



MACHINIST – ADVANCED MANUFACTURING ENGINEERING APPRENTICESHIP

**Level:**

3

Duration:

Up to 4 years

Entry requirements:

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

Overview:

Machinists in the Advanced Manufacturing Engineering sector are predominantly involved in highly skilled, complex and precision work, machining components from specialist materials using conventional and/or CNC machine tools such as centre lathes, vertical and horizontal milling machines, horizontal and cylindrical grinding machines, electro discharge machines, single and multi-axis CNC machine tools centres.





Aim:

- Level 3 Diploma in Advanced Manufacturing Engineering (Development Competence) – Machining
- Level 3 Diploma in Machining (Development Knowledge)

Where Can I Study?

Training 2000 Blackburn

Up to 4 years for all levels of study

Year 1 – full time at Training 2000 OR x6 four week blocks

Year 2 – 1 day per week

Year 3-4 – assessment in your workplace

Any other useful Information:

Specific Specialist Knowledge:

- understand mathematical techniques, formula and calculation involved in the machining processes such as speeds and feeds, calculating angles/tapers, material removal
- understand the practical and theoretical uses of the machines used, and their applications.
- understand the work-holding devices, cutting tools, and setting up procedures, in adequate depth to provide a sound basis for carrying out the activities, correcting faults and ensuring the work output is to the required specification

Specific Specialist Skills:

- read and interpret relevant data and documentation used to produce machined components
- determine the most efficient and effective approach to machine the component using a range of tools, machining process and Techniques
- select and set up the correct tooling and work holding devices
- set and adjust the machine operating parameters to produce the work pieces to the required specification. This will involve setting feeds and speeds for roughing and finishing operations
- select and use a range of measuring and testing equipment to check components are to the required quality and accuracy
- produce complex and specialist components as a one off test and trial work piece and/or producing components in small or large batches

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