



Australian Government

Department of Education, Employment and Workplace Relations

CPCCJN3004A Manufacture joinery components

Release: 1

CPCCJN3004A Manufacture joinery components

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit specifies the outcomes required to carry out machining and manufacturing processes for component material in preparation for assembling joinery components.

Application of the Unit

Application of the unit

This unit of competency supports the achievement of skills and knowledge to manufacture joinery unit components, which may include working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Tools and equipment</i> and <i>plant</i> are selected to carry out tasks are consistent with job requirements, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Material quantity requirements are calculated in accordance with plans, specifications and <i>quality requirements</i>.</p> <p>1.6. <i>Materials</i> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and <i>statutory and regulatory authority</i> requirements, and are applied.</p>
2. Select and prepare materials for use in joinery production process.	<p>2.1. <i>Fasteners</i>, fixings, adhesives and sealants are identified and selected appropriate to manufacturing process and used to manufacture specifications and material safety data sheet (MSDS) data.</p> <p>2.2. Materials are identified and selected against characteristic and suitability of production components.</p> <p>2.3. Material acquisition and <i>preparation techniques</i> are identified and used, as appropriate.</p> <p>2.4. Appropriate handling and stacking processes are identified and used.</p>
3. Manufacture components.	<p>3.1. Types of component parts are identified from working drawings and specifications.</p> <p>3.2. Terminology and dimension limitations specified by standards governing design are referenced and able to be identified.</p> <p>3.3. <i>Processes for manufacture</i> and joining techniques and components are identified and used.</p> <p>3.4. Machines to be used and sequence of machining are selected according to machining processes to be</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>carried out.</p> <p>3.5. Safety procedures for each machine are checked as being in accordance with OHS requirements and AS1473 Guarding and safe use of woodworking machinery.</p>
4. Secure and hold components in place.	<p>4.1. Component parts and knockdown fittings are identified and prepared for location in full component assembly.</p> <p>4.2. Adhesive is applied, where applicable, to specification.</p> <p>4.3. Components are located and held in their assembled positions to design specifications.</p>
5. Fabricate assembled components.	<p>5.1. Frame or unit is secured by adhesive and cramped to design specification.</p> <p>5.2. Fastened joints are secured by fasteners/knockdown fittings using appropriate tools to specification.</p> <p>5.3. Plated joints are secured by placement and pneumatic hammer or press of gangnail plates to specification.</p>
6. Process for manufacture and fabrication sequencing is monitored.	<p>6.1. Space requirements for preparation, manufacture or assembly of product is identified and located.</p> <p>6.2. Component parts are acquired and checked for accuracy, quality and suitability according to plans, drawings and specifications.</p> <p>6.3. Assembling process is identified according to sequential order of events and packaging and handling techniques and methods of protecting material edge and surface are used.</p> <p>6.4. Common faults in product and process problems are identified and appropriate remedial action taken according to workplace operating procedures.</p>
7. Clean up.	<p>7.1. Unused materials are recycled or returned to store.</p> <p>7.2. Tools, equipment and plant are cleaned, maintained and stored.</p> <p>7.3. Work area is cleaned and waste disposed of safely.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- ability to recognise procedures, respond to change and contribute to workplace responsibilities, such as current work site environmental or sustainability frameworks or management systems
- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret:
 - drawings and specifications
 - MSDS data
 - standards
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- innovation skills to select appropriate tools and equipment, respond to workplace challenges and put ideas into action
- numeracy skills to apply measurements and calculations and to identify data
- planning and organisational skills to identify requirements, apply relevant resources and sequence tasks
- problem solving skills to recognise and take action to rectify minor faults and problems
- teamwork skills to be able to work with others to action tasks and relate to people from a range of cultural, social, ethnic backgrounds and with varying physical and mental abilities.

Required knowledge

Required knowledge for this unit is:

- AS1473 Guarding and safe use of woodworking machinery
- interpretation of working drawings and specifications
- job safety analysis (JSA) and safe work method statements
- machining processes relevant to joining of joinery components
- materials and their characteristics relevant to joinery unit construction
- materials identification marking systems
- measuring and setting out processes relevant to joinery unit components
- types and characteristics of adhesives relevant to manufacture of joinery units and components
- types and characteristics of fixings and fasteners relevant to joinery unit

REQUIRED SKILLS AND KNOWLEDGE

construction

- types and uses of static machines
- types of fitments and their construction
- types of framework and their construction
- workplace and equipment safety requirements.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to manufacture at least two joinery units using the materials listed in the range statement, providing evidence of the ability to:

- identify types of joinery unit products
- identify components of joinery unit products
- identify construction and assembly method and process sequencing
- identify maximum and minimum standards and governing authority
- comply with OHS regulations applicable to workplace operations
- organisational quality procedures and processes applied within context of manufacturing components for joinery units
- identify machining processes required and select appropriate machines
- set up machines for machining applications safely and correctly
- safely and efficiently operate machines to accurately carry out designed processes to set-out material
- select and use appropriate processes, tools and equipment for hand application work
- set up and operate portable power tools safely and correctly
- demonstrate safe and efficient procedures in setting up work and using hand tools
- demonstrate safe and efficient procedures in holding components during manufacturing

EVIDENCE GUIDE

processes

- identify typical faults and problems that occur and action required to rectify them
- communicate with others to ensure safe and effective workshop operations.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- work area and static machines appropriate to task
- working drawings and specifications relevant to activity
- procedure documents appropriate to manufacturing processes
- tools, plant and equipment relevant to manufacture processes
- materials and components appropriate to activity.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm a reasonable inference that

EVIDENCE GUIDE

competency is not only verified under the particular assessment circumstance, but is able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should, as far as is practical, take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

RANGE STATEMENT

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to manufacturing joinery components
- relevant Australian standards
- safe work procedures relating to manufacturing joinery components
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Planning and preparation include:

- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others

RANGE STATEMENT

- use of firefighting equipment
 - use of tools and equipment
 - workplace environmental requirements and safety.
- Tools and equipment*** include:
- angle grinders
 - bevels
 - compressors
 - crimping machines
 - drop saws
 - hammers
 - hand and pneumatic pop-riveters
 - measuring tapes
 - overhead/pendant cranes and forklifts
 - pneumatic screwdrivers
 - punching and forming press tools
 - squares.
- Plant*** includes:
- air compressors
 - portable power tools
 - power requirements
 - static machines.
- Quality requirements*** include relevant regulations, including:
- AS1473 Guarding and safe use of woodworking machinery
 - internal company quality policy and standards
 - manufacturer specifications where specified
 - workplace operations and procedures.
- Materials*** include:
- laminated material
 - metallic and non-metallic materials
 - timber.
- Environmental requirements*** include:
- clean-up management
 - dust and noise
 - stormwater protection
 - waste management.
- Statutory and regulatory authority*** includes:
- federal, state and local authorities administering applicable Acts, regulations and codes of practice.
- Fasteners*** include:
- adhesives
 - crimping
 - knockdown fittings
 - nails
 - nuts and bolts

RANGE STATEMENT

- pop rivets
 - screws.
- Preparation techniques* include:
- cutting, routing and jointing processes
 - dressing process
 - stacking procedures.
- Processes for manufacture* include:
- glass panels
 - panelling and laminates
 - timber framework
 - timber mouldings.
- Fastened joints* include:
- bolts and nuts
 - metal rods and connection plates
 - nails.
- Assembling processes* include:
- fitments and units
 - prefabricated timber framework
 - shopfronts.
- Packaging and handling techniques* include using:
- bubble plastic
 - cardboard
 - clear plastic sheet
 - polystyrene
 - timber.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area