



Australian Government

MSFGG3041 Manufacture insulated glass units

Release: 1

MSFGG3041 Manufacture insulated glass units

Modification History

Release 1. Supersedes and is equivalent to MSFGG3013 Set up and operate insulated glass unit manufacturing equipment.

Application

This unit describes the skills and knowledge required to set up and operate insulated glass unit (IGU) manufacturing equipment to process two sheets of glass that are separated by a spacer and sealed to form an airtight unit and conducting associated quality testing.

This unit applies to glass processing workers producing insulated glass units (IGUs) in accordance with pre-determined work orders.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

N/A

Unit Sector

Glass and Glazing

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Read work instructions and identify job and quality requirements 1.2 Identify and follow work health and safety requirements, using all required personal protective equipment 1.3 Identify quality procedures for each stage of the process 1.4 Plan work sequence in a logical order to suit the job and workplace procedures 1.5 Establish and maintain communication with others involved with the work to ensure efficient work flow coordination, personnel cooperation and safety
2. Set up equipment	2.1 Complete pre-operational equipment checks in accordance with workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Confirm machine operation through quality checks on first production of finished items 2.3 Make adjustments to settings and parameters based on initial quality checks
3. Conduct IGU manufacturing operations	3.1 Load and orient glass sheets into IGU machine using the appropriate mechanical and automated handling equipment 3.2 Assemble IGU spacers in accordance with specification and workplace procedures 3.3 Operate IGU machine to wash and dry glass and to press the unit using any required additives 3.4 Operate primary and secondary seal equipment in accordance with workplace procedures 3.5 Conduct testing for water vapour (dewpoint) and integrity of sealing (moisture) in accordance with workplace procedures
4. Complete work and maintain equipment	4.1 Inspect completed product for compliance with quality and work order requirements and reprocess or discard in accordance with workplace procedures 4.2 Quarantine, label and store serviceable units in accordance with industry standards and workplace procedures 4.3 Clean work area and safely dispose of rubbish 4.4 Clean and inspect IGU machine for serviceability in accordance with workplace procedures 4.5 Inspect, maintain and tag equipment in accordance with workplace procedures 4.6 Remove and store tools, equipment and unused materials in accordance with workplace procedures 4.7 Accurately complete required workplace documentation

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to MSFGG3013 Set up and operate insulated glass unit manufacturing 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 MSFGG3041 Manufacture insulated glass units

Modification History

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit and:

- prepared, set up and manufactured units of 2 different thicknesses and conducted the appropriate quality testing of 2 differing insulated glass unit (IGU) configurations to the capacity of the IGU machine in accordance with all safety and Australian Standards requirements.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- purpose and key provisions of Australian Standards – glass and window rating systems for insulation applications and when IGUs are appropriate:
 - AS/NZS 2208
 - AS/NZS 4666
- workplace safety system requirements related to the operation of IGU manufacturing equipment
- work flow requirements relating to the operation of IGU manufacturing equipment, including how the process fits into the overall glass processing system
- the role and importance of communication with others in relation to quality and safety
- mathematical procedures for calculation of IGU weight
- common items found in work instructions for IGU operations, including:
 - material to be used
 - process required to complete work tasks
 - the required size of the units
 - number of IGUs required and holding area for completed items
- characteristics of materials used and uses of products produced in the IGU manufacturing process
- glass and window rating systems for insulation applications
- types, characteristics, safe use, maintenance and limitations of tools and equipment
- characteristics and uses of other material used, including:
- procedures for each step of the IGU process, the types of problems that may occur and how to avoid and respond

- quality indicators for finished products
- procedures for the recording, reporting and maintenance of workplace records and information.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - equipment, tools and materials to complete tasks in the Performance Evidence
 - glass product to be processes
 - safety and personal protective equipment
 - work orders
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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