

Unit of Competency CPCPRF3022

Fabricate and install roof drainage systems

Application

This unit specifies the skills and knowledge required to fabricate and install roof drainage systems and associated rainwater components.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

CPCPCM2055 Work safely on roofs

Elements and Performance Criteria

1. Identify installation requirements.	<ul style="list-style-type: none">1.1 Access, read and determine roof drainage system installation requirements from job specifications, relevant Australian Standards, codes, manufacturers' instructions and jurisdictional requirements.1.2 Identify and apply workplace, work health and safety (WHS) and environmental and sustainability requirements.1.3 Calculate material quantities from plans and specifications.1.4 Draw fabrication pattern based on plans and specifications as required.1.5 Determine type and size of gutters, downpipes and support system from plans and specifications and to comply with relevant Australian Standards.1.6 Confirm materials are compatible with the roof in accordance with workplace procedures.
2. Prepare for work.	<ul style="list-style-type: none">2.1 Create a materials list and collect materials.2.2 Select appropriate tools and equipment including personal protective equipment (PPE).2.3 Identify materials and equipment required to complete work tasks.2.4 Inspect access to roof work area and ensure fall protection equipment is in place if required.
3. Fabricate roof drainage components.	<ul style="list-style-type: none">3.1 Mark out material according to pattern drawings or plans and specifications.3.2 Perform fabrication of roof drainage component in accordance with current Australian Standards and manufacturers' instructions.3.3 Fasten and seal the roof drainage component to comply with current Australian Standards and manufacturers' instructions if required.
4. Install roof drainage components.	<ul style="list-style-type: none">4.1 Set out the location of roof drainage components according to plans and specifications.4.2 Install the support system to suit the roof drainage component if required.4.3 Install the roof drainage component in accordance with current Australian Standards and manufacturers' instructions.

5. Clean up.	<p>5.1 Clear the work area and dispose of, reuse or recycle materials in accordance with state or territory legislation and workplace requirements.</p> <p>5.2 Clean tools and equipment, check for serviceability and report any damage, and store and secure.</p>
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Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCPRF3022A Fabricate and install roof drainage components.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPRF3022

Fabricate and install roof drainage systems

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by using metal to fabricate and install:

- a valley gutter
- a fascia, including one internal and one external angle, that is attached to an approved support system and a minimum of three metres in length
- an eaves gutter, including:
 - gutter support system
 - nozzle
 - stop end
 - internal and external angle
 - fall
 - overflow measure
 - expansion allowance
- a downpipe, including:
 - offset
 - spreader
 - fixings
- a box gutter, including:
 - overflow measures
 - sump or rainwater head
 - expansion allowance
 - gutter support system
 - ridged support
 - fasteners and sealants.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- current standards and codes for roof drainage systems:
 - National Construction Code (NCC)
 - AS/NZS 3500 Plumbing and drainage Set
 - HB39 Installation code for metal roof and wall cladding
- types and sizes of gutters, downpipes and support system
- installation requirements:

- o appropriate falls
 - o pitches
 - o overflow measures
 - o support and fixings
 - o cross-sectional area
 - o expansions allowances
 - o environmental conditions
 - o approved sealants and fixings
 - o capillary action
 - o electrolysis
- tools, materials and equipment used to fabricate and install roof drainage systems
- work health and safety (WHS) requirements for fabricating and installing roof drainage systems.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

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