OUTLINE

- Milwaukee Health and Safety Overview:
  - Covid-19 Tool Cleaning Protocol
- Ergonomic Safety
- Protection From Silica Exposure
CLEANING OF TOOLS TO HELP PREVENT SPREAD OF COVID-19

MILD SOAP & REST:
- If no blood was present on the product, it can be cleaned with mild soap and a damp cloth to remove the fluids and then left to rest for 3 days. This is based on CDC advisement that the virus may live on plastic surfaces for up to 72 hours, which suggest that the virus would no longer be harmful after the resting period.

  *Recommended for batteries

MILD SOAP & DILUTED BLEACH SOLUTION:
- If no blood was present on the product, it can be cleaned with a mild soap and damp cloth to remove dirt and grease and then decontaminated with a diluted bleach solution, which is consistent with CDC advise. The full diluted bleach cleaning procedure can be found below.

  *Not recommended for batteries

MORE MILWAUKEE TOOL CV-19 RESOURCES AVAILABLE AT milwaukeetool.com/COVID19-Resources
12.9% increase Almost 800,000 new jobs

MSDs UP 12% from the latest data
Over 20,500 total injuries in 2015

In 2017, sprains, & strains constitutes 37% of total injuries.

JOBSITE INJURIES ARE INCREASING BOTH IN INCIDENT AND RATE
HEALTH & SAFETY

Expectations

Eliminate or remove the hazard from the workplace.

Replace with less hazardous condition, practice or process.

Physical change that reduces exposure, isolates worker from hazard.

Improvements in the way work is done.

Protect workers with Innovation in Personal Protective Equipment.

HIERARCHY OF CONTROLS

SAFETY SOLUTIONS AT ALL LEVELS
SILICOSIS

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

CAUSES OF DUST EXPOSURE
- TUCKPOINTING
- DRYWALL FINISHING
- ANCHORING
- GRINDING, DRILLING & SAWING
- DEMOLITION

2.3 MILLION workers are exposed to SILICA HAZARDS in their workplace. 2 MILLION work in CONSTRUCTION.

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

SILICOSIS

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)
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.

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.

DECIBEL SOUND SCALE

M12™ SURGE™ ¼" Hex Hydraulic Drive (2551-22)
M18™ SURGE™ ¼" Hex Hydraulic Drive (2760-20)
MX FUEL™ Breaker (MXF388-1XC)
Reusable Corded Ear Plugs (48-73-3151)
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.
AUTO STOP™/ RAPIDSTOP™

AUTO STOP™: 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)
TRIPS

Common causes of slips, trips and falls include:
• Inadequate lighting
• Objects of cords obstructing walkways
Most SKILLED TRADES are exposed to air contaminants more than ONCE per week

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

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.

INHALATION

Valved Respirator with Gasket (48-73-4004)

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

M18 FUEL™ 16” Chainsaw (2727-20)

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

143,000+ lost time HAND INJURIES in 2015

70% of hand injuries occur when the user was NOT WEARING GLOVES

5 Median days AWAY FROM WORK

AVERAGE HAND INJURY CLAIM COST
Avg loss per claim: $22,384
Stitches: $2,000
Avg Extremity Trauma: $730k

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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)
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)

ACUTE INJURIES

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 INJURY.

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Ergonomics

The science of evaluating and designing products and work environments around the strengths and limitations of the human user in order to:

- Maximize occupational health
- Maximize ease of use
- Maintain productivity

Marklin, 2012

Wrist Angle

Reducing/Eliminating strain on the user's wrist greatly enhances the degree of comfort. Strain and fatigue increase as the user's wrist strays from its ideal position. The wrist in line with the forearm is the ideal position.
Musculoskeletal Disorders (MSDs) or Ergonomic Injuries on the Jobsite

- Common areas injured pictured below are due to:
  - Heavy lifting, bending, reaching overhead, pushing & pulling loads, working in awkward postures, repetitive tasks.

Tools designed to fit the hands of all works for the application

- Decrease muscle effort and fatigue
- Increase safety and productivity
- Decrease risk factors of ergonomic injuries

How does it relate to tool users?

- Awkward posture
- Repetitive tasks
- High force tasks
dB & Vibration

Force

Electromyography
**Medical and Workers’ Compensation costs: Upper extremity only**

**Hypothesis (WE Energies 2.5 years)**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Manual Tools</th>
<th>Battery Operated Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical and Workers’ Compensations costs: Upper extremity only</td>
<td>▪ 50% reduction and $198 per worker, annually</td>
<td>▪ 61% reduction and $500 per worker, annually (OR)</td>
</tr>
<tr>
<td>Replacement worker</td>
<td>▪ 50% reduction and $68 per worker, annually</td>
<td>▪ 100% reduction and $500 per worker annually (LWD)</td>
</tr>
<tr>
<td>Retraining</td>
<td>▪ 10% reduction and $123 per worker, annually</td>
<td></td>
</tr>
<tr>
<td>Injury late reporting</td>
<td>▪ 2 case reduction and $108 per worker annually</td>
<td></td>
</tr>
<tr>
<td>Productivity Improvement</td>
<td>▪ 47 hours a year or $2,355 per worker annually</td>
<td>▪ 13 hours saved or $2,750 per worker annually</td>
</tr>
</tbody>
</table>

**TOTAL**

WE Energies saved $2,852 saved per worker annually

At $50/labor hour

**TOTAL**

$3,650 saved per worker, annually

At $200/labor hour

(Seeley, 2003/ Incident Prevention Magazine, 2016)
Approximately 1 lb of Total Weight Reduced Decreases Muscle Effort by 11%
1911: Triangle Shirtwaist Factory Fire
1935: Hawk's Nest Tunnel Disaster
1933: Perkins US SOL
1937: Silicosis recommendations
1929: Perkins NY DOL
1945: Perkins leaves office
1965: Perkins death
1937: Perkins leaves office
1970: Nixon signs OSH ACT
1945: Perkins leaves office
1970: Nixon signs OSH ACT
1937: Silicosis recommendations
What is silica dust?

Silica dust is found in: concrete, masonry, granite, soil, sand & landscaping materials

- Has been in effect since September 23, 2017
- Permissible Exposure Limit (PEL) of respirable crystalline silica dust is 50µg/m³ (micrograms per cubic meter) over an 8 hour period
- Citations can result in heavy fines and an increase in MOD score (inhibits the ability to get business)
SIMPLE COMPLIANCE & LOW COST OF OWNERSHIP
MILWAUKEE® COVERS MOST COMMON SILICA PRODUCING APPLICATIONS
## OSHA Solution

### TABLE 1

**OSHA’s Specified Control Methods**

- Solutions are approved by OSHA® to be silica dust reducing solutions
- Inspectors should be asking limited questions about these solutions when used in accordance to manufacturer’s manual

### OBJECTIVE DATA

**Data provided by Manufacturer**

- Requires contractor to carry an Objective Data Sheet for the tool being used on site
- User must stay at below guidelines given in Objective Data Sheet
- Milwaukee has this data for all dust solutions that do not meet Table 1 requirements

*Milwaukee® recommends Table 1 and/or Objective Data Solutions over Self-Monitoring*

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**MILWAUKEE® SOLUTIONS AIDING IN OSHA® COMPLIANCE**
CUTTING

CHIPPING

SURFACING
EXTRACTOR VACUUMS

POWERFUL CONSISTENT SUCTION, CLEANER AIR

Automatic Filter Cleaning Mechanism
Self cleaning every 15 seconds to help maintain consistent airflow

2-Step Filtration System (Main Filter and HEPA Filter)
Main PTFE filter acts as first filtration method, air then flows through HEPA filter which captures the remaining small and hazardous dust particles

Powerful Motor
148 CFM and 92" Water Lift

Tool Activated Outlet

Quiet Operation
69dB

13 Foot Anti-Static Hose
WORLD LEADER IN CORDLESS INNOVATION

M12
PORTABLE PRODUCTIVITY.
TRADE FOCUSED. SYSTEM WIDE.

M18
PERFORMANCE DRIVEN.
TRADE FOCUSED. SYSTEM WIDE.

MX FUEL
EQUIPMENT REDEFINED.
TRADE FOCUSED. SYSTEM WIDE.
WE’D LIKE TO HEAR FROM YOU

SHARE YOUR STORIES
#TOGETHERWESTAND

&

SIGN UP FOR LOCAL PRESENTATIONS BY EMAILING US

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