

HOW TO BEGIN EVERY PROJECT SAFELY



Every abrasive blasting project should begin with a safety procedure to ensure the equipment is ready for proper use. Below you'll find a **checklist** to help you and employees inspect your blasting equipment, surroundings and PPE for safety.

// BLASTING EQUIPMENT

The typical abrasive blast system consists of an air compressor, air supply hose, abrasive blaster, blast hose and blast nozzle. All of these components work together to deliver a powerful stream of abrasive material. Before you start working, inspect the following abrasive blasting components:

AIR COMPRESSOR

An air compressor powers the abrasive blasting equipment. Consider the following before you begin:

- Is the air compressor maintained and serviced?
- Is it equipped with a pressure relief valve?
- Does the air compressor meet your air supply requirements?
- Is the air compressor located upwind of blasting operations?
- Is the air compressor at a safe distance from the blasting equipment?

BLAST VESSEL

The blast vessel, also called the pressure vessel, is the tank filled with compressed air and the abrasive material. Answer the following:

- Is the inside and outside of the blast vessel free of corrosion, cracks, dents, bulges or other forms of damage?
- Is the inside of the blast vessel free of moisture and debris?
- Does the blast vessel contain any leaks?
- Has the blast vessel been depressurized before loading the abrasive?

VALVES, HOSES, PIPES, WIRES AND FITTINGS

An air compressor powers the abrasive blasting equipment. Consider the following before you begin:

- Are all valves, hoses, pipes, wires and fittings in good condition and free of leaks, cracks, holes or other damage?
- Are there any soft spots in the blast, air or remote control hoses?
- Are blast and air hose gaskets free of leaks and visible wear?
- Are whip checks and safety pins installed on all connections?
- Is the size of the blast hose three or four times the size of the nozzle orifice?

BLAST NOZZLE

The blast nozzle size determines the amount of airflow and abrasive material required. Check the following:

- Is the blast nozzle thread or jacket damaged?
- Is it sized appropriately for the job's requirements?
- Has the nozzle's orifice size increased by 1/16 inches, and if so, will it be replaced?

// ABRASIVE MATERIALS

Consider the abrasive materials you plan to use for blasting applications before you begin, and be sure you can answer the following questions:

- Is the abrasive material meant to be used with the blasting equipment?
- Is the abrasive material free of trash or other debris?
- Have you reviewed the Material Safety Data Sheet for the abrasive you plan to use?
- Is the material non-toxic, or does it contain an acceptable level of toxic substances according to OSHA?
- Is the material dry?

// OBJECTS

Inspect the blast objects and check for the following:

- Is the object adequately secured?
- Is the object used to store non-flammable materials only?

// ENVIRONMENT

Consider the job site and your surroundings. Answer these questions:

- Have you established a hazardous blasting zone?
- Have you protected electrical lines in the area from blasting applications?
- Is the site free of tripping, falling or crushing hazards?
- Is the work area well-lit?
- Is the blasting area adequately ventilated?
- Is the blast machine on level ground?
- Are there measures in place to discharge static electricity from the blast nozzle?
- Is the atmosphere free of flammable fumes?
- Is the carbon monoxide monitor tested and calibrated routinely?

// PPE

All workers must wear appropriate PPE to protect themselves from the abrasive blast stream and dust. Be sure to inspect PPE before blasting, and check off the following:

- Does the respirator meet the standards set by the National Institute for Occupational Safety and Health?
- Does the respirator cover the neck, head and shoulders?
- Does the respirator include air filters that meet the requirements for OSHA's Grade D breathing air?
- Is the respirator free of damage?
- Are eye protection items in good condition and free of damaged or missing components?
- Are footwear and gloves free of tears, rips and punctures?
- Is proper ear protection available such as earplugs or earmuffs?

// PRACTICING PERSONAL HYGIENE HABITS DURING PROJECTS

To help you remain safe during and between projects, you need to establish personal hygiene habits for workers. OSHA recommends including the following in your safety plan:

- Don't allow workers to eat, drink or smoke in blasting areas.
- Provide wash stations so employees can clean their hands and faces frequently.
- Ask workers to vacuum or remove contaminated clothing before eating, drinking or smoking.
- Offer showers and change areas for workers to use at the end of their shifts.
- Ask workers to keep contaminated PPE and clothes out of clean areas.