

Overview of the role

Wood machining operations for manufacture of wood and wood-based furniture products.

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Standard in development

L2: Wood machinist

Version 0.0

Title of occupation

Wood machinist

UOS reference number

ST0976

Core and options

No

Level of occupation

Level 2

Occupational maps data

Route: Engineering and manufacturing

Pathway: Engineering, Manufacturing, Process and Control

Cluster: Manufacturing and process operative or technician

Typical duration of apprenticeship

24 months

Target date for approval

31/03/2024

Resubmission

Yes

This is a resubmission of a proposal from C37 as a decommissioning of the 10 options within the ST0203 Furniture maker standard. The proposal is for this standard to incorporate level 2 Furniture CNC specialist with Wood machinist and present as a recognised and stand alone occupation.

Would your proposed apprenticeship standard replace an existing framework?

No

Does professional recognition exist for the occupation?

No

Regulated occupation

Is this a statutory regulated occupation?

No

Occupation summary

This occupation is found in the furniture and interiors, bench joinery, shopfitting, wood, sawmilling and bespoke machining industries. Wood machinists either machine wood components for use in these industries or convert round timber to boards and other products to required specification. For example, panelling, floorboards, kitchen counters, bars, banisters, spindles, skirting boards, window and door frames. Wood machinist's workplaces range from small workshops to large scale factories and sawmills. Employers vary in size from small to large.

The broad purpose of the occupation is to cut and prepare timber and related material components. Wood machinists set up and operate variety of woodworking machines to surface, cut, and shape timber, and to fabricate parts for wood products, such as furniture components, doors, door and window frames, furniture, and sashes, according to specifications. They prepare and finish wood or wood-based components or sub-assemblies. They select, install, and adjust saw blades, cutterheads, boring bits, and sanding belts in respective machines, using hand tools and measuring equipment. They also inspect, pack and store finished components or sub-assemblies and contribute to continuous improvement activities. Completing documentation and cleaning up is also part of the role. The occupation can be physically demanding, involving lifting of heavy materials and standing for long periods of time. It involves working with dangerous machinery, tools and equipment. Wood machinists often work shift systems. The seasonality of the industry, plus peaks and troughs in orders, often demands overtime working.

In their daily work, an employee in this occupation interacts with other operatives, production or manufacturing managers, quality technicians, production leaders and product developers. Wood machinists typically report to a supervisor or shift team leader.

An employee in this occupation will be responsible for completing their duties in line with company procedures and priorities. They are responsible for their own work and meeting production and quality targets. They must work within health, safety and environmental regulations and considerations. They must manage their own time and use the correct protective clothing, tools and equipment. Depending on the size of the organisation, they may be required to work on their own, or they may work as part of a wider team.

Typical job titles

Cnc operator Engineering woodworker Furniture cnc operative Furniture machinist Machine operator Saw doctor Sawmill operative Sawmiller Sawyer Timber machinist Wood processing machinist

Are there any statutory/regulatory or other typical entry requirements?

No

Occupation duties

DUTY	KSBS
Duty 1 Receive, read and interpret job specifications. For example, drawings, and technical information.	K1 K2 K3 K8 K15 S1 S7 S26 S27 S28 B2 B4
Duty 2 Maintain the work area for health, safety, and environmental compliance before, during, and after the wood machining activity.	K1 K4 K5 K6 K7 K8 K10 K11 K12 K16 K26 K27 S2 S3 S4 S5 S6 S7 S8 S10 S11 S14 S17 S23 S24 S25 S26 B1 B2 B3 B4 B5
Duty 3 Plan work and resources to complete wood machining activities.	K1 K2 K3 K4 K7 K8 K12 K15 K26 K27 K28 S1 S2 S4 S6 S7 S9 S23 S24 S25 S26 S27 S28 B1 B2 B3 B4 B5
Duty 4 Organise availability and condition of machinery, tools, wood machining tooling, equipment and materials.	K1 K2 K3 K5 K11 K12 K26 S2 S4 S5 S6 S7 S8 S9 S23 S24 S27 B1 B2 B4 B5
Duty 5 Perform first line maintenance tasks on wood machinery, tools and equipment. For example, cleaning, lubricating, sharpening or replacing blades, tool calibration checks.	K1 K4 K5 K8 K9 K11 K12 K13 S2 S5 S6 S7 S10 S23 S24 B1 B2 B3 B4 B5
Duty 6 Prepare, set up and operate conventional machinery or computer numerically controlled (CNC) wood machinery including tooling.	K1 K3 K4 K5 K6 K8 K9 K11 K12 K14 K18 S2 S5 S6 S7 S14 S24 B1 B2 B3 B5
Duty 7 Set up and configure jigs and templates for production of wood and composite components.	K1 K2 K3 K5 K9 K12 K14 K15 K16 K18 S2 S5 S6 S7 S13 B1 B2 B3 B4 B5
Duty 8 Manufacture components of furniture using machinery, tools,	K1 K2 K4 K5 K8 K11 K12 K15 K17 K18 S2 S5 S6 S7 S12 S15 S24

DUTY	KSBS
equipment and techniques. For example, cutting, shaping, planing, profiling, boring, edge banding, jointing wood products, using saws, chisels, surface planes, power tools and woodworking machinery.	B1 B2 B3 B5
Duty 9 Prepare and assemble components and materials for job completion. For example, wood, timber, manmade composite materials including plywood, medium density fibreboard (MDF) and melamine faced chipboard (MFC)	K1 K2 K5 K6 K12 K15 K17 K18 K20 S2 S5 S6 S7 S11 S16 S17 S24 B1 B2 B3 B5
Duty 10 Prepare materials prior to assembly and post-assembly. For example, use sanders to smooth and finish wood products. Identify, and report or resolve issues with materials.	K1 K2 K4 K5 K6 K12 K15 K19 K20 S2 S5 S6 S7 S16 S17 S24 B1 B2 B3 B5
Duty 11 Complete rectification, repair or rework on machined items or components where necessary.	K1 K2 K5 K8 K12 K15 K20 K21 K23 S2 S5 S6 S7 S17 S18 S19 S24 B1 B2 B3 B5
Duty 12 Safely remove and inspect components from machinery.	K1 K4 K5 K23 S5 S6 S7 S19 S23 S24 B2 B3
Duty 13 Pack and store finished assemblies and conduct quality assurance checks. Rectify or report issues.	K1 K4 K5 K10 K22 K23 S5 S6 S7 S19 S20 S23 B2
Duty 14 Complete documentation relating to the wood machining process. For example, job sheets, work to do lists, production records.	K1 K4 K22 K23 K24 K28 K29 K30 S7 S19 S21 S23 S24 S26 S27 S28 B2 B4 B5
Duty 15 Support continuous improvement and problem solving activities. For example, identify issues to address business needs.	K1 K4 K5 K22 K24 K25 K26 K27 K28 S5 S7 S22 S23 S24 S25 S26 S27 S29 B1 B2 B3 B4 B6

KSBS

Knowledge

K1: The furniture industry function and role of the operative. Responsibilities, limits of role and escalation procedures.

K2: Job specifications, technical drawings and technical information.

K3: Planning for wood machining activity, work organisation, resources, materials and time management.

K4: Safe systems of work including risk assessments.

K5: Awareness of health and safety regulations, standards, and guidance and impact on role. Control of Substances Hazardous to Health (COSHH). Fire safety. Health and Safety at Work Act. Isolation and emergency stop procedures. Manual handling. Personal Protective Equipment (PPE). Safety equipment: guards, signage, fire extinguishers. Safety signage. Situational awareness. Slips, trips, and falls. Provision and Use of Work Equipment Regulations (PUWER) and Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

K6: Environment and sustainability regulation, standards and guidance relevant to the occupation and the operative's responsibilities. Efficient use of resources. Recycling, reuse and safe disposal of waste.

K7: Preparation and maintenance of the work area.

K8: Workplace operating procedures. What they are and why they are important.

K9: Tools and equipment used in wood machining.

K10: Storage environment for tools and equipment.

K11: Maintenance of tools and equipment including pre-checks, inspections and tool condition.

K12: Machinery used in wood machining.

K13: Maintenance of machinery for wood machining activity such as, cleaning and lubrication, tool calibration checks, sharpening and servicing of tools.

K14: Setting up wood machining machinery and tooling to perform wood machining operations.

K15: Types of materials used in wood machining.

K16: Jigs and templates. Purpose, condition and use.

K17: Methods of measuring and marking out of materials.

K18: Wood machining processes: cutting, shaping, planing, turning, profiling, boring, edge banding, jointing wood and wood-based products.

K19: Wood preparation techniques: inspection, stripping, process of sanding and grit sizes.

K20: Furniture components and sub-assemblies.

K21: Rectification, repair and rework techniques used in wood machining.

K22: Methods of packing, storing and handling of furniture components and sub-assemblies.

K23: Quality assurance processes.

K24: Methods of documenting work in progress for the wood machining activity.

K25: Continuous improvement techniques: lean manufacturing, six sigma, 5S, and KAIZEN.

K26: Team working principles.

K27: Principles of equity, diversity, and inclusion in the workplace and the impact on their work.

K28: Verbal communication techniques. Giving and receiving information.

K29: Written communication techniques - electronic and paper. Industry terminology.

K30: Information and digital technology: email, collaboration packages, databases, equipment digital interfaces, management information systems, word processing, work sharing platforms, GDPR, cyber security.

Skills

S1: Read and interpret job specifications, technical drawings or information for wood machining activity.

S2: Plan wood machining activity including timescales for completion, and organise materials and resources.

S3: Prepare and maintain the work area.

S4: Apply safe systems of working including risk assessment.

S5: Follow health and safety regulations, standards, and guidance.

S6: Follow procedures in line with environmental and sustainability regulations, standards, and guidance. Segregate resources for reuse, recycling and disposal.

S7: Follow workplace operating procedures.

S8: Store tools and equipment.

- S9:** Select tools, equipment, and machinery for wood machining activity.
- S10:** Apply first line maintenance of tools, equipment and machinery. For example, checking tool condition, cleaning, lubrication, visual inspection, tool calibration checks, sharpening and servicing of tools.
- S11:** Identify and select materials used in wood machining.
- S12:** Measure and mark out materials.
- S13:** Prepare and use jigs and templates used in the work activity. Check jigs and templates for damage.
- S14:** Set up and operate wood machining machinery.
- S15:** Apply wood machining processes using conventional or CNC machinery. For example, cutting, shaping, planing, turning, profiling, boring, or edge banding for production of jointed wood and wood-based products.
- S16:** Assemble components or sub-assemblies of furniture.
- S17:** Inspect, strip, and sand material surfaces.
- S18:** Carry out rectification, repair and rework of machined components.
- S19:** Follow quality assurance processes.
- S20:** Pack, store and handle components and sub-assemblies.
- S21:** Record wood machining activity information - paper based or electronic.
- S22:** Apply basic continuous improvement techniques. For example, lean manufacturing, six sigma, 5S, and KAIZEN.
- S23:** Apply team working principles.
- S24:** Apply escalation procedures in relation to faults or issues.
- S25:** Follow equity, diversity and inclusion rules.
- S26:** Communicate verbally with colleagues and supervisors.
- S27:** Communicate in writing with colleagues and supervisors using industry terminology electronically or paper based.
- S28:** Use information technology and digital systems. Comply with GDPR and cyber security regulations and policies.
- S29:** Undertake and record learning and development activities.

Behaviours

- B1:** Put health and safety first.
- B2:** Take ownership of given work.
- B3:** Consider the impact on the environment when using resources and carrying out work.
- B4:** Team-focus to meet work goals.
- B5:** Support an inclusive workplace for example, respectful of different views.
- B6:** Seek learning and development opportunities.

Qualifications

English and Maths

English and maths qualifications form a mandatory part of all apprenticeships and must be completed before an apprentice can pass through gateway. The requirements are detailed in the current version of the [apprenticeship funding rules](#).

Does the apprenticeship need to include any mandated qualifications in addition to the above-mentioned English and maths qualifications?

No

Consultation

Following consultation we incorporated sawmilling into this occupational standard.

Progression Routes

ST0639 Bespoke furniture maker L3

Supporting uploads

Mandatory qualification uploads

Mandated degree evidence uploads

Professional body confirmation uploads

Involved employers

Benbow Group, BSW Group, BSW Timber, CTS Joinery, Ercol, JT Ward Joinery, Rolls-Royce Motor Cars, SB Joinery, Stairways Group, Tekne, Tetrad

Subject sector area

4.2 Manufacturing technologies