

DON'T LET **PAIN** THROW A **WRENCH** IN YOUR DAY.



**SAFETY
TRAINING**

- Every time you grip a wrench you use 42 muscles.
- Every time you report a wrench injury, 46% involve overexertion.
- Every time you spend a dollar on work-related musculoskeletal disorders, you spend 3 to 5 more on indirect costs.

Isn't it time for a better wrench?

THE FACTS



MUSCULOSKELETAL DISORDERS

Musculoskeletal disorders (MSDs) affect the muscles, nerves, tendons, ligaments, joints, and spinal discs, and are commonly caused by repetitive forceful exertions, reaching, and awkward positions. OSHA reports MSDs are the single largest occupational safety and health problem in the U.S., a third of all lost workday cases, causing 1.8 million injuries each year. The use of ergonomic solutions in the workplace, OSHA states, would reduce claims by 250,000 each year, saving companies millions in workers compensation, lost productivity, rehiring, retraining, and overtime.

Did you know there are 42 muscles and 1700 nerve endings in the palm of our hands alone?

THE EFFECTS OF WORK-RELATED MSDS

Symptoms of MSDs, including pain, numbness and tingling, develop gradually over time, showing up intermittently at first and then becoming more severe with prolonged or repeated use, eventually interfering with the ability to use a tool. Repetitive use in work-related environments is especially threatening because overexerted tissues cannot adequately rest and recover, and instead will become inflamed. With eventual continuous pain comes reduced worker productivity, lost time from work, temporary or permanent disability, and increased workers compensation costs.



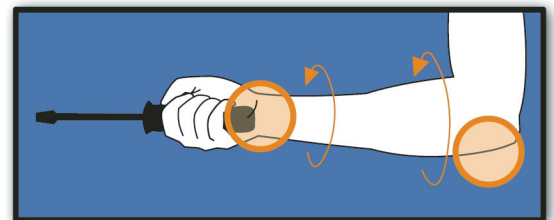
KEY STATISTICS*

- MSDs are the single largest occupational safety and health problem in US - a third of all lost workday cases
- MSDs accounted for 34% of all work-related injury cases
- 49% of MSD cases occurred in the services and manufacturing industries
- MSDs accounted for 24% of all hand tool injury cases
- 60% of all industrial accidents are caused by hand tools
- 7% of non-powered hand tool injury cases involved wrenches
- 42% of wrench-involved cases were sprains and strains
- 46% of wrench cases involved overexertion

THE COSTS*

- Overexertion injuries caused \$9.8 billion in direct costs and repetitive motion injuries caused \$2.3 billion in direct costs.
- For every dollar a company spends on work-related MSDs, they'll spend 3 to 5 times that on indirect costs such as productivity loss, rehiring, retraining and overtime.
- Industry experts have shown MSDs can cost \$60,000 per injury in work-related direct and indirect costs.

Overuse injuries with hand tools are often associated with repeated forceful gripping and turning actions performed with the wrist bent to either side.



Invest \$1 and save \$3!

*Sources: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Safety and Health Administration



HOW DESIGN HELPS REDUCE ERGONOMIC HAZARDS

Ergonomic hand tool design goals include developing tools that:

- Require less force or grip strength
- Allow for correct body alignment
- Reduce repetitive motion activities



STRENGTH & SAFETY

Radius corner design – Design in box end engages the flats of fastener, not corners, providing 15-20% more torque than traditional wrench design.

ACCESS & STRENGTH

15° box end offset – Coined offset produces a true 15° offset for clearing obstructions. Shank transition area is reinforced to provide greater strength at stress point.

COMFORT & STRENGTH

Unique **Patented** beam design – New transitional beam design allows user to apply force with the flat of the beam in the palm of the hand (up to 500% more surface contact area), reducing hand fatigue related to repetitive use; allows more torque to be applied with less grip.

SAFETY

Opening size – Stamped on both sides in large markings for easy identification.

STRENGTH

New heavy-duty open end design – Beefed-up head on the open end designed to help maximize jaw strength with uncompromised access for tough applications.

STRENGTH

Maximum torque design – Surface conforming drive notches in open end grip the flats of fastener providing up to 25% more torque than conventional designs.



MAXX BEAM

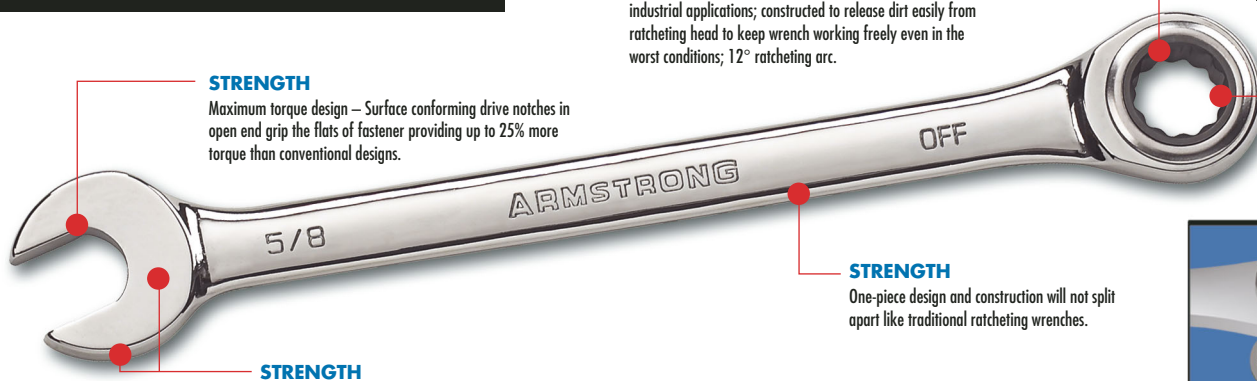
STANDARD WRENCH

MAXX BEAM is the first hand tool independently tested and approved by the American Arthritis Foundation for its Ease-of-Use.



MAXX POWER

RATCHETING COMBINATION WRENCH



STRENGTH

Maximum torque design – Surface conforming drive notches in open end grip the flats of fastener providing up to 25% more torque than conventional designs.

STRENGTH

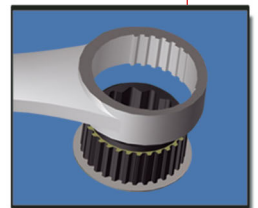
New **Patented** ratcheting design – Integral tooth design allows powerful ratcheting mechanism to work on tough industrial applications; constructed to release dirt easily from ratcheting head to keep wrench working freely even in the worst conditions; 12° ratcheting arc.

STRENGTH

One-piece design and construction will not split apart like traditional ratcheting wrenches.

STRENGTH

New heavy-duty open end design – Beefed-up head on the open end designed to help maximize jaw strength with uncompromised access for tough applications; designed for nut head width (vs. bolt head width).



HANDS-ON-SAFETY TOOL KIT



At Armstrong Industrial Hand Tools, we understand the importance of safety in the workplace. As part of our Safety Training Program, we offer a complete kit that includes tools for demonstration and helpful tips on the proper identification, inspection, selection, usage, maintenance and storage of your hand tools. The purpose of this Hands-on-Safety Tool Kit is to help toward maximizing performance, minimize downtime and most important avoiding injury.

KIT Number 98-751MSC

Order # UT85081503
ONLY \$349.99
List Price Value \$625.00

KIT ITEMS

Armstrong® Tools

- 4 Combination Wrenches (9/16")
- 3 Ratchets (3/8" Drive)
- 6 Laser-etched EYE-D Sockets
- 1 Impact Locking Extension

Training Materials

- Audio Visual Program • 89081-33MSC
- Safety Presentation • 89081-32MSC
- Participant Quiz • 89081-06
- Participant Certificate • 89081-07
- Hard Hat Stickers • 89081-05
- Participant Sign-In Sheet • 89081-08
- Safety Brochure • 89081-30
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