



**Australian Government**

# **MSFUP3014 Set up, operate and maintain computer numerically controlled (CNC) cutting machines**

**Release: 1**

# **MSFUP3014 Set up, operate and maintain computer numerically controlled (CNC) cutting machines**

## **Modification History**

Release 1 - New unit of competency

## **Application**

This unit of competency covers setting up, operating, adjusting, monitoring and maintaining CNC machines used in the cutting of upholstery materials.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

## **Competency Field**

## **Unit Sector**

Upholstery

## **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1 Prepare for work | 1.1 Work instructions are used to determine job requirements including design, quality, materials, equipment and quantities |
|                    | 1.2 Work health and safety (WHS) requirements, including personal protection needs, are observed throughout the work        |
|                    | 1.3 Appropriate CNC cutting program and settings are determined                                                             |
|                    | 1.4 Material for cutting is selected and inspected for appropriate quality                                                  |
|                    | 1.5 Machines, cutting tools and jigs are checked for safe and effective operation                                           |
|                    | 1.6 Procedures are determined for minimising waste material                                                                 |

- and for maximising energy efficiency while completing the job
- 1.7 Safety equipment, including emergency stops, gauges, guards and controls are checked
- 2 Set up machines
- 2.1 CNC cutting program is set to job requirements
- 2.2 Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturer instructions
- 2.3 Trial runs are conducted to check machine operation and quality of finished work
- 2.4 Final adjustments are made to CNC programs and equipment according to workplace procedures
- 3 Operate CNC cutting machine
- 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, including machine operation/production, are identified and reported in accordance with workplace procedures
- 3.4 Any authorised changes in working procedures are followed
- 3.5 Daily routine lubrication and adjustments for the equipment are completed
- 4 Complete work and maintain equipment
- 4.1 Items that do not meet quality requirements are repaired, recycled or discarded according to workplace procedures
- 4.2 Material that can be re-used is collected and stored
- 4.3 Waste and scrap are removed following workplace procedures
- 4.4 Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures
- 4.5 Unserviceable equipment is tagged and faults identified in accordance with workplace procedures
- 4.6 Operator maintenance is performed on equipment and tooling is maintained in accordance with workplace

## procedures

### Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

### Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

- |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit context includes:</b>                  | <ul style="list-style-type: none"><li>• WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent</li><li>• work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements</li><li>• work requires individuals to demonstrate some discretion, judgement and problem solving</li></ul> |
| <b>CNC machines include:</b>                   | <ul style="list-style-type: none"><li>• fabric cutting machines</li><li>• leather cutting machines</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Upholstery materials include:</b>           | <ul style="list-style-type: none"><li>• fabrics</li><li>• leather</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Personal protective equipment includes:</b> | <ul style="list-style-type: none"><li>• that prescribed under legislation, regulations and enterprise policies and practices:<ul style="list-style-type: none"><li>• safety glasses/goggle</li><li>• hair nets</li><li>• ear muffs/plugs</li><li>• gloves</li><li>• footwear and protective clothing</li></ul></li></ul>                                                                                                                                                                                                                     |
| <b>Information and procedures include:</b>     | <ul style="list-style-type: none"><li>• workplace procedures relating to the use of tools and equipment</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                            |

- work instructions, including job sheets, cutting lists, plans, drawings and designs
- workplace procedures relating to reporting and communication
- manufacturer specifications and operational procedures

## Unit Mapping Information

Supersedes and is equivalent to LMFUP3014B Set up, operate and maintain CNC cutting machines.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>