

## CAREER PROFILES

### Tool and Die Makers:

**Tool and Die Makers** make, repair, and modify custom-made, prototype or special tools, dies, jigs, fixtures, and gauges using various metals, alloys, and plastics which require precise dimensions. They are the most highly skilled workers in manufacturing. **Tool and Die Makers** are knowledgeable in machining operations, mathematics, and blueprint reading.

### Wage/Salary Information:

\$49,352.13 is the median annual salary found locally.

\$23.73/hour is the median wage reported locally.

### Commonly Listed Skills in Job Postings:

- Blueprint reading
- Oral and written communication
- Detail oriented
- Teamwork
- Problem solving
- Maintenance
- Self-motivated
- Manual dexterity
- Troubleshooting
- Creativity
- Work independently
- Machine operation
- Time management
- Computer use
- Critical thinking
- Microsoft Office
- Organizational skills
- Forklift driving
- AutoCAD

### Job Duties:

Tool and Die Makers read and interpret engineering drawings and specifications of tools, dies, prototypes, or models and prepare templates and sketches, and determine work processes. Tool and Die Makers compute dimensions and tolerances and set up machine tools and position, secure, measure, and work metal stock or castings to lay out for machining. They set up, operate, and maintain a variety of conventional and computer numerically controlled

(CNC) machine tools to cut, turn, mill, plane, drill, bore, grind, or otherwise shape workpiece to prescribed dimensions and finish. Tool and die makers also verify machined parts for conformance to specifications using precision measuring instruments such as verniers, callipers, micrometers, co-ordinate measuring machines (CMM), and electronic measuring devices.

### Working Conditions:

Work takes place in a controlled indoor setting that may be noisy.

Work involves equipment, machinery or power/hand tools that may be a potential source of injury.

Workers may be exposed to flying particles, such as metal particles, and falling objects in the work environment that pose the risk of bodily injury.

### Career Pathways:

Red Seal trade certification of Tool and Die Makers allow for movement between provinces. Progression to supervisory positions is possible with experience.

Tool and Die Makers are employed primarily in manufacturing industries such as automobile, aircraft, metal fabrication, electrical machinery and plastics, and in tool and die, mould making, and machine shops. Below are potential career pathways for tool and die makers:

- Die Finisher
- Die Maker
- Jig Maker
- Metal Mould Maker
- Metal Patternmaker
- Metal Patternmaker Apprentice
- Mould Maker – Plastics Processing
- Mould Maker Apprentice
- Tool and Die Maker
- Tool and Die Maker Apprentice
- Toolmaker

Check out more possible career pathways on [WEexplore](#).

### Education and Training Pathways:

If you're interested in becoming a Tool and Die Maker, you can begin your apprenticeship or attend a local training/education program.

## Apprenticeship Details:

### Die Designer

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: Approximately 24 months
- In-class training: 240 hours

### Mould or Die Finisher

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 3,760 hours
- In-class training: 240 hours

### Mould Maker

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 7,280 hours
- In-class training: Three 8-week technical sessions

### Pattern Maker

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 7,280 hours
- In-class training: Three 8-week technical sessions

### Tool/Tooling Maker

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 7,280 hours
- In-class training: Three 8-week technical sessions

### Tool and Die Maker

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: Yes
- On-the-job training: 7,280 hours

- In-class training: Three 8 week technical sessions

#### Tool and Gauge Inspector

- Certification: Voluntary (not required to practice this profession in Ontario)
- Red Seal: No
- On-the-job training: 3,830 hours
- In-class training: 170 hours

Individuals interested in pursuing an apprenticeship pathway, should follow these steps:

- 1) Get hired – by an employer/sponsor/union
- 2) Apply online to register as an apprentice at [www.ontario.ca/page/start-apprenticeship](http://www.ontario.ca/page/start-apprenticeship)
- 3) Sign a training agreement with your employer/sponsor and the Employment Ontario apprenticeship office.
- 4) Become a Member of the Ontario College of Trades Apprentices Class at [www.collegeoftrades.ca/membership](http://www.collegeoftrades.ca/membership)
- 5) Keep a record of the hours you work
- 6) Achieve the competencies listed in your training standard if required in your trade
- 7) Complete all of the training requirements in your trade and you will receive a Certificate of Apprenticeship (CoA).
- 8) Write the Exam for the Certificate of Qualification if required in your trade

If you are currently in high school and would like to begin an apprenticeship, visit [oyap.com](http://oyap.com) for more information about the Ontario Youth Apprenticeship Program.

Individuals unsure about whether to pursue an apprenticeship or not, can learn more by visiting [www.ontario.ca/page/prepare-apprenticeship](http://www.ontario.ca/page/prepare-apprenticeship).

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