

## INDUSTRIAL MECHANIC (MILLWRIGHT)

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### Occupation Description

“Millwright” means a person who dismantles, moves, installs, lays out, sets-up, repairs, commissions, overhauls and maintains all machinery and heavy mechanical equipment, including power transmissions, conveyors, hoists, pumps, compressors, alignment, fluid power and vibration analysis.

For detailed information on the scope of knowledge and skills taught and assessed in this program refer to the Program Outline, available on the ITA website.

### Pathways to Certification

In BC, an individual can become certified as an Industrial Mechanic (Millwright) by completing the Industrial Mechanic (Millwright) program or by challenging the certification. Apprenticeship programs are for individuals who have an employer to sponsor them and challenge programs are for individuals who have extensive experience working in the occupation and wish to challenge the certification.

Youth can begin apprenticeship in high school through either the Secondary School Apprenticeship (SSA) program or the ACE IT program. The SSA program is available for any trade if an employer is willing to sponsor the student. Trades offered through ACE IT vary by region, contact your local school district to find out which technical training programs are being offered through ACE IT in your region.

Foundation programs, where available, provide adults and youth who do not have work experience or employer sponsorship with an opportunity to gain the knowledge and skills needed to enter the occupation. Individuals who wish to enroll in a Foundation program must register directly with the training provider.

### Recommended Education

The following education is **recommended** for apprentices entering this occupation. These are not prerequisites, but rather a desired level of skill or knowledge that will contribute to success in the industry.

- Grade 10 or equivalent including English 10, Mathematics 10 and Science 10
- Preferred Grade 12

### ITA Registration

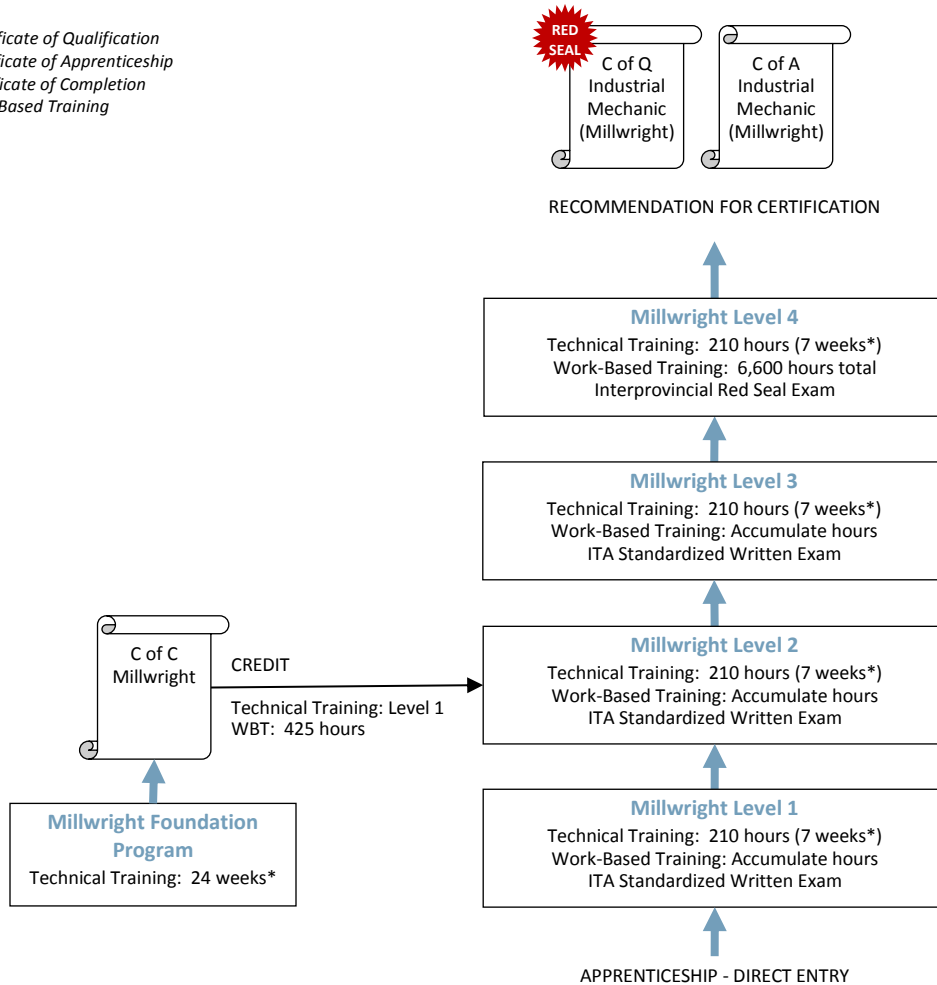
Individuals who wish to begin an apprenticeship in this program must register with ITA along with their sponsor. Application forms for all programs are available from the ITA website. Online registration is also available for most programs through the ITA website.

Those who wish to challenge the Industrial Mechanic (Millwright) certification must complete the Industrial Mechanic (Millwright) Challenge Application and submit it to ITA. Challenge applications are assessed for proof of workplace hours and scope of experience prior to acceptance of the individual into the Challenge pathway.

**Apprenticeship Pathway**

This graphic provides an overview of the Industrial Mechanic (Millwright) apprenticeship pathway.

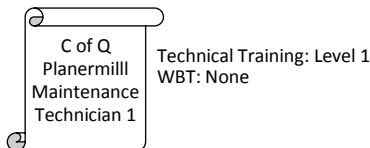
*C of Q = Certificate of Qualification*  
*C of A = Certificate of Apprenticeship*  
*C of C = Certificate of Completion*  
*WBT = Work-Based Training*



*\*Suggested duration based on 30-hour week*

**CROSS-PROGRAM CREDITS**

*Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program*





**Apprenticeship Program Standards**

<b>Credentials Awarded</b>	<ul style="list-style-type: none"> <li>▪ Industrial Mechanic (Millwright) – Certificate of Qualification with Interprovincial Red Seal Endorsement</li> <li>▪ Industrial Mechanic (Millwright) – Certificate of Apprenticeship</li> </ul>
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<b>ITA Registration Prerequisites</b>	<ul style="list-style-type: none"> <li>▪ Agreement signed by the employer to sponsor the apprentice</li> </ul>
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<b>Completion Requirements</b>	Certification as a Millwright is awarded upon successful completion of:	
	<b>Requirement</b>	<b>Level of Achievement Required</b>
	Technical Training	Minimum 70% in each level of technical training: <ul style="list-style-type: none"> <li>▪ Level 1: 210 hours (or 7 weeks*) and ITA standardized written exam</li> <li>▪ Level 2: 210 hours (or 7 weeks*) and ITA standardized written exam</li> <li>▪ Level 3: 210 hours (or 7 weeks*) and ITA standardized written exam</li> <li>▪ Level 4: 210 hours (or 7 weeks*)</li> </ul>
	Interprovincial Red Seal Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>
	Work-Based Training	<ul style="list-style-type: none"> <li>▪ 6,600 hours</li> </ul>
	Recommendation for Certification	<ul style="list-style-type: none"> <li>▪ Recommendation for certification signed by the Sponsor and an individual holding a credential eligible for sign-off authority</li> </ul>

*(\*Assuming 30 hours in school per week)*

<b>Program Duration</b>	<p>Duration varies depending on how training is delivered, but the program generally takes 4 years to complete.</p> <p>The technical training requirement is typically met through block-release training (full-time, at school) delivered by an ITA-approved training provider. It can also be met through approved alternative training models (e.g., distance education, online, part-time) and/or level challenge where these options are available.</p>
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<b>Sign-off Authority</b>	<p>Credentials eligible to sign-off on the Recommendation for Certification:</p> <ul style="list-style-type: none"> <li>▪ Millwright – Certificate of Qualification</li> <li>▪ Industrial Mechanic (Millwright) – Interprovincial Red Seal Endorsement</li> <li>▪ ITA-issued letter authorizing supervision and sign-off of apprentices in this occupation</li> </ul>
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<b>Challenging a Level</b>	<p>The following levels of technical training can be challenged for advanced placement in this program:</p> <ul style="list-style-type: none"> <li>▪ Level 1</li> <li>▪ Level 2</li> <li>▪ Level 3</li> </ul>
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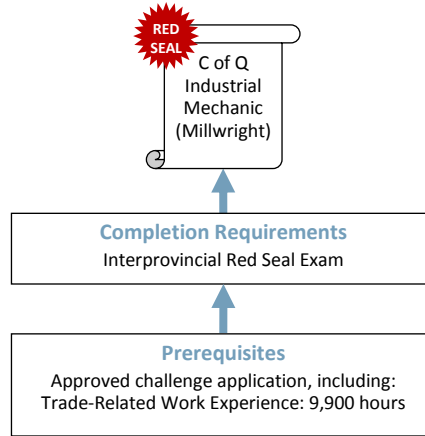
<b>Cross-Program Credits</b>	Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program
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<b>Credential</b>	<b>Credit(s) Granted</b>
Planermill Maintenance Technician 1 – Certificate of Qualification	<ul style="list-style-type: none"> <li>▪ Technical Training: Level 1</li> <li>▪ Work-Based Training: None</li> </ul>

### Challenge Pathway

This graphic provides an overview of the Industrial Mechanic (Millwright) challenge pathway.

*C of Q = Certificate of Qualification*



**CREDIT FOR PRIOR LEARNING**

*Individuals who hold the credentials listed below are considered to have met or partially met the prerequisites for challenging this program.*

Military certificate in  
 Marine Engineer  
 MT #367 / Marine  
 Engineering Technician  
 MT #313, QL5 or  
 higher

Work Experience: 9,900 hours



**Challenge Program Standards**

**Credentials Awarded** Industrial Mechanic (Millwright) – Certificate of Qualification with Red Seal Endorsement

**ITA Registration Prerequisites** An approved Challenge Application, which includes:

- 9,900 documented hours of directly related experience working in the occupation

**Credit for Prior Learning** Individuals who hold the credentials listed below are considered to have met or partially met the prerequisites for challenging this program.

<b>Credential</b>	<b>Credit(s) Granted</b>
Military certificate in Marine Engineer MT #367 / Marine Engineering Technician MT #313, QL5 or higher	<ul style="list-style-type: none"> <li>▪ Work Experience: 9,900 hours</li> <li>▪ Approved Challenge Application</li> </ul>

**Completion Requirements** Certification as a Industrial Mechanic (Millwright) is awarded upon successful completion of:

<b>Requirement</b>	<b>Level of Achievement Required</b>
Interprovincial Red Seal Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>



**Foundation Program**

Refer to the Apprenticeship pathway diagram for this program to see how the Industrial Mechanic (Millwright) Foundation program fits into apprenticeship.

**Foundation Program Standards**

<b>Credentials Awarded</b>	Industrial Mechanic (Millwright)– Certificate of Completion				
<b>Enrollment Prerequisites</b>	Contact training provider. Prerequisites vary between training institutions				
<b>Completion Requirements</b>	A Certificate of Completion in this program is awarded upon successful completion of: <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Requirement</th> <th style="text-align: left;">Level of Achievement Required</th> </tr> </thead> <tbody> <tr> <td>Technical Training</td> <td> <ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul> </td> </tr> </tbody> </table>	Requirement	Level of Achievement Required	Technical Training	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>
Requirement	Level of Achievement Required				
Technical Training	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>				
<b>Program Duration</b>	Duration varies depending on how training is delivered, but program generally takes 24 weeks to complete, assuming 30 hours in school per week				
<b>Credit toward Apprenticeship</b>	Individuals who complete the Industrial Mechanic (Millwright) Foundation program will receive the following credit toward completion of the Industrial Mechanic (Millwright) program apprenticeship program: <ul style="list-style-type: none"> <li>▪ Technical Training: Level 1</li> <li>▪ Work-Based Training: 425 hours</li> </ul>				

## Supporting Documents

Industrial Mechanic (Millwright) Program Outline (2009) – Defines the full scope of knowledge and skills required to competently perform the occupation in BC. Available from the ITA website.

Industrial Mechanic (Millwright) National Occupational Analysis (2007) – Prepared by industry experts, under the guidance of the federal government, for Red Seal trades to define the national standard of competence for the trade. Available from the Red Seal website: [www.red-seal.ca](http://www.red-seal.ca).

## Contacts

The **Industry Training Authority** (ITA) manages B.C.'s industry training and apprenticeship programs. Contact ITA Customer service if you have any questions regarding registration, examinations or certification for this program.

Telephone: 778-328-8700  
Toll Free (within BC): 1-866-660-6011  
Website: [www.itabc.ca](http://www.itabc.ca)

Fax: 778-328-8701  
Email: [customerservice@itabc.ca](mailto:customerservice@itabc.ca)

## Revision History

The standards for this program were reviewed and/or updated on the dates below.

Program Standards Approved: March 2002  
Updated: January 2006  
Updated: January 2009  
Updated: July 2009  
Updated: November 2012

Program Profiles are updated regularly. Visit [www.itabc.ca](http://www.itabc.ca) for the most current version.