



**Australian Government**

# **MSFGG2007 Process glass by basic machines**

**Release: 1**

# MSFGG2007 Process glass by basic machines

## Modification History

Release 1 - New unit of competency

## Application

This unit of competency covers cutting, shaping, drilling and edging annealed glass up to, and including, 6 mm thick, and laminated glass up to 7 mm thick by basic machines.

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

## Pre-requisite Unit

## Competency Field

## Unit Sector

Glass and Glazing

## Elements and Performance Criteria

Elements describe the essential outcomes.

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

- |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>1</b> Identify work requirements | <div style="margin-left: 20px;"><b>1.1</b> Work requirements, including materials, types of cuts, shapes and edges, processes and quantities required, are identified from work instructions or job order in accordance with workplace procedures</div> <div style="margin-left: 20px;"><b>1.2</b> Work health and safety (WHS) requirements, including personal protective equipment, are observed throughout the work</div> <div style="margin-left: 20px;"><b>1.3</b> Tools, equipment and materials are selected and checked prior to use to ensure that they are appropriate for the work, of the appropriate quality, serviceable and in a safe condition</div> <div style="margin-left: 20px;"><b>1.4</b> Cutting list and quality standards are determined and procedures for operation of basic cutting machines identified in accordance with workplace requirements and</div> |
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- industry standards
- 1.5 Glass to be cut, shaped, drilled or edged is selected using information from the work order, including type of glass, thickness, colour and dimensions
  - 1.6 Machines, equipment and settings required to perform the work are identified
- 2 Prepare for work
- 2.1 Technique and sequence of work are planned to ensure glass processing is conducted in a logical order
  - 2.2 Procedures for monitoring quality of materials, work in progress and finished items are identified in accordance with workplace requirements and industry practice
  - 2.3 Suitable cutting, shaping, drilling and edging machines are selected
  - 2.4 Glass processing table is selected and work surface is cleared of debris and dust
  - 2.5 Components and controls of machines, including emergency stops and guards, are identified and tested, and appropriate action taken if not in working order
  - 2.6 Work area is cleared of obstructions and potential hazards
  - 2.7 Glass to be processed is located in the work area using appropriate handling techniques
  - 2.8 Glass is measured accurately to minimise waste and within specified tolerances according to enterprise standards
  - 2.9 Glass is checked for imperfections and damage prior to handling
- 3 Conduct processing operations
- 3.1 Tools and equipment are operated and monitored in accordance with manufacturer instructions and workplace procedures to ensure correct product quality and output
  - 3.2 Glass is processed to required standard in accordance with job order, work instructions and procedures, including the performance of routine lubrication and adjustments of machines/equipment, if required
  - 3.3 Problems occurring during work operations are identified and reported to appropriate persons in accordance with enterprise procedures

- 3.4 Authorised changes in working procedures are followed
  - 3.5 Completed product is inspected for quality of work and repaired, reprocessed or discarded in accordance with workplace procedures
- 4 Complete work
  - 4.1 Processed glass is labelled and stored following workplace procedures ensuring there are no projections
  - 4.2 Scraps and off-cuts are removed for disposal or recycling, as required
  - 4.3 Work area clean-up is completed following workplace procedures
  - 4.4 Equipment is cleaned and stored according to workplace requirements
  - 4.5 Tools, equipment and unused materials are removed and stored appropriately
  - 4.6 Workplace documentation is completed in accordance with workplace requirements

## 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.

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <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>Materials include:</b>              | <ul style="list-style-type: none"><li>• annealed and laminated glass for residential and commercial glazing and furniture applications</li></ul>                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tools and equipment include:</b>    | <ul style="list-style-type: none"><li>• flat felt covered cutting tables</li><li>• tungsten wheel glass cutters</li><li>• L-squares and straight edges</li><li>• tape measures</li><li>• glass handling gloves</li><li>• safety glasses</li><li>• gauntlets</li><li>• aprons</li><li>• marking pens</li><li>• chinagraph pencils</li><li>• templates</li><li>• lubricants</li></ul>                                                                                                                                                          |
| <b>Basic cutting machines include:</b> | <ul style="list-style-type: none"><li>• portable diamond saw</li><li>• circle cutters</li><li>• speed cutters</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Drilling equipment includes:</b>    | <ul style="list-style-type: none"><li>• portable diamond drill</li><li>• wall-mounted and free-standing diamond drill presses</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Edging includes:</b>                | <ul style="list-style-type: none"><li>• arrising</li><li>• flat</li><li>• round and mitre grinding</li><li>• round and mitre polishing and bevelling</li></ul>                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Glass processing includes:</b>      | <ul style="list-style-type: none"><li>• straight cutting</li><li>• circle cutting</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| <b>Edging machines include:</b>                                   | <ul style="list-style-type: none"><li>• freehand cutting</li><li>• drilling and edging</li><li>• finishing or belt machines</li><li>• diamond or pencil edgers</li><li>• pumice or cork polishers</li><li>• horizontal wheels</li><li>• finger slotters</li><li>• hand tools</li></ul>                                                                                                                                                                                        |
| <b>Tables appropriate for cutting large glass sheets include:</b> | <ul style="list-style-type: none"><li>• air flotation tables</li><li>• roller castor tables or tilt tables with air flotation</li><li>• breaker bars or roller castors</li></ul>                                                                                                                                                                                                                                                                                              |
| <b>Personal protective equipment includes:</b>                    | <ul style="list-style-type: none"><li>• that prescribed under legislation, regulation and enterprise policies and practices:<ul style="list-style-type: none"><li>• gauntlets</li><li>• gloves</li><li>• safety glasses</li><li>• hard hats</li><li>• safety footwear</li><li>• aprons and overalls</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 and personal protective equipment</li><li>• work instructions, including job sheets, cutting lists, plans, drawings and designs</li><li>• workplace procedures relating to reporting and communication</li><li>• manufacturer specifications and operational procedures</li><li>• AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass</li></ul> |

## Unit Mapping Information

Supersedes and is equivalent to LMFGG2007C Process glass by basic machines.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>