



Mechanical Contractors Association of Canada



MECHANICAL CONTRACTING CAREERS

MILLWRIGHT-INDUSTRIAL MECHANIC

Are you good at solving problems? Could you read blueprints and visualize a layout? Do you like working with heavy-duty equipment and machines? Do you like precise work? Are you looking for on-the-job variety? Then Construction Millwright/Industrial Mechanic could be the career for you!

Also known as

- Industrial Mechanic
- Industrial Mechanic Apprentice
- Maintenance Millwright
- Millwright
- Millwright Apprentice
- Plant Equipment Mechanic
- Treatment Plant Mechanic

What the work is like

Construction millwrights and industrial mechanics install, maintain, troubleshoot and repair stationary industrial machinery and mechanical equipment. They are employed by manufacturing and construction companies, as well as amusement parks and ski hills. Construction millwrights and industrial mechanics work in the Heavy Industrial, and Institutional and Commercial construction sectors.

Your duties

As a Construction Millwright/Industrial Mechanic, your duties may include the following:

- inspecting, repairing, cleaning and maintaining industrial machinery and equipment
- operating cranes and tractors to move machinery
- operating lathes or grinders to build parts for maintenance of machinery and equipment
- reading and interpreting blueprints and schematic drawings

Work conditions

The standard work week for construction millwrights and industrial mechanics is 40 hours (8 hours a day, 5 days a week). As with many careers in construction, there are peak periods that will require you to work overtime. The number of additional hours you work each week depends on the construction sector and region you work in, and will vary from one job to the next. If you do maintenance work, you may work in shifts. As a Construction Millwright/Industrial Mechanic, you may work indoors or outdoors, often closely with other construction professionals, including electricians, steamfitter/pipefitters or welders. The job can be physically demanding – you may have to work with heavy equipment and materials.

As with all careers in the construction industry, safety is the top priority. Construction millwrights and industrial mechanics are trained to work safely and wear special equipment to protect themselves from injury.

Essential Skills

Human Resources and Skills Development Canada (HRSDC) has identified nine Essential Skills that are necessary to succeed in the workplace. These skills provide the foundation for learning all other skills and apply to most construction careers. Best of all, you can learn and improve on these skills in school, on the job and during your everyday life.

The most important Essential Skills for construction millwrights and industrial mechanics are the following:

- Document Use – reading and interpreting documents to extract information
- Oral Communication – conveying or exchanging information verbally
- Problem Solving – coming up with solutions to challenges
- Decision Making – making a choice among options
- Working with Others – interacting with co-workers to get the job done
- Computer Skills – working with computers to operate machinery or to input/extract information

Apprenticeship

Apprenticeship is one way of starting out in the construction industry. It involves both classroom studies and on-the-job training under the supervision of a certified Construction Millwright/Industrial Mechanic, called a journeyperson.

As an apprentice, you earn while you learn and are paid by the hour while working on the job site. Wages start at about 60% of a journeyperson's hourly rate and increase during your apprenticeship until you reach the full rate.

Entering an apprenticeship program

Requirements for construction millwright/industrial mechanic apprenticeship programs vary across Canada. In most provinces and territories, you must be at least 16 years old and have a Grade 12 education or equivalent to enter the apprenticeship program. You must also have courses in math, science and English.

Some provinces and territories offer secondary school apprenticeship programs that allow high school students to work towards a career as a Construction Millwright/Industrial Mechanic.

For more information, check out the [Apprenticeship](#) section.

Program length

Apprenticeship training programs for construction millwrights/industrial mechanics vary across Canada, but generally involve four 12-month periods, including at least 6,240 hours of on-the-job training, four eight-week blocks of technical training and a final certificate exam.

Related work experience or completion of a construction millwright/industrial mechanic program at a college or technical institute can reduce the time required to complete your apprenticeship.

Certification

Certification is not required. It is available but voluntary in Ontario. Where certification is not available, it may be possible to study as an apprentice through your local labour organization. Check out [Related links](#) to find out who to contact. Even where certification is voluntary, it is still recommended. Certification tells employers and other workers that you are a skilled professional. It also helps you get jobs.

To be certified as a Construction Millwright/Industrial Mechanic, you usually need to complete a four-year apprenticeship program. Once you successfully complete the required on-the-job training, technical training and exams, you are awarded a journeyperson certificate.

You may be eligible for certification in some provinces and territories if you have more than five years of on-the-job experience and some high school, college or industry courses for construction millwrights/industrial mechanics.

As a certified Construction Millwright/Industrial Mechanic, you may attempt the Interprovincial Exam to qualify for the Interprovincial Standards' Red Seal. With a Red Seal, you can work as a Construction Millwright/Industrial Mechanic anywhere in Canada.

To keep your skills current, you have to keep up with new technological developments by reading and talking with other construction millwrights and industrial mechanics.

Where to study in Canada

In addition to the Canadian schools listed below, many employer and labour organizations offer training. For more information, check out [Related links](#).

Alberta

[Keyano College](#)
[Northern Alberta Institute of Technology](#)
[Southern Alberta Institute of Technology](#)

British Columbia

[British Columbia Institute of Technology](#)
[Camosun College](#)
[College of New Caledonia](#)
[College of the Rockies](#)
[Kwantlen Polytechnic University](#)
[Northwest Community College](#)
[Selkirk College](#)

Manitoba

[University of the North, Campus in The Pas](#)

Newfoundland and Labrador

[College of the North Atlantic](#)

Nova Scotia

[Nova Scotia Community College](#)
[Cape Breton University](#)

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Nunavut

[Nunavut Arctic College](#)

Specialty programs

In addition to the schools listed above, Aboriginal Canadians, new Canadians and women can enrol in one of several specialty programs.

For Aboriginal Canadians, [Northern College](#) offers a Native Residential Construction Worker Apprenticeship Program.

For new Canadians with experience as construction millwrights/industrial mechanics, [NorQuest College](#) offers a program called Transitions to Technical and Trades Careers.

For women, [Lambton College](#) and [Mohawk College of Applied Arts and Technology](#) offer integrated programs.

Salary ranges

Construction Millwright/Industrial Mechanic hourly wages vary depending on the contract, the company, collective agreements, and local and national economic conditions. Typical hourly wage ranges for construction millwrights and industrial mechanics (based on national or regional averages) are as follows:

Junior apprentices

Region	Typical hourly rate
National average	\$13-\$18
Atlantic Canada	\$12-\$14
Ontario and Quebec	\$15-\$18
Western Canada	\$17-\$25

Based on national averages, junior apprentices can earn annual salaries ranging from \$27,000 to \$37,000 per year, not including overtime.

Journeypersons

Region	Typical hourly rate
National average	\$21-\$25
Atlantic Canada	\$16-\$22
Ontario and Quebec	\$21-\$25
Western Canada	\$25-\$54

Based on national averages, journeypersons can earn annual salaries ranging from \$44,000 to \$52,000 per year, not including overtime.

Highly experienced journeypersons

Region	Typical hourly rate
National average	\$30-\$34
Atlantic Canada	\$30-\$34
Ontario and Quebec	\$30-\$33
Western Canada	\$31-\$54

Based on national averages, highly experienced journeypersons can earn annual salaries ranging from \$62,000 to \$71,000 per year, not including overtime.

Construction work can involve overtime, so your total annual salary will vary depending on the number of overtime hours you work.

In addition to the hourly rate, many construction workers receive statutory holiday and vacation pay. Depending on the contract, you may also receive benefits such as group insurance for health, dental, and vision care, as well as retirement packages and training benefits up to 30% of your hourly rate. If you are self-employed, it is up to you to arrange your own benefits.