

Lean Manufacturing Operative (Production Processing & Finishing) Apprenticeship Level 2

Study Mode: Full Time Programme Component | Course Level: 2

Is this course right for me?

The manufacturing industry offers an exciting and varied career both in the UK & abroad providing a broad spectrum of opportunities for people to work in a technically advanced and innovative environment. The UK industry is highly regarded worldwide for its innovation and manufacturing excellence and requires a high degree of skill & knowledge across all levels of organisations. Businesses within the sector range from small family run manufacturing operations to large multi-national companies driving the countries growth & wealth.

A lean manufacturing operative can be required to carry out manufacturing activities on multiple products with different specifications consecutively e.g. automotive manufacturing - multi models manufacturing results in the manufacturing of different models of vehicle with different specification variants within a high-volume environment.

Lean Manufacturing Operatives are expected to carry out their work safely and meet the exacting quality standards demanded in a fast-paced and efficient processing environment and develop into a multi-skilled operator through process ownership.

They will be required to contribute, 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.

Operatives will be required to prepare, control, contribute to and complete manufacturing operations, and follow manufacturing processes and standard operating procedures (SOPs) whilst adhering to specific safe working policies & procedures.

They will work closely with stakeholders and will have clear reporting lines to ensure appropriate escalation e.g. team leader, line leader, process leader, supervisor etc. should problems occur within the process.

Lean manufacturing operatives will be responsible for maintaining Health and Safety requirements at all times e.g. wearing correct Personal Protective Equipment (P.P.E.) correct use of equipment and tooling, safe stopping and resetting of machinery, maintain an organised work area e.g. 5s (sifting, sorting, sweeping, spick & span and sustain) ensuring the safe disposal of waste in line with environmental systems and regulatory requirements (ISO 14001).

They will be responsible for carrying out quality checks throughout the manufacturing operations to ensure quality is built in and that any defects or concerns are highlighted and dealt with in line with relevant quality standards (ISO 9002).

Typical job roles include team member production, manufacturing production operative, manufacturing assembly operative, manufacturing inspection/quality assurance operative, manufacturing logistics operative, manufacturing material handling operative, manufacturing

process/finishing operative.

Entry Requirements

Entry criteria will be set by individual employers.

What will I learn?

KNOWLEDGE, SKILLS AND BEHAVIOUR REQUIREMENTS

Apprentices will develop the core knowledge and skills required of a Lean Manufacturing Operative, in addition to specialist knowledge and skills relevant to their chosen pathway.

KNOWLEDGE

Apprentices will develop knowledge and understanding of:

Health & Safety: Relevant statutory, organisational and health and safety regulations relating to lean manufacturing operations and safe practices.

Environmental: Compliance procedures/systems in line with regulatory requirements e.g. ISO 14001 or other relevant environmental standards.

Production: Their 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).

Lean Manufacturing Operations: Manufacturing standard operation procedures (SOPs) adherence and development of lean processes.

Quality Control: Process equipment monitoring, data collection, error proofing and operating procedures e.g. ISO 9002 or other relevant quality standards.

Problem Solving: 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: How to study and identify ways to improve the safety, quality, cost or process efficiency using lean manufacturing tools e.g. kaizen .

Communication: How to share information using a range of methods within the manufacturing environment e.g. oral, written, electronic, information boards, visual displays.

Workplace Organisation: How to maintain a safe and efficient work site through workplace

In addition, apprentices working in a production processing/finishing role will develop knowledge and understanding of:

- What tools and equipment are used for the processing/finishing operations undertaken and how to check that they are in a safe and usable condition
- Where to obtain the necessary job instructions, processing/finishing procedures and equipment operating procedures that are used, and how to interpret them

- Specific safe working practices, processing/finishing procedures and environmental regulations that need to be observed
- The procedure for the recovery or restart of manufacturing due to quality or process concern
- The importance of following the pre-determined sequence of events in the processing/finishing operation and the consequences of not following them

SKILLS

Apprentices will develop skills in:

Health & Safety: Work safely at all times, complying with health and safety legislation, regulations, and other relevant guidelines. Identify risks within their 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: 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: Demonstrate their ability to carry out their role effectively, efficiently and flexibly maintaining lean manufacturing principles to meet customer's demands e.g. JIT

Lean Manufacturing Operations: Demonstrate their skill and knowledge following SOPs and building their 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: Demonstrate appropriate process documentation control. Accurately completing check sheets, monitoring process and equipment data efficiently and legibly using the correct terminology required to meet the quality standard e.g. ISO 9002

Problem Solving: Demonstrate their 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 their responsibility and escalate as appropriate

Continuous Improvement: 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. Identifying and eliminating the 7 wastes (defects, over production, transportation, waiting, inventory, motion and processing)

Communication: Demonstrate communication skills which include oral, written, electronic (PC), information boards or visual displays to effectively share information

Workplace Organisation: Maintains and monitors 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.

In addition, apprentices working in a production processing/finishing role will develop skills enabling them to:

- Perform one processing/finishing operation method e.g. hand processing, manually

- operated machine processing, fully automated machine processing, combined processing
- Obtain and follow the correct job instructions, processing/finishing procedures and equipment operating procedures in accordance with time constraints and the roles and responsibilities identified for the processing/finishing activity
- Perform the processing/finishing operation according to instructions and safe operating procedures
- Monitor and control the processing/finishing operation
- Carryout quality checks on component parts and completed assemblies and deal with quality concerns and defects in line with their responsibility
- Produce processed/finished products which comply with processing specification.

BEHAVIOURS

Apprentices will demonstrate the following behaviours:

- Punctual, reliable and takes responsibility for their own actions
- Show respect for others, having regard for diversity and equality
- Respond positively to change in the working environment
- Integrates within the team and supports others
- Can work independently and effectively in challenging situations
- Maintains quality of work under pressure
- An open and honest communicator
- Listens to other people's opinions
- A positive and respectful attitude
- Follows instructions and guidance and demonstrates attention to detail
- Seeks opportunities to develop and adapt to different situations, environments or technologies

How will I be assessed?

Throughout the programme the apprentice will receive expert training from highly qualified staff A qualified assessor will provide an induction and regular workplace assessments

What can I do next?

Completion of the programme will enable apprentices to gain employment in a relevant role in the manufacturing industry.

Delivery

Location: Work-based & College

Start Date: 02/09/2024

Day:

Time:

Course Fee:

Course Code: X0017

Study Mode: Full Time Programme Component

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