

# Metal Fabricator Apprenticeship Level 3

Fabricators in the Advanced Manufacturing Engineering and Construction engineering sector are predominantly involved in highly skilled, complex, specialist and detailed work covering a wide range of common and job specific skills sets that can be transferred across the wider engineering industry sectors during the course of their careers. Fabricators would work on one or more discipline from sheet metal working; plateworking; structural steelwork, pipe and tube fabrication, manual joining, joining machine setting and operating. They need to work safely in line with relevant Health and Safety regulations and are required to interpret a wide range of technical data and information in order to be able to carry out the fabrication activity efficiently and effectively.



### **Metal Fabricator Level 3**

### Apprenticeship information

#### **Duration**

Up to 4 years

Year 1 - full time at Training 2000

OR up to x3 four\* week blocks and 1 day per week to complete the Technical Certificate (if required)

Year 2 - 1 day per week to complete the Technical Certificate (if required) / assessment in your workplace

Year 3/4 - assessment in your workplace

\*duration may vary

#### 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.

You may have to complete your English and Maths Functional Skills depending on your GCSE grades.

### **Our Apprenticeship includes:**

- Training 2000 registration and pass
- Structured delivery programme
- Assessor visits and reviews in your workplace

## What you'll learn

#### Key knowledge

- The importance of complying with statutory, quality, organisational and health and safety regulations
- General engineering mathematical and scientific principles, methods, techniques, graphical expressions, symbols formulae and calculations
- The structure, properties and characteristics of common materials
- The typical problems that may arise within their normal work activities/environment
- Approved diagnostic methods and techniques used to help solve engineering problems
- The importance of only using current approved processes, procedures, documentation and the potential implications if they are not adhered to
- The different roles and functions in the organisation and how they interact
- Why it is important to continually review fabrication and general engineering processes and procedures
- The correct methods of moving and handling materials
- Processes for preparing materials to be marked out
- The tools and techniques available for cutting, shaping, assembling and finishing materials.

- Allowances for cutting, notching, bending, rolling and forming materials
- Describe Pattern development processes, tooling and equipment
- Describe Cutting and forming techniques, tooling and equipment
- Describe Assembly and finishing processes, tooling and equipment
- Inspection techniques that can be applied to check shape and dimensional accuracy
- Factors influencing selection of forming process
- Principles, procedures and testing of different joining techniques (Mechanised or Manual)
- Equipment associated with Manual or Mechanised joining techniques including maintaining equipment in a reliable and safe condition
- Consumables used in Manual or Mechanised joining
- Effects of heating and cooling metals
- Consumables used in Manual or Mechanised joining
- Different types of Welds and joints
- Effects of heating and cooling metals

#### Key skills:

- Work safely at all times, comply with health & safety legislation, regulations and organisational requirements
- Comply with environmental legislation, regulations and organisational requirements
- Obtain, check and use the appropriate documentation (such as job instructions, drawings, quality control documentation)
- Carry out relevant planning and preparation activities before commencing work activity
- Undertake the work activity using the correct processes, procedures and equipment
- Carry out the required checks (such as quality, compliance or testing) using the correct procedures, processes and/or equipment
- Deal promptly and effectively with problems within the limits of their responsibility using approved diagnostic methods and techniques and report those which cannot be resolved to the appropriate personnel
- Complete any required documentation using the defined

- recording systems at the appropriate stages of the work activity
- Restore the work area on completion of the activity and where applicable return any resources and consumables to the appropriate location
- Identify and follow correct Metal work instructions, specifications, drawing etc.
- Mark out using appropriate tools and techniques
- Cut and form Metal for the production of fabricated products
- Produce and assemble Metal products to required specification and quality requirements
- Identify and follow correct joining instructions, specifications, drawing etc.
- Carry out the relevant preparation before starting the joining fabrication activity
- Set up, check, adjust and use joining and related equipment
- Weld joints in accordance with approved welding procedures and quality requirements

#### Key behaviours:

- Personal responsibility and resilience Comply with the health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.
- Work effectively in teams Integrate with the team, support other people, consider implications of their own actions on other people and the business whilst working effectively to get the task completed.
- Effective communication and interpersonal skills An open and honest communicator, communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude.

- Focus on quality and problem solving Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed and efficiency.
- Continuous personal development Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice.
- Identify and follow correct joining instructions, specifications, drawing etc.
- Carry out the relevant preparation before starting the joining fabrication activity
- Set up, check, adjust and use joining and related equipment
- Weld joints in accordance with approved welding procedures and quality requirements

## How you'll be assessed?

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

- 1. Practical observation to assess the apprentice's application of skills
- 2. Professional discussion to assess the Knowledge, Skills and Behaviours across the standard and will be informed by a 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.



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? Apply now**

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