

LMFFM2005B	Join solid timber
Unit descriptor	This unit covers the competency to join solid timber required for the manufacture of solid timber flat surfaces.
Employability skills	This unit contains employability skills.
Unit sector	Furniture Making

ELEMENT	PERFORMANCE CRITERIA
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.
1. Prepare the work	<ul style="list-style-type: none"> 1.1. Work instructions are used to determine job requirements including process, materials, finish and quantity 1.2. Work sequence is planned 1.3. Procedures are determined for checking quality at each stage of the process 1.4. Workplace health and safety requirements, including personal protection needs, are observed throughout the work 1.5. Suitable work area is selected for the task 1.6. Tools and equipment suitable for application are identified and checked for safe and effective operation
2. Layout and prepare materials	<ul style="list-style-type: none"> 2.1. Timbers are selected and checked for defects following work instructions 2.2. Suitable joining processes are selected and prepared 2.3. Timbers are prepared for joining and laid out
3. Join timber	<ul style="list-style-type: none"> 3.1. Timbers are measured, marked and cut to size 3.2. Machinery is used in accordance with workplace procedures, including use of personal protective equipment 3.3. Adhesives are applied according to workplace procedures and/or manufacturers' instructions 3.4. Final trim and finishing are completed to specifications 3.5. Work is checked against required quality standards
4. Finalise operation and maintain equipment	<ul style="list-style-type: none"> 4.1. Work area is cleaned, hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures 4.2. Machinery is cleaned and left in a safe mode 4.3. Faulty and/or defective equipment is tagged and reported in accordance with workplace practices 4.4. Off-cuts and unused materials are collected and stored for reuse or disposal following workplace procedures 4.5. Waste and scrap materials are dealt with following workplace procedures

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- 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
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- use pre-checking and inspection techniques to anticipate installation problems, avoid reworking and avoid wastage
- use the limited workplace technology related to the installation of underlay and gripper strips, including tools, equipment, calculators and measuring devices

Required knowledge

- types, characteristics (including cupping, expansion, twisting, bowing, spring and grain direction), uses and limitations of timbers
- the interpretation of plan representation of furniture design
- joining techniques and their effect on timbers
- types of sawing methods, including back sawn and quarter sawn, and the impact of these on joining
- preparation of drawings/set-outs
- identification of hand and/or power tools, materials, equipment, processes and procedures
- workflow in relation to furniture production

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.

Joining techniques are to cover widening joints, including the following edge joining methods:

- butt, dowel
- moulded edge joint (finger-joint, tongue in groove, zig-zag)
- biscuit joint
- slip-tongue joint

Unit context

- OH&S requirements include legislation, building codes, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures
- Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements
- Work requires individuals to demonstrate some discretion, judgement and problem solving skills in joining solid timber

	<ul style="list-style-type: none"> Competency may be demonstrated in workplaces involved in the manufacture of solid timber furniture, domestic furniture, commercial furniture, kitchen and bathroom cabinets and/or furniture components
Machines may include:	<ul style="list-style-type: none"> panel saw cross-cut saw rip saw surface planers panel planer spindle moulder sanders and vertical and horizontal drills
Tools and equipment may include, but are not limited to:	<ul style="list-style-type: none"> measuring tapes or rulers hammers mallets squares bevels chisels planes hand saws power saws power drills biscuit machines pneumatic tools dowel jigs hoses clamps and pincers
Materials to be used may include but are not limited to:	<ul style="list-style-type: none"> solid timber plywoods adhesives <p>abrasives and cleaning materials</p>
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices
Information and procedures	<ul style="list-style-type: none"> Workplace procedures relating to the use and operation of tools and equipment Workplace instructions, including job sheets, plans, drawings and designs Workplace procedures relating to reporting and communications Manufacturers' instructions for the use of equipment and materials

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 of

- Interpret work order and locate and apply relevant

Evidence	information <ul style="list-style-type: none">• Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment• Follow work instructions, operating procedures and inspection practices to:<ul style="list-style-type: none">◦ minimise the risk of injury to self and others◦ prevent damage to goods, equipment and products◦ maintain required production output and product quality• Join at least four solid timber tops of a minimum of three sections and using a minimum of four different widening joints• Work effectively with others• Modify activities to cater for variations in workplace contexts and environment
Resource Implications	Access to plans, hand and/or power tools, equipment, joining and finishing materials, woodworking machinery, and a work area.
Method of Assessment	Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts. Assessment should be by direct observation of tasks and questioning on underpinning knowledge. Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.
Context of Assessment	Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.