



TRAFFORD
COLLEGE



STOCKPORT
COLLEGE

ENGINEERING FITTER

Level 3, Apprenticeship Standard

ELIGIBILITY / ENTRY REQUIREMENTS

Typically 5 GCSEs at grade 5 or higher including maths, English and science, or equivalent and/ or relevant experience.

This occupation is found in manufacturing and process sectors.

The broad purpose of the occupation is to produce complex high value, low volume components or assemblies in full or part, using machines, equipment or systems, to the required specification. For example, turbines, cranes, gearboxes, production lines, rigs and platforms. Fitters may typically have a mechanical, electrical, electronic, control systems, pipe fitting or instrumentation bias or operate across multiple disciplines depending on the type of assembly. To produce or re-furbish the components fitters will interpret drawings/specifications and plan their work, for example ensuring they have the right tools, equipment and resources to complete the task to the required specification. Fitters are required to check their work against quality standards and make adjustments as required based on their knowledge. On completion of the task a fitter will hand over the product and prepare the work area for the next task by checking equipment meets the standards required to operate. They may be based in a workshop or clients premises - this may include hazardous environments.

In their daily work, an employee in this occupation typically interacts with line managers/supervisors; depending on the size of the employer and nature of the work they may work as part of a team of fitters or independently. They may interact with personnel in other functions for example installation and maintenance engineers, health & safety and quality assurance personnel, as well as internal or external customers.

An employee in this occupation will be responsible for completion of their work to the required specification and deadlines, in line with quality, health & safety and environmental regulations and requirements, with minimum supervision.

APPRENTICESHIP REQUIREMENTS

Apprentices should have a range of skills and attributes including:

- Motivation to succeed within industry
- An awareness of the demands of the Apprenticeship
- Willingness to comply with employer/training provider terms and conditions of employment
- Have the ability to apply learning in the workplace
- Willingness to work with due regard to Health and Safety of self and others
- Effective communication with a range of people.

TYPICAL JOB ROLES IN THIS AREA INCLUDE:

Mechanical Fitter, Electrical Fitter, Instrumentation Fitter, Pipe Fitter, Controls and Systems Fitter.

KEY FACTS:

Delivery location	Stretford Campus.
Typical duration	42 months.
Study mode/frequency	1 day per week at college day release plus assessment visits in the workplace.
Apprenticeship Standard	Upon completion the Apprentice will receive a Level 3 Engineering Fitter Standard.
Knowledge and skills	<p>Knowledge:</p> <ul style="list-style-type: none"> • Materials used in components/assemblies, for example; mild steel, aluminium, composites, copper etc. Their use and application considerations, for example machinability, hardness, conductivity, cost, availability, compatibility • Principles of design and operation, for example; design for cost, minimising waste, productivity (speed), health and safety, reverse engineering • Manufacturing and assembly processes for example; ling, sawing, scraping, drilling, soldering, bolting, wire cutting, threading etc • Safe use of tools and equipment (hand and power tools); right tool for the job, requirements for machinery checks, adjustments, operation and shut down • Techniques for measuring, marking, cutting and drilling materials to the required size and shape, accurately, safely and economically and manufacturing processes • Engineering mathematical and scientific principles; methods, techniques, graphical expressions, symbols, formulae and calculations • Quality standards for components/assembly for example, drawing, calibration of equipment, materials specification. How to ensure they have been met and assured. Application of ISO9001 (Quality Management Standard) in the workplace • Health and safety <p>Skills:</p> <ul style="list-style-type: none"> • Reading, interpreting and understanding the component/assembly specification, diagrams, drawings and work instructions • Preparing work area for component/assembly task; sourcing required resources, tools/equipment • Carryout relevant planning and preparation activities before commencing work activity and know how to source required resources and interpret detailed drawings, specifications and job instructions • Measuring and testing, checking/inspecting component/assembly for example; use of micrometers, verniers, multimeters, volt meter • Completing component/assembly documentation for example job instructions, drawings, quality control documentation • Operating in line with quality, health & safety and environmental policy
Competency/skills or behaviours	<ul style="list-style-type: none"> • Takes personal responsibility and resilient. For example health and safety first attitude, disciplined and responsible approach to risk, works diligently regardless of how much they are being supervised, accepts responsibility for managing their own time and workload and stays motivated and committed when facing challenges • Works effectively in teams. For example integrates with the team, supports other people, considers implications of their own actions on other people and the business whilst working effectively to get the task completed
Functional Skills	Functional Skills will be required for English and maths at Level 2 if you have not attained a GCSE at grade 4 or above (or equivalent).
Assessment	End point assessment will include a Project: report including evidence, and questioning, Multiple Choice Test and Professional Discussion.

For further information contact the Apprenticeship Team on **0161 886 7461** or email apprenticeships@tcg.ac.uk