

Powered Hand Tools

Powered Hand Tools - Pneumatic Tools - Basic Safety

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What are pneumatic tools?

Pneumatic tools are powered by compressed air. Common types of air-powered hand tools used in industry include:

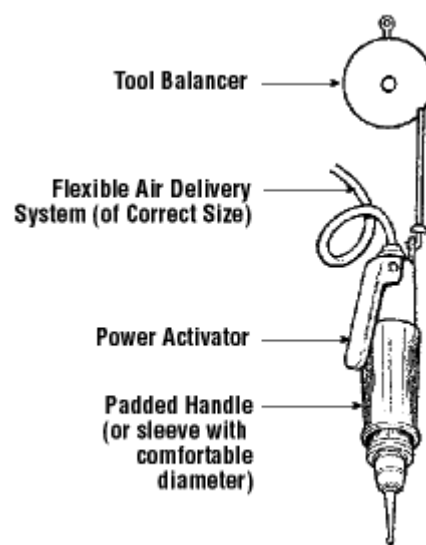
- Buffers
- Nailing and stapling guns
- Grinders
- Drills
- Jackhammers
- Chipping hammers
- Riveting guns
- Sanders
- Wrenches

These tools are versatile and efficient, but they require proper handling and maintenance to ensure safe operation.

How do you use pneumatic tools safely?

- Review and understand the manufacturer's instructions before using a tool.

- Wear safety glasses or goggles, or a face shield (with safety glasses or goggles), and, where necessary, protective footwear and hearing protection.
- Use low-vibration tools, or tools with an auto-balance system or anti-vibration handle. [Vibration](#) can cause changes in tendons, muscles, bones and joints, and can affect the nervous system, including the development of [Raynaud's Phenomenon](#).
- Post warning signs where pneumatic tools are used.
- Set up screens or shields in areas where nearby workers may be exposed to flying fragments, chips, dust, and excessive noise.
- Ensure that the compressed air supplied to the tool is clean and dry. Dust, moisture, and corrosive fumes can damage a tool.
- Use an in-line regulator filter and lubricator to increase tool life.
- Keep tools clean and lubricated.
- Maintain tools according to the manufacturer's instructions.
- Use only the attachments that the manufacturer recommends for the tools you are using.
- Install a safety cable or a whip check to prevent uncontrolled hose movement if a connection or coupling fails.
- Prevent hands, feet, or body from being in the path of the tool in case the machine slips or the tool breaks.
- Support heavy tools with counter-balances or tool balancers wherever possible to reduce physical fatigue.
- Keep your hands and fingers warm when using vibrating tools. Wear cold-resistant gloves or install an insulating sleeve on the tool handle if it is made of metal.



How should you handle air hoses?

- Use the proper hose and fittings of the correct diameter and rating for the tool.
- Use hoses designed to resist abrasion, cutting, crushing, and failure from continuous flexing.
- Choose air-supply hoses that have a minimum working pressure rating of 1035 kPa (150 psig) or 150% of the maximum pressure produced in the system, whichever is higher.
- Check hoses regularly for cuts, bulges, abrasions, or other damage. Tag and replace defective hoses immediately.
- Blow out the air line before connecting a tool. Hold the hose firmly and direct airflow away from yourself and others.
- Make sure that hose connections fit properly and are equipped with a mechanical means of securing the connection (e.g., chain, wire, or positive locking device).
- Install pressure-release quick disconnects instead of disengagement-type connectors. Attach the male end of the connector to the tool, NOT the hose.
- Do not operate the tool at a pressure above the manufacturer's rating.
- Turn off the air pressure when the hose is not in use or when changing tools.
- Avoid creating trip hazards by laying hoses across walkways or leaving them curled underfoot.



What should you avoid when using compressed air?

- Do not use compressed air to blow debris or to clean dirt from clothes. **Cleaning with compressed air is dangerous.** See [Cleaning with Compressed Air](#) for more information, including the laws that may apply.
- Do not exceed the manufacturer's specified pressure rating for tools, hoses, or fittings.
- Do not carry a pneumatic tool by its hose.

- Do not direct compressed air at others.
 - Do not operate without proper personal protective equipment, including eye and face protection, hearing protection, gloves, protective footwear, and respiratory protection, if necessary.
 - Do not use compressed air near flammable materials, combustible dusts, or in areas where there is a risk of fire or explosion.
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