

## 7265 Welders and Related Machine Operators

Welders operate welding equipment to weld ferrous and non-ferrous metals. This unit group also includes machine operators who operate previously set up production welding, brazing and soldering equipment. They are employed by companies that manufacture structural steel and platework, boilers, heavy machinery, aircraft and ships and other metal products, and by welding contractors and welding shops, or they may be self-employed.

### Example Titles

- acetylene welder
- aircraft welder
- apprentice welder
- arc welder
- arc welder – pipeline
- arc welder, hand
- assembler tack welder
- auto body solderer
- automated welding machine operator – flash butt process
- automatic welding machine operator
- aviation welding technician
- battery lead burner
- battery lead-burner operator
- blowtorch operator
- blowtorch welder
- boiler welder
- brazer
- brazer and hammerer
- brazer, furnace
- brazer, gas
- brazer, resistance
- brazing machine operator
- brazing machine setter
- cable welder
- combination welder
- downhand welder – pipeline
- drilling platform welder
- drilling rig welder
- electric arc welder
- electric arc welder, hand
- electric spot welder
- electric spot welder operator
- electric spot-welding machine operator
- fabrication welder
- fit-up welder

- flame-brazing machine operator
- flame-brazing machine setter
- flash butt welder
- furnace brazer
- furnace solderer
- gas and arc welder
- gas brazer
- gas welder
- gas-shielded arc welder
- gas-shielded arc welding machine operator
- general welder
- hand arc welder
- hand electric arc welder
- hand resistance welder
- heliarc welder
- hydrogen braze furnace man/woman
- hydrogen braze furnace operator
- induction brazer operator
- induction brazer, production
- induction solderer
- industrial welder
- iron brazer
- jig welder-fitter
- journeyman/woman welder
- laser beam machine-welder operator
- laser beam welder
- laser beam welding machine operator
- laser welding operator
- lead burner
- lead welder
- machine operator – welding, brazing and soldering
- machine type solderer
- machine welder
- maintenance welder
- mesh-welding machine operator
- metal brazier and heater
- metal inert gas (MIG) welder
- metal solderer
- metal straightener and heater
- metal welder
- MIG (metal inert gas) welder
- operator, laser beam machine welder
- oxyacetylene torch welder
- oxyacetylene welder
- oxyhydrogen welder
- pipeline welder

- portable spot welder
- precision welder
- pressure vessel welder
- production induction brazier
- production line solderer
- production line spot welder
- production line welder
- production spot welder
- production welder
- resistance brazer
- resistance seam welder
- resistance welder
- resistance welder tender
- resistance welder, hand
- resistance welder-setter
- resistance welding machine setter
- resistance welding set-up man/woman
- rig welder
- set-up man/woman, resistance welding
- shielded-metal arc welder
- side seaming tender
- solderer
- solderer, furnace
- solderer, induction
- solderer-dipper
- soldering machine operator
- spot resistance welder
- spot welder
- submerged arc welder
- submerged arc welding machine operator
- tack welder
- thermite welder
- TIG (tungsten inert gas) welder
- tool and die welder
- torch brazer
- torch brazing machine setter
- torch welder
- tungsten inert gas (TIG) welder
- type-soldering machine tender
- welder
- welder apprentice
- welder operator
- welder, aircraft
- welder, arc
- welder, combination
- welder, drilling platform

- welder, drilling rig
- welder, gas
- welder, gas and arc
- welder, gas-shielded arc
- welder, heliarc
- welder, metal inert gas (MIG)
- welder, MIG (metal inert gas)
- welder, oxyacetylene
- welder, oxyacetylene torch
- welder, oxyhydrogen
- welder, pipeline
- welder, precision
- welder, pressure vessels
- welder, production line
- welder, resistance
- welder, shielded-metal arc
- welder, spot
- welder, submerged arc
- welder, TIG (tungsten inert gas)
- welder, tool and die
- welder, tungsten inert gas (TIG)
- welder-assembler
- welder-fitter
- welder-setter, resistance
- welding lay-out man/woman
- welding machine operator
- welding machine operator, gas-shielded arc
- welding machine operator, submerged arc
- wire welder

## **Main duties**

Welders perform some or all of the following duties:

- Read and interpret blueprints or welding process specifications
- Operate manual or semi-automatic welding equipment to fuse metal segments using processes such as gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), plasma arc welding (PAW), shielded metal arc welding (SMAW), oxy-acetylene welding (OAW), resistance welding and submerged arc welding (SAW)
- Operate manual or semi-automatic flame-cutting equipment
- Operate brazing and soldering equipment
- Operate metal shaping machines such as brakes, shears and other metal straightening and bending machines
- Repair worn parts of metal products by welding on extra layers.

- Welders may specialize in certain types of welding such as custom fabrication, ship building and repair, aerospace precision welding, pressure vessel welding, pipeline construction welding, structural construction welding, or machinery and equipment repair welding.

Welding, brazing and soldering machine operators perform some or all of the following duties:

- Operate previously set up welding machines such as spot, butt and seam resistance or gas and arc welding machines to fabricate or repair metal parts
- Operate previously set up brazing or soldering machines to bond metal parts or to fill holes, indentations and seams of metal articles with solder
- Start up, shut down, adjust and monitor robotic welding production line
- Assist with the maintenance and repair of welding, brazing and soldering equipment
- May adjust welding heads and tooling according to work specifications.

## **Employment requirements**

Welders

- Completion of secondary school is usually required.
- Completion of a three-year apprenticeship program  
*or*  
A combination of over three years of work experience in the trade and some college or industry courses in welding is usually required to be eligible for trade certification.
- Trade certification is compulsory in Alberta and available, but voluntary, in Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, British Columbia, Nunavut, the Northwest Territories and the Yukon.
- Interprovincial trade certification (Red Seal) is also available to qualified welders.

Welding, brazing and soldering machine operators

- Some secondary school education is required.
- Several months of on-the-job training are usually provided.
- Experience as a machine operator helper may be required.
- Experience with robotics may be required.

## **Additional information**

- Progression to supervisory positions is possible with experience.
- Red Seal trade certification for welders allows for interprovincial mobility.

## **Classified elsewhere**

- Supervisors of welders in this unit group (in [7214](#) *Contractors and Supervisors, Metal Forming, Shaping and Erecting Trades* )
- Underwater welders (in [7382](#) *Commercial Divers* )
- Wave soldering machine operators (in [9483](#) *Electronics Assemblers, Fabricators, Inspectors and Testers* )
- Welding inspectors (in [2261](#) *Non-Destructive Testers and Inspectors* )
- Welding technologists (in [2212](#) *Geological and Mineral Technologists and Technicians* )