



Australian Government

MSF GG3006 Process glass by automatic machines

Release: 1

MSFGG3006 Process glass by automatic machines

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers cutting, drilling, shaping and edging glass by automatic glass processing equipment.

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 Identify work requirements

- 1.1 Work requirements, including glass, types of cuts, shapes and edges, processes and quantities required, are identified from work instructions or job order in accordance with workplace procedures
- 1.2 Work health and safety (WHS) requirements, including personal protective equipment, are observed throughout the work
- 1.3 Tools, equipment and materials are selected and checked prior to use to ensure they are appropriate for the work, of the appropriate quality, serviceable and in a safe condition
- 1.4 Cutting list and quality standards are determined and procedures identified in accordance with workplace requirements and industry standards
- 1.5 Glass to be cut, shaped, drilled or edged is selected using information from the work order, including the type of

- glass, thickness, colour and dimensions
- 1.6 Automatic, including computer numerically controlled (CNC) machines, related equipment and settings required to perform the work are identified, and information required to be entered into machine to match work requirements or job order is calculated
- 2 Prepare for work
 - 2.1 Technique and sequence of work is planned to ensure 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 Tools, equipment and attachments required for the work are assembled and checked for good working order
 - 2.4 Components and controls of machines, including emergency stops and guards, are identified and appropriate action taken if not in working order
 - 2.5 Information required by machine for required process is entered
 - 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 to be processed is checked for imperfections and damage
 - 3 Conduct processing operations
 - 3.1 Tools, equipment and tables 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, and any authorised changes in working procedures followed
 - 3.4 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.

Glass includes:	• annealed or laminated • float glass and coated glass • commercial windows and doors • architectural glazing • mirrors and furniture applications
Glass processing includes:	• cutting • shaping • drilling and edging
Tools and equipment	• flat felt covered cutting tables

include:	• gloves • safety glasses • marking pens • chinagraph pencils • templates and lubricants
Cutting includes:	• straight line cutting • shape cutting • circle and oval cutting
Edging includes:	• arrising • flat and mitre grinding • polishing and bevelling
Automatic machines include:	• computer-navigated and CNC: • straight line and shape annealed and laminated glass cutters • laser glass cutters • diamond saws • edgers • bevellers and brilliant cutter • water jet machines
Information requirements of CNC machines include:	• glass thickness • size • type • stock sheet size • off-cut sizes • print-out information or spreadsheets
Glass processing tables include:	• air flotation tables • roller castor table or tilt table with air flotation or roller castors
Personal protective equipment includes:	• that prescribed under legislation, regulation and enterprise policies and practices: • gloves • gauntlets • safety glasses • footwear • aprons/overalls
Workplace procedures include:	• machine manufacturer specifications, operational and maintenance procedures • workplace procedures relating to the setting and operation of computerised glass cutting, shaping, drilling and edging machines • work instructions, including job sheets, cutting lists and

plans

- safety standards, including personal protective equipment, WHS regulations and enterprise requirements
- AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass

Unit Mapping Information

LMFGG3005C Process glass by semi-automatic and automatic machines replaced by MSFGG3005 Process glass by semi-automatic machines and MSFGG3006 Process glass by automatic machines. Not equivalent.

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 MSFGG3006 Process glass by automatic machines

Modification History

Release 1 - New unit of competency

Performance Evidence

- Identify the materials, patterns/plans, processes, machines, equipment and settings to undertake a glass cutting, drilling, shaping and/or edging task with automatic machines
- Apply safe handling requirements for automatic machines, equipment, products and materials, including use of personal protective equipment
- Set up for and prepare to process glass
- Using developing workplace technology related to the processing of glass by automatic machines, including handling aids, tools and equipment
- Using pre-checking and inspection techniques to anticipate processing problems, and avoid re-working and wastage
- Follow work instructions, operating procedures and inspection practices to:
 - minimise the risk of injury to self and others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Load and position sheets onto automatic cutting, drilling and edging machines
- Perform tool and machinery checks and cut given dimensions from stock sheets with minimal wastage/off-cuts
- Drill and edge glass to specification
- Cut shapes from optimisation data
- Remove, pack and store processed glass, including labelling for despatch
- 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

- Qualities and characteristics of glass, including hazards and handling requirements
- Workplace safety system requirements related to glass processing by automatic machines
- Correct identification of automatic glass processing machines, including their functions and procedures
- Set-up and operation of automatic glass processing machines, including procedures for reporting machine/product defects or equipment faults
- Work flow requirements in relation to glass processing

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 automatic glass processing equipment, an appropriate work area, standard operating procedures, work orders, unprocessed materials and appropriate safety and personal protection equipment.

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