

Multi-State Advanced Manufacturing Consortium

US DOL SPONSORED TAACCCT GRANT: TC23767

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VERSION

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Lecture Outline

PRIMARY DEVELOPER: Kevin Ridge, Welding Instructor, Henry Ford College

Weld Joint Design and Preparation – Material Cutting, Grinding, and Fabrication



H FC Course Code: CIMWD-102

Course Topic: Weld Joint Design and Preparation (Material Cutting, Grinding, and

Fabrication)

Lecture: Oxygen Fuel Cutting

Lecture Outline:

- I. Oxygen
 - a. Pressure
 - b. Tank Moving
 - c. Labels
 - d. Colors
- II. Fuel Gas
 - a. Acetylene
 - i. Where it comes from
 - b. Mapp
 - i. Used for
 - c. Propane
 - i. Petroleum based
- III. Valves
 - a. O2 Back seating
 - b. Fuel Valve
- IV. Regulators
 - a. Right hand thread for O2
 - b. Left hand thread for fuel
 - c. Made from Brass
 - d. Settings
- V. Hoses
 - a. Made for different gases
 - b. Colors





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VI. Torches

- a. Cutting tips
- b. Mixing Chamber
- c. Oxidation

VII. Lighting the torch

- a. Start with gas
- b. Use spark lighter
- c. Create neutral or oxidizing flame
- d. Shut down procedures



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