



Australian Government

MSFGG3016 Fabricate and install residential windows and doors

Release: 2

MSFGG3016 Fabricate and install residential windows and doors

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 planning, fabricating and installing residential windows and doors, including framing, using aluminium, steel, unplasticised polyvinyl chloride (uPVC) and timber materials.

Licensing, legislative or certification requirements may apply to this unit and relevant state/territory and local government agencies should be consulted to determine any necessary certification or licensing for undertaking glass and glazing work. Access to construction sites requires certification of general induction training specified by the *National Code of Practice for Induction for Construction Work* (ASCC 2007).

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 | 1.1 | Work requirements in the form of type of residential window or residential door to be fabricated and installed are identified from work instructions, including the identification of its pattern or plan |
| | | 1.2 | Work health and safety (WHS) requirements for fabrication and installation of windows and doors, including personal protective equipment, are observed throughout the work |
| | | 1.3 | The process for fabricating and installing windows and doors is identified |

- 1.4 Types and quantities of materials, including glass required, are calculated from plans or work instructions or by measuring the fixture opening in accordance with Australian Standards and industry practice
- 1.5 Cutting lists are prepared from plans, work instructions or measurements of opening to suit the window or door to be installed
- 1.6 Fittings, fixings and joining devices or materials are selected in accordance with specifications or type of materials to be joined or fixed and Australian Standards
- 1.7 Tools and equipment appropriate to the fixing method are identified
- 2 Prepare for work
 - 2.1 Work sequence is determined in a logical order to suit the job and workplace procedures
 - 2.2 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
 - 2.3 Components of the window or door and hardware are checked against specifications or job order for size, quantity, finish and profile
- 3 Fabricate and install window or door
 - 3.1 Materials are measured and marked to cutting list requirements and most economical use of materials
 - 3.2 Materials are cut to cutting list requirements in accordance with workplace procedures or industry practice
 - 3.3 Metal, timber or uPVC components of the window or door are assembled in accordance with recognised industry standards
 - 3.4 Fittings are installed to window or door in accordance with workplace procedures or industry practice
 - 3.5 Window or door is installed in opening using appropriate fixing method in accordance with recognised industry standard
- 4 Complete work
 - 4.1 Installed window or door is inspected for quality of work and repaired, re-fabricated or reinstalled, as required, in accordance with workplace procedures
 - 4.2 Material which can be re-used is collected and stored

- 4.3 Waste and scrap material are removed for disposal or recycling, as required
- 4.4 Work area is cleaned and rubbish disposed of, as appropriate
- 4.5 Tools, equipment and unused materials are cleaned and removed and stored appropriately
- 4.6 Workplace documentation is completed in accordance with workplace requirements, including calculating the cost of glass, fittings, materials and labour

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
- Residential windows include:**
- aluminium or steel sliding
 - timber or uPVC framed
 - double hung
 - casement and awning windows
 - louvre windows
 - double glazed windows
- Residential doors include:**
- aluminium or steel sliding
 - timber framed
 - hinged
 - bi-fold doors
- Tools and equipment include:**
- assembly benches
 - hand, drop and up-cut saws
 - pneumatic equipment
 - hydraulic and manual presses
 - frame and sash tooling
 - copy routers
 - end millers
 - crimpers
 - electric and pneumatic powered drills and screwdrivers
 - pop rivet guns
 - heat guns for uPVC
 - glue guns
 - general hand tools
- Materials include:**
- aluminium alloys and steel
 - uPVC
 - hardware

- fasteners (screws, pop rivets and knock-downs)
 - plastics
 - sealants
 - tapes
 - gaskets
 - flashings
 - timber
 - timber reveals
- Glass includes:**
- annealed glass
 - safety glass
 - patterned glass
 - tinted
 - heat reflective
 - insulated glass units (IGU)
- Hardware includes:**
- locks
 - wheels
 - stays
 - hinges
 - springs and balances and any component required for the operation of residential windows
- 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
 - Australian Standards:
 - AS 2047:2014 Windows in buildings - Selection and installation; section 6 regarding construction and section 8 on labelling and certification of glass installations
 - AS 1288:2006 Glass in buildings - Selection and installation
 - AS/NZS 4667:2000 Quality requirements for cut-to-size

and processed glass

- AS/NZS 4666:2012 Insulating glass units
- AS/NZS 4668:2000 Glossary of terms used in the glass and glazing industry

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.

- the Window Energy Rating System (WERS)

Unit Mapping Information

Supersedes and is equivalent to LMFGG3016C Fabricate and install residential windows and doors.

Links

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