



Pneumatic (air) tools are powerful, efficient, and widely used on construction sites and in shops. They're safer than some electric or gas tools in certain situations, but they still present serious hazards if not used correctly.

Common Pneumatic Tools

Examples you might see on site: Drills, grinders, impact wrenches, nailers, staplers, riveters, sanders, saws, screwdrivers

All air tools must be **maintained in good condition** and used according to the **manufacturer's instructions**.

Hazards

Flying Attachments or Fasteners

Attachments or fasteners (nails, staples, bits) can come loose and strike workers.

Controls:

- Use **safety clips/retainers** on impact tools.
- Nailers/staplers at 100 psi or more must have a **safety device** that prevents firing unless the muzzle is firmly pressed against a surface.

Hose Disconnection and Whipping

A pressurized hose that disconnects can whip violently ("flogging") and injure workers.

Controls:

- Ensure **all hose connections are secure**.
- Use **positive locking devices** or **whip checks** between hose and tool/line.

- Follow **manufacturer pressure limits** on hoses, valves, fittings.
- Hoses over 1/2" inside diameter must have a **safety device at the source** to reduce pressure if the hose fails.

Hose Failure and Trip Hazards

Damaged hoses can burst; poorly routed hoses cause slips, trips, and falls.

Controls:

- Inspect hoses for **cuts, bulges, cracks, kinks, deterioration**—tag and replace if defective.
- Use hoses designed to resist **abrasion, cutting, and crushing**.
- Route hoses so they **don't cross walkways** whenever possible.

Accidental Tool Activation

Tools can fire unexpectedly if triggered or if someone trips over the hose.

Controls:

- Disconnect the air supply when tools are **not in use, unattended, or being serviced/adjusted**.
- Keep fingers off triggers until ready to work.

Attachments, Connections, and Setup

- Double-check that **attachments and hoses are securely connected**.
- Inspect **gauges, connectors, hoses, and guards** before use.
- Install quick disconnects with the **male end on the tool, not the hose**.
- Use **whip checks, chains, or other positive locking devices** for extra protection.

(continued)

PPE and Work Area Protection

- Always wear: **Safety glasses or goggles** (face shield as needed)
- **Hearing protection**
- **Closed-toe, closed-heel shoes** or safety boots
- Set up **screens or shields** if others may be exposed to flying chips, fragments, or dust.

Compressed Air Use

- **Never blow compressed air at yourself or another person.**
- Avoid using compressed air to clean surfaces or equipment unless specifically allowed and controlled.
- For cleaning, air must be **reduced to ≤30 psi** and used only with **effective chip guarding and proper PPE.**

General Safe Practices

- Read and **understand the manufacturer's instructions** before use.
- Only **trained workers** should operate pneumatic tools.
- Keep tools **clean, lubricated, and properly maintained.**
- Remove damaged tools from **service immediately** and report them.
- Turn off air at the source when tools are **not in use or when changing tools.**