

# Toolmaker

## Introduction

Toolmakers use traditional manual skills, with the very latest technology, in order to develop and maintain tools and machinery used in the manufacturing process.

## Also known as

- Craft Machinist - Tool Maker
- Engineering Craft Machinist - Tool Maker
- Machine Tool Maker



## Work Activities

Toolmakers work to high specifications and quality requirements to produce machine tools, which are used in manufacturing.

You also make moulds to form shapes, jigs to guide cutters or hold a part in place, and dies, which are shaped blocks that are used to cut, stamp or press materials.

At the beginning of your work, you use technical drawings to learn about the product. You then operate a range of specialist engineering machines, such as lathes and grinding, milling and boring machines.

Toolmakers use hand tools such as files, and small machines like grinding and polishing machines, to smooth and finish a tool. When you are satisfied with the tool, you fit it onto the production machine and supervise a test run. Sometimes you also make repairs to tools.

Most machines are computer numerically controlled (CNC), which involves inputting instructions to a computer which sets, programs and operates the machine.

Toolmakers usually wear safety clothing such as overalls, as well as safety glasses and hearing protectors, if necessary. Work normally takes place in factories and workshops.

Being able to read, write and speak Welsh may be an advantage when you're looking for work in Wales.

## Personal Qualities and Skills

To become a Toolmaker, you'll need:

- to be very accurate in your work
- patience, high concentration levels and a logical mind
- to be able to read, understand and analyse engineering drawings
- good number skills, to make precise measurements and accurate calculations
- good hand to eye co-ordination skills for using a wide range of machine tools, hand tools and other equipment
- to work effectively without supervision, as many toolmakers work alone
- to be fairly fit and active, as Toolmakers spend much of their time on their feet

Computer numerical controlled (CNC) machines are usually used in this type of work, so having some computer skills is useful.

## Pay and Opportunities

### Pay

The pay rates given below are approximate.

- Starting: £25,500 - £26,500
- With experience: £27,000 - £30,000

### **Hours of work**

Toolmakers usually work up to a 39-hour week, which may include shift work, nights and weekends.

### **Where could I work?**

Employers include heavy and light engineering firms involved in manufacturing and plastics processing.

Opportunities for Toolmakers occur in engineering workshops in towns and cities throughout the UK.

### **Where are vacancies advertised?**

Vacancies are advertised in local/national newspapers, trade industry publications, at Jobcentre Plus and on the Find a Job website.

## **Entry Routes and Training**

### **Entry routes**

One way to enter this career is by doing an apprenticeship.

An Intermediate or Advanced Level Apprenticeships is a great place to start. Take a look at our information article 'Apprenticeships – How do I apply', for more details about applying for apprenticeship positions.

Some people study at college for relevant qualifications, eg, BTEC qualifications, A levels or City & Guilds qualifications, before looking for work.

### **Training**

Before joining the factory floor and working under the supervision of an experienced Toolmaker, you may attend a training centre for a number of weeks.

If you would like some training, Pearson offer a level 3 NVQ in engineering toolmaking. This course has a range of mandatory and optional units, which include:

- using and interpreting engineering data and documentation
- working effectively and efficiently in engineering
- assembling press tools
- assembling injection mould tools
- assembling blow mould tools
- assembling vacuum forming tools
- assembling dies
- preparing and setting power presses
- trying out and proving dies
- checking that tool room assemblies comply with specification

Other courses could be available in your area.

### **Work Experience**

Previous experienced gained as a Craftsperson or Operative in the engineering industries would be really useful for this career.

### **Progression**

Toolmakers can progress to Team Leader/Supervisor positions after further training and experience.

## Qualifications

To get onto an Intermediate or Advanced Level Apprenticeship, you'll usually need five GCSEs at grade C/4 or above, possibly including English and maths.

## Adult Opportunities

### Age limits

It is illegal for any organisation to set age limits for entry to employment, education or training, unless they can show there is a real need to have these limits.

### Skills/experience

Most new entrants are school leavers. Relevant skills gained as a craftsperson or operative in the engineering industries are an advantage.

### Courses

Most colleges will consider applications from older candidates who don't have the usual entry requirements. You should check the admissions policy of individual colleges.

### Statistics

- 8% of people in occupations such as toolmaker are self-employed.
- 9% work part-time.

## Further Information

### Contacts

- **Apprenticeships: Get In. Go Far**  
National Apprenticeship Service (NAS)  
Tel: 0800 015 0400  
Email: [nationalhelpdesk@findapprenticeship.service.gov.uk](mailto:nationalhelpdesk@findapprenticeship.service.gov.uk)  
Website: [www.apprenticeships.org.uk](http://www.apprenticeships.org.uk)
- **Skills Development Scotland - Modern Apprenticeships**  
Tel: 0800 9178000  
Email: [info@skillsdevelopmentscotland.co.uk](mailto:info@skillsdevelopmentscotland.co.uk)  
Website: [www.myworldofwork.co.uk/modernapprenticeships](http://www.myworldofwork.co.uk/modernapprenticeships)
- **City & Guilds**  
Address: 1 Giltspur Street, London EC1A 9DD  
Tel: 020 7294 2468  
Email: [learnersupport@cityandguilds.com](mailto:learnersupport@cityandguilds.com)  
Website: [www.cityandguilds.com](http://www.cityandguilds.com)
- **Careers Wales - Welsh Apprenticeships**  
Tel: 0800 028 4844  
Website: [ams.careerswales.com/](http://ams.careerswales.com/)

## Related Careers

- Domestic Appliance Service Engineer
- Maintenance Engineer
- Machine Operator
- Engineering Craft Machinist
- Office Machine Service Engineer

- Vehicle Body Refinisher
- Vehicle Body Repairer
- Welder
- Locksmith
- Watch and Clock Repairer
- Mechanic
- Lift Engineer
- Escalator Engineer
- PAT Tester