



TOOL BOX SAFETY TOPIC

ABRASIVE (SAND) BLASTING

Introduction

All personnel performing abrasive blasting operations must use an approved, (MSHA/NIOSH) properly fitted airline respirator with a hood, apron, and dust collar specifically designed for abrasive blasting. A positive-pressure air supply with any necessary alarms, filters, or purifiers shall feed air to the hood. When abrasive blasting has ceased and the hood has been removed, an approved air purifying particulate filter respirator must be used when high dust concentrations exist.



An approved particulate-filter respirator must be worn by all personnel in the abrasive blasting area. Short, intermittent, or occasional exposure to dust such as during cleanup, dumping of dust collectors, or unloading shipments of sand at the receiving point requires the use of an air purifying particulate-filter respirator.



Air Supply and Air Compressors

All equipment used to supply breathing air to abrasive blasters including air compressors must conform to 29 CFR 1910.94 and 29 CFR 1910.134.

Breathing air can be supplied to a respirator from a cylinder or an air compressor. The air supply must be free from harmful quantities of contaminants including dusts, mists, noxious gases, and must meet the requirements of the specifications of Grade D Breathing Air and the requirements for supplied-air quality and use specified in 20 CFR 1910.134(i).



Never attach an air-line respirator to pure oxygen; it must never be used with an air line respirator. Plant air cannot be used for breathing air. That air is not of breathing air quality.

Compressors that supply air must be equipped with all necessary safety and standby devices. Compressors must be constructed and situated to avoid entry of contaminated air into the system. Air supplied by an oil lubricated compressor will have a high temperature alarm and a continuous in-line monitor for carbon monoxide with alarm. The alarms must be audible or in the form of a beacon, so that all air-line users can be alerted while working.

Suitable in-line, air-purifying, absorbent beds and filters must be installed in the compressor system. Filters used to remove water vapor, oil mist, and particulates from breathing air will be serviced according to the manufacturer's recommendations. The odor of hot oil and / or the presence of water mist in the hood indicate that the filter is malfunction and blasting **MUST STOP IMMEDIATELY.** The problem must be corrected before work can resume.



Breathing air couplings will be incompatible with outlets for other gas systems.



Abrasive (sand) Blasting Test Questions

1. Air couplings used can be compatible with other systems.
 - a. True
 - b. False
2. A particulate filter must be used during cleanup and dumping of dust collectors.
 - a. True
 - b. False
3. Personnel doing sandblasting do not need any special equipment to perform their work.
 - a. True
 - b. False
4. Breathing air can be supplied to a respirator from a cylinder or an air compressor that has proper safety devices.
 - a. True
 - b. False

5. Air compressors that supply air must be equipped with all necessary safety and standby devices.
 - a. True
 - b. False
6. If you have an odor of oil you can continue to sandblast.
 - a. True
 - b. False
7. All personnel performing abrasive blasting operations must use approved MSHA/NIOSH properly fitted airline respirator with hood, apron, and dust collar specially designed for abrasive blasting.
 - a. True
 - b. False

1-F, 2-T, 3-F, 4-T, 5-T, 6-F, 7-T

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