

Welding Job Readiness
Arc Welding Information Sheet
Welding Equipment



Welding Helmet



Welding Gloves



Electrode Holder



Electrodes



Ground Clamp



Chipping Hammer

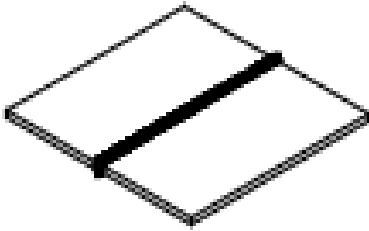


Safety Glasses

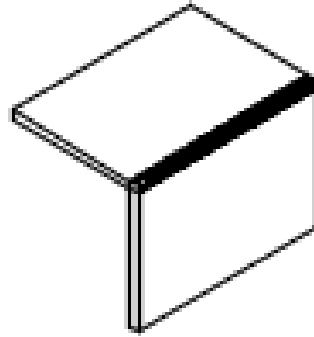


Wire Brush

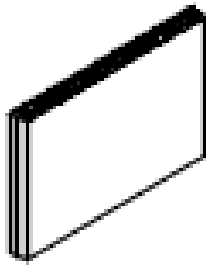
Welding Job Readiness
Arc Welding Information Sheet
Welding Joints



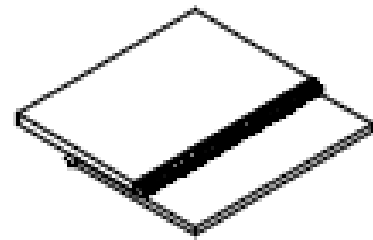
Butt Joint



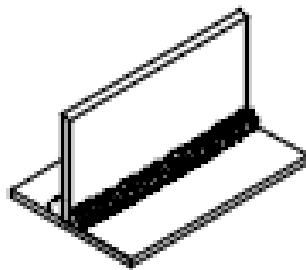
Corner Joint



Edge Joint



Lap Joint



Tee Joint

Welding Job Readiness Contest Guidelines

Each contestant will need to bring:

- Safety Glasses
- Welding Helmet
- Welding Gloves
- Protective Clothing (Leather, etc.)
- Leather boots or leather work shoes

Each contestant will be provided with:

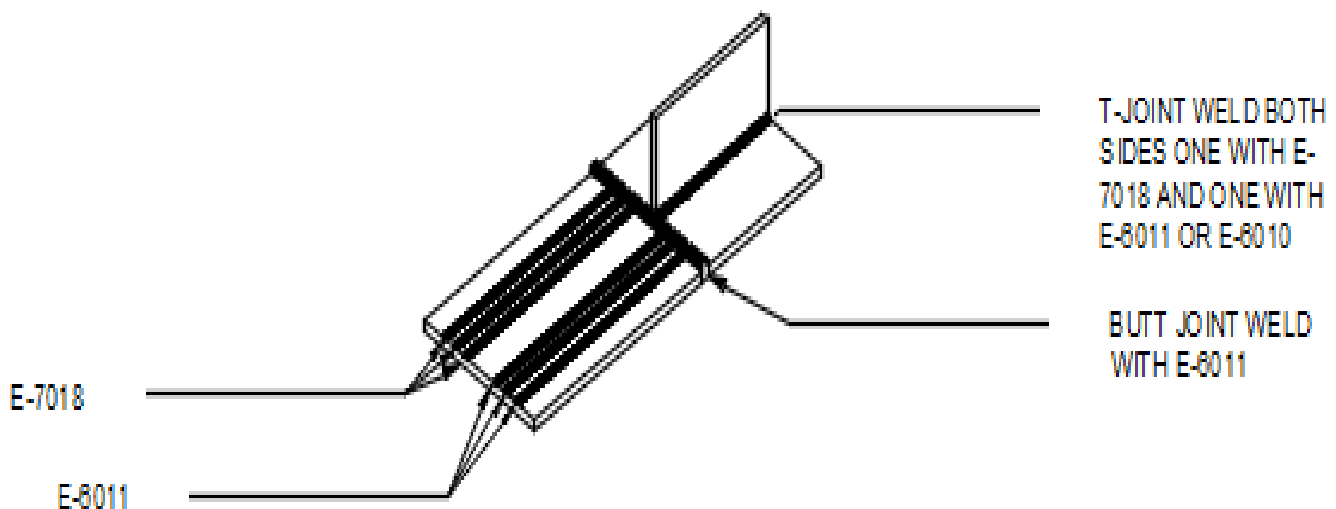
- Electrodes-both 7018 and 6011 or 6010 (1/8" diameter)
- Test Plate
- 6' x 4" x 1/4"- Thick plate
- 4" x 4" x 1/4"- Thick plate
- 2" x 4" x 1/4"- Thick Plate
- Welding Helmet and Gloves

The welding contest will consist of contestants completing the following:

- Running three (3) flat beads with 7018 rods welded on a 4" x 6" plate.
- Running three (3) flat beads with choice of 6011 or 6010 rods welded on a 4" x 6" plate.
- Welding a tee weld in a flat position with a 4" x 4" plate and a 2" x 4" plate. Tee to be welded on both sides-one side using 6011 or 6010 and the other using 7018.

All beads are single pass only!

- Welding a butt joint in the flat position using the 4" x 6" plate and the 4" x 4" plate with 6011 or 6010 rod.



- Taking a written test on welding

The task should be completed within a 20-minute time limit. This time span does NOT include set up time, only actual welding time. Assistance will be provided for setting machine adjustments.

Welding Job Readiness

Arc Welding Test

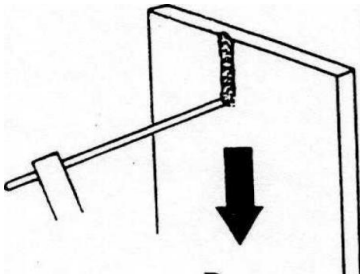
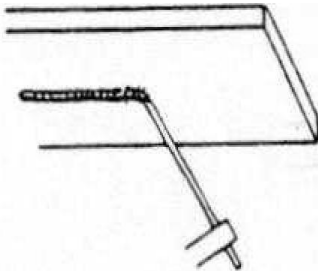
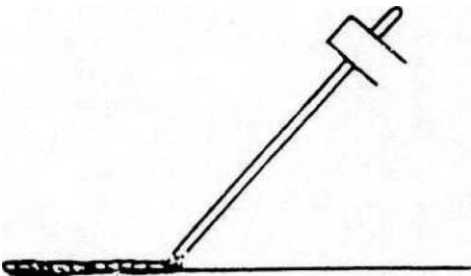
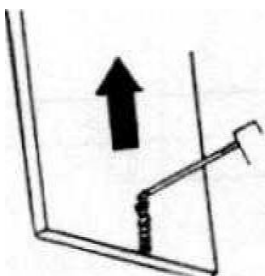
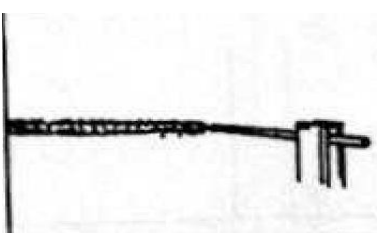
1. Match these terms with the correct definition.

- | | | |
|----------|---|---------------|
| _____ A. | Made by one pass of the electrode. | 1. Arc |
| _____ B. | Metal rods which conduct a current from the electrode holder to the base metal. | 2. Base Metal |
| _____ C. | Metal to be welded. | 3. Bead weld |
| _____ D. | Fusion of metal. | 4. Bevel |
| _____ E. | Weld between two metal parts in the same plane. | 5. Butt joint |
| _____ F. | Flow of electric current across a narrow gap. | 6. Crater |
| _____ G. | Type of edge preparation. | 7. Electrodes |
| _____ H. | Depression at the end of the weld. | 8. welding |

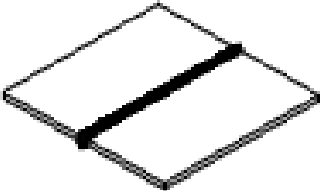
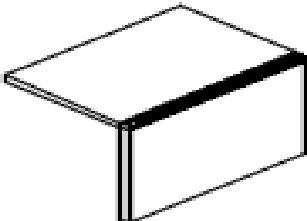
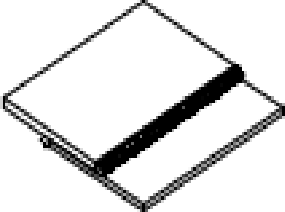
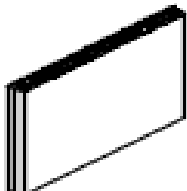
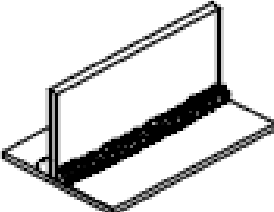
2. Identify these pieces of arc welding equipment.

 <p>1</p>	<p>A. Safety Glasses B. Welding Helmet C. Electrode Holder D. Ground Clamp</p>	 <p>2</p>	<p>A. Chipping Hammer B. Wire Brush C. Ground Clamp D. Electrode Holder</p>
 <p>3</p>	<p>A. Chipper Hammer B. Ground Clamp C. Wire Brush D. Electrodes</p>	 <p>4</p>	<p>A. Electrodes B. Welding Helmet C. Protective Shield D. Safety Glasses</p>
 <p>5</p>	<p>A. Welding Gloves B. Safety Helmet C. Hand Protectors D. Protective Gear</p>	 <p>6</p>	<p>A. Bead B. Thick Plate C. Electrodes D. Electrode Holder</p>
 <p>7</p>	<p>A. Chipping Hammer B. Wire Brush C. Ground Clamp D. Electrode Holder</p>	 <p>8</p>	<p>A. Chipping Hammer B. Electrode C. Ground Clamp D. Electrode Holder</p>

3. Identify the following different types of welding positions.

<p>A</p> 	<p>A. Horizontal B. Flat C. Overhead D. Vertical Down</p>
<p>B</p> 	<p>A. Overhead B. Flat C. Vertical D. Horizontal</p>
<p>C</p> 	<p>A. Overhead B. Flat C. Vertical D. Horizontal</p>
<p>D</p> 	<p>A. Overhead B. Horizontal C. Vertical Up D. Vertical Down</p>
<p>E</p> 	<p>A. Overhead B. Flat C. Vertical D. Horizontal</p>

4. Identify the welding joints below.

<p>A</p> 	<p>A. Corner Joint B. Butt Joint C. Edge Joint D. Lap Joint</p>
<p>B</p> 	<p>A. Lap Joint B. Tee Joint C. Edge Joint D. Corner Joint</p>
<p>C</p> 	<p>A. Tee Joint B. Lap Joint C. Edge Joint D. Butt Joint</p>
<p>D</p> 	<p>A. Edge Joint B. Corner Joint C. Lap Joint D. Butt Joint</p>
<p>E</p> 	<p>A. Edge Joint B. Lap Joint C. Tee Joint D. Butt Joint</p>

Welding (ARC) Test Answer Sheet

1. Arc Welding Test:

- A. 3
- B. 7
- C. 2
- D. 8
- E. 5
- F. 1
- G. 4
- H. 6

2. Identify these pictures of Arc welding equipment:

- A. Welding Helmet
- B. Electrode Holder
- C. Chipping Hammer
- D. Safety Glasses
- E. Welding Gloves
- F. Electrodes
- G. Wire Brush
- H. Ground Clamp

3. Identify the welding positions:

- A. Vertical Down
- B. Overhead
- C. Flat
- D. Vertical Up
- E. Horizontal

4. Identify the following types of welding joints:

- A. Butt Joint
- B. Corner Joint
- C. Lap Joint
- D. Edge Joint
- E. Tee Joint

Contestant # _____

JOB READINESS Arc Welding Contest Score Sheet

Category	Excellent	Very Good	Good	Fair	Poor	Comments
Safety:						
***Safety Glasses	20	-----	-----	-----	0	
*** Hearing Protection	20	-----	-----	-----	0	
Clothing Penalty (0-5 of total points)	20	15	10	5	0	
Straightness of bead, tee and butt joint	20	15	10	5	0	
Undercut	20	15	10	5	0	
No excess spatter	20	15	10	5	0	
Cleaning:						
Chipping	10	8	6	4	2	
Brushing	10	8	6	4	2	
						Total Possible: 140
Sub Total						Total: _____

*** Judges may provide safety glasses in order for contestants to continue... Contestant receives 0 points for the safety portion of the competition.

Score from welding skill test (above) _____

Score from written test (30 points possible) _____

Time Penalty* (minus 0-5 from total points) _____

Resume Penalty* (minus 0-5 from total points) _____

Judges' Final Score _____

Time Start _____

Time Finish _____

Time Penalty: a 5 point penalty will be deducted for each minute over 20 minutes so time will be a definite factor in determining the winner!