



**TITAN**  
TECHNOLOGIES INTERNATIONAL, INC

Dependable • Fast • Efficient

**TITAN Air-Tite®**

**Pneumatic Torque Wrenches**

are an integral element for getting  
your bolting job done right, on time, every time



TITAN is a leading bolting solutions provider committed to offering  
the most reliable and comprehensive bolting solutions world w

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**TITAN**  
TECHNOLOGIES INTERNATIONAL, INC

## Air-Tite® Pneumatic Torque Wrenches



- **Calibrated & ready for use**
- **Powerful**
- **Compact**
- **Accurate**
- **Durable**
- **Faster**
- **Light-Weight**
- **Efficient**



### ***TITAN's Patented Technology Air-Tite®*** ***The New Global Standard for Pneumatic Torque Tools.***

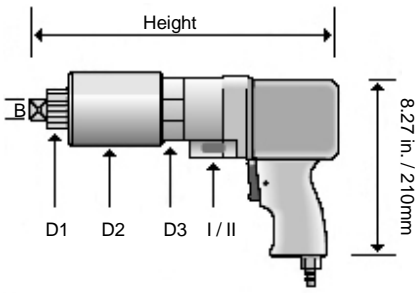
- **Compact-Pneumatic-Torque Tool** - For continuously rotating loosening or tightening of bolted connections
- **Heavy-duty gear box** - Unique highly developed, tested and proven technology
- **Heavy Duty Pneumatic Motor** - Insures Quality - Reliable & Robust - lower total cost of ownership.
- **Mechanical selection switch**- For power/run-down gear (AT-F2 gear) Fast - EASY to operate - ERGONOMIC
- **Finely crafted** - of the highest quality materials for unrivaled strength and long life.
- **Guaranteed Quality** - Titan backs its products with the strongest warranty in the business.
- **360 Degree Articulating Motor** -for unrivaled versatility and simplicity. Titan "R" Series ROTATES for tight area applications.
- **QUIET** - 66-78 dB(A)
- **Continuous rotation** loosen or tighten bolted connections Fast - EASY - Safe
- **TITAN Air-Tite® - Proven!** *Titan Technologies is the fastest growing company in our industry. We provide a better engineered tool at competitive prices. Our tools are designed for longer life so your total cost of ownership is less with Titan. The quality of the products, our service, and our people are the reason for this unprecedented growth.*



The AirTite® Nose Extension Tool is a pneumatic torque wrench tool with an integral drive extension. This tool is especially useful in those difficult applications where a drive extension is required. Simple, and easy to use.



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**ENGINEERED FOR QUALITY . . .  
. . . BUILT TO LAST!**

*Rated for use at Full Capacity.  
Unique gear design for Superior Strength and Life.*

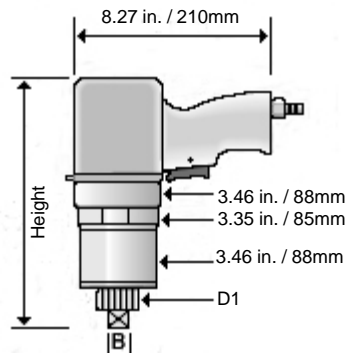


**AirTite® F-Series Two Speed**

Titan Model No.		AT800F-2	AT1200F-2	AT2650F-2	AT3700F-2	AT5800F-2	AT7000F-2	AT8100F-2	AT12500F-2	AT25000F-2	AT35000F-2
Torque Range*	ft-lb	280-830	406-1191	904-2652	1269-3728	1973-5801	2368-6959	2762-8121	4279-12539	8482-25077	11801-35845
	nm	380-1125	550-1615	1225-3595	1720-5055	2675-7865	3210-9435	3745-11010	5800-17000	11500-34000	16000-486000
1st Gear	ft-lb	89-262	125-372	284-834	398-1169	620-1822	745-2039	867-2548	1180-3540	2434-7154	3467-10252
	nm	120-355	170-505	385-1130	540-1585	840-2470	1010-2765	1175-3455	1600-4800	3300-9700	4700-13900
2nd Gear	ft-lb	120-355	170-505	385-1130	540-1585	840-2470	1010-2765	1175-3455	1600-4800	3300-9700	4700-13900
Square Drive (B)	in	3/4 & 1	1	1	1-1/2	1-1/2	1-1/2	1-1/2	2-1/2	2-1/2	2-1/2
D1**	in	1.61 / 2.13	2.13	2.13	2.83	2.83	2.83	3.58			
	mm	41 / 54	54	54	72	72	72	91	SW120	SW120	SW120
D2	in	3.35	3.35	3.35	3.86	4.84	5.83	6.81	10.83	10.83	10.83
	mm	85	85	85	98	123	148	172	275	275	275
D3	in	3.46	3.46	3.46	3.86	4.84	5.83	6.81	10.83	10.83	10.83
	mm	88	88	88	98	123	148	173	275	275	275
Height	in	11.02	12.99	14.17	14.96	16.14	16.14	16.93	22.44	22.44	22.44
	mm	280	330	360	380	410	410	430	570	570	570
Free Speed (rpm)	1st gear	12	7	5	3	2	1.5	1	0.5	0.4	0.3
	2nd gear	36	21	15	9	6	5	4	1	0.8	0.6
Weight (without support)	lb	15.43	16.53	19.84	24.25	33.07	44.09	52.91	132.27	132.27	132.27
	kg	7	7.5	9	11	15	20	24	60	60	60

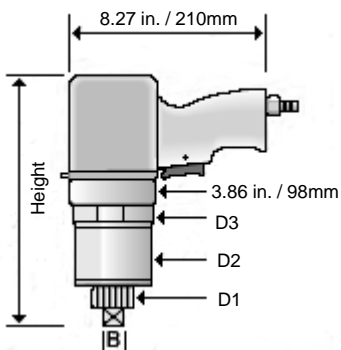
**AirTite® R Series**

**AT160R - AT1400R**

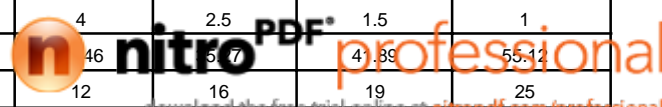


Titan Model No.		AT160R	AT290R	AT360R	AT660R	AT800R	AT1000R	AT1400R
Torque Range*	ft-lb	55 - 165	100 - 290	120 - 360	225 - 660	295 - 795	365 - 1070	475 - 1400
	nm	75 - 225	135 - 390	165 - 485	305 - 895	365 - 1080	495 - 1450	645 - 1900
Square Drive (B)	in	1/2 & 3/4	3/4	3/4	3/4	3/4	3/4 & 1	1
D1**	in	1.61	1.61	1.61	1.61	1.61	1.61 / 2.13	2.13
	mm	41	41	41	41	41	41 / 54	54
Height	in	10.04	10.04	10.04	10.83	10.83	10.83 / 11.81	11.81
	mm	255	255	255	275	275	275 / 300	300
Free Speed**	rpm	60	34	27	19	13	9	7
Weight (without support)	lb	13.89	13.89	13.89	15.43	15.43	15.43 / 16.1	16.1
	kg	6.3	6.3	6.3	7	7	7 / 7.3	7.3

**AT2000R - AT8000R**



Titan Model No.		AT2000R	AT2550R	AT3200R	AT4500R	AT5700R	AT7200R
Torque Range*	ft-lb	671 - 1969	870 - 2552	1099 - 3231	1534 - 4510	1925 - 5680	2430 - 7230
	nm	910 - 2670	1180 - 3460	1490 - 4380	2080 - 6115	2610 - 7700	3300 - 9800
Square Drive (B)	in	1	1	1-1/2	1-1/2	1-1/2	1-1/2
D1**	in	2.13	2.13	2.83	2.83	2.83	3.58
	mm	54	54	72	72	72	91
D2	in	3.35	3.35	3.86	4.84	5.83	6.81
	mm	85	85	98	123	148	173
D3	in	3.46	3.46	3.86	4.84	5.83	6.81
	mm	88	88	98	123	148	173
Height	in	11.81	11.81	12.6	13.78	13.78	14.57
	mm	300	300	320	350	350	370
Free Speed**	rpm	8	6.5	4	2.5	1.5	1
Weight (without support)	lb	19.84	19.84	46	50.7	41.89	55.14
	kg	9	9	12	16	19	25



## TITAN Mission Statement

Our mission is to be the leading global provider of high-end bolting solutions for the benefit of our customers, our shareholders, our employees and our partners by providing:

- Direct customer relations and local presence in the markets served.
- Superior products and services.
- Total customer solutions.

Our unwavering mission guides our everyday actions....  
Customer driven product development fuels our growth....  
Listening to customer needs builds our market leadership....  
Continuous improvement is fundamental to our continued success.

**Titan Technologies** - Different from other companies that sell bolting products and services. Titan is a solutions based company which features a vast array of solutions to any bolting application.



**Technical Expertise** - Bolting applications experience in multiple industries including power generation, oil and gas, chemicals, pulp and paper and more.



**Local Service** - Extensive network of independent sales representatives and authorized dealers located worldwide.



**People:** Titan enjoys a worldwide network of experienced experts trained to recommend the most cost-effective solution for your bolting job.

**Quality:** All of our products are designed using the latest aerospace finite element design techniques and machining technology.

**Engineering:** Titan spends a higher percentage of its revenue in research and development to ensure the highest quality and most durable products on the market.

**Quality Guarantee**  
**Extensive Warranty**

### ADDITIONAL PRODUCTS & SERVICES OFFERED

- Titan LP Series Hydraulic Torque Wrenches and T-Series Hydraulic Torque Wrenches
- Titan Bolt Tensioners - Modular and Dedicated Style
- Air-Tite® Electric Torque Wrenches
- Titan Hydraulic Nuts
- Power Spreader Flange Spreaders
- Power Splitter Nut Splitters
- Sockets & Accessories
- Titan Hydraulic Wrench Pumps
- Rentals For All Product Lines
- Equipment Service & Repair
- Calibration Service



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STANLEY  
**PROTO**

# TORQUE WRENCHES

# 8

MICROMETER  
DIAL  
SCREWDRIVER  
ELECTRONIC  
MULTIPLIERS  
TESTERS



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# TORQUE WRENCHES

# 8

Proto offers a broad range of professional torque products. A product line that ranges from easy-to-use Micrometer, or "click" style Torque Wrenches, Electronic Torque Wrenches, Dial Torque Wrenches and Torque Screwdrivers to full-featured electronic Torque Multipliers and Torque Testers. Each torque wrench is manufactured to precise specifications for maximum performance for your torque application.

## MICROMETER TORQUE WRENCHES

Proto offers 1/4" - 1" drive in both ratchet and fixed head styles, covering torque ranges from 10 in. lb. to 2,000 ft. lb., 14 cmkg through 90 mkg, and 10-800 Newton meters. Proto micrometer torque wrenches are calibrated to  $\pm 3\%$  of torque reading clockwise and  $\pm 6\%$  of torque reading counterclockwise at 20% to 100% of full scale.

Each Proto torque wrench includes a Calibration Certificate that verifies the actual readings and includes a unique torque wrench serial number. Proto torque wrenches are certified to meet, or exceed, the standards specified in ANSI B107.14-1994.

Specialty ordered certified micrometer wrenches to  $\pm 2\%$  one direction are available upon request. Pre-set torque wrenches are also available on special request.

## PROTO BIG DAWG™ TORQUE WRENCHES

The Proto Big Dawg™ Torque Wrench line features a ratchet head that has a nine-tooth pawl (also referred to as a "dog") which contacts the gear, increasing torque transfer capacity and cycle life. The ratchet head features a low-profile head with a 6.8-degree articulation that allows work in tighter spaces while reducing the arc swing needed to engage a fastener.

The Big Dawg™ is designed for the professional. With a beefy, knurled metal grip this Torque Wrench delivers strength and accuracy, available in 1/4" through 1/2" drive sizes.

- When desired torque is reached, there is an audible click and a "feel impulse," wrench automatically resets itself.
- Designed to retain calibration for 30,000 cycles under normal use.
- Superior spring and unique tilt block design assures longer wrench life and more repeatability.
- 1/4" to 1/2" drive ratcheting micrometer torque wrenches incorporate ratchet wheels made from tool steel for uncompromising strength and durability.

## TORQUE MULTIPLIERS

Torque multipliers help reduce the effort needed to generate high torque. Proto offers multipliers with maximum outputs ranging from 750 ft. lbs. to 12,000 ft. lbs.

- Accuracy of  $\pm 5\%$ .
- Overload protection is provided by a replaceable output square drive designed to fail at 3-10% over rated capacity. Expensive damage to internal gear system is prevented.
- Planetary gear systems provide zero lash, plus multiple tooth gear engagement for greater durability and to allow the use of "click" torque wrenches.

## DIAL TORQUE WRENCHES

Proto wrenches are accurate to  $\pm 3\%$  actual torque reading in both directions over a range 20% to 100% of full scale. Certified Proto dial torque wrenches may be special ordered and are traceable to the National Institute of Standards and Technology and exceed Government Specification GGG-W00686c.

- Torque beam design provides exceptional accuracy and will withstand up to 20% accident overload without losing calibration.
- Models up to and including 600 ft. lb. feature memory needle which 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.

Torque wrenches are precise measuring devices that require care in handling. Be certain to place tool back in storage box after use. Do not use cheater bars, hammers or any other damaging object on these tools. It is recommended that all micrometer wrenches be stored at 20% of full reading to maintain accuracy. In order to maintain the highest level of precision in measuring, it is recommended that all torque wrenches be recalibrated at least once a year – or more depending upon usage. Proto offers certified recalibration and maintenance services for all our torque wrenches. For more information about these services, contact our customer service center at 1-800-800-TOOL.

## SAFETY

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





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## BIG DAWG™ INCH POUND TORQUE WRENCHES—FIXED HEAD

- 13% smaller head for access in tight work areas.
- 40-200 in./lb thru 100-1000 in./lb.
- 5.7-23.7 Nm thru 17.3-119 Nm.
- Packaged in blow molded plastic box for protection and easy storage.
- Calibrated ± 3% of torque reading clockwise and ± 6% counterclockwise at 20% to 100% of full scale.
- Certified wrenches to ± 2% one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight	
	in./lbs.	Nm	in./lbs.	Nm			lbs.	Box No.
6061F	40-200	5.7-23.7	1	.11	1/4"	11-38"	1.65	6006PB
6063F	40-200	5.7-23.7	1	.11	3/8"	11-38"	1.96	6006PB
6065F	100-1000	17.3-119.0	5	.56	3/8"	16-1/4"	2.43	6003PB

ANSI Spec.: B107.14M  
ISO 6789



## BIG DAWG™ FOOT POUND TORQUE WRENCHES—FIXED HEAD

- 13% smaller head for access in tight work areas.
- 10-80 ft/lb thru 90-600 ft/lb
- 21-116 Nm thru 142-834 Nm
- Packaged in blow molded plastic box for protection and easy storage.
- Calibrated ± 3% of torque reading clockwise and ± 6% counterclockwise at 20% to 100% of full scale.
- Certified wrenches to ± 2% one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight	
	ft./lbs.	Nm	ft./lbs.	Nm			lbs.	Box No.
6005F	10-80	21-116	.5	.68	3/8"	16-3/16"	1.79	6003PB
6015F	30-150	47-210	1	1.36	1/2"	20-5/16"	3.79	6004PB
6013F	50-250	75-345	1	1.36	1/2"	25-15/16"	4.50	6005PB
6017B	90-600	142-834	2	1.7	3/4"	41-1/4"	11.20	6007PB

\*(Products with "F" suffix only)  
ANSI Spec.: B107.14M  
ISO 6789



## BIG DAWG™ INCH POUND TORQUE WRENCHES—RATCHET HEAD

- 45 tooth gear/floating pawl design for small 6.8° arc swing.
- 13% smaller head for access in tight work areas.
- Reversing lever designed for quick, one hand operation.
- 40-200 in./lb thru 600-3000 in./lb
- 5.7-23.7 Nm thru 73.5-345 Nm.
- Packaged in blow molded plastic box for protection and easy storage.
- Calibrated ± 3% of torque reading clockwise and ± 6% counterclockwise at 20% to 100% of full scale.
- Certified wrenches to ± 2% one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight	
	in./lbs.	Nm	in./lbs.	Nm			lbs.	Box No.
6062F	40-200	5.7-23.7	1	.11	1/4"	11-38"	1.86	6006PB
6064F	40-200	5.7-23.7	1	.11	3/8"	11-38"	1.86	6006PB
6066F	100-1000	17.3-119.0	5	.56	3/8"	16-1/2"	4.32	6003PB
6068F	300-1800	39.6-209	5	.56	1/2"	20-3/4"	5.01	6004PB
6072F	600-3000	73.5-345	5	.56	1/2"	26-1/4"	5.75	6004PB

ANSI Spec.: B107.14M  
ISO 6789



## BIG DAWG™ FOOT POUND TORQUE WRENCHES—RATCHET HEAD

- 45 tooth gear/floating pawl design for small 6.8° arc swing.
- 13% smaller head for access in tight work areas.
- Reversing lever designed for quick, one hand operation.
- 10-80 ft/lb thru 140-700 ft/lb
- 21-116 Nm thru 217-976 Nm
- Packaged in blow molded plastic box for protection and easy storage.
- Calibrated ± 3% of torque reading clockwise and ± 6% counterclockwise at 20% to 100% of full scale.
- Certified wrenches to ± 2% one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight	
	ft./lbs.	Nm	ft./lbs.	Nm			lbs.	Box No.
6006F	10-80	21-116	.5	.68	3/8"	16-7/16"	2.00	6003PB
6012F	20-100	34-142	.5	.68	3/8"	16-7/16"	2.40	6003PB
6008F	10-80	21-116	.5	.68	1/2"	16-7/16"	2.00	6003PB
6016F†	30-150	47-210	1	1.36	1/2"	20-3/4"	3.97	6004PB
6014F	50-250	75-345	1	1.36	1/2"	26-1/4"	4.68	6005PB
6018AB	60-300	102-428	2	1.7	3/4"	32-11/16"	9.70	6007PB
6020AB	90-600	142-834	2	1.7	3/4"	41-1/2"	11.60	6007PB
6022B†	140-700	217-976	2	1.7	1"	48"	14.50	6007PB

\*(Products with "F" suffix only)  
† Secondary Scale in Newton Meters  
#Meets Ergonomic Criteria  
ANSI Spec.: B107.14M  
ISO 6789





**NEWTON METER TORQUE WRENCHES—RATCHET HEAD**

- 10-80 Nm thru 120-800 Nm.
- 11.1-62.7 ft/lb thru 103-605 ft/lb.
- Packaged in blow molded plastic box for protection and easy storage.
- Calibrated  $\pm 3\%$  of torque reading clockwise and  $\pm 6\%$  counterclockwise at 20% to 100% of full scale.
- Certified wrenches to  $\pm 2\%$  one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.	Box No.
	Nm	ft./lbs.	Nm	ft./lbs.				
6006NMF†	10 – 80	11.1 – 62.7	.5	.5	3/8"	16-1/4"	2.00	6003PB
6016NMF†	40 – 200	33.2 – 151.2	.5	.5	1/2"	20-3/4"	3.97	6004PB
6014NMF	70 – 350	55.3 – 261.8	.5	.5	1/2"	26-1/4"	4.68	6005PB
6020NM	120 – 800	103 – 605	2	4	3/4"	41-3/4"	11.60	6007PB
6006MF	10 – 80	NA	.5	NA	3/8"	16-1/4"	2.00	6003PB
6014MF	70 – 380	NA	.5	NA	1/2"	20-3/4"	3.97	6004PB
6016MF	40 – 200	NA	.5	NA	1/2"	26-1/4"	4.68	6005PB

Refer to end of section for Ratchet Head Repair Kits

†ANSI Spec.: B107.14M  
ISO 6789



**FOOT POUND TORQUE WRENCH—FIXED HEAD**

- Includes an extension handle.
- Torque wrench is 40" long. Weight and overall 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  $\pm 6\%$  counterclockwise at 20% to 100% of full scale.
- Certified wrenches to  $\pm 2\%$  one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.
	ft./lbs.	Nm	ft./lbs.	Nm			
6023	200-1000	305-1320	5	6.8	1"	69"	24.5

ANSI Spec.: B107.14M  
EN26789  
ISO 6789



**FOOT POUND TORQUE WRENCH—FIXED HEAD**

- Includes two extension handles, each 43" long.
- Torque wrench is 3-41/4" long. Weight and overall length are for torque wrench assembled with both extension handles.
- Calibrated  $\pm 3\%$  of torque reading clockwise and  $\pm 6\%$  counterclockwise at 20% to 100% of full scale.
- Certified wrenches to  $\pm 2\%$  one direction are available upon request.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.
	ft./lbs.	Nm	ft./lbs.	Nm			
6025	300-2000	10	480-2700	13.5	1"	107 1/2"	53.1

ANSI Spec.: B107.14M  
EN26789  
ISO 6789



**PRE-SET TORQUE WRENCHES**

- All micrometer torque wrenches are available Pre-Set on special request.
- Pre-Set models are ideal for assembly work where torque requirement is constant.
- Insures proper torque setting is used.
- Calibrated  $\pm 3\%$  of torque reading clockwise and  $\pm 6\%$  counterclockwise at 20% to 100% of full scale.
- Certified wrenches to  $\pm 2\%$  one direction are available upon request.
- Contact customer service for more information on Proto Pre-Set torque wrenches.



**TORQUE SCREWDRIVER—INCH OUNCE**

- Calibrated to ± 6% of torque reading, clockwise.
- 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.
6104	2-100	2	1/4"	7-3/16"	.8

ANSI Spec.: B107.14M



**DIAL TORQUE WRENCH INCH POUND/CENTIMETER KILOGRAM**

- 0-30 in./lb thru 0-600 in./lb / 0-4.27 Nm thru 0-384.6 Nm.
- Includes protective blow molded box
- Accurate to ± 3% 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 need 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.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.
	English	Metric	English	Metric			
6168F	0-30 in./lb	0-4.27Nm	.5 in./lb	1.11Nm	1/4"	10"	1.0
6169F	0-75 in./lb	0-10.7Nm	11 in./lb	1.56Nm	1/4"	10.63"	1.4
6177F	0-250 in./lb	0-160.3Nm	15 in./lb	1.56Nm	3/8"	10.63"	1.3
6181F	0-600 in./lb	0-384.6Nm	110 in./lb	11.7Nm	3/8"	10.63"	2.2

ANSI Spec.: B107.14M  
EN26789  
ISO 6789



6141A features electric light and tone to allow use by a single operator.

**DIAL TORQUE WRENCH FOOT POUND/METER KILOGRAM**

- 0-50 ft/lb thru 0-1000 ft/lb / 0-7 m/kg thru 0-140 m/kg.
- Accurate to ± 3% 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 need 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.

Product ID No.	Torque Range		Graduations		Drive Size	Length	Weight lbs.
	English	Metric	English	Metric			
6113F*	0-50 ft/lb	0-78Nm	1 ft/lb	1.56Nm	3/8"	14-7/8"	2.2
6125F*	0-250 ft/lb	0-390Nm	5 ft/lb	7.8Nm	1/2"	21-1/2"	3.8
6126-2F*†	0-250 ft/lb	0-390Nm	5 ft/lb	7.8Nm	1/2"	24-3/8"	4.5
6133F*	0-600 ft/lb	0-936Nm	10 ft/lb	15.6Nm	3/4"	†46-1/2"	9.9
6141F#	0-1000 ft/lb	0-1560Nm	20 ft/lb	31.2Nm	1"	‡74-1/4"	27.0

#Packed in red metal box.

\*Includes protective blow molded box.

†Length includes 1 extension handle.

‡Length includes 5 extension handles.

+Ratchet head style.

Fed'l Specs.: GGG-W-00686C

ANSI Spec.: B107.14M

EN26789

ISO 6789



**TORQUE SCREWDRIVER—INCH POUND**

- Calibrated to ± 4% of torque reading, clockwise.
- 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./lbs.	Graduations in./lbs.	Drive Size	Length	Weight lbs.
6106	2-36	.5	1/4"	7-3/16"	.8

ANSI Spec.: B107.14M

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**ELECTRONIC TORQUE WRENCH**

- Extended operation range and ft-lb, In-lb and Nm units.
- Easy to use by production line or quality control inspector.
- +/-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.
- Push 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/mm	Weight lbs/kg
	ft-lbs	in-lbs	Nm	ft-lbs	in-lbs	Nm			
J6345	0-21	0-250	0-28	0.01	0.1	0.01	3/8"	10.63"/270mm	1lb/45kg
J6346	0-250	0-3000	0-340	0.1	1	0.1	1/2"	22"/558mm	2.8 lbs/1.27kg

ANSI Spec.: B107.14M

**SPECIFICATIONS**

Features	Proto Electronic Torque Wrench
Accuracy	+/- 1% of Indicated value from 10-100% of range +/-1 one increment
Power	9 volt standard battery up to 40 hours.
Modes	Track and Applied Torque Hold (Peak Hold)
Units	Quick change and Auto convert Ft-lb, In-lb, Nm
Display	Liquid crystal with large .5" tall digits and variable contrast for extreme temperatures.
Sampling rate	2500 samples per second allows user to pull on the wrench as fast as needed and retain accuracy.
Icons	Units, Mode, Target Torque, Direction% for target zone and Low Battery.
Lights	Yellow (under target zone), Green (within target zone), Red (over target zone).
Keypad	Sealed Membrane.
Case	Plastic Protective Case
Certification	NIST traceable certification supplied with each wrench.



Bench Mount Transducers

## J6360 - SPECIFICATIONS

Features	Proto Electronic/Calibrator Torque Meter
Accuracy	1% with extensions .5% with bench top transducers
Smart transducers	Yes
Calibrate click wrenches	Yes
Calibrate/test pulse tools	Yes
Calibrate fast DC tools	Yes
Modes of Operation	Track, Peak, First Peak
Sampling Rate	8000 samples per second
Hi and Low tolerance	Yes
Automatically calculate % tolerance for target torque	Yes
Yellow, Green and RedLED signals for Min/Max	Yes (under, within, over)
Large no squint LCD	Yes 2.3" w x 1.4" h
Large Easy to Read Digits	Yes .700" high
100% sealed display/keys	Yes, 100% sealed front panel liquid will not penetrate.
Tolerance shown at all times when used	Yes
Quick connect transducer connector	Yes
Universal mounting stand	Yes
Used as an accurate wrench and calibration device	Yes
Able to use third party transducers	Yes
Triple- 4 digit Numeric Display	Yes
Units of Measure	Ft/Lb, In./Lb, In./oz Nm, Kg/m, C/Nm
Operating Temp	40-110 deg. F.
Humidity	Up to 90%
Weight	12 ounces
Charge Life	Up to 20 hours
Data Storage	1,350
Serial Port	RS232C
Dimensions	7.25 in. l x 3.25 in. w x 1.25 in. thick
Easy to learn-intuitive	Yes- each function is directly accessible with few keystrokes.
Battery accessible	Yes- battery compartment with door allows use of standard 9 volt battery.

## 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
J6360	Electronic Torque Meter/Calibrator
J6361	Smart 1% Extension Transducer - 20-250 in./lbs, 3/8 drive
J6362	Smart 1% Extension Transducer - 5-50 ft/lb, 3/8 drive
J6363	Smart 1% Extension Transducer - 15-150 ft/lb, 1/2 drive
J6364	Smart 1% Extension Transducer - 25-250 ft/lb, 1/2 drive
J6370	Bench Mount for J6360 Series Transducers
J6365	Smart .5% Bench Mount Transducer - 10-100 in./lb, 1/4 drive
J6366	Smart .5% Bench Mount Transducer - 25-250 in./lb, 1/4 drive
J6367	Smart .5% Bench Mount Transducer - 5-50 ft/lb, 3/8 drive
J6368	Smart .5% Bench Mount Transducer - 25-250 ft/lb, 1/2 drive
J6369	Smart .5% Bench Mount Transducer - 50-500 ft/lb, 3/4 drive



**TORQUE MULTIPLIER—2,200 FOOT POUNDS**

- Maximum rated input: 162 ft/lb (220 Nm, 22.4 mkg).
- Maximum rated output: 2,200 ft/lb (2,983 Nm, 304 mkg).
- Effective multiplication: 13.6:1 W5%.
- 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	Gear Ratio	A	B	L1	L	Weight lbs.
6222	1/2" Sq. Female	1" Sq. Male	15.0:1	51-3/16"	4-1/32"	14-1/8"	20"	20.6



**TORQUE MULTIPLIER—1,200 FOOT POUNDS**

- Maximum rated input: 200 ft/lb (271 Nm, 27.7 mkg).
- Maximum rated output: 1,200 ft/lb (1,626 Nm, 166 mkg).
- Effective multiplication: 6.0:1 W5%.
- Reaction system: tubular reaction bar.
- Gear system: single stage planetary.
- Angle of turn protractor: 5° increments.

Product ID No.	Input Drive	Output Drive	Gear Ratio	A	B	L1	L	Weight lbs.
6212	1/2" Sq. Female	3/4" Sq. Male	6.33:1	4-1/16"	3-15/16"	14-1/8"	20"	13.0



**TORQUE MULTIPLIER—750 FOOT POUNDS**

- Maximum rated input: 227 ft/lb (303 Nm).
- Maximum rated output: 750 ft/lb (1,000 Nm).
- Effective multiplication: 3.3:1.
- Reaction system: tubular reaction bar.
- Gear system: single stage planetary.

Product ID No.	Input Drive	Output Drive	Gear Ratio	A	B	L1	L	Weight lbs.
6202A	1/2" Sq. Female	3/4" Sq. Male	4.0:1	21-3/16"	21-3/16"	51/4"	8-17/32"	4.6

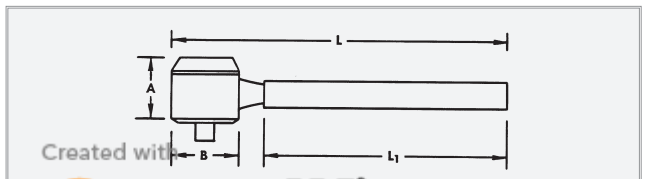


**TORQUE MULTIPLIER—3,200 FOOT POUNDS**

- Maximum rated input: 173 ft/lb (235 Nm, 23.9 mkg).
- Maximum rated output: 3,200 ft/lb (4,338 Nm, 443 mkg).
- Effective multiplication: 18.5:1 W5%.
- 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	Gear Ratio	A	B	L1	L	Weight lbs.
6232	1/2" Sq. Female	1" Sq. Male	20:2	6-3/8"	4-1/32"	14-1/8"	20"	22.1

**REFERENCE MEASUREMENT KEY**





## TORQUE MULTIPLIER—2,200 FOOT POUNDS

- Maximum rated input: 162 ft/lb (220 Nm, 22.4 m/kg).
- Maximum rated output: 2,200 ft/lb (2,983 Nm, 304m/kg).
- Effective Multiplication: 13.6:1 ± 5%.
- 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	Gear Ratio	A	B	L	Weight lbs.
6234	1/2" Sq. Female	1" Sq. Male	15.0:1	5-1/2"	4-7/8"	14-1/16"	17.2



## TORQUE MULTIPLIER—5,000 FOOT POUNDS

- Maximum rated input: 189 ft/lb (256 Nm).
- Maximum rated output: 5,000 ft/lb (6,778 Nm).
- Effective Multiplication: 26.5:1 ± 5%.
- 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	Gear Ratio	A	B	L	Weight lbs.
6242	1/2" Sq. Female	1-1/2" Sq. Male	29.25:1	8-3/4"	5-5/8"	14-29/32"	34.0



## TORQUE MULTIPLIER—8,000 FOOT POUNDS

- Maximum rated input: 154 ft/lb (209 Nm).
- Maximum rated output: 8,000 ft/lb (10,846 Nm).
- Effective Multiplication: 52.0:1 ± 5%.
- 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	Gear Ratio	A	B	L	Weight lbs.
6252	1-1/2" Sq. Female	1-1/2" Sq. Male	60:1	10-3/4"	51-3/16"	15-3/16"	50.3

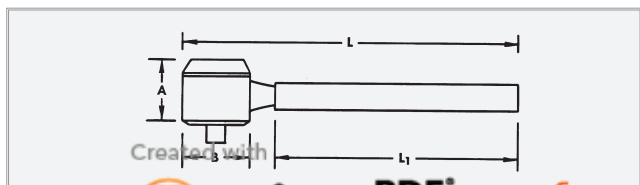


## TORQUE MULTIPLIER—12,000 FOOT POUNDS

- Maximum rated input: 171 ft/lb (232 Nm).
- Maximum rated output: 12,000 ft/lb (16,270 Nm).
- Effective Multiplication: 70:1 ± 5%.
- 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	Gear Ratio	A	B	L	Weight lbs.
6262	1/2" Sq. Female	2-1/2" Sq. Male	81:1	12-3/8"	71-1/16"	19-13/16"	74.0

## REFERENCE MEASUREMENT KEY





**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 & Counterclockwise.

Product ID No.	Output Drive	Input Fitting Required	Maximum Diameter	Length	Weight lbs.
6201	1/2" Sq. Male	1/2" NPT Male	3-1/8"	16-1/4"	11



**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 rated capacity.

Product ID No.	Square Drive Size	For Torque Multiplier No.
6212RD	3/4"	6212
6222RD	1"	6222, 6234
6232RD	1"	6232



**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 6202A) when used with an air or electric drive tool.
- Not designed for use with Impact Tools.
- Maximum torque output: 300 ft/lb (270 Nm).
- Maximum torque input: 38.5 ft/lb (52 Nm).

Product ID No.	Input Drive	Output Drive	Gear Ratio	Diameter	Maximum Height	Weight lbs.
6262	1/2" Sq. Female	1/2" Sq. Male	1:5.43	3"	4"	5.5



**RATCHET HEAD REPAIR KITS—TORQUE WRENCH**

- 1/4" to 3/4" ratchet wheels made from tool steel for uncompromising strength and durability.
- Field repair your torque wrench ratchet head easily with the corresponding repair kit.

Product ID No.	Drive Size	For Torque Wrench No.
6062RK	1/4"	6060A, 6062A
6006RK	3/8"	6006A, 6006MA, 6006MNA, 6010C, 6066A
6064RK	3/8"	6064A, 6064F
6014RK	1/2"	6014, 6014M, 6014NM, 6016, 6016M, 6016NM, 6068, 6072
6008FRK	1/2"	6008F
6018RK	3/4"	6018A, 6018AB, 6020A, 6020NM, 6020AB
6022RK	1"	6022A



**BIG DAWG™ TORQUE WRENCH REPAIR KITS**

- Field repair your torque wrench ratchet head easily with the corresponding repair kit.

Product ID No.	Drive Size	Torque Wrench No.
14PRK	1/4"	J6060F J6061F – Fixed head J6062F
38PRK	3/8"	J6063F – Fixed head J6065F – Fixed head J6066F J6005F – Fixed head J6006F J6006MF J6006NMF J6012F
12PRK	1/2"	J6014F J6014MF J6015F – Fixed head J6016F J6016MF J6068F J6072F J6016NMF J6014NMF



# TORQUE WRENCHES

Torque wrenches are precise measuring devices that require care in handling. Be certain to place the tool back into the storage box after use. Do not use cheater bars, hammers or any other damaging object on these tools.

Each Proto torque wrench includes a Calibration Certificate that verifies the actual readings and includes a unique torque wrench serial number. Proto torque wrenches are certified to meet, or exceed, the standards specified in ANSI B107.14-1994.

To maintain accuracy, it is recommended that all micrometer wrenches be stored at 20% of full reading. To maintain the highest level of precision in measuring, it is recommended that all torque wrenches be recalibrated at least once a year - or more depending upon usage. Proto offers certified recalibration and maintenance services for all our torque wrenches.

Specially ordered, certified micrometer wrenches to  $\pm 2\%$  one direction are available upon request. Pre-set torque wrenches are also available upon request. Pre-set torque wrenches are also available upon special request.

For more information about Proto services, please contact our customer service center at 1-800-800-TOOL.



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