PPE'S SUPPLY · 29

Above Neck PPE

Head, hearing, eye and face protection equipment enquiries.

Head Protection:

Here are some common types being used in different occupations:

- Hard Hats - widely used in construction, industrial, and manufacturing settings
- Helmets - specialized head protection gear designed for specific industries or activities

- Bump Caps
- Welding Helmets
- Electrically Insulating Helmets

Ear Protection:

Common types of hearing PPE used to prevent hearing loss:

- Earmuffs
- Earplugs (disposable or individually molded)
- Ear canal caps or semi-inserts

Eye Protection PPE:

Three main types of eye protection exist:

- Safety Glasses
- Goggles
- Face Shields

Face Protection PPE:

Face protection refers to the specific type of personal protective equipment (PPE) worn on the face, including safety glasses, goggles, respirators, and a variety of face shields.

This PPE covers the eyes, nose, and the rest of the face against workplace hazards like chemical burns, toxic airborne particles, and radiation, to name a few.

Workers in manufacturing, construction, mining, and healthcare are required to wear these as mandated by OSHA (Occupational Safety and Health Administration) and similar regulatory bodies.

According to the Centers for Disease Control (CDC), up to 2,000 workers suffer from eye injuries because of failure to use appropriate face protection PPE. A third of that number leads to emergency room treatments. Some are not as fortunate because the damage results in blindness. Worse, that is not the only danger workers face.

Below is a list of hazards that can be avoided by wearing face protection as protective equipment:

- Physical impact – Construction workers, carpenters, and miners are mostly at risk of fragments (e.g., wood chips, concrete chunks, metal slivers) entering, striking, or scraping the eye.
- Chemical splashes and thermal burns – Laboratory technicians, chemical plant operators, and wastewater treatment workers can suffer from these injuries when they handle caustic chemicals without the appropriate PPEs.
- Toxic fumes – Poisonous gas inhalation could irritate the airways or asphyxiate firefighters, airline personnel, cleaners, and medical personnel when they fail to wear respirators.
- Biological agents – Medical personnel, scientists, and laboratory workers are susceptible to communicable diseases, carcinogens, and mutagens that could put themselves and others at risk when they do not have protective gear.

- Heat and flame – Sparks or spatters from soldering or welding could hit the eye and skin, causing tissue lesions. Even the glare from furnaces or metal foundries may cause long-term damage to the eyes.
- Airborne particles – The WHO (World Health Organization) has established the connection between natural disasters that cause dry conditions (e.g., volcanic eruptions and forest fires) to eye and lung damage. The risk is greater for mine and construction workers exposed to a similar environment daily.

Types of Face Protection Equipment:

- safety glasses – Made from hard, clear plastic, these impact-resistant glasses have wide lens frames that cover the cheekbones.
- goggles – Also known as direct ventilated goggles, these tight-fitting goggles with foam or rubber around the lenses prevent the entry of fine particulates like construction debris into the goggles.
- shields – These are impervious to biological fluids. However, these should not be used when working with caustic liquids.
- Chemical splash goggles – This tight-fitting eye protection covers the upper half of the face, shielding the eyes from accidental chemical spatters.
- Laser safety glasses – As the name implies, this protective gear filters light from entering the eyes. This comes in different colors, depending on the wavelength of the light transmitted.
- Full face shields – Unlike the glasses and goggles described above, this covers the whole width of the forehead, extending from the top of the eyebrows down to the chin. It is made of hardened plastic, often with UV protection.
- Welding mask – Just like the full face shield, this covers the whole face. However, this is made of vulcanized fiberglass with a filtered lens to protect the face and the eyes from radiant energy, flame spark, and metal splatter.
- Respirator masks – The favored face mask of choice in healthcare facilities and other laboratory settings is the N95 as it's designed to fit closely to the face and can filter microscopic airborne particles.
- (Powered Air Purifying Respirator) – This eye and face protection covers the whole head up to the chest. Battery-operated and fitted with HEPA filters, the PAPR is worn in high-risk procedures where aerosol particles are generated.

Choosing the Right Equipment:

The ANSI (American National Standards Institute) establishes Standard Z87.1 as the criteria for eye and face protection. Employers should take note of this before purchasing PPE sets for their workers. Besides that, here are the other factors to consider:

- of the hazard – According to OSHA, the top two reasons for work-related facial injuries are wearing the wrong PPE and incorrectly wearing them. It is critical to choose the appropriate gear for the job. For instance, fluid-resistant shields should not replace chemical splash goggles, while general safety glasses won't completely protect you while doing hot work.
- Compliance with standards – There are numerous regulatory bodies that set specific mandates about eye and face protection. Review these standards before purchasing anything to ascertain your workers' safety.

- Comfort and fit – There are non-negotiables when using appropriate PPEs. But there are a few exceptions. Health workers with pre-existing respiratory conditions like asthma are recommended to wear PAPRs instead of the very constricting N95.
- Durability and maintenance – Validate that the gear is made from the appropriate materials to ensure complete protection. Take note also that while some require simple cleaning methods, others necessitate more complicated processes.

Training and education – Before compelling your workers to wear any PPE, it is crucial to understand why this is a must during toolbox and induction meetings. Proper donning and doffing procedures are not common knowledge and must be shared and carefully observed, particularly in healthcare. Even seemingly common sense reminders must be constantly given, like vacuuming dust from goggles or helmets before wearing them.

FAQ

Q. What does above-neck PPE cover?

Head, ear, eye and face protection: hard hats and helmets, earmuffs and earplugs, safety glasses and goggles, and face shields.

Q. Which head protection is available?

Hard hats, industry-specific helmets, bump caps, welding helmets and electrically insulating helmets.

Q. What types of hearing protection are there?

Earmuffs, earplugs (disposable or individually moulded), and ear canal caps or semi-inserts.

Q. What hazards does face protection guard against?

Physical impact from fragments, chemical splashes and thermal burns, toxic fumes, biological agents, heat, flame and sparks, and airborne particles.

Q. Who needs face protection?

Workers in manufacturing, construction, mining and healthcare, among others, as required by OSHA and similar regulatory bodies.

Useful details to share when you enquire

- Tasks, workplace hazards and product specifications
- Required quantities and wearer sizes
- Existing equipment and compatibility needs

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