Timber Manufactured Products and Merchandising Competency Standards

FPIM2001A Store Material

Description

This unit describes the work involved in the planning of a racking operation, the opening of packs of timber and its placement in storage racks or storage bays.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Prepare for storage operation

1) Occupational health & safety regulations, policies & procedures relevant to storing material are to be followed throughout the application of this competency.
2) Type and quantity of material to be stored is identified and distinguished from other available material, to site requirements.
3) Materials are identified within industry standard cross-sections or length by visual estimate or with the aid of a measuring tool.
4) General labels, stress grade labels, colour identification marks and other tags are recognised and interpreted.
5) Required storage locations are identified from labelling in accordance with site procedures.
6) Lifting equipment requirements and help for lifting requirements are identified and requested.
7) Storage area and supports are confirmed as being safe for the intended uses and work areas isolated as necessary.
8) Communication with others involved with the work is established and maintained to ensure efficient work flow, personnel co-ordination and safety throughout the application of this competency.

2 Open material packs

1) Pack containing material to be stored is placed on stand, frame or ground in accordance with site opening procedures.
2) Packs are released/unbound in a clear area to avoid injury to personnel or damage to material.
3) Pack wrapping material is removed and disposed of in accordance with site procedures.
4) Material is confirmed to meet labelled or expected content.
5) Strapping is cut using site standard procedures to control released straps and material.
6) Notification of packs containing incorrect quantity, incorrect or contaminated material or material is carried out in accordance with site procedures.
7) Area is regularly cleared of packing and loose material in accordance with site procedures.

3 Place material in storage

1) Material is separated by size and placed in planned storage locations.
2) Placement and alignment of material meets site standards for appearance and access.
3) Material not meeting quality requirements is disposed of in accordance with site procedures.
4) Storage locations are labelled in accordance with site systems.
5) Records required by the site are completed.

Range of Variables

- Storage may include racks, binning, stacks, pallet boxes or other modularised storage components.
- Material stored may be of consistent or varying type, section and length.
- Material types to be identified, distinguished and stored may include as sawn or dressed finished timber, differing timber species, preservative treated timber including water borne light organic solvent preservative (LOSP), panel types including laminated veneer, chip board, fibreboard, medium density fibreboard, and boards made from other than wood, panels with various treatments and coatings, hardware items, stress and non stress graded timber, as sawn green timber, timber products, building material, hardware products, and landscape materials.
- Material cross-sections and sizes to be stored may include timber with rectangular and common profile cross-sections with industry standard dimensions, panels with industry standard thickness and sheet dimensions, and hardware sizes as necessary to differentiate between separate stock items.
- Materials may be stored in accordance with standard product classifications related to product designation, size/dimension, stack number, weight, grade, and shelf life/stock rotation policy.
- OH&S requirements include manual handling, operation of equipment, protective clothing, elimination of hazards and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for storing materials
  - ◊ industry standard cross-section and length dimensions and tolerances
  - ◊ industry standard cross-section profiles and names
  - ◊ site racking and storage systems
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely and effectively store materials
  - ◊ measure to an accuracy adequate to ensure that material can be consistently allocated to a standard size
  - ◊ open packs safely to site standards
  - ◊ identify appropriate storage locations
  - ◊ ensure the safety of the work area and personnel and storage
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely store materials
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ prepare for storage operations
  - ◊ open material packs
  - ◊ place material in storage.

Interdependent Assessment of Unit

This unit of competency is to be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit covers the basic cutting of material to length and angle with one cutting pass of a saw, its stacking and saw maintenance.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Prepare for cutting

1) Occupational health & safety regulations, policies & procedures relevant to cutting material to length and angle are to be followed throughout the application of this competency.
2) Job requirements regarding quantities, sizes, lengths and angles are obtained in accordance with site procedures.
3) Material suitable for cutting to length and angle required are obtained from pre-selected order requirements or identified with site procedures.
4) Condition of material is visually assessed.
5) Material cutting patterns and saw set-up sequences are planned in accordance with site procedures.
6) Start-up checks are completed for saw(s) in accordance with site procedures.
7) The safety of the work area is confirmed prior to commencement of cutting.
8) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Cut material to length and angle

1) Planned cutting sequence and patterns are followed.
2) Cutting angles are set in accordance with saw manufacturer's instructions.
3) Cutting lengths are prepared by:
- marking material using measuring tool
- setting stops on equipment scales
- setting marker(s) on guides using measuring tool.

4) First cut after set-up is checked for length and angle to site or order tolerances.
5) Cuts are made to required lengths, angles and quantities.
6) Cuts are made to remove visual defects affecting appearance or stress grade.
7) Material with defects or incorrect cuts are disposed of in accordance with site procedures.
8) Off-cuts are directed for waste or recovery.
9) Processing faults in materials or equipment are identified and reported in accordance with site procedures.
10) Machine faults are reported in accordance with site procedures.

3 Carry out operator maintenance

1) Characteristics of blunt and damaged saw are recognised.
2) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
3) Saw blades are removed and replaced in accordance with site procedures.
4) Area around saw is regularly cleaned in accordance with site procedures.

4 Identify and stack sawn material

1) Cut material is stacked for transport with each order separate in accordance with site requirements.
2) Material of common size, length and angles are stacked together.
3) Material or stacks are marked in accordance with site requirements.
4) Stacks are transferred or movement requested to maintain safe and efficient working area.

Range of Variables

- Cutting at this level is limited to single angles requiring one cutting pass are made on board ends.
- Material may be timber, panel, laminated beam or beam.
- Cutting equipment may include all manually operated docking and trimming saw types where cutting angle is controlled relative to board guides and clamps, saws with adjustable angle and saws with one blade.
- Visual assessment may cover species and characteristics, material types including as sawn, dressed, preservative treated and finger jointed, end condition, position and size of knots and other faults, industry and site procedures for allowable wane, knots and other faults and applicable grading standards.
- OH&S requirements include manual handling, protective clothing and equipment, use of safety equipment, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for cutting material to length and angle
  - ◊ cutting sequence and patterns
  - ◊ types of material and machine faults and appropriate actions
  - ◊ how blunt blades are recognised
  - ◊ industry standard cross-sections and length dimensions and tolerances
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates ability to:
  - ◊ safely operate equipment for cutting material to length and angle (basic)
  - ◊ use required lock out or shut out procedures
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology
  - ◊ set up cutting angles and lengths
  - ◊ cut variety of material to length and angle requirements
  - ◊ recognise characteristics of blunt and damaged saws
  - ◊ change saw blades
  - ◊ carry out lock out procedures.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely cut material to length and angle (basic)
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ prepare for cutting
  - ◊ cut material to length and angle
  - ◊ carry out operator maintenance
  - ◊ identify and stack sawn material.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

FPIM2003A Cut Material to Length and Angle - Advanced

Description

This unit describes the work involved in preparing for and maintaining the process of the more complex cutting of timber to length and angle and its subsequent identification and stacking.

Suggested Pre-Requisites/Co-Requisites

FPI OHS 1A Follow defined occupational health & safety policies & procedures.
FPI M2 002 A Cut material to length and angle – basic.

1 Plan and prepare for cutting

1) Occupational health & safety regulations, policies & procedures relevant to cutting material to length and angle are to be followed throughout the application of this competency.
2) Job requirements regarding quantities, sizes, lengths and angles are obtained in accordance with site procedures.
3) Material suitable for cutting to length and angle required are obtained from pre-selected order requirements or identified from available stock.
4) Equipment to be used for cutting process is selected and start-up checks completed in accordance with site procedures.
5) Condition of material is visually assessed.
6) Material cutting patterns and saw set-up sequences are planned.
7) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Cut material to length and angle

1) Planned cutting sequence and patterns are followed.
2) Cutting angles are set in accordance with saw manufacturer's instructions.
3) Cutting lengths, angles and shapes are prepared by:
- marking individual boards using tape, template or protractor
- setting stops on equipment scales
- setting marker(s) on guides using tape.

4) First item cut after set-up is checked for length and angle in accordance to site procedures or order tolerances.
5) Cuts are made to required lengths, angles and quantities.
6) Cuts are made to remove visual defects affecting appearance or stress grade.
7) Off-cuts and rejected material is directed for waste or recovery.
8) Processing faults in materials and equipment are identified and reported in accordance to site procedures.
9) Machine faults are reported in accordance with site procedures.
10) Production and quality records are completed in accordance with site procedures.

3 Carry out operator maintenance

1) Characteristics of blunt and damaged saw are recognised.
2) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
3) Saw blades are removed and replaced in accordance with site procedures.
4) Area around saw is regularly cleaned in accordance with site procedures.

4 Identify and stack sawn timber

1) Cut material is stacked for transport with each order separate in accordance with site requirements.
2) Material of common size, length and angles are stacked together.
3) Material or stacks are marked in accordance with site requirements.
4) Stacks are transferred or movement requested to maintain safe and efficient working area.

Range of Variables

- Cutting at this level must include single or compound angles requiring one or two cutting passes are made on material ends.
- Cutting equipment may include all docking and trimming saw types where cutting angle is controlled relative to board guides and clamps and saws with adjustable angle.
- Visual assessment may cover timber species and characteristics, timber types including as sawn, dressed, preservative treated and finger jointed, end condition, position and size of knots and other faults, industry and site procedures for allowable wane, knots and other faults and applicable grading standards.
- Production and Quality records may include tally sheets, quality sheets/forms, production sheets and downtime sheets.
- OH&S requirements include manual handling, protective clothing, use of safety equipment, identify and address hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for cutting material to length and angle
  - ◊ cutting sequence and patterns
  - ◊ types of material and machine faults and appropriate actions
  - ◊ how blunt blades are recognised
  - ◊ industry standard cross-sections and length dimensions and tolerances is required
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping**.**

Underpinning Skills

- Demonstrates ability to:
  - ◊ safely operate equipment for cutting material to length and angle
  - ◊ set up angles and lengths for compound cuts
  - ◊ cut variety of boards to full range of complexity in length and angle requirements
  - ◊ use required lock out or shut out procedures
  - ◊ recognise characteristics of blunt and damaged saws
  - ◊ change saw blades
  - ◊ visually assess a variety of board samples
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely cut material to length and angle
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ plan and prepare for cutting
  - ◊ cut material to length and angle
  - ◊ carry out operator maintenance
  - ◊ identify and stack sawn timber.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit describes the work involved in the preparation for the conduct of material machining processes.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Prepare for machining process

1) Occupational health & safety regulations, policies & procedures relevant to machining materials are to be followed throughout the application of this competency.
2) Required materials, quantities and machined details are identified in accordance with site procedures.
3) Available material for machining is identified in accordance with site standard sizes.
4) Machining processes and set-ups are selected from those normally used within site.
5) Sequence of machining operations is planned where multiple passes are required.
6) Machine guides and cutters are set up to site procedures.
7) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Machine products

1) Start-up checks are conducted and equipment started in accordance with site procedures and manufacturer's instructions.
2) Speeds and feeds are adjusted to suit dimensional and finish requirements.
3) Material not meeting processing requirements is identified prior to machining in accordance with site procedures.
4) Material is marked in accordance with site procedures to ensure accurate machining.
5) Material is machined by operating equipment in accordance with site and manufacturer's procedures.
6) Reject material is identified and directed for waste or recovery.
7) Area around equipment is regularly cleared of scraps, shavings and sawdust in accordance with site procedures.
8) Machined products are tallied and monitored against order quantity.
9) Problems and equipment faults are reported promptly and fully.
10) Production and quality records are completed in accordance with site procedures.

3 Assess machining conditions

1) Machining feed rate and finish are evaluated considering material size, condition and other relevant characteristics according to site procedures.
2) Machined dimensions, profiles and details are measured and recorded in accordance with site quality procedures.
3) Characteristics of blunt and damaged cutters are recognised from processing conditions and finished product.
4) Faults in finished product are identified and associated processing problems recognised.

4 Maintain simple machining processes

1) Machining conditions are adjusted to optimise feed rate and finish and maintain finished dimensions in accordance with site procedures.
2) Equipment lock out is applied in accordance with site procedures.
3) Fixed cutter heads are removed and replaced in accordance with site procedures.
4) Straight cutters are jointed in accordance with site procedures.
5) Need for more complex cutter maintenance is identified in accordance with site procedures.
6) Routine machining problems are identified, investigated and resolved.
7) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with site procedures.

Range of Variables

- Material which may be machined includes panels, composite panels, timber and laminated materials.
- Equipment used may include single or multi-head moulder, spindle moulder, single or double end tenoner, mortiser, router, borer or multi-borer, and sanders, wide-belt and narrow-belt.
- Typical machining operations may include production of grooves, rebates, bevels and trenches.
- Timber products and detail machined are standard for the site with established tolerances and procedures.
- Faults recognised in finished material may include burn marks, poor surface finish, extra cuts, excessive cutter marks and dimensional errors.
- Production and quality records may include, tally sheets, quality sheets/forms, production sheets and downtime sheets.
- OH&S requirements include protective clothing, manual handling, use of safety equipment, elimination of hazards, operation and isolation of equipment, machine guarding and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for machining materials
  - ◊ industry standard cross-section and length dimensions and tolerances
  - ◊ industry standard profiles and machining terminology
  - ◊ enterprise quality standards
  - ◊ typical timber defects and machining problems which require action to be taken
  - ◊ recognition methods for blunt or damaged cutters
  - ◊ routine problem-solving approaches and demonstrates the ability to solve routine machining problems in simulated situations
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely operate equipment for machining materials
  - ◊ produce products at optimum rate and finish quality
  - ◊ measure finished dimensions of profiles and details with accuracy appropriate to tolerances
  - ◊ use required lock out or shut out procedures
  - ◊ change fixed cutters
  - ◊ joint simple cutters
  - ◊ carry out lock out procedures
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ OH&S requirements for machining materials
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ prepare for machine process
  - ◊ assess machining conditions
  - ◊ maintain machining processes
  - ◊ produce products at rate and quality required.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit describes the work involved in the preparation, assembly and packing of nail plated products.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Identify design requirements and components

1) Occupational health & safety regulations, policies & procedures relevant to assembling products using nail plates are to be followed throughout the application of this competency.
2) Number of products to be assembled and assembly details are determined from schedules, production orders, drawings and supervisor's instructions.
3) Pre-cut timber components are identified and obtained for complete order.
4) Availability of required quantities of each size of nail plate to be used is confirmed.
5) Special requirements for timber grade and use and position of joins is determined from production orders, drawings or supervisor's instructions.
6) Construction plans and jig set-ups for unfamiliar designs are confirmed in accordance with site procedures.
7) Set up jig as required by site procedures and processes.
8) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Set up components

1) Individual timber components are selected from pre-cut material on the basis of cross-section, length, grade and cutting details.
2) Components are laid in jig with joints, faults and grain placed to meet relevant standards and grading rules.
3) Components not meeting required quality levels are rejected for scrap or recovery in accordance with site procedures.
4) Components are aligned and clamped using jig to site procedures.
5) Components are stapled as necessary to maintain alignment during assembly.
6) Equipment faults are recognised and reported to supervisor or maintenance personnel.

3 Position and install nail plates

1) Nail plates of required size are located on joints to site and manufacturer's standards.
2) Assembly and nail plate press are positioned and plates installed using press in accordance with site and equipment manufacturer's standards.
3) Completed joints with timber splits, incorrectly positioned plates or other faults are repaired in accordance with site procedures.
4) Routine assembly problems are investigated and resolved.
5) Finished product is checked, labelled and identified according to order or drawing and site requirements.
6) Temporary bracing is nailed or stapled to assemblies in accordance with site procedures.
7) Equipment faults are recognised and reported to maintenance personnel.
8) Production and quality records are maintained in accordance with site requirements.

4 Stack and strap assembled products

1) Products are removed from jig without damaging product or jig.
2) Finished products are stacked and straps applied with bundle sizes and strap positions in accordance with site procedures.
3) Straps are tightened using hand-held equipment to a tension sufficient to prevent product slippage without risk of strap breakage or damage to products.
4) Packs are labelled and identified according to order and site requirements.

Range of Variables

- Products assembled may include trusses, frames and beams.
- Products assembled cover the full range of timber species, timber size, nail plates and assembly size - within the product type - which the site manufactures.
- Equipment used may include assembly jig, nail plate press, staple gun, compressor or compressed air supply, paint spray gun and strapping equipment.
- Production and Quality records may include tally sheets, quality sheets/forms, production sheets, and downtime sheets.
- OH&S requirements include manual handling, use of safety equipment, use of hand and air operated tools, operation of equipment and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for assembling products using nail plates
  - ◊ construction grade standards
  - ◊ industry standard cross-sections, cutting angles, tolerances and shapes
  - ◊ enterprise quality standards
  - ◊ typical problems encountered and approaches used with component set-up and nailing
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely assemble products using nail plates
  - ◊ identify designs, components and jigs from information available
  - ◊ set up jigs
  - ◊ position components to design and site standards
  - ◊ operate typical assembly jigs
  - ◊ install nail plates
  - ◊ identify faulty joints
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ OH&S requirements for assembling products using nail plates
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ identify design requirements and components
  - ◊ set up components
  - ◊ position and install nail plates
  - ◊ stack and strap assembled products.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

FPIM2006A Glaze Frames

Description

This unit describes the work involved in the planning of glazing operations and the assembly and checking of glass and frames.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Plan glazing operations

1) Occupational health & safety regulations, policies & procedures relevant to glazing frames are to be followed throughout the application of this competency.
2) Number of and type of frames to be glazed are determined from schedules, production orders and drawings.
3) Glazing specifications for frames are determined.
4) Unusual or unfamiliar specification requirements are confirmed in accordance with site procedures.
5) Availability of frames, pre-cut timber components, pre-cut glass, other hardware components and sealant is confirmed.
6) Glazing requirements are planned and sequenced where possible to minimise changes in set up and/or to group common orders.
7) Glazing rack is set to suit frames in accordance with site procedures.
8) Pre-cut components are checked for fit to frames.
9) Inaccurately cut components are identified and arrangements made to correct or replace them.
10) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Assemble and check glass and frames

1) Frames are set in glazing rack, checked and rebates cleaned to ensure accurate sealed assembly.
2) Sealant is applied to frame in accordance with site procedures and specifications.
3) Glass is checked and placed on frame ensuring specified clearance and/or overlap on all edges.
4) Sealant is applied to glass in accordance with site procedures and specifications.
5) Beads or other finishing components are checked, aligned on frame and nailed or pinned using equipment in accordance with manufacturer's site procedures.
6) Components not meeting requirements are rejected and reported to supervisor or action taken to initiate change.
7) Excess sealant is cleaned from frame and glass in accordance with site procedures to meet site finish requirements.
8) Finished product is checked against order or drawing and site requirements.
9) Faults in finished assembly are analysed and appropriate action taken to adjust components or assembly methods.
10) Finished product is moved to finishing rack in accordance with work flow requirements and available storage space.
11) Production and quality records are maintained in accordance with site procedures.

Range of Variables

- Glazing specifications may include type and thickness of glass, dimensions and clearances, type and quantity of sealant.
- Pre-assembled frames may be fitted with pre-cut glass and other components.
- Frames glazed may include the full range of sizes, styles, timber species, surface preparation, glass and sealants which the site assembles.
- Equipment used may be assembly jig, hand tools, nail or staple gun, compressor or compressed air supply and press.
- Production and Quality records may include tally sheets, quality sheets/forms, production sheets and downtime sheet.
- OH&S requirements include manual handling, handling of glass, use of safety equipment, use of hand and air operated tools, use of sealants and protective clothing.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for glazing frames
  - ◊ frame and glass types and styles
  - ◊ industry, site and specific customer requirements and specifications for glazing
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely glaze frames
  - ◊ set up racks to suit frame sizes and types
  - ◊ complete required assemblies
  - ◊ interpret orders, drawings and specifications
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely glaze frames
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ plan operations
  - ◊ assemble and check glass and frames.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit describes the work involved in the planning, setting-up, the process and cutting timber to shape.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Plan cutting process

1) Occupational health & safety regulations, policies & procedures relevant to cutting material to shape are to be followed throughout the application of this competency.
2) Machined material requirements for profile dimensions, thickness and quantities are determined from orders, schedules or in accordance with site procedures.
3) Suitable material is selected or ordered as required by site procedures.
4) Order or selection of timber allows products to meet grain direction and other finished appearance requirements.
5) Available material is assessed and process and equipment to be used for cutting are selected in accordance with site procedures.
6) Planned cutting maximises volume recovery and efficient use of equipment.
7) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Set up process

1) Templates suitable for marking product or guiding cutting process are selected, checked and corrected to order/drawing requirements when necessary.
2) Pre-start-up checks are carried out on equipment in accordance with site procedures.
3) Material is selected and marked in accordance with site procedures to maximise appearance within cutting constraints.
4) Machining allowance for following machining operations is provided when required in accordance with site procedures.
5) Initial product is cut by operating equipment in accordance with site procedures.
6) Initial product is checked and equipment adjusted to correct faults identified, in accordance with site procedures and tolerances applied for the process.

3 Cut products

1) Material supply is co-ordinated with relevant personnel when necessary.
2) Equipment is operated to cut products in accordance with manufacturer's and site procedures.
3) Reject material is identified and directed for waste or recovery.
4) Products are supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
5) Defects in material and cutting problems are recognised and necessary adjustments made.
6) Area around equipment is regularly cleared of scraps and sawdust in accordance with site procedures.
7) Production and quality records are completed in accordance with site procedures.
8) Equipment faults are reported in accordance with site procedures.

4 Maintain cutting processes

1) Cutting feed rate and finish are evaluated considering material thickness, timber species and condition.
2) Cutting conditions are adjusted to optimise feed rate and finish.
3) Dimensions and profiles of machined material are monitored with respect to standards.
4) Cutting process is adjusted to maintain accurate sizing.
5) Characteristics of blunt and damaged blade are recognised.
6) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
7) Blade is removed and replaced in accordance with site procedures.
8) Routine cutting problems are identified, investigated and resolved.

Range of Variables

- Assessment of timber may include species, size, defects, moisture content, sawn finish and type of preservative treatment when applicable.
- Equipment used may be band saw, jigsaw, rip saw, table saw, bench saw, panel saw, router or shaper.
- Cutting may be performed on individual boards or stacked boards where multiple parts of the same profile are required.
- Cutting may be to finished size and condition or may be in preparation for finish machining operations.
- Tolerances and machining allowances applied are those used by the site to suit the material size and processing sequence.
- Faults recognised in sawn boards may include poor surface finish, extra cuts and dimensional errors.
- Production and Quality records may include tally sheets, quality sheets/forms, production sheets and downtime sheets.
- OH&S requirements include manual handling, use of safety equipment, elimination of hazards, operation and isolation of equipment, machine guarding and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for cutting material to shape
  - ◊ industry standard sizes and tolerances
  - ◊ tolerances and machining allowances
  - ◊ typical cutting problems which require action to be taken
  - ◊ recognition methods for blunt or damaged blades
  - ◊ problem-solving approaches
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely and effectively operate equipment for cutting material to shape
  - ◊ interpret detailed cutting requirements from sketches or drawings
  - ◊ select and mark timber for cutting
  - ◊ maintain production at optimum rate and finish quality
  - ◊ select, correct and use profile templates
  - ◊ use required lock out or shut out procedures
  - ◊ change blades
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ OH&S requirements for cutting material to shape
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ plan cutting process
  - ◊ set up process
  - ◊ cut products
  - ◊ maintain cutting processes.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit describes the work involved in the planning of packing requirements for special orders and modifying packing for routine orders.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Plan packing requirements for special orders

1) Occupational health & safety regulations, policies & procedures relevant to the determination of packing requirements are to be followed throughout the application of this competency.
2) Number of items, type of material to be packed and method of transport are determined from orders or in accordance with site procedures.
3) Strength, flexibility and liability to damage are assessed for material to be packed.
4) Standard site packing methods are adapted where possible.
5) Stacking, bracing, strapping and labelling methods are selected to provide strength and minimise damage during transport.
6) Use of packing material is planned to meet site standards and specific order requirements.
7) Pack sizes and weights planned are consistent with handling systems at despatch and delivery site.
8) Planned packing meets relevant regulations and site requirements.
9) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Modify packing requirements for routine orders

1) Changes to type or quantity of material to be packed, packing requirements and methods of transport are determined from orders or in accordance with site procedures.
2) Impact of changes on strength, flexibility and ease of damage are assessed for material to be packed.
3) Problems reported with pack handling and material damage are recognised and addressed.
4) Existing packing methods are adapted where possible within requirements of site standards and relevant regulations.
5) Major problems and changes to packing requirements are identified and reported in accordance with site procedures.

Range of Variables

- Packing will relate to the full range of material, products, pack sizes, packing material and handling methods normally used by the site.
- Packing material includes boxes, pallets, bearers, braces, spacers, wrapping and strapping.
- Special orders may involve specially manufactured items and unusual packing requirements or combinations.
- OH&S requirements to be considered include manual handling and elimination of hazards.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies & procedures relating to packing
  - ◊ the range of packing requirements and available materials
  - ◊ how packaging problems and changes may be addressed
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely determine packing requirements
  - ◊ consider OH&S requirements
  - ◊ identify packing requirements for routine and special orders
  - ◊ select or modify packing methods to suit requirements and which result in safe, undamaged transport of material
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in oral form
  - ◊ select appropriate mathematical process
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely determine packing requirements
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ plan packing requirements for special orders
  - ◊ modify packing requirements for routine orders.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities	•		
Working with others in teams	•		
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology	•		

Description

This unit describes the work involved in the planning, setting up, producing and maintaining the resawing of timber process at the advanced level. It involves cutting timber on the cant and timber evaluation.

Suggested Pre-Requisites/Co-Requisites

FPI OHS 1A Follow defined occupational health & safety policies & procedures.
FPI C2 013 A Resaw boards/timber – basic.

1 Plan resawing process

1) Occupational health & safety regulations, policies & procedures relevant to resawing timber are to be followed throughout the application of this competency.
2) Required sawn sizes and quantities are determined from orders and in accordance with site procedures.
3) Board or cant sizes and cutting patterns are determined to produce finished boards in accordance with site practice.
4) Available material is identified or ordered.
5) Material for sawing is evaluated taking account of all characteristics.
6) Equipment to be used for resawing process is selected in accordance with site procedures.
7) Planned cutting maximises volume recovery and efficient use of equipment and cost effectiveness of this operation.
8) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Set up processing of boards

1) Pre-start-up checks are completed on sawing and transfer equipment in accordance with site and manufacturer's procedures.
2) Equipment is started, checked and adjusted in accordance with site and manufacturer's procedures.
3) Saws, carriage and feeds are adjusted to suit sawing pattern selected.
4) Trial boards are produced and checked in accordance with site procedures.
5) Equipment is adjusted to correct faults identified, in accordance with site standards.

3 Produce boards

1) Material supply is co-ordinated in accordance with site procedures or other relevant personnel.
2) Saw bench is operated to produce boards without damage to sawn board or saw blade.
3) Off-cuts and rejected boards are directed for waste or recovery.
4) Sawn boards are supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
5) Defects in timber or sawing problems are recognised and necessary adjustments made.
6) Routine problems with transfer of material are investigated and resolved.
7) Production and quality records are completed in accordance with site procedures.
8) Equipment faults are reported in accordance with site procedures.

4 Maintain sawing conditions

1) Sawing feed rates and finish are evaluated considering cant and/or board size, timber species and condition.
2) Sawing conditions are adjusted to optimise feed rate and finish.
3) Cross-section dimensions of sawn boards are monitored with respect to standard sizes and tolerances.
4) Sawing process is adjusted to maintain accurate sizing.
5) Area around saw is regularly cleaned in accordance with site procedures.
6) Characteristics of blunt and damaged saw blade are recognised.
7) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
8) Saw blade is removed and replaced in accordance with site procedures.

Range of Variables

- Boards are produced by resawing larger boards, for example, recovering a single board from one edge at each pass or splitting a larger board into two sections.
- Evaluation of timber may include species, size, defects, moisture content and type of preservative treatment when applicable.
- Timber sawn may be solid or manufactured by lamination of boards or veneers.
- Equipment used may be simple saw benches necessitating significant manual handling of cants to more complex handling arrangements utilising conveyor systems to transfer and position material, circular or band saws and single and multiple blades.
- Production and Quality records may include tally sheets, quality sheets/forms and production sheets**.**
- OH&S requirements include protective clothing, use of safety equipment, manual handling, machine guarding and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for resawing timber
  - ◊ industry standard cross-section and length dimensions and tolerances
  - ◊ sawing techniques and cutting patterns relevant to available equipment
  - ◊ typical timber defects and sawing problems which require action to be taken
  - ◊ recognition methods for blunt saws
  - ◊ routine problem-solving approaches
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely resaw timber
  - ◊ plan processing sizes and appropriate equipment
  - ◊ set up sawing equipment
  - ◊ cut timber on cant
  - ◊ produce boards at optimum volume, rate and finish quality while maintaining production flow
  - ◊ use required lock out or shut out procedures
  - ◊ change saw blades
  - ◊ measure sawn dimensions with accuracy appropriate to tolerances
  - ◊ locate, interpret and apply relevant information in written, diagrammatic and/or oral form
  - ◊ convey information in written, sketch and/or oral form
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely resaw timber
  - ◊ communicate effectively with others in associated areas
  - ◊ plan and set up process
  - ◊ produce at optimum rate and quality
  - ◊ maintain sawing conditions.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information		•	
Communicating ideas & information	•		
Planning & organising activities		•	
Working with others in teams		•	
Using mathematical ideas & techniques	•		
Solving Problems		•	
Using technology		•	

Description

This unit describes the work involved in the planning, the setting up and the assembly of products.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Plan production of products

1) Number of products to be assembled and assembly details are determined from schedules, production orders and drawings.
2) Availability of pre-cut timber components and other hardware components is confirmed.
3) Construction plans and jig set-ups for unfamiliar designs are confirmed in accordance with site procedures.
4) Overall product size and number of joints is assessed and jig area, sections and layout planned.
5) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Set up production jig

1) Occupational health & safety regulations, policies & procedures relevant to planning and setting up product assembly are to be followed throughout the application of this competency.
2) Jig stands, location plates and clamps are positioned to suit product assembly drawing in accordance with site and jig manufacturer's procedures.
3) Adequate jig components are provided to accurately locate and support all assembly components.
4) Pre-cut components are checked for fit to assembly jig and jig adjusted.
5) Inaccurately cut components are identified and arrangements made to correct or replace them.
6) Jig is adjusted to provide special shape requirements such as design camber.
7) Minor problems with equipment or components are identified and resolved.
8) Major equipment faults are reported in accordance with site procedures.

3 Assemble and check products

1) Components are aligned and clamped using jig and nail plates or other fasteners and installed to complete assembly to site procedures.
2) Finished product is checked against order or drawing and site requirements.
3) Faults in finished assembly are analysed and jig adjusted to produce correct parts.
4) Finished product is braced as required to maintain strength and structure during packing and transport.
5) Consistency and conformance to specification are checked regularly on further production samples in accordance with site procedures.
6) Production and quality records are maintained in accordance with site procedures.

Range of Variables

- Products assembled may include pallets, crates, trellises, trusses, stairs, doors, windows, frames and beams.
- Products assembled may cover the full range of timber species, timber size, hardware and assembly size – within the product type – which the site manufactures.
- Equipment used may be assembly jig, nail or staple gun, compressor or compressed air supply and press.
- Production and Quality records may include tally sheets, quality sheets/forms, ,production sheets and downtime sheets
- OH&S requirements include manual handling, use of safety equipment, use of hand and air operated tools, use of paint and protective clothing.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for planning and setting up product assembly
  - ◊ typical product assembly processes
  - ◊ types of problems that occur
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely plan and set up product assembly
  - ◊ interpret orders, drawings and instructions
  - ◊ set up jigs to the correct design
  - ◊ read technical and/or diagrammatic information
  - ◊ locate, interpret and apply relevant information in written, diagrammatic and/or oral form
  - ◊ convey information in written, sketch and/or oral form
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely plan and set up product assembly
  - ◊ communicate effectively with others in associated areas
  - ◊ plan production
  - ◊ set up jigs
  - ◊ assemble and pack product
  - ◊ plan product packing.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing & organising information	•		
Communicating ideas & information	•		
Planning & organising activities		•	
Working with others in teams		•	
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology		•	

Description

This unit describes the work involved in the planning, setting up, machining and maintaining the process of machining material.

Suggested Pre-Requisites/Co-Requisites

FPI OHS 1A Follow defined occupational health & safety policies & procedures.
FPI M2 004 A Machine material – basic.

1 Plan machining process

1) Occupational health & safety regulations, policies & procedures relevant to machining material are to be followed throughout the application of this competency.
2) Machined timber requirements for profile, cross-section and detail dimensions, lengths and quantities are determined from orders, schedules and in accordance with site procedures.
3) Suitable sawn or dressed timber sizes are selected or ordered as required by site procedures.
4) Available timber is assessed and material removal rates estimated, according to site procedure.
5) Equipment to be used for machining process is selected in accordance with site procedures.
6) Planned cutting and machining maximises volume recovery and efficient use of equipment.
7) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Set up and start machining process

1) Templates suitable for marking or checking profile cutters and finished product are selected, checked and corrected to order/drawing requirements when necessary.
2) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
3) Cutters are selected, checked, adjusted and installed to suit machined product dimensions required and available sawn material.
4) Equipment is set-up , including feed rates and guide systems, for machining process in accordance with site and manufacture's instructions.
5) Pre-start-up checks are carried out on equipment in accordance with site procedures.
6) Timber is marked in accordance with site procedures to ensure accurate machining.
7) Trial products are machined by operating equipment in accordance with site procedures.
8) Trial products are checked and equipment adjusted to correct faults identified, in accordance with site standards and tolerances applied for the process.
9) Equipment logs and records are completed in accordance with site standards.

3 Machine products

1) Material supply is co-ordinated with relevant personnel.
2) Timber is marked in accordance with site procedures to ensure accurate machining.
3) Equipment is operated to produce products in accordance with manufacturer's and site procedures.
4) Reject material is identified and directed for waste or recovery.
5) Machined timber is supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
6) Defects in timber and machining problems are recognised and necessary adjustments made.
7) Production and quality records are completed in accordance with site procedures.
8) Equipment faults are reported to appropriate personnel in accordance with site procedures.

4 Maintain machining processes

1) Machining feed rate and finish are evaluated considering board size, material removed, timber species and condition.
2) Machining conditions are adjusted to optimise feed rate and finish.
3) Cutters are dressed in accordance with site procedures to optimise finish.
4) Cross-section dimensions, profiles and details of machined timber are monitored with respect to standards.
5) Machining process is adjusted to maintain accurate sizing.
6) Characteristics of blunt and damaged cutters are recognised.
7) Cutters are removed and replaced in accordance with site procedures.
8) Routine machining problems are identified, investigated and resolved.

Range of Variables

- Equipment used may include single or multi-head moulder, spindle moulder, single or double end tenoner, mortiser, router, borer or multi-borer, sanders and wide-belt and narrow-belt.
- Assessment of timber may include species, size, defects, moisture content, sawn finish and type of preservative treatment when applicable.
- Typical machining operations may include production of grooves, rebates, bevels and trenches.
- Tolerances applied are those used by the site to suit the timber size and process.
- Faults recognised in finished material may include burn marks, poor surface finish, extra cuts, excessive cutter marks and dimensional errors.
- Production and Quality records may include tally sheets, quality sheets/forms and production sheets.
- OH&S requirements include manual handling, use of safety equipment, elimination of hazards, operation and isolation of equipment, machine guarding and site safety policy.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for machining material
  - ◊ industry standard length dimensions and cross-section dimensions, profiles and tolerances
  - ◊ machining techniques and material removal rates and quantities relevant to available equipment
  - ◊ enterprise quality standards
  - ◊ typical machining problems which require action to be taken
  - ◊ recognition methods for blunt or damaged cutters
  - ◊ problem-solving approaches
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely and effectively operate equipment for machining material
  - ◊ interpret detailed machining requirements from sketches or drawings
  - ◊ plan and set up machining equipment to produce specific finished products
  - ◊ maintain production at optimum rate and finish quality
  - ◊ use required lock out or shut out procedures
  - ◊ select, adjust and install full range of cutters for the machines operated
  - ◊ select, correct and use profile templates
  - ◊ carry out grinding and sharpening procedures on cutters
  - ◊ read technical and/or diagrammatic information
  - ◊ locate, interpret and apply relevant information in written, diagrammatic and/or oral form
  - ◊ convey information in written, sketch and/or oral form
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely machine material
  - ◊ communicate effectively with others in associated areas
  - ◊ apply mathematical procedures such as estimation and measurement
  - ◊ plan and set up production
  - ◊ machine products at required rate and quality
  - ◊ maintain machining process.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information		•	
Communicating ideas & information	•		
Planning & organising activities		•	
Working with others in teams		•	
Using mathematical ideas & techniques	•		
Solving Problems	•		
Using technology		•	

FPIM3018A Machine Timber Using Computer Programmed Machinery

Description

This unit describes the work involved in the preparation for and the conduct of machining timber with computer programmed machinery.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Prepare for machining process

1) Occupational health & safety regulations, policies & procedures relevant to machining timber using computer programmed machinery are to be followed throughout the application of this competency.
2) Job requirements regarding quantities, size, profile and machined detail are obtained in accordance with site procedures, order or computer down-load.
3) Suitable sawn timber, dressed timber or panel sizes are selected or ordered and cutting or removal rates estimated as required by site procedures.
4) Start-up checks are completed according to site standard procedures.
5) Equipment is set-up for machining process in accordance with site and manufacturer's instructions.
6) Program is selected and loaded, and machine cycle checked, as required by site procedures.
7) Machining patterns and machine set-up sequences are identified to enable loading of material for machining.
8) Need for new programs or program changes is identified and reported in accordance with site procedures.
9) Templates suitable for marking or checking profile cutters and finished product are selected, checked and corrected to order/drawing requirements when necessary.
10) Cutters are selected, checked, sharpened and adjusted where necessary, to suit machined product dimensions required.
11) Trial products are machined by operating equipment and checked, and machine adjusted if required, in accordance with site procedures.
12) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Operate programmed equipment to machine timber

1) Material supply is co-ordinated with relevant personnel in accordance with site procedures.
2) Timber not meeting processing requirements is identified prior to machining and disposed of in accordance with site procedures.
3) Timber is loaded to follow planned machining sequence with minimal down-time.
4) Equipment is operated to machine timber to specification.
5) Off-cuts and rejected material are directed for waste or recovery in accordance with site procedures.
6) Machined timber is supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
7) Area around equipment is regularly cleared of timber scraps, shavings and sawdust in accordance with site procedures.
8) Production and quality records are completed in accordance with site procedures.

3 Monitor and correct processing

1) Minor problems are identified and solved minimising interruption to production schedule.
2) Equipment faults and necessary program changes are reported to personnel in accordance with site procedures.
3) Machining feed rate, product dimensions and finish are evaluated in accordance with site procedures and tolerances.
4) Machining conditions within operator's control are adjusted to optimise feed rate and finish.
5) Characteristics of blunt and damaged cutters are recognised.
6) Equipment lock out procedures are applied in accordance with OH&S legislation and site procedures.
7) Cutters are removed and replaced in accordance with site procedures.
8) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with site procedures.

Range of Variables

- Assessment of timber may include species, size, defects, moisture content, sawn finish and type of preservative treatment when applicable.
- Equipment used is a computer controlled moulder or router or machine performing similar functions.
- Typical machining operations may include production of grooves, rebates, bevels and trenches.
- Program to machine requirements selected from a range of available programs or computer download.
- Tolerances applied are those used by the site to suit the timber size and process.
- Faults recognised in finished material include burn marks, poor surface finish, extra cuts, excessive cutter marks and dimensional errors.
- Production and Quality records may include tally sheets, quality sheets/forms and production sheets.
- OH&S requirements include manual handling, protective clothing, use of safety equipment, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for machining timber using computer programmed machinery
  - ◊ machining sequence and patterns
  - ◊ types of material and machine faults and appropriate actions
  - ◊ how blunt cutters are recognised
  - ◊ basic principles governing operation of computer programmed equipment
  - ◊ problem-solving approaches
  - ◊ industry standard profiles and machining terminology
  - ◊ the purpose of lock out procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates ability to:
  - ◊ safely machine timber using computer programmed machinery
  - ◊ load and run programs
  - ◊ load timber as required by programs
  - ◊ use required lock out or shut out procedures
  - ◊ select, adjust and install full range of cutters for the machines operated
  - ◊ select, correct and use profile templates
  - ◊ read technical and/or diagrammatic information
  - ◊ locate, interpret and apply relevant information in written, diagrammatic and/or oral form
  - ◊ convey information in written, sketch and/or oral form
  - ◊ interpret and apply common industry terminology.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely machine timber using computer programmed machinery
  - ◊ communicate effectively with others in associated areas
  - ◊ prepare for machining process
  - ◊ load and run programs
  - ◊ monitor and correct processing.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level		
	1	2	3
Collecting, analysing & organising information		•	
Communicating ideas & information	•		
Planning & organising activities		•	
Working with others in teams		•	
Using mathematical ideas & techniques	•		
Solving Problems		•	
Using technology		•	

FPIM4019A Sell, Quote/Estimate Specialised Products and Services

Description

This unit describes the work involved in selling, quoting/estimating of specialised products and services. Its application includes a high level of interaction with the customer.

Suggested Pre-Requisites/Co-Requisites

FPI OHS 1A	Follow defined occupational health and safety policy procedures.
WRRS.1A	Sell products and services
WRRS.2A	Advise on products and services

1 Develop and enhance product knowledge

1) OH&S regulations, policies and precautions are followed throughout this process.
2) Current product range and availability is assessed.
3) Product knowledge is developed, maintained and conveyed to other staff members as required.
4) Comparisons between products and services related to brand options, product features, warranties and price is researched and applied.
5) Knowledge of competitors' product, service range and pricing structure is developed and applied in negotiations with customers.
6) Product and service information is systematically organised and evaluated in accordance with site procedures.
7) Communication with others involved with the work is established and maintained to ensure efficient work flow co-ordination, personnel co-operation and safety throughout the application of this competency.

2 Recommend specialised products and services

1) Customer requirements are determined and clarified.
2) Plans and customer job requirement documents are obtained and clarified.
3) Features and benefits of products and services to meet customer's needs are explained.
4) Detailed specialised knowledge of product and/or service is applied to provide accurate and compellng advice to customers.
5) Appropriate method of closing sale is selected and applied.
6) Follow up action is determined and clarified with customer.

3 Interpret plans

1) Plans are assessed to ensure that all information required for computations is present.
2) Consistency is verified between the information on the plan, elevation and section drawings.
3) Essential data not provided is identified and obtained from customer or other personnel.
4) Job details are inserted on customer information records in accordance with site standards.

4 Develop quotation/estimate

1) Materials and labour are calculated using job details sheet in accordance with site procedures.
2) Quotation/estimate is documented and checked in accordance with site procedures.
3) Quotation/estimate is checked and confirmed to match customer requirements.
4) Quotation/estimate is tendered in writing to customer.
5) Quotation/estimate is followed up with customer in accordance with site procedures.

Range of Variables

- Product knowledge may include stock availability, warranties, corresponding benefits of various products, use-by dates and storage requirements.
- Selling may be face to face, telephone, facsimile and email.
- Customers may include people from a range of social, cultural or ethnic backgrounds and people with physical and mental abilities.
- Handling techniques may vary according to stock characteristics and industry codes of practices.
- Sources of information/documents may include building plans and specifications, customer requests for quotation, timber manuals, Australian Building Code, Building Regulations for all States, Engineer's drawings and calculations and Certifying authority requirements.
- Worksite environment may include operations conducted in restricted places or exposed conditioned, exposure to movement of equipment, goods and vehicles and workplace environment.

Evidence Guide

Underpinning knowledge

- Explains
  - ◊ Occupational Health and Safety Regulations, Policies and Procedures for selling specialist products and services
- Explains specialist product knowledge that may include:
  - ◊ specialised products
  - ◊ warranties
  - ◊ shelf life; use-by date
  - ◊ storage requirements
  - ◊ corresponding benefits of various products
  - ◊ material origins
  - ◊ features and use of products
  - ◊ stock availability
  - ◊ corresponding or complementary products and services
  - ◊ ordering procedures
- Knowledge and application of store policies and procedures, that may include:
  - ◊ external and internal customer contact
  - ◊ quoting/estimating and selling products and services
  - ◊ allocated duties and responsibilities

Underpinning Skills

- Demonstrates the ability to:
  - ◊ listen and clarify customer requirements
  - ◊ identify and correctly use equipment, processes and procedures
  - ◊ apply relevant Occupational Health and Safety Regulations, Policies and Procedures
  - ◊ apply mathematical procedures including addition, subtraction, multiplication, division and trigonometry
  - ◊ access, interpret, assess and apply technical information
  - ◊ interpret common industry terminology for all component types
  - ◊ interpret customer plans and specifications
  - ◊ prepare quotations/estimates to site standards
  - ◊ prepare design and detailing to site standards.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ apply safety requirements during customer contact
  - ◊ communicate effectively with others in associated area
  - ◊ locate, interpret and apply relevant information
  - ◊ convey information in written, sketch and oral form
  - ◊ select appropriate mathematical processes
  - ◊ develop and enhance product knowledge
  - ◊ recommend specialised products and services
  - ◊ interpret plans
  - ◊ develop quotation/estimate within a given time.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing & organising information		•	
Communicating ideas & information		•	
Planning & organising activities		•	
Working with others in teams		•	
Using mathematical ideas & techniques		•	
Solving Problems		•	
Using technology	•		

Description

This unit describes the work involved in the determination of a problem, the review of a line's operation, the identification of specific problems and the implementation of solutions.

Suggested Pre-Requisite

FPI OHS 1A Follow defined occupational health & safety policies & procedures.

1 Monitor stock re-ordering

1) Occupational health & safety regulations, policies & procedures relevant to supervising stock control procedures are to be followed throughout the application of this competency.
2) Responsibility for recording product groups is delegated to specific staff.
3) Staff are trained in stock recording procedures.
4) Stock levels are monitored and maintained at optimum levels.
5) Stock reorder cycles are monitored and maintained.
6) Alternative suppliers are sourced when necessary.
7) Stock re-order levels are adjusted as required in accordance with site procedures.
8) Management inventory reports are analysed and corrective action implemented.

2 Monitor receipt and despatch of goods

1) Responsibility for receipt of goods is delegated to appropriate staff.
2) Staff are trained in receipt and despatch procedures and documentation.
3) Receipt and despatch procedures and documentation processes are implemented.
4) Secure storage of goods received and goods for despatch is ensured.
5) Procedures for identifying and reporting anomalies in quality or quantity are established and implemented.
6) Variations to quality and quantity of delivered goods are resolved.
7) Safe handling and storage of goods is implemented in line with store safety policy.

3 Co-ordinate product distribution, display and storage

1) Speedy distribution of product within the store is actioned as per store procedures.
2) Minimal inconvenience to customers resulting from stock movement is ensured.
3) Product is displayed or stored in the correct location.

4 Monitor and control stock losses

1) Stock damage is inspected.
2) Stock losses are monitored and controlled.
3) Losses are assessed regularly against potential loss forecast.
4) Unacceptable losses are identified and investigated to establish causes.

5 Make recommendations to buyers

1) Store's core stock holding is referred to and maintained.
2) Information on existing stock levels is complete and accurate.
3) Opportunities to improve sales are identified and recommendations are made to relevant buying authorities.

6 Monitor and maintain store security policies

1) Store security procedures are monitored and feedback is provided to management in relation to store surveillance, store theft, staff theft and fraudulent credit card transactions.
2) Feedback is provided to staff on implementation/non-implementation of store security procedures.
3) Advice is tendered to management regarding policy development and training requirements regarding store security.

Range of Variables

- Stock control may require dealing with the factors such as variations in product quality, non-availability of back-up, recall of product, emergency withdrawal of products and stock clear-outs, stock records on manual or computerised systems, site policies and procedures either documented or not documented, size of site, multi-skilling of staff, loss forecasts and product range.
- OH&S requirements include manual handling, protective clothing and equipment, elimination of hazards and site safety policies and procedures.

Evidence Guide

Underpinning Knowledge

- Explains:
  - ◊ OH&S regulations, policies and procedures for supervising stock control procedures
  - ◊ store stock holding levels and the purpose they serve
  - ◊ stock replenishment system
  - ◊ type of information required regarding products and suppliers which ensures efficient ordering and prevents out of stock conditions
  - ◊ implications of poor quality/out of date stock
  - ◊ purpose of stock records and importance of accuracy
  - ◊ actions to be taken if goods are not delivered on time
  - ◊ causes of stock deterioration and damage
  - ◊ store policies relating to stock management including unacceptable loss levels
  - ◊ profit implications of stock management
  - ◊ store security policies and procedures
  - ◊ the importance of accuracy
  - ◊ the purpose of record keeping.

Underpinning Skills

- Demonstrates the ability to:
  - ◊ safely supervise stock control procedures
  - ◊ implement security policies and procedures
  - ◊ establish communication procedures within the workplace which:
  - – select appropriate forms of communication including, written, oral or diagrammatic, depending on the situation and audience
  - – seek clarification from, and gives feedback to, a range of colleagues in the work situation
  - – organise information to get the required result
  - – select appropriate mathematical processes including addition, subtraction, multiplication, division and trigonometry.

Critical Aspects of Evidence

- Assessment must confirm the application of appropriate knowledge and skills to:
  - ◊ safely implement stock control procedures
  - ◊ communicate effectively with others in associated areas
  - ◊ read technical and/or diagrammatic information
  - ◊ locate, interpret and apply relevant information in written, diagrammatic and/or oral form
  - ◊ convey information in written, sketch and oral form
  - ◊ interpret and apply common industry terminology
  - ◊ produce appropriate documentation within a given time
  - ◊ monitor stock re-ordering
  - ◊ monitor receipt and despatch of goods
  - ◊ co-ordinate product distribution, display and storage
  - ◊ monitor and control stock losses
  - ◊ recommend to buyers and monitor and maintain store security policies.

Interdependent Assessment of Units

This unit of competency may be assessed in conjunction with other units which form part of a job role.

Assessment Context

This unit may be assessed in the workplace or under conditions which accurately simulate a realistic workplace.

Key Competencies & Application to Standards

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Using mathematical ideas & techniques		•	
Solving Problems		•	
Using technology		•	