

### THE DANGERS OF POWER

The utilities industry, which includes electricity, communication, gas, water and sewage, is among the most critical industries for the U.S. economy and way of life. It's also among the most dangerous for workers - particularly those involved in power generation, transmission and distribution.

The U.S. Bureau of Labor Statistics (BLS) reports that the incidence rate for nonfatal injuries in the electric power transmission, control and distribution sector was 74.3 per 10,000 full-time workers in 2020.<sup>2</sup> That's not surprising given the vast array of risks workers face, including handling energized equipment and working in situations that can put them high off the ground, in extreme temperatures or at risk of falling objects, flying debris and arc flashes.

According to OSHA, the most important hazards associated with utility work include:

- Electrocution
- Falls
- Confined spaces

- Fires and explosions
- Sprains, strains and fractures
- Environmental stress

Avoiding, minimizing and mitigating these risks requires a multi-pronged approach, which includes safety training, adherence to OSHA requirements and other standards and, importantly, the use of reliable, well-designed and comfortable personal protective equipment (PPE).

Honeywell PPE solutions are engineered to meet the safety needs of workers across all utilities and in a variety of work environments. They're also designed for comfort and convenience, so workers will be more likely to wear them appropriately and throughout their entire shifts.



<sup>1.</sup> https://www.dekra.us/en/organizationalsafety-reliability/content-page-104/

<sup>2.</sup> https://www.bls.gov/iif/oshwc/ osh/case/cd\_r8\_2020.htm

# UNDERSTANDING ELECTRICAL SAFETY: SALISBURY ASSESSMENTS & SAFETY TRAINING

#### A Total Compliance Solution Provider

Backed by our comprehensive safety solutions and electrical engineering expertise, our qualified team of industry experts works with you to create and maintain the safest electrical safety program possible.

#### **ARC FLASH ASSESSMENTS**

Keeping your employees safe involves a thorough assessment and audit of your facility, its hazards and potential risk levels.

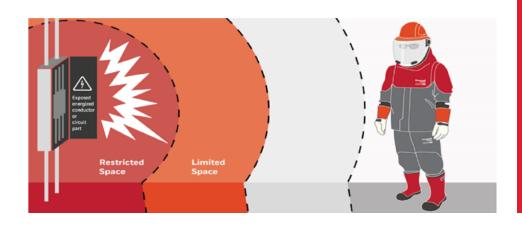
We are known for our extensive knowledge of electrical safety best practices and regulations. Our team has the expertise to work closely with facilities to analyze their electrical safety programs and offer individualized consultations and reports. Salisbury Assessment Solutions (SAS) also provides a wide range of services to assist you in ensuring your compliance with NFPA 70E and ASTM F18 standards, as well as OSHA government regulations.

#### **SAFETY TRAINING**

We offer a full range of training and continuous learning opportunities, including classroom and webinar options. Our programs follow federal OSHA regulations, NFPA 70E and IEEE 1584 calculation methods. Our courses are taught by experienced professional engineers (PE).

- 4-Hour Arc Flash and Shock Hazard for Maintenance Personnel
- 8-Hour Arc Flash and Competent Person
- Lockout/Tagout (LOTO)

#### Visit our website for more information





#### **AVOID WORKPLACE HAZARDS**

Working around energized equipment can be dangerous and unpredictable.

The most common causes of electrical injuries are: contact with power lines, ungrounded equipment, lack of ground fault protection, misuse of equipment and misuse of extension and flexible cords.

#### **FOLLOW SAFETY PROTOCOLS**

OSHA's electrical standards are designed to protect employees exposed to dangers such as electric shock, electrocution, fires and explosions. Our programs follow federal legislation and regulatory standards.

# ENGINEERED FOR COMPLIANCE AND COMFORT

#### There's a wide variety of PPE available for use in the utilities industry.

However, PPE that meets relevant OSHA requirements and other industry standards is more likely to provide the necessary protection that enables workers to do their jobs safely and with less risk of bodily harm.

Among other OSHA standards, the following apply to the utilities industry:

- Electrical General Requirements (1910.303)
- Electrical Wiring Methods, Components and Equipment for General Use (1910.305)
- Electric Power Generation, Transmission and Distribution (1910.269)
- Personal Protective Equipment, Subpart I (1910)
- Fall Protection (1926.501)

- Hazard Communication (1910.1200)
- Respiratory Protection (1910.134)
- Control of Hazardous Energy (1910.147)
- Excavations (1926, Subpart P)
- OSHA Technical Manual (OTM) Section V Chapter 2, Excavations: Hazard Recognition in Trenching and Shoring

Other standards to be aware of include:

- National Electrical Safety Code® (NESC®)
- NFPA 70E®, Standard for Electrical Safety in the Workplace®
- 1584-2018 IEEE Guide for Performing Arc-Flash Hazard Calculations



When it comes specifically to PPE, however, it's difficult to get workers to comply with standards and mandates for PPE usage if the equipment isn't comfortable. PPE is historically known to be hot and irritating after prolonged use.

Honeywell's PPE solutions incorporate features that make them compliant with a variety of industry and regulatory standards, as well as comfortable. By listening to what workers want, Honeywell delivers what they need.

# **EYEWEAR:**HONEYWELL UVEX AVATAR™ PLUS

**UVEX Avatar Plus offers a comprehensive** family of safety eyewear solutions that are engineered for comfort and functionality without compromising worker safety.

Protect your people with a range of upgraded safety eyewear products that are engineered with modern style features, ease of use and the latest technology advancements that combine all-day comfort with all-around functionality.

Workers are more likely to be safe when they keep protective equipment on, and they're more likely to wear it when it's more comfortable. That's what the entire line of UVEX Avatar Plus safety spectacles, over-the-glasses and goggle products provide - comfort and functionality that support compliance in the workplace while safeguarding against dust, airborne particles, and splash and impact hazards.



#### **FEATURES**

01. Micro-textured temples allow extended comfort, even when working conditions demand long hours and wear times

02. Hollowed temples balance technology and design while reducing weight and adding comfort

#### 03. High-performance Hydroshield lenses include patented anti-fog protection that won't wear or wash off in the most challenging and

diverse working conditions

04. Vented eyebrow pad reduces pressure on the wearer's face, even when working conditions demand long wear times

05. Flexible, textured floating nose that is interchangeable and allows customization to meet the wearer's preferences

06. Attachable components and personalization features, including 10 available replacement lenses with various tints and coatings

#### 07. Wrap-around, nine-base lens style provides uncompromised peripheral vision

for complete visibility, increased awareness and peace of mind on the job

08. Subtle green frame also serves as a visual indicator ensuring compliance with safety protocols



- · Available in a variety of styles, including over-theglasses, goggles and traditional safety spectacles
- Suitable for a wide range of industries, including: Manufacturing, Construction, Utilities, and Oil and Gas
- · Cater to individuals with vision impairments via diopters ranging from +1.5 to +3.0

### HARD HATS: E-1 FULL BRIM

The E-1 Full Brim model, part of Honeywell's Fibre-Metal® SuperEight™ SwingStrap™ line of hats and caps, is among the most comfortable hard hats available. It combines a 360° padded sweatband with the head-hugging stability and easy adjustment of a ratchet headband.

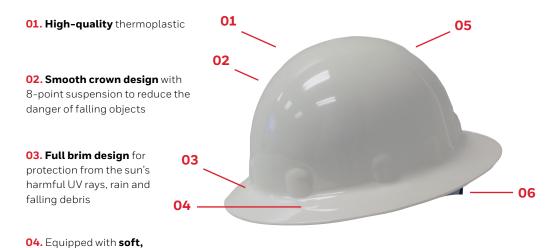
The non-vented, Type 1, Class E hard hat includes a full brim to help protect the face and neck from the sun, reduce glare and help shed rain. It also provides additional protection from vertical impacts, falling debris, and high-voltage conductors (up to 20kV).

The smooth crown design contains a technically advanced suspension with eight load-bearing points to stabilize and balance the hat during everyday wear. On impact, the hat dissipates force, spreading it over a greater area to reduce the risk of failure at any one point.



#### **FEATURES**

padded terrycloth sweatband



05. Headband can be tilted to a comfortable angle while the cap remains level and can also be raised, lowered or moved front-to-rear within the shell

06. Adjust head size by using rearlocated ratchet mechanism and tilting the headband

Complies with ANSI Z89.1 Type 1, Class E, G and C

Available in a wide range of popular, high-visibility colors and full graphic designs

<sup>\*</sup>For side impact protection when facing hazards like tree limbs and debris, consider the A119 Full Brim, Class E, Type 2 hard hat.

### HEAD SAFETY: PRISMSHIELD" PLUS

Colors in sight. Full safety on-site. The Honeywell Salisbury PrismShield Plus improves color recognition, general visibility and arc flash protection compared to existing face shields, especially when working in poorly lit electrical environments.

Electrical safety isn't complete without the PrismShield Plus. This reliable solution uses nanoparticle technology to help enhance color differentiation and improve light transmittance, all while helping protect workers from dangerous arc flash events and their effects. The double curved lens provides superior optical performance and helps reduce eyestrain. User comfort is heightened by a venting system that allows fresh air in from the bottom and helps moisture escape from the top.



#### **FEATURES**

#### 01. Double Curved Lens limits visual distortion and

greatly reduces eye strain

#### 02. Nanotechnology and improved shield transparency provide better visibility and color

recognition in poorly lit rooms

03. The weight balancing frame is an exclusive Honeywell Salisbury feature that increases comfort by reducing neck strain for users

04. Frameless design increases viewing area by over 20%



05. Venting allows usage for longer periods of time

03

06. Face shield is 3x more scratch resistant than the original PrismShield™ lens for an extended product life

#### **Agency Specifications**

#### NFPA 70E

Standard for electrical safety in the workplace

#### **ASTM F2178**

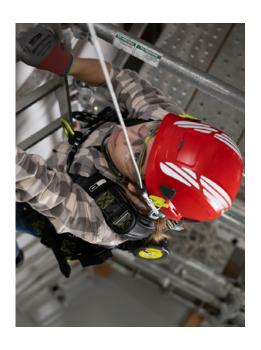
Standard test method for determining the arc rating and standard specification for eye or face protective products

Occupational and educational personal eye and face protection devices

# HEAD SAFETY: CLIMBING-STYLE SAFETY HELMET

Reach new heights in climbing safety with Honeywell's new Fibre Metal Type II Climbing Style Safety Helmet. Designed with protection and comfort in mind, this climbing helmet sets a new standard for worker safety with protective innovation and a comfortable, customizable fit.

With greater comfort comes increased use, and exceptional safety follows increased use. The liquid crystal polymer (LCP) yarn that comprises the six-point suspension strap system, along with non-Newtonian foam lining the helmet, combine technology and comfort to protect workers' heads without compromising body position or job productivity. Workers who wear the Fibre Metal climbing helmet can tackle the most challenging routes with confidence, knowing they have the best in protection, comfort and custom fit on their side.



#### **FEATURES**

- **01.** Impact force is distributed evenly across the shell on contact thanks to **proprietary** internal suspension technology
- 02. An embedded liner made of non-Newtonian materials enhances impactabsorbing performance
- **03. Suspension straps** knitted with LCP inlay yarns absorb impact and serve as an impact indicator inside the helmet

04. Fast-drying, moisture-wicking

materials in the adjustable chin strap provide comfort and fit, keeping the wearer dry thanks to accelerated sweat-evaporation technology

- 05. Adjust a custom fit to any head size with a quick, easy headband ratchet
- 06. Breathable 3D mesh in combination with one-way moisture transfer wicking fabric sweatband eases evaporation
- 07. Essential accessories such as visors, earmuffs, UV shades, and clips and nameplates are easily assembled with our 1-step adaptor
- 08. Increase user visibility and safety with reflective adhesive







### FOOT PROTECTION: DIELECTRIC OVERBOOTS

Think you can't have fit, comfort and protection all in one overboot? Think again. Protect your workers from step hazards with a 20,000-volt rating and a redesigned fit that takes the same proven protection from our classic dielectric overboots and adds ergonomic innovation for a more comfortable fit.

Engineered with a focus on providing a better fit, better safety and greater comfort, this overboot from Salisbury is designed to elevate your work experience. And don't forget convenience. Integrated handles, a wider opening and rear kick-off lugs make pulling these ELECTRIGUARD™ boots easy to use and an easy choice when workers find themselves in hazardous conditions.

#### **FEATURES**

01. Pull-up handles and a wider upper boot enable an easier, faster fit over standard work boots

02. Bright, easy-to-see color denotes ASTM F1117 20kV dielectric protection and make compliance easily identifiable

03. Reflective stripes enhance visibility and safety

04. Rear kick-off lugs make removal simple and quick

05. A nonskid bar-tread sole engineered from vulcanized rubber combines durability and traction without sacrificing comfort

06. A wider opening and nylon lining enable more accurate sizing and, as a result, provide a better, more comfortable fit

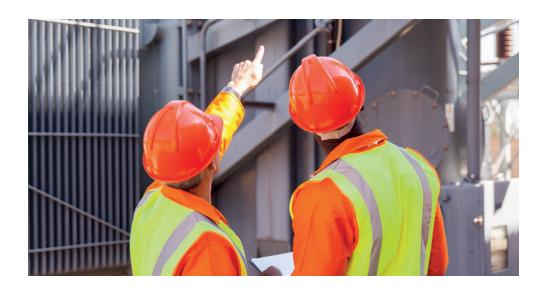


# **GROUNDING EQUIPMENT**

Energy demands are increasing like never before, and with more power moving through the grid comes greater risks for arc flash potential, resulting in worker injuries and equipment damage. As more powerful substations and transmission systems are built to feed that need, Honeywell has increased its commitment to keeping workers safe with a wide array of temporary protective grounding equipment that is compliant with the latest ASTM F855 standard specifications.

High-quality grounding equipment is crucial for protecting workers from electric shocks and equipment from being damaged. From grounding assemblies, sets and clamps to adaptors, connectors and clusters, Honeywell continues to engineer innovative grounding devices that provide workers with protection that is lightweight but durable and flexible and easy to use.

The demand for electric energy is not slowing down. As power capabilities increase, so does the potential for higher fault currents and asymmetry factors, commonly known as X/R factors. The best personal protective equipment helps save lives. Give your electrical workers the uncompromised safety they need to do their job on de-energized equipment and limit their potential exposure to arc flash events.





### **HAND PROTECTION: GLOVES**

Workers in harm's way need protection close at hand — literally. Reduce the potential for hand and arm injuries with high-performance products that help reduce exposure to injury from sharp objects, chemicals, heavy machinery and electric shock.

There is no shortage of hazards that can come between the work and the worker. Give them the safety barrier they need that allows them to do their jobs while limiting exposure to injury while increasing their dexterity and efficiency. Honeywell helps your team increase productivity without compromising their safety with a complete line of hand- and arm-protection products, including:



General Purpose Gloves



**Cut Resistant Gloves** 



**Heat Resistant Gloves** 



**Impact Gloves** 



**Chemical Resistant Gloves** 



Glovebox Gloves



**Protective Sleeves** 



Specialty Gloves



Class O Electrical Insulating Rubber Gloves (11- and 14-inch lengths)

### **SAFETY HARNESS:** REVOLUTION ARC **FLASH-RATED HARNESS**

The Revolution Arc Flash-Rated Harness provides exceptional protection when working at height from arc flashes and arc-blast exposure, as well as from the falls they can cause. It's also ideal for confined space projects when workers are near energized electrical sources.

The harness webbing is designed for safety as well as comfort. It features the durability and fire-retardant properties of Kevlar® on the outer side and the use of softer, fire-retardant Nomex® on the inside for greater comfort. The webbing assures arc protection and durability that surpasses that of any nylon webbing.

In addition, the PivotLink™ design allows unmatched freedom of motion and comfort while the unique cam buckles provide easy two-finger adjustment. The Kevlar web loop on the back pad provides a non-metal connection when using a Kevlar shockabsorbing lanyard with a choke-off loop.



#### **FEATURES**

**01.** Kevlar/Nomex Miller DualTech™. patent-pending, 10,000 lb tensile strength webbing

02. PivotLink design allows unmatched freedom of motion and comfort

03. Unique cam buckles provide easy two-finger adjustment

04. Leather insulators under all metal hardware offer additional protection for the worker

05. Kevlar web loop on the back pad allows for a "metal-less" connection when used with a Kevlar shockabsorbing lanyard with a choke-off loop

**06. Bright red binding** on every pad, making it easily identifiable as an arcrated product



07. Web Finials - clip-on design safely organizes webbing after proper adjustment

08. ErgoArmor™ Back Shield minimizes impact from sharp/ heavy snap hooks and selfretracting lifelines

09. Self-contained pack encapsulates labels minimizing damage and loss

Meets stringent ASTM F887-20 Arc-Flash standards and applicable OSHA, ANSI and CSA requirements

Modular attachment design provides connection points for belts, tools, accessories

<sup>\*</sup>For applications where arc protection is not required, but you are still facing extreme temperatures and require high levels of comfort and mobility, consider the Honeywell Miller H700 Premium Harness with built-in relief straps and improved breathability, heat and pressure dispersion.

### A COMMITMENT TO SAFETY

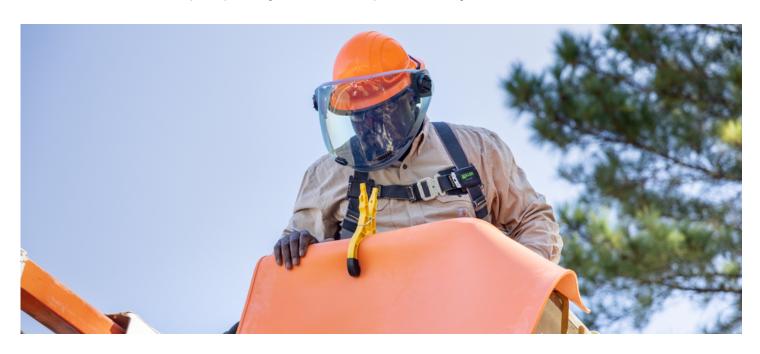
There are 675,775 people employed in the utilities industry in the U.S. as of 2022. Honeywell is committed to helping keep them safe with a broad range of safety solutions, including PPE.<sup>3</sup>

From protective eyewear and hard hats to arc-rated harnesses, these safety solutions incorporate leading-edge technologies, materials and design to offer optimal product reliability and protection against risks such as falls, arc blasts and flying debris.

They're also engineered for maximum comfort to enable workers to perform more confidently at heights, below the ground, in confined spaces, in extreme temperatures and wherever else they must work.

Honeywell draws upon worker input, ongoing research and its own vast industry experience to develop solutions that promote wearability and safety, help increase employee productivity and efficiency and minimize potential fatigue and distractions stemming from discomfort.

Learn about Honeywell's full line of safety solutions for the utilities industry, as well as for numerous others, at <a href="https://sps.honeywell.com/us/en/products/safety">https://sps.honeywell.com/us/en/products/safety</a>.



3. https://www.ibisworld.com/industry-statistics/employment/utilities-united-states/#:~:text=There%20are%20 675%2C775%20people%20employed.years%20

#### For more information

automation.honeywell.com

Honeywell PPE

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