

Computer-Controlled Machine Tool Operators, Metal and Plastic (SOC 51-4011)

Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Sample of reported job titles: Brake Press Operator; Computer Numerical Control Lathe Operator (CNC Lathe Operator); Computer Numerical Control Machine Operator (CNC Machine Operator); Computer Numerical Control Machinist (CNC Machinist); Computer Numerical Control Mill Operator (CNC Mill Operator); Computer Numerical Control Operator (CNC Operator); Computer Numerical Control Set-Up and Operator (CNC Set-Up and Operator); Machine Operator; Machine Set-Up, Operator; Machinist



Job Responsibilities

- Set up machines according to blueprints
- Monitor machines for unusual sound or vibration
- Insert material into machines, manually or with a hoist
- Operate metal or plastic molding, casting, or core-making machines
- Adjust machine settings for temperature, speed and feed rates, and cycle times
- Remove finished products and smooth rough edges and imperfections
- Test and compare finished work pieces to specifications
- Remove and replace dull cutting tools
- Document production numbers in a computer database

New Hampshire Outlook

- Average Hourly Wage*: \$17.76
- Estimated Employment 2014: 1,806
- Projected Employment 2024: 2,258
- Expected 10-Year Growth: 25.0%
- Projected Average Annual Openings: 100

Top industries in NH for this occupation:

- Fabricated Metal Product Manufacturing
- Machinery Manufacturing
- Computer and Electronic Product Manufacturing
- Primary Metal Manufacturing

Education and Training

For jobs as machine setters, operators, and tenders, employers generally prefer workers who have a high school diploma. Those interested in this occupation can improve their employment opportunities by completing high school courses in computer programming, shop and blueprint reading, and by gaining a working knowledge of the properties of metals and plastics. A solid math background, including courses in algebra, geometry, trigonometry, and basic statistics is useful. Some community colleges and other schools offer courses and certificate programs in operating metal and plastics machines.

Machine operator trainees usually begin by watching and helping experienced workers on the job. Under supervision, they may start by supplying materials, starting and stopping the machines, or removing finished products from it.

* Wage estimates based on surveys conducted from November 2012 to May 2015.

Then they advance to more difficult tasks that operators perform, such as adjusting feed speeds, changing cutting tools, or inspecting a finished product for defects. Eventually, some develop the skills and experience to set up machines and help newer operators.

The complexity of the equipment usually determines the time required to become an operator. Some operators and tenders learn basic machine operations and functions in a few weeks; but other workers, such as computer-controlled machine tool operators, may need a year or more to become skilled or to advance to the more highly skilled job of setter.

In addition to providing on-the-job training, employers may pay for some machine operators to attend classes. Other employers prefer to hire workers who have completed or are enrolled in a training program.

As the manufacturing process continues to advance with computerized machinery, knowledge of computer-aided design (CAD), computer-aided manufacturing (CAM), and computer numerically-controlled (CNC) machines can be helpful.

Interests (Holland Code): RCI

- **Realistic:** Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.
- **Conventional:** Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.
- **Investigative:** Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.

Career Cluster: Manufacturing

Work Environment

Metal and plastic machine workers are employed mainly in factories. Although the work is not inherently dangerous, hazards exist and workers must adhere to safety standards. Most work full time, and some work evenings and weekends.

Additional Information Sources**

For more information about metal and plastic machine workers, including training and certification, visit: Fabricators & Manufacturers Association, International (FMA), <<http://fmanet.org>>
National Institute for Metalworking Skills, <www.nims-skills.org>

To Find a Job

Contact the nearest NH Employment Security office or go online to www.nhes.nh.gov

** Inclusion of this information is intended to provide a convenient resource for research, but in no way constitutes an endorsement for any organization, nor is the list all-inclusive.

Source:

NH Employment Projections, base year 2014 to projected year 2024
Occupational Outlook Handbook, Bureau of Labor Statistics



For more information:
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