Rebar Impalement Protection Meeting Kit

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.

REBAR ? A BLESSING OR A CURSE

Steel reinforcing bars?rebar?are a common safety hazard on construction sites. These steel bars can cut, scratch, pierce, and impale workers, which can result in serious internal injuries and death. Rebar is used on almost every job site.ÿ All protruding rebar is hazardous. Employees can fall on protruding rebar, creating major and even life-threatening injuries.

MAIN REBAR HAZARDS

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

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

OTHER TYPE OF REBAR HAZARDS

Some other hazards associated with working with rebar include pinch points, striking other works, muscle strains due to heavy lifting, tripping, and falling hazards, etc. Unguarded protruding steel reinforcing bars are hazardous.

Careless handling of reinforcement steel can lead to safety hazards resulting in serious injuries, even death.

- Rebars from concrete protruding in walking spaces
- Concrete formwork bars protruding at low levels
- Rebar scraps left unattended on the worksite
- Workers not using appropriate safety equipment to mitigate risks.

FALL AND IMPALEMENT PROTECTION ? TWO LEVELS

Fall prevention methods such as guardrails and personal fall protection systems are the first level of protection for workers. These should be used any time workers are exposed to potential falls of ten feet or greater.

The next level of impalement protection is to use protective guard systems to cover the protruding ends. Steel reinforced rebar caps provide the strongest and best impalement protection for workers. Proper protective rebar caps should be at least four-inch square or, if they are round, they should have a 4 1/2-inch diameter.

Rebar caps. Some rebar caps are too narrow or not steel reinforced. If a worker falls on a standard plastic cap, the impact pressure can push the rebar through the cap and impale the worker. Standard mushroom rebar caps and/or covers are only appropriate to prevent cuts, abrasions, or other minor injuries when workers are working at grade with rebar and when there is no impalement hazard.

Long 2 x 4 wood caps or other manufactured troughs can be used to effectively protect exposed rebar. Protective rebar caps and troughs must have passed a drop test of 250 pounds from 10 feet above to prove that they can protect against impalement. If you construct protective wood troughs on the job site, they should be built according to a registered engineer?s drawings, or to Cal/OSHA specifications.

Fall prevention is the first defense and covered rebar ends are extra insurance against impalement in case of a fall.

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 is a highly effective method of reducing the danger of worker impalement.

THE BEST GENERAL SAFETY WORK PRACTICES WHEN WORKING WITH REINFORCING STEEL

- Educate all employees handling reinforcing steel about the possible hazards.
- Stay clear of the area when the rebars are hoisted.
- Protect the protruding ends of reinforcing steel with safety caps.
- Adequate lighting and signage should be present on the worksite.
- Restrict access to dangerous areas.
- Have a plan ready in case an injury occurs.
- Ensure you have a clean and tidy workplace.
- Wear all the PPE including hearing and fall protection harness.
- 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 2×4 ?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.

TAKEAWAYS ? Lines of Defenses

- Guard all protruding ends of steel rebar with rebar caps or wooden troughs.
- Provide fall protection when working at height above exposed rebar.

FINAL WORD

Everyone in the construction site should be vigilant around exposed rebar ends. Fall prevention is the first line of defense and covered rebar ends add extra insurance against impalement in case of a fall. Be aware of the hazards working around the

protruding rebar at construction sites. Your prompt actions could save you and someone?s life