WOOD PRODUCT MANUFACTURING OPERATIVE SPECIFICATION - 610/0322/0

1. Introduction

Apprenticeship objective

The wood product manufacturing operative apprenticeship standard has been designed by employers for those in the manufacturing sector, producing wood products for the construction and furniture industries. Wood product manufacturing is at the engineering end of woodworking and forms a critical part of the emerging pre-manufactured solutions sector, identified in the Farmer Review as key to the future of construction. It supplies products to the housing, commercial, public and building sectors. Employers range from small to large, with a prevalence in the medium to large end of the market. Specialism in single product type is particularly common in the larger end of the market.

The broad purpose of the occupation is to produce high volume, repetitive, engineered products from timber. Presenting a wide and varied specification for both external and interior applications, products such as roofing components, windows, doors, door-sets, staircases and other timber construction items including trussed rafters, spandrel panels, metal web beams, and I-beams. As well as utilising traditional materials, they use engineered and modified timbers to support product design and delivery, for example Accoya and Thermowood. They cut, layout and assemble materials, working to a specification. Depending on the product, they may install fixtures and fittings, apply finishes and add glazing systems.

Wood product manufacturing operatives typically work individually but can also form part of a larger production team and will report to the production supervisor/manager. Workplaces can be wide ranging from small workshops to large state of the art manufacturing facilities.

In their daily work, an employee in this occupation interacts with customers, delivery personnel, design office, internal stores and suppliers, depending on the size of the organisation.

An employee in this occupation will be responsible for completing their own work to specification, with minimal supervision, ensuring they meet set deadlines. They are responsible for meeting quality requirements and working in accordance with health and safety and environmental considerations.

Job titles

Typical job titles include:

- Machinist
- Computer Numerically Controlled (CNC) Operative
- Finishing Operative/Sprayer
- Assembler.

Level

The apprenticeship is set at Level 2.

2. Entry requirements

There are no formal entry requirements including qualifications for apprentices selecting this apprenticeship standard. Employers and training providers must ensure that apprentices have the potential and opportunity to achieve the apprenticeship standard successfully. Apprentices do not need any prior knowledge, skills or understanding before starting the apprenticeship.

3. Qualification details

Regulator	The Office of Qualifications and Examinations Regulation, Ofqual
Type	End-point Assessment
Level	2
Operational Start date	6th January 2022
Operational End date	31st January 2025

4. Gateway

Apprentices must ensure they have met gateway requirements for this standard before booking end-point assessment. Apprentices are required to achieve the following mandated qualifications for this standard:

- Level 1 English
- Level 1 mathematics
- Test results and/or certificates for Level 2 English and Level 2 mathematics.
- A portfolio of evidence, to support the interview.

Further details on the requirements for gateway can be found in the Gateway Requirements Policy. Evidence of these qualifications must be submitted to Achieve+Partners.

5. Duration

Typically, this apprenticeship will take 24 months to complete.

6. Order of end-point assessment

The assessment methods can be delivered in any order.

7. Apprenticeship grading

The apprenticeship is graded fail, pass, distinction. Apprentices must achieve a minimum of a pass in each of the 3 components.

8. Re-sits

An apprentice can re-sit a component of their end-point assessment if they fail. In this instance the apprentice cannot be awarded an overall grade of distinction the final grade will be capped at pass. It is expected that a period of further learning will need to be undertaken if the apprentice has to re-sit any part of the end-point assessment. Achieve+Partners can make exemptions to this ruling should reasons for the fail are deemed to be outside the control of the apprentice.

9. End-Point Assessment (EPA) Methods

End-point assessment for this standard includes:

Workplace observation and questioning

What are the requirements?	The observation takes place over a maximum 3-hour period. Questions will be asked after the observation is complete over a maximum 15-minute period. The independent assessor will ask a minimum of five questions. It is carried out in the workplace. Apprentices must be observed by an independent assessor completing work activities in their normal workplace, in which they will demonstrate the knowledge, skills and behaviours assigned to this assessment method.
Here are the ways we can help	We provide a set of activities that need to be demonstrated during the observation that reflect the tasks that must be observed. We provide an online learning module that supports the preparation for the practical observation. We provide feedback against the grading criteria.

Interview underpinned by 'Portfolio of evidence'	
What are the requirements?	The interview must last 45-minutes the independent assessor must ask six open competence-based questions. The interview can be taken in the workplace or at an assessment centre. The questions will assess the knowledge, skills and behaviours assigned to this assessment method.
Here are the ways we can help	The portfolio is reviewed at site before the interview. We provide an online learning module that supports the preparation for the interview. We provide feedback against the knowledge, skills and behaviours criteria.
Multiple-choice test	
What are the requirements?	A 60-minute test that has 30 multiple-choice questions that tests the knowledge assigned to this assessment method. The test can be taken in the workplace or at an assessment centre.
Here are the ways we can help	We provide online mock tests to help prepare your apprentice for the knowledge test. We provide an online learning module that supports the preparation for the knowledge test. Our online testing platform provides a simple solution that supports apprentices undertake their test. We provide feedback against the knowledge criteria.

10. Requirements of the standard

Apprentices must demonstrate all of the knowledge, skills and behaviours listed in the standard.

Knowledge statements		Method
K1	The wood product manufacturing industry, its background and importance.	KT
K2	Commercial operations and how they contribute; key functions involved in the wood product manufacturing process.	I
K3	Manufacturing processes used to produce the end-product, such as selecting and using the appropriate machinery to perform the task/operation required, sequence of the production process including finishing, packaging and storing products.	O

Knowledge statements		Method
K4	Types of customers (for example supplier, client) and customer requirements in terms of product quality, packaging and delivery, for example satisfactory quality, fit for purpose and as described.	I
K5	Quality standards and product accreditation processes for wood product manufacture, for example ISO 9001:2, independent third-party accreditation.	KT
K6	Health and safety, including the safe use of personal and respiratory protective equipment, local exhaust ventilation, compliance with the Health and Safety at Work Act, Provision and Use of Work Equipment Regulations (PUWER), Control of Substances Hazardous to Health (COSHH), organisational and statutory safe systems of work, controlling dust and manual handling.	KT
K7	Different materials used to manufacture wood products and components, including different species and types of wood, composite panels (for example, Medium Density Fibreboard (MDF), plywood), adhesives, glass, ironmongery, fixings; their properties, characteristics, how they interrelate and the use of appropriate joining methods.	KT
K8	How different products, for example doors, door-sets, windows, staircases and interior joinery are expected to perform, and how they interact with the wider built environment.	KT
K9	Procedures for the safe handling and storage of wood components, products and glazing systems.	O
K10	Environmental and sustainability considerations, regulations and good practice, for example the appropriate disposal of waste, recycling of materials and efficient use of resources.	O/KT
K11	Machines, equipment and tools used in wood product manufacturing including static machinery, portable powered tools and hand tools, what they are used for and their capabilities, correct set-up, use and storage, checks and adjustments, start-up and shut-down procedures.	KT
K12	Principles and uses of Computer Numerically Controlled (CNC) machinery in wood product manufacturing, their programming requirements and associated tooling.	I
K13	Work and product specifications, what they are and how to use them.	O
K14	Checking and clarifying work requirements, including what needs checking and why.	O
K15	Types of faults and errors that do occur, investigation and rectification techniques.	I
K16	Techniques for measuring and cutting components and products.	O

Knowledge statements		Method
K17	Assembly methods, how a product is assembled using prepared components from the manufacturing process, appropriate jointing and fixing methods to use and why (mortice and tenonning, butt jointing, screws, dowels, glues etc).	O
K18	Techniques for installing fixtures and fittings to wood products, for example ironmongery, seals, ancillary metal work and fixings, nail plates and staples, glazing.	O
K19	Different grit sizes and the sequence of sanding for full finish paint and stain systems.	KT
K20	Different types of adhesives, and processes for their use including application methods.	KT
K21	Techniques for applying specified finishes to components and products.	I
K22	Requirements for glazing wood products, for example, windows, door leaves, balustrading.	I
K23	Processes for handover to other manufacturing process functions, for example component production to assembly.	O
K24	Documentation requirements; written and verbal communication techniques.	O
Skills statements		Method
S1	Complying with health, safety and environmental requirements, for example safe use of personal and respiratory protective equipment, local exhaust ventilation, statutory regulations and industry standards/codes of practice.	O
S2	Identifying risks and hazards in the workplace and apply appropriate control measures.	O
S3	Complying with organisational and statutory environmental and sustainability considerations, for example disposal of waste, recycling of materials and efficient use of resources.	O
S4	Communicating, for example with colleagues and/or customers.	O
S5	Planning work to undertake wood product manufacturing operations.	O
S6	Reading and interpreting specifications, diagrams and work instructions, and following these instructions.	O
S7	Selecting the correct type and quantity of components and materials.	O
S8	Preparing the work area before undertaking the work.	O

Skills statements		Method
S9	Identify faults and issues, for example incorrect or defective wood, defective machinery; and applying solutions.	I
S10	Packing and storing products and components.	O
S11	Selecting, setting up and operating machinery, tools and equipment used to produce wood components.	O
S12	Preparing and operating Computer Numerically Controlled (CNC) equipment.	I
S13	Using and maintaining jigs and templates for wood product manufacturing operations.	I
S14	Positioning wood components and applying manual and mechanical cramps to ensure products are secured and in accordance with the work specification.	O
S15	Assembling wood components to the work specification and given tolerances.	O
S16	Sanding materials and de-nibbing.	O
S17	Applying adhesives to wood components.	O
S18	Applying finishes to wood products, for example stains, sealers, basecoats and paint finishes.	I
S19	Installing fixtures and fittings to wood products, for example ironmongery, seals, ancillary metal work and fixings, nail plates and staples.	O
S20	Carrying out glazing operations.	I
S21	Checking and inspecting work to ensure it meets the work specification; undertaking rectification or rework where necessary.	O
S22	Reporting work outcomes and/or problems.	O
S23	Completing the handover process to other manufacturing process functions/teams.	O
S24	Completing work documentation, for example job sheets, timecards.	O

Behaviour statements		Method
B1	Safety first attitude, for example applies a safety-first attitude when undertaking the work.	O
B2	Adaptable, for example willing to accept changing priorities and working requirements.	I
B3	Collaborates, for example works with others.	I
B4	Pride in the workplace, for example organises work-space efficiently and effectively.	O
B5	Self-motivated, for example manages own time effectively.	O
B6	Quality workmanship, for example works to agreed quality targets and standards.	O

Key

KT	Multiple choice test
O	Workplace observation with questioning
I	Interview underpinned by portfolio of evidence