



**Australian Government**

# **MSFFM3040 Produce and maintain cutting tools**

**Release: 1**

# MSFFM3040 Produce and maintain cutting tools

## Modification History

Release 1. Changes to code, application, elements, performance criteria, assessment requirements. Foundation skills added. Range of conditions removed. Assessment requirements changed.

## Application

This unit describes the skills and knowledge required to produce and maintain cutting tools used in woodworking machinery.

Workers with this competency follow established procedures in industries such as wood machining and cabinet making, using some discretion, judgment and problem solving to keep cutting tools safe and efficient.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Competency Field

Cabinetry and furniture

## Elements and Performance Criteria

| Elements                                  | Performance Criteria                                                                                                                                                                                                                                                                                   |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.                                                                                                                                                                                                        |
| 1. Prepare for task                       | 1.1 Determine cutting tool requirements from task documentation and inspection of machine<br>1.2 Identify and follow work health and safety procedures<br>1.3 Assess whether cutting tool is suitable for machining<br>1.4 Check that machines, grinding tools and accessories are safe and functional |
| 2. Set up machines                        | 2.1 Complete machine settings and adjust to meet task requirements and in compliance with manufacturer instructions<br>2.2 Confirm that grinding is achieving required quality in cutting tool<br>2.3 Identify and make necessary adjustments to machine settings                                      |
| 3. Operate machines                       | 3.1 Follow machine start-up procedure in accordance with manufacturer instructions                                                                                                                                                                                                                     |

| Elements                                  | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.                                                                                                                                                                                                                                                                                                                                                                               |
|                                           | <p>3.2 Machine tooling in accordance with manufacturer instructions and safe handling and workplace procedures</p> <p>3.3 Operate machine in accordance with its designed capacity and purpose, and to manufacturer recommendations</p> <p>3.4 Monitor machine operation to ensure quality of output</p> <p>3.5 Recognise problems and resolve or report to appropriate persons in accordance with workplace procedures</p>                                                   |
| 4. Finalise task                          | <p>4.1 Clean work area, safely dispose of waste and identify items for recycling in accordance with workplace procedures and environmental standards</p> <p>4.2 Clean machinery, complete routine lubrication and adjustments and leave in a safe mode in accordance with workplace procedures</p> <p>4.3 Identify, tag and report faulty equipment in accordance with workplace procedures</p> <p>4.4 Complete job documentation in accordance with workplace procedures</p> |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret familiar workplace procedures and work documentation
- Writing skills to communicate information in familiar workplace documents
- Numeracy skills to take accurate measurements and estimate materials requirements

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSFFM3023 Produce and maintain cutting tools.

## Links

Companion Volume implementation guides are found in VETNet –

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

# Assessment Requirements for MSFFM3040 Produce and maintain cutting tools

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## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- produce a set of 2 matching profile cutters
- maintain a router cutter and solid profile cutter head.
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## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- type and characteristics of cutting tools:
  - profile knives
  - router cutters
  - straight knives
  - profile cutter heads
- types and characteristics of grinding machines
- cutter development geometry and principles
- characteristics of cutter steels
- grinding practices and techniques
- personal protective equipment (PPE) required for producing and maintaining cutting tools
- type and characteristics of grinding adhesives and processes
- workplace procedures for:
  - acceptable tolerance levels
  - work health and safety
  - reporting machinery faults and material defects.
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## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - raw materials or cutting tools in woodworking machines required for performance evidence
  - grinding machine
  - PPE
  - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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