lbs.
J6369	Smart .5% Bench Mount Transducer - 50 - 500ft. in. 3/4" Drive	3.16 lbs.



Precision Torque



TORQUE MULTIPLIER - 2,200 FOOT POUNDS

- Maximum rated input: 162 ft/lb (220 Nm).
- Maximum rated output: 2,200 ft/lb (2,983 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: tubular reaction bar.
- Gear system: two stage planetary.
- Angle of turn protractor: 5° increments.
- Anti-backlash device: self-contained, 3 position.



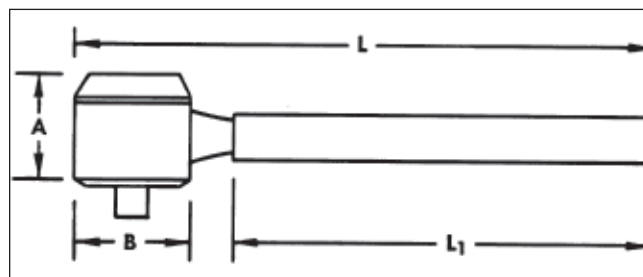
Product ID No.	Input Drive	Output Drive	Torque Ratio	Torque				Weight lbs.
				A	B	L1	L	
J6222	1/2" Inch	1" Sq. Male	1:13.6	5-3/4"	4-1/16"	14-1/8"	19-19/32"	15.2 lbs.
J6222CERT	1/2" Inch	1" Sq. Male	1:13.6	5-3/4"	4-1/16"	14-1/8"	19-19/32"	15.2 lbs.

TORQUE MULTIPLIER - 1,200 FOOT POUNDS

- Maximum rated input: 200 ft/lb (271 Nm).
- Maximum rated output: 1,200 ft/lb (1,626 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: tubular reaction bar.
- Gear system: single stage planetary.
- Angle of turn protractor: 5° increments.



Product ID No.	Input Drive	Output Drive	Torque Ratio	Torque				Weight lbs.
				A	B	L1	L	
J6212	1/2" Inch	3/4" Sq. Male	1:6	4"	3-15/16"	14-1/8"	19-19/32"	9.1 lbs.
J6212CERT	1/2" Inch	3/4" Sq. Male	1:6	4"	3-15/16"	14-1/8"	19-19/32"	9.1 lbs.





Precision Torque

TORQUE MULTIPLIER - 750 FOOT POUNDS

- Maximum rated input: 227 ft/lb (308 Nm).
- Maximum rated output 750 ft/lb (1,017 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: tubular reaction bar.
- Gear system: single stage planetary.



Product ID No.	Input Drive	Output Drive	Torque Ratio	Torque				Weight lbs.
				A	B	L1	L	
J6202A	1/2" Inch	3/4" Sq. Male	1:3.33	3-3/32"	2-13/16"	5-1/4"	8-19/32"	4 lbs.
J6202ACERT	1/2" Inch	3/4" Sq. Male	1:3.33	3-3/32"	2-13/16"	5-1/4"	8-19/32"	4 lbs.

TORQUE MULTIPLIER - 3,200 FOOT POUNDS

- Maximum rated input: 173 ft/lb (235 Nm).
- Maximum rated output: 3,200 ft/lb (4,338 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: tubular reaction bar.
- Gear system: single stage planetary.
- Angle of turn protractor: 5° increments.
- Anti-backlash device: self-contained, 3 position.



Product ID No.	Input Drive	Output Drive	Torque Ratio	Torque				Weight lbs.
				A	B	L1	L	
J6232	1/2" Inch	1 Sq. Male	1:18.5	6-1/2"	4-1/16"	14-1/8"	19-19/32"	18.3 lbs.
J6232CERT	1/2" Inch	1 Sq. Male	1:18.5	6-1/2"	4-1/16"	14-1/8"	19-19/32"	18.3 lbs.



Precision Torque



TORQUE MULTIPLIER - 2,200 FOOT POUNDS

- Maximum rated input: 162 ft/lb (220 Nm).
- Maximum rated output: 2,200 ft/lb (2,983 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: reaction plate with slave drive.
- Gear system: three stage planetary.
- Anti-backlash device: self-contained, 3 position.
- Can be used for Mack truck leaf springs.



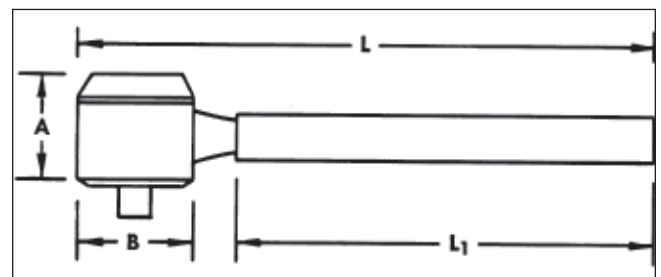
Product ID No.	Input Drive	Output Drive	Torque Ratio	A	B	L	Weight lbs.
J6234	1/2 Inch	1" Sq. Male	1:13.6	5-1/2"	4-7/8"	14"	17.2 lbs.

TORQUE MULTIPLIER - 8,000 FOOT POUNDS

- Maximum rated input: 154 ft/lb (209 Nm).
- Maximum rated output: 8,000 ft/lb (10,846 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: reaction plate with slave drive.
- Gear system: three stage planetary.
- Anti-backlash device: self-contained, 3 position.



Product ID No.	Input Drive	Output Drive	Torque Ratio	A	B	L	Weight lbs.
J6252	1/2 Inch	1-1/2" Sq. Male	1:52	10-3/4"	5-13/16"	15-3/16"	50.3 lbs.





Precision Torque

TORQUE MULTIPLIER - 5,000 FOOT POUNDS

- Maximum rated input: 189 ft/lb (256 Nm).
- Maximum rated output: 5,000 ft/lb (6,778 Nm).
- Standard torque accuracy is +/- 5% of reading.
- Reaction system: reaction plate with slave drive.
- Gear system: three stage planetary.
- Anti-backlash device: self-contained, 3 position.



Product ID No.	Input Drive	Output Drive	Torque Ratio	Torque			Weight lbs.
				A	B	L	
J6242	1/2 Inch	1-1/2" Sq. Male	1:26.5	8-3/4"	5-5/8"	14-29/32"	34.0 lbs.

TORQUE MULTIPLIER SQUARE DRIVE REPLACEMENT KITS

- Proto® torque multipliers provide overload protection with replaceable output square drives that are designed to twist off at 3%-10% over maximum output capacity.

Product ID No.	Drive Size	Torque Multiplier No.	Weight lbs.
J6212RD	3/4 Inch	J6212	0.20 lbs.
J6222RD	1 Inch	J6222 or J6234	0.53 lbs.
J6232RD	1 Inch	J6232	0.56 lbs.
J6242RD	1-1/2 Inch	J6242	1.55 lbs.
J6252RD	1-1/2 Inch	J6252	1.72 lbs.



Precision Torque



ACCESSORY AIR DRIVE - 200 FOOT POUNDS

- Powered input to a Torque Multiplier can reduce operator fatigue, increase productivity.
- Designed to drive Proto® Torque Multipliers (except 6202A).
- Maximum torque output: 200 ft/lb (271 Nm).
- Maximum running air pressure: 60 PSI.
- Output free speed: 70 RPM.
- Output rotation: clockwise and counterclockwise.



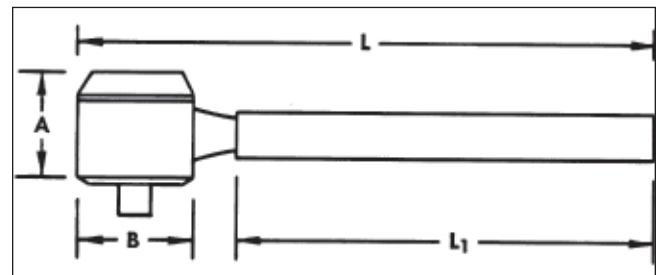
Product ID No.	Output Drive	Input Fitting Required	Maximum Diameter	Length	Weight lbs.
J6201	1/2" Sq. Male	1/4 Inch	3-1/8"	16-1/4"	11 lbs.

AIR DRIVE CONVERTER - 200 FOOT POUNDS

- Powered input to a Torque Multiplier can reduce operator fatigue, increase productivity.
- Designed to drive Proto® Torque Multipliers (except J6202A) when used with an air or electric drive tool.
- Not designed for use with Impact Tools.
- Maximum torque output: 200 ft/lb (271 Nm).
- Maximum torque input: 38 ft/lb (52 Nm).



Product ID No.	Input Drive	Output Drive	Torque Ratio	Diameter	Length	Weight lbs.
J6203	1/2 Inch	1/2" Sq. Male	1:5.2	3-1/8"	4"	5.5 lbs.





Precision Torque

RATCHET HEAD REPAIR KITS - TORQUE WRENCH

- 1/4" to 1" ratchet wheels made from alloy steel for uncompromising strength and durability.
- Field repair your torque wrench ratchet head easily with the corresponding repair kit.



Product ID No.	Drive Size	Torque Wrench No.	Weight lbs.
J6062RK	1/4 Inch	J6062, J6062CX, J6062CXCERT	.06 lbs.
J6064RK	3/8 Inch	J6064C, J6064CX, J6064CXCERT	.07 lbs.
J6006RK	3/8 Inch	J6006C, J6006CX, J6006CXCERT, J6006MC, J6006NMC, J6012C, J6066C, J6066CX, J6066CXCERT	.18 lbs.
J6014RK	1/2 Inch	J6014C, J6014CX, J6014CXCERT, J6014MC, J6014NMC, J6016C, J6016CX, J6016CXCERT, J6016MC, J6016NMC, J6068C, J6072C, J6072CX, J6072CXCERT	.37 lbs.
J6008RK	1/2 Inch	J6008C, J6008CX, J6008CXCERT	.19 lbs.
J6018RK	3/4 Inch	J6018AB, J6018CX, J6018CXCERT, J6020AB, J6020CX, J6020CXCERT, J6020NM	1.36 lbs.
J6022RK	1 Inch	J6022B	1.51 lbs.

