



## Pipefitting Safety Scope

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### Safety Orientation

A safety program containing a general safety overview and safe work practices will be conducted during the scheduled competitor orientation. **Attendance is mandatory for all competitors.**

### Personal Protective Equipment (PPE)

All personal protective equipment (PPE) must be appropriate for task and meet current ANSI standards, which have been incorporated into the Occupational Safety and Health Administration (OSHA) PPE regulations as follows: Eye and Face Protection ANSI Z87.1; Head Protection ANSI Z89.1; Foot Protection ANSI Z41.1. There are no ANSI standards for gloves; however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed. During the Practical Performance Test, **ABC National will provide and require** the proper use of the following personal protective equipment for all competitors:

- Ear protection;
- Safety glasses and face shields;
- Hard hat (except for welders); and
- General work gloves.

In addition, fire extinguishers are available during all soldering and brazing operations.

Also, platform ladders and cut-resistant sleeves are available to competitors.

Exceptions to the provided PPE, with prior approval from the respective project manager, are:

- Prescription safety glasses with side shields;
- Prescriptive goggles; and
- Task-specific gloves per industry standards, designed to protect against sharp edges or high heat.

The safety scope for the pipefitting competition will be explained to the competitors on the floor during the site orientation.

Competitors will be handling material, working with vises, cutting pipe with an electric bandsaw or a threading machine, grinding pipe with a 4" electric grinder, threading pipe with a threading machine, fitting pipe while connections are being tack welded, making threaded connections, using hand tools such as: pipe wrenches; hammers; combo wrenches and channel locks. All of these tasks present specific hazards. Be sure you are familiar with these types of tools and equipment. Also see below for recommended safety usage of the power tools you will be required to use:

### [4" Electric Angle Grinder](#)

### [Electric Bandsaw](#)

### **Competitors must use the following:**

- Steel toe boots, hard hats, safety glasses, appropriate work pants and short sleeve shirt are required to enter competition area.
- Earplugs are required in competition area once competition begins.
- Gloves are to be worn at all times when handling material or tools.  
The only exception is when operating the threading machine or applying Teflon tape to threads. Gloves are not to be worn while the machine is rotating only. Gloves must be put back on and the machine turned off to handle the material and equipment parts.
- Face shield must be worn in the down position when grinding.
- A long sleeve work shirt must be worn during spark or flame producing activities such as grinding and tacking.

### **Jewelry and Personal Grooming**

Exposed jewelry is not permitted. Examples include (but are not limited to):

- Earrings (stud or dangling);
- Wrist watches;
- Rings;
- Studs exposed through the nose, jaw, lip, eyebrow or any part of the body that is visible;
- Gauges; and
- Long hair must be contained (under a hat or hair net).

### **Housekeeping**

Housekeeping is a must. Each competitor will be assigned to a work station with limited space. Keep your work area orderly and free of trip hazards.

### **Tool Usage**

- All tools must be used in the manner for which they were designed.
- Handles must stay on grinders and two hands used. Do not hold material in one hand and grind with the other. Use the provided vise to hold material.
- Watch for pinch points when using tools, hammers, etc.

### **Safety Task Analysis**

Competitors will be instructed on how to fill out the STA and will be graded on accuracy, completeness and job planning.

### **NCC Nine**

The NCC Nine will be covered in detail with the competitors.

### **Safety Judging**

Prior to the practical performance test, the competition project manager or judges may inspect each competitor's personal hand tools, which must meet all Occupational Safety and Health Administration (OSHA) regulations and standards. For example, "mushroomed" heads on chisels are not permitted.

Judges will be present during the practical performance test to score competitors in such safety areas as the use of personal protective equipment, hand and power tool safety, clean work area, etc. Depending on the severity and/or frequency of a violation or violations, the judges, in consultation with the project manager, have the authority to disqualify competitors.

**Note: Competitors continue to be judged during disassembly/clean-up activities and are subject to disqualification or deduction of points for safety violations.**

**First Aid**

All injuries should be reported to the project manager immediately. The project manager will determine the appropriate action, including assistance by onsite EMT personnel.