





# Machining Technician

# Level 3 Apprenticeship

Machining technicians produce complex and precision machined products that are typically used in machinery. For example, aeroplanes and vehicles. They can also produce bespoke components or products for domestic appliances or medical equipment. They use a variety of machines to carry out their work. For example, centre lathes, vertical and horizontal milling machines, horizontal and cylindrical grinding machines. Electro discharge machines, single and multi-axis Computer Numeric Control (CNC) machine tools centres. Gear cutting and Gear Grinding machines.

## **Duration:**

Up to 4 years

Year 1\*- 20 weeks full time at Training 2000 OR x3 five week blocks of training plus one day per week for the Technical Certificate

(covering Fitting, Milling and Turning. CNC milling, CNC turning and Programming are an optional extra depending on your employers needs)

Year 2 - 1 day per week to complete the Technical Certificate / assessment in the workplace

Year 3/4 - assessment in the workplace

## Where will I study:

Training 2000, Blackburn

## **Entry requirements:**

A minimum of four GCSEs at grade 4 (C) or above including English, Maths, Science and Technology is desirable. Other equivalent qualifications are acceptable

Year 1 blocks could take between 12 and 18 months to complete. Full time or block training to be decided by employer.

# What you'll learn

#### Safety

Conduct safety checks and performance monitoring for machining, associated equipment and surrounding work area.

### **Interpreting data**

Receive, read and interpret engineering data and documentation, engineering drawings and technical data. Contribute to or plan the days machining schedule.

#### **Quality control**

Check and inspect materials to be machined to ensure that they conform to quality standards. Identify and report any issues or faults such as incorrect grades, dimensions and thicknesses.

#### **Planning**

Plan and prepare sequence for the machining activities. Ensure that the correct tooling, work holding, and materials are used. This applies to conventional complex or CNC complex machining tasks.

#### **Operations**

Set up, operate, or adjust conventional machines or set up, prove and validate CNC machining equipment settings and programs for the machine tool being used.

### **Machining components**

Machine high-quality complex components using a broad range of processes. For example, internal or external thread cutting, slots and pockets, internal or external under cutting. Also profile forms, tapered and eccentric diameters, bored holes, and tee slots.

#### **Evaluation**

Inspect components produced. Adjust the machining equipment or program and tooling to ensure components meet quality requirements.

#### **Reporting issues**

Identify, communicate and report issues affecting machining component quality, quantity and deadlines.

#### **Standard operational procedures**

Complete machining documentation at all stages of the work activity. For example, standard operational procedures, control documentation and contribution to audits.

#### **Working environment**

Maintain and restore the machining work area, performing housekeeping and waste management as appropriate. Ensure tools, unused materials and equipment are returned to a safe, clean and approved condition on completion of machining work.

#### Communication

Keep stakeholders for example, customers, colleagues and line managers informed about machining work.

#### Inspections

Perform scheduled daily inspection and machine shut down or safe isolation.

#### **Continuous improvement**

Support continuous improvement activity to address business problems.

# How you'll be assessed?

At the end of your Apprenticeship you'll go through an end-point assessment (EPA) and be graded a based on a:

- 1. Knowledge test
- 2. Practical demo with questions
- 3. Interview / portfolio of evidence

# Your Apprenticeship career path

Below is an example career path showing how you can earn, learn and study up to Degree level with an Apprenticeship. Training 2000 are part of the University of Central Lancashire which makes it easier than ever to progress on to a Degree Apprenticeship or Degree.

# **Level 3 Apprenticeship**

Various available

**Level 5 Higher National Diploma**General Engineering



## **Level 4 Higher National Certificate**

Electrical and Electronic Engineering Mechatronics Manufacturing Engineering

## **Level 6 Degree Apprenticeship**

Many options available such as:

- Electrical and Electronic Engineering
- Manufacturing Engineering
  - Mechanical Engineering

An Apprenticeship in Engineering can take you in many directions from an Aerospace Engineer to Nuclear engineer. You could even go on to own your own business.

# Interested? Apprenticeships start throughout the year. Apply now!

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