

# Welding

**Purpose:** To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of welding.

**Testing:** Welding knowledge test given; hands-on evaluation of skill and blueprint reading ability.

**Clothing:** Acceptable work clothes, no school names may be displayed on any apparel

**Contestants:** 3 per region, determined by regional event

## Drawing Downloads

[Drawing 1](#)

[Drawing 2](#)

## Tools to be provided by contestants:

### *Personal Protective Clothing and Equipment:*

Suitable work clothing (to match service conditions for welding process employed, must be fire resistant)

Leather jacket, cape, sleeves or apron (optional)

Leather gloves

Hightop leather safety shoes or boots (steel toes recommended)

Welders hat or skullcap

Spectacles with side shields (clear lens)

Burning goggles or face shield (OFC & PAC)

2 ea. #5 filter plate/lens

2 ea. clear cover plate/lens

Noise protection (ear plugs)

Welding helmet

Spare batteries for helmet are recommended if you have auto lens

Welding lenses (to match helmet design)

2 ea. shaded filter plate/lens (#10 or #11)

2 ea. clear cover plate lens

### *Personal Tools:*

Carbon steel wire brush

Stainless steel wire brush

Ball peen hammer, minimum 16 ounce

Soapstone

Two #2 pencils (sharpened)

Center punch

Metal scribe

Steel dividers (radius maker min. 6") or compass, to mark steel for cutting

Handheld calculator

## Measuring devices

Steel tape measure (minimum 10')

Combination square set

English steel bench rule (min. 12")

Protractor

Metric ruler

## Chipping hammer

Magnetic fixturing tool (optional)

10" mill file (half round-bastard cut) (optional)

Cold chisel (size optional)

Fillet weld gage

Oxyfuel friction lighter (striker), flints and tip cleaners

Pliers, wrenches and clamps

Vice grips or vice grip type clamp

Side or diagonal cutting pliers

Groove or slip joint pliers

Tank wrench (optional)

Needle nosed pliers (optional)

12" adjustable wrench (optional)

3/32<sup>nd</sup> – 2% Th-2 Tungsten (red) (optional 2 pieces)

## Notes:

- Contestants must have all applicable safety equipment listed above to participate.
- Contestants without all required "Personal Tools" will be allowed to participate, but may have difficulty completing some tasks without all required Personal Tools.
- All required tasks can be completed without personal tools listed as "optional." However, some portions of the contest may be performed with greater ease by using these optional tools.
- Instructors may walk through contest area with students, prior to start time, to help familiarize them with welding equipment. Welding equipment is not to have any settings or connections changed by either instructors or students during the walk through. Coupon material, electrodes and filler metal are not to be touched during the walk through.

**SPECIAL NOTE:** This will be a 2-day contest this year. Instructors may view the equipment on Friday, April 23, 2010, from 8:00 AM to 12:00 PM in the Bricker Building at the contest site. All contestants should have received a mailing of the drawings. If you did not receive those plans, you may download them above or contact Tammy at 614-466-8782.

## Scope of the Contest

The contest will be judged based on the criteria established in the 2010 SkillsUSA Championships Technical Standards.