



Course

Level 2 Lean Manufacturing Operative Production/Assembly Apprenticeship standard



Course duration:
12-18 months

Summary

Knowledge

- Health and safety
- Environmental
- Production
- Lean operations
- Quality control
- Problem solving
- Continuous improvement
- Communication
- Work place organisation

Skills

- Health and safety
- Environmental
- Production
- Lean operations
- Quality control
- Problem solving
- Continuous improvement
- Communication
- Work place organisation

Behaviours

- Team-working
- Professionalism
- Continuous development
- Adaptability

Learn more about the responsibility of carrying out manufacturing activities on one or more products at the same time, in a fast paced environment.

When you're working as a lean manufacturing operative in a production/assembly role, you will need to carry out your work safely and meeting exacting quality standards in a fast paced and efficient processing environment.

Who is it for?

The UK manufacturing industry is highly regarded worldwide for its innovation and excellence. If you have a logical mind, enjoy the detail of processes and thrive on a challenge, then working as an apprentice in this fast paced environment is for you.

What will you learn?

You will learn about manufacturing processes and standard operating procedures to help you prepare, control, contribute to and complete manufacturing operations. With this knowledge you will develop and support improvement in the manufacturing operation using continuous improvement methods, kaizen tools, process visualisation using lean principles and problem solving tools and techniques. You will develop into a multi-skilled operator with a particular knowledge and specialism in production/assembly operations. You will be able to meet the requirements of two different production/assembly processes or assignments, resolving problems and ensuring quality output at all times.

Alongside this, and following an initial assessment, we will work with you, your manager and mentor to create an individual training plan. This will include skills development such as reading, writing, speaking, listening and communication in English, as well as maths, in preparation for Levels 1 and 2 Functional Skills. There will also be activities and learning to improve your personal soft skills.

What comes next?

On completion of your apprenticeship, you will receive a Level 2 Diploma in Manufacturing (certified by EAL).

Knowledge

Area	Learning aims and development
Health and safety	<ul style="list-style-type: none"> Relevant statutory, organisational and health and safety regulations relating to lean manufacturing operations and safe practices
Environmental	<ul style="list-style-type: none"> Compliance procedures/systems in line with regulatory requirements e.g. ISO 14001 or other relevant environmental standards
Production	<ul style="list-style-type: none"> Your individual roles and responsibilities within the organisation and the flexibility required to deliver products to meet customers costs/delivery targets/requirements e.g. Just in time (JIT)
Learning manufacturing operations	<ul style="list-style-type: none"> Manufacturing standard operation procedures (SOPs) adherence and development of lean processes The importance of following the specified assembly sequence and procedure at all times The procedure for positioning, aligning and securing component parts during the assembly operations Know where to obtain the necessary job instructions, operating procedures and assembly specifications that are used, and how to interpret them
Quality control	<ul style="list-style-type: none"> Process equipment monitoring, data collection, error proofing and operating procedures e.g. ISO 9002 or other relevant quality standards How to check the quality of the assembly against the required quality standards and what tools and equipment are used How to identify and resolve current and potential production/assembly problems within the limits of your responsibility
Problem solving	<ul style="list-style-type: none"> The tools and methods of effective problem solving using data, reports and documents to resolve production related issues e.g. A3 report, graphs, matrices and escalate concerns
Continuous improvement	<ul style="list-style-type: none"> How to study and identify ways to improve the safety, quality, cost or process efficiency using lean manufacturing tools e.g. kaizen
Communication	<ul style="list-style-type: none"> How to share information using a range of methods within the manufacturing environment e.g. oral, written, electronic, information boards, visual displays
Work place organisation	<ul style="list-style-type: none"> How to maintain a safe and efficient work site through work place organisation e.g. 5s and process ownership

Skills

Area	Learning aims and development
Health and safety	<ul style="list-style-type: none"> • Work safely at all times, complying with health and safety legislation, regulations, and other relevant guidelines, identifying risks within your processes and support/carry out countermeasure activities to improve safe working • Manage tooling, equipment and materials daily in-line with supplier standards e.g. COSHH (Control of Substances Hazardous to Health)
Environmental	<ul style="list-style-type: none"> • Comply with environmental procedures and systems and contribute to the achievement of specific standards e.g. ISO 14001 or other relevant environmental standards and use the 4R's (Reduce, Re-use, Recycle, Recover) where possible
Production	<ul style="list-style-type: none"> • Demonstrate your ability to carry out your role effectively, efficiently and flexibly maintaining lean manufacturing principles to meet customer's demands e.g. JIT • Obtain and follow the correct Job instructions/Standard operating procedures production/assembly specifications in accordance with time constraints and the roles and responsibilities identified for the production/assembly activity • Correctly position, align and secure the components • Secure the components in position using the specified fastening device/method
Lean manufacturing operations	<ul style="list-style-type: none"> • Demonstrate your skill and knowledge following SOPs and build your versatility across a number of processes and process areas • Select and use appropriate tools, equipment and materials to carry out the manufacturing operation
Quality control	<ul style="list-style-type: none"> • Demonstrate appropriate process documentation control • Accurately complete check sheets, monitoring process and equipment data efficiently and legibly using the correct terminology required to meet the quality standard e.g. ISO 9002. • Carry out quality checks on component parts and completed assemblies and deal with quality concerns and defects in line with their responsibility • Check components for damage and that they are in a useable condition • Produce components which comply with the specification and quality requirements
Problem solving	<ul style="list-style-type: none"> • Demonstrate your ability to identify and resolve problems within the lean manufacturing environment, using effective problem solving tools and techniques • Manage problems that may occur during the manufacturing process within the limits of your responsibility and escalate as appropriate.

Skills (cont'd)

Area	Learning aims and development
Continuous improvement	<ul style="list-style-type: none"> Generate ideas and contribute to process improvement activities individually or as part of a team through fact finding and analysis to improve the safety, environment, quality, cost or production process Identify and eliminate the 7 wastes (defects, over production, transportation, waiting, inventory, motion and processing)
Communication	<ul style="list-style-type: none"> Demonstrate communication skills which include oral, written, electronic (PC), information boards or visual displays to effectively share information
Work place organisation	<ul style="list-style-type: none"> Maintain and monitor the work site efficiently and effectively at all times using the elements of sifting, sorting, sweeping, spick & span (5's) within the lean manufacturing environment

Behaviours

Area	Learning aims and development
Team working	<ul style="list-style-type: none"> Integrate within the team and support others Show respect for others, having regard for diversity and equality
Professionalism	<ul style="list-style-type: none"> Be punctual, reliable and take responsibility for your own actions Demonstrate a positive and respectful attitude Listen to other people's opinions Be an open and honest communicator
Continuous development	<ul style="list-style-type: none"> Seek opportunities to develop and adapt to different situations, environments or technologies Follow instructions and guidance and demonstrate attention to detail
Adaptability	<ul style="list-style-type: none"> Respond positively to change in the working environment Work independently and effectively in challenging situations Maintain quality of work under pressure

Additional skills

As well as the core curriculum, you will develop a number of additional skills throughout the course of your apprenticeship:

NCFE Functional Skills

You will work on developing positivity and confidence in the use of maths and English skills in real world and employment-based situations.

Maths

Through Levels 1 and 2 Functional Skills qualifications you will demonstrate a sound grasp of maths skills at the appropriate level and the ability to apply mathematical thinking effectively to solve problems in the workplace and in other real-life situations.

English

Through Levels 1 and 2 Functional Skills qualifications, you will demonstrate the ability at an appropriate level to read, write, speak, listen and communicate in English, and to apply these skills effectively to a range of purposes in the workplace and in other real-life situations.

British values

As part of your apprenticeship, we will discuss five key values and their impact and importance in the workplace. These will be democracy, the rule of law, individual liberty, mutual respect and tolerance of those of different faiths and beliefs.

Soft skills development

Personal Learning and Thinking Skills (PLTS) are generic skills that are essential to life, learning and work. Developing these will make a significant impact on your ability to contribute confidently both within and outside of your working environment. PLTS include independent enquiry, creative thinking, reflection, team working, self-management and effective participation.

PREVENT

PREVENT is part of the government's CONTEST strategy of which education is a fundamental part. The aim of the strategy is "to reduce the risk to the UK and its interests overseas from terrorism so that people can go about their lives freely and with confidence." CONTEST is split into four work-streams that are known within the counter-terrorism community as the 'four Ps': Prevent, Pursue, Protect, and Prepare.



Plan

We take into consideration your skills at each stage of the process, planning the learning and follow-up activities.

Do

You undertake the learning and activities that have been planned.

Check

We check your learning using a combination of assignments, discussions and observations of workplace activities, ensuring that skills, knowledge and behaviours are embedded and being practised.

Act

If areas of further learning are identified, reinforcement training is planned in and provided.