

Nail Gun Safety

Safety Meeting Packet

Protect Your Workforce



Nail guns are common to the construction site, but lead to many work injuries every year. The Centers for Disease Control and Prevention (CDC) reported that there was an average of 22,200 emergency room visits annually between 2001-2005 for work-related nail gun injuries, alone.

Proper training on the identification and use of nail guns, along with establishing work procedures and providing protective equipment can help to limit the likelihood of an injury.

Triggers

Nail guns employ different trigger mechanisms. It is important to identify the type of trigger that is being used to avoid accidental discharge and injury.

Full Sequential

Full sequential triggers must be engaged in a specific order to fire. The safety tip must first be pushed into the work material, and then the trigger is pressed. Both the trigger and safety tip must be released and re-activated to fire another nail. Both the Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH) recommend using nail guns with the full sequential trigger.

Contact

A contact trigger will fire a nail when the trigger and safety contact are both activated, regardless of the order in which they are engaged. The trigger does not need to be released to fire another nail. Instead, the operator can hold the trigger and push the safety contact to fire additional nails. This is often referred to as 'bump' or 'bounce' nailing.

Single Sequential

Must be engaged in the same order as a Full Sequential trigger. The trigger must be released and pressed again to fire a second nail, but the safety contact can remain pressed against the work piece and does not need to be released between nails.

Single Actuation

Like a contact trigger, a nail can be fired by engaging the safety contact and trigger in any order. The trigger must be released and pressed again to fire a second nail.

Common Causes of Injury

There are several common ways that workers are injured with nail guns. It is important to be aware of the risks to avoid injury.

Double Fire

A double fire occurs when the nail gun makes second contact with the workpiece after recoiling from the first discharge. This type of discharge occurs with Contact triggers, because the recoil happens quicker than the worker can release the trigger.

Unintended Discharge

Nail guns can accidentally discharge when the worker engages the trigger and then mistakenly contacts an item with the safety contact, causing the nail gun to fire. Unintended discharge occurs with Contact and Single Activation triggers.



Nail Penetration

Penetration occurs when a nail passes through the work material and strikes the worker or exits as a projectile. Knots in the wood can deflect the nail and cause it to exit the material in a different direction. The risk for injury is higher due to penetration when the work piece needs to be held while it is nailed.

Missing the Work Piece

Occasionally, especially when nailing near the end of a piece, the tip may miss entirely, causing the nail to become airborne.

Positioning

Holding the nail gun in awkward positions, such as above the shoulder or in tight spaces, make it harder to control the gun and can increase the chance of injury.

Bypassed Safety Mechanisms

Disabling safety features of a nail gun increases the likelihood of an unintended discharge and injury as a result. OSHA requires that power tools be maintained in a safe condition.

Improving Worksite Safety

Employers should be proactive to improve nail gun safety and reduce the likelihood of injury.

Work Procedures

Setting nail gun work procedures can improve worksite safety and ensure that nail guns are being used consistently. When developing work procedures, consider including procedures to:

- Inspect nail guns and their power sources to ensure that they are in proper working order.
- Watch for items in or on the work material that could cause ricochet or recoil, like knots, nails, straps, and hangers.
- Disconnect the power source when clearing jammed nails, traveling on a ladder or stairs, performing maintenance, handing the nail gun to another person, or leaving a nail gun unattended.
- Discharge the nail gun away from the operator and others.

The employer can also establish procedures for managers or supervisors to aid in creating a safe environment. Consider procedures to:

- Provide manuals for all tools used on the jobsite.
- Ensure workers understand the manufacturer's labels and instructions.
- Only allow workers who have been trained to use nail guns.

Personal Protective Equipment

Personal protective equipment (PPE) can help protect the worker against injury while using a nail gun. Several types of protective equipment can protect the worker from a nail gun injury.

- Safety shoes
- Hard hats
- High impact eye protection
- Hearing protection



Training

When training employees, identify the types of triggers that are used and how they may create different risks for injury. Also, review established work procedures and identify the personal protective equipment that should be used when operating a nail gun. In addition to providing instruction, include hands-on training so workers can learn to properly load and fire the nail gun and operate the air compressor. The employer should also provide training on properly holding lumber during placement, identifying ricochet-prone surfaces, and working in awkward positions. Hands-on training also allows the employer to visually identify that the worker understands how to properly use the nail gun.

- Review the types of triggers and the differences between them.
- Identify the nail guns and trigger type(s) used in the workplace.
- Review the common causes of nail gun-related injuries and how they can be avoided.
- Discuss other possible causes of injury.
- Emphasize the importance of not tampering with safety mechanisms.
- Review the company's work procedures related to nail gun use.
- Discuss the procedures for inspecting a nail gun prior to use.
- Identify when the nail gun should be disconnected from its power source.
- Review personal protective equipment that is provided.
- Discuss the purpose of the training program and that employees are not permitted to use a nail gun until training is complete.

For additional information, please review these OSHA standards:

- Personal Protective Equipment 29 CFR 1910, Subpart I
 - Power-Operated Hand Tools 29 CFR 1926.302
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Nail Gun Safety

Safety Meeting Attendance Acknowledgement

Company Name _____
 Department / Division _____
 Meeting Date & Time _____ AM PM
 Meeting Location _____
 Name & Title of Individual Conducting Meeting _____

Key Meeting Discussion Points / Important Reminders:

- _____
- _____
- _____
- _____

Internal Procedures Reviewed:

- _____
- _____
- _____
- _____

By signing this document, you confirm your attendance at the meeting and acknowledge the issues addressed above!

Employees in Attendance		
(Print): _____	(Print): _____	(Print): _____
(Sign): _____	(Sign): _____	(Sign): _____
(Print): _____	(Print): _____	(Print): _____
(Sign): _____	(Sign): _____	(Sign): _____
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(Print): _____	(Print): _____	(Print): _____
(Sign): _____	(Sign): _____	(Sign): _____

Employees not present: _____

Suggestions/Recommendations to improve workplace safety and health: _____

Actions Taken: _____

Manager/Supervisor: _____ Date: _____

Disclaimer:

The information provided above was assembled using multiple resources. However, these materials do not contain ALL the information available regarding the required safety standards under local, provincial, state, or federal law for your industry.
