



Nothing but **HEAVY DUTY.**



# HEALTH & SAFETY



# HEALTH & SAFETY

## OUTLINE

- **S.A.F.E**
- **Milwaukee Leadership in Health & Safety**
- **Hierarchy of Controls**
- **Pillars of Health & Safety**
- **Pillars Overview:**
  - **Dust Management**
  - **Vibration/ Noise**
  - **Ergonomics**
  - **Safety Technology**
  - **Visibility**
  - **Emissions**
  - **Personal Safety**



# S.A.F.E. Training Process

## Safety Week Presentation Options

- Musculoskeletal Injuries
- Hand & Arm Protection
- Slips, Trips, Falls
- Struck By
- Silica
- Power Tools 101
- Tool Tethering

## Our Safety Training Process

**S.** – Situational Awareness  
**A.** – Access  
**F.** – Familiarize  
**E.** – Eliminate







## SOLUTIONS



## PARTNERSHIPS



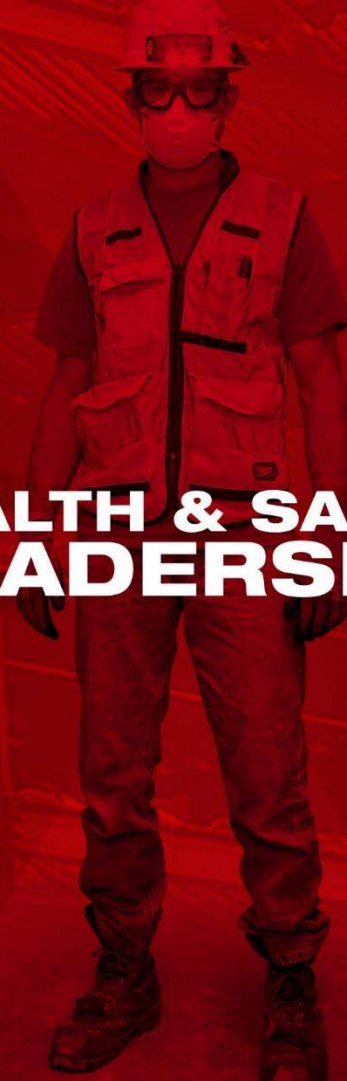
# HEALTH & SAFETY LEADERSHIP



## HEALTH & SAFETY EVENTS



## EDUCATION & TRAINING





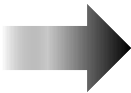
# HEALTH & SAFETY

## HIERARCHY OF CONTROLS



### ELIMINATION

Eliminate or remove the hazard from the workplace.



### SUBSTITUTION

Replace with less hazardous condition, practice or process.



### ENGINEERING CONTROLS

Physical change that reduces exposure, isolates worker from hazard.



### ADMINISTRATIVE CONTROLS

Improvements in the way work is done.



### PPE

Protect workers with Innovation in Personal Protective Equipment.



# HEALTH & SAFETY

## DUST MANAGEMENT

SILICOSIS

DUST COMPLIANCE  
MADE SIMPLE



+



## VIBRATION / NOISE

VIWF / EARDRUM  
DAMAGE

AVS  
SURGE



+



## ERGONOMICS

MSDs

ERGONOMICS



+



## SAFETY TECHNOLOGY

ACUTE  
INJURIES

AUTO STOP RAPIDSTOP



+



## VISIBILITY

TRIPS

SITE  
LIGHTING



+



## EMISSIONS

INHALATION

MX FUEL M18 M12



+



## PERSONAL SAFETY

ACUTE  
INJURIES

STAY SAFE.  
STAY PRODUCTIVE.







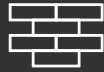
# HEALTH & SAFETY

## DUST MANAGEMENT

### SILICOSIS

### DUST COMPLIANCE MADE SIMPLE

#### CAUSES OF DUST EXPOSURE



TUCKPOINTING



DRYWALL  
FINISHING



ANCHORING



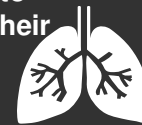
GRINDING,  
DRILLING &  
SAWING



DEMOLITION

**2.3 MILLION**

workers are exposed to  
**SILICA HAZARDS** in their  
workplace.



There is **NO CURE** for this  
disease thus  
**PREVENTION**  
is the only  
answer



### SILICOSIS

Silicosis is lung disease caused by inhalation of crystalline silica dust.  
Recent OSHA fines as much as \$300k.



M12™ HAMMERVAC™ Universal  
Dust Extractor (2306-22)



SDS PLUS DUST TRAP™  
Drilling Shroud (48-03-3035)



8 Gallon Dust Extractor  
(8960-20)



Valved Respirator with Gasket  
(48-73-4004)



# HEALTH & SAFETY

## ERGONOMICS

MSDs

ERGONOMICS



20,500  
INJURIES

MSDs  
UP 12%



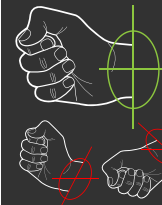
20%  
REDUCTION

100%

55%  
REDUCTION



20%  
REDUCTION



IDEAL

NOT  
GOOD

### Musculoskeletal Disorders (MSDs)

MSDs are conditions that can affect your muscles & joints.  
They have increased 12% across our core trades, resulting in over 20k injuries.  
An elbow epicondylitis (Tennis elbow) surgery can cost \$20k.



M12™ Rivet Tool  
(2550-22)



M18™ FORCE LOGIC™ 15T  
Crimper (2879-22)



MX FUEL™ Sewer Drum Machine  
with POWERREDZ™  
(MXF501-1CP)



High Visibility Cut Level 2  
Polyurethane Dipped (48-73-8922)

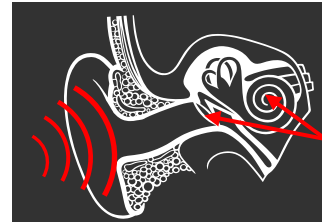
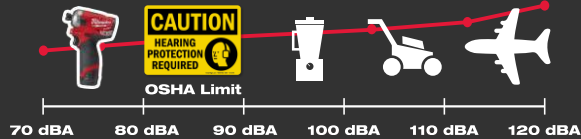




# HEALTH & SAFETY

## VIBRATION / NOISE

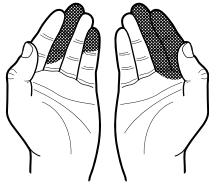
### DECIBEL SOUND SCALE



### PERMANENT HEARING DAMAGE

Sound vibrates the eardrum and tiny bones in the ear which in turn vibrates the hair cells in the inner ear. Exposure to loud noises over time can permanently damage the hair cells, causing hearing loss.

### VIWF / EARDRUM DAMAGE



**Vibration Induced White Fingers (VIWF) / EARDRUM DAMAGE**  
VIWF is a vascular disorder that can result in permanent loss of feeling.  
Carpal Tunnel Syndrome is an inflammation of the nerve  
and can cost \$30k for surgery.



M12™ SURGE™ 1/4" Hex Hydraulic Drive (2551-22)



M18™ SURGE™ 1/4" Hex Hydraulic Drive (2760-20)



MX FUEL™ Breaker (MXF368-1XC)



Reusable Corded Ear Plugs (48-73-3151)



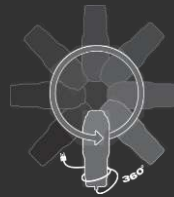
# HEALTH & SAFETY

## SAFETY TECHNOLOGY

### ACUTE INJURIES



ACUTE INJURIES



**360°  
ROTATION**  
15A CORDED  
COMPETITOR

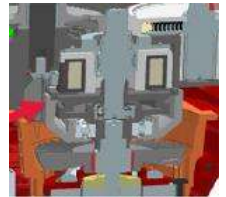
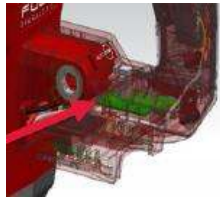


**45°  
ROTATION**  
MILWAUKEE  
M18 FUEL

### AUTO STOP™ / RAPIDSTOP™

**AUTOSTOP™** : Technology that automatically shuts down a tool electronically in a loss of control situation.

**RAPIDSTOP™** : Technology that utilizes a braking system to quickly stop the accessory's movement.



M18 FUEL™ 4-1/2"-6" Braking  
Grinder (2981-22)



M18 FUEL™ Pipe Threader  
(2874-20)



MX FUEL™ Handheld Core Drill  
(MXF301-1CP)



Impact Demolition Gloves  
(48-22-8752)



# HEALTH & SAFETY

## VISIBILITY

### TRIPS

**SITE  
LIGHTING  
PERFORMS.  
SURVIVES.**

#### DEFINITIONS



**SLIP**  
happen when there is INSECURE FOOTING RESULTING IN A LOSS OF BALANCE



**TRIP**  
happen when there is A LOSS OF BALANCE RESULTING FROM CONTACT WITH AN OBJECT



**FALL**  
happen when there is A FAILED OR MISSING SUPPORT. Slips and trips can lead to falls, which can happen on the same level or from one to another.

**11.6K** NONFATAL INJURIES  
due to falls, slips and trips  
involving days away from work



FALL INJURIES CAN BE PREVENTED THROUGH DESIGN FEATURES & ADEQUATE LIGHTING

### TRIPS

Common causes of slips, trips and falls include:

- Inadequate lighting
- Objects of cords obstructing walkways



USB Rechargeable BEACON™  
Hard Hat Light (2116-21)



M18™ Rocket™ Dual Power  
Tower Light (2131-20)



MX FUEL™ Tower Light Charger  
(MXF041-1XC)



High Visibility Performance Safety  
Vests (48-73-5052/48-73-5052)





# HEALTH & SAFETY

## EMISSIONS

Most **SKILLED TRADES** are  
exposed to air contaminants more  
than **ONCE** per week



Trade exposed to the  
**MOST AIR  
CONTAMINANTS:**  
**HEAT-A/C  
MECHANIC**

## INHALATION

## INHALATION

Construction trade workers are about twice as likely to develop respiratory diseases.  
Higher mortality rates among construction trade workers may be attributed to their  
exposure to contaminants like gases.



MX FUEL™ Carry On Power Supply  
(MXF002-1XC)



M18 FUEL™ 16" Chainsaw  
(2727-20)



MX FUEL™ 14" Cut Off Saw  
(MXF314-1XC)



Valved Respirator with Gasket  
(48-73-4004)

**MX M18**  
**FUEL M12**



# HEALTH & SAFETY



## PERSONAL SAFETY

### ACUTE INJURIES

STAY **SAFE.**  
STAY **PRODUCTIVE.**



**143,000+**  
lost time HAND  
INJURIES in 2015

**70%**

of hand injuries  
occur when the  
user was NOT  
WEARING  
GLOVES



**5**  
Media  
days AWAY  
FROM WORK

### AVERAGE HAND INJURY CLAIM COST

Avg loss per claim: **\$22,384**

Stitches: **\$2,000**

Avg Extremity Trauma: **\$730k**



### ACUTE INJURIES

Vented (class C) hard hats offer temperature reduction but are not voltage rated.

Unvented hard hats are proof-tested for electrical work with up to 20k volts.



Front Brim Vented Hard Hat with  
BOLT™ Accessories (48-73-1000)



Performance Safety Glasses with  
Gaskets (48-73-2040)



High Visibility Performance Safety  
Vests (48-73-5052/48-73-5052)



Cut Level 3 Nitrile Dipped Gloves  
(48-22-8930)



# HEALTH & SAFETY



## PERSONAL SAFETY

### ACUTE INJURIES

STAY **SAFE.**  
STAY **PRODUCTIVE.**



In the United States there is one **INJURY** caused by a **DROPPED OBJECT** EVERY **11 MIN**



**DROPPED OBJECTS** account for over **5%** OF **WORKPLACE FATALITIES**



**42,000** Is the average cost for a **MEDICALLY CONSULTED**

### ACUTE INJURIES

OSHA recommends that users not be exposed to noise levels greater than an average of 85 decibels over 8 hours. Anyone working over 6 feet off the ground should be using tool lanyards.



Reusable Corded Ear Plugs  
(48-73-3151)



High Visibility Cut Level 4  
Polyurethane Dipped (48-73-8943)



Valved Respirator with Gasket  
(48-73-4002)



35lb. Locking Tool Lanyard  
(48-22-8850)





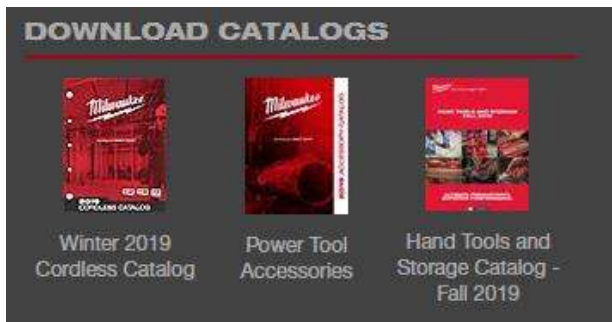
# Quick Resources & FAQs

## Milwaukee Tool

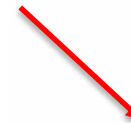
### Service Warranty



### Reference Guides



### Milwaukee Website



[Download Operator's Manual](#)

[Download Service Parts List](#)

#### PRODUCT SPECIFICATIONS

Nut Busting Torque	250 (ft-lbs)
Fastening Torque	250 (ft-lbs)
Anvil Type	3/8" Square w/ Friction Ring
Length	4.8"
Width	2.56"

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STAY **SAFE.**  
STAY **PRODUCTIVE.**



# Questions?

