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Welder

Job Description

Use hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Work Conditions

Welders, cutters, solderers, and brazers may work outdoors, often in inclement weather, or indoors, sometimes in a confined area. They may work on a scaffold, high off the ground, and they occasionally must lift heavy objects and work in awkward positions. Although most work full time, overtime is common.

How to Become a Welder, Cutters, Solderers & Brazers

Training 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.

- **Education**
 - 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.
 - 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.
 - In addition, the U.S. Armed Forces operate welding and soldering schools.
- **Training**
 - Although numerous employers are willing to hire inexperienced entry-level workers and train them on the job, many prefer to hire workers who have been through training or credentialing programs.
 - 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.
- **Licenses, Certifications, and Registrations**
 - Courses leading to certification are offered at many welding schools. For example, the American Welding Society offers the [Certified Welder](#) and [Certified Welding Fabricator](#) designations.
 - Some welding positions require general certification in welding or certification in specific skills, such as [Certified Welding Inspector](#) or [Certified Robotic Arc Welding](#).
 - The [Institute for Printed Circuits](#) offers certification and training in soldering. In industries such as aerospace and defense, which need highly skilled workers, many employers require these certifications. Certification can show mastery of lead-free soldering techniques, which are important to many employers.
 - Some employers pay the cost of training and testing for employees.



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- **Important Qualities**

- **Detail oriented**
Welders, cutters, solderers, and brazers perform precision work, often with straight edges and minimal flaws. The ability to see details and characteristics of the joint and detect changes in molten metal flows requires good eyesight and attention to detail.
- **Manual dexterity**
Welders, cutters, solderers, and brazers must have a steady hand to hold a torch in one place. Workers must also have good hand-eye coordination.
- **Physical stamina**
The ability to endure long periods of standing or repetitious movements is important for welders, cutters, solderers, and brazers.
- **Physical strength**
Welders, cutters, solderers, and brazers must be in good physical condition. They often must lift heavy pieces of metal and move welding or cutting equipment, and sometimes bend, stoop, or reach while working.
- **Spatial-orientation skills**
Welders, cutters, solderers, and brazers must be able to read, understand, and interpret two- and three-dimensional diagrams in order to fit metal products correctly.
- **Technical skills**
Welders, cutters, solderers, and brazers must be able to operate manual or semiautomatic welding equipment to fuse metal segments.

Wage Information:

The table below shows the estimated Employment Wage Statistics for individuals in North Dakota employed as Welders in 2013.

Rate Type	Entry level	Mean	Experienced
Annual Wage	\$32,200	\$48,960	\$57,330
Hourly Wage	\$15.48	\$23.54	\$27.56

For more information [click here](#).



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