

## 2010 SkillsUSA State Championship

### Sheet Metal

Dear Instructors and Students:

The Sheet Metal Workers Local Union 100 is proud to participate in the SkillsUSA Sheet Metal competition on Saturday, March 27, 2010.

The Sheet Metal shop will have all necessary equipment to complete the assigned projects but due to the number of participating contestants the availability of shop equipment at any given time may be limited so plan your layout, cutting and forming of the various projects accordingly.

The Sheet Metal contestant will need to;

- Exhibit knowledge of safety practices including the use of personal protective equipment (PPE).
- Supply and be familiar with the safe usage of his/her hand tools. (see attached list of hand tools to be supplied by each contestant)
- Be familiar with the identification and safe use of various pieces of shop equipment such as; hand brakes, squaring shears, bar folders, rotary machines (including easy edger's), rollforming machines (Pittsburgh machine), forming rolls (slip roll) and spot welder.
- Exhibit knowledge of basic layout principles (pattern development) including triangulation.
- Plan and execute the fabrication of each project. This includes developing your cut list, blanking out, layout, marking and notching, forming and assembling the given projects from a shop drawing within the allotted time period.
  - A 25 question written test will be given. It will include questions on reading a rule and adding and subtracting fractions. The time allowed on this will be ½ hour. If the contestant completes this test before the ½ hour time limit he/she may start the fabrication projects.
  - The fabrication projects will consist of two fittings; an offset and a transitional elbow. Once fabricated these two pieces will be joined by using slips and drives. Dimensions will be given on the day of the contest. This portion of the contest will end at 1:00pm to allow time for the judges to review and grade each contestants work.

### **Tools supplied by contestants;**

1. Tool box or bucket
2. One each: Aviation M1, Aviation M2, Aviation M3 and combination or pattern tinner's snips
3. regular vice grips
4. 12" combination square with glass level
5. 12" straight-leg spring dividers
6. Flexible steel tape measure
7. Scratch awl
8. Screwdriver set (minimum one slotted and one Phillips)
9. Sheet metal hammer
10. Two wooden pencils
11. Hand-held calculator for written test
12. Center punch
13. Marking pen
14. One-page, typewritten resume

### **Material supplied for use by each contestants;**

One sheet of 26 ga. Galvanized metal, 36" x 60"

One length of s slip

One length of drive

If you have any questions please contact us through the SkillsUSA Director, Chuck Wallace at [cwallace@msde.state.md.us](mailto:cwallace@msde.state.md.us)