

NOC 7232 - Tool and Die Makers

Description of occupation

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 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. This unit group also includes metal patternmakers and metal mould makers (Statistics Canada, 2016).

Illustrative example(s):

- Die finisher
- Die maker
- Jig maker
- Metal mould maker
- Metal patternmaker
- Mould maker – plastics processing
- Mould maker apprentice
- Tool and die maker apprentice
- Tool maker

What is a NOC code?

The NOC system is based on categorizing occupations by their evaluated skill level and skill type. Each NOC code consists of four digits. The first digit denotes the occupation's skill type; the second denotes the occupation's skill level. Combined, these two digits define the NOC "Major Group" for all occupations with the same skill level and skill type. The final two digits are employed to narrow, or "drill down", to a specific occupational group. The third digit, combined with the "Major Group", defines the "Minor Group". The fourth digit identifies even further the specific occupation within the "Minor Group", referred to as the NOC "Unit Group". The NOC is a standard that classifies and describes occupations in the Canadian economy. It is the foundation for occupational statistics and labour market information (Ministry of Advanced Education and Skills Development, 2016).

Training and education required

Ontario college tool and die programs are offered as two-year diploma programs or as one-year certificate programs to build on prior training or to prepare for apprenticeship (Ontario Colleges, 2016).

Courses will cover a wide range of technical knowledge, including mathematics, calculation study and blueprint reading. Skills developed will include machine operation, metal forming, CNC programming and tool and die manufacturing (Ontario Colleges, 2016).

Entry-level tool and die programs require an Ontario Secondary School Diploma (OSSD) or equivalent, including a grade 12 English credit. A senior mathematics course may also be required, depending on the institution (Ontario Colleges, 2016).

On-The-Job Training Duration (for apprentices) - The College of Trades has identified 7,280 hours as the duration generally necessary for any apprentice to become competent in the skills required. There may be individual circumstances where the duration varies from this guideline (College of Trades, 2013).

In-School Training Duration - The College of Trades has identified 720 hours of in-school training as the duration generally necessary for an apprentice to complete the in-school curriculum for this program, except where an apprentice has been exempted from any level of that curriculum (College of Trades, 2013).

Tool and die maker programs are available at the following colleges in Ontario, as of September 2016:

- Seneca College
- George Brown College
- Fanshawe College
- Sheridan College
- Conestoga College

What is an apprenticeship?

An apprenticeship allows students to learn a skilled trade while gaining paid on-the-job work experience. Apprenticeship programs are usually offered through a college or vocational school and help prepare you for a career in the trades. The programs are structured to provide both classroom learning and on-the-job experience.

Although most of the learning in an apprenticeship is on the job, there is also an in-class component through a college. Apprentices typically spend 80-85% of their education and training in the workplace.

At the end of the apprenticeship training program, the apprentice becomes a journey person and is certified to work in the trade (Government of Canada, 2014).

To qualify for apprenticeship in Ontario you must:

- Be at least 16 years of age
- Have legal permission to work in Canada (i.e. have a valid social insurance number)
- Meet the educational requirements of your chosen trade
- Have a sponsor in Ontario (most sponsors are employers who will hire, train and pay you during your apprenticeship)

To apply for an apprenticeship, you must apply online through the Government of Ontario, Ministry of Advanced Education and Skills Development, once the criteria above is met.

Median and average wages and salaries in Durham Region

The average and median wages and salaries for individuals employed in the tool and die maker occupation within Durham Region is as follows:

Median wages and salaries – **\$65,673**

Average wages and salaries - **\$65,541**

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Salaries in the field are high, due to industry demand and the high level of expertise required. Average starting salaries are around \$35,000, and licensed tool and die makers can expect salaries of \$50,000 or more a year in positions requiring a higher experience level (Ontario Colleges, 2016).

Employed by Place of Work and Place of Residence

Place of Work (POW) – is defined as individuals employed within the Durham Region.

Place of Residence (POR) – is defined as Individuals who reside within the Durham Region.

The number of individuals employed within Durham Region (POW) in the tool and die maker occupation is **380**.

The number of Durham Region residents employed (POR) in the tool and die maker occupation is **485**.

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Employment Prospects

This list below represents a sample of employment prospects for those seeking employment in tool and die maker occupation within Durham Region.

Die-Max Tool & Die Ltd. – Ajax

Durmach – Clarington

Precise Tool & Die – Whitby

IN-TOL Tool & Die Ltd – Clarington

Dienamic Wire Inc. – Pickering

Castool Tooling Systems - Uxbridge