



Australian Government

Department of Education, Employment and Workplace Relations

PRMPFES34A Install hinged fire and smoke doors

Release: 1

PRMPFES34A Install hinged fire and smoke doors

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency covers the installation and adjustment of hinged fire and smoke doors fitted into a metal, composite, or timber frame. The unit covers the knowledge and skills required to install fire and smoke door frames, panels, hardware and seals, as well as tagging and certification procedures. Installation of hinged fire and smoke doors must be completed in accordance with relevant legislative, industry and organisational requirements, including occupational health and safety (OHS) policies and procedures.

Note: The passive fire service technician is not permitted to undertake any installation, replacement, maintenance and repair functions that are restricted to licensed trades or occupations (subject to relevant state/territory regulations).

Application of the Unit

Not Applicable

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Not Applicable

Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

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| 1 Interpret and comply with legal and industry requirements relating to the installation of hinged fire and smoke doors | 1.1 Apply knowledge and understanding of <i>legislative and industry requirements</i> , including relevant state/territory building codes, to <i>fire and smoke door</i> installations and associated <i>work procedures</i> |
| | 1.2 Confirm or clarify knowledge and understanding of <i>legislative and industry requirements</i> , including state/territory building codes, where necessary, with relevant persons using <i>technical terminology</i> |
| | 1.3 Identify <i>potential and actual breaches</i> of <i>legislative and industry requirements</i> relating to hinged <i>fire and smoke doors</i> and take action according to <i>organisational requirements</i> and <i>OHS policies and procedures</i> |
| 2 Identify work processes and assemble relevant parts for the installation of the hinged fire and smoke door | 2.1 Obtain all necessary work permits prior to entering customer premises |
| | 2.2 Discuss <i>customer requirements</i> with customer prior to proceeding to the installation |
| | 2.3 Apply relevant measurement processes to the installation site and hinged <i>fire and smoke door components</i> |
| | 2.4 Identify and assemble <i>components</i> , tools and equipment and materials required for the installation |
| | 2.5 Identify and assemble appropriate <i>hardware items</i> and <i>door seals</i> required for the installation of a hinged <i>fire and smoke door</i> assembly |
| 3 Install door frame | 3.1 Check <i>wall construction</i> compliance with the required smoke resistance level or fire resistance level |
| | 3.2 Prepare, measure and mark <i>fire and smoke door</i> frame |
| | 3.3 Securely fix <i>fire and smoke door</i> frame in accordance with the assignment instructions and manufacturers' installation specifications, including any requirements for back filling in accordance with Australian Standards |
| 4 Install door panel, door hardware and door seals | 4.1 Prepare door panels and necessary hardware items in accordance with assignment instructions and manufacturers' installation specifications |

ELEMENT**PERFORMANCE CRITERIA**

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| | 4.2 Prepare, measure and mark <i>fire and smoke door</i> for installation into the door frame and for the provision of door <i>hardware</i> |
| | 4.3 Hang door panel correctly in position in accordance with assignment instructions and manufacturers' installation specifications with particular attention to operational clearances |
| | 4.4 Fix door <i>hardware items</i> and <i>door seals</i> in accordance with <i>work instructions</i> and manufacturers' installation specifications |
| | 4.5 Test <i>fire and smoke door</i> for <i>defects</i> and to check for smooth operation according to standard testing procedures and in accordance with manufacturers' specifications and Australian Standards |
| | 4.6 Rectify and report on any impediments to smooth operation according to <i>organisational requirements</i> |
| 5 Tag (mark) and certify fire and smoke door | 5.1 Tag (mark) and label <i>fire and smoke doors</i> according to the provisions of the relevant Australian Standard and <i>organisational requirements</i> |
| | 5.2 Complete <i>fire and smoke door schedule of evidence of compliance (logbook)</i> according to the relevant Australian Standard and according to organisational and customer requirements |
| 6 Complete installation | 6.1 Ensure customer premises are left in a clean and tidy condition on completion of installation functions |
| | 6.2 Complete <i>documentation</i> and distribute according to <i>organisational and customer requirements</i> |

Required Skills and Knowledge

Refer to Evidence Guide

Evidence Guide

EVIDENCE GUIDE

Knowledge needed to achieve the performance criteria

Knowledge and understanding are essential to apply this unit of competency in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below.

- Key features of legislation, Australian Standards and building code requirements relating to installing hinged fire and smoke doors/shutters.
- Key features of legislation, Australian Standards and building code requirements relating to fire and smoke containment.
- Purpose and interpretation of Australian Standards and technical documentation, including manufacturers' standards relating to hinged fire and smoke doors/shutters.
- The implications of not applying legislative requirements to job functions.
- The dangers of incorrect installation of fire and smoke doors.
- Principles of passive fire protection related to overall fire safety and containment systems specific to hinged fire and smoke doors/shutters.
- Action to take when a breach of health, safety and/or other policy occurs.
- Methods of converting imperial units of measurement to metric.
- Technical terms relating to fire and smoke door installation.
- Fire and smoke door variables including types, components, seals and wall types.
- Range of fire and smoke door tags.
- Organisational requirements for tagging and certifying fire and smoke doors.
- Procedures for determining fire resistance levels.

Specific skills needed to achieve the performance criteria

To achieve the performance criteria, some complementary skills are required. These relate to the ability to:

- identify, select and comply with appropriate Australian Standard(s) and related legislation
- select and use appropriate tools relating to installation procedures
- recognise and identify components of fire and smoke doors
- plan and organise work according to organisational requirements
- follow safe work procedures and identify potential and existing risks or hazards
- select and use personal protective equipment
- work with tools, equipment and products safely
- apply principles of workplace housekeeping
- apply literacy and language skills to:
 - use technical terminology relating to installing hinged fire and smoke doors/shutters and work practices
 - understand and comply with work instructions
 - interpret manufacturers' installation specifications and maintenance instructions
 - access information from manuals
 - find and use written information including building specifications
 - communicate technical information to customers and colleagues
 - complete and distribute relevant documentation.

Other units of competency that could be assessed with this unit

This unit could be assessed on its own or in combination with other competencies relevant to the job function, for example PRMPFES35A Inspect and test hinged fire and smoke doors.

Resources required to assess this unit

The following resources should be available:

- actual or simulated work environment
- access to relevant standards and legislation
- access to a variety of installation (hinged fire and smoke door) procedures
- assessment documentation
- training and assessment record book.

Gaining evidence to assess this unit

For valid and reliable assessment of this unit, the competency should be demonstrated over a period of time and be observed by the assessor (or assessment team working together to conduct the assessment). The competency is to be demonstrated in a range of situations, which may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace.

Consideration should be given to assessing consistency of outcome over an adequate period of time.

Candidates should also be given the opportunity to practise and undertake self-assessment of performance before requesting formal assessment.

All safety requirements must be adhered to during all practical activities.

Performance and assessment of this unit must be carried out within the relevant requirements of the following legislative and industry framework:

- building Acts/regulations/codes
- Australian Standards identified as relevant to the work procedure
- environmental regulations
- manufacturers' specifications
- organisational requirements, including OHS policies and procedures
- OHS legislation, codes and regulations.

Oral questioning or a written assessment may be used to assess underpinning knowledge. (In assessment situations where the candidate is offered a preference between oral questioning and written assessment, questions are to be identical.)

Assessment of evidence should establish the candidate's ability to perform the job to the standard required in the workplace. Supplementary evidence may be obtained from relevant authenticated correspondence or reports from supervisors or team leaders.

Competency in this unit may be gathered from practical demonstrations in each of the following categories:

- Door frame into masonry or timber wall.
- Door panel into steel, composite or timber frame.

Key competency levels

There are a number of processes learnt throughout work and daily life that are required in all jobs. They are fundamental processes and generally transferable to other work environments. Some of these work processes are covered by the key competencies listed below. Information provided to each question highlights how these processes are applied in this unit of competency.

The number in brackets indicates the level to which the key competency should be demonstrated.

- 1** Perform the process **2** Perform and administer the process **3** Perform, administer and design the process

How can information be collected, analysed and organised (2) ?	Collect information from a variety of sources during the installation process such as assignment instructions, manufacturers' and product specifications while identifying and applying relevant legislative and industry requirements.
How can communication of ideas and information (1) be applied?	Discuss assignment instructions with internal and external customers ensuring ideas are communicated and complete formal documentation where required.
How are activities planned and organised (2) ?	Plan installation procedures while monitoring assignments for timeliness, time management, safety, legislative and organisational requirements.
How can teamwork (1) be applied?	Cooperatively work with colleagues and customers throughout the installation process.
How can the use of mathematical ideas and techniques (2) be applied?	Apply basic mathematical techniques, including reading mathematical information from manufacturers' instructions and building plans and measuring hardware and other components.
How can problem-solving skills (1) be applied?	Identify during the installation process defects that may be rectified and/or recorded and reported.
How can the use of technology (2) be applied?	Demonstrate understanding and apply technological principles during the installation process.

Range Statement

RANGE STATEMENT

The range statement links the required knowledge and organisational and technical requirements to the workplace context. It describes any contextual variables that will be used or encountered when applying the competency in work situations. It allows for different work practices and work and knowledge requirements as well as for differences between organisations and workplaces. The following variables may be present for this particular unit. **Legislative and industry requirements** may include:

- relevant Commonwealth and state/territory building Acts/regulations/codes
- OHS legislation, codes and regulations
- relevant current Australian Standards

- Building Code of Australia
- dangerous goods regulations
- licensing arrangements
- environmental regulations
- building surveyor requirements
- other relevant legislation relating to passive fire protection.

Work procedures may include:

- instructions from colleagues/supervisor/manager
- specific customer requirements
- assignment instructions
- equipment manufacturers' requirements
- reporting and documentation requirements
- personal protective equipment requirements.

Relevant persons may include:

- building supervisor/manager
- team leaders
- supervisors
- managers
- colleagues
- customers.

Technical terminology - common technical terms used in the installation of fire and smoke doors include:

- plumb, level, square and perpendicular
- frame, gap, seal, housing, plinth, handle, lever, hole, groove and hinge (removable and fixed)
- arch, width, height, door perimeter, door bottom and threshold
- ambient/cold smoke, medium smoke and elevated/hot smoke
- intumescent fire seal and smoke seal
- clearance, door panel, door leaf, rebate, frame stop, frame reveal, frame clear opening and meeting stile
- single swing door, double action door, single leaf door, double leaf door, sliding door, automatic door and roller shutter.

Potential and actual breaches of legislative and industry requirements could be identified by:

- direct observation
- as part of workplace quality assurance teams.

Organisational requirements may be located in quality assurance and/or procedures manuals relating to:

- legal and organisational policy/guidelines
- personnel practices and guidelines outlining work roles, responsibilities and delegations
- legislation relevant to the service operation
- OHS policies, procedures and programs
- documentation and information systems and processes
- use of electronic job scheduling and communication devices.

OHS policies and procedures may relate to:

- employer/employee rights and responsibilities
- the OHS hierarchy of control
- assessing the worksite for hazards and risks prior to preparing the worksite for the work procedure
- displaying signs and/or utilising barriers in the work area
- hazard and risk identification and reporting
- risk assessment and control measures
- incident/accident investigation
- OHS audits and safety inspections
- safe operating procedures/instructions including:
 - working safely around electrical wiring, cables and overhead powerlines
 - working safely around tools and equipment
 - working safely on ladders and raised platforms
 - risk and hazard recognition
 - emergency procedures
 - awareness of electrical hazards
 - following confined spaces procedures
 - utilising personal protective equipment including:
 - safety glasses or goggles
 - safety boots or shoes
 - hard hat
 - ear muffs or plugs
 - appropriate gloves and overalls
 - sun hat
 - dust mask
- equipment maintenance and use
- use and storage of hazardous substances
- First Aid.

Customer requirements may include:

- provision of routine services
- provision of non-routine or urgent services
- confirmation of, or variations to, service instructions
- sighting work permits
- sign-in/out procedures for entry to or exit from premises
- written or verbal confirmation of services provided and/or future maintenance schedule.

Fire and smoke door types include:

- timber
- metal
- composite.

Components may include:

- fasteners
- locks
- hinges
- handles.

Hardware items may include:

- locks
- automatic closers
- hinges
- panic exit devices
- door strike
- electric door strike
- kick plates
- identifying signs (e.g. smoke door/fire door).

Door seals may include:

- smoke seals
- fire/intumescent seals
- perimeter seals
- door bottom seals
- automatic door bottom seals
- threshold plates
- meeting stile seals.

Wall construction may be:

- drywall (plasterboard or lightweight construction)
- masonry (brick, blockwork or pre-cast concrete panels).

Defects may include items that do not comply with:

- the requirements of the necessary legislation
- Australian Standards
- manufacturers' instructions.

Marking and labelling requirements are set out in the relevant Australian Standard.

Schedule of evidence of compliance is set out in the relevant Australian Standard.

Documentation may include:

- job card
- customer recommendation form
- service agreements
- equipment recommendation form
- corrective action report
- certificate of inspection
- product documentation/installation instructions
- maintenance record system.

Note: Australian Standards are frequently revised and users must always check for currency.

Unit Sector(s)

Not Applicable