



2025 Instrumentation Fitting Safety Scope

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

All PPE must be appropriate for the task and meet current American National Standards Institute standards, which have been incorporated into the Occupational Safety and Health Administration PPE regulations as follows: Eye and Face Protection ANSI Z87.1; Head Protection ANSI Z89.1; and 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 or as selected and provided by the competition project manager or defined on the competition “tools required” list.

During the practical performance test, ABC will provide and require the proper use of the following PPE for all competitors:

- Ear protection
- Safety glasses
- Hard hat (except for welders)
- General work gloves (may not apply to all competitions—see task-specific gloves below)

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

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

The competitors must ensure that all energy sources are locked and tagged out prior to working on any system.

During the competition, work gloves will be worn by all competitors at all times **EXCEPT** when they are taking measurements, calculating and marking lengths of tubing for instrument runs and terminating electrical connections within the control/relay box.

No competitor shall energize any system without the consent of the project manager.

Competitors must provide and use the following during both days of competition:

- Standard work shoes or boots (tennis shoes or sandals are not permitted)
- Blue jeans or work pants
- Shirts with sleeves, minimum four inches in length (baggie or excessively loose-fitting clothing is not permitted)

Cell Phones

- No cell phones are permitted before, during or after the competition.

Jewelry and Personal Grooming

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

- Earrings (stud or dangling)
- Wristwatches
- Rings
- Studs exposed through the nose, jaw, lip, eyebrow or any visible part of the body
- Gauges (if gauges cannot be removed, they must be covered with tape)
- Long hair must be contained (under a hat or a hairnet)

Hand Tool and Power Tools

The project manager will also talk about the use of the proper hand tools, i.e., hand saw, coping saw, keyhole saw, hammer, chisels and pry bars and utility knife.

The project manager will go over the proper use of the power tools needed for your projects, i.e., miter box, circular saw, drill and impact driver. **Please visit the links below to review the operators' manuals.** Always use your tools in the manner that the manufacturer intended.

- [Milwaukee Cordless Drill](#)

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 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 PPE, hand and power tool safety, ladder safety, etc. Depending on the severity and frequency of a violation or violations, the judges, in consultation with the respective project manager, have the authority to disqualify competitors.

Note: Competitors are still judged during disassembly/cleanup activities and are subject to disqualification or deduction of points for safety violations.

First Aid

All injuries, regardless of severity, must be reported to the project manager immediately. The project manager will contact the NCC chair or director to determine the appropriate action, including assistance from on-site EMT personnel.

Fire Extinguisher

A fire extinguisher can be found in or around your competition area, typically in one of the columns. Your project manager will point out the location during your onsite orientation. Competitors should use the following technique to effectively and safely use a fire extinguisher.

Pull: Pull the pin at the top of the extinguisher to break the seal

Aim: Stand at a safe distance from the fire and aim the nozzle low at the base of the fire

Squeeze: Squeeze the handles together to release the extinguishing agent

Sweep: Sweep the extinguisher from side to side to cover all areas the fire may have spread to

Location of Restroom

The project manager will go over the location of the restroom, emergency exits and fire extinguishers.

Smoking and Tobacco Procedures

Smoking is only permitted during breaks, and you will be escorted to a pre-determined location. There will be no smokeless tobacco allowed during competition. E-cigarettes and vapor cigarettes will follow the same procedures.

Emergency Evacuation and Exits

At your site orientation, your project manager will review the emergency evacuation, meeting location plan and exits.