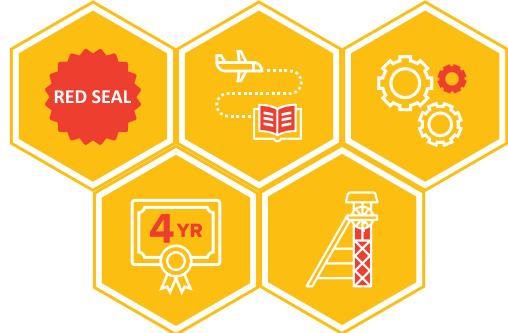




Machinist

About this job

Machinists are precise, logical, and safety minded. They often work with state-of-the-art equipment, and possess good concentration, mechanical ability and computer skills. Along with repairing products, machinists may also be called upon to fabricate specific parts from the appropriate material.



- **Four-year program**
- **Eligible for Red Seal**
- **Endorsement**
- **Requires out of the territory technical training**
- **Manufacturing**
- **Mining**

\$83 200

Estimated Average Journeyperson Salary

MACHINIST FALLS UNDER NATIONAL OCCUPATION CLASSIFICATION
(NOC) CODE #7231/72100

APPRENTICESHIP, TRADES, AND OCCUPATIONAL CERTIFICATION

Aussi disponible en français

What can I expect to do for work if I become a Machinist?

Machinists set up and operate precision metal cutting and grinding machines such as lathes, milling machines, drills and grinders to make and repair products made from metals, plastics, rubber, fibreglass, and alloys. Machinists work according to very precise specifications. Even without instructions or specifications, they determine dimensions by logic or by measuring samples. They use instruments such as micrometers and calipers. To perform a typical machining task, machinists:

- study specifications, charts, drawings or sample parts to determine the machining operation to be performed,
- calculate dimensions and tolerances, and prepare working sketches if necessary,
- measure and mark metal and other materials,
- set up and operate tools, which may be computer numerically controlled, to perform precision machining operations, and
- fit parts to mechanisms and verify dimensions.

What kind of working conditions can I expect?

Machinists may work in shops with manual tools or Computer Numeric Controlled equipment. In job shops, they make a wide variety of repair parts for different types of machinery and industrial equipment. In production shops, mass production methods including CNC machining and other tools are used. They make parts when it is impossible or too costly to purchase them.

Machinists work in shops with state of the art machines.

Some shops may be noisy or dusty. Machinists may stand for long periods of time.

They work about 40 hours a week, but may be required to work overtime in emergency situations. Night or evening shifts are also common.

Safe working practices are required as there may be risk of injury involved in working with high speed machinery with sharp metals and tools.

What are some skills that are valued in this profession?

- the ability to use their hands skilfully and quickly,
- mechanical ability and computer skills,
- the ability to estimate and measure sizes and lengths accurately,
- strength, stamina and the use of proper lifting techniques required to handle heavy items, and
- the ability to work independently at tasks that require concentration as well as physical effort

What is the minimum requirement to become an apprentice in this trade?

Apprentices must obtain a minimum of 70% on the Trades Entrance Exam – TEE Category #3 or the equivalent education as outlined below. This must be done before signing the Apprenticeship contract and attending technical training.

How long will it take to complete a Machinist apprenticeship?

An apprenticeship takes about four years to complete and includes four on the job periods and four technical training periods. You need to complete 1800 hours per period, for a total of 7200 hours.

How long is technical training?

Apprentices will attend 960 technical training hours. Apprentices usually go to school for this program in Alberta.

Period	Technical Training ¹	Prerequisites for technical training	Hours ²
1st	8 Weeks 240 hours	Entrance Exam and 900 hours	1800
2nd	8 Weeks 240 hours	Completed 1st Period	3600
3rd	8 Weeks 240 hours	Completed 2nd Period	5400
4th	8 Weeks 240 hours	Completed 3rd Period	7200

¹Length of In-School Training

²Minimum Time Required to Complete (Includes Technical Training)

For more information:

www.gov.nt.ca/Apprenticeship