

SKILLS TRANSFERABILITY

Welder to Industrial Mechanic (Millwright)

Are you a welder or related machine operator?
Are you looking for a new employment opportunity?

You have skills and experience that can provide a jumping-off-point to a career as an industrial mechanic (millwright).

Take a look at the information below to see how you could leverage your skills and, with some additional training, transition into this growing occupation.



Welders and Related Machine Operators

Industrial Mechanics (Millwrights)

OVERVIEW

Welders are responsible for operating manual or semi-automatic welding equipment to fuse metal segments using processes such as gas metal arc welding.

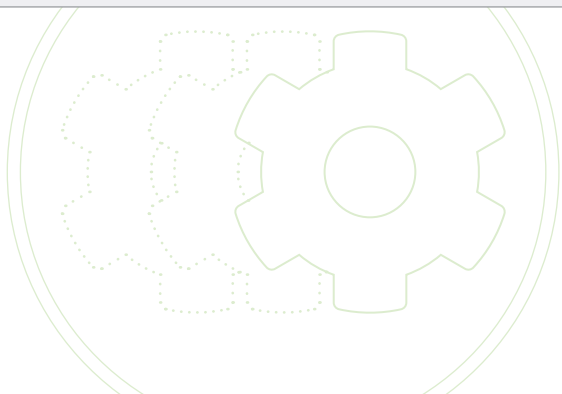
Machine operators utilize previously set up welding or brazing machines to fabricate, bond, or repair metal parts. Machine operators also assist with the maintenance and repair of welding, brazing, or soldering equipment.

Industrial mechanics (millwrights) install, maintain, troubleshoot, overhaul and repair stationary industrial machinery and mechanical equipment.

Industrial mechanics (millwrights) will read blueprints, diagrams and schematic drawings to determine work procedures. They will also inspect and adjust machinery to ensure it is in good working order.



Welders and Related Machine Operators	Industrial Mechanics (Millwrights)
EXAMPLE JOB TITLES	
<ul style="list-style-type: none"> • Journeyman/woman Welder • Electric arc Welder • Brazing Machine Operator • Production Welder 	<ul style="list-style-type: none"> • Plant Equipment Mechanic • Open-end Technician • Industrial Machinery Maintenance Mechanic • Journeyman/woman Industrial Mechanic
EMPLOYMENT REQUIREMENTS	
<ul style="list-style-type: none"> • Completion of secondary school usually required. • Completion of three-year apprenticeship program. • Trade certification required in Alberta. • Machine operators require some secondary school education, and on-the-job training is usually provided. 	<ul style="list-style-type: none"> • Completion of secondary school and training courses is usually required. • Completion of three-to-four-year apprenticeship program. • Voluntary trade certification in Alberta.
EARNINGS	
<p>Across Alberta, average earnings for <i>Welders and related machine operators</i> range from:</p> <p style="text-align: center;">\$21.00 to \$46.00 per hour (Job Bank)</p>	<p>Across Alberta, average earnings for <i>Construction millwrights and industrial mechanics</i> range from:</p> <p style="text-align: center;">\$25.00 to \$57.23 per hour (Job Bank)</p>
INDUSTRIES	
<ul style="list-style-type: none"> • Vessel or Structural Steel Assembly • Pipeline Construction • Commercial Construction • Industrial Construction • Steel Fabrication • Heavy Equipment Repair 	<ul style="list-style-type: none"> • Manufacturing • Mining and Oil and Gas Extraction • Wholesale Trade • Transportation • Energy
NATIONAL OCCUPATIONAL CLASSIFICATION	
<p>NOC 7237: <i>Welders and related machine operators</i></p>	<p>NOC 7311: <i>Construction millwrights and industrial mechanics</i></p>



Transferable Skills



Both welders and related machine operators and industrial mechanics (millwrights):

- Read and interpret blueprints, diagrams, and schematics to determine work procedures
- Operate metal shaping machines and machine tools such as welding equipment, lathes and grinders to fabricate parts
- Assist with routine maintenance, cleaning, and lubrication of equipment

Skills Gap



Industrial mechanics (millwrights) also:

- Install, align, dismantle and move stationary industrial machinery
- Operate hoisting and lifting devices such as cranes, jacks, or tractors to position machinery and parts during installation
- Inspect and examine machinery and equipment to detect and investigate irregularities and malfunctions
- Install, troubleshoot and maintain power transmission, vacuum, hydraulic and pneumatic systems

Certification is not required for industrial mechanics (millwrights) in Alberta. However, candidates must successfully complete a multi-year apprenticeship program.

Training providers in Alberta include:



Northwestern Polytechnic:

<https://www.nwpolytech.ca/departments/trades/taa/apprenticeship.html>



Keyano College:

<https://www.keyano.ca/en/programs-and-courses/industrial-mechanic-millwright-apprenticeship.aspx>



Northern Alberta Institute of Technology:

<https://www.nait.ca/programs/industrial-mechanic?term=1-winter>



Red Deer Polytechnic:

<https://rdpolytech.ca/programs/trades/industrial-mechanic-millwright-apprenticeship>



Southern Alberta Institute of Technology:

<https://www.sait.ca/apprenticeships-and-trades/apprenticeships-and-pre-employment-programs/industrial-mechanic-millwright>



Employment Outlook

Approximately 24,000 job openings across Canada are forecasted for *Construction millwrights and industrial mechanics* over the period 2022-2028 (Canadian Occupational Projection System).

The employment outlook for *Construction millwrights and industrial mechanics* for the 2021-2023 period is **FAIR** in Alberta (Job Bank).



Do you want to learn more about construction millwrights and industrial mechanics?

- **Alberta Apprenticeship and Industry Training:** <https://tradesecrets.alberta.ca/trades-in-alberta/profiles/016/>
- **Alberta ALIS:** <https://alis.alberta.ca/occinfo/occupations-in-alberta/occupation-profiles/industrial-mechanic-millwright/>
- **Industrial Mechanic (Millwright) Red Seal Occupational Standard (RSOS):** https://www.red-seal.ca/eng/trades/industrialmech/2017rs.4s_.4v.2rv.3.2w.shtml?wbdisable=true
- **Using essential skills: On the job with an industrial mechanic (millwright):** <https://www.canada.ca/en/services/jobs/training/initiatives/skills-success/tools/industrial-mechanic.html>