



Australian Government

Department of Education, Employment and Workplace Relations

CPCCST3003A Split stone manually

Release: 1

CPCST3003A Split stone manually

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the outcomes required to split stone using a range of methods for both hard and soft stone.

Application of the Unit

Application of the unit This unit of competency supports the achievement of skills and knowledge to split stone manually, which may include working with others and as a member of a team.

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.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Tools and equipment</i> selected to carry out tasks are consistent with job requirements, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Material quantity requirements are calculated in accordance with plans, specifications and <i>quality requirements</i>.</p> <p>1.6. <i>Materials</i> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and <i>statutory and regulatory authority</i> requirements, and are applied.</p>
2. Use a range of methods for splitting stone.	<p>2.1. Alternative methods are identified for drilling and <i>splitting stone</i>.</p> <p>2.2. Stone is split and squared by drilling and using plugs and feathers.</p> <p>2.3. Holes are set out to line and spacings and drilled to depths as specified for type and size of stone.</p> <p>2.4. Guillotine principles are applied and used for splitting various thicknesses of slabbed stone as required by job or organisation.</p> <p>2.5. Stone is split using natural lines of cleavage.</p>
3. Clean up work.	<p>3.1. Stone surfaces are finished as required by job and specifications.</p> <p>3.2. Work is cleaned on completion with fresh water and brushes if necessary.</p> <p>3.3. Waste materials are disposed of in an appropriate manner and in accordance with Environment Protection Authority (EPA) requirements.</p>

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:

- ability to recognise procedures, respond to change and contribute to workplace responsibilities, such as current work site environmental or sustainability frameworks or management systems
- communication skills to:
 - 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
 - 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
- numeracy skills to apply measurements and calculations
- problem solving skills to recognise and take action to rectify minor faults and problems
- teamwork skills to be able to work with others to action tasks and relate to people from a range of cultural, social, ethnic backgrounds and with varying physical and mental abilities.

Required knowledge

Required knowledge for this unit is:

- interpretation of working drawings and specifications relevant to stonemasonry work
- job safety analysis (JSA) and safe work method statements
- material handling techniques associated with stonemasonry work
- measuring and marking techniques relevant to splitting stone
- methods of splitting stone
- regulations related to safe waste disposal and dust suppression
- types of stone and their characteristics
- 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 split stones to thickness both with and against the grain, providing evidence of the ability to:

- comply with OHS regulations applicable to workplace operations
- apply organisational quality procedures and processes within context of splitting stone
- select and use appropriate processes, tools and equipment to carry out tasks
- split both hard and soft stone
- sequence appropriate tasks associated with splitting stone
- adopt and use safe and effective procedures when using power tools and splitting of stone.

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:

- workplace location
- hand tools and equipment appropriate to splitting stone
- stone appropriate to activity
- drawings, specifications and documentation

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relevant to activity.

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
- confirm a reasonable inference that competency is not only verified under the particular assessment circumstance, but is 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 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,

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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.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- material safety data sheets (MSDS)
- memos
- regulatory and legislative requirements pertaining to handling stone
- relevant Australian standards
- safe work procedures relating to handling stone
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Planning and preparation include:

- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

RANGE STATEMENT

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- 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:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.

Tools and equipment include:

- axes
- bush hammers
- chisels
- masonry drills
- patent axes
- plugs and feathers
- poky
- sledge hammers
- spalling hammers
- splitting wedges.

Quality requirements include:

- attention to specifications of work
- procedures in splitting stone
- relevant regulations, including:
 - Australian standards
 - internal company quality policy and standards
 - manufacturer specifications where

RANGE STATEMENT

- specified
- workplace operations and procedures
 - use and maintenance of equipment.
- Materials** include hard and soft stones, such as:
- basalt (blue stone)
 - granite
 - limestone
 - locally available stone
 - porphyry
 - sandstone
 - slate.
- Environmental requirements** include:
- clean-up management
 - dust and noise
 - vibration
 - waste management.
- Statutory and regulatory authority** include:
- federal, state and local authorities administering applicable Acts, regulations and codes of practice.
- Splitting stone** methods may include:
- expanding grout
 - freezing
 - hydra splitting
 - plugs and feathers
 - v-cut and wedging.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units

Functional area

Functional area