

## CAREER PROFILES

### Welders and Related Machine Operators:

A **Welder** is a tradesperson who specializes in fusing materials together. The term Welder refers to the operator, the machine is referred to as the welding power supply. The materials to be joined can be metals (such as steel, aluminum, brass, stainless steel, etc.) or varieties of plastic or polymer. Welders typically have to have good dexterity and attention to detail, as well as some technical knowledge about the materials being joined and best practices in the field.

### Wage/Salary Information:

\$37,000 is the median annual salary found in local job-postings

\$22.30/hour is the median wage reported locally

### Commonly Listed Skills in Job Postings:

- Welding machines
- Manual dexterity
- Welding equipment
- Cutting equipment
- Soldering equipment
- Soldering machines
- Blueprint reading
- Detail oriented
- Forklift driving
- Oral and written communication
- Work independently
- Problem solving
- Self-motivated
- Teamwork
- Math
- Critical thinking
- Management
- Time management
- Analytical

### Job Duties:

Welders fabricate and assemble metal structures and equipment through the use of welders, cutters, shapers and measuring tools. Welders produce metal products according to customer or employer specifications. They use multiple welding machines to repair and maintain metal equipment and structures of various sizes. Welders read and interpret diagrams, sketches and blueprints to determine operations, required materials and timeframes for projects.

Welders set up, operate and maintain welding equipment. They understand and implement personal and company safety measures by wearing specialized goggles, helmets and gloves. Communication skills are essential to work with team members and converse with customers and clients.

### Working Conditions:

Most Welders and related Machine Operators work 40 hours per week in factories and machine shops and on construction sites. Those working at mills, factories and processing plants may work nights and weekends, or do shift work.

Machine Welders almost always work in controlled factory environments. Those working in manufacturing may work at sawmills, pulp and paper mills or mines. The oil and gas industry hires Welders to work on oil and gas rigs and pipelines.

Welders and related Machine Operators who work in construction or in the oil and gas industry often work outdoors in various weather conditions. They may also be required to work from scaffolds or platforms. Other potential hazards to Welders include exposure to fumes, intense light and burns, so they take safety precautions to avoid injury.

Welders in the construction industry often relocate to different job sites, sometimes in remote regions. Short periods of unemployment between projects are also common.

### Career Pathways:

Welding positions are classified depending on the training and types of welding machines that a Welder can use. Skilled Welders have experience using multiple welding machines including an arc welder, TIG (tungsten inert gas) welder and MIG (metal inert gas) welder.

Welders are found in automotive, manufacturing, shipbuilding, construction, steel, and aerospace industries, and can follow a wide range of career paths. Below are potential career paths for welders.

- Boilermaker
- Ironworker
- Pipeline Welder
- Pipefitter
- Radiographic Interpreter
- Structural Welder

- Underwater Welder
- Welder
- Welding Educator
- Welding Engineer
- Welding Inspector
- Welding Supervisor
- Welding Technician

Check out more possible career pathways on [WEexplore](#).

### Education and Training Pathways:

If you're interested in becoming a Welder, you can begin your apprenticeship or attend a local training/education program.

#### Apprenticeship Details:

##### Welder

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: Yes
- On-the-job training: 5,280 hours
- In-class training: One 10-week, one 6-week, and one 8-week technical session

##### Pressure Systems Welder

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 5,280 hours
- In-class training: Two 8-week technical sessions

Individuals interested in pursuing an apprenticeship pathway, should follow these steps:

- 1) Get hired – by an employer/sponsor/union
- 2) Apply online to register as an apprentice at [www.ontario.ca/page/start-apprenticeship](http://www.ontario.ca/page/start-apprenticeship)
- 3) Sign a training agreement with your employer/sponsor and the Employment Ontario apprenticeship office.
- 4) Become a Member of the Ontario College of Trades Apprentices Class at [www.collegeoftrades.ca/membership](http://www.collegeoftrades.ca/membership)
- 5) Keep a record of the hours you work
- 6) Achieve the competencies listed in your training standard if required in your trade

- 7) Complete all of the training requirements in your trade and you will receive a Certificate of Apprenticeship (CoA).
- 8) Write the Exam for the Certificate of Qualification if required in your trade

If you are currently in high school and would like to begin an apprenticeship, visit [oyap.com](http://oyap.com) for more information about the Ontario Youth Apprenticeship Program.

Individuals unsure about whether to pursue an apprenticeship or not, can learn more by visiting [www.ontario.ca/page/prepare-apprenticeship](http://www.ontario.ca/page/prepare-apprenticeship).

#### St. Clair College:

### **Welding Techniques**

**Admission/Eligibility Requirements:** OSSD with the majority of courses at the College (C), University (U), University/College (M), or Open (O) level

**Academic Credential:** One Year - Ontario College Certificate

**Professional Certification:** Graduates have the option to pay for and attempt the Canadian Welding Bureau (CWB) certifications (St. Clair College is a certified CWB training and testing centre)

**Attendance:** In-person

**Full-time or Part-time:** Full-time

**Program Length:** 2 semesters

**Program Cycle:** Program begins in September and February

**Program Cost:** Total (2 semesters): \$4,364.61 (2017/18)

**OSAP Eligible:** Unknown

**Location:** 2000 Talbot Road West, Windsor, N9A 6S4

For more information on this program, please visit:

<http://www.stclaircollege.ca/programs/postsec/welding/>

#### Windsor Welding Institute:

### **Welding Technology Program**

**Admission/Eligibility Requirements:**

- OSSD, GED, or equivalent, or;
- Mature Student Status
- Must successfully complete a superintendent approved qualifying test

- Following training and three years working in the field, welders can qualify for Red Seal trade certification

**Academic Credential:** N/A

**Professional Certification:**

- Training and testing to T.S.S.A. and C.W.B. Certification

**Attendance:** In-person

**Full-time or Part-time:** Full-time

- 7:00AM – 12:00PM OR 6:00PM – 11:00PM

**Program Length:**

- 25 weeks (625 hours)

**Program Cycle:** Continuous Enrolment (can begin classes on any Monday)

**Program Cost:**

- Tuition fee: \$10,500
- Textbook fee: \$175
- Welding equipment package fee: \$445
- Professional exam fee (T.S.S.A. and C.W.B.): \$1,600

**OSAP Eligible:** No

**Location:** 2710 Meighen Road, Windsor, N8W 4C8

For more information on this program, please visit:

<http://windsorwelding.com/program/welderfitter-and-welding-technology/>

## Pipe Welding Program

**Admission/Eligibility Requirements:**

- OSSD, GED, or equivalent, or;
- Mature Student Status
- Must successfully complete a superintendent approved qualifying test
- Following training and three years working in the field, welders can qualify for Red Seal trade certification

**Academic Credential:** N/A

**Professional Certification:**

- Training and testing to T.S.S.A. certification

**Attendance:** In-person

**Full-time or Part-time:** Full-time

- 7:00AM – 12:00PM OR 6:00PM – 11:00PM

**Program Length:**

- 28 weeks (700 hours)

**Program Cycle:** Continuous Enrolment (can begin classes on any Monday)

**Program Cost:**

- Tuition fee: \$13,400
- Textbook fee: \$175
- Welding equipment package fee: \$445
- Professional exam fee (T.S.S.A. and C.W.B.): \$900

**OSAP Eligible:** No

**Location:** 2710 Meighen Road, Windsor, N8W 4C8

For more information on this program, please visit:

<http://windsorwelding.com/program/welderfitter-and-welding-technology/>

***Disclaimer:** The educational institution reserves the right to change information without notice, and may result in discrepancies between their information and the information presented above. If any errors are found, please report them to [info@workforcewindsorsex.com](mailto:info@workforcewindsorsex.com).*