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**WOOD MANUFACTURING**  
**Calculate costs in wood manufacturing**  
**operations**

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<b>level:</b>	<b>5</b>
<b>credit:</b>	<b>20</b>
<b>planned review date:</b>	September 2005
<b>sub-field:</b>	Wood Processing Technology
<b>purpose:</b>	People credited with this unit standard are able to: explain costing models used in wood manufacturing operations; calculate costs for wood manufacturing operations; and apply capital expenditure calculations to make recommendations for machinery purchase in a wood manufacturing operation.
<b>entry information:</b>	Open.
<b>accreditation option:</b>	Evaluation of documentation and visit by NZQA and industry.
<b>moderation option:</b>	A centrally established and directed national moderation system has been set up by Forest Industries Training.
<b>special notes:</b>	<ol style="list-style-type: none"><li>1 Definition <i>Wood manufacturing operation</i> means any operation involved in solid wood processing, wood product manufacturing, or plywood and laminated veneer lumber manufacture.</li><li>2 Assessment for this unit standard will be based on analysis and comparison of a specified industry workplace with business concepts covered in this unit standard.</li></ol>

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**Elements and Performance Criteria**

**element 1**

Explain costing models used in wood manufacturing operations.

**performance criteria**

- 1.1 Costing terms are defined in accordance with generally accepted accounting principles within the wood manufacturing industry.
- Range: net unit cost, marginal cost, break even point, pay back period, return on investment, variable, fixed, direct, indirect, contribution margins, sales price, capital expenditure (capex).
- 1.2 Costs and revenues are described and categorised according to wood manufacturing company financial procedures.
- Range: cost sources may include - manufacturing, electricity, labour, materials, consumables, overheads, capital costs, depreciation; revenue sources may include - product and by-product sales, interest.
- 1.3 Costing models used in wood manufacturing companies are described.
- Range: historical, cost per unit, standard costs per product group, zero based.

**element 2**

Calculate costs for wood manufacturing operations.

**performance criteria**

- 2.1 Analysis of the wood manufacturing process is made to determine direct and indirect resource costs.
- Range: resources - plant, materials and human.

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- 2.2 Indirect production costs are assigned in accordance with the wood manufacturing company financial procedures.
- Range: consumables, mobile machinery, maintenance, capital costs.
- 2.3 Overhead costs are assigned in accordance with the financial procedures of the wood manufacturing company.
- Range: management, sales and marketing, administration, compliance costs.

**element 3**

Apply capital expenditure calculations to make recommendations for machinery purchase in a wood manufacturing operation.

**performance criteria**

- 3.1 Pay back periods are correctly calculated in accordance with wood manufacturing company financial policy.
- 3.2 Rate of return on investment and break even point are calculated in accordance with the wood manufacturing company financial policy.
- 3.3 Depreciation is determined and applied over the pay back period in accordance with the wood manufacturing company financial policy.
- 3.4 Recommendations for wood manufacturing machinery purchase incorporate initial cost, reliability, spares availability, vendor support, maintenance requirements, timely acquisition, skills availability, return on investment, pay back period, and break even point.

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**Comments on this unit standard**

Please Competenz at [info@competenz.org.nz](mailto:info@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.

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**Please Note**

Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0173 which can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.