



Australian Government

MSFGG3004 Process thick glass

Release: 1

MSFGG3004 Process thick glass

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers cutting, shaping, drilling and edging annealed and laminated glass, which is 12 mm thick and over. It involves the planning, preparation and processing of thick glass sheet.

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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| 1 Identify work requirements | <div>1.1 Work requirements for processing thick glass, 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>1.2 Work health and safety (WHS) requirements, including personal protective equipment, are observed throughout the work</div> <div>1.3 Tools, equipment and materials are selected and checked prior to use to ensure they are appropriate for the work, serviceable and in a safe condition</div> <div>1.4 Cutting list and quality standards are determined and procedures identified in accordance with workplace requirements and industry standards</div> <div>1.5 Glass to be cut, shaped, drilled or edged is selected using</div> |
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- 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 Sequence of work is planned to ensure processing is conducted in a logical order
- 2.2 Suitable cutting, shaping, drilling, edging and lubrication methods are selected
- 2.3 Glass processing table is selected and work surface is cleared of debris and dust
- 2.4 Work area is cleared of obstructions and potential hazards with cullet bins located close to work area
- 2.5 Glass is checked for imperfections and damage prior to handling
- 2.6 Glass to be processed is located in the work area using correct manual handling procedures
- 2.7 Glass is measured accurately to minimise waste and within specified tolerances according to enterprise standards
- 2.8 Components and controls of machines, including emergency stops and guards, are identified and tested for working order
- 3 Process glass
- 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
- 3.3 Problems occurring during work operations are identified and reported to appropriate persons, 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 is cleaned and rubbish disposed of, as appropriate
- 4.4 Tools, equipment and unused materials are removed and stored appropriately
- 4.5 Workplace documentation is completed, as required

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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| Thick glass includes: | <ul style="list-style-type: none">• annealed sheet and laminated glass for residential and commercial windows and doors greater than 12 mm thick• structural glass |
| Materials include: | <ul style="list-style-type: none">• table tops• shower screens |
| Glass processing includes: | <ul style="list-style-type: none">• cutting• use of portable diamond saws• shaping• drilling and edging (edging may include arising) |
| Tools and equipment include: | <ul style="list-style-type: none">• cutting tables• tungsten wheel glass cutters• speed cutters• circle cutters• portable diamond saws• L-squares and straight edges• tape measures |

	• marking pens • chinagraph pencils • templates and lubricants
Drilling equipment includes:	• portable diamond drills • glass drilling machine
Edging tools include:	• edging stones and hand arrisers • upright belt • handheld belt machines
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, regulations and enterprise practices and procedures: • glass handling gloves • safety glasses • gauntlets • aprons • safety footwear
Workplace procedures include:	• workplace procedures relating to the use of tools and equipment and personal protective equipment required for the handling and processing of glass • workplace instructions, including job sheets, cutting lists, plans, drawings and designs • workplace procedures relating to reporting and communications • manufacturer instructions for the use of equipment and materials • quality standards and procedures

Unit Mapping Information

Supersedes and is not equivalent to LMFGG3004C Process thick glass.

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 MSFGG3004 Process thick glass

Modification History

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Performance Evidence

- Identify the materials, patterns/plans, processes, machines, equipment and settings to undertake a glass processing task
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Set up for and prepare to process glass
- 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
- Use AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass to process glass to specifications
- Complete straight cuts by hand and diamond saws, simple shapes, truncated and radius corners, circles and ovals in annealed and laminated glass 12 mm and over and up to 1.0 m²
- Rough and smooth arrise annealed and laminated glass 12 mm and over by hand and up to 0.5 m²
- Drill holes with diamond drills in annealed glass 12 mm and over and up to 0.5 m²
- Use mathematical ideas and techniques to correctly complete measurements, calculate area, estimate glass requirements and minimise waste
- 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
- Identification of glass processing equipment, functions and procedures
- Set-up and operation of glass processing equipment, including procedures for reporting product defects or equipment faults
- Workplace safety system requirements related to glass processing
- 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 glass sheet/product greater than 12 mm thick; processing facilities/equipment, such as cutting equipment and glass edging/drilling equipment; a work table and appropriate work area; work orders; and appropriate safety and personal protective equipment.

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