



INDUSTRIAL
BOLTING
SOLUTIONS

Snap-on[®]

INDUSTRIAL

Snap-on®

INDUSTRIAL

TORQUE

MAKE-UP VS. BREAK OUT

What's the harm in using the same torque wrench to make-up (tighten) and break-out (loosen) a fastener? It's a common misconception that a torque wrench can perform both functions equally well. The torque required to loosen a nut that has been in service is often 1-1/2 to 2 times the make-up torque. Rust, corrosion, paint, lubricant dissipation and static friction increase the torque required to loosen the nut.

Many bolted joints are comprised of multiple fasteners that work together to provide the required clamping force for maximum joint integrity. This typically involves a procedure that requires several passes with a torque wrench at increasingly higher torque. Thus the goal for make-up is to save time, reduce worker fatigue, and provide the most accurate torque available. The fastest, lightest, calibrated torque wrench should be used for this job.










Conversely, accurate torque is not required in a break-out situation. Power and durability are the key factors when loosening bolts. It usually only takes a small amount of rotation in a nut to completely relieve the bolt load. They key is using a torque wrench that will deliver maximum torque and not destroy itself in the process.

Because make-up and break-out are two very different operations, they require two very different types of tools. Our goal is to present our customers with the best tools for each application. The following products are presented following this approach.

TORQUE SOLUTIONS

TOOLS FOR ALL APPLICATIONS

SNAP-ON OFFERS A VARIETY OF HEAVY DUTY TOOLS FOR MAKE-UP OR BREAK OUT

LIGHT 0-1,000 ft. lbs.	MEDIUM 1,000-3,000 ft. lbs.	HEAVY 3,000-11,000 ft. lbs.	SUPER 11,000-25,000 ft. lbs.	MAX 25,000+ ft. lbs.
ELECTRONIC TORQUE WRENCHES Up to 600 ft. lbs.		 PAGE 10-11		
TUBULAR WRENCHES		 PAGE 15	 PAGE 15	
STRIKING WRENCHES				
PNEUMATIC TORQUE WRENCHES (PTM) Up to 4,425 ft. lbs.		 PAGE 3		
MANUAL TORQUE MULTIPLIERS (MTM) Up to 7,000 ft. lbs.		 PAGE 7	 PAGE 4	 PAGE 6
RATCHETING HYDRAULIC TORQUE WRENCHES (HTQ / LTO) Up to 30,982 ft. lbs.			 PAGE 14	
THINLINE HYDRAULIC TORQUE WRENCHES Up to 130,000 ft. lbs.			 PAGE 14	



3/4" to 1-1/2" Drive Pneumatic Torque Wrenches

- Twin motor technology allows the PTM to be both lightweight and fast
- Compact and powerful, allowing excellent access to a variety of threaded fasteners
- The secondary trigger ensures hands are away from pinch points during operation
- Run-down speeds up to 122 RPM (for PTM740)
- A wide variety of reaction fixtures are available, making this an extremely versatile tool
- Non-impacting tools with low vibration levels
- Operate at noise levels below 85 dB (under load)
- Gearbox rotates independently from the handle so reaction forces are never transferred back to the operator
- Supplied with a certificate of calibration and torque vs. pressure chart
- PTM series offers a wide range of torque output, from 74-4,425 ft-lb
- Accuracy of ±5%
- Includes case, cranked reaction fixture, tool hanger, secondary handle and male quick connect



PTM1000

Drive Size (Inches)	Stock No.	Torque Range (ft. lbs.)	Torque Range (Nm)
3/4	PTM370	74-370	100-500
3/4	PTM590	118-590	160-800
3/4	PTM740	147-740	200-1,000
1	PTM1000	200-1,000	270-1,350
1	PTM1475	295-1,475	400-2,000
1	PTM1990	400-1,990	540-2,700
1 1/2	PTM2950	590-2,950	800-4,000
1 1/2	PTM3300	660-3,320	900-4,500
1 1/2	PTM4400	885-4,425	1200-6,000



Optional Right Angle Gearbox RAGB180280

- Configure an existing PTM model Torque Wrench with a right angle gearbox for added versatility in limited space applications
- Contact your Snap-on Representative for more info

ADD VERSATILITY TO PNEUMATIC TORQUE.

SNAP-ON OFFERS A VARIETY OF REACTION FIXTURES FOR ANY APPLICATION



Double sided Reaction Fixture
MTMC18293



Short Reaction Foot
SRF18241



Straight Reaction
SR18291



Straight Reaction w/ Peg
SRP18298

DOWNLOAD THE REACTION FIXTURES GUIDE to find the fixtures that fit your specific industrial application. Don't see what you need? Have Snap-on manufacture a fixture for you! Use the included **CUSTOM REACTION WORKSHEETS** to create your own fixtures.

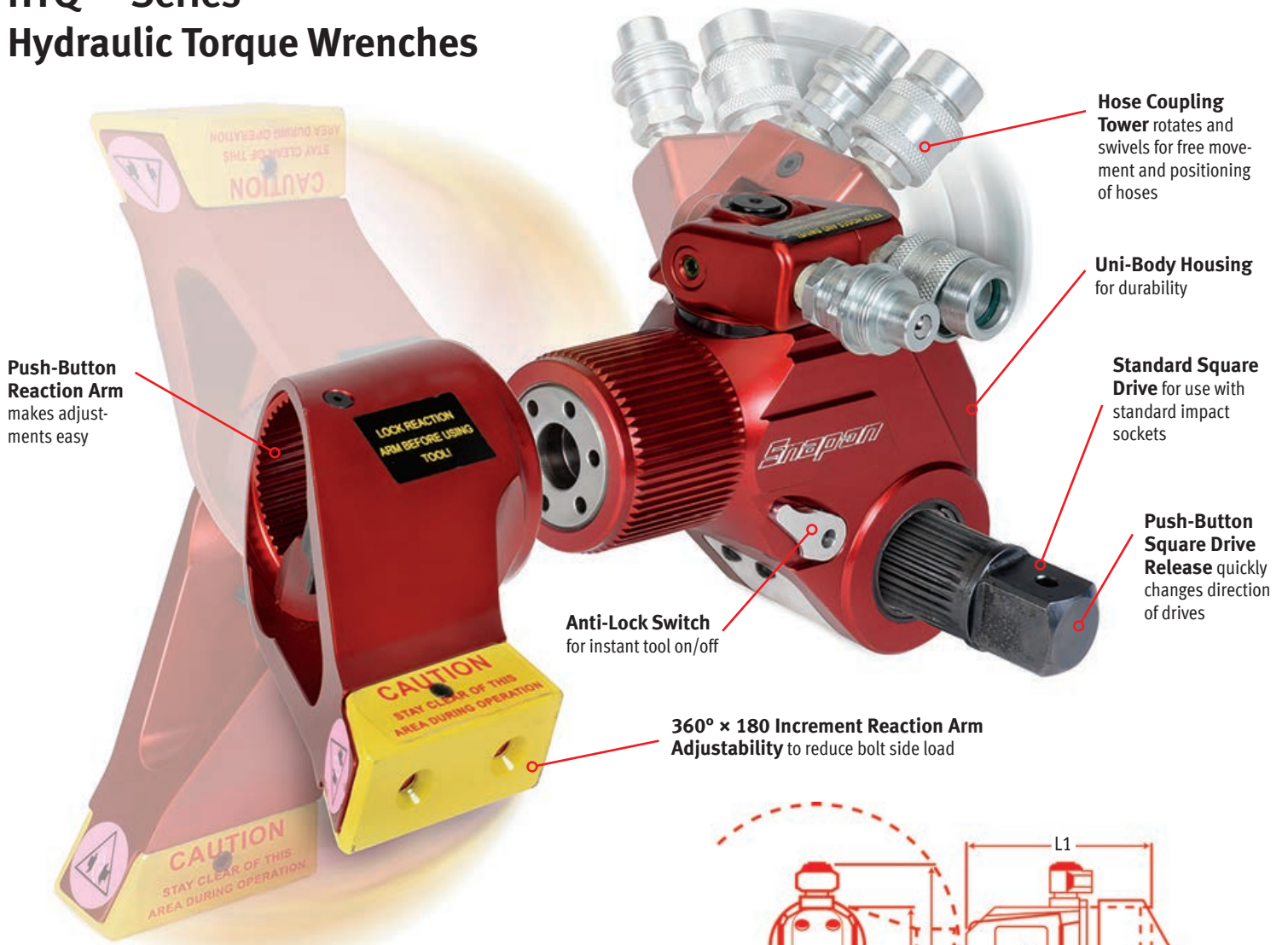


Pneumatic Torque Filter/Regulator Unit

REQUIRED TO OPERATE PTM SERIES TORQUE WRENCHES
PTMFRL

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

HTQ™ Series Hydraulic Torque Wrenches



Hose Coupling Tower rotates and swivels for free movement and positioning of hoses

Uni-Body Housing for durability

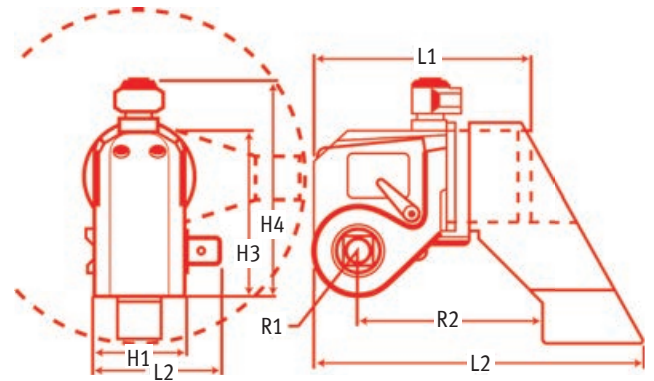
Standard Square Drive for use with standard impact sockets

Push-Button Square Drive Release quickly changes direction of drives

Anti-Lock Switch for instant tool on/off

360° x 180° Increment Reaction Arm Adjustability to reduce bolt side load

Push-Button Reaction Arm makes adjustments easy



Technical Specifications

Stock No.	L1 inches (mm)	L2 inches (mm)	L3 inches (mm)	H1 inches (mm)	H2 inches (mm)	H3 inches (mm)	H4 inches (mm)	R1 inches (mm)	R2 inches (mm)	Weight lbs. (kg)
HTQ.7	3.96 (100.6)	5.98 (151.9)	0.93 (23.6)	1.62 (41.2)	2.53 (64.3)	3 (76.2)	4.25 (108)	0.81 (20.6)	3.32 (84.3)	2.70 (1.2)
HTQ1	4.88 (123.9)	7.33 (186.2)	1.13 (28.7)	1.97 (50)	2.85 (72.4)	3.66 (93)	4.90 (124.5)	0.98 (25)	4.12 (104.7)	3.95 (1.8)
HTQ3	6.34 (161)	9.60 (243.8)	1.51 (38.4)	2.63 (66.8)	3.81 (96.8)	4.88 (124)	6.12 (155.5)	1.31 (33.3)	5.32 (135.1)	8.30 (3.8)
HTQ5	7.61 (193.3)	11.52 (292.6)	1.81 (46)	3.16 (80.3)	4.92 (125)	5.85 (148.6)	7.22 (183.4)	1.57 (39.9)	6.40 (162.6)	14.20 (6.5)
HTQ8	8.43 (214.2)	12.47 (316.73)	1.70 (43.18)	3.57 (90.7)	5.23 (132.8)	6.38 (162)	8.07 (205.2)	1.70 (43.2)	6.97 (177.6)	32.50 (14.75)
HTQ10	9.51 (241.6)	14.38 (365.3)	2.26 (57.4)	3.95 (100.3)	5.62 (142.8)	7.32 (185.9)	8.80 (223.5)	1.96 (48.8)	7.97 (202.4)	24.80 (11.3)
HTQ20	11.41 (298.8)	17.27 (438.7)	2.71 (68.8)	4.73 (120.1)	7.10 (180.3)	8.78 (223)	10.24 (260.1)	2.36 (59.9)	9.58 (243.3)	43.40 (19.7)
HTQ25	6.81 (173.05)	18.52 (470.33)	2.59 (65.87)	5.25 (133.35)	7.57 (192.28)	9.87 (250.69)	11.44 (290.57)	2.50 (65.87)	10.25 (260.35)	75.60 (34.3)
HTQ35	14.03 (356.3)	21.23 (539.2)	3.33 (84.6)	5.82 (147.8)	8.32 (211.3)	10.79 (274.1)	12.36 (313.9)	2.90 (73.7)	11.74 (298.2)	77.45 (35.2)

HTQ™ Series Hydraulic Torque Wrenches

ONE OF THE MOST FIELD PROVEN TOOLS IN THE WORLD MARKET TODAY, RECOMMENDED FOR ALL INDUSTRIAL TORQUE APPLICATIONS

- 1-way ratchet assures each nut is turned 24° to avoid a slow down due to bolt torsion as fasteners are getting tight
- Heavily corroded nuts create torsion in the bolt which can be overcome with a second stroke at full torque (one-way ratchet does not inadvertently let bolt torsion relax)
- On vertical applications, our tools find their proper reaction point without being held against it
- Ideal to use four tools to close flanges parallel
- Compact, ergonomic design for torque requirements up to 37,000 ft-lbs
- High strength metal square drive for performance and durability
- 360 degree rotatable tension absorbing reaction arm for a perfect fit on many jobs
- Uniswivel technology for free movement and positioning of tool and hoses
- Plus or minus 3% accuracy
- Limited Over-Stroke Mechanism
- Dual Pawl Mechanism provides problem free operation and equal load ratchet mechanism
- Corrosion free finish
- Piston design prevents side load and the cylinder is maintenance free
- Small operating radius...if a socket fits, the tool fits
- Ergonomic design
- An anti-backlash mechanism is the only way to get full torque on a corroded nut and prevent pre-stall or turning speed slow down. It is a must to operate multiple torque tools with a single hand and your only assurance to get preset torque on all fasteners no matter what!



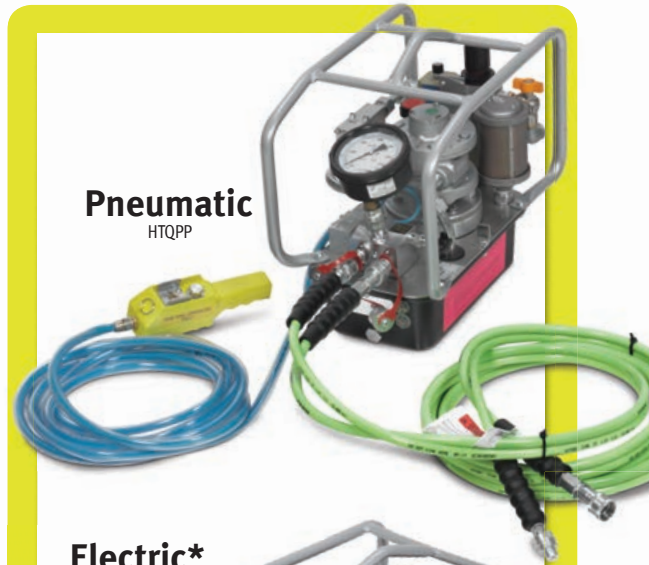
± 3%
Accurate

Technical Specifications

Stock No.	Drive Size	Torque Range (ft. lbs.)	Torque Range (Nm)
HTQ.7	3/4"	120-822	167-1,114
HTQ1	3/4"	190-1,340	272-1,817
HTQ3	1"	450-3,230	657-4,379
HTQ5	1 1/2"	720-5,590	1,137-7,578
HTQ8	1 1/2"	1,200-8,000	1,627-10,845
HTQ10	1 1/2"	2,200-11,520	2,343-15,617
HTQ20	2 1/2"	3,050-19,750	4,018-26,787
HTQ25	2 1/2"	3,960-25,890	5,368-35,096
HTQ35	2 1/2"	5,400-37,100	7,544-50,293

Pneumatic

HTQPP



Electric*

HTQEP



3-Stage Hydraulic Pumps

HTQPP (Pneumatic)

HTQEP (Electric)*

- For use with Hydraulic Torque Wrenches
- Includes 0-10K PSI (+/- 1% ACC) gauge
- One gallon tank capacity

Stock No.	HTQPP	HTQEP
Description	Air Driven	Electric Driven
Tank	1 Gallon	1 Gallon
Stages	3	3
Flow Rate	770 cu. in. / min	620 cu. in. / min
Voltage	N/A	115/230
Amperage (115 V)	N/A	15 Amp
Amperage (230 V)	N/A	7 Amp
Air Volume	3,800 cu. in. /sec	N/A
Gauge	0-10K PSI (+/- 1% ACC)	0-10K PSI (+/- 1% ACC)



***Electric Model Recommended for Shop Use.**
Not recommended for field use where hydrocarbons are present.



LTQ4 Torque Wrench Assembled



Cassette



Wrench
(5 Models Available)



Retaining Pin

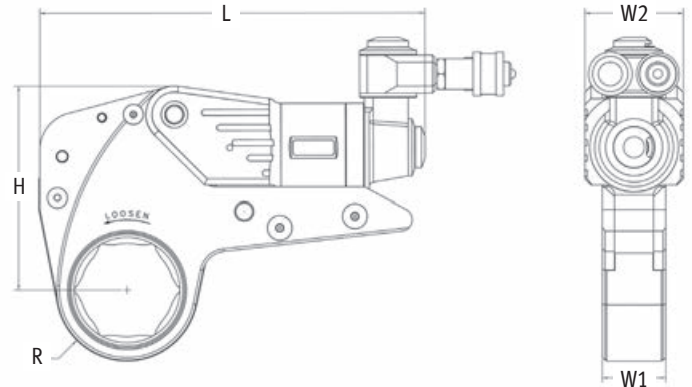


Removable Handle

LTQ™ Series Limited Clearance Torque Wrench System

THE WORLD'S MOST TRUSTED INDUSTRIAL BOLTING SYSTEM

- Low profile makes this wrench especially well-suited for limited clearance applications
- Rugged design suitable for heavy industry applications
- Five models with torque output up to 30,982 ft-lbs
- Wide array of wrench/cassette combinations available, covering all fractional hex sizes from 1-1/4" to 6-1/8"
- Complete selection of fractional hex sizes available
- Cassettes are quickly and easily changed
- Uniswivel technology for free movement and positioning of tool and hoses
- Square drive conversion available for use with sockets
- Plus or minus 3% accuracy
- Custom reaction arms are available



Stock No.	Interchangeable Cassette Size Range	L	H	W1	W2	R	Weight without cassette (lbs.)	Torque Range (ft. lbs.)	Torque Range (Nm)
LTQ2	1-1/4" - 2-3/16"	7.33	4.02	1.26	1.94	1.03 to 1.98	2.05	243-1,687	330-2,287
LTQ4	1-13/16" - 2-3/4"	10.06	5.36	1.68	2.58	1.32 to 2.67	4.25	580-3,855	786-5,227
LTQ8	2-3/16" - 3-7/8"	12.08	6.69	2.08	2.23	1.78 to 2.91	7.15	1,142-8,149	1,548-11,049
LTQ14	2-3/4" - 4-5/8"	14.14	8.04	2.50	3.63	2.62 to 3.48	11.30	2,010-13,398	2,725-18,165
LTQ30	3-1/2" - 6-1/8"	16.80	10.71	3.33	5.17	3.02 to 4.71	23.80	4,578-30,982	6,207-42,006

EXACT SIZE FOR EXACT SPECS.

SNAP-ON OFFERS A VARIETY OF INTERCHANGEABLE CASSETTES FOR ANY APPLICATION

LTQ™ Series Interchangeable Cassettes

- For a complete selection of cassette hex sizes available (1-1/4" to 6-1/8") scan this QR code or contact your Snap-on Industrial Representative today



MTM Series Torque Multipliers

Bar Style Multipliers

(UP TO 1990 ft. lbs.)

MTMB740

MTMB950

MTMB1990

- Supplied with two reaction bar styles for maximum versatility
- Robust construction means minimal maintenance and long life
- Includes two reaction fixtures



Bar Style Multipliers

(UP TO 3300 ft. lbs.)

MTMB2200

MTMB3300

- Robust construction means minimal maintenance and long life
- Anti Wind-Up Ratchet (AWUR) fitted as standard; keeps the multiplier loaded for easier operation
- Angle protractor for easy torque and angle tightening
- High ratios allow the use of a small torque wrench
- Supplied with bar style reaction only



Compact Manual Multipliers

(UP TO 5,100 ft. lbs.)

MTMC730

MTMC1475

MTMC2950

MTMC5100

- Compact dimensions allow excellent access and easy handling
- Anti Wind-Up Ratchet (AWUR) fitted as standard; keeps the multiplier loaded for easier operation
- Calibrated to give exact multiplication ratio, and each multiplier issued with unique calibration certificate
- Variety of alternative reaction styles available



Plate Style Multipliers

(UP TO 7000 ft. lbs.)

MTMP4400

MTMP7000

- High ratios allow the use of a small torque wrench
- Anti Wind-Up Ratchet (AWUR) fitted as standard; keeps the multiplier loaded for easier operation

SPECIFIC APPLICATIONS

Oil & Gas

- Pipeline flanges (gathering station, pumping stations and refineries)
- Equipment maintenance (yellow iron and heavy fleet)
- Drill rig (rigging up/down and maintenance)
- Drilling platform (rig/structure assembly and maintenance)

Mining

- Construction equipment, loaders/shovels/excavators (tire maintenance, track bolts, general maintenance)
- Haul trucks (tire maintenance and general maintenance)
- Production equipment (crusher/mill installation and maintenance)
- Material handling equipment (conveyor install and maintenance, general maintenance RR car loading/unloading equipment)

Railroad

- Track/switch bolting maintenance
- Bridge bolting maintenance
- Car chassis maintenance and repair
- Locomotive maintenance and repair

Heavy Fleet

- Wheel torque for tire maintenance
- Truck drivers sometimes keep small multipliers in the cab for emergency tire changes
- General equipment maintenance and repair

Power Gen

- Pipe flange bolting
- Wind turbine bolting
- Turbine frame bolting
- General power plant maintenance

Aviation

- Engine installation (bolting engine to wing pylon)
- Helicopter gearbox installation

TORQUE MULTIPLIERS SPECIFICATIONS

Stock No.	Torque Ratio	Certification	Anti-Windup	Torque Output (ft. lbs.)		Torque Output (Nm)		Input Size	Output Size
				Min	Max	Min	Max		
MTMB740	5:1	No	No	74	740	100	1000	1/2	3/4
MTMB950	5:1	No	No	96	950	130	1300	1/2	3/4
MTMB1990	5:1	No	No	200	1990	270	2700	3/4	1
MTMB2200	15.5:1	No	No	220	2200	300	3000	1/2	1
MTMB3300	26:1	No	No	330	3300	450	4500	1/2	1
MTMC730	22:1	Yes	Yes	74	730	100	1000	3/8	3/4
MTMC1475	27:1	Yes	Yes	147	1475	200	2000	1/2	1
MTMC2950	25:1	Yes	Yes	295	2950	400	4000	1/2	1
MTMC5100	25:1	Yes	Yes	516	5100	700	7000	1/2	1 1/2
MTMP4400	25:1	No	Yes	450	4400	610	6000	1/2	1 1/2
MTMP7000	125:1	No	Yes	700	7000	950	9500	1/2	1 1/2

**POWER
OPTIONS
AVAILABLE
PAGE 13**

AutoTORQ Hydraulic Chain Pipe Wrench

A PORTABLE, SAFER & FASTER ALTERNATIVE TO BEING "HANDS ON"

The AutoTORQ Hydraulic Chain Pipe Wrench is specifically designed to be a portable solution to tighten and loosen threaded pipe connections. It replaces manual methods for "making" and "breaking" these connections. It provides a safer and faster alternative to the hands-on set up of tongs and come-a-longs and helps eliminate more than half of the injuries on a rig and in shop environments.

With the press of a button, the AutoTORQ Hydraulic Chain Pipe Wrench allows the user to move away from the dangerous, and even deadly, radius around the pipe.

Available in five models covering pipe outside diameters from 1" to 14", pipe make-up and break-out is a breeze. Just by latching the chain around the pipe and adjusting the slack with the tensioning nut, tightening and loosening of tubular threaded joints are no problem.

In addition to its unmatched safety, the AutoTORQ Hydraulic Chain Pipe Wrench gives operators the portability to go anywhere it's needed. When compared to the lack of portability offered by tabletop models, there is no comparison.

THE AUTOTORQ ADVANTAGE

Competing products are tongs or products based on off-the-shelf tongs. Following are some of the advantages the AutoTORQ Hydraulic Chain Pipe Wrench has over these products.

SAFE - Once the AutoTORQ is set up on the pipe, the operator stands a safe distance away from the tool and watches it do the work. Tongs are either operated by hand or with the assistance of some type of chain or cable with a mechanical or motorized winch. This is extremely dangerous as the cables or chains can break.

COMPACT - The AutoTORQ has wrench arms that are much shorter than tong handles allowing it to work in tight places.

STABLE - The AutoTORQ is designed to maintain a secure footing on the pipe through the entire power stroke. Tongs are extremely prone to side loading making it difficult to break loose pipe connections requiring higher torque.

POWERFUL - The AutoTORQ has 20% or more torque output than competing tools.

PORTABLE - The AutoTORQ is preferable to "bucking machines" that are not portable (unless you consider pulling a trailer with the machine mounted on it portable). It is also designed to be assembled on the pipe in pieces making it easier to handle.

FEATURES

- Incredible safety benefits
- Portable & tough
- 10,367 to 83,998 ft.-lbs. of torque
- Pipe diameters from 1" to 14"
- 6,000 psi operating pressure
- Vertical bracket option available
- Low profile reaction arm option available

AutoTORQ Hydraulic Chain Pipe Wrench

Stock No.	Pipe Outside Diameter Inches (mm)	Maximum Torque ft.-lb. (Nm)	Weight lb. (Kg)
PW1STR	1 to 6 (25-152)	10,367 (14,422)	60 (27)
PW2STR	2-1/8 to 5 (54-127)	23,158 (31,398)	114 (52)
PW3STR	3 to 8-1/4 (76-210)	24,380 (33,055)	136 (62)
PW4STR	4-1/4 to 10-3/4 (108-273)	46,620 (63,208)	189 (86)
PW5STR	4 to 14 (102-356)	83,998 (113,886)	350 (159)

**Product
Demo**





FOR USE WITH REGULATOR PAGE 3

NEW SpintORQ Pneumatic Continuous Rotation Torque Wrench

80% FASTER THAN HYDRAULIC TORQUE WRENCHES

FEATURES

- Low-profile head continuously rotates 360 degrees in forward and reverse, drastically reducing time spent torquing fasteners, while allowing the wrench to operate in very limited access bolting applications
- Dual-motor technology allows automatic two-speed operation for fast rundown speeds and precise final torque speeds
- Accuracy of applied torque is +/- 5%
- Wrench head can be indexed independently from the tool's gearbox, allowing the handle to be ergonomically positioned during operation
- Secondary safety trigger requires the operator's hands to be placed safely away from pinch points during operation
- Fit and reaction points are designed to standard ANSI and API piping flange dimensions, so the tool rests against adjacent nuts during use
- Robust design combines a well proven and highly efficient epicyclical gearbox with a double enveloping worm gear drive to provide reliable and repeatable performance
- Durable powder coating is ideal for demanding work environments

IDEAL FOR

- Flange bolting; heavy duty assembly; heavy equipment maintenance

MODELS AVAILABLE

Stock No.	Hex Size (Inches)	Torque Range (ft. lbs.)
PST686H113	1-13/16	200-686
PST953H200	2	200-953
PST1281H203	2-3/16	256-1,281
PST1677H206	2-3/8	335-1,677
PST2146H209	2-9/16	430-2,146
PST2696H212	2-3/4	540-2,696

Torque values are API Specification 6A / ISO 10423 maximum recommended for flange bolting.





Interchangeable Head Adjustable Click-Type Torque Wrench

- Plug-and-play system of interchangeable heads are consistently sized from pin to the center of the fastener, so no adjustment calculations are needed
- Minimal friction hour glass cam retains and releases lubricant where needed to reduce friction
- Push buttons for quick-release of interchangeable head
- All torque wrenches are calibrated per ASME B- 107-14 and ISO 6789, standards for accuracy, from 20% of full scale to 100% of full scale using NIST traceable equipment

- Laser marked scale for easier reading in varying light sources
- Positive stop ensures instrument cannot be accidentally disassembled if wound down past scale
- Includes certificate of calibration
- Each instrument comes in a molded storage case for protection

Stock No.	Torque Range (ft. lbs.)	Torque Range (Nm)
QD3IN350	59-251	70-350

MULTIPLE HEADS. MULTIPLE OPTIONS.

SNAP-ON OFFERS A VARIETY OF INTERCHANGEABLE HEADS FOR ANY APPLICATION

Interchangeable Heads

Snap-on's unique plug and play system of interchangeable heads are consistently sized from pin to the center of the fastener, so no adjustment calculations are needed. Interchangeable heads options include*:

- Square Drive Ratcheting & Fixed
- Ratcheting Box End
- Flare Nut
- Open End
- Box End



Scan the QR code for the complete line of interchangeable heads, or contact your Snap-on Industrial Account Representative for more information.



Adjustable Click-Type Fixed Ratchet Torque Wrench

- Provides consistently accurate readings to $\pm 4\%$ clockwise and $\pm 6\%$ counterclockwise from 20% of full scale to full scale
- Sealed ratchet heads are virtually maintenance free
- Easy to read laser-etched scale
- Cannot be accidentally disassembled if wound down past scale
- Includes certificate of calibration and storage case
- Unique "hour glass" cam minimizes friction and retains/releases lubricant where needed resulting in more accurate torque values



Stock No.	Drive Size	Torque Range (in. lbs.)	Torque Range (Nm)
QD1R50	1/4"	10-50	1.1-5.7
QD2R200	3/8"	40-200	4.5-22.6
QD2R1000	3/8"	200-1,000	22.6-113.0
QD3R250	1/2"	600-3,000	67.8-339.0
QD4R400	3/4"	120-600	13.6-67.8



**± 2%
Accurate**

Control Tech™ Electronic Torque Wrenches

Control Tech Electronic* Torque Wrenches provide instant data on the exact torque actually applied, enabling a more precise torque application across multiple fasteners. Every model features a large, backlit LCD screen for better visibility in a variety of working conditions and a high capacity memory for storage of 1,500 readings.

***Electric Model Recommended for Shop Use.**
Not recommended for field use where hydrocarbons are present.

Stock No.	Drive Size	Torque Range (in. lbs.)	Torque Range (Nm)
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INTERCHANGEABLE HEAD MODELS

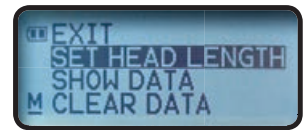
CTECH2Y100	Y-Shank	60-1,200	6.8-135.6
CTECH4ZN650A	Z-Shank	288-5,754	32.5-651

FIXED HEAD MODELS

CTECH4R600	3/4"	360-7,200	40.7-813.5
CTECH4RN650A	3/4"	288-5,754	32.5-650

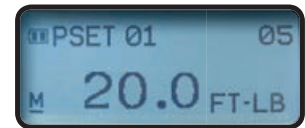
FLEX HEAD MODELS

CTECH3FR250	1/2"	150-3,000	16.9-339
CTECH2FR100	3/8"	60-1,200	6.8-135.6



Built-In Calibration Factor*

- Eliminates the need to perform manual calculations (use with interchangeable heads and torque adapters)



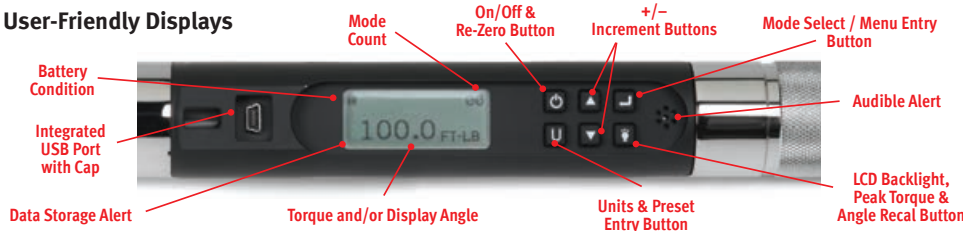
Fully Programmable

- 50 memory presets with a batch count of 99
- Presets can be locked to prevent inadvertent changes or tampering

Sequence Programming

- Program different torque applications in sequence and lock-in job mode to ensure the operator follows sequence without error

User-Friendly Displays



LED Indicator Lights

- Dual-side LED indicator lights with configurable settings provide operational guidance
- Click-types can easily be overtorqued by as much as 20% because the user doesn't stop pulling the wrench the instant it clicks. Digital wrenches have yellow/green/red lights that tell the user when to stop pulling

Multi-Lingual Display

- Programmable to display commands and settings in English, Spanish, French or German



Convenient Data Download

- USB plug and play technology allows data download without additional software for an audit proof trail and process control



Dual 80® Technology

- Precise yet strong ratchet function with minimal ratcheting arc and very little lost motion

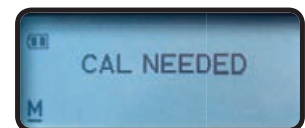


Multi-Sensory Indicators

- Ideal for any working condition thanks to audible, tactile and visual indicators
- The easy-to-read LCD screen, LED indicator lights, audible beep and handle vibration work together to signal when torque is within the targeted range

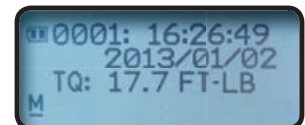
Torque & Angle Combo Mode

- The most accurate and fastest way to achieve torque plus angle in a single motion
- Control torque accuracy to +/- 2% CW and +/- 3% CCW
- Control angle accuracy to +/- 1% of reading and +/- 1°



Calibration Due Indicator*

- Alerts you when calibration is needed



Reliable Data Trail

- Time stamped data trail for quality control, job auditing and torque verification



SNAP-ON EXCLUSIVE
No other competitor offers all 3 models!

Models Available	Nut Splitting Range* (in.)
Straight Cut	11/16" to 6-1/8"
Angle Cut	11/16" to 3-7/8"
Double Cut	11/16" to 4-1/4"

* Across the flats or hex size

SEE EXACT MODELS NEXT PAGE 

AutoSPLITTER® Hydraulic Nut Splitters

REMOVE NUTS WITHOUT THE HASSLE OF TORCHES, HAMMERS & CHISELS

AutoSPLITTER® can cut through the largest frozen nuts in just seconds, with virtually no risk of injury or accident. It's easy. Simply slip AutoSPLITTER® head over the nut and apply hydraulic pressure. One cut frees even the most corroded nut so it can be turned. Or make two cuts, 180 degrees apart, to cleanly cut the nut away.

FAST - To remove a 3-1/2" nut with a torch or hammer and chisel might take up to 20 minutes. But you only need 20-30 seconds with the AutoSPLITTER®. Setup is fast as well. AutoSPLITTER® goes from the toolbox to use in less than five minutes.

SAFE - No hammers or flame are used. The operator has hands off during operation. AutoSPLITTER® cuts smoothly so that there is no danger to the operator or the surrounding equipment.

VERSATILE - AutoSPLITTER® cuts through even the hardest nuts, including ASTM A194 2H from 11/16" to 6-1/8" (17-156 mm) across the flats. You can use it for both inch and metric sizes, and with virtually any shape nut. Round, Square, 12-point and other special nuts will require the use of an adapter. Competing nut splitters require up to 17 models to cover the same size range the AutoSPLITTER® does in 9 models (and even as few as 4 models if the Duo and Trio packages are purchased)!

FLEXIBLE - AutoSPLITTER® fits most API and ANSI flanges and virtually all valve bonnets.

PRECISE - You can easily calibrate the cutting chisel so only the nut is cut, with no damage to the bolt or stud threads.

DURABLE - AutoSPLITTER® is made to last. Our special metallurgy, geometry and hardening process make our chisels good for dozens of cuts before resharpening and many resharpenings before replacing! Because of its unique compound angle chisel design, the AutoSPLITTER® even cuts stainless steel nuts! All AutoSPLITTER® products come with a lifetime guarantee!

FEATURES

- Cuts through most nuts, and ONLY the nut, quickly & safely
- Cuts more nut sizes per models than competitors
- Durable, re-sharpenable chisel (can perform dozens of cuts before chisel needs sharpening)
- Available in Standard and Angle Head models
- Fits most API & ANSI flanges



Standard Single Cutting Model

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Double Cutting Model



SPLIT NUTS FASTER & EASIER.

DOUBLE CUTTING MODEL AVAILABLE

Some jobs just call for speed. When time matters, double your performance with the Double Cutting AutoSPLITTER®. Available in 11/16" to 4-1/4" cutting range, cutting across the flats just became faster and easier. The Double Cutting AutoSPLITTER® works by eliminating the need to move the nut splitter to a second position 180 degrees from the first to break the nut from the stud! That's a serious time saving benefit.

AutoSPLITTER Straight Cut Model

Straight head nut splitters offer versatility with a large cutting range (from 11/16 inch to 6-1/8 inches); cylinders that accept usually two to three heads and adapters that cut round, square, 12-point, Huck bolts and uniquely shaped nuts. The Standard AutoSPLITTER fits most API and ANSI flanges as well as valve bonnets and BOPs. Custom-built nut splitters are also available when the need arises.

Stock No.	Stud Dia. inches (metric)	Nut Size ATF inches (metric)	Weight lb. (Kg)	Replacement Chisel Stock No.
AS105STR	5/16 – 7/8 (M8-M22)	5/8 – 1-7/16 (16-36)	20 (9)	B86216
AS200STR	7/8 – 1-1/4 (M22-M33)	1-5/16 – 2 (36-55)	21 (10)	B86216
AS204STR	1-1/4 – 1-1/2 (M30-M39)	1-7/8 – 2-3/8 (50-65)	61 (28)	B87090
AS210STR	1-3/8 – 1-3/4 (M36-M45)	2-3/16 – 2-3/4 (60-75)	62 (28)	B87090
AS308STR	1-3/4 – 2-1/4 (M45-M56)	2-5/8 – 3-1/2 (75-90)	95 (43)	B2K1052
AS314STR	2 – 2-1/2 (M52-M64)	3 – 3-7/8 (85-100)	100 (45)	A92036
AS404STR	2-1/2 – 2-3/4 (M64-M72)	3-3/4 – 4-1/4 (95-110)	205 (93)	A91003
AS500STR	3 – 3-1/4 (M76-M85)	4-7/8 – 5 (115-135)	210 (95)	A92015
AS506STR	3-1/4 – 3-1/2 (M85-M90)	4-7/8 – 5-3/8 (125-135)	215 (98)	A2K1069
AS608STR	3-3/4 – 4 (M95-M100)	5-3/4 – 6-1/8 (140-155)	387 (176)	B95019

AutoSPLITTER Angle Cut Model

Looking to get around obstructions or cut on flat surfaces? The angle head nut splitter can't be beat. With a cutting range from 11/16 inch to 3-7/8 inches, the angle head goes where straight head nut splitters cannot. Avoid frustration and invest in the versatile and innovative Angle Head AutoSPLITTER.

Stock No.	Stud Dia. inches (metric)	Nut Size ATF inches (metric)	Weight lb. (Kg)	Replacement Chisel Stock No.
AS105AH	5/16 – 7/8 (M8-M22)	5/8 – 1-7/16 (16-36)	20 (9)	A94057
AS200AH	7/8 – 1-1/4 (M22-M33)	1-5/16 – 2 (36-55)	21 (10)	A94057
AS204AH	1-1/4 – 1-1/2 (M30-M39)	1-7/8 – 2-3/8 (50-65)	61 (28)	A92031
AS210AH	1-3/8 – 1-3/4 (M36-M45)	2-3/16 – 2-3/4 (60-75)	62 (28)	A92031
AS308AH	1-3/4 – 2-1/4 (M45-M56)	2-5/8 – 3-1/2 (75-90)	95 (43)	A92032
AS314AH	2 – 2-1/2 (M52-M64)	3 – 3-7/8 (85-100)	100 (45)	A92032

AutoSPLITTER Double Cut Model

The only double-cutting, double acting model in the world! This model saves time by half: simply position the AutoSPLITTER once and the nut is cut twice.

Stock No.	Stud Dia. inches (metric)	Nut Size ATF inches (metric)	Weight lb. (Kg)	Replacement Chisel Stock No. (Advancing/Stationary)
AS105DC	5/16 – 3/4 (M8-M20)	11/16 – 1-1/4 (16-36)	20 (9)	A94057 / A2K646
AS200DC	7/8 – 1-1/8 (M22-M30)	1-7/16 – 1-11/16 (36-41)	21 (10)	A94057 / B2K1001
AS204DC	1-1/4 – 1-3/8 (M33-M36)	1-13/16 – 2-3/16 (46-60)	61 (28)	A92031 / B2K978
AS210DC	1-3/8 – 1-1/2 (M36-M39)	2-3/16 – 2-3/8 (55-65)	62 (28)	A92031 / A97058
AS308DC	1-3/4 – 2 (M45-M52)	2-5/8 – 3-1/8 (65-90)	95 (43)	A92032 / A2K705

More information Available:

Need more specs? Contact your Snap-on Industrial Representative for specifications and dimensions on any model listed.

GIVE IT SOME POWER.

Hydraulic Power Units

Products such as AutoSPLITTER, ZipTENSIONER, ThinLINE, and AutoSPREADER require a 10,000 PSI hydraulic pump (sold separately). Choose from electric, pneumatic or manually driven power units. All units come complete with 12 feet of hydraulic hose plus all fittings and quick disconnects needed.

Pneumatic Hydraulic Power Unit

FHFA-10K

- 10,000 psi. compact air driven
- Delivers 620 in³/min. @ 0 psi. and 62 in³/min. @ 10,000 psi.



FHFA-10K

Electric* Hydraulic Power Unit

FHFE-10K-115

- 10,000 psi. compact electric driven
- Delivers 620 in³/min. @ 0 psi. and 62 in³/min. @ 10,000 psi.



***Electric Model Recommended for Shop Use.**
Not recommended for field use where hydrocarbons are present.

Pneumatic Hydraulic Power Unit (Foot Pump)

105A

- 10,000 psi. air driven, foot actuated hydraulic power unit
- Delivers 68 in³/min. @ 0 psi. and 4 in³/min. @ 10,000 psi.



Manual Hydraulic Power Unit (Hand Pump)

150H2

- 10,000 psi. 2-Stage manual hydraulic hand pump
- Delivers 0.66 in³/min. @ 325 psi. and 0.16 in³/min. @ 10,000 psi.
- Comes complete with two 12-foot hydraulic hoses, T-block and load-lowering valve



ThinLINE Hydraulic Torque Wrench

STRENGTH WHEN STRENGTH MATTERS, USE THE TOUGHEST BREAK-OUT WRENCH IN THE BUSINESS

Designed to fit tight spaces with ease, ThinLINE provides the strength and dependability to get the job done every time without breaking.

Unlike competing hydraulic ratcheting wrenches, ThinLINE has a self-contained, semi-ratcheting mechanism that's not susceptible to breakage. It also delivers 60° nut turn before wrench reset is needed. When paired with the torque power of a long wrench arm and larger cylinder size, ThinLINE's strength is unmatched.

WHAT WEAKNESS MEANS TO A PROJECT

Nipple-down projects on wellheads are extremely challenging. The tight spaces between the wall of the blowout preventer, the nut and the overhead clearance on the bolt do not allow access for anything bigger than a slugging wrench. Obviously, slugging wrenches do not provide the power or safety to do the job.

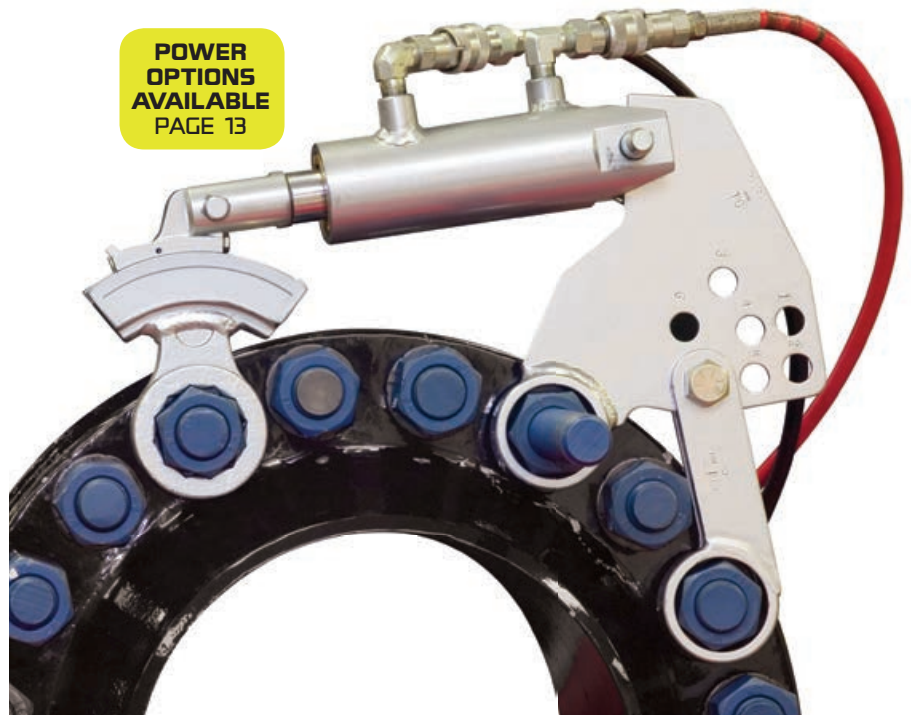
Competing low-profile, ratcheting hydraulic torque wrenches provide limited access to the nuts and more strength than a slugging wrench but still have nowhere near enough strength and power to handle the job. A typical 4" wrench arm on a ratchet link only provides about 3,300 to 3,800 ft-lb of torque and is susceptible to breakage when pushed to its limits.

To break-out the same size nut, ThinLINE provides more than two times the torque and a longer wrench arm than other low-profile competitors. A 6" ThinLINE wrench arm delivers 8,640 ft-lb of torque and the strength to actually break-out a nut without breaking the wrench.

FEATURES

- Torque in push and pull modes
- Fits tight spaces
- 60° turn before reset
- Lightweight and powerful
- Interchangeable wrench heads and reaction units

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Stock No.	Bolt Size Range inches (mm)	Nut Size Range inches (mm)	Max Torque in. lbs. (Nm)
SERIES150	3/4 - 1 1/4 (19-32)	1-1/4 - 2 (32-51)	3,240 (4,406)
SERIES200	1-3/8 - 2 (33-52)	2-3/16 - 3-1/8 (55-80)	8,640 (11,710)
SERIES250	1-7/8 - 3 (48-85)	2-5/16 - 4-5/8 (75-120)	20,250 (27,450)
SERIES32512	2-3/4 - 3-1/2 (70-89)	4-1/2 - 5-3/8 (110-135)	41,840 (56,730)
SERIES32518	3-1/2 - 4 1/4 (89-108)	5-3/8 - 6-1/2 (135-165)	68,440 (92,790)
SERIES400	4 - 5 1/4 (102-133)	6-1/8 - 8 (135-210)	138,230 (187,410)

NOTE: Each wrench series cover a range of bolt sizes and require specific wrench assemblies. Please contact your Snap-on representative for applicable part numbers.

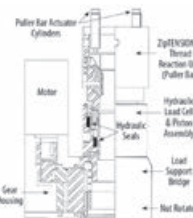
ZipTENSIONER Hydraulic Stud Tensioners

SIMULTANEOUSLY TENSIONS MULTIPLE THREADED FASTENERS IN HALF THE TIME

The revolutionary ZipNut® Double Zip® spring loaded thread segments allow the tensioner to slide over the protruding stud threads, eliminating the time consuming task of threading the puller nut. It's compact design allows 100% stud coverage from one side of any ANSI or API flange. All parts are stainless steel, nickelplated or coated to provide corrosion protection, ideal for offshore, petrochemical, steel and mining.

The ZipTENSIONER can be used for all standard tensioning operations, but it is designed to provide subsea, nuclear, and wind industries with the latest technology and flexibility. It can be fitted with a special hydraulic release mechanism and hydraulic motor driven nut rotator for subsea applications – ROV and diver compatible.

- Eliminates manual rotation by tensioning multiple threaded fasteners simultaneously
- Fully automated single unit slides on/off bolt
- Available in fixed and variable styles
- Perfect for Subsea, Nuclear, Wind, Offshore and Petrochemical Industries



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TALK TO YOUR SNAP-ON SOLUTIONEER TO EXPLORE HOW ZIPTENSIONERS CAN WORK FOR YOU

Hydraulic Torque Backup Wrench System

PREVENTS THE ROTATION OF BOLTS DURING TORQUE

- Turns a two-man job into a one-man job for greater productivity
- Wrenches don't bind, so less time is spent removing the backup wrench after the fastener is torqued
- Compact design fits in very tight clearance positions
- Used in combination with wrench retainers, useful when fastener position would normally cause backup wrenches to fall off
- 12-Point design allows easier indexing to desired position
- Hands-free operation keeps fingers away from pinch points
- No hammering or prying necessary when releasing torsion stress
- Torque rating clearly displayed on the wrench



Hydraulic Backup Wrench

Interchangeable Wrench Head

Hydraulic Backup Wrench

BTQCY4

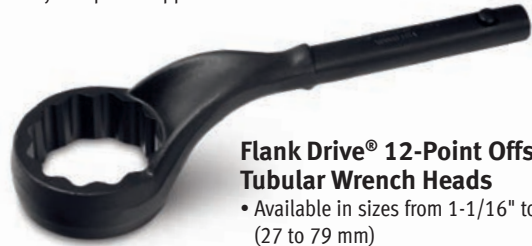
- Interchangeable wrench heads sold separately

Interchangeable Wrench Heads

- Available in fractional sizes 1" to 3-1/8"
- Available in metric sizes 30 to 85 mm

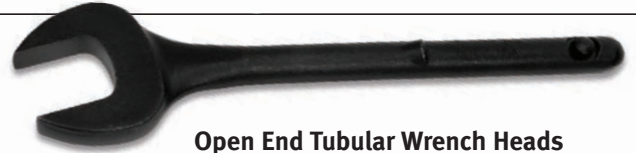
Heavy Duty Tubular Wrench System

The Snap-on® Tubular Wrench System is the ultimate in bolting versatility. Choose from multiple handle lengths, handle connectors and wrench heads for your specific application.



Flank Drive® 12-Point Offset Box Tubular Wrench Heads

- Available in sizes from 1-1/16" to 3-1/8" (27 to 79 mm)



Open End Tubular Wrench Heads

- Available in sizes from 7/8" to 1-1/2" (22 to 38 mm)



Flank Drive® 12-Point Straight Box Tubular Wrenches

- Available in lengths from 3/4" to 3-1/8" (19 to 79 mm)



Tubular Handles

- Available in 13", 24" and 36" lengths

Handle Connectors

- Available in 24" and 36" lengths



Manual Torque Backup Wrenches

- Available in fractional sizes 1/2" to 6-1/8"
- Available in metric sizes 27 to 130 mm



HANDS FREE RETENTION FOR FREE STRIKING.

Wrench Retainers

SAFE & EFFICIENT ONE-PERSON HAMMER WRENCHING

- Creates safety and efficiency by eliminating the need for a second worker or "rope holder"
- By simply threading the retainer onto the nut, downward pressure secures the wrench to the bolt, allowing "hands free" security
- If multiple striking revolutions are needed, the incorporated spring mechanism allows the wrench to be indexed without rethreading the retainer
- Works with offset and straight handle slugging wrenches
- Marked with stud sizes, not hex sizes, for easy identification
- Includes tether point for drop prevention



AVAILABLE IN SIZES 3/4" TO 1-7/8"

Purchase as a 10-piece set or individually



Heavy Duty Striking Wrenches

12-POINT STRAIGHT HANDLE SLEDGE HAMMER

- Striking face wrenches are designed to be struck by a hammer on the anvil area in order to loosen frozen fasteners or to tighten and set fasteners

- Anvils are proportional to hex opening sizes
- Special heat treatment provides maximum durability for long life
- Straight handle design resists springing while allowing the fastener to turn easily
- Available in sizes 1-3/16" to 4-5/8" (30 to 117 mm)

HEAVY DUTY SOCKETS FOR INDUSTRIAL APPLICATIONS

1/4" to 2-1/2" Drive Impact Sockets

Everyone knows that a Torque Wrench is only as good as the socket it uses. That's why Snap-on creates only the best Impact Sockets. Manufactured from special alloy steel and heat treated for optimum strength and durability, Snap-on Impact Sockets are rugged enough to tighten and break out even the most stubborn fasteners. With drive sizes from 1/4" to 2-1/2" in multiple depths, plus specialty created for specific applications, Snap-on has the right Impact Sockets for any industry. Contact your Snap-on Industrial Representative today for a full listing of the sockets you need for your area of need.



AutoSPREADER Manual or Hydraulic Flange Spreaders

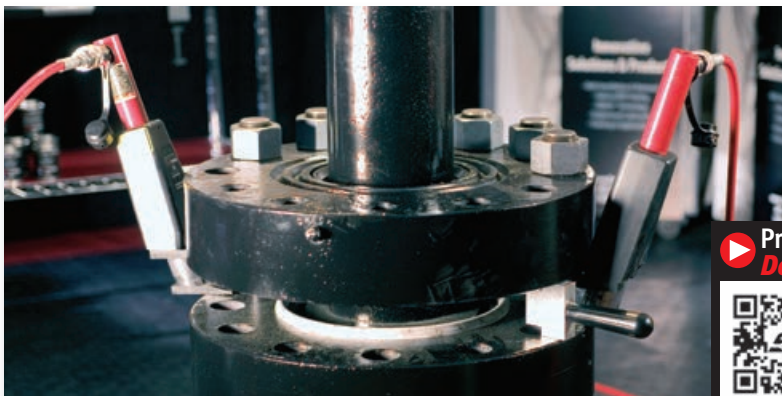
OPENS ANY SIZE FLANGE WITH CONTROLLED FORCE

AutoSPREADERS are simple to use: by placing the jaws between the flange faces and turning the ratchet handle, you get 10,000 lbs. of spreading force in one pass. AutoSPREADERS create up to a 3" gap with no slipping thanks to their serrated jaws. Perfect for lifting, leveling, lowering and aligning.

- One size fits all flange sizes
- No loose wedges or parts, stays put (no drift), have jaws that open parallel, includes safety blocks and can be remotely operated
- Lightweight (Manual: 14.5 lbs, Hydraulic 13 lbs) for easy, one-person operation

FEATURES

- 10,000 lbs. of force per spreader
- Lightweight – only 13.5 lbs.
- 3" gap achieved in a single pass
- Hydraulic and manual version
- Only requires a 3/16" insertion gap
- Jaws open parallel
- No loose wedges or parts
- Safety blocks included



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HS10K (Hydraulic)

MS10K (Manual)

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