



Australian Government

Department of Education, Employment and Workplace Relations

LMFFM3030B Set up, operate and maintain CNC sizing machines

Revision Number: 1

LMFFM3030B Set up, operate and maintain CNC sizing machines

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to set up, operate and maintain CNC sizing machines to produce furniture or components
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Work instructions are used to determine job requirements, including: design, quality, materials, equipment and quantities 1.2. Workplace health and safety requirements, including personal protection needs, are observed throughout the work 1.3. Material for machining is selected and inspected for appropriate quality 1.4. Procedures are determined for minimising waste material 1.5. Procedures are identified for maximising energy efficiency while completing the job
2. Set up machines	2.1. CNC program is set to job requirements 2.2. Safety equipment, including emergency stops, gauges, guards and controls are checked 2.3. Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturers' instructions 2.4. Machines, cutting tools and jigs are checked for safe and effective operation 2.5. Trial runs are conducted to check machine operation and quality of finished work 2.6. Final adjustments are made to CNC programs and equipment according to workplace procedures
3. Operate machines	3.1. Machines are operated and monitored to ensure product quality and output 3.2. Waste quantities are checked and minimised 3.3. Problems with the required work are identified and reported to appropriate persons 3.4. Items that do not meet quality requirements are repaired, recycled or discarded according to workplace procedures 3.5. Any authorised changes in working procedures are followed
4. Clean up work area and maintain equipment	4.1. Material that can be reused is collected and stored 4.2. Waste and scrap are removed following workplace procedures 4.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with

ELEMENT	PERFORMANCE CRITERIA
	<p>workplace procedures</p> <p>4.4. Operator maintenance is completed in accordance with manufacturers' specifications and site procedures</p> <p>4.5. Unserviceable equipment is tagged and faults identified in accordance with workplace</p> <p>4.6. Equipment and tooling is maintained in accordance with workplace procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to CNC sizing operations, work orders, plans and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, compute input data and estimate material requirements
- use pre-checking and inspection techniques to anticipate CNC sizing problems, avoid reworking and avoid wastage
- use the workplace technology related to CNC sizing, including machinery, tools, equipment and measuring devices

Required knowledge

- types, characteristics, uses and limitations of CNC sizing machines
- CNC theory, practices and techniques
- characteristics of materials used and uses of products produced
- workflow processes
- procedures for reporting materials, product or equipment faults

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical Aspects of Evidence

- Locate, interpret and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Identify materials used in the work process
- Follow work instructions, operating procedures and inspection practices to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment or products
 - maintain required production output and product quality
- Identify, set up and operate CNC sizing equipment, including the use of safety cut-outs and guards, to produce a range of complex cutting patterns to its full potential
- Conduct operator maintenance on the machine and related equipment
- Work effectively with others
- Modify activities to cater for variations in workplace contexts and environment

Resource Implications

CNC controlled equipment, standard operating procedures, unprocessed materials.

Method of Assessment

Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.

Assessment should be by direct observation of tasks and questioning on underpinning knowledge.

Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.

Context of Assessment

Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
CNC sizing machines	CNC sizing machines are to include CNC beam saws and may include double end profiling machines
Unit scope	Work involves computer programming skills, reading and interpreting drawings, stock control, setting cutting speeds, computer-aided machining operations, saw and tool maintenance
Material to be sized is to include:	<ul style="list-style-type: none"> • solid timber • manufactured board • laminate • solid synthetic materials and plastics
Unit context	<ul style="list-style-type: none"> • OH&S requirements include legislation, building codes, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements • Work requires individuals to demonstrate some discretion, judgement and problem solving skills in the set up and operation of machines • Competency may be demonstrated in workplaces involved in the manufacture of solid timber furniture, domestic furniture, commercial furniture, kitchen and bathroom cabinets and/or furniture components
Tools	Tools are to include machine-specific tools and may include screwdrivers, hammers and spanners
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation, regulations and

RANGE STATEMENT	
	enterprise policies and practices
Information and procedures	<ul style="list-style-type: none"> • Workplace procedures relating to the use of tools and equipment • Work instructions, including job sheets, cutting lists, plans, drawings and designs • Workplace procedures relating to reporting and communication • Manufacturers' specifications and operational procedures

Unit Sector(s)

Unit sector	Furniture Making
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		