



Australian Government

MSFGG2009 Fabricate and assemble frames

Release: 2

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Modification History

Release 2 - Update of Australian Standards codes. Statement regarding currency of Australian Standards included in Range of Conditions and Performance Evidence.
Release 1 - New unit of competency

Application

This unit of competency covers fabricating and assembling frames from aluminium and/or steel, timber or unplasticised polyvinyl chloride (uPVC) and involves the set-up and operation of relevant machines.

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 and components | 1.1 Work requirements in the form of product to be fabricated and assembled, its use, specifications, components and attachments are identified from work instructions |
| | 1.2 Australian Standards relating to glass components and products associated with the process are identified and complied with |
| | 1.3 Work health and safety (WHS) requirements for fabrication and assembly of metal frames, including personal protective equipment, are observed throughout the work |
| | 1.4 Components, attachments, materials and tools required for |

- the fabrication and assembly are identified and their availability, suitability (in terms of size, quantity, finish and profile), quality and serviceability ascertained
- 1.5 Tools, equipment and fasteners, fixing and joining devices suitable for the method of fixing are identified and the process for the fabrication and assembly of metal frames determined
- 2 Prepare for fabrication and assembly
 - 2.1 Work sequence is planned in a logical order to suit the product specifications and workplace procedures
 - 2.2 Tools, equipment, components, attachments and materials are selected and checked prior to use to ensure they are appropriate for the work, serviceable and in a safe condition
 - 2.3 Required jigs are prepared or selected and checked for suitability for purpose
 - 2.4 Measurements are checked for accuracy, legibility and tolerance, and mating or directional marks noted and positioned
 - 2.5 Machines and equipment are set up in accordance with production objectives, manufacturer instructions and workplace procedures
 - 3 Fabricate and assemble components
 - 3.1 Machines, tools and equipment are operated in accordance with manufacturer instructions and workplace procedures to produce components in conformance to specifications
 - 3.2 Components are laid out and frames assembled ensuring conformity to specifications, alignment and appropriate fastening
 - 4 Complete work
 - 4.1 Completed frame is inspected to ensure compliance with quality standards and customer requirements
 - 4.2 Equipment is cleaned, inspected and stored in accordance with workplace procedures, with unserviceable items tagged, faults identified and appropriate personnel informed
 - 4.3 Work area is cleaned and rubbish disposed of, as appropriate
 - 4.4 Waste materials are removed from work area and disposed of in accordance with relevant statutory requirements and

enterprise requirements

- 4.5 Tools, equipment and unused materials are removed and stored appropriately
- 4.6 Workplace documentation is completed in accordance with enterprise 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

Fabrication and assembly includes:

- selection of materials, components and attachments required for a frame, its fabrication and assembly prior to its installation
- cutting
- routing
- milling
- pressing
- drilling
- crimping

Materials include:

- aluminium alloys and steel
- timber and plastic-coated timber
- uPVC and other composite materials
- hardware
- fasteners (screws and pop rivets)
- plastics
- sealants
- tapes
- vinyl
- gaskets
- timber reveals

Tools and equipment include:

- assembly benches
- drop and up-cut saws
- pneumatic
- hydraulic and manual presses
- frame and sash tooling
- copy routers

- end millers
 - crimpers
 - electric and pneumatic powered drills and screwdrivers
 - pop rivet guns
 - pleuws guns
 - hand tools
- Components are assembled using:**
- a jig (if required)
 - appropriate fastenings
 - appropriate tools and equipment
- 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 2047:2014 Windows in buildings - Selection and installation

Note, wherever Australia Standards are listed they apply at the time of publication, but the most current version (including amendments) or replacement versions are to be used.

Unit Mapping Information

Supersedes and is not equivalent to LMFGG2009C Fabricate and assemble metal frames.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>