



Australian Government

MSFGG4020 Perform laser measurement and levelling of glass windows and doors

Release: 1

MSFGG4020 Perform laser measurement and levelling of glass windows and doors

Modification History

Release 1. Supersedes and is equivalent to MSFGG4012 Perform laser measurement and levelling for glass windows and doors in buildings. Changes to title, application, elements, performance criteria and assessment requirements.

Application

This unit describes the skills and knowledge required to plan for work, take accurate measurements, make alignment calculations and level and align glass windows and doors.

Workers with this competency undertake routine tasks on residential and non-residential/commercial sites according to job instructions and workplace procedures using discretion, judgement and problem-solving to identify and resolve routine issues. They work with a high degree of self-direction under routine supervision, and they are responsible for their output.

At the time of this unit's release, the work described in this unit does not require licensing or certification, but state or territory authorities should be consulted to determine the current status. Workers on construction sites are required by law to complete induction training. They must also comply with relevant legislation, Australian Standards, codes and manufacturers' installation instructions.

Competency Field

Glass and glazing

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for laser measurement and levelling	1.1 Read and interpret installation requirements from job instructions and manufacturers' installation instructions 1.2 Identify hazards and check risk treatments are in place and operating 1.3 Select and check all required tools and equipment are ready to use, and organise to fix any deficiencies according to workplace procedures 1.4 Plan the work sequence to ensure an efficient, quality installation 1.5 Gather the windows, doors, jacking bolts, shims, packers, fasteners and other materials required by job instructions, and check they meet quality requirements and are prepared and ready to install according to

Elements	Performance Criteria
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	manufacturers' instructions
2. Use laser devices to make measurements	2.1 Make, interpret and record accurate measurements using laser levelling devices according to workplace procedures 2.2 Locate or set up a datum point from measurements 2.3 Take readings to the datum point and at nominated stations, according to job instructions
3. Perform levelling	3.1 Make levelling realignment calculations using the correct instrument 3.2 Level and align the glass window or door components according to the manufacturers' installation instructions and job instructions 3.3 Temporarily fix the glass window or door components in position 3.4 Adjust the temporary positioning for level, and fix the glass window or door in position using appropriate fasteners
4. Complete the task according to workplace procedures	4.1 Close down levelling equipment and notify appropriate personnel of the completed installation 4.2 Clean up the work area, identify items for recycling and dispose of waste 4.3 Identify, tag and report any damage to equipment and tools 4.4 Check, clean and do routine maintenance on equipment and tools and store them and unused materials 4.5 Complete task outcome documentation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

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

Unit Mapping Information

Supersedes and is equivalent to MSFGG4012 Perform laser measurement and levelling for glass windows and doors in buildings.

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 MSFGG4020 Perform laser measurement and levelling of glass windows and doors

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Performance Evidence

There must be evidence the candidate has completed the tasks in the elements and performance criteria of this unit of competency and has demonstrated the ability to:

- in two locations:
 - set up the laser levelling device to ensure accurate measurements
 - level and align, either sub-frame or sub-channel, for installation in buildings:
 - a glass door
 - a shopfront
 - a glass balustrade
 - confirm the accuracy of the measurements taken.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles of levelling and alignment and numerical operations, geometry and calculations and/or formulae for levelling, including Reduced Level (RL)
- the requirements of AS 2047 Windows and external glazed doors in buildings (current at the time of publication. If this is revised, the superseding standard must be used.)
- the safe and correct use of, and maintenance requirements for, tools and equipment for performing laser measurement and levelling of glass windows and doors
- glass product specifications and tolerances plus or minus 1 mm and size over a distance
- manufacturers' use and maintenance instructions for levelling devices, including the:
 - rotating laser level
 - line and dot level
 - dual beam level
 - laser square level
- manufacturers' installation instructions for windows, doors, jacking bolts, shims, packers and fasteners
- the most common issues that can arise when performing laser measurement and levelling of glass windows and doors and how to avoid and respond to them
- workplace policies and procedures relevant to their job role and responsibilities including for:

- performing laser measurement and levelling of glass windows and doors
- communication and reporting
- environmental protection and sustainability, including waste
- quality indicators for completed work
- work health and safety, including use of personal protective equipment and safety data sheets
- work planning
- how to identify if glass windows and doors are not levelled correctly, and the consequences of not levelling them correctly

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:
 - buildings in which to level, outline and install glass windows and doors
 - windows, doors, jacking bolts, shims, packers, fasteners and other materials required by job instructions
 - laser levelling equipment and other tools and equipment required for the activities set out in the elements and performance criteria, including those to control hazards
 - job instructions and workplace procedures.

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

Links

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