

**CAUTION**  
**HARD HATS**  
**REQUIRED**

## Overview

Wearing a hard hat will reduce the likelihood of head injury. The user should carry out a workplace hazard assessment prior to the selection of an appropriate head protection device. Before discussing the components of the ANSI Z89.1 standard, it is important to first make a distinction between protective helmets (more commonly known as hard hats) and bump caps. Bump caps do not comply with the ANSI guidelines and are not acceptable for occupations or applications where OSHA requires an ANSI-compliant hard hat.

## Types of Hard Hats



Fig. 1

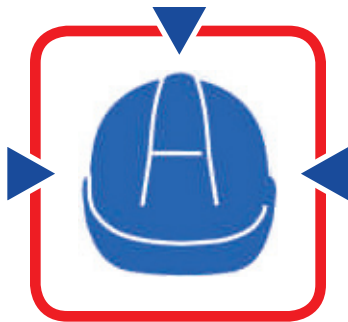


Fig. 2



### ANSI Type I and CSA Type 1 Hard Hats

- Intended to provide the user with protection by reducing the force of vertical impact resulting from a blow on the top of the head, as well as penetration to the crown only (see Fig. 1)
- May not provide enough protection against lateral impact or lateral penetration

### ANSI Type II and CSA Type 2 Hard Hats

- Intended to provide the user with protection by reducing the force of both vertical and lateral impact and penetration (see Fig. 2)

### ANSI Class E Hard Hats

- Non-conductive
- Must pass the dielectric-strength test of up to 20,000V by steps of 1,000V per second and maintained at 20,000V for 3 minutes

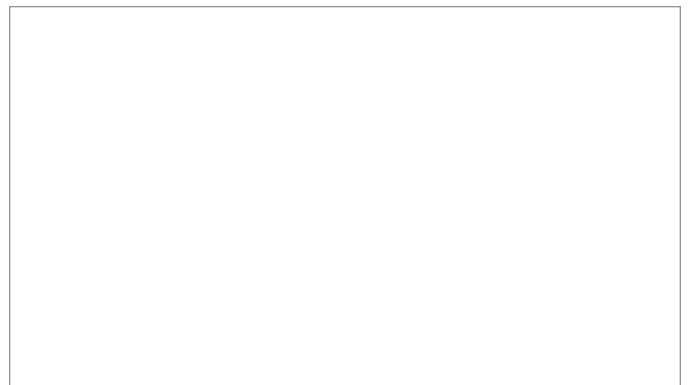
### ANSI Class G Hard Hats

- Non-conductive
- Must pass the dielectric-strength test of 2,200V for one minute

### ANSI Class C Hard Hats

- Does NOT meet the dielectric-strength requirements of Class E or Class G

NOTE: Hard hats that meet Class E or Class G dielectric-strength requirements must not be considered to be part of a protective system against electrical shock. They are intended to provide limited protection against electrical shock following accidental contact between the hard hat and live electrical apparatus.



## Hard Hat Inspection



Hard hats are an important safety feature in industries where employees may be at risk from falling objects or projectiles. A hard hat should be inspected for wear and tear and replaced on a regular basis, even if damage isn't visible.

There are two main components of a hard hat that work together to provide protection. Both need to be inspected regularly.

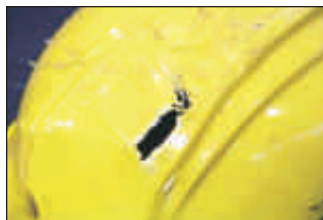
### Hard Outer Shell

- Inspect both inside and out for damage caused by penetrating corrosives or impacts to the surface
- Check for fading, flaking and shell softness

### Suspension System

- Connections and straps should be checked for tears, looseness and fraying
- Should hold the shell 1" to 1-1/4" (2.54cm to 3.18cm) away from the head

## Hard Hat Maintenance



During inspections, the hard hat should be cleaned to prevent additional wear on the materials.

- Clean hard outer shell with warm water and a non-abrasive soap
- Clean inside of the hat with a soft towel to remove hair, sweat and body oils
- Do not store or transport on rear window shelves of automobiles or anywhere in direct sunlight

### Time Frame

- Manufacturers usually recommend that a hard hat be replaced at least every two years
- Depending on the conditions to which the hat is exposed, it may need to be replaced more often

### Important Considerations

- Hard hats do not last forever
- Even if the hard hat looks fine after one to two years, it should still be replaced to ensure the highest level of safety
- Hard hats should be discarded and replaced after an accident
- If exposed to corrosive materials or hit by a falling object or projectile, the hat has served its purpose and its structural integrity has been compromised

### Additional Precautions

Proper record keeping can help track the life span of a hard hat and alert companies when it should be replaced. If a hard hat is purchased and stored according to the maker's recommendations, the effective countdown to replacement begins when the hat is put into service, not when it was made or purchased.