

Machinists

An employment guide for newcomers to British Columbia



Vancouver Public Library

Funded by:

Financé par :



Immigration, Refugees
and Citizenship Canada

Immigration, Réfugiés
et Citoyenneté Canada

Contents

1. What Would I Do?.....	2
2. Am I Suited For This Job?.....	4
3. What Are The Wages And Benefits?	5
4. What Is The Job Outlook In BC?	6
5. How Do I Become a Machinist	7
6. How Do I Find A Job?	8
7. Applying for a Job	10
8. Where Can This Job Lead?.....	10
9. Where Can I Find More Information?.....	11

Machinists (NOC 7231)

Machinists may also be called:

- automotive machinist
- aviation machinist
- CNC machinist (computer numerical control)
- machine shop inspector
- machined parts inspector
- machining and tooling inspectors

1. What Would I Do?

Machinists set up and operate a variety of machine tools to cut or grind metal, plastic or other materials to make or modify parts with precise dimensions. You use machine tools, such as lathes, milling machines, and machining centres, to craft precision metal parts.

Your duties can include:

- read blueprints, written instructions, charts and tables
- decide which machines to use to shape the piece, and in what order to use them

- make pieces using a variety of machines, including drills, lathes, and milling machines
- perform precision machining operations such as sawing, turning, milling, boring, planing, drilling, precision grinding
- verify dimensions of products using precision measuring instruments
- fit and assemble machined metal parts and subassemblies using hand and power tools

Machining and tooling inspectors perform the following duties:

- verify dimensions of machined parts or tooling using micrometers, verniers, callipers, height gauges, optical comparators, co-ordinate measuring machines (CMM) or other specialized measuring instruments
- maintain, repair and calibrate precision measuring instruments such as dial indicators, fixed gauges, height gauges and other measuring devices

More information:

- **WorkBC Career Profile for Machinists**
<http://www.workbc.ca/Job-Seekers/Career-Profiles/7231>
- **Career Cruising database** (Profile for 'Machinists')
<http://www.vpl.ca/digital-library/career-cruising>

Available from the VPL Digital Library | Explore our Digital Library page

2. Am I Suited For This Job?

Machinists must be mechanically inclined and have:

- *strong attention to detail*
- *ability to communicate complicated technical ideas with precision and clarity*
- *good physical mobility and ability to lift heavy objects*
- *ability to handle production pressures calmly*
- *good hand-eye coordination*
- *math skills*
- *problem-solving skills*

You usually work indoors in machine shops or manufacturing plants. The work environment can be noisy and dirty. Hazards include physical injuries due to machinery-related accidents, hearing damage from noise and sickness caused by exposure to toxic lubricants or coolants. The increased use of enclosed, automated equipment has reduced the risk of such injuries and removed much of the noise and dirt created in traditional machine shops and plants.

You are required to stand for most of the work day and your work may involve repetitive tasks. You may be required to lift moderately heavy objects but modern shops and factories now employ autoloaders and overhead cranes that reduce lifting.

Sources: WorkBC Career Profiles & Career Cruising

3. What Are The Wages And Benefits?

In British Columbia, the median annual salary for machinists and machining and tooling inspectors is \$68,283. Wages depend on job requirements and work conditions. They also vary between regions.

In BC's regions, you can expect to make:

Community/Area	Wages (\$/hour)		
	Low	Median	High
British Columbia	20.00	28.00	42.85
Cariboo Region	20.00	28.00	42.85
Lower Mainland - Southwest Region	20.00	28.00	42.85
Thompson--Okanagan Region	20.00	28.00	42.85
Vancouver Island and Coast Region	27.00	32.00	38.00

Source: Job Bank Wage Report http://www.jobbank.gc.ca/wage-outlook_search-eng.do?reportOption=wage [Search 7231]

Machinists who are employed full-time often receive benefits in addition to wages. Benefits may include extended health coverage, paid sick days, and paid vacation time.

Some machinists are members of trade unions, such as the International Association of Machinists and Aerospace Workers (IAM). As a Union member, you have your wage rates and benefits negotiated for you by the union.

Sources: WorkBC Career Profiles & Career Cruising

4. What Is The Job Outlook In BC?

Job growth for machinists and machining and tooling inspectors will largely depend on trends in the manufacturing industry. The potential movement of some aircraft maintenance work for larger airlines to other provinces and some shipbuilding activity offshore may reduce future job growth for machinists and machining and tooling inspectors.

Employment Outlook

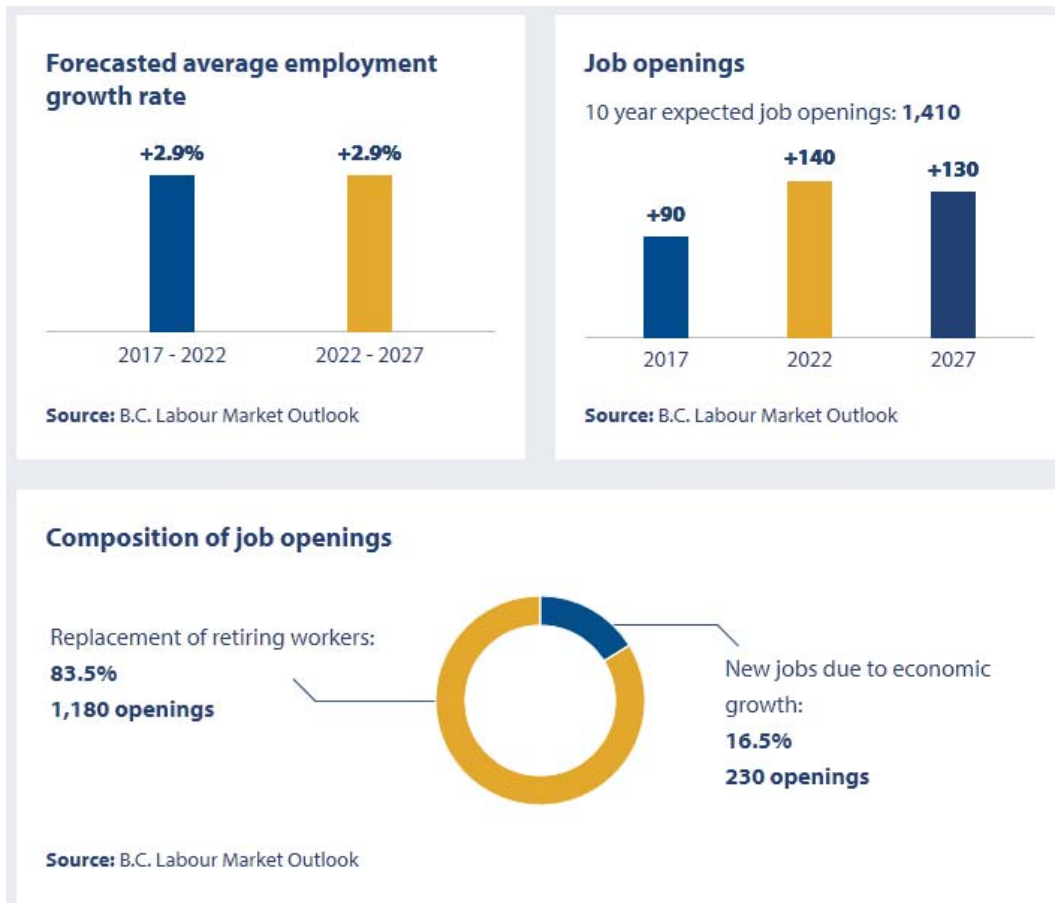


Chart from WorkBC

Source: WorkBC Career Profile

5. How Do I Become a Machinist

Machinist is an Inter-provincially recognized Red Seal trade. With a Red Seal, you can work in this trade anywhere in Canada.

Completion of secondary school is recommended, but not required.

Although trade certification is not mandatory to be a machinist in B.C., it will likely increase your job opportunities. You become certified by completing a four-year apprenticeship program.

Once you complete the apprenticeship program and successfully pass the Interprovincial Red Seal exam, you become certified as journeyman. After passing the Interprovincial exam (the final exam for this trade), you also automatically have a Red Seal endorsement through BC's Industry Training Authority (ITA).

If you have extensive experience working as a machinist you may also be certified through the challenge process. This includes completing 9,900 hours of work in the trade and successfully writing the Interprovincial Red Seal exam.

More information:

- **Industry Training Authority**
<http://www.itabc.ca/program/machinist>
- **Red Seal Program**
<http://www.red-seal.ca/w.2lc.4m.2@-eng.jsp>
- **Workforce Development Agreement**
<https://www.itabc.ca/apprentice-service/workforce-development-agreement>

This project, which is funded by the Industry Training Authority, may provide financial and other support to help you gain your certification

6. How Do I Find A Job?

Where would I work?

Machinists work for:

- *machinery, equipment, motor vehicle, automotive parts, aircraft and other metal products manufacturing companies*
- *machine shops*
- *wood manufacturing and food processing plants, as well as in refineries*

Finding Advertised Jobs

Jobs are advertised in a variety of sources including newspapers, magazines and online job sites.

Local Newspapers

You can look at the *Vancouver Sun & The Province* at Vancouver Public Library for free. Check the job postings daily, the careers section in the *Vancouver Sun* on Wednesdays and Saturdays and, in *The Province* on Sundays.

Online Job Postings

- **Indeed.com**
http://ca.indeed.com/advanced_search
- **WorkBC Job Postings**
<http://www.workbc.ca/JobSeekers/SearchResults.aspx>
- **Job Bank**
http://www.jobbank.gc.ca/job_search.do

Finding "Hidden Jobs"

Many job vacancies are not advertised. The resources below help you with finding jobs in this "hidden" job market.

Using Directories to Create a List of Potential Employers

You can use company directories to produce lists of employers who employ machinists in Vancouver or the Lower Mainland. Contact them directly to find out if they're hiring.

- **Canadian Tooling and Machining Association (CTMA)**

<https://ctma.com/membership/member-list-alpha>

- **Reference Canada**

<http://www.vpl.ca/digital-library/reference-canada>

Click on "Start Search" beside Canadian Businesses, then select the "Advanced Search" button. Select both "Keyword/SIC/NAICS" under Business Type and "City" under Geography. In the top search box enter "machinists" ** and click SEARCH. Select the appropriate headings. Lower down, select the Province, choose the cities, and click the "View Results" button.

**You can also try entering "machining" to find more company names

Available from the VPL Digital Library | Explore our Digital Library page

NOTE: You can access this database from a Library computer. If you are using a computer from outside the Library, you will need a Vancouver Public Library card to login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).

Networking, Volunteering and Temporary Agencies

Many positions are filled by people who have been recommended by someone they know. Networking, working as a volunteer or registering with a temporary employment agency are good ways of helping you find jobs and meet people in your industry.

Networking and the Hidden Job Market:

When looking for work, be sure to talk to friends, relatives and neighbours. They may know someone who is hiring! Working as a volunteer, attending events, and joining clubs and associations are good ways to gain "Canadian experience." They are also good ways to meet people to learn about the local job market.

Volunteer opportunities

- **GoVolunteer.ca**

<http://govolunteer.ca/>

- **Volunteer BC**

<http://www.volunteerbc.bc.ca/>

For additional tips see:

- **Networking for Employment**

Go to <http://skilledimmigrants.vpl.ca>

[Search Networking for Employment]

- **Getting Canadian Work Experience**

Go to <http://skilledimmigrants.vpl.ca>

[Search Getting Canadian Work Experience]

7. Applying for a Job

In Canada, employers usually expect to receive a resume and a cover letter that identifies the position you are applying for and summarizes your experience. Use the library catalogue, <http://vpl.bibliocommons.com/> to find books on writing resumes and cover letters specific to your industry.

For more information see:

- **Writing Resumes and Cover Letters**

Go to <http://skilledimmigrants.vpl.ca>

[Search Writing Resumes and Cover Letters]

8. Where Can This Job Lead?

Many individuals start in entry-level positions, such as machine setters. Once in entry-level positions, you may then become a machinist apprentice. You may also begin as an apprentice and become a certified machinist once you have completed your apprenticeship program. After several years of experience as a certified machinist, tool and die maker, or machining tool operator, you may become machining and tooling inspectors.

9. Where Can I Find More Information?

- **Canadian Tooling and Machining Association**
<https://www.ctma.com/home>
- **International Association of Machinists and Aerospace Workers**
<http://bcfed.ca/unions/iamaw>
- **Learn More About Working in BC and Canada**
Go to <http://skilledimmigrants.vpl.ca>
[Search Learn More about Working in BC and Canada]

Questions? Please ask the Information Staff at the Central Library or telephone 604-331-3603.

Please note that the information in this guide is also available online through the Skilled Immigrant InfoCentre website at <http://skilledimmigrants.vpl.ca/>.