

Compressed Air Safety

WHY THIS MATTERS

Compressed air is one of the most misused tools on a job site. Factory air lines run at 80–120 PSI — enough to penetrate skin, rupture eardrums, cause fatal air embolisms and blast debris into eyes. OSHA 29 CFR 1910.242(b) limits cleaning pressure to under 30 PSI with chip guarding. Even pressures as low as 5–10 PSI can cause serious injury on exposed skin.

30 PSI

OSHA max pressure for cleaning (29 CFR 1910.242)

120 PSI

Typical factory air line operating pressure

5 PSI

Can still cause injury on exposed skin

5 Rules for Compressed Air Safety

Every worker using compressed air must follow these rules:

- 1 NEVER EXCEED 30 PSI FOR CLEANING**
OSHA 1910.242(b) — reduce nozzle pressure below 30 PSI with effective chip guarding.
- 2 NEVER AIM AT PEOPLE**
Air entering the body through skin, ears or mouth can cause embolism, rupture or death.
- 3 WEAR PPE — ALWAYS**
Safety glasses, face shield and hearing protection required when using blow guns.
- 4 INSPECT HOSES AND FITTINGS**
Check for cracks, worn couplings and whip-check cables before connecting.
- 5 SECURE HOSE CONNECTIONS**
Use whip checks or safety cables on every coupling — a disconnected hose becomes a whip.

Before You Start — Quick Checklist

- | | |
|--|---|
| <input type="checkbox"/> Is the nozzle pressure set below 30 PSI? | <input type="checkbox"/> Is chip guarding in place? |
| <input type="checkbox"/> Are you wearing safety glasses and hearing protectio... | <input type="checkbox"/> Are all hose connections secured with whip checks? |
| <input type="checkbox"/> Are hoses free of cracks, cuts and worn fittings? | <input type="checkbox"/> Is anyone in the blow path who could be hit? |

What Compressed Air Can Do to the Body

- Air Embolism:** Air entering through an open wound or the skin can reach the heart or brain — potentially fatal.
- Eye Injuries:** Debris propelled by compressed air is a leading cause of eye injuries in manufacturing.
- Ruptured Eardrum:** A jet of air directed at the ear can perforate the eardrum and cause permanent hearing loss.
- Lung Damage:** Air blown into the mouth can rupture the lungs and damage the esophagus.
- Skin Penetration:** Compressed air can penetrate the skin even through clothing — as low as 5-10 PSI.
- Noise Exposure:** Blow guns can exceed 90 dB — enough to cause hearing damage over time. Use low-noise nozzles.

Common Mistakes That Cause Injuries

- ✗ Using compressed air to clean clothing or skin — can cause embolism or skin penetration
- ✗ Horseplay with air guns — aiming at a co-worker's ear, face or body is never a joke
- ✗ Forgetting chip guarding — debris ricochets back into eyes and face at high speed
- ✗ Skipping whip checks — a disconnected hose at 120 PSI becomes a deadly whip

Safety Tips to Remember

- ✓ Always reduce nozzle pressure below 30 PSI before cleaning — verify with a gauge
- ✓ Use safety nozzles with built-in pressure relief and chip guards
- ✓ Secure every hose connection with a whip check or safety cable
- ✓ Never use compressed air on yourself or another person — no exceptions

Discussion Questions for Your Team

1. Have you ever seen someone blow off their clothes with compressed air? What are the risks?
2. Do our air lines have pressure regulators set below 30 PSI for cleaning?
3. Where are the whip checks on our hose connections — are any missing?
4. What would you do if a hose suddenly disconnected under pressure?
5. Are all our blow guns equipped with safety nozzles and chip guards?

TOOLBOX TALK SIGN-OFF

Date: _____

Supervisor: _____

Project: _____

Location: _____

Attendance sheet attached: [] Yes