

MILLWRIGHT



ANNUAL SALARY: \$70,000 - \$82,000* | NOC: 7311 | Nova Scotia Designated & Red Seal Trade¹

**Based on a 40-hour work week at current collective agreement rates for journeypersons. Does not include benefits.*

WHAT WE DO²

Construction millwrights (aka industrial mechanics) are responsible to work on industrial machinery and mechanical equipment - including hydraulic (machines that use liquid fluid power to do simple work), fuel, lubrication, cooling, and exhaust systems. Using diagrams and other drawings, following complex procedures, millwrights work with a variety of tools to perform their tasks - like drill presses, grinders, hand and power tools, and hoists and lifting equipment. They assemble, install, maintain, inspect, dismantle, and move machines and equipment. Not only that, but they will also make adjustments and repairs to replace specific parts in machinery that is already in place, clean the machinery, and cut, weld, and prepare new bases for equipment. While apprenticeship is the way most people enter the trade, many will pursue additional education such as welding.

As a millwright, you'll **travel between various locations, work indoors or outdoors, in shifts and overtime, in a team, and with heavy equipment**. To work in this trade, you must be **detail-oriented, safety aware, interested in electronics and machines**, and have **math and science skills**. It is also important to be **agile, have good vision and hearing, strength, and hand-eye coordination**. Your work is varied - so no two days are alike - and will count on your ability to be a **quick thinker and technical-minded**. If you enter this field, be prepared to be challenged on a daily basis!

PREPARATORY WORK

- Research the labour market, job shadow or take a test drive in a trade
- 500 hours toward apprenticeship can be obtained from approved public school programs and experiences like Cooperative Education, Skilled Trades, the Options and Opportunities (O₂) Program, and Building Futures for Youth. 16- to 19-year-olds can become a Youth Apprentice.³
- Take youth health and safety courses where offered in the province of NS
- High School Diploma or Equivalency⁴

PRE-APPRENTICESHIP & PRE-EMPLOYMENT PROGRAMS⁵

- One-year Diesel Repair - Industrial and Marine Certificate Program from the Nova Scotia Community College (NSCC) worth 835 apprenticeship hours when you register as an apprentice with the NS Apprenticeship Agency (NSAA)
- One-year Industrial Mechanical Certificate Program from the NSCC worth 1000 apprenticeship hours and Level 1 technical training when you register with the NSAA
- Two-year Electro Mechanical Technician Diploma Program from the NSCC worth 1000 apprenticeship hours and Level 1 technical training when you register with the NSAA

DIRECT ENTRY

- Gain employment in a workplace and optionally register as an apprentice under a certified journeyperson
- Complete 8000⁶ hours on the job and off-job technical training sessions that run 7 weeks if an apprentice
- Can write your Red Seal Interprovincial Standards Examination and obtain a Certificate of Qualification in the trade from the NSAA if the above requirements are met
- Other options for training are available through the Atlantic Canada Regional Council of Carpenters, Millwrights and Allied Workers⁷

¹ <http://nsapprenticeship.ca/trades>. Certification/apprenticeship is not presently needed in this trade in NS, but encouraged.

² <http://www.red-seal.ca>, <http://www5.hrsdc.gc.ca>, <http://careers.novascotia.ca/occupation/171> and

<http://www.careersinconstruction.ca/en/career/construction-millwrightindustrial-mechanic>

³ <http://nsapprenticeship.ca>, <http://www.ednet.ns.ca>, <http://www.workitns.ca> and <http://www.buildingfutures.ca>

⁴ <http://gov.ns.ca/just/regulations/regs/atqgenrl.htm>

⁵ http://www.nsc.ca/learning_programs

⁶ <http://www.novascotia.ca/just/regulations/regs/atqindmech.htm>

⁷ http://www.cmtctradescollege.ca/programs_cdp.html

MILLWRIGHTS' CAREER PATHWAY

Cooperative Education: Grades 10, 11 and 12 and at least 16 years of age to be eligible. Provides 100 apprenticeship hours per course credit.

Skilled Trades: High school courses satisfying academic requirements and providing 110 apprenticeship hours per course credit (Grades 10 and 11) and a 100-hour co-op placement.

O₂ Program: In-school learning and on-the-job training through 100-hour co-op placements. Available in select high schools. The *Building Futures for Youth Program* is offered primarily for students already enrolled in O₂ or cooperative education and provides upwards to 300 apprenticeship hours in 3 co-op credits.

Youth Apprenticeship: Ages 16-19. Paid hours that can be counted toward trade designation. Find a certified employer and register with the province (\$14.89 fee for identification). May overlap with co-op placements in high school.

Grade Twelve Diploma or Equivalent

Other Education Programs:

Complete a college or trade school program for advanced credit or experience. Find an employer and register with NSAA for \$148.18 as a new adult apprentice (if not previously enrolled as a youth apprentice).

Direct Entry:

Obtain employment on own or by contacting a union for indenturing and register with NSAA for \$148.18 (if not previously enrolled as a youth apprentice and continuing under the same employer).

Technical Training for the Nova Scotia Industrial Mechanic (Millwright) Apprenticeship Program
(*\$90.20 per week. In some cases, it is available in online format. Youth apprentices are exempted until after high school.*)

Level 1 – 7 weeks
*After 1st yr. (2000 hrs.***)*

Level 2 – 7 weeks
After 2nd yr. (4000 hrs.)

Level 3 – 7 weeks
After 3rd yr. (6000 hrs.)

Level 4 – 7 weeks
After 4th yr. (8000 hrs.)

0-1000 hours at 50% of journeyperson rate*

1001-2000 hours at 55% of journeyperson rate

2001-3000 hours at 60% of journeyperson rate

3001-4000 hours at 65% of journeyperson rate

4001-5000 hours at 75% of journeyperson rate

5001-6000 hours at 80% of journeyperson rate

6001-7000 hours at 85% of journeyperson rate

7001-8000 hours at 90% of journeyperson rate

\$17.38 – \$21.76 / hr**

\$20.86 – \$25.72 / hr

\$26.07 – \$31.66 / hr

\$29.55 – \$35.61 / hr

Interprovincial Standards Examination for Designation
(*\$148.18*)

* Industrial Mechanic (Millwright) Trade Regulations for NS. Assumes full-time employment.

** Average hourly pay for Industrial (major and non-major) and Commercial work under collective agreement rates for mainland NS and Cape Breton Island apprentices as of summer 2016. Apprentices may also be able to access employment insurance benefits while in class and tax incentives (refer to <http://nsapprenticeship.ca/about/financial-assistance>).

*** 6 months of work is considered equivalent to approximately 1000 credit hours. If a program is taken that is pre-approved for advanced credit, an apprentice may be credited with equivalent on-the-job hours and technical training credits.

Note: NS apprenticeship registration and technical training fees are current as of April 2016. If an individual applies to be certified on past experience, they must go through the trade qualification program (<http://nsapprenticeship.ca/sites/default/files/docs/forms/TQGP.pdf>) at a cost of \$740.77.