



086: Tools—Powder-Actuated Tools

General requirements

Only qualified operators should operate these tools. Powder-actuated tools are, in essence, firearms—and deserve the same level of respect and care.

As with firearms, anyone near the area of operation must wear hearing protection.

Unlike firearms, operators and anyone nearby must wear face protection—not just safety glasses—because of the proximity of the point of impact.

Always inspect the tool before use. A misfire can be lethal, so err on the side of caution.

Never load a tool until you are ready to use it. Unload the tool before breaks. Never leave a loaded tool unattended—unload it.

Do not leave loads unattended. If you do not have a way to lock up unused loads, leave them with your foreman or another person designated for that purpose.

Never point the tool at any person, whether it is loaded or not. Point it toward the ground, any time it is out of its case and not being used.

Rope off the work area and post the appropriate warning signs.

Use the correct tool for the application. For example, don't use a low velocity tool in a high velocity application or use a high velocity tool in a medium velocity application.

Use the appropriate powder charge for the application. You can determine the powder load by observing the color of the load (gray, brown, green, yellow, red, or purple) and the case color (brass or nickel). Nickel cases always have a higher energy level than brass ones. Caseless loads are in the six lowest energy levels.

Determine base material suitability prior to using the tool.

Determining base material suitability

- Using a fastener as a center punch on the base material you intend to use, strike the fastener with one sharp blow.
- If the tip left a clear impression in the material and the point of the fastener is not blunted, proceed with the first test fastening.
- If the tip didn't leave a clear impression in the material or if the tip of the fastener is now blunted, the material is too hard.
- If the material cracks or shatters, the material is too brittle.
- If the fastener sinks into the material, the material is too hard.

Limitations

Do not use these tools in the presence of flammable gases, vapors, or dust. Do not use in the presence of other explosive materials.

Do not drive the fastener into an existing hole, unless you use a manufacturer-supplied guide for that purpose.

Do not drive fasteners into very hard or brittle materials unless you have fasteners and charges designed for that purpose. Such materials include cast iron, glazed tile, glass block, face brick, and hollow tile.

Discussion leader duties for this session:

Obtain a powder-actuated tool and base material for demonstrating safe use.

What this Safety Talk covers:

Cautions and concerns particular to powder-actuated tools. This is not a substitute for training or qualification, which only a manufacturer-certified trainer may administer.

Discussion notes :

