
WOOD MANUFACTURING
Analyse wood manufacturing material
flows and make recommendations for
improved process efficiency

level:	5
credit:	10
planned review date:	September 2005
sub-field:	Wood Processing Technology
purpose:	People credited with this unit standard are able to: describe process stages and give rationale for selection of equipment in a specified wood manufacturing operation; develop a process map for a specified multi-stage wood manufacturing operation; analyse a process map and make recommendations to improve processing efficiencies and reduce bottle necks in a specified wood manufacturing organisation.
entry information:	Open.
accreditation option:	Evaluation of documentation and visit by NZQA and industry.
moderation option:	A centrally established and directed national moderation system has been set up by Forest Industries Training.
special notes:	<p>Definitions</p> <p><i>Wood manufacturing operation or organisation</i> means any operation or organisation involved in solid wood processing, wood product manufacturing, or plywood and laminated veneer lumber manufacture.</p> <p><i>Multi process stages</i> refers to a number of process stages and may include but is not limited to - debarking, sawing, re-sawing, moulding, shaping, defecting, finger jointing, laminating, machining, peeling, lay up, drying, sanding, and packaging.</p> <p><i>Process map</i> refers to a flow diagram indicating inter-relationships between individual process stages.</p>

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Elements and Performance Criteria

element 1

Describe process stages and give rationale for selection of equipment in a specified wood manufacturing operation.

performance criteria

- 1.1 Description identifies the purpose and function of individual process stages in the specified wood manufacturing operation.
- 1.2 Description includes rationale for the selection of equipment at individual wood processing stages.
- Range: rationale includes but is not limited to – cost, process capacity and capability, equipment availability, product quality requirements, skill requirements.

element 2

Develop a process map for a specified multi-stage wood manufacturing operation.

performance criteria

- 2.1 Process map describes and labels wood manufacturing process stages, linear process flows and sequencing of process stages.
- Range: description includes - specification for the equipment used at each process stage and flows between stages.
- 2.2 Process map defines current input and output volume per 24 hour cycle for each of the wood manufacturing process stages described in performance criterion 2.1.
- Range: volume to be stated in two of the following - lineal metres, piece count and cubic volume.
- 2.3 Process map identifies current bottle necks in the wood manufacturing operation.

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2.4 Process map identifies raw material, in process, and finished product movement systems in the wood manufacturing operation.

Range: product movement systems may include - forklifts, gantries, side loaders, trucks, mechanical conveyance systems, log loaders.

element 3

Analyse a process map and make recommendations to improve processing efficiencies and reduce bottle necks in a specified wood manufacturing organisation.

performance criteria

3.1 Analysis identifies potential for higher productivity from the wood manufacturing processing stages and recommendations are made for improvement.

3.2 Analysis identifies alternative means to increase transport capacity and recommendations are made for improvement of the wood manufacturing operation.

3.3 Recommendations are made based on where processing efficiency gains could be made and bottle necks reduced in the wood manufacturing operation.

Comments on this unit standard

Please contact Competenz at info@competenz.org.nz if you wish to suggest changes to the content of this unit standard.

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.

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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>.