

Welders, Cutters and Welder Fitters

About my job:

As a welder, cutter and solderer I weld or join metal parts. I also use my skills to fill holes, indentations, or seams of metal products, using hand-held metal joining equipment.



What I do every day:

- Weld components in a variety of positions
- Operate safety equipment and demonstrate safe work habits
- Position and secure parts and assemblies before assembly, using straightedges, combination squares, calipers and rulers
- Examine workpieces for defects and ensure conformance with specifications
- Operate hand and power tools including shielded metal arc and gas metal arc welding equipment
- Weld alloys including aluminum, stainless steel, cast iron and others
- Clamp, hold, tack-weld, heat-bend, grind or bolt component parts to obtain positions for welding
- Install torches, torch tips, filler rods and flux
- Read blueprints
- Identify and repair defects

What makes my job great?

Job growth:

Employment of welders, cutters, solderers and brazers is projected to grow 6 percent from 2012 to 2022.

Short-term training:

Training to be a welder ranges from a few weeks of technical school or on-the-job training to several years of combined technical school and on-the-job training.

Good pay:

The median salary is \$36,200 per year. (That means that 50 percent of welders earn less than this number, and the other 50 percent earn more.)

Benefits:

Most welders work full time with benefits that may include:

- **Paid vacation**
- **Healthcare**
- **Tuition reimbursement**

How can you become a welder?



Academic/training credentials:

A high school diploma is required and American Welder Society (AWS) certification is recommended.

Other credentials:

A high school diploma is the minimum for entry-level jobs, however, there are many certificates that show competence in various types of welding. Obtaining AWS will provide more job opportunities, and earning certificates in multiple types of welding will provide opportunities for advancement.

Work experience/internships:

For entry-level positions, experience is not required. What's more, many employers have on-the-job training programs to train to provide additional welding knowledge.

Skills and requirements:

- Most welders work full time; the ability to work overtime is necessary
- May work evenings, and weekends
- May require physical stamina and strength to stand for long periods and to lift heavy objects
- Ability to work in uncomfortable positions
- Must be detail oriented
- Blueprint reading and interpretation skills

Potential job titles:

- Aluminum welder
- Fabrication welder
- Fabricator, fitter/welder
- Maintenance welder
- Mig welder
- Sub arc operator
- Welder-fitter
- Welder/fabricator

Potential local employers:

- Babcock and Wilcox
- Component Repair Technologies
- Fredon Corp
- Lincoln Electric
- Lubrizol
- Steris
- Swagelok

Where you can find jobs:

- Online job boards
- Temporary employment services
- Career fairs
- Social media
- Networking with family, friends and teachers
- Department of Career Services at colleges



Local educational opportunities

Two-year institutions:

- Lakeland Community College: Associate of Technical Studies degree in industrial welding
 - FCAW and GMAW (MIG/MAG) welding certificate
 - GTAW (TIG) Welding Certificate
 - Oxyfuel gas welding and cutting certificate
 - Pipe welding certificate
 - Stick welding certificate
- Contact Lakeland Industrial Welding Project Manager at 440.525.7516.
- Cuyahoga Community College: fast track welding certificate
 - Auburn Career Center: welding complete course



Ohio College Tech Prep
Building Quality Education Pathways

Four-year institutions:

- The Ohio State University: Bachelor of Science in welding engineering

High School Tech Prep:

A-TECH: welding program

- Auburn Career Center: welding program
- Lake Shore Compact: welding or production welding program
- Contact your high school guidance office



Coursework per educational entity:

Secondary pathway:
Welding

Postsecondary program:
Industrial Welding

An Example of Course with Secondary and Postsecondary Credits

Secondary	7	English I	Algebra I	Physical Science	Social Studies	Fine Arts			
	8	English II	Geometry	Biology	World History	Health (.5) PE (.5)			
	9	English III	Algebra II	Chemistry	U.S. History	World Languages	Weld Shop Fundamentals	Oxyfuel Gas Welding	
	10	English IV	Technical Math	Physics	U.S. Government	World Languages	Stick Welding	MIG, YIG and Flux-Cored Arc Welding	
Postsecondary	Year 1 1st Semester	AWS Certificates	1 st Year Experience	Introduction to Business	Weld Shop Fundamentals	GMAW-MIG/MAG Welding			
	Year 1 2nd Semester	English Composition	Safety in Construction	TIG Welding	Oxyfuel Gas Welding	Technical Math	AWS Certificates		
	Year 2 1st Semester	English Comp II or Technical Comm.	Stick Welding	Pipe Welding	Principles of Management	AWS Certificates			
	Year 2 2nd Semester	Everyday Physics	Organizational Behavior	Public Speaking or Interpersonal Comm.	Principles of Micro-economics	Art and Humanities Elective	AWS Certificates		
High School Career-Technical Education Program Courses									
High School Courses for Postsecondary Credit (Including Apprenticeship Hours) and the Corresponding Postsecondary Courses									
Required Courses									
Recommended Electives									

How can I grow my career?

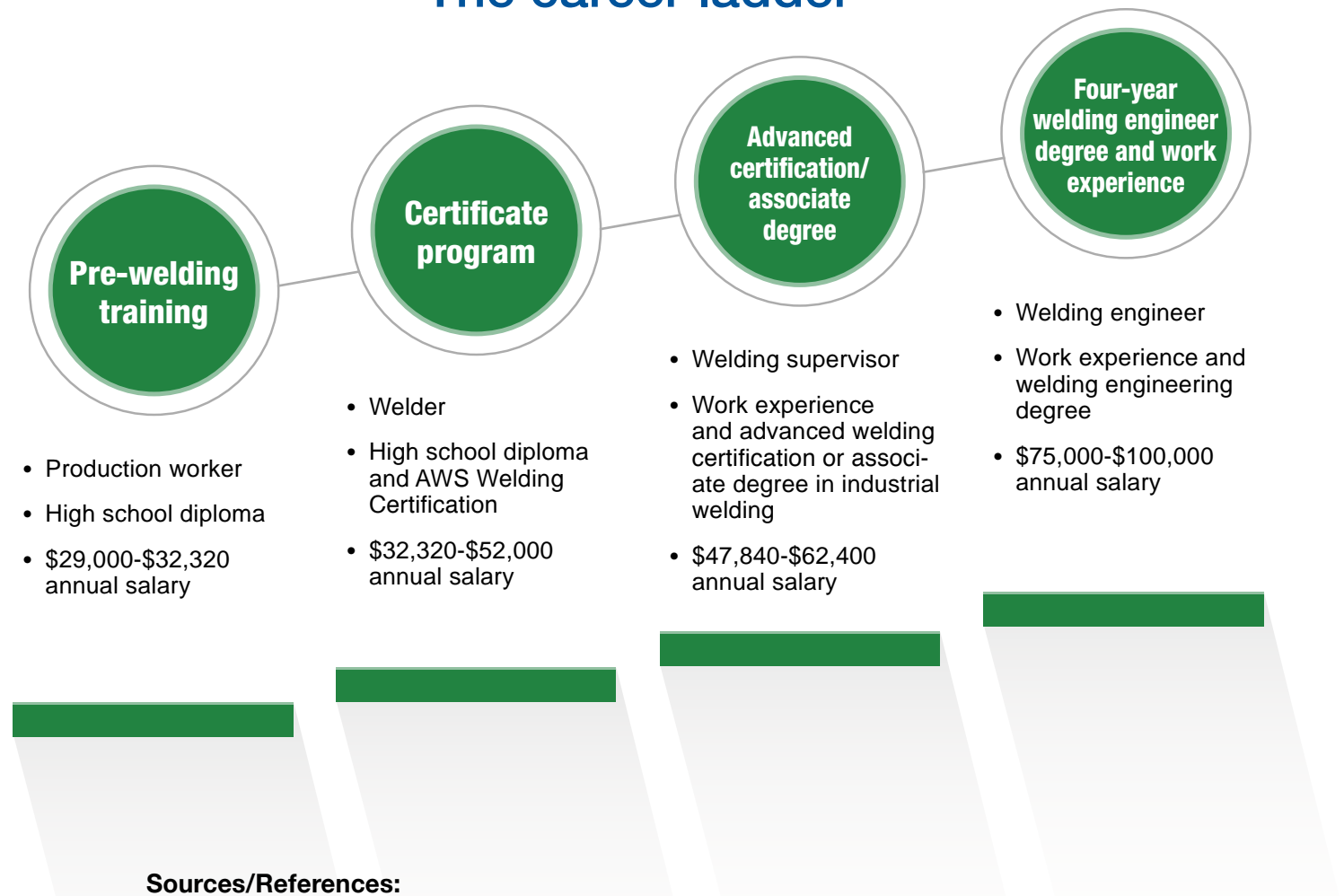


For entry-level positions, a high school diploma is required and welding certifications are preferred.

Where could I focus or specialize in my career?

- Production worker
- Finisher and grinder
- Welder
- Certified welding instructor
- Welding supervisor
- Welding shop manager or owner
- Welding engineer

The career ladder



Sources/References:

Ohio Means Jobs, Bureau of Labor Statistics – Occupational Outlook Handbook
 O*Net Online-Summary Report, Ohio Labor Market Information