



Australian Government

MSFGG3011 Set up and operate glass toughening equipment

Release: 1

MSFGG3011 Set up and operate glass toughening equipment

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers setting up and operating glass toughening equipment, including operator maintenance of plant and 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 toughening 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 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 toughening 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 toughening operations	3.1 Glass to be toughened is prepared for process in accordance with workplace procedures or industry practice 3.2 Glass to be toughened is positioned on furnace load table and stamped with product identification in accordance with workplace procedures or industry practice 3.3 Glass is loaded into furnace in accordance with manufacturer instructions and workplace procedures 3.4 Correct furnace pre-start, start-up and set-up procedures are completed in accordance with manufacturer instructions and workplace procedures 3.5 Furnace operation is monitored and adjustments made, as required, in accordance with manufacturer instructions or workplace procedures 3.6 Problems occurring during work operations are identified and reported to appropriate persons 3.7 Correct furnace shutdown and end of shift procedures are followed in accordance with manufacturer instructions and workplace procedures 3.8 Glass is unloaded from furnace in accordance with manufacturer instructions and 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, unserviceable equipment tagged, and faults identified and reported in accordance with workplace procedures
 - 4.5 Equipment is maintained in accordance with workplace procedures
 - 4.6 Tools, equipment and unused materials are removed and stored appropriately
 - 4.7 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
 - work requires individuals to demonstrate some discretion, judgement and problem solving
- Work requirements**
- material to be used
 - process required to complete work tasks

include:	• required machine settings and adjustments • number of sheets to be toughened and holding area for completed items
Glass toughening equipment includes:	• equipment and machines for toughening glass involving the controlled heating and cooling of glass
Tools and equipment include:	• glass washing machines • toughening furnaces
Materials include:	• clear glass • tinted and patterned annealed glass
Furnace pre-start, start-up and set-up procedures include:	• operating controls • lift • pump • furnace lever • furnace rollers • quench potentiometer • fans • dampers • actuators • inlet veins • gearboxes
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
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 • AS/NZS 2208:1996 Safety glazing materials in buildings

Unit Mapping Information

Supersedes and is equivalent to LMFGG3010C Set up and operate glass toughening 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 MSFGG3011 Set up and operate glass toughening 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
- Identify the features of the glass toughening process, including the principles, purpose and properties of toughened glass
- Identify the procedures required in the glass toughening process
- Perform pre-inspection and preparation procedures on glass for toughening and safely load and operate a glass toughening furnace
- Perform testing, classification and marking of toughened 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

- Correct procedures for the set-up, operation and operator maintenance of glass toughening equipment
- Work flow requirements relating to the operation of glass toughening equipment
- Workplace procedures for the reporting of material, product or equipment faults
- Characteristics of materials used and uses of products produced in the glass toughening process
- Correct identification of relevant equipment, processes and procedures
- Workplace safety system requirements related to the operation of glass toughening 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 toughening equipment, workplace operating procedures, unprocessed materials, personal protective equipment and an appropriate work area.

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