



Australian Government

Department of Education, Employment and Workplace Relations

CPCCBL2002A Use bricklaying and blocklaying tools and equipment

Release: 1

CPCCB2002A Use bricklaying and blocklaying tools and equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to use tools and equipment used in bricklaying and blocklaying safely and effectively. It includes the identification, selection and use of hand and power tools, plant and equipment used in masonry work.

Application of the Unit

Application of the unit This unit of competency supports achievement of skills for the identification, selection, preparation and safe and effective application of hand and power tools, plant and equipment for their intended bricklaying and blocklaying tasks.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry

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. Prepare for work.	1.1. Work instructions, including plans, specifications, quality requirements and operational details, are obtained, confirmed and applied from relevant information. 1.2. Safety (OHS) requirements are followed in accordance with safety plans and policies. 1.3. Signage and barricade requirements are identified and implemented. 1.4. Environmental requirements are identified for the project in accordance with environmental plans and statutory and regulatory authority obligations, and are applied.
2. Identify hand and power tools.	2.1. Types and functions of bricklaying and blocklaying hand and power tools, plant and equipment to be used in the bricklaying and blocklaying work are identified. 2.2. Methods of operation of hand and power tools are identified from specifications, standards and manufacturers' instructions. 2.3. Specific OHS requirements for specific hand and power tools are identified and applied. 2.4. Personal protective equipment required for the operation of the tools is identified in accordance with regulatory and workplace requirements.
3. Select tools for work.	3.1. Tools and personal protective equipment are selected consistent with job requirements and bricklaying and blocklaying tasks. 3.2. Tools, including leads and hoses, are checked for tags, serviceability and safety and any faults are reported to supervisor. 3.3. Power tools guards, guides and controls are checked and maintained in accordance with manufacturer recommendations. 3.4. Equipment to hold or support material during operation is selected and inspected for faults. 3.5. Pre-operational checks, including lubricants, hydraulic fluid and water are completed, where required, according to manufacturer recommendations.
4. Use tools.	4.1. Power and compressed air supply to work area are connected in accordance with regulatory

ELEMENT**PERFORMANCE CRITERIA**

	requirements and codes of practice.
	4.2. Start up and shut down procedures are observed.
	4.3. Tools are used safely and effectively according to manufacturer recommendations and regulatory requirements.
	4.4. Tools are safely located when not in use.
5. Identify and select plant and equipment.	5.1. Function and limitations of plant and equipment to be used in the bricklaying and blocklaying work are identified.
	5.2. Method of operation of plant and equipment is identified from specifications, standards and manufacturers' instructions.
	5.3. OHS requirements for specific plant and equipment, including requirements for guarding, guiding and controls, are identified and applied.
	5.4. Personal protective equipment required for the operation of plant and equipment is identified in accordance with regulatory and workplace requirements.
	5.5. Items of plant and equipment are selected consistent with hazard minimisation and needs of the job.
	5.6. Plant and equipment are checked for safety, and faults are reported to supervisor.
	5.7. OHS requirements for operating and using plant and equipment are recognised and adhered to.
6. Use plant and equipment.	6.1. Start up and shut down procedures are observed.
	6.2. Plant and equipment are used safely and effectively according to manufacturer recommendations and statutory and regulatory authority requirements.
	6.3. Plant and equipment are safely switched and located when not in use.
7. Clean up.	7.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.
	7.2. Machinery, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- 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 and specifications
 - manufacturers' instructions
 - other relevant documentation
 - report faults
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- numeracy skills to apply measurements and make calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
 - use a range of mobile technology, such as two-way radio and mobile phones
 - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- applications, limitations and method of operation and maintenance of hand and power tools, plant and equipment applicable to bricklaying and blocklaying tasks
- construction terminology
- hazards associated with the use of bricklaying and blocklaying tools, plant and equipment
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, specifications and drawings
- processes for the calculation of material requirements
- quality requirements

REQUIRED SKILLS AND KNOWLEDGE

- workplace and equipment safety requirements.

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 the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others
- use prescribed brick and blocklaying tools and equipment
- set up a cement mixer and mix mortar for the next task
- construct a brick wall 600mm high and at least 1200mm long in stretcher bond with a round iron joint finish with all halves to be hand cut and scutched
- use a jig saw to develop an arch centre or curved wall template
- use a brick saw to cut:
 - a 110mm bat
 - a 170mm (3/4) bat
 - a queen closure
 - a split

EVIDENCE GUIDE

- a compound mitre
- use a block saw to cut 10 of each 200 and 100 series blocks to various sizes.

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 applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

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

EVIDENCE GUIDE

- 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 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.

RANGE STATEMENT

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions where specified
- memos
- MSDS
- organisation work specifications and requirements
- plans and specifications
- regulatory and legislative requirements pertaining to the use of bricklaying and blocklaying hand and power tools, plant and equipment
- relevant Australian standards
- safe work procedures related to the use of bricklaying and blocklaying hand and power tools, plant and equipment
- signage
- verbal or written and graphical instructions
- work bulletins
- work schedules.

Safety (OHS) is to be in accordance with legislation, regulations, codes of practice, organisational safety policies and procedures, and project safety plan and may include:

- emergency procedures, including emergency shutdown and stopping, extinguishing fires, organisational first aid requirements and evacuation
- handling of materials
- hazard control
- hazardous materials and substances
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - earth leakage boxes
 - lighting
 - power cables, including overhead service trays, cables and conduits
 - restricted access barriers
 - traffic control
 - trip hazards
 - underground services, including water, gas, electricity and communications

RANGE STATEMENT

	• work site visitors and the public • working at heights • working in proximity to others • working with dangerous materials • organisational first aid • personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices • use of firefighting equipment • use of tools and equipment • workplace environment and safety.
<i>Environmental requirements</i> include:	• clean-up protection • noise and dust • vibration • waste management.
<i>Statutory and regulatory authorities</i> include:	• federal, state and local authorities administering applicable Acts, regulations and codes of practice.
<i>Hand and power tools, plant and equipment:</i>	• include those required to facilitate the effective laying of bricks and blocks and include: • bolsters • brick grabs • brooms • builders' lines • concrete mixers • hammers (brickies, club and scutch) • hoses • jig saws • jointing tools • line blocks • line pins • masonry saws • measuring tapes and rules • mortar boards • profiles • rakes • shovels • spirit levels • straight edges

RANGE STATEMENT

- trowels
 - wheelbarrows
 - may include:
 - bricksaws
 - circular saws
 - elevators
 - materials hoists
 - scaffolds
 - small petrol or diesel engines, compressors or mixers.
 - include all clay brick (wire cut/pressed) and concrete block (hollow and solid) masonry work
 - may be performed on a new construction site, an existing structure being renovated or extended or an existing structure subject to service restoration or maintenance.
- Bricklaying and blocklaying tasks:***

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area