



**Australian Government**

# **MSFGG3010 Set up and operate glass laminating equipment**

**Release: 1**

# MSFGG3010 Set up and operate glass laminating equipment

## Modification History

Release 1 - New unit of competency

## Application

This unit of competency covers setting up, monitoring and operating glass laminating equipment, including operator maintenance.

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.

|   |                  |     |                                                                                                                                                                                |
|---|------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Prepare for work | 1.1 | Work requirements from work instructions are determined                                                                                                                        |
|   |                  | 1.2 | Work health and safety (WHS) requirements relevant to operating glass laminating equipment, including personal protective equipment, are observed throughout the work          |
|   |                  | 1.3 | Work sequence is planned in a logical order to suit the job and workplace procedures                                                                                           |
|   |                  | 1.4 | Tools, equipment and materials are selected and checked prior to use to ensure they are appropriate for the work, of the required quality, serviceable and in a safe condition |
|   |                  | 1.5 | Machines, cutting tools and jigs are identified and checked for safe and effective operation, including emergency stops, gauges, guards and controls                           |
|   |                  | 1.6 | Procedures for checking the quality of materials and items produced, rating system compliance, working condition of equipment and quality requirements for each stage of the   |

|   |                                     |      |                                                                                                                                                                                 |
|---|-------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                     |      | laminating process are identified                                                                                                                                               |
|   |                                     | 1.7  | Communication with others involved with the work is established and maintained to ensure efficient work flow coordination, personnel cooperation and safety throughout the work |
| 2 | Set up equipment                    | 2.1  | Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturer instructions                                                    |
|   |                                     | 2.2  | Trial runs are conducted to check machine operation, accuracy and quality of finished work, and any necessary adjustments made to machine settings                              |
| 3 | Conduct glass laminating operations | 3.1  | Glass to be laminated is prepared for the process in accordance with workplace procedures or industry practice                                                                  |
|   |                                     | 3.2  | Start-up and shutdown procedures for equipment used in the laminating process are completed in accordance with manufacturer instructions or workplace procedures                |
|   |                                     | 3.3  | Glass flopping and washing procedures are conducted in accordance with manufacturer instructions or workplace procedures                                                        |
|   |                                     | 3.4  | White room procedures are conducted in accordance with manufacturer instructions or workplace procedures                                                                        |
|   |                                     | 3.5  | White room hoist is operated in accordance with manufacturer instructions or workplace procedures                                                                               |
|   |                                     | 3.6  | Pre-press oven and glass stacker are operated in accordance with manufacturer instructions or workplace procedures to recognised industry standards                             |
|   |                                     | 3.7  | Air lifter is operated in accordance with manufacturer instructions or workplace procedures                                                                                     |
|   |                                     | 3.8  | Autoclave is loaded, operated and unloaded in accordance with manufacturer instructions or workplace procedures                                                                 |
|   |                                     | 3.9  | Cutting table is operated to cut glass to required size (if applicable) in accordance with manufacturer instructions or workplace procedures                                    |
|   |                                     | 3.10 | Straight line linear machine is operated in accordance with manufacturer instructions or workplace procedures                                                                   |

- |   |                                      |     |                                                                                                                                                                          |
|---|--------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Complete work and maintain equipment | 4.1 | Product is inspected for quality of work and items which do not meet quality requirements discarded or returned for reprocessing in accordance with workplace procedures |
|   |                                      | 4.2 | Completed work is placed in holding area in accordance with workplace procedures                                                                                         |
|   |                                      | 4.3 | Work area is cleaned and rubbish disposed of, as appropriate                                                                                                             |
|   |                                      | 4.4 | Equipment is cleaned and inspected for serviceability in accordance with workplace procedures                                                                            |
|   |                                      | 4.5 | Unserviceable equipment is tagged and faults identified in accordance with workplace procedures                                                                          |
|   |                                      | 4.6 | Equipment and tooling is maintained in accordance with workplace procedures                                                                                              |
|   |                                      | 4.7 | Tools, equipment and unused materials are removed and stored appropriately                                                                                               |
|   |                                      | 4.8 | 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.

### Unit context includes:

- WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent
- work is carried out in accordance with legislative

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements                                                                                                                                                                                                                                                                                                                    |
| <b>Work instructions include:</b>              | <ul style="list-style-type: none"><li>• work requires individuals to demonstrate some discretion, judgement and problem solving</li><li>• material to be used</li><li>• process required to complete work tasks</li><li>• the type, thickness and colour of the interlayer</li><li>• number of sheets to be laminated and holding area for completed items</li><li>• the correct machine heat and pressure settings for the materials being used</li></ul> |
| <b>Laminated glass includes:</b>               | <ul style="list-style-type: none"><li>• safety glass</li><li>• automotive glass</li><li>• bullet and bandit resistant glass</li><li>• patterned laminated glass</li><li>• insulated glass</li></ul>                                                                                                                                                                                                                                                        |
| <b>Tools and equipment include:</b>            | <ul style="list-style-type: none"><li>• glass flopping and washing machines</li><li>• white room</li><li>• hoist</li><li>• pre-press oven</li><li>• glass stacker</li><li>• air lifter</li><li>• autoclave</li><li>• packing equipment</li><li>• cutting machine</li><li>• straight line linear machine</li><li>• standards stamping equipment, including stamp</li></ul>                                                                                  |
| <b>Materials include:</b>                      | <ul style="list-style-type: none"><li>• annealed float</li><li>• sheet and patterned glass</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></ul>                                                                                                                                                                                                          |

- workplace procedures relating to reporting and communication
- manufacturer specifications and operational procedures
- AS/NZS 2208:1996 Safety glazing materials in buildings

## Unit Mapping Information

Supersedes and is equivalent to LMFGG3009C Set up and operate glass laminating equipment.

## 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 MSFGG3010 Set up and operate glass laminating equipment

## Modification History

Release 1 - New unit of competency

## Performance Evidence

- Interpret work order and locate 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 processes to:
  - minimise the risk of injury to self or others
  - prevent damage to goods, equipment and products
  - maintain required production output and product quality
- Identify and demonstrate glass flopping and washing operation and procedures
- Identify and demonstrate the white room operation and procedures
- Safely load glass into the pre-press oven and stacker and operate the pre-press oven and stacker during the glass laminating process
- Operate an air lifter and an autoclave
- Safely complete the requirements of the packing area
- Operate a laminating cutting table and carry out post-laminating procedures
- Perform testing, classification and marking of laminated glass in accordance with AS/NZS 2208:1996 Safety glazing materials in buildings
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems, interpret basic plans and follow safety procedures
- Avoid backtracking, work flow interruptions or wastage
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

## Knowledge Evidence

- Procedures for the set-up, operation and operator maintenance of glass laminating equipment
- Glass and window rating systems for noise, fade control and security applications
- Work flow requirements relating to the operation of glass laminating equipment
- Characteristics of materials used and uses of products produced in the glass laminating process
- Workplace procedures for the reporting of material, product or equipment faults

- Workplace safety system requirements related to the operation of glass laminating equipment
- Relevant Australian Standards

## Assessment Conditions

- Assessors must:
  - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
  - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
  - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to glass laminating equipment, workplace operating procedures, unprocessed materials, personal protective equipment and an appropriate work area.

## Links

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