

Handling Powder Actuated Tools (PATs) Safely Meeting Kit



What's At Stake

A powder-actuated tool (PAT) is a tool that gets its power from an explosive charge. The tool uses the expanding gas from the explosion to drive a fastener into materials such as masonry, concrete, steel, and other hard surfaces.

What's the Danger

AS DANGEROUS AS A FIREARM

Powder-actuated tools drive studs by power from an explosive charge. Their operation is similar to a firearm, and they can be just as dangerous if used carelessly.

MANY HAZARDS INVOLVED

Many hazards are involved in using these tools. These include the following:

1. Flying particles of dirt or scale, or particles discharged from the work surface the stud enters.
2. Using too heavy a charge for the material. This can result in the stud being shot completely through the work.
3. Studs ricocheting if the tool is not held properly or is being used on too hard a material.
4. Fire hazards from using the tool when flammable or explosive dust or fumes are present.
5. Using the tool powder charges in firearms or using firearm blanks in powder-actuated tools.

HOW TO PROTECT YOURSELF

FOLLOW BASIC PROCEDURES

- Keep the tool and unspent powder loads locked up and away from kids. Injuries and deaths have occurred when ricocheting projectiles have struck bystanders, or when people have tried to use common nails in stud guns.
- Use safety goggles (not safety glasses) and hearing protection when working with stud guns.
- If the tool is dropped, check for damage to the barrel and other moving parts and don't use the PAT until it's repaired.

SAFE PRACTICES FOR POWDER-ACTUATED TOOLS:

- Before use, the operator must inspect to verify that the tool is clean, all moving parts operate freely, the barrel is free from obstructions, and correct shields, guards, or safety attachments recommended by the manufacturer are in place.
- NEVER point a powder-actuated tool at anyone, whether it is loaded or unloaded! Handle as you would a firearm.
- A powder-actuated tool should never be loaded until it is ready for use.
- Any defective or poorly working tool should be immediately removed from service and tagged as unsafe.
- Always wear proper personal protective equipment (PPE) when operating powder-actuated tools.
- Powder-actuated tools should not be used in areas where flammable or combustible atmospheres may be present – the tool is a source of ignition and could cause an explosion.
- When operating a powder-actuated tool, press and hold the tool firmly against the surface into which the fastening device is being driven.
- Never drive a fastener into a “spalled” or chipped surface, such as an uneven area where a previous fastening was unsatisfactory.
- Never shoot a fastener into a surface unless you are certain it will contain the fastener. Take time to examine both the surface and the object being penetrated to assure your safety as well as the safety of others. The fastener can pass completely through the material and turn into a flying projectile.

GENERAL SAFETY PRINCIPLES TO FOLLOW WHEN USING POWDER-ACTUATED TOOLS

- Allow only trained, competent and authorized persons who are familiar with the regulations governing the use of the tool to operate powder-actuated tools (also known as explosive actuated fastening tools).
- Powder-actuated tools operate like loaded guns. Handle powder-actuated tools with the same respect and safety precautions as guns.
- Use the manufacturer’s information as a guide for safe operation and maintenance of the tool.
- Wear safety glasses or goggles, or a face shield (with safety glasses or goggles) and a hard hat.
- Wear hearing protection.
- Brace yourself at all times when working on ladders or scaffolds to maintain good balance.
- Keep tools pointed in a safe direction. Never point powder-actuated tools at anyone.
- Load powder-actuated tools just before use. Do not carry loaded tools from job to job.
- Do not leave loaded powder-actuated tools unattended.
- Do not allow bystanders near the work. Shields for protecting workers against a possible ricochet may be necessary in the working area.

HOW TO CARE AND SERVICE A POWDER-ACTUATED TOOL

- Clean and maintain tools according to the manufacturers’ instructions.
- Check tools before use to ensure that they are in good working order.
- Tag defective tools “Out of service” and remove from service until properly repaired.
- Store tools and cartridges in a locked container when they are not in use. Ensure that the tool is unloaded before storing it.

FINAL WORD

A powder-actuated tool is just like a loaded gun. Anyone who operates one of these tools must be specially trained in their safe use and must understand and respect

their potential deadly force.