

## Chapter 8

# Gas Tungsten Arc Welding

### Multiple Choice

Select the best answer for each of the following from the options given.

- \_\_\_\_\_ 1. For welding aluminum, the best DC polarity to use to clean the surface of oxides is \_\_\_\_\_.  
A. DCSP  
B. DCEP  
C. DCEN  
D. DCRN
- \_\_\_\_\_ 2. As a rule, a GTAW electrode should extend \_\_\_\_\_ beyond the gas cup.  
A. 1/2" (13mm)  
B. 3-1/2 times the diameter of the electrode  
C. 1/4" (6mm)  
D. 1-1/2 times the diameter of the electrode
- \_\_\_\_\_ 3. In GTAW, the welding rod is held at a \_\_\_\_\_ angle to the base metal surface.  
A. 15°–20°  
B. 20°–30°  
C. 30°–45°  
D. 60°–75°
- \_\_\_\_\_ 4. When adjusting the flowmeter, what part of the ball should be aligned with the desired flow rate line?  
A. Bottom  
B. Top  
C. Center  
D. Just above the bottom.

### True or False

Indicate if each of the following statements is true or false by circling "T" or "F".

- T F 5. Postflow is the continued flow of shielding gas after the arc is broken.
- T F 6. Surface oxides on aluminum are broken up when using DCEN or AC current.
- T F 7. AC is preferred for welding low-alloy steels.
- T F 8. Pure tungsten electrodes must be balled prior to welding with them.

## Completion

Complete each of the following statements with the appropriate word or phrase from the chapter.

- \_\_\_\_\_ 9. The DC electrical polarity that requires a larger electrode diameter is \_\_\_\_\_.
- \_\_\_\_\_ 10. When a GTAW electrode is ground, the grinding marks should run parallel to the \_\_\_\_\_ of the electrode.

## Short Answer

Answer each of the following questions in the space provided.

11. Define *downslope*.

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12. If the flowmeter was not completely closed when the station was shut down, what might happen when the station is reopened?

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