



The Right Gloves for the Task at Hand

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Maintenance workers wear many hats and often perform tasks spontaneously, which means they may not be wearing the hand protection they need.

Maintenance workers perform many job tasks. For example, a worker might repair a machine before moving on to diagnose an electrical problem. He may work with conveyance systems or heating and air conditioning units, make structural repairs and perform routine tasks such as cleaning – depending on whether he is skilled or unskilled.

Because of the many tasks that are part of their jobs, maintenance workers often suffer a variety of hand injuries, from cuts and abrasions to punctures and chemical burns. These individuals are more likely to be non-compliant than other employees because they often work barehanded when they do not have the hand protection they need for the task.

Even if a maintenance worker complies with a company mandate to wear a specific glove while working with a piece of machinery, the glove may not provide the protection needed when the individual moves to a new task requiring different hand protection. The machinery application, for example, may be utility in nature and require general-purpose hand protection. When the worker handles chemicals in the next application, he or she might not change gloves to ensure proper protection.

For these reasons, safety managers must identify the range of hazards maintenance workers encounter, supply the gloves they need and provide the education

required so individuals understand what gloves they should wear for which tasks. The gloves must be comfortable enough that workers will want to wear them for the duration of their shifts.

Hazards Facing Maintenance Workers

As mentioned above, maintenance personnel are at risk for various types of injuries because they perform such a wide range of tasks. Below are some of the injuries they may suffer.

Cuts, abrasions and puncture wounds – Cuts are the most common type of injury reported among maintenance personnel. Cuts may result from sharp edges, metal, glass, wood and other objects. For example, a worker may cut his or her hand on a metal bur while reaching inside a machine to make repairs or while using a box cutter to open containers. Punch presses also present safety hazards.

Chemical burns – Many maintenance workers are exposed to caustic cleaning agents and other chemicals, especially if they work within a petrochemical or pharmaceutical processing facility or lab. Chemical burns especially are dangerous because they are not always obvious and the worker's reaction to the substance may be delayed.

Chemical burns are different from heat burns because they generally produce no heat, although the worker likely could experience a burning sensation. The severity of a chemical burn will depend on the concentration of the substance to which the worker is exposed and the

length of exposure.

Arc flash burns – Intense heat emitted by an arc flash can severely burn the skin. If the individual is wearing the wrong gloves, an arc flash can melt the gloves on the hands.

Oil and liquids – Workers who are exposed to oil and other liquids will become uncomfortable and may later suffer from dermatitis. Wet or oily gloves also provide less protection. Workers who become too uncomfortable are likely to remove their gloves.

Temperature extremes – Many maintenance workers perform tasks outdoors year round, which exposes them to heat in the summer and cold in the winter, depending on the plant location. They also may be exposed to extreme temperatures within the facility, whether radiant heat or high temperatures from furnaces, hot water or equipment or cold temperatures from refrigeration. Moisture management often is an issue in warm and cold environments.

Bloodborne pathogens – Maintenance workers in hospitals and labs may be exposed to bloodborne pathogens and other biohazards. Sanitation duties in schools and other facilities serving the public can result in similar hazardous exposure.

Choosing the Right Gloves

Maintenance workers not only need the right hand protection for the task, but they require comfortable gloves that enhance their ability to do their jobs. Most maintenance personnel must have gloves with sufficient dexterity and tactile sensitivity to perform intricate tasks. They may, for example, handle small nuts and bolts when removing panels on machinery or replacing equipment parts.

Gloves also should fit and function in a way that conforms to the hand. Properly fitted gloves should follow the hand's natural shape to help reduce mechanical stress. Various studies indicate that ergonomically designed hand protection can help decrease repetitive motion injuries (RMIs) and related musculoskeletal disorders – especially in older workers who may not be able to manipulate objects as well as younger workers.

Grip is a factor in applications where maintenance workers must be able to securely grasp objects, especially in oily environments. Special coatings applied to some gloves allow workers to effectively grasp wet and oily objects without applying significant force.

Education

No single type of glove exists that will provide the protection maintenance workers require for the many tasks they perform. Leather gloves, for instance, have long been a favorite among this group because they are comfortable and perceived as providing a high level of cut protection. In reality, leather is a skin and can be cut—especially when it is wet or covered with oil.

Education is essential to worker safety. Glove boards instruct workers on what products to use for which applications. Workers also should be educated about signs of wear and when to replace their gloves for optimal protection.

Providing maintenance workers with the right gloves for their tasks not only decreases the risk of injury and boosts worker morale, it increases efficiency and compliance.

The logo for Ansell, featuring the word "Ansell" in a bold, black, sans-serif font. A thick, black, curved underline is positioned beneath the text, starting under the 'A' and ending under the 'l'.