Occupational Profile

Machining Tool Operators



FOCAL

Initiative

Large scale manufacturing settings rely on accurately producing inputs with identical specifications in order to create their finished products with minimal defects and a high level of consistency. Machining Tool Operators set up and operate or tend metal-cutting machines used for repetitive machine working. They work hands-on with automation responsible for metal shaping that is crucial to the tasks performed by other production and skilled trade workers. FOCAL projects more than 500 jobs over the next decade within the automotive sector for Machining Tool Operators.

Where do Machining Tool Operators work?



Vehicle Assembly and Body Parts Manufacturing



Aerospace Manufacturing Industry



Machine Shops



Machinery Repair and Manufacturing Industry

What do Machining Tool Operators do?

Machining Tool Operators may set up, maintain and operate equipment and use chemical solutions to work metal pieces used in custom fabrication of goods. They may also perform simple programming of automation and robotics used in manufacturing environments.

- Study job orders and interpret blueprints to determine machining operations to be performed
- Set up and operate machine tools to perform repetitive machining operations, such as turning, milling, drilling, boring, planing, honing, broaching, grinding or other machining operations
- May enter codes specifying speed, feed and cut of the toolpath for computer numerical controlled (CNC) machine tools.
- Perform routine maintenance on equipment and machinery
- Prepare etching solution and immerse metal parts or workpiece in etching solution to remove unwanted portions

Career pathways & potential earnings of Machining Tool Operators

Machining Tool Operators can progress to other roles and positions:

Machining Tool Operators



Machining Tool Operators wages start at \$16/hr, and with experience and additional training can lead to placement as a Machinist.



Machinist Median Machinist salaries are around \$27.35/hr, with some wages as high as \$38/hr. Experience in these roles can lead to supervisory roles.

Machining Trades Supervisors



Machining Trades Supervisors oversee activity for several occupations in metalworking and machining, earning up to \$49/hr.

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Machining Tool Operators can also apply their skills and expertise in other occupations such as the following:

- Woodworking Machine Operators
- Machinists and Machining and Tooling Inspectors

How do I become a Machining Tool Operator?

There are several educational, licensing and training requirements to become a Machining Tool Operator. Some requirements may vary by province or company. Below are the most commonly required qualifications to work as a Machining Tool Operator:

- **Minimum Education:** A high school diploma. Some positions may require additional courses from colleges in machining
- **Training and other requirements:** Several weeks of on the job training are provided for these positions. Senior positions in this occupation group such as set-up operator may require experience in machine operation



What are the most important skills to have as a Machining Tool Operator?

Machining Tool Operators fill a similar role to machinists. A large part of the job involves setting up and programming simple commands into machinery and CNC systems, which mass produce outputs. Knowledge of mechanics and simple CNC programming can increase accuracy and workflow, and operators must have a solid understanding of their tools to perform maintenance.

Technical Knowledge and Skills

- Mechanics and Machinery
- Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Software
- Computer Numerically Controlled (CNC)
 Systems
- Quality Control Analysis
- Equipment Maintenance

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Future of Machining Tool Operation in Canada

Machining Tool Operators are a highly in-demand skilled trade in Canada. In 2021, more than 8,770 Machining Operators were employed across Canada's sectors and industries. FOCAL projects more than 520 job openings for these operators in Canada's automotive manufacturing sector between 2021 and 2030. FOCAL also forecasts that during the same period, more than 420 Machining Tool Operators are needed to fill recruitment gaps in the sector, especially as the sector transitions to the new manufacturing technologies for electric vehicle production

Learn more about the job market for Machining Tool Operators, as well as about many other developments and new technologies in Canada's automotive manufacturing by visiting our website <u>futureautolabourforce.ca</u>.

You can also check our social media by following these links:



- Critical Thinking
- Judgement and Decision Making
- Troubleshooting
- Written/Oral Comprehension
- Manual Dexterity



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