



Australian Government

MSFGG3012 Set up and operate glass mirroring equipment

Release: 1

MSFGG3012 Set up and operate glass mirroring equipment

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers setting up and operating glass mirroring 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	Prepare for work	1.1	Work requirements are determined from work instructions
		1.2	Work health and safety (WHS) requirements relevant to operating glass mirroring equipment, including personal protective equipment, are observed throughout the work
		1.3	Work sequence is planned in a logical order to suit the job requirements 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 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, working condition of equipment and quality requirements for each stage of the mirroring 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 glass mirroring process
		1.8 The processes for obtaining materials and moving completed work to the next process are identified
2	Prepare glass for mirroring	2.1 If applicable, existing mirror is removed by acid washing, cleaning and/or polishing
		2.2 Glass to be mirrored is washed with detergent in accordance with workplace procedures or industry practice
		2.3 Glass to be mirrored is rinsed with demineralised water in accordance with workplace procedures or industry practice
3	Conduct glass mirroring operations	3.1 Tinning solution is applied in accordance with workplace procedures or industry practice
		3.2 Glass is rinsed with demineralised water in accordance with workplace procedures or industry practice
		3.3 Mirror solution is applied to glass in accordance with workplace procedures or industry practice
		3.4 Glass is washed and blow dried in accordance with workplace procedures or industry practice
		3.5 Backing paint is applied in accordance with workplace procedures or industry practice
4	Complete work	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 and stored in accordance with workplace procedures, unserviceable equipment tagged, and faults identified and reported in accordance with workplace procedures
		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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|-------------------------------------|--|
| Unit context includes: | <ul style="list-style-type: none">• 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• work requires individuals to demonstrate some discretion, judgement and problem solving |
| Work requirements include: | <ul style="list-style-type: none">• material to be used• process required to complete work tasks• number of sheets to be mirrored and holding area for completed items |
| Glass mirroring involves: | <ul style="list-style-type: none">• processes and equipment to mirror glass for the manufacture of mirrors and other glass products |
| Tools and equipment include: | <ul style="list-style-type: none">• semi-automatic and computer-navigated mirroring equipment• buffing and cleaning tables• spray booths• copper plating electrodes• extractor fans• dual nozzle spray guns |

	• compressors • solution containers • heated drying racks • water distiller • mirroring formulas • tinning solution • backing paint • stripping acid tanks for re-mirroring
Materials include:	• annealed glass • sheet glass • laminated glass • toughened glass
Personal protective equipment includes:	• that prescribed under legislation, regulation and enterprise policies and practices: • gauntlets • gloves • safety glasses • hard hats • safety footwear • aprons and overalls • respiratory masks
Information and procedures include:	• workplace procedures relating to the use of tools and equipment and personal protective equipment • work instructions, including job sheets, cutting lists, plans, drawings and designs • workplace procedures relating to reporting and communication • manufacturer specifications and operational procedures • relevant Australian Standards

Unit Mapping Information

Supersedes and is equivalent to LMFGG3011C Set up and operate glass silvering 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 MSFGG3012 Set up and operate glass mirroring equipment

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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
- Prepare mirroring formulae
- Perform equipment checks and set up and prepare mirroring equipment
- Clean and prepare glass for mirroring
- Apply tinning, mirroring and copper solutions on glass, dry and apply packing paint
- Strip, buff, clean, prepare and re-mirror mirrors
- Handle and store mirrors
- Clean solution tanks, lines, spray guns and equipment after use
- 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

- Correct procedures for the planning, preparation, operation and completion of glass mirroring operations
- Work flow requirements in relation to the operation of glass mirroring equipment
- Workplace procedures for the reporting of material, product or equipment faults
- Relevant Australian Standards
- Correct identification, handling and storage requirements for hazardous chemicals
- Characteristics of materials used and uses of products produced by glass mirroring operations

- Workplace safety system requirements related to the operation of glass mirroring equipment

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 mirroring equipment, demineralised water, acid, mirroring chemicals, backing paint, workplace operating procedures, unprocessed materials, personal protective equipment and an appropriate work area.

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