



Thermal Cutting: Air Carbon Arc Cutting (CAC-A)

Certification website: [Lincoln Electric - NC3 | National Coalition of Certification Centers](#)

Credential Summary

The Lincoln Electric Education Partner Schools Program (LEEPS) partners educational institutions' welding technology programs with the National Coalition of Certification Centers (NC3) to offer best-in-class foundational-level welding certifications to prepare students for a career in the modern welding industry by introducing welding skills and concepts combined with core foundational-level welding certifications.

Air carbon arc cutting, also referred to as metal arc gouging, and previously as air arc cutting, is an arc cutting process where metal is cut and melted by the heat of a carbon arc. Molten metal is then removed by a blast of air. It employs a consumable carbon or graphite electrode to melt the material, which is then blown away by an air jet. This process is useful for cutting a variety of materials, but it is most often used for cutting and gouging aluminum, copper, iron, magnesium, and carbon and stainless steel. Because the metal is blown away by the air jet, it does not need to be oxidized.

Overview

- **Related Instructional Hours:** No requirement
- **Exam details:** N/A
- **Third party testing provider:** N/A
- **Exam cost:** N/A
- **Renewal details:** N/A

Job Opportunities

- **Relevant SOC codes**
 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 51-4122
 - Welders, Cutters, Solderers, and Brazers 51-4121
- **Demand information**
 - Average flame ranking = 3.36/5
- **Average Wages**
 - Ranges from \$43,780 (21.05 per hour) to \$46,660 (22.43 per hour)
(Average wages pulled as of October 2023)

Knowledge, Skills, and Competencies

- Introduction to welding skills and concepts
- Core foundational-level welding certifications

Post Secondary Relevance

- **Next level programs of study**
 - Welding Technology
 - Shielded Metal Arc Welding
 - Gas Welding Processes