



Australian Government

Department of Education, Employment and Workplace Relations

LMFFM4008A Produce timber veneered components for custom furniture

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the competency required to produce timber veneered components for custom made furniture.

Application of the Unit

Application of the unit This unit supports the attainment of skills and knowledge required for competent workplace performance in the wide variety of fine woods operations. The competency applies to a workshop environment and involves application of skills and knowledge at a craftsman or artisan level. These skills and knowledge are to be used within the scope of the individual's job and authority.

This unit requires employability skills in initiative and enterprise, planning and organising and problem solving in order to produce timber veneered components for custom made furniture. Communication skills are used to access and interpret work requirements and self management is applied to ensure project requirements are met.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Prepare for work	1.1. Applicable <i>legislative, OHS</i> and <i>organisational</i> requirements relevant to producing timber <i>veneered components</i> for custom made furniture 1.2. <i>Instructions</i> , plans or design briefs are read and interpreted to identify processes and materials to complete work tasks 1.3. Suitable timber or timber veneer material is identified, evaluated and selected 1.4. <i>Tools, equipment</i> and <i>materials</i> are selected and checked prior to use to ensure that they are appropriate for the work, serviceable and in a safe condition 1.5. Sequence of work is planned and documented, including the starting point, to ensure efficiency and quality of finish 1.6. Quality checking procedures are developed and documented for each step in the veneering process
2. Prepare timber veneer	2.1. Timber is selected and the cutting face is prepared 2.2. Veneer timber is cut along grain at the specified thickness 2.3. Veneer thickness and consistency are monitored with respect of size and tolerances 2.4. Veneer is dressed to the required tolerances for further use
3. Layout and prepare materials	3.1. Design of veneer is laid out 3.2. Veneers are selected and checked for flaws 3.3. Veneers are matched and method of <i>joining to adjacent veneers</i> is selected and prepared for 3.4. <i>Veneers</i> are prepared for application and laid out 3.5. <i>Suitable joining processes</i> to backing and adjacent veneers are selected and prepared 3.6. The <i>style of edge finish</i> is selected and prepared for
4. Apply and/or fit and finish	4.1. Veneers are measured, marked and cut to size and applied to base material 4.2. Adhesives are applied according to workplace procedures and manufacturers' instructions 4.3. Selected joining process is applied in accordance with workplace procedures including the use of protective equipment

ELEMENT**PERFORMANCE CRITERIA**

- 4.4. Final trim and finishing are completed to specifications
- 4.5. Work is checked against required quality standards
- 4.6. Any non-conformity with the required quality standard is rectified
- 5. Complete housekeeping
 - 5.1. Unused materials are stored or recycled as required
 - 5.2. Tools and equipment are cleaned, maintained and stored appropriately
 - 5.3. Faulty or defective equipment is tagged and reported in accordance with workplace practices
 - 5.4. Work area is cleaned and rubbish disposed of appropriately
 - 5.5. Workplace documentation and/or reports are completed

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates skills to:

- collect, organise and understand information related to work orders, basic plans and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity
- use pre-checking and inspection techniques to anticipate veneering production and application problems to avoid re-work and wastage
- recognise and respond to circumstances outside instructions or personal competence
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, work flow interruptions or wastage
- use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate other material requirements
- clarify and confirm work instructions
- plan work within given task parameters
- accept responsibility for given tasks
- set, monitor and satisfy personal work goals
- satisfy the competency requirements for the job
- maintain current knowledge of tools and materials
- maintain current knowledge of installation techniques
- seek learning opportunities
- use the limited workplace technology related to the production of timber veneer components, including tools, equipment, calculators and measuring devices.

Demonstrates knowledge of:

- State or Territory OHS legislation, regulations, standards and codes of practice relevant to the production of timber veneer components
- organisational and site standards, requirements, policies and procedures for the production of timber veneer components
- types, characteristics, uses and limitations of veneers
- techniques for the manufacture and application of veneers
- types, characteristics, uses and limitations of different veneering timbers
- the interpretation of plan representation of furniture design
- the preparation of drawings/set outs
- types, characteristics, uses and limitations of tools and equipment and procedures

REQUIRED SKILLS AND KNOWLEDGE

for their safe use, operation and maintenance

- work flow in relation to furniture production
- environmental protection requirements
- established communication channels and protocols
- problem identification and resolution

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, the Range Statement and the Assessment Guidelines for the relevant Training Package.

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

- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for producing timber veneer components
- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection practices to:
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
 - minimise the risk of injury to self and others
- Prepare a minimum of one significant veneer including:
 - the selection of materials
 - the preparation of the cutting face
 - the cutting and dressing of the veneer
- Apply and finish veneers to at least three different surfaces - one flat, one curved and one being a laminate, including at least two requiring veneer edging
- Work effectively with others
- Modify activities to cater for variations in workplace contexts and environment

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - realistic task for the preparation/production of a veneer
 - realistic tasks related to the application of veneers

EVIDENCE GUIDE

Method of assessment

- materials and equipment relevant to the production and application of veneers
- specifications and work instructions
- Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge
- Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application
- Assessment may be applied under project related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other related units of competency

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. Bold italicised wording in the Performance Criteria is detailed below. Add any 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.

- Legislative requirements**
- are to be in accordance with applicable legislation from all levels of government that affect organisational operation.
 - Requirements may include but not be limited to award and enterprise agreements, industrial relations, Australian Standards, confidentiality and privacy, OHS, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice, duty of care and heritage
- OHS requirements**
- are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures.
 - Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, First Aid equipment, hazard and risk control and elimination, control of hazardous materials and substances, manual handling including lifting and carrying
- Organisational requirements**
- may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)
- Veneered components**
- refers to the thin slices of wood, usually thinner than 3 mm (1/8"). Timber veneer is usually glued and pressed onto core panels of different material (such as wood, particle board or medium density fibreboard). They are also used in parquetry, marquetry, intarsia and inlays.
- Instructions**
- workplace veneering instructions, including job sheets, plans, specifications, drawings and designs

- workplace procedures relating to reporting and communications
 - manufacturer instructions for the use of equipment and materials
- Tools and equipment**
- are to include but are not limited to knives, chisels, measuring tapes or rules, mallets, squares, levels, planes, band saws, rotary lathe, slicing machine, half round lathe, power saws, power drills/screwdrivers, hand drills, pneumatic tools, clamps, screwdrivers, rollers, laminate trimmers, cutters and hand routers, sand paper, wire wool and sanding block
- Materials**
- may include but are not limited to timber, manufactured board, laminates, timber strips, adhesives, cleaning materials and tapes
- Veneers**
- where two or more layers of veneer are adhered to each other they are referred to as laminates. A laminate may be employed to provide structured strength or shape (eg the back of a chair) that also has visual appeal. Alternatively, a veneer may be applied to a laminate of different material for visual appeal whilst maintaining other structural benefits. In most of these latter cases the laminate used is entirely covered from exterior view.
- Suitable joining processes**
- Employ one of the following methods:
 - **Mechanical Press.** A press that uses two flat plates being brought together to press the veneer to the substrate during the gluing process. It may be purely mechanical using a screw or level action or be closed with a hydraulic ram. This method is only used for veneering flat surfaces.
 - **Vacuum Technique.** This involves the component being veneered being placed in a form of bag from which the air is extracted. This method is favoured for veneering curved surfaces and also by smaller operators because of its flexibility.
 - **Hot Glue Hammering.** This is a traditional method of veneering and is not now widely used. It involves using hot glue on the surfaces being veneered and then hammering the veneer to the subsurface with a hammer. The earliest known examples of veneer used this method.
- Joining to adjacent veneers**
- Refers to the joining of adjacent sheets of veneer. This may be by:
 - butting two right angle edges together then 'stitching' the veneer using a hot melt glue or tape

- (commonly used for flat surfaces) or
- using a scarf joint then gluing the surfaces together (commonly used on curved surfaces)
- Style and edge finish**
- may be either solid timber or veneer to cover the exposed edge

Unit Sector(s)

Sector Furniture design and technology