



Australian Government

Department of Education, Employment and Workplace Relations

LMFGG2010B Fabricate and install insect and security screens

Revision Number: 1

LMFGG2010B Fabricate and install insect and security screens

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit addresses the knowledge and skills required to measure, fabricate and install insect screens, security doors and window grills.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan for work	<p>1.1. Work requirements in the form of type of insect or security screen to be fabricated and installed are identified from work instructions. This includes the identification of its pattern or plan</p> <p>1.2. Workplace health and safety requirements for fabrication and installation of insect or security screens, including personal protection needs, are observed throughout the work</p> <p>1.3. The process for fabricating and installing insect or security screens is identified</p> <p>1.4. Quantities of materials required are calculated from plans or work instructions or by measuring the screen opening in accordance with Australian Standards and industry practice</p> <p>1.5. Cutting lists are prepared from plans, work instructions or measurements of opening to suit the type of screen to be installed</p> <p>1.6. Fittings, fixings and joining devices or materials are selected in line with specifications or type of materials to be joined or fixed</p> <p>1.7. Tools and equipment appropriate to the work method are identified</p>
2. Prepare for work	<p>2.1. Work sequence is determined in a logical order to suit the job</p> <p>2.2. Tools, equipment and materials are selected and checked prior to use to ensure that they are appropriate for the work, serviceable and in a safe condition</p> <p>2.3. Components of the insect or security screen are checked against specifications or job order for: size, quantity, finish and profile</p>
3. Fabricate and install insect or security screen	<p>3.1. Materials are measured and marked to cutting list requirements and most economical use of materials</p> <p>3.2. Materials are cut and stamped to cutting list requirements in accordance with workplace procedures or industry practice</p> <p>3.3. Components of insect or security screen are assembled in accordance with recognised industry standards</p> <p>3.4. Fittings are installed to screen in accordance with workplace procedures or industry practice</p>

ELEMENT	PERFORMANCE CRITERIA
	3.5. Insect or security screen is installed in opening in accordance with recognised industry standards
4. Complete work	4.1. Installed insect or security screen is inspected for quality of work and repaired, refabricated or reinstalled as required in accordance with workplace procedures 4.2. Material which can be reused is collected and stored 4.3. Waste and scrap materials 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

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to work orders, basic plans, and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with work supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities including the preparation and layout of the work area and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, calculate work requirements, optimise glass sizes for economical cutting and assemble required materials
- use pre-checking and inspection techniques to plan work, avoiding re-working and wastage
- use the limited workplace technology related to the fabrication and installation of insect and security screens

Required knowledge

- workflow in relation to the fabrication and installation of insect and security screens
- characteristics of materials used and uses of products produced
- workplace safety system requirements related to fabricating and installing insect and security screens
- identification of equipment, processes and procedures
- relevant Australian Standards

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence

- Plan the fabrication and installation of insect and security screens
- Interpret work order/job instruction and locate and apply relevant information to fabricate and install insect and security screens
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection practices to:
 - minimise the risk of injury to self and others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- As a minimum, demonstrate the ability to:
 - measure for insect and security windows and doors
 - identify and select product materials used within the industry/workplace
 - fabricate frame and components, including optimisation of materials, cutting, tooling, drilling and crimping to ensure compliance to Australian Standards
 - identify, select and install component hardware including wheels, hinges, guides, locks and closures
 - assemble frames including mesh and grills to comply with Australian Standard requirements
 - apply fixing techniques and procedures relating to the correct installation of insect and security screens, doors and window grills
 - apply current Australian Standards and type testing procedures
 - calculate cost of insect and security screens and doors
- Work effectively with others
- Modify activities to cater for variations in workplace

EVIDENCE GUIDE	
	contexts and environment.
Resource implications	Aluminium framing material, aluminium security grill material, aluminium sheeting, insect screen mesh, fittings, fixing/fasteners, workplace operating procedures, personal protective equipment and an appropriate work area.
Method of assessment	<p>Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.</p> <p>Assessment should be by direct observation of tasks and questioning on underpinning knowledge.</p> <p>Assessment may be in conjunction with assessment of other relevant units of competency.</p>
Context of assessment	Assessment may occur on the job or in a workplace simulated facility with relevant fabrication and installation equipment, materials, work instructions and deadlines.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Unit context

- Work requires individuals to demonstrate discretion, judgement and problem solving skills in the fabrication and installation process
- Work is carried out in accordance with statutory requirements, environment legislation, manual handling procedures and relevant regulations, Australian standards and organisation insurance requirements
- OHS requirements may include legislation, standards, building codes, material safety management systems and local safe operating procedures
- Work is generally performed individually, with general supervision and may be part of a production process

Insect and security screens may include:

- fixed
- sliding and emergency exit grills to suit various commercial and domestic window types
- sliding and hinged door applications

Tools and equipment are to include:

- assembly benches
- drop and up-cut saws
- pneumatic and manual presses
- stamping and notching tools
- copy routers
- end millers
- crimpers
- electric and pneumatic powered drills and screwdrivers
- pop rivet guns
- fly screen spline rollers
- soft rubber mallets
- knives
- bolt cutters or mechanical shears

RANGE STATEMENT	
Materials are to include but are not limited to:	<ul style="list-style-type: none"> • extruded door framing • corner stakes • interlocks • fly mesh • security mesh • fittings and fixing/fasteners and anti jemmy protection hardware
Fittings include:	<ul style="list-style-type: none"> • hinges • wheels • lock mechanisms that comply with Australian standards • door closures and lock guards
Personal protective equipment	<p>Personal protective equipment is to include that prescribed under legislation, regulation and Australian Standard policies and practices. It may include:</p> <ul style="list-style-type: none"> • gauntlets • gloves • safety glasses • safety footwear • hard hats • aprons and overalls
Information and procedures	<ul style="list-style-type: none"> • Workplace procedures relating to the fabrication and installation of insect screens and security doors and windows • Equipment or tool manufacturers' specifications and operational procedures • Work instructions, including job sheets, plans, drawings and designs • Safety standards include personal protective equipment, OHS regulations and enterprise requirements • Australian Standards

Unit Sector(s)

Unit sector	Glass and Glazing
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		