

## **National Certificate in Wood Manufacturing Foundation Skills (Level 2) with strands in Solid Wood Manufacturing, Sliced Veneer Operations, Technical Awareness, Wood Handling and Distribution, Wood Panel Manufacturing, and Wood Product Manufacturing**

**Level** 2

**Credits** 50-65

This qualification is **expiring**. The last date to meet the requirements is 31 December 2014.

### **Purpose**

This qualification recognises the foundation skills and knowledge required of employees in a diverse range of wood manufacturing industries. These industry foundation skills include an understanding of the health, safety, and environmental risks associated with the workplace; the factors that affect performance in the workplace; an introduction to workplace communication, workplace structures and workplace organisation; and a basic knowledge of the resources used in the employee's industry sector.

This qualification's strands recognise the competencies required to work responsibly and safely in entry level roles in a diverse range of the wood manufacturing industries including solid wood, wood panels, wood handling and distribution, sliced veneer operations, and wood products.

In addition to these industry strands, the Technical Awareness strand recognises knowledge in technical subjects including quality systems, physics, chemistry, engineering systems, process control, thermodynamics, underpinning principles for the operation of pipe work and fittings and basic equipment used in steam generation, and the hazards associated with working in extreme temperatures or in confined spaces. These skills form a foundation for operational activities at the next level of qualifications.

This qualification may lead on to National Certificate in Solid Wood Manufacturing (Level 3) with strands in Engineered Wood Product Operations, Laminated Veneer Lumber (LVL) and Plywood Operations, Planer Operations, Pole and Post Operations, Saw Centre Operations, Timber Drying Operations, Timber Grading Operations, Timber Treatment Operations, Veneer Preparation, Wood Product Operations, and Wood Process Operations [Ref: 1306]; or the National Certificate in Wood Fibre Manufacturing (Level 3) with strands in Composite Panel Preparation, Composite Panel Forming and Pressing, Composite Panel Finishing, Mechanical Pulping Operations, Pulp and Paper Dry End Operations, Pulp and Paper Wet End Operations, and Overlay Bonding Operations [Ref: 1309]; or the National Certificate in Wood Handling and Distribution (Level 3) with strands in Log Yard and Wood Preparation, and Timber Yarding and Despatch [Ref: 1308]; depending on the wood manufacturing operations that candidates are engaged in.

## Replacement Information

This qualification has been replaced by the National Certificate in Solid Wood Manufacturing (Level 2) with strands in Defecting; Finger Jointing and Laminating; Pole, Post and Pile; Saw Doctoring Principles; Sawmilling; Timber Drying and Treatment; and Timber Machining [Ref: 1690], the National Certificate in Wood Manufacturing Foundation Skills (Wood Panels) (Level 2) [Ref: 1691], and the National Certificate in Wood Manufacturing Foundation Skills (Wood Handling and Distribution) (Level 2) [Ref: 1692].

This qualification replaced the National Certificate in Pulp and Paper Manufacturing (Level 2) [Ref: 0237]; the National Certificate in Solid Wood Processing (Level 2) [Ref: 0807]; the National Certificate in Wood Panels Manufacturing (Level 2) [Ref: 0433]; and the National Certificate in Wood Product Manufacturing (Level 2) [Ref: 0814].

## Special Notes

It is recommended that candidates hold a current first aid certificate or are credited with the following first aid standards – Unit 6400, *Manage first aid in emergency situations*; Unit 6401, *Provide first aid*; and Unit 6402, *Provide resuscitation level 2*.

## Credit Range

	Core Compulsory	Core Elective
Level 2 credits	25	5
Minimum totals	25	5

	Solid Wood Manufacturing Strand		
	Compulsory	Elective	
		Set 1	Set 2
Level 2 credits	5	5-9	6-10
Level 3 credits	-	-	6-10
Minimum totals	5	15	
Minimum strand total	20		
Qualification total with strand	50		

	Sliced Veneer Operations Strand	Technical Awareness Strand
Level 2 credits	0-25	0-33
Level 3 credits	5-30	4-35
Minimum totals	30	35
Minimum strand total	30	35
Qualification total with strand	60	65

	Wood Handling and Distribution Strand	Wood Panel Manufacturing Strand	
		Compulsory	Elective
Level 2 credits	0-26	10	0-10
Level 3 or above credits	0-26	-	0-10
Minimum totals	26	10	10
Minimum strand total	26	20	
Qualification total with strand	56	50	

	Wood Product Manufacturing Strand		
	Compulsory	Elective	
		E1	E2
Level 2 credits	5	5-9	6-10
Level 3 credits	-	-	6-10
Minimum totals	5	15	
Minimum strand total	20		
Qualification total with strand	50		

## Requirements for Award of Qualification

### Award of NZQF National Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided on the New Zealand Qualifications Authority (NZQA) website: <http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list/>.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

## Summary of Requirements

- Core Compulsory standards
- Core Elective – A minimum of 5 credits as specified

One of the following strands is required

- Solid Wood Manufacturing Strand
- Sliced Veneer Operations Strand
- Technical Awareness Strand
- Wood Handling and Distribution Strand
- Wood Panel Manufacturing Strand
- Wood Product Manufacturing Strand

## Detailed Requirements

### Core Compulsory

The following standards are required

Manufacturing > Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
22970	Demonstrate employment and interrelationship foundation skills in a wood manufacturing operation	2	10
22973	Demonstrate knowledge of factors that affect the performance of wood manufacturing workers	2	10
22977	Identify and describe workplace risks in a wood manufacturing operation	2	5

### Core Elective

A minimum of 5 credits

Manufacturing > Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
736	Demonstrate knowledge of tree growth and physical characteristics of wood	2	5
20766	Describe forest management and log use in solid wood manufacturing	2	5
22976	Describe wood fibre raw material resources and their use in wood fibre manufacturing	2	5

### Solid Wood Manufacturing Strand

Meet the requirements of all of the following sets

- Solid Wood Manufacturing Strand Compulsory
- Solid Wood Manufacturing Strand Elective

### Solid Wood Manufacturing Strand Compulsory

The following standard is required

Manufacturing > Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
9774	Demonstrate knowledge of timber grading	2	5

### Solid Wood Manufacturing Strand Elective

A minimum of 15 credits

From the following sets

- Solid Wood Manufacturing Strand Elective Set 1
- Solid Wood Manufacturing Strand Elective Set 2

**Solid Wood Manufacturing Strand Elective Set 1**

A minimum of 5 credits

Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
160	Demonstrate knowledge of the principles of sawmilling	2	5
162	Describe the principles of wood drying	2	5
15774	Demonstrate knowledge of timber machining	2	5
16244	Demonstrate knowledge of wood preservation	2	5
17971	Demonstrate knowledge of the solid wood manufacturing industry	2	5

**Solid Wood Manufacturing Strand Elective Set 2**

A minimum of 6 credits

Manufacturing &gt; Solid Wood Manufacturing &gt; Sawmilling

ID	Title	Level	Credit
20751	Operate cross cut saw centre	3	5

Manufacturing &gt; Solid Wood Manufacturing &gt; Timber Drying and Treatment

ID	Title	Level	Credit
146	Determine wood moisture content using a moisture meter	3	3

Manufacturing &gt; Solid Wood Manufacturing &gt; Timber Machining

ID	Title	Level	Credit
678	Feed and tail out planer	3	5

Manufacturing &gt; Solid Wood Manufacturing &gt; Wood Product Manufacturing Skills

ID	Title	Level	Credit
24607	Wrap wood products manually	3	3

Manufacturing &gt; Wood Handling and Distribution &gt; Timber Yarding

ID	Title	Level	Credit
143	Fillet timber for further processing	2	3
164	Tally timber	2	3
165	Handle, sort and stack timber	2	3
8005	Operate a mechanical timber stacking system	3	5

ID	Title	Level	Credit
17961	Tally random width timber	2	3

### Sliced Veneer Operations Strand

A minimum of 30 credits

Engineering and Technology > Blaster Coating > Blaster Coating Operations

ID	Title	Level	Credit
17526	Describe and operate low-pressure water blaster in an abrasive blasting and protective coating environment	2	10
17547	Demonstrate knowledge of health and safety in abrasive blasting and protective coating environments	2	5

Manufacturing > Solid Wood Manufacturing > Laminated Veneer Lumber and Plywood Manufacturing

ID	Title	Level	Credit
19721	Grind knives for wood veneer manufacturing	3	5

Manufacturing > Solid Wood Manufacturing > Veneer Slicing Operations

ID	Title	Level	Credit
730	Condition logs for slicing into veneers	3	7
731	Slice logs into veneer leaves	3	10
732	Clip and grade veneers	3	10
733	Cut and glue veneer leaves	3	10
734	Make layons from veneer leaves	3	10
23099	Cut logs for veneer slicing	3	7
23100	Rip logs to size in preparation for veneer slicing	3	7
23101	Dry wood veneer leaves	3	10
23102	Guillotine veneer leaves	3	7
23103	Repair veneer layons	3	7

Service Sector > Cranes > Crane Operation

ID	Title	Level	Credit
3800	Operate a pendant controlled overhead crane and lift and place regular loads	2	10

### Technical Awareness Strand

A minimum of 35 credits

## Health &gt; Occupational Health and Safety &gt; Occupational Health and Safety Practice

ID	Title	Level	Credit
17585	Demonstrate knowledge of working safely in extremes of temperature	3	4
18426	Demonstrate knowledge of hazards associated with confined space	3	4

## Manufacturing &gt; Energy and Chemical Plant &gt; Operation of Energy and Chemical Plant

ID	Title	Level	Credit
21459	Demonstrate knowledge of pipework and fittings on energy and chemical plant	2	4
21462	Demonstrate knowledge of the basic equipment and systems used for steam generation in boiler operation	2	8
21464	Demonstrate knowledge of basic thermodynamics and measurement relevant to energy and chemical plant	3	6

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
5638	Demonstrate knowledge of principles of quality systems in the wood manufacturing industries	2	5
5655	Demonstrate knowledge of pumps and valves used in wood manufacturing industries	3	5
17860	Demonstrate knowledge of principles of matter, energy, and chemistry used in wood manufacturing industries	2	8
17861	Demonstrate knowledge of principles of heat, energy, and work as used in wood manufacturing	2	8
17862	Demonstrate knowledge of mechanical engineering systems used in wood manufacturing industries	3	10
17869	Demonstrate knowledge of fundamentals of process controls used in wood manufacturing industries	3	10

**Wood Handling and Distribution Strand**

A minimum of 26 credits

## Agriculture, Forestry and Fisheries &gt; Forestry &gt; Forest Landing Operations

ID	Title	Level	Credit
1252	Demonstrate knowledge of log making	3	5

## Agriculture, Forestry and Fisheries &gt; Forestry &gt; Forest Operations

ID	Title	Level	Credit
43	Maintain a chainsaw	3	10
6916	Demonstrate knowledge of the Approved Code of Practice relating to chainsaw use	2	5

## Agriculture, Forestry and Fisheries &gt; Forestry &gt; Non Commercial Forestry Skills

ID	Title	Level	Credit
6917	Operate a chainsaw	3	5

## Manufacturing &gt; Solid Wood Manufacturing &gt; Sawmilling

ID	Title	Level	Credit
20751	Operate cross cut saw centre	3	5

## Manufacturing &gt; Solid Wood Manufacturing &gt; Timber Grading

ID	Title	Level	Credit
20754	Demonstrate knowledge of mechanical stress grading of timber	2	5

## Manufacturing &gt; Supply Chain Management &gt; Materials Management

ID	Title	Level	Credit
17241	Demonstrate knowledge of storage and materials handling at a manufacturing or industrial site	2	4
17246	Issue goods and/or materials from internal stock at a manufacturing or industrial site	2	4

## Manufacturing &gt; Wood Handling and Distribution &gt; Timber Yarding

ID	Title	Level	Credit
164	Tally timber	2	3
165	Handle, sort and stack timber	2	3

## Manufacturing &gt; Wood Handling and Distribution &gt; Wood Preparation

ID	Title	Level	Credit
15825	Operate a wheeled loader in the wood manufacturing industry	3	5
21497	Describe wood chip and wood fibre material quality requirements	2	3

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
156	Demonstrate knowledge of phytosanitary standards in the wood manufacturing industry	2	3
162	Describe the principles of wood drying	2	5
5847	Demonstrate knowledge of timber yard operations	2	5
8008	Demonstrate knowledge of log yard operations	2	5

ID	Title	Level	Credit
9774	Demonstrate knowledge of timber grading	2	5
16244	Demonstrate knowledge of wood preservation	2	5
22975	Maintain and take care of process consumables in a wood manufacturing operation	2	5

## Service Sector &gt; Retail, Distribution, and Sales &gt; Stock Control

ID	Title	Level	Credit
11963	Dispatch goods within an agreed timeframe in a retail or distribution environment	2	4
11966	Count and record stock in a retail or distribution environment	2	2
11975	Pick and assemble goods for dispatch in a retail or distribution environment	2	3
11976	Access and provide information using a computerised inventory management system in a retail or distribution environment	3	4

## Service Sector &gt; Service Sector Skills &gt; Service Sector - Core Skills

ID	Title	Level	Credit
57	Provide customer service in given situations	2	2
11818	Enhance work practices by the application of product and/or service knowledge	3	4

**Wood Panel Manufacturing Strand**

Meet the requirements of all of the following sets

- Wood Panel Manufacturing Strand Compulsory
- Wood Panel Manufacturing Strand Elective

**Wood Panel Manufacturing Strand Compulsory**

The following standard is required

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Panel Manufacturing Skills

ID	Title	Level	Credit
21482	Demonstrate knowledge of the wood panels industry and its products	2	10

**Wood Panel Manufacturing Strand Elective**

A minimum of 10 credits

## Manufacturing &gt; Solid Wood Manufacturing &gt; Laminated Veneer Lumber and Plywood Manufacturing

ID	Title	Level	Credit
729	Measure moisture content of veneers, laminated veneer lumber and plywood panels	2	5

## Manufacturing &gt; Solid Wood Manufacturing &gt; Wood Product Manufacturing Skills

ID	Title	Level	Credit
17963	Use and maintain hand and portable power tools in a wood manufacturing plant	3	5

## Manufacturing &gt; Wood Handling and Distribution &gt; Wood Preparation

ID	Title	Level	Credit
20760	Monitor and control contamination in wood chip and wood fibre materials	2	5
21497	Describe wood chip and wood fibre material quality requirements	2	3

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
21483	Identify and monitor dust hazards in wood manufacturing operations	2	3
22975	Maintain and take care of process consumables in a wood manufacturing operation	2	5

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Panel Manufacturing Skills

ID	Title	Level	Credit
700	Grade wood panels visually	4	5
702	Stack and pack wood panels	3	5

**Wood Product Manufacturing Strand**

Meet the requirements of all of the following sets

- Wood Product Manufacturing Strand Compulsory
- Wood Product Manufacturing Strand Elective

**Wood Product Manufacturing Strand Compulsory**

The following standard is required

## Manufacturing &gt; Wood Manufacturing - Generic Skills &gt; Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
22978	Demonstrate knowledge required for determining wood product quality	2	5

**Wood Product Manufacturing Strand Elective**

A minimum of 15 credits

From the following sets

- Wood Product Manufacturing Strand Elective Set 1
- Wood Product Manufacturing Strand Elective Set 2

**Wood Product Manufacturing Strand Elective Set 1**

A minimum of 5 credits

## Manufacturing &gt; Solid Wood Manufacturing &gt; Finger Jointing

ID	Title	Level	Credit
15055	Demonstrate knowledge of the principles of finger jointing in solid wood manufacturing	2	5

## Manufacturing &gt; Solid Wood Manufacturing &gt; Wood Product Manufacturing Skills

ID	Title	Level	Credit
15056	Demonstrate knowledge of the principles of laminating in wood product manufacturing	2	5
17964	Demonstrate knowledge of the wood product manufacturing industry	2	5

**Wood Product Manufacturing Strand Elective Set 2**

A minimum of 6 credits

## Manufacturing &gt; Solid Wood Manufacturing &gt; Finger Jointing

ID	Title	Level	Credit
4544	Clean engineered wood product equipment	2	3

## Manufacturing &gt; Solid Wood Manufacturing &gt; Sawmilling

ID	Title	Level	Credit
20751	Operate cross cut saw centre	3	5

## Manufacturing &gt; Solid Wood Manufacturing &gt; Timber Drying and Treatment

ID	Title	Level	Credit
146	Determine wood moisture content using a moisture meter	3	3

## Manufacturing &gt; Solid Wood Manufacturing &gt; Wood Product Manufacturing Skills

ID	Title	Level	Credit
17963	Use and maintain hand and portable power tools in a wood manufacturing plant	3	5
18963	Manually assemble wood packaging products	2	3
18967	Use and maintain portable nail or staple guns in the manufacture of wood products	2	3
18968	Paint wood products using conventional spray techniques	2	3
24607	Wrap wood products manually	3	3

Manufacturing > Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills

ID	Title	Level	Credit
21483	Identify and monitor dust hazards in wood manufacturing operations	2	3

## Transition Arrangements

### Version 4

Version 4 was issued to indicate that this qualification is expiring.

This qualification has been replaced by the National Certificate in Solid Wood Manufacturing (Level 2) with strands in Defecting; Finger Jointing and Laminating; Pole, Post and Pile; Saw Doctoring Principles; Sawmilling; Timber Drying and Treatment; and Timber Machining [Ref: 1690], the National Certificate in Wood Manufacturing Foundation Skills (Wood Panels) (Level 2) [Ref: 1691], and the National Certificate in Wood Manufacturing Foundation Skills (Wood Handling and Distribution) (Level 2) [Ref: 1692].

For detailed information see Review Summaries on the NZQA website.

### Previous versions of the qualification

Version 3 was issued following review of this qualification and the National Certificate in Solid Wood Processing (Timber Yarding) (Level 3) [Ref: 1045]. The Core Compulsory was not suitable for trainees undertaking the Pulp and Paper strand.

#### Changes to structure and content

- The Pulp and Paper Manufacturing strand was replaced by the National Certificate in Wood Fibre Manufacturing (Pulp and Paper) (Level 2) [Ref: 1531].
- The title was changed to account for the removal of the Pulp and Paper strand.
- The Elective and Balance of the Wood Handling and Distribution strand were combined into one elective.
- The minimum credits required for the Wood Handling and Distribution strand increased from 20 to 26.
- Standards 164, 165, 9774, and 20754 were added to the Wood Handling and Distribution strand Elective.

This qualification contains standards that replace or have been substituted for earlier standards. For the purposes of this qualification people who have gained credit for the earlier standards are exempt from the requirement to gain credit for the replacement or substitute standards – see table below.

Credit for	Exempt from
135	20751
691, 692	21482
4550	20751

Credit for	Exempt from
4556	21459
16297, 16298	21462
21756	22977

People currently working towards previous versions of this qualification may either complete the requirements for that version or transfer their results to version 3. The last date for entry to programmes or courses leading to version 2 is 31 December 2010.

There are substantial differences between the Pulp and Paper Manufacturing strand in the National Certificate in Wood Manufacturing Foundation Skills (Level 2) [Ref: 1305] and Ref: 1531. People undertaking the Pulp and Paper strand of Ref: 1305 may transfer their results to Ref: 1531. However, people that are considering transition from this qualification to Ref: 1531 should contact their training provider or Competenz at the address below for further advice.

It is anticipated that no existing trainees will be disadvantaged by these transition arrangements. Any person who feels they have been disadvantaged by these transition arrangements should contact Competenz at the address below. Appeals will be considered on a case-by-case basis.

Version 2 was issued following review to update credit values and domains as a result of the review of Forestry standards. Standard 21498 was removed from, and standard 24607 added to, the Solid Wood Manufacturing Strand Elective 2. Standard 21483 was added to the Wood Panel Manufacturing Strand Elective. Standard 21498 was removed from, and standards 21483 and 24607 were added to, the Wood Product Manufacturing Strand Elective 2. A Balance set was added to clarify the structure of the Wood Handling and Distribution Strand.

Version 1 replaced the National Certificate in Pulp and Paper Manufacturing (Level 2) [Ref: 0237]; the National Certificate in Solid Wood Processing (Level 2) [Ref: 0807]; the National Certificate in Wood Panels Manufacturing (Level 2) [Ref: 0433]; and the National Certificate in Wood Product Manufacturing (Level 2) [Ref: 0814]. The Pulp and Paper Manufacturing Strand replaced the National Certificate in Pulp and Paper Manufacturing (Level 2) [Ref: 0237]. The Solid Wood Manufacturing Strand replaced the National Certificate in Solid Wood Processing (Level 2) [Ref: 0807]. The Wood Panel Manufacturing Strand replaced the National Certificate in Wood Panels Manufacturing (Level 2) [Ref: 0433]. The Wood Product Manufacturing Strand replaced the National Certificate in Wood Product Manufacturing (Level 2) [Ref: 0814].

## NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	July 2007	December 2012
Review	2	May 2009	December 2013
Review	3	January 2010	December 2014
Review	4	July 2011	December 2014

## Standard Setting Body

Competenz  
 PO Box 9005  
 Newmarket  
 Auckland 1149

Telephone 0800 526 1800  
 Fax 09 356 8271  
 Email info@competenz.org.nz  
 Website www.competenz.org.nz

## Other standard setting bodies whose standards are included in the qualification

New Zealand Industry Training Organisation  
 NZ Extractive Industries Training Organisation  
 NZQA  
 Opportunity - The Training Organisation  
 Retail Institute

## Certification

This certificate will display the logos of NZQA, Competenz and the organisation that has been granted consent to assess against standards that meet the requirements of the qualification (accredited).

## Classification

This qualification is classified according to the classification system listed on the Directory of Assessment Standards (DAS) and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		NZSCED	
Code	Description	Code	Description
2032	Manufacturing > Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills	030304	Engineering and Related Technologies > Process and Resources Engineering > Wood Based Manufacturing

### Quality Management Systems

Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Organisation with consent to assess and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Consent to assess requirements and the moderation system are outlined in the associated Consent and Moderation Requirements (CMR) for each standard.