



Welding

Job Titles	Education and Training	Industry Recognized Credentials	Average Wages
Plant Manager (O*Net: 11-3051)	Four-Year Degree* or Extensive OJT	Company Specific	\$25.00 per hour and up
Welding Engineer (O*Net: 17-2131)	Four-Year Degree*	CWEng – Certified Welding Engineer	\$22-35.00 per hour (Increases with years on the job)
Welding Supervisors / Welding Inspectors (O*Net 51-1011 and 51-9061)	Associates Degree and OTJ Experience	AWS CWI – Inspectors, CWS – Supervisors, Quality NDTE	\$18-30.00 per hour (increases with years on the job)
Fabricator (O*Net: 51-2041)	Registered Apprenticeship and/or significant OTJ Experience	AWS CWI – Inspectors, ASME (company specific)	\$15-23.00 per hour (Increases with years on the job)
Welder Fitter (O*Net: 51-4121)	Adult CTE (1-year) or community college certificate	AWS and/or ASME (company specific)	\$13-18.00 per hour (Increases with years on the job)
Welding, Cutting, Soldering, and Brazing Machine Operators (O*Net: 51-4122)	HS Technical Program or Short-term training (Pre-Apprenticeship)	AWS D1.1. MSSC CPT, NCRC, OSHA 10	\$11-15.00 per hour

*Credits from Career and Technical Center and Community College Programs may not articulate into BS degrees at 4-year universities.

*CTE: Career and Technical Education

ERMP Welding Career Pathway

All levels: Foundational employability skills, basic math and computer skills, written and verbal communication skills; safety awareness

■ Welding, Cutting, Soldering, and Brazing Machine Setters, Operators, and Tenders Competencies and Credentials:

- Set up, operate, or tend welding, soldering, or brazing machines
- Understand set up procedures with various gasses and metals
- Demonstrate the ability to perform TIG welding
- Blueprint reading for welders
- Recognize and interpret weld symbols
- Measurement
- **AWS D1.1, Manufacturing Skill Standards Council (MSSC) Certified Production Technician; WorkKeys National Career Readiness Certificate (NCRC); OSHA 10**

■ Welder Fitter Competencies and Credentials:

- All competencies included above, plus:
- Demonstrate AWS proficiency in MIG, TIG, stick, and Flux Core welding (prepare, set, complete)
- Use hand-welding or flame cutting equipment to weld or join metal components
- Inspection for defects and quality assurance
- **AWS D1.1 Structural Steel** or similar
- **ASME Section 9 Qualified Welder** or similar

■ Fabricator Competencies and Credentials:

- All competencies included above, plus:
- Align and fit parts using jacks, turnbuckles, wedges, etc.
- Interpret engineering drawings and blueprints to determine materials and task sequences.
- **AWS Certified Welder – Various (Depends on job specifications)**
- **Other certifications determined by company (ASME, AWS)**

■ Welding Supervisors / Welding Inspectors Competencies and Credentials

- All competencies included above, plus:
- Direct and coordinate activities of welders and fitters
- Establish work schedules, assignments, and production sequences,
- Inspect materials, products, or equipment to detect defects
- Use precision measuring instruments and complex test equipment
- **AWS Certified Welding Inspector**
- **AWS Certified Welding Supervisor**
- **AWS Quality Non-Destructive Testing Examiner**

■ Welding Engineer Competencies and Credentials

- All competencies included above, plus:
- Evaluate materials/make recommendations for material selection
- Develop machinery and processes
- Analyze product failure data and test results to determine causes and develop solutions
- **AWS Certified Welding Engineer**

■ Plant Manager Competencies and Credentials

- All competencies included above, plus:
- Plan, direct, or coordinate the work activities and resources of welders and related occupations
- Product/process design, quality control/assurance
- Management
- **Certifications as required by the company**