



Australian Government

Department of Education, Employment and Workplace Relations

CPCCSI2007A Apply fasteners and fixings

Release: 1

CPCCSI2007A Apply fasteners and fixings

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to apply proprietary fasteners and fixings in a range of fastening activities undertaken with a range of common construction materials.

Application of the Unit

Application of the unit This unit of competency supports the achievement of skills and knowledge covers to identify and use light gauge fasteners and fixings.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
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Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare work.	<p>1.1. Quality assurance requirements of signage operations are recognised and adhered to.</p> <p>1.2. Safety (OHS) requirements are in accordance with application tasks and workplace operations recognised and adhered to.</p> <p>1.3. Job requirements are identified from drawings, specifications, instructions and client briefs.</p> <p>1.4. Specifications, drawings and instructions interpreted and job requirements and sequence, determined.</p> <p>1.5. Tools and equipment and materials are selected to carry out tasks consistent with job requirements.</p> <p>1.6. Substrates are identified and prepared in accordance with planned material application.</p> <p>1.7. Material safety data sheets (MSDS) are referred to as required.</p>
2. Assess substrate and material to be fastened or fixed and apply fasteners and fixings.	<p>2.1. Substrate is assessed for its compatibility with fasteners and fixings proposed to fix sign.</p> <p>2.2. Material is assessed for its compatibility with proposed fasteners and fixings to be used.</p> <p>2.3. Purpose of materials to be fastened or fixed is identified and assessed for tolerances.</p> <p>2.4. Fasteners and fixings are applied according to manufacturer specifications.</p>
3. Clean up finished sign.	<p>3.1. Sign and surrounding surface environment/area are cleaned and waste materials are removed in accordance with statutory and regulatory authority requirements.</p> <p>3.2. Tools and equipment, including personal protective equipment, are cleaned, maintained and stored.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

REQUIRED SKILLS AND KNOWLEDGE

Required skills for this unit are:

- ability to correctly access and use substrate and materials
- ability to recognise procedures, respond to change and contribute to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems
- ability to transfer measurements accurately from drawings to surfaces
- communication skills to:
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret drawings, specifications and documentation from a variety of sources
 - report faults
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- innovation skills to select appropriate tools and equipment, respond to workplace challenges and put ideas into action
- organisational skills, including the ability to plan and set out work
- problem solving skills to recognise, and take action to rectify, minor faults and problems
- teamwork skills to be able to coordinate with others, action tasks and relate to people from a range of social, cultural, ethnic backgrounds and with varying physical and mental abilities.

Required knowledge

Required knowledge for this unit is:

- job safety analysis (JSA) and safe work method statements
- bonding ability of mechanical and chemical fasteners and fixings
- effect of mechanical and chemical products on substrates
- load bearing specifications for a range of fastener and fixing measurements and calculations related to material quantities
- MSDS
- relevant Australian and New Zealand standards, and:
 - manufacturer specifications
 - OHS requirements
 - other applicable codes or standard operating procedures relevant to the sector
- statutory and regulatory authority requirements, particularly those relating to:
 - removal of waste products
 - storage of chemicals and materials

REQUIRED SKILLS AND KNOWLEDGE

- types and uses of tools and equipment relevant to fasteners and fixings.

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.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- recognising the correct fastening and fixing method for particular substrates
- using the appropriate fastener or fixing for safe and secure fastening.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to apply fasteners and fixings
- support materials appropriate to activity
- workplace instructions relating to applying fasteners and fixings
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes

EVIDENCE GUIDE

where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated

EVIDENCE GUIDE

documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

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.

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|---|--|
| <p>1.1. <i>Quality assurance requirements</i> include:</p> | <ul style="list-style-type: none"> • attention to work specifications • Australian and international standards relevant to the sign industry • control of handling procedures • internal company quality assurance policy and risk management strategies • procedures for installing and finishing • quality of materials • use and maintenance of equipment • workplace operations and procedures. |
| <p>1.2. <i>Safety (OHS)</i> is to be in accordance with state and territory legislation and regulations and project safety plan and may include:</p> | <ul style="list-style-type: none"> • emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation • hazard control • hazardous materials and substances • organisational first aid • PPE prescribed under legislation, regulations and workplace policies and practices • safe operating procedures, including the conduct of operational risk assessment and treatments associated with: <ul style="list-style-type: none"> • concealed services (water, power and gas) • lighting • restricted access barriers • traffic control |

RANGE STATEMENT

- work site visitors and the public
 - working in confined spaces
 - working in proximity to others
 - use of firefighting equipment
 - use of machines
 - use of tools and equipment
 - workplace environmental requirements and safety.
- 1.3. ***Job requirements*** include:
- assessment of conditions and hazards
 - determination of work requirements
 - equipment defect identification
 - safety plans and policies
 - work site inspection.
- 1.4. ***Tools and equipment*** include:
- drafting equipment
 - drills
 - ladders
 - measuring tapes and rules
 - planks
 - pop rivets
 - scaffolding
 - screwdrivers
 - straight edges.
- 1.5. ***Substrates*** include:
- acrylic
 - corflute
 - glass
 - masonry
 - metal
 - plasterboard
 - timber.
- 1.6. ***Fasteners and fixings*** include:
- chemical fasteners, including:
 - construction adhesive
 - injection systems
 - spin capsules
 - hammer-in capsules
 - light duty anchors, including:
 - electrical clips
 - nylon anchors
 - hollow wall anchors
 - plastic toggles

RANGE STATEMENT

1.7. *Statutory and regulatory authority requirements* include:

- metal toggles
- multi-clips
- medium duty anchors, including:
 - lug anchors
 - steel ferrule expanding bolts
- screws, including:
 - metal screws
 - chipboard screws
 - plasterboard screws.
- federal, state and local authorities administering applicable Acts, regulations and codes of practice and also can pertain to:
 - removal of waste products
 - storage of chemicals.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area