## Torque Application Tools

## For Assembly, Auditing, and Maintenance

The focus on quality for manufactured products over the last 20 years has been nothing short of extraordinary. One of the areas receiving significant attention has been on assemblies that require threaded fasteners.

There are numerous ways a product can be assembled but if the need exists to disassemble the product, the use of threaded fasteners remains the most cost effective and popular method of assembly. To ensure the integrity of an assembly using threaded fasteners, the proper application of torque is the method of choice.

In this section you will find the broadest array of torque application tools available worldwide. The basic categories consist of preset tools for repetitive assembly operations, micrometer adjustable tools for assembly and maintenance and direct reading tools for assembly, maintenance and auditing.

If you are not sure of the tools you need after reviewing the following section, please visit our website at www.srtorque.com and go to the Torque Application Selection Chart or call us at 1-800-8771347 or 847/455-8677.
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## MD Series Features

- Oversized single scale dial face is extremely easy to read and helps to eliminate parallax error.
- Heavy duty dial guard protects against breakage.
- Memory indicator is provided on each wrench and remains at the maximum torque achieved for positive verification.
- Each wrench comes in its own custom storage box.
- Wrench can be used in both the left and right hand direction.
- Accuracy of $+/-3 \%$ Indicated Value (from $20 \%$ to $100 \%$ of capacity) meets or exceeds ASME B107.14M and ISO 6789.
- A neoprene rubber grip is provided for comfort and to insure proper hand placement for maximum accuracy; not available on $3 / 4^{\prime \prime}$ and $1^{\prime \prime}$ sq. dr. models.
- Dial faces are color coded: silver for inch pounds, gold for foot pounds and white for Newton metres.
- Extension handle included on $600 \mathrm{ft} .-\mathrm{lb} / 800 \mathrm{Nm}$ and greater capacity models for ergonomic advantage.
- Includes FREE NIST-traceable tabulated certification!

Memory Dial Series - English

| Part Number | Model | Torque Capacity | Steps of Graduation | Square Drive | Overall Length | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 850719 | MD 501 | 50 in . lbs. | 1 in . lb. | $1 / 4 \mathrm{in}$. | 10.3 in. | 1.2 |
| 850701 | MD 150I | 150 in. lbs. | 2 in . l lbs. | $3 / 8$ in. | 10.3 in. | 1.2 |
| 850702 | MD 3001 | 300 in . llbs. | 5 in . lbs. | $3 / 8$ in. | 10.3 in. | 1.2 |
| 850703 | MD 6001 | 600 in. lbs. | 10 in. lbs. | $3 / 8 \mathrm{in}$. | 12.3 in. | 1.4 |
| 850704 | MD 150 | 150 ff . lbs. | 2 ff . lbs. | $1 / 2 \mathrm{in}$. | 20.9 in. | 2.8 |
| 850705 | MD 250 | 250 ff. lbs. | 5 ff . lbs. | $1 / 2 \mathrm{in}$. | 20.9 in. | 2.8 |
| 850706 | MD 600* | 600 ff . lbs. | 10 ff . lbs. | $3 / 4 \mathrm{in}$. | 46.5 in. | 7.5 |
| 850722 | MD 1000* | 1000 ff l lbs. | 20 ff . lbs. | 1 in. | 71.5 in. | 17.0 |

## Memory Dial Series - Newton Metre

| Part <br> Number | Model | Torque Capacity | Steps of Graduation | Square Drive | Overall Length | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 850720 | MD 6 Nm | 6 Nm | . 1 Nm | 1/4in. | 10.3 in. | 1.2 |
| 850707 | MD 15 Nm | 15 Nm | . 25 Nm | $3 / 8 \mathrm{in}$. | 10.3 in. | 1.2 |
| 850708 | MD 35 Nm | 35 Nm | . 5 Nm | $3 / 8 \mathrm{in}$. | 10.3 in. | 1.2 |
| 850709 | MD 70 Nm | 70 Nm | 1 Nm | $3 / 8 \mathrm{in}$. | 12.3 in. | 1.4 |
| 850710 | MD 200 Nm | 200 Nm | 2.5 Nm | $1 / 2 \mathrm{in}$. | 20.9 in. | 2.8 |
| 850711 | MD 350 Nm | 350 Nm | 5 Nm | $1 / 2 \mathrm{in}$. | 20.9 in. | 2.8 |
| 850712 | MD $800 \mathrm{Nm}^{*}$ | 800 Nm | 10 Nm | $3 / 4 \mathrm{in}$. | 46.5 in. | 7.5 |
| 850723 | MD $1300 \mathrm{Nm}^{*}$ | 1300 Nm | 25 Nm | 1 in. | 71.5 in. | 17.0 |

*Includes extension handle.


FREE Custom Storage Case Included


## Dial

MD Series



Flat Beam
M Series


## Flat Beams Are Superior

The four most important requirements of a torque wrench, accuracy, reliability, durability, and low ownership cost, are combined into these exceptional tools. Accuracy is literally ground into the wrench. The special alloy steel beam is ground to a rate of deflection with the use of dead weights, rather than a dimensional tolerance. This process is time consuming and very labor intensive, but the result is a tool that remains accurate as long as the beam is intact and the pointer is on zero under noload condition. The flat shape of the beam insures the wrench remains at a right angle to the fastener, reducing or eliminating side-loading error. This unique taper-grinding distributes stress evenly along the entire length of the beam, extending tool life indefinitely. With a minimum of moving parts, these tools are virtually repair and maintenance free.

## M Series Features

- Incredibly durable design - actual service life frequently measured in decades!
- Very low cost of ownership - exceptional accuracy retention permits extended calibration intervals, and they are virtually maintenance and repair free!
- Ideal for prevailing-torque and destructive testing applications.
- Low mass/low inertia design of pointers helps eliminate reading distortion.
- Memory feature consists of fingers which follow a track in the scale and remain in place to indicate maximum torque achieved.
- Peak torque indicated on scale is accurate, even on destructive testing applications.
- Pivoted handle concentrates load at precise point on lever to assure torque accuracy.
- Meets or exceeds ASME B107.14M and ISO 6789.
- Accuracy of all flat beams is +/- $2 \%$ of indicated value from $20 \%$ to $100 \%$ of capacity, in both directions.
- Includes FREE ISO/IEC 17025 tabulated certification!


## Crowfont Adapter

- Gain the significant advantage of our interchangeable head system by attaching the SRA to any fixed square drive wrench.
- Ideal for use when a direct reading torque wrench is required but space is limited.
- Use of an adapter requires calculation of torque output.
- When used with our $17 / 16^{\prime \prime}$ Interchangeable Heads the adapter length will be $3^{\prime \prime}$.

Flat Beam Memory Series - English



Flat Beam Memory Series - Newton Metre


- Pivoted Ball Handle


Crowfoot Adapter

| Part <br> Number | Model | Description |
| :--- | :--- | :--- |
| 850653 | SRA- $3 / 8$ | $3 / 2 / 5$ Female-Male Dovetail |
| 850655 | SRA- $1 / 2$ | $1 / 2$ Female-Male Dovetail |



## Micrometer OAdjustable

 Fixed Ratchet SDR Series
## SDR Series Features

- Wrench is adjustable to torque value by rotating grip.
- Simple thumbscrew mechanism locks handle to avoid changing torque value while in use.
- Fast adjustment-takes the fewest rotations of any tool to reach full scale!
- Ball bearing rockover assembly assures smooth operation, enhances repeatability and increases the cycle life of the wrench.
- At preset torque value a strong audible and tactile impulse is emitted.
- Neoprene rubber grip for cushioning and oil/chemical resistance.
- Includes custom molded plastic case ( 250 ft . lbs./ 300 Nm and below).
- Aluminum increment band is color coded: black for inch lbs.; gold for foot lbs.; blue for Newton metre.
- Ratchet design is very strong and durable.
- Accuracy of $+/-4 \%$ Indicated Value (from $20 \%$ to $100 \%$ of capacity) meets or exceeds ASME B107.14M , ISO 6789, and AS 28431.
- Includes FREE ISO/IEC 17025 tabulated certification!


## SDR Fixed Ratchet Head Series - English

| Part <br> Number | Model | Torque Capacity | Steps of Graduations | Square Drive | Overall Length |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 810749 | 2 SDR 50I | 10-50 in. lbs. | 1 in. lb. | $1 / 4 \mathrm{in}$. | 10.1 |
| 810750 | 2 SDR 150I | 30-150 in. lbs. | 2 in. lbs. | $1 / 4 \mathrm{in}$. | 10.1 |
| 810751 | 3 SDR 150I | 30-150 in. lbs. | 2 in. lbs. | $3 / 8$ in. | 10.6 |
| 810761 | 3 SDR 200I | 40-200 in. lbs. | 2 in. lbs. | $3 / 8$ in. | 10.7 |
| 810748 | 3 SDR 600I | 100-600 in. lbs. | 5 in. lbs. | $3 / 8$ in. | 14.0 |
| 810752 | 3 SDR 750I | 150-750 in. lbs. | 5 in. lbs. | $3 / 8 \mathrm{in}$. | 14.0 |
| 810756 | 3 SDR 75 | 15-75 ft. lbs. | $1 / 2 \mathrm{ft}$. lb. | $3 / 8$ in. | 14.0 |
| 810747 | 3 SDR 1200I | 200-1200 in. lbs. | 10 in. lbs. | $3 / 8$ in. | 17.6 |
| 810754 | 3 SDR 100 | 20-100 ft. lbs. | $1 \mathrm{ft.lb}$. | $3 / 8$ in. | 17.6 |
| 810755 | 4 SDR 1800I | 300-1800 in. lbs. | 10 in. lbs. | $1 / 2 \mathrm{in}$. | 18.3 |
| 810757 | 4 SDR 150 | 30-150 ft. lbs. | $1 \mathrm{ft.lb}$. | $1 / 2$ in. | 18.3 |
| 810758 | 4 SDR 250 | 50-250 ft. lbs. | 2 ft . lbs. | $1 / 2 \mathrm{in}$. | 24.3 |
| 810760 | 6 SDR 300 | 50-300 ft. lbs. | 21/2 ft. lbs. | $3 / 4 \mathrm{in}$. | 29.0 |
| 810597 | 6 SDR 600* | 100-600 ft. lbs. | 5 ft . lbs. | $3 / 4 \mathrm{in}$. | 39.2 |
| 810525 | 6 SDR 700** | 100-700 ft. lbs. | 5 ft . lbs. | $3 / 4 \mathrm{in}$. | 39.2 |

SDR Fixed Ratchet Head Series - Newton Metre

| Part <br> Number | Model | Torque Capacity | Steps of Graduations | Square Drive | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 810774 | 2 SDR 6 Nm | $1-6 \mathrm{Nm}$ | . 1 Nm | 1/4 in. | 10.1 |
| 810775 | 2 SDR 20 Nm | $4-20 \mathrm{Nm}$ | . 2 Nm | $1 / 4 \mathrm{in}$. | 10.1 |
| 810776 | 3 SDR 20 Nm | $4-20 \mathrm{Nm}$ | . 2 Nm | $3 / 8$ in. | 10.6 |
| 810782 | 3 SDR 50 Nm | $10-50 \mathrm{Nm}$ | . 5 Nm | $3 / 8 \mathrm{in}$. | 14.6 |
| 810777 | 3 SDR 100 Nm | $20-100 \mathrm{Nm}$ | . 5 Nm | $3 / 8 \mathrm{in}$. | 14.6 |
| 810797 | 4 SDR 100 Nm | $20-100 \mathrm{Nm}$ | . 5 Nm | $1 / 2 \mathrm{in}$. | 14.6 |
| 810798 | 4 SDR 140 Nm | $28-140 \mathrm{Nm}$ | 1 Nm | $1 / 2$ in. | 17.9 |
| 810783 | 3 SDR 140 Nm | 28-140 Nm | 1 Nm | $3 / 8 \mathrm{in}$. | 17.9 |
| 810778 | 4 SDR 200 Nm | $40-200 \mathrm{Nm}$ | 1 Nm | $1 / 2$ in. | 18.5 |
| 810779 | 4 SDR 300 Nm | $60-300 \mathrm{Nm}$ | 2 Nm | $1 / 2 \mathrm{in}$. | 24.3 |
| 810789 | 6 SDR 300 Nm | $60-300 \mathrm{Nm}$ | 2 Nm | $3 / 4 \mathrm{in}$. | 24.3 |
| 810598 | 6 SDR $800 \mathrm{Nm}^{*}$ | $160-800 \mathrm{Nm}$ | 5 Nm | $3 / 4 \mathrm{in}$. | 39.2 |

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## SD Series Features

- Wrench is adjustable to torque value by rotating grip.
- Simple thumbscrew mechanism locks handle to avoid changing torque value while in use.
- Fast adjustment-takes the fewest rotations of any tool to reach full scale!
- Ball bearing rockover assembly assures smooth aperation, enhances repeatability and increases the cycle life of the wrench.
- When preset torque value is reached a strong audible and tactile impulse is emitted.
- Neoprene rubber grip for cushioning and oil/chemical resistance.
- Includes custom molded plastic case ( 250 ft . lbs. and below).
- Aluminum increment band is color coded: black for inch lbs.; gold for foot lbs.; blue for Newton metre.
- Accuracy of $+/-4 \%$ Indicated Value (from $20 \%$ to $100 \%$ of capacity) meets or exceeds ASME B107.14M, ISO 6789, and AS 28431.
- Includes FREE ISO/IEC 17025 tabulated certification!


## SD Fixed Male Square Drive Head Series - English

| Part Number | Torque Model | Steps of Capacity | Graduations | Square Drive | Overal Length |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 810160 | 2 SD 50I | 10-50 in. lbs | 1 in . lb. | $1 / 4 \mathrm{in}$. | 9.4 |
| 810161 | 2 SD 1501 | 30-150 in. lbs | 2 in . lb. | $1 / 4 \mathrm{in}$. | 9.4 |
| 810159 | 3 SD 2001 | 40-200 in. lbs | 2 in. lb. | $3 / 8 \mathrm{in}$. | 9.4 |
| 810163 | 3 SD 7501 | 150-750 in. lbs | 5 in . lb. | $3 / 8$ in. | 13.6 |
| 810167 | 4 SD 150 | 30-150 ft. lbs | 1 ft l lb. | $1 / 2 \mathrm{in}$. | 17.0 |
| 810600 | 6 SD 600* | 100-600 ft. lbs | 5 ft . lb. | $3 / 4 \mathrm{in}$. | 36.4 |

SD Fixed Male Square Drive Head Series - Newton Metre

| Part | Torque | Steps of <br> Capacity | Graduations | Square <br> Drive | Overall <br> Length |
| :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| 810601 | $6 \mathrm{SD} 800 \mathrm{Nm}^{*}$ | $160-800 \mathrm{Nm}$ | 5 Nm | $3 / 4 \mathrm{in}$. | 36.4 |

* Optional extension tube, Part \# 853363, can be ordered. Use of the extension requires recalibration of wrench.


## Carry and Storage Cases

Strong, durable cases for carrying and storing your $\mathrm{S} / \mathrm{R}$ brand micrometer adjustable torque wrenches. Fits SDR, SD, and CCM series tools.

| Part Number | Size | Type | Wrench Range |
| :--- | :---: | :---: | :--- |
| 820122 | Small | Molded Plastic | $501-200 \mathrm{I}, 6 \mathrm{Nm}-20 \mathrm{Nm}$ |
| 820123 | Medium | Molded Plastic | $600 \mathrm{l}-150 \mathrm{ft}$ l lbs., $50 \mathrm{Nm}-200 \mathrm{Nm}$ |
| 820124 | Large | Molded Plastic | 250 ft l lbs., 300 Nm |
| 820127 | Extra Large | Metal | $600-700 \mathrm{ft}$ l lbs., 800 Nm |



Each wrench includes molded plastic case. (250 ff. lbs./300 Nm and below)

## Micrometer Adjustable 0 <br> Fixed Square Drive SD Series




## Preset

Fixed Ratchet LTCR Series

## LTCR Series Features

- Designed specifically for use on production lines where many fasteners are to be tightened to the same torque.
- For handle extension, order Extension Adapter PN 853538 and custom length extension. Details on website.
- Light weight new comfort grip provides superior ergonomics, reducing operator fatigue.
- Accuracy of $+/-4 \%$ meets or exceeds ASME B107.14M and ISO 6789, offering consistent assembly quality.
- Wrench can be calibrated using any unit of torque measure.
- Ball bearing rockover assembly assures smooth operation, enhances repeatability, increases cycle life of wrench, and helps control ownership costs.
- Excellent audible and tactile impulse when preset torque is achieved.
- Slide pin ratchet is extremely strong and durable.
- Torque tester must be used to set torque value.

LTCR Fixed Ratchet Head Series

| Part <br> Number | Model | Torque Capacity* | Square <br> Drive | Weight (lbs.) <br> Length (in.) |
| :--- | :--- | :--- | :--- | :---: |
| 810400 | LTCR 50I | 50 in . lbs./6 Nm/ | $1 / 4 \mathrm{in}$. | 0.5 |
|  |  | $58 \mathrm{kgf} \bullet \mathrm{cm}$ |  |  |

* Minimum capacities of preset tools can be calculated at $20 \%$ of full capacities.
** Optional extension tube, Part \# 853363, can be ordered. Use of the extension requires recalibration of wrench.


Combination adjusting and release tool (CART 819117 ) allows operator to easily adjust the torque on all $S / R$ preset wrenches.

## LTCS Series Features

- Designed specifically for use on production lines where many fasteners are to be tightened to the same torque.
- For handle extension, order Extension Adapter P/N 853538 and custom length extension. Details on website.
- Light weight new comfort grip provides superior ergonomics, reducing operator fatigue.
- Accuracy of $+/-4 \%$ meets or exceeds ASME B107.14M and ISO 6789, offering consistent assembly quality.
- Wrench can be calibrated using any unit of torque measure.
- Ball bearing rockover assembly assures smooth operation, enhances repeatability, increases cycle life of wrench, and helps control ownership costs.
- Excellent audible and tactile impulse when preset torque is achieved.
- Can be ordered preset from the factory or torque tester can be used to set torque value.
- Adjustments to torque settings can only be made with a Combination Adjusting and Release Tool (CART) to prevent tampering on the production line.

LTCS Fixed Male Square Drive Head Series

| Part <br> Number | Model | Torque Capacit** | Square | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: |
| 810168 | LTCS 501 | 50 in. lbs./6 Nm/ | $1 / 4 \mathrm{in}$. | 0.5 |
|  |  | $58 \mathrm{kgf} \cdot \mathrm{cm}$ |  | 6.8 |
| 810170 | LTCS 1501 | 150 in. lbs./17 Nm/ | $3 / 8 \mathrm{in}$. | 0.5 |
|  |  | $173 \mathrm{kgf} \bullet \mathrm{cm}$ |  | 6.8 |
| 810171 | LTCS 3001 | 300 in. lbs./34 Nm/ | $3 / 8 \mathrm{in}$. | 1 |
|  |  | $346 \mathrm{kgf} \bullet \mathrm{cm}$ |  | 9.4 |
| 810172 | LTCS 7501 | 750 in. lbs./ $85 \mathrm{Nm} /$ | $3 / 8 \mathrm{in}$. | 1.25 |
|  |  | $864 \mathrm{kgf} \bullet \mathrm{cm}$ |  | 13.3 |
| 810174 | LTCS 18001 | 1800 in. lbs./150 ft. lbs. | $1 / 2 \mathrm{in}$. | 1.5 |
|  |  | 204 Nm/21 kgf•m |  | 16.9 |
| 810485 | LTCS 36001 | 3600 in . lbs./300 ft. lbs./ | $3 / 4 \mathrm{in}$. | 5.5 |
|  |  | 407 Nm/41 kgfem |  | 25.1 |
| 810153 | LTCS 72001** | 7200 in . lbs./600 ft. lbs./ | $3 / 4 \mathrm{in}$. | 8.25 |
|  |  | $813 \mathrm{Nm} / 83 \mathrm{kgf} \cdot \mathrm{m}$ |  | 35.1 |

* Minimum capacities of preset tools can be calculated at $20 \%$ of full capacities.
** Optional extension tube, Part \# 853363, can be ordered. Use of the extension requires recalibration of wrench.


Improved!
Combination adjusting and release tool (CART 819117) allows operator to easily adjust torque on all SLTC, SLTC-FM, LTC, LTCR and LTCS wrenches.


Fixed Square Drive LTCS Series


## CCM Series Features

- Incredible Versatility! Accepts over 100 interchangeable heads, as well as custom heads and extensions, and offers micrometer torque adjustment!
- The +/- 4\% Indicated Value Accuracy meets or exceeds ASME B107.14M, AS 28431 and ISO 6789.
- Fast adjustment-takes the fewest rotations of any tool to reach full scale!
- Comes with FREE ISO/IEC 17025 calibration certificate!
- Neoprene rubber grip offers oil and chemical resistance, as well as cushioning and firm grip for excellent ergonomics!
- Excellent audible and tactile impulse when set torque achieved.
- Unique dovetail design transmits the load at right angle from the wrench to the head; exceptional strength and rigidity of connection.
- The pin lock assures positive head connection, yet permits head changeover in seconds!
- Bi-directional versatility obtained by simply removing head, turning wrench over, and replacing head.
- Aluminum increment band is color-coded: black for inch-pounds, gold for foot-pounds, and blue for Nm .

CCM Dovetail Head Series - English

| Part Number | Model | Torque Capacity | Steps of Graduations | Overall Length |
| :---: | :---: | :---: | :---: | :---: |
| 810769 | CCM 501 | 10-50 in. lbs. | 1 in. lb. | 9.0 |
| 810765 | CCM 150I | 30-150 in. lbs. | 2 in. lbs. | 9.0 |
| 810763 | CCM 600I | 100-600 in. lbs. | 5 in. lbs. | 12.8 |
| 810766 | CCM 7501 | 150-750 in. lbs. | 5 in. lbs. | 12.8 |
| 810770 | CCM 75 | 15-75 f. lbs. | $1 / 2 \mathrm{ff}$. lb. | 12.8 |
| 810764 | CCM 12001 | 200-1200 in. lbs. | 10 in . lbs. | 16.3 |
| 810762 | CCM 18001 | 300-1800 in. lbs. | 10 in. lbs. | 16.3 |
| 810771 | CCM 150 | 30-150 ff. lbs. | 1 ft . lb. | 16.3 |
| 810335 | CCM 300 $\dagger$ | 50-300 ff. lbs. | $21 / 2 \mathrm{ff}$. lbs. | 26.0 |
| 810772 | CCM 400 $\dagger$ | 50-400 ft. lbs. | 5 ff l lbs. | 36.0 |

## CCM Dovetail Head Series - Newton Metre

| Part <br> Number | Model | Torque <br> Capacity | Steps of <br> Graduations | Overall <br> Length |
| :--- | :--- | ---: | ---: | :---: |
| 810784 | CCM 6 Nm | $1-6 \mathrm{Nm}$ | .1 Nm | 9.0 |
| 810785 | CCM 20 Nm | $4-20 \mathrm{Nm}$ | .2 Nm | 9.0 |
| 810786 | CCM 100 Nm | $20-100 \mathrm{Nm}$ | .5 Nm | 12.8 |
| 810787 | CCM 200 Nm | $40-200 \mathrm{Nm}$ | 1 Nm | 16.3 |
| 810788 | CCM 400 Nm $\dagger$ | $75-400 \mathrm{Nm}$ | 2.5 Nm | 26.0 |
| 810794 | CCM 600 Nm $\dagger$ | $100-600 \mathrm{Nm}$ | 5 Nm | 36.0 |

$\dagger$ Wrenches calibrated for use with heads having $37 z^{\prime \prime}$ common centerline.
On request wrenches can be calibrated for $17 / 6^{\prime \prime}$ centerline.


## LTC Series Features

- The LTC-Series is superb for use on the assembly line AND in field maintenance kits!
- The +/- 4\% Accuracy meets or exceeds ASME B107.14M and ISO 6789, and provides the quality your customers demand!
- The pin lock assures positive head connection, yet permits head changeover in seconds!
- Bi-directional versatility obtained by simply removing head, turning wrench over, and replacing head.
- Extremely versatile system permits use of fewer wrenches by connecting to over 100 standard interchangeable heads, plus extensions, adapters, and your own custom heads!
- Excellent audible and tactile impulse when set torque achieved.
- Unique dovetail design transmits the load at right angle from the wrench to the head; exceptional strength and rigidity of connection.
- Light weight new comfort grip provides superior ergonomics, reducing operator fatigue.
- For handle extension, order Extension Adapter P/N 853538 and custom length extension. Details on website.


LTC Dovetail Head Series

| Part <br> Number | Model | Torque Capacity* | Weight (lbs.) | Overall Length (in.) |
| :---: | :---: | :---: | :---: | :---: |
| 810100 | LTC 501 | 50 in. lbs./6 Nm/ $58 \mathrm{kgf} \cdot \mathrm{cm}$ | 0.5 | 6.9 |
| 810011 | LTC 1501 | 150 in. lbs./17 Nm/ $173 \mathrm{~kg} \cdot{ }^{\circ} \mathrm{cm}$ | 0.5 | 6.9 |
| 810574 | LTC OHT** | 300 in. lbs./34 Nm/ $346 \mathrm{kgf} \cdot \mathrm{cm}$ | 0.5 | 6.9 |
| 810016 | LTC 3001 | 300 in. llbs./ $34 \mathrm{Nm} /$ $346 \mathrm{kgf} \cdot \mathrm{cm}$ | 0.75 | 8.8 |
| 810013 | LTC 7501 | 750 in. lbs./ 85 Nm/ $864 \mathrm{~kg} \cdot \mathrm{~cm}$ | 1.0 | 12.6 |
| 810014 | LTC 18001 | 1800 in . lbs./150 ff. lbs./ 204 Nm/21 kgf•m | 1.25 | 15.9 |
| 810334 | LTC 36001 | 3600 in . lbs./300 ff. lbs./ $407 \mathrm{Nm} / 41 \mathrm{kgf} \bullet \mathrm{m}$ | 5.5 | 24.3 |
| 810137 | LTC 48001 | 4800 in . lbs./400 ff. lbs./ <br> $542 \mathrm{Nm} / 55 \mathrm{kgf} \bullet \mathrm{m}$ | 8.25 | 34.3 |

[^1]

Interchangeable Heads

## Why Our Interchangeable Head System is the World's Best

Virtually all interchangeable heads on these pages are made as a single piece from alloy steel. This construction method provides strength and durability rarely attained by the more common cut and weld method. In addition, to achieve constant torque values when changing heads, exact lever length must be maintained. $S / R$ heads share a precise distance from end of wrench to center of fastener. This is referred to as a Common Centerline and is very difficult to maintain when using the welded construction method.

The unique dovetail design used to join head and wrench provides exceptionally strong connection and allows complete interchange-ability. Competing manufacturers find it necessary to increase the size of the mating connection at higher torque values, creating duplication of wrenches and heads while losing interchangeability.


SQUARE DRIVE (SD)


SQUARE DRIVE
RATCHET (SDRT)


OPEN END (OE)

SQUARE DRIVE (SD)
1/6" Common Centerline

| SQUARE DRIVE <br> Part |  | Drive | Max. Torque <br> (in. lbs.) |
| :--- | :--- | :--- | :---: |
| Number | Model | Size |  |

SQUARE DRIVE RATCHET(SDRT)
17/6" Common Centerline

| RATCHET SQ. DR. |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Drive Size | Max.Torque (in. Ibs.) |
| 809504 | SDRT-1/4 | $1 / 4 /$ | 250 |
| 809505 | SDRT-3/1/ | 3/8/ | 1250 |
| 809506 | SDRT-1/2 | $1 / 2$ | 2500 |
| 809507 | SDRT-3/4* | 3/4" | 4800 |
| * 37/8" Common Centerline |  |  |  |

RATCHET RENEWAL KITS
for ratcheting wrenches and SDRT Heads

1/4" Ratchet Renewal Kit P/N 816998
3/8" Ratchet Renewal Kit P/N 816958
1/2" Ratchet Renewal Kit P/N 816956
3/4" Ratchet Renewal Kit P/N 816999

## OPEN END (OE)

1/16" Common Centerline

| OPEN END - ENGLISH |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Hex <br> Size | Max.Torque (in. Ibs.) |
| 819000 | $\mathrm{OE}-1 / 4$ | $1 / 4 / 1$ | 100 |
| 819001 | $\mathrm{OE}-1 / 6$ | 5/6" | 150 |
| 819002 | $\mathrm{OE}-3 / 3$ | $3 / 8$ | 200 |
| 819003 | $\mathrm{OE-7/16}$ | 7/6" | 300 |
| 819004 | $\mathrm{OE}-1 / 2$ | $1 / 2 /$ | 350 |
| 819005 | OE-\%/6 | \%/6" | 400 |
| 819006 | $\mathrm{OE}-5 / 8$ | $5 / 8$ | 600 |
| 819007 | OE-11/16 | 1160" | 800 |
| 819008 | $\mathrm{OE}-3 / 4$ | $3 / 4 /$ | 1000 |
| 819009 | OE- $\mathrm{I}^{13 / 16}$ | 13/6" ${ }^{\prime \prime}$ | 1250 |
| 819010 | $\mathrm{OE}-1 / 8$ | 7/8' | 1500 |
| 819011 | OE- $\mathrm{E}^{15 / 16}$ | 15/6" | 1750 |
| 819012 | OE-1 | 1" | 2000 |
| 819013 | OE-11/6 | 11/6" | 2250 |
| 819014 | OE-11/8 | $11 / 8^{\prime \prime}$ | 2500 |
| 819015 | OE-13/6 | $13 / 6^{\prime \prime}$ | 2750 |
| 819016 | OE-11/4 | $11 / 4^{\prime \prime}$ | 3000 |

## See website for head dimensions.

## FLARE NUT (FN)

17/6" Common Centerline

| FLARE NUT - ENGLISH |
| :--- | :--- | :---: | :---: |

BOX HEAD (BH)
17/6" Common Centerline

| BOX HEAD - ENGLISH |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Hex Size | Max.Torque (in. lbs.) |
| 819060 | BH-1/4 | $1 / /^{\prime \prime}$ | 250 |
| 819061 | BH-5/6 | 5/6" | 350 |
| 819062 | BH-3/8 | 3/1' | 450 |
| 819063 | BH-7/6 | 716 | 650 |
| 819064 | BH-1/2 | 1/2" | 850 |
| 819065 | BH-\% | \% 16 | 1050 |
| 819066 | BH-5\% | $5{ }^{\prime \prime \prime}$ | 1250 |
| 819067 | BH-1/16 | 11/6" | 1450 |
| 819068 | BH-3/4 | 3/1" | 1800 |
| 819069 | BH-13/16 | 13/6" | 2100 |
| 819070 | BH-7/8 | $78^{\prime \prime}$ | 2400 |
| 819071 | BH-15/16 | 15/6" | 2700 |
| 819072 | BH-1 | $1^{\prime \prime}$ | 3000 |
| 819073 | BH-11/6 | 11/6" | 3150 |
| 819074 | BH-11/8 | $11 / 8^{\prime \prime}$ | 3300 |
| 819085 | BH-13/6 | 13/6" | 3450 |
| 819075 | BH-11/4 | $11 / 4 \prime \prime$ | 3600 |

HEX DRIVE (HD)
1\%/6" CommonCenterline

| HEX DRIVE - ENGLISH |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Hex Size | Max. Torque (in. lbs.) |
| 853030 | HD-5/64 | 5/64" | 20 |
| 819687 | HD-3/32 | $3 / 32^{\prime \prime}$ | 30 |
| 853031 | HD-7/64 | 7/64" | 40 |
| 819689 | HD-1/8 | $1 / 8^{\prime \prime}$ | 70 |
| 853032 | HD-9/64 | 9/64" | 70 |
| 819691 | HD-5/32 | $5 / 32^{\prime \prime}$ | 135 |
| 819692 | HD-3/16 | $3 / 16^{\prime \prime}$ | 235 |
| 819693 | HD-7/32 | 7/32 ${ }^{\prime \prime}$ | 340 |
| 819694 | HD-1/4 | $1 / 4^{\prime \prime}$ | 450 |
| 819695 | HD-5/16 | 5/16" | 850 |
| 819696 | HD-3/8 | $3 /{ }^{\prime \prime}$ | 850 |
| 819697 | HD-7/16 | 7/16" | 1450 |
| 819699 | HD-9/16 | 9/16 | 1450 |
| 819700 | HD-5/8 | 5/8" | 2100 |
| 819701 | HD-3/4 | $3 / 4{ }^{\prime \prime}$ | 2400 |
| 819702 | HD-7/8 |  | 2700 |


| FLARE NUT - METRIC |  |  |  |
| :---: | :---: | :---: | :---: |
| Part <br> Number | Model | Hex Size | Max. Torque (Nm) |
| 809243 | FN-8mm | 8 mm | 16 |
| 809217 | $\mathrm{FN}-9 \mathrm{~mm}$ | 9 mm | 19 |
| 809218 | $\mathrm{FN}-10 \mathrm{~mm}$ | 10 mm | 22 |
| 809221 | $\mathrm{FN}-11 \mathrm{~mm}$ | 11 mm | 28 |
| 809241 | FN-12mm | 12 mm | 30 |
| 809000 | $\mathrm{FN}-12 \mathrm{~mm}{ }^{*}$ | 12 mm | 30 |
| 809219 | FN-13mm | 13 mm | 33 |
| 809220 | $\mathrm{FN}-14 \mathrm{~mm}$ | 14 mm | 40 |
| 809001 | $\mathrm{FN}-14 \mathrm{~mm} *$ | 14 mm | 40 |
| 809222 | $\mathrm{FN}-15 \mathrm{~mm}$ | 15 mm | 45 |
| 809238 | FN-16mm | 16 mm | 50 |
| 809223 | $\mathrm{FN}-17 \mathrm{~mm}$ | 17 mm | 54 |
| 809239 | $\mathrm{FN}-18 \mathrm{~mm}$ | 18 mm | 61 |
| 809224 | $\mathrm{FN}-19 \mathrm{~mm}$ | 19 mm | 68 |
| 809240 | FN-21mm | 21 mm | 80 |
| 809242 | FN-22mm | 22 mm | 90 |
| 809225 | FN-24mm | 24 mm | 105 |
| 809244 | FN-27mm | 27 mm | 118 |
| 6 pt hex |  |  |  |


| BOX HEAD - METRIC |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Hex Size | Max.Torque (Nm) |
| 809301 | BH-7mm | 7 mm | 28 |
| 809302 | $\mathrm{BH}-8 \mathrm{~mm}$ | 8 mm | 39 |
| 809303 | BH-9mm | 9 mm | 50 |
| 809230 | $\mathrm{BH}-10 \mathrm{~mm}$ | 10 mm | 50 |
| 809231 | BH-11mm | 11 mm | 73 |
| 809304 | BH-12mm | 12 mm | 96 |
| 809232 | BH-13mm | 13 mm | 96 |
| 809233 | $\mathrm{BH}-14 \mathrm{~mm}$ | 14 mm | 119 |
| 809234 | $\mathrm{BH}-15 \mathrm{~mm}$ | 15 mm | 141 |
| 809305 | BH-16mm | 16 mm | 141 |
| 809235 | BH-17mm | 17 mm | 163 |
| 809306 | $\mathrm{BH}-18 \mathrm{~mm}$ | 18 mm | 163 |
| 809236 | $\mathrm{BH}-19 \mathrm{~mm}$ | 19 mm | 203 |
| 809307 | BH-21mm | 21 mm | 237 |
| 809308 | BH-22mm | 22 mm | 271 |
| 809237 | BH-24mm | 24 mm | 305 |
| 809352 | BH-27mm | 27 mm | 355 |

HEX DRIVE - METRIC

| Part <br> Number | Model | Hex <br> Size | Max.Torque <br> $(\mathrm{Nm})$ |
| :--- | :--- | :--- | :---: |
| 809315 | HD-4mm | 4 mm | 15 |
| 809316 | HD-5mm | 5 mm | 27 |
| 809317 | HD-6mm | 6 mm | 38 |
| 809328 | HD-8mm | 8 mm | 96 |
| 809330 | HD-10mm | 10 mm | 141 |
| 809332 | HD-12mm | 12 mm | 164 |
| 809334 | HD-14mm | 14 mm | 164 |
| 809339 | HD-19mm | 19 mm | 270 |

## See website for head dimensions.



BOX HEAD (BH)


HEX DRIVE (HD)


## Interchangeable Heads



RATCHETING OPEN END (ROE)


RATCHETING FLARE NUT (RFN)


RATCHETING TUBE WRENCH (RTW)

## RATCHETING OPEN END (ROE)

17/1" ${ }^{\prime \prime}$ Common Centerline
Slight disengagement from the fastener allows operator to rapidly rotate wrench.
RATCHETING OPEN END - ENGLISH
RATCHETING OPEN END - METRIC

## RATCHETING FLARE NUT (RFN)

17/16" CommonCenterline
Single-direction ratchet for use with hydraulic or pneumatic fittings.

| Part <br> Number | Model | Hex <br> Size | Max.Torque <br> $($ Nm) |
| :--- | :--- | :---: | :---: |
| 819086 | RFN-10mm | 10 mm | 25 |
| 819087 | RFN-11mm | 11 mm | 25 |

RATCHETING TUBE WRENCH (RTW)
RTW snaps open to fit around hydraulic, AC lines, etc. When jaws close, wrench ratchets.

| RATCHETING TUBE WRENCH - ENGLISH |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | Model | Hex Size | Max. Torque (in. lbs.) |
| 853151 | RTW-3/8 | $3 / 81$ | 225 |
| 853152 | RTW-7/16 | 7/16" | 250 |
| 853154 | RTW-9/16 | 9/16 | 400 |
| 853156 | RTW-11/16 | 11/16" | 750 |
| 853157 | RTW-3/4 | $3 / 4{ }^{\prime \prime}$ | 850 |
| 853158 | RTW-13/16 | 13/16 | 1000 |
| 853159 | RTW-7/8 | $7 / 8$ | 1250 |
| 853160 | RTW-15/16 | 15/16 ${ }^{\prime \prime}$ | 1400 |
| 853161 | RTW-1 | $1^{\prime \prime}$ | 1500 |
| 853180 | RTW-11/16 | $11 / 16^{\prime \prime}$ | 2210 |
| 853194 | RTW-2 | 2" | 3600 |


| RATCHETING TUBE WRENCH - METRIC |  |  |  |
| :--- | :--- | :--- | :--- |
| Part |  | Hex | Max.Torque |
| Number | Model | Size | $(\mathrm{Nm})$ |
| 853164 | RTW-13mm | 13 mm | 34 |
| 853165 | RTW-14mm | 14 mm | 68 |
| 853170 | RTW-16mm | 16 mm | 68 |

CAUTION WHEN USING RTW HEADS!
Because of the configuration of the ratcheting tube wrenches, it is not possible to maintain our common centerline for these heads. We, therefore, recommend these heads for the LTC preset wrenches and when setting the torque value of the wrench, to use the appropriate head to insure accuracy.

See website for head dimensions.

## See website for head dimensions.



## STANDARD TOOLING ADAPTERS*

When fabricating special heads to be used with CCM torque handles other than Model CCM 300 and CCM 400 , the $17 / 16$ in. dimension must be maintained betwe the inside of the attachment block and the centerline of the wrench head. Model CCM 300 and CCM 400 ar calibrated to $37 / 8$ in. common centerline.

| Part <br> Number | Model | Max.Torque <br> (in. lbs.) |
| :--- | :---: | :---: |
| 819901 | STA-1 | 1600 |
| 819902 | STA-2 | 2500 |
| 809917 | STA-3 | 4800 |
| " Made of heat treated 4140 alloy steel. |  |  |

STANDARD
TOOLING
ADAPTER

## $15^{\circ}$ ANGLE EXTENSION

| Part <br> Number | Model | Angle <br> (degrees) | Max. Torque <br> (in. Ibs.) |
| :--- | :--- | :---: | :---: |
| 819487 | LTCE-4-15 | 15 | 300 |
| 819504 | LTCE-6-15 | 15 | 800 |

STRAIGHT EXTENSION

| Part <br> Number | Model | Angle <br> (degrees) | Max. Torque <br> (in. lbs.) |
| :--- | :--- | :---: | :---: |
| 819424 | LTCE-4 | 0 | 300 |
| 819467 | LTCE-6 | 0 | 800 |
| 819021 | LTCE-14 | 0 | 4800 |
| 819768 | LTCE-20 | 0 | 4800 |



STRAIGHT AND $15^{\circ}$ ANGLE EXTENSIONS


ADAPTER FOR ROUND STYLE HEADS

## See website for head dimensions.



## STANDARD TOOLING ADAPTERS*

When fabricating special heads to be used with CCM torque handles other than Model CCM 300 and CCM 400 , the $17 / 16$ in. dimension must be maintained betwe the inside of the attachment block and the centerline of the wrench head. Model CCM 300 and CCM 400 ar calibrated to $37 / 8$ in. common centerline.

| Part <br> Number | Model | Max.Torque <br> (in. lbs.) |
| :--- | :---: | :---: |
| 819901 | STA-1 | 1600 |
| 819902 | STA-2 | 2500 |
| 809917 | STA-3 | 4800 |
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STANDARD
TOOLING
ADAPTER

## $15^{\circ}$ ANGLE EXTENSION

| Part <br> Number | Model | Angle <br> (degrees) | Max. Torque <br> (in. Ibs.) |
| :--- | :--- | :---: | :---: |
| 819487 | LTCE-4-15 | 15 | 300 |
| 819504 | LTCE-6-15 | 15 | 800 |

STRAIGHT EXTENSION

| Part <br> Number | Model | Angle <br> (degrees) | Max. Torque <br> (in. lbs.) |
| :--- | :--- | :---: | :---: |
| 819424 | LTCE-4 | 0 | 300 |
| 819467 | LTCE-6 | 0 | 800 |
| 819021 | LTCE-14 | 0 | 4800 |
| 819768 | LTCE-20 | 0 | 4800 |



STRAIGHT AND $15^{\circ}$ ANGLE EXTENSIONS


ADAPTER FOR ROUND STYLE HEADS


Includes FREE certification from our ISO /IEC17025 Accredited calibration laboratory.

## ExacTorq ${ }^{\circledR}$ Series Features

## Exact Torque Adjustment Using Digilock Control Mechanism

Gone are the days of estimating torque. A simple twist of ExacTorq's endmounted DigiLock mechanism sets your torque levels in exact, single digit increments. The positive locking detent secures your selection.

## Enhance Comfort and Accuracy with Advanced Ergonomics

Enhanced comfort translates into enhanced accuracy. The ExacTorq ${ }^{\circledR}$ features a tri-lobular handle design. This gives users enhanced leverage, plus rounded surfaces for comfort and superior grip control. With each turn, this unique design involves only major muscle groups to reduce strain and potential repetitive-motion injury. Additionally, the ExacTorq ${ }^{\circledR}$ is comfortable in even the smallest of hands, performing flawlessly when used by women and men on the assembly line.

## Features

- DigiLock Control Mechanism revolutionizes manual torque adjustment.
- Positive locking detent secures selected torque value.
- Can be used in both right and left hand directions.
- Designed to meet or exceed ASME B107.14M and ISO 6789 specifications, each ExacTorq ships with a calibration certificate from our ISO/IEC 17025 Accredited laboratory.
- Operator cannot over torque. Clutch releases automatically when desired torque has been achieved.
- Uses standard bits, sockets and adapters.
- Anti-backlash design enhances repeatability.
- Accuracy of +/-6\% Indicated Value.


| Specifications | ExacTorq 100 | ExacTorq 74 |
| :--- | :--- | :--- |
| Part Number | 810045 | 810046 |
| Capacity | $20-100 \mathrm{in} oz.$. | $15-74 \mathrm{cNm}$ |
| Graduation | 1 in. oz. | 1 cNm |
| Length (less bit) | 6.8 in. | 6.8 in. |
| Weight | 0.4 lbs | 0.4 lbs |
| Drive Size | $1 / 4 \mathrm{in}$. Female Hex | $1 / 4 \mathrm{in}$. Female Hex |

## CAL 36/4 Screwdriver \& Kits

- Accuracy of +/-6\% Indicated Value (from $20 \%$ to $100 \%$ of capacity) meets or exceeds ASME B107.14M and ISO 6789.

- Incredibly durable! Many users have experienced a service life of 10+ years!
- Operators cannot overtorque - clutch releases at set torque.
- Anti-backlash design for repeatability.
- To operate, simply dial in torque and insert bit.
- Bi-directional CW/CCW versatility.
- Polished aluminum exterior.
- Scales clearly engraved on shaft and magnified for ease of reading.

CAL 36/4
Adjustable Screwdriver \& Kits

- Comes with FREE calibration certificate from our ISO/IEC 17025 Accredited laboratory! Can be ordered with certification for English or Metric units of measure. (Use P/N 810017 for Nm certification on Cal 36/4.)
- Uses standard bits, adapters, and sockets.

| Specifications | CAL $36 / 4$ Part No. 810587 | CAL 40 Part No. 810477 |
| :--- | :--- | :--- |
| Capacity | $2-36 \mathrm{in} . \mathrm{lbs} . / .2-4 \mathrm{Nm}$ | $3-40 \mathrm{kgf} \bullet \mathrm{cm}$. |
| Graduation | $2 \mathrm{in} . \mathrm{lbs} . / .2 \mathrm{Nm}$ | $2 \mathrm{kgf} \bullet \mathrm{cm}$ |
| Length (less bit) | 7.8 in. | 7.8 in. |
| Grip Diameter | 1.4 in. | 1.4 in. |
| Weight | 0.5 lbs | 0.5 lbs. |
| Drive Size | $1 / 4^{\prime \prime}$ Female Hex | $1 / 4^{\prime \prime}$ Female Hex |

## Part No. 810568

Contains 1 each of the listed bits and a CAL $36 / 4$ screwdriver

Hex \% \%
Hex $3 / 2$
Hex $\% / 8$
Hex $1 / 8$
Hex \% \%
Posidriv \#1
Posidriv \#2
Sloted 0-1
Slotted 3-4
Slotted 5-6

Slotted 8-10
Sloted 12-14 Socket Adapter $1 / 4$ Bit Holder $1 / 4$ Phillips \#0 Phillips \#1 Phillips \#2 Phillips \#3 Torx TlO Torx T15

Torx T20
Torx T25
Torx T30
Torx T40
Sq. Recess 0
Sq. Recess 1
Sq. Recess 2
Sq. Recess 3

Part No. 810588
Part Number Description
810587 CAL 36/4 Screwdriver
$819953 \quad 1 / 4^{\prime \prime}$ Hex to $1 / 4^{\prime \prime}$ Sq. Drive
809449 No. 1 Phillips Power Bit
809467 No. 2 Phillips Power Bit
809434 No. 2 Slotted Power Bit
809448 No. 4 Slotted Power Bit

Includes Custom Case



TIC Kit
Torque Inserts Correctly Kit


## Making Chips? You need the TIC Kit!

The "TIC Kit" will eliminate the problems associated with overtightened or loose tool insert screws!

The TIC Kit comes with a torque limiting screwdriver marked with the correct torque for each size of Torx screw used in toolholders, Torx bits for each of the screw sizes (T6, T7, T8, T9, T10), all contained in a custom molded plastic case. To use the TIC Kit, simply adjust the screwdriver to the size Torx screw to be tightened, insert the Torx bit from the kit, and tighten the screw. When the correct torque is reached, the clutch will index and no greater torque will be applied to the screw, even if the operator keeps turning the screwdriver!
The TIC Kit will eliminate the expense and problems of buying and keeping track of multiple keys and T-handles, as well as the problems associated with their inability to assure the correct torque.
The screwdriver in the TIC Kit is accurate to $+/-6 \%$ of the indicated T value, and is calibrated in our ISO/IEC 17025 Accredited Calibration Laboratory. It even comes with a FREE NIST-traceable calibration certificate!

It's time to stop drilling out toolholder screws and breaking expensive insert bits! The TIC Kit will increase your uptime and profits!

| Part No. | Description |
| :--- | :--- |
| 810581 | TIC Kit w/TIC screwdriver, 1 each bits T6 - T10, case |
| 810582 | TIC screwdriver only |
| 816771 | T6 bits, pack of 5 |
| 816772 | T7 bits, pack of 5 |
| 816773 | T8 bits, pack of 5 |
| 816774 | T9 bits, pack of 5 |
| 816775 | T10 bits, pack of 5 |
| 816776 | Bits, pack, 1 ea. T6 - T10 |



## PM Series Features

- Perfect for assembly of electronic components and precision mechanical products!
- Ideal for use in field maintenance kits - factory assembled quality in field reassembly!
- Clutch releases automatically when preset torque attained - no overtorquing.
- Anti-backlash design for repeatability.
- Long shaft allows operator to reach limited-access applications.
- Accuracy of $+/-6 \%$ (from $20 \%$ to $100 \%$ of capacity) meets or exceeds ASME B107.14M and ISO 6789 requirements.
- Bi-directional versatility - CW and CCW operation.
- Uses standard bits, adapters, and sockets.



## Preset

 ScrewdriverPM Series

- Torque value can be set using any unit of torque measure.
- Polished aluminum exterior.
- Minimum capacity of PM-series torque screwdrivers is $20 \%$ of maximum capacity.

| Specifications | PM-5 | PM-15 | PM-36 |
| :--- | :--- | :--- | :--- |
|  | Part No. 810007 | Part No. 810064 | Part No. 810563 |
| Capacity | $100 \mathrm{in}. \mathrm{ozs}$. | $15 \mathrm{in} . \mathrm{lbs}$. | $36 \mathrm{in} . \mathrm{lbs}$. |
|  | 70 cNm | 1.65 Nm | 4 Nm |
|  | $7.2 \mathrm{kgf} \bullet \mathrm{cm}$ | $17.2 \mathrm{kgf} \bullet \mathrm{cm}$ | $40 \mathrm{kgf} \bullet \mathrm{cm}$ |
| Length (less bit) | 5.5 in. | 6.3 in. | 7.8 in. |
| Grip Diameter | 0.8 in. | 1.0 in. | 1.4 in. |
| Weight | 0.25 lbs | 0.3 lbs. | 0.5 lbs. |
| Drive Size | $1 / 4^{\prime \prime}$ Female Hex | $1 / 4^{\prime \prime}$ Female Hex | $1 / 4^{\prime \prime}$ Female Hex |



## COLOR CODE ALL YOUR SCREWDRIVERS.

When you place your order, just mention you want colors and we will send a package of five easy-to-apply heat shrink sleeves.



## Torque Multipliers

Torque multipliers with S/R Flat Beam torque wrenches are perfect for the high torque/limited access applications frequently found in the construction, heavy equipment, and power generation industries! The Flat Beam torque wrench provides accurate torque measurement, which is then multiplied by the gears in the multiplier for torque achieved. This combination is extremely portable, thus well-suited to job site use.

Two styles are available, high- and low-ratio, offering the versatility of either design approach. For those with limited height applications, the low-ratio style offers a lower, longer profile. For those with restricted diameter applications, the taller, high-ratio style is offered.

- Capacities to 4000 ft .-lbs. or metric equivalent.
- Multipliers can be used with either English or Metric Flat Beam wrenches.
- Reaction bar or reaction foot keeps gear box from turning.
- Gear train within multiplier has natural frictional loss. For normal requirements, a loss factor of $10 \%$ to $20 \%$ may be used.

| Part Number | Model | Style | Max. Torque ft. lbs. | Input Drive Size | Output Drive Size | Gear <br> Ratio | Overall Length | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 850369 | TM 1000 | Low-ratio | 1000 | 1/2' | 3/4/ | 4-1 | 26 in. | 12 lbs . |
| 850367 | TM 2000 | Low-ratio | 2000 | $3 / 4 / 1$ | $1^{\prime \prime}$ | 4-1 | 26 in . | 14 lbs . |
| 850368 | TM 4000 | Low-ratio | 4000 | $1 "$ | $11 / 2$ | 4.33:1 | 301/2 in. | 35 lbs . |
| 806300 | XVK 15 | Low-ratio* | 1250 | $3 / 4 /$ | $1^{\prime \prime}$ | 4.5:1 | $175 \%$ in. | 7 lbs . |

## Spring Testing Fixłure

- Simple-to-use spring tester can be used to inspect coil springs up to $7^{\prime \prime}$ in length and $21 / 2^{\prime \prime}$ in diameter, minimum I.D. $5 / 8^{\prime \prime}$.
- Provides the accurate tension readings necessary to match sets of springs.
- Height of test platform is adjusted by rotating platform on threaded column. A flat is milled on the column and stamped with $1 / 16^{\prime \prime}$ increments. One full revolution of the platform adjusts the height by $1 / 16^{\prime \prime}$.
- During compression testing an audible tone is emitted when arm is parallel to the test base indicating predetermined compression length is achieved.
- Maximum capacity of torque wrench that can be used is 150 ft l lbs. or equivalent.
- Wrench not included.


## Model SPT

Part No. 850285


[^0]:    * Optional extension tube, Part \# 853363, can be ordered. Use of the extension requires recalibration of wrench.
    ** Includes extension tube.

[^1]:    * Minimum capacities of preset tools can be calculated at $20 \%$ of full capacities.
    ** For this tool only, minimum capacity is $50 \%$ of maximum capacity.

