

Welding Contest

Purpose

To evaluate each contestant's ability to use shielded metal arc welding (SMAW) to weld proficiently in all four positions (1F, 2F, 3F and 4F) as show in the drawings in these contest guidelines.

Eligibility

The apprentice competing at the District Council level must be an apprentice during the year he/she is competing to go to the International Competition. The apprentice may come from any year apprenticeship. He or she may only compete at the International level once.

Clothing Requirement

Contestants must wear long pants, work boots (no tennis shoes), long sleeve shirts or welding jacket/sleeves, welding hood with hard hat, welding gloves, personal protective equipment, and safety glasses with side shields. Prescription glasses can be used only if they are equipped with ANSI approved side shields.

Equipment and Materials

The following equipment will be provided by the contest committee:

- Welding hoods
- Hard hat (worn during the contest)
- Chipping hammers
- Welding gloves
- Personal protective equipment
- Welding rods
- Brushes
- Required hand tools
- Welding plates and materials for each contestant:
 - 3/8" A36 plate: 1 plate measuring 4" x 8" x 3/8"
 - 3/8" A36 plate: 2 plates measuring 2" x 6" x 3/8"
- Plates will be fit up, tack welded together, and numbered prior to the contest.
- Practice steel for adjusting the welding machine
- Welding machines (all machines will be set at 0 prior to each contestant beginning their welding procedures)
- Electrodes (1/8 Low Hydrogen)
- 3/8" Fillet gauge
- Safety glasses with side shields
- Ear protection

The contestant may provide the following:

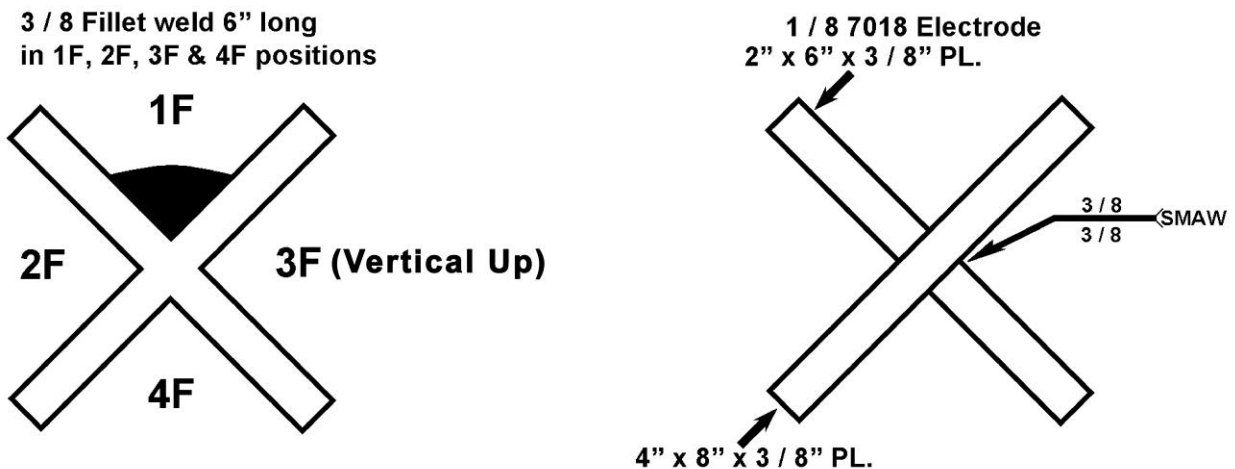
- Welding gloves
- Safety glasses with side shields

- Hard hat (worn during the contest)
- Welding hood (as long as it attaches to the hard hat)
- Magnifying Lens

Contest Guidelines

These guidelines will be followed during this contest:

1. Contestants will be randomly selected to determine the order in which they will demonstrate their ability to weld.
2. Contestants must wear their personal protective equipment at all times when welding.
3. Contestants will have 90 minutes to complete this contest.
4. Each contestant's welding plates will be pre-stamped with the contestant number to avoid confusion.
5. Before beginning to weld in any of the positions, a contest judge shall verify the correct position of the welding plate corresponds with the position stamped on the contestant's welding plate.
6. **When the welder begins welding any position, he/she must complete that weld before beginning weld in a new position.**
7. Points will be based on equal leg size, good fusion and penetration of base metal, no porosity or slag inclusions, uniform bead appearance and good wash in, minimum distortion, and full and complete welds at ends.
8. The following drawings show the welds to be completed by each contestant. The drawings are reflective of the weld positions that will be used in the competition.



Joint preparation - Bead placement - Size sequence

9. Points will be based on the following:
 - Equal leg size
 - Good fusion and penetration of base metal
 - No porosity or slag inclusion
 - Uniform bead appearance and good wash in
 - Minimum distortion
 - Full and complete welds at ends
 - Oscillation is allowed, but a minimum of two passes must be visible on the face of the weld and the oscillation will be no more than 1.5-2 times the diameter of the electrode
 - The competitor may not quench the plate or remove it from their welding booth for any reason until they have completed all four weld positions.
10. The contestant must demonstrate correct safety practices at all times. The contest judges may stop a competitor at any time if they deem the contestant's manner to be hazardous to either themselves or others. Such stoppage will disqualify the contestant from that section of the contest. If the contestant is warned a second time, he or she will be disqualified as a contest participant.
11. While the contest is in progress, there shall be no communication between the contestants or between the contestants and anyone else except as directed by a judge or contest official.

Contest Scorecard

This contest will be scored as follows:

1. The Welding contest is worth sixteen (16) points with four (4) points earned for each of the four (4) positions (i.e., 1F, 2F, 3F and 4F).
2. Contest judges should use the scoring sheet on the following page to record each contestant's points for each position and then determine the total points earned by each contestant.
3. These results will be submitted to the contest officials responsible for compiling the overall competition results.

Welding Contest Scoring Sheet

Contest Location: _____

Date: _____

Judges: _____

Contestant Number	1F Points	2F Points	3F Points	4F Points	Total Points

Contestant Number	1F Points	2F Points	3F Points	4F Points	Total Points