

Using Powder-Actuated Tools Safely

Powder-actuated tools can make your work easier, but these tools are as dangerous as loaded guns. This is why you must be specially trained and certified to use them.

A powder-actuated tool uses a powder charge the way a gun shoots a bullet. It “shoots” a fastener or stud into hard surfaces such as concrete, brick or steel. Like bullets, improperly shot studs can injure or kill workers. The power loads for powder-actuated tools are essentially blank cartridges. They’re color coded for power level. All powder-actuated tools are equipped with special guards and muzzle fittings to keep you from getting hurt by a ricocheting stud or chips of flying masonry. The tool won’t fire without such guards. Know and follow these safety rules for using powder-actuated tools:



- Always read and follow the manufacturer’s warnings, recommendations and procedures.
- Always treat the tool as if it were a loaded gun.
- Never put your hand over the muzzle or drop the tool or point it at anyone.
- Always unload the tool to transport or store it.
- Keep the tool unloaded until you’re ready to drive a stud. Never leave it unattended when it’s loaded.
- Like a gun, a powder-actuated tool has a kick. Brace yourself when using it, especially when on ladders or scaffolds.
- Never use a powder-actuated tool in an explosive or flammable area.
- Before using the tool, inspect it. Make sure it’s undamaged and that the barrel is unobstructed.
- Always wear eye and hearing protection when using this type of tool.
- Before loading the tool, always make sure that the chamber is clean.
- Always follow the manufacturer’s instructions to select the correct power load for the material you’re firing into.
- Before using the tool, test drive a fastener with a hammer to double-check that the surface is really the concrete or steel surface you think it is. Studs accidentally fired into wood, plasterboard, lath or plaster will go right through the material and come out the other side with the force of a bullet.
- Make sure no one is working behind your material.
- Avoid firing into brittle materials, such as glass bricks, tile or cracked concrete or stone, which are likely to shatter and injure you.
- To drive a stud, press the tool firmly against the surface at right angles.
- Fire studs well away from the edge of the surface or any holes—at least a half inch for steel and 3 inches for concrete.
- If the tool misfires, keep holding it firmly against the surface for 30 seconds, then try firing it again. If it still won’t fire, wait another 30 seconds, so that the faulty cartridge is less likely to explode, and then carefully remove the load. The faulty cartridge should be put in water.
- Clean and maintain your tool according to instructions and use only factory replacement parts.