

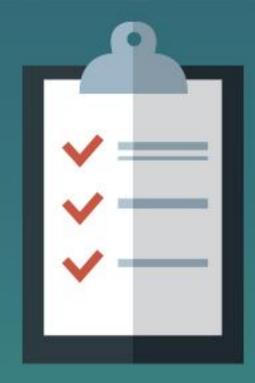




## WHO THEY ARE



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.



# WHERE THEY ARE EMPLOYED

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 selfemployed.



## MAIN DUTIES WELDERS

Read and interpret blueprints or welding process specifications

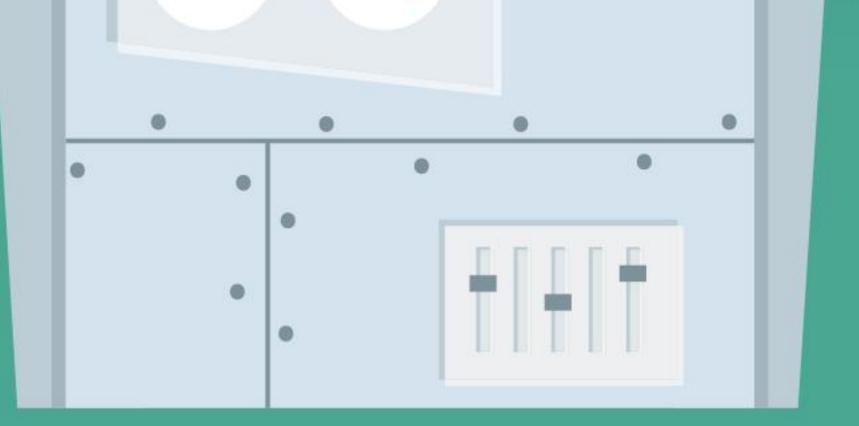
Operate manual or semi-automatic welding equipment to fuse metal segments using processes such as gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), plasma arc welding (PAW), shielded metal arc welding (SMAW), oxy-acetylene welding (OAW), resistance welding 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.

### MAIN DUTIES WELDING, BRAZING AND SOLDERING MACHINE OPERATOR

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

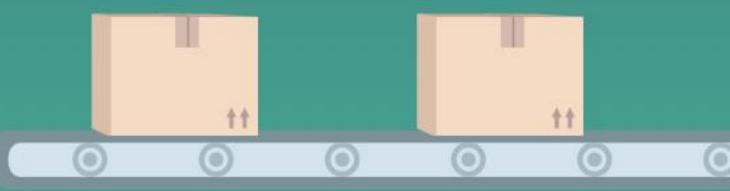
Assist with the maintenance and repair of welding, brazing and soldering equipment

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 all other provinces and the territories.
- Red Seal endorsement is also available to qualified welders upon successful completion of the interprovincial Red Seal examination.



### WELDING, BRAZING AND SOLDERING MACHINE OPERATOR

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.



Source: Statistics Canada 2011