



Weekly Safety Meeting

Rebar Safety

Steel reinforcing bars, or rebar, are a common hazard on construction sites. The thin steel bars can stick out from construction projects and pose a hazard to workers who can cut or scratch themselves on the sharp ends. Workers that stumble or fall onto the exposed steel bars can be pierced or impaled on them, resulting in serious internal injuries and death.

To protect workers from this hazard, OSHA requires that rebar and other projections on the worksite "be guarded to eliminate the hazard of impalement." Guarding from rebar impalement hazards must be done when workers will be working around or at any height above exposed rebar. This also includes work situations where rebar is below grade or in a basement.

Impalement protection is managed by using protective guard systems to cover the protruding ends. Steel reinforced rebar caps provide the strongest and best impalement protection for workers.

Rebar Hazards:

Utilizing rebar on the job can cause the tripping/impalement hazards when the following occurs:

- Concrete formwork pins are protruding at low levels;
- Concrete footing rebar is protruding into walking spaces;
- Rebar is protruding from concrete foundation work; and
- Rebar scraps are left lying about the jobsite.

Protective Guard Systems:

Guarding from rebar impalement hazards is important when rebar is situated around, below, or above any working areas. Using steel-reinforced rebar caps to cover the protruding ends of rebar are a highly effective method of reducing the danger of worker impalement. It is important to make sure rebar caps are sturdy and level when they are applied.

Types of rebar caps:

Square Rebar Caps: The metal plate inside the flat part of the caps provides protection. Caps should be at least 4" square.

Round Rebar Caps: Also known as "mushroom" caps or "scratch" caps as they provide scratch protection when working around in-place rebar, they should have a 4.5" diameter.

Wood Troughs: Lumber, or similar materials, can also be manufactured to build a continuous cap for an entire row of rebar.

Bending Rebar to Avoid Impalement:

Another way to protect workers from impalement hazards on site is by bending or using pre-bent rebar. This typically means that the rebar is bent in such a way that the protruding end of the rebar is pointing toward the ground. If this is an option on your worksite, find the proper materials if available, or the tools along with someone who is qualified to bend rebar, in order to eliminate the hazard. Bending rebar is a somewhat permanent solution, as it does not easily bend back into a vertical position.

Best Practices:

- All jobsite employees should be trained to recognize when rebar becomes a hazard.
- Routinely pick up scrap rebar to prevent trip hazards.
- When caps are not available, bend rebar over or cap with a 2x4 "L" to protect employees from injury.
- When rebar is being hoisted "stay clear." Rebar can easily slip out of mats and cages.
- Cover exposed rebar with the correct protective cap.
- Cap all rebar that someone could fall on.

Remember:

Workers should be vigilant around exposed rebar ends. Fall prevention is the first defense and covered rebar ends are extra insurance against impalement in case of a fall. With the focus on safety and protected rebar ends, this is one safety point workers will be glad to miss.

If a cap can be fitted on the exposed rebar, then cap it. If you can fall on the rebar, then cap it. If it fits in a cap, then cap it (i.e. steel grade stakes).

LOOK FOR HAZARDS...THINK OF SOLUTIONS!!

