



Welders & Cutters

WHAT THEY DO

Uses hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, Belongs to the Manufacturing cluster and Production pathway.

IS THIS FOR YOU?

Work Interests are described in the following categories (compatible with Holland's Model) by people who tend to succeed in this career:

- **Realistic** – You are a "doer". You like physical activities and projects. You like to find the answers to problems by doing hands-on work instead of talking about solutions.
- **Conventional** – You are an "organizer". Keeping things neat and organized is important to you. You like working with charts and reports, and work well with power and authority.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

- **Support** – It's very important to you to know the company stands behind its workers and has competent, considerate and fair management.

Aptitudes reflect a person's ability to acquire skills and knowledge. The following aptitudes are important for success in the career:

- **General Learning Ability**
- **Spatial Perception**
- **Manual Dexterity**

SKILLS YOU NEED

Basic Skills:

- Reading Comprehension
- Critical Thinking
- Monitoring

Transferable Skills (applicable in other careers): High level

- Assembling equipment and products
- Using welding and soldering machines and equipment

Medium level

- Following manufacturing blueprints and diagrams
- Following written assembly work orders
- Inspecting products and materials

Workplace Skills:

Medium level

- Operation and Control

Additional skills for this occupation may be found at <http://www.iowaworkforcedevelopment.gov/career-exploration-resources>

Source: <https://secure.ihaveaplaniowa.gov/>

ESTIMATED & PROJECTED EMPLOYMENT

Occupational Title	2012 Estimated Employment	2022 Projected Employment	2012-22 Employment Change	Annual Growth Rate (%)	Total Annual Openings
Total, All Occupations	1,758,205	1,955,480	197,275	1.1	61,665
Production Occupations	161,460	173,485	12,030	0.7	4,695
Welders, Cutters, Solderers, & Brazers	8,330	9,010	675	0.8	270

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

2015 WAGE & SALARY (\$)

Occupational Title	Average Wage	Average Salary	Entry Wage	Entry Salary	Experienced Wage	Experienced Salary
Total, All Occupations	19.77	41,122	9.55	19,858	24.88	51,755
Production Occupations	16.34	33,982	11.18	23,259	18.92	39,343
Welders, Cutters, Solderers, & Brazers	17.36	36,106	13.37	27,807	19.35	40,255

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

EDUCATION & TRAINING

Education	Work Experience	Job Training
High School Diploma	None	Moderate-Term On-The-Job

Formal training is available in high school technical education courses and in postsecondary institutions, such as vocational-technical institutes, community colleges, and private welding, soldering, and brazing schools. The U.S. Armed Forces also operate welding and soldering schools. Some employers are willing to hire inexperienced entry-level workers and train them on the job, but many prefer to hire workers who have been through formal training programs. Courses in blueprint reading, shop mathematics, mechanical drawing, physics, chemistry, and metallurgy are helpful. An understanding of electricity also is helpful, and knowledge of computers is gaining importance as welding, soldering, and brazing machine operators become more responsible for programming robots and other computer-controlled machines. Because understanding the welding process and inspecting welds is important for both welders and welding machine operators, companies hiring machine operators prefer workers with a background in welding. Approved apprenticeship programs/sponsors in Iowa can be found at http://access.bridges.com/ext/cp/custom_state_data/iowa_apprenticeship/4720310.htm. Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0> and <https://secure.ihaveaplaniowa.gov/>

NATIONAL CAREER READINESS CERTIFICATE (NCRC)

Skill	Median Skill Level
Applied Mathematics	3
Locating Information	4
Reading for Information	3



This ACT-developed credential demonstrates achievement and a certain level of workplace employability skills. The greater the score, the greater the skill level (Bronze = 3, Silver = 4, Gold = 5, Platinum = 6).

Source: <http://www.act.org/workkeys/analysis/occup.html>

PRIMARY INDUSTRY SECTORS

(Where are Welders and Cutters Employed?)

Machinery Mfg
 Fabricated Metal Product Mfg
 Transportation Equipment Mfg
 Primary Metal Mfg
 Repair and Maintenance
 Self Employed
 Specialty Trade Contractors
 Agriculture
 Electrical Equipment, Appliance, and Component Mfg

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

ADDITIONAL SOURCES:

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