



Mechanical Contractors Association of Canada



MECHANICAL CONTRACTING CAREERS

HEATING, VENTILATION & AIR CONDITIONING MECHANIC

Do you like working with machines? Are you strong and well coordinated? Do you work well in a team? Are you self-reliant? Do you enjoy dealing with customers? Are you good at problem solving? Do you crave variety on the job? Then Refrigeration/Air Conditioning Mechanic could be the career for you!

Also known as

- Central Air Conditioning Mechanic
- Commercial Air Conditioning Mechanic
- Heating and Cooling Mechanic
- Heating, Ventilation and Air Conditioning (HVAC) Mechanic
- Refrigeration and Air Conditioning Mechanic Apprentice
- Refrigeration Mechanic
- Transport Refrigeration Mechanic

What the work is like

Refrigeration and air conditioning mechanics install, maintain, repair and overhaul residential central air conditioning systems, commercial and industrial refrigeration and air conditioning systems, and combined heating, ventilation and cooling systems.

They are employed by installation contractors, construction companies, food wholesalers, engineering firms and service establishments.

Refrigeration and air conditioning mechanics work in the New Home Building and Renovation, Heavy Industrial, and Institutional and Commercial construction sectors. To learn more about the construction sectors, check out [Inside the industry](#).

Your duties

As a Refrigeration/Air Conditioning Mechanic, your duties may include the following:

- installing, troubleshooting and overhauling entire heating, ventilation, air conditioning and refrigeration systems
- measuring refrigeration or air conditioning components for installation
- working with hand and power tools to install refrigeration or air conditioning components
- measuring and cutting piping, and connecting piping using welding equipment
- testing heating, ventilation, air conditioning and refrigeration systems for leaks
- performing routine maintenance
- repairing and replacing components for entire heating, ventilation, air conditioning and refrigeration systems
- installing, maintaining and repairing equipment in refrigerated trucks
- preparing work estimates
- reading and interpreting blueprints

Work conditions

The standard work week for refrigeration and air conditioning 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.

As a Refrigeration/Air Conditioning Mechanic, your work conditions may vary from one project to another. You may work indoors or outdoors, alone or with a team of construction professionals.

As with all careers in the construction industry, safety is the top priority. Refrigeration and air conditioning 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 refrigeration and air conditioning mechanics are the following:

- Numeracy – working with numbers to perform calculations
- Significant Use of Memory – performing tasks that call upon greater memory use than most jobs
- Working with Others – interacting with co-workers to get the job done

[Click here](#) to see how these skills are applied on the job. You can also [click here](#) to learn more about Essential Skills.

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 Refrigeration/Air Conditioning 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 40% of a journeyperson's hourly rate and increase during your apprenticeship until you reach the full rate.

Entering an apprenticeship program

Requirements for refrigeration/air conditioning 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 program. You may find it helpful to have courses in math.

Some provinces and territories offer secondary school apprenticeship programs that allow high school students to work towards a career as a Refrigeration/Air Conditioning Mechanic.

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

Certification

Certification is required in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, and available, but voluntary, in all other provinces and the territories. Certification tells employers and other workers that you are a skilled professional. It also helps you get jobs.

To be certified as a Refrigeration/Air Conditioning Mechanic, you usually need to complete a three- to 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 in refrigeration/air conditioning.

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

To keep your skills current, you have to keep up with new technological developments by reading and talking with other refrigeration and air conditioning 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

[Southern Alberta Institute of Technology](#)

British Columbia

[British Columbia Institute of Technology](#)
[Joint Apprentice Refrigeration Training School Ltd.](#)
[Vancouver Island University](#)

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Manitoba

[Red River College](#)

New Brunswick

[New Brunswick Community College](#)

Nova Scotia

[Nova Scotia Community College](#)

Ontario

[Algonquin College](#)
[Cambrian College](#)
[Durham College](#)
[George Brown College](#)
[Humber College](#)
[La Cité collégiale](#)
[Mohawk College of Applied Arts and Technology](#)
[St. Clair College](#)

Prince Edward Island

[Holland College](#)

Saskatchewan

[Saskatchewan Institute of Applied Science and Technology](#)

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, [Red River College](#) offers an introductory program called ACCESS.

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

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

Salary ranges

Refrigeration and Air Conditioning Mechanic hourly wages vary depending on the contract, the company, collective agreements, and local and national economic conditions. Typical hourly wage ranges for refrigeration and air conditioning mechanics (based on national or regional averages) are as follows:

Junior apprentices

	Typical hourly rate
National average	\$13-\$15
Atlantic Canada	\$12-\$14
Ontario and Quebec	\$14-\$16
Western Canada	\$14-\$19

Based on national averages, junior apprentices can earn annual salaries ranging from \$27,000 to \$31,000 per year, not including overtime.

Typical hourly rate

National average	\$19-\$24
Atlantic Canada	\$18-\$21
Ontario and Quebec	\$20-\$23
Western Canada	\$22-\$49

Based on national averages, journeypersons can earn annual salaries ranging from \$40,000 to \$50,000 per year, not including overtime.

Highly experienced journeypersons

	Typical hourly rate
National average	\$27-\$35
Atlantic Canada	\$23-\$30
Ontario and Quebec	\$29-\$32
Western Canada	\$28-\$53

Based on national averages, highly experienced journeypersons can earn annual salaries ranging from \$56,000 to \$73,000 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.

Building your career

With experience and additional training, you can progress to supervisory positions. You can also become self-employed and start your own business.

As with most careers in the construction industry, your skills are portable. If you want to move, you can take your skills with you.

Job prospects

Construction careers across Canada are booming! To learn about the forecast for refrigeration and air conditioning mechanics, check out [Job prospects](#). There you'll find information on their expected demand by province for the next nine years.