

Unit of Competency CPCPDR 3025

Plan layout and install vacuum drainage systems

Application

This unit specifies the skills and knowledge required to prepare for the layout and installation of sewage and waste discharge from fixtures to the point of connection in new or existing, domestic and commercial structures.

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

Elements and Performance Criteria

1. Identify installation requirements.	<p>1.1 Access, read and determine installation requirements from job specifications, relevant Australian Standards, codes, manufacturer's specifications and jurisdictional requirements.</p> <p>1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.</p> <p>1.3 Plan and record layout of vacuum drainage system.</p>
2. Prepare for work.	<p>2.1 Establish fixtures and materials and calculate quantities.</p> <p>2.2 Create a materials list and collect materials.</p> <p>2.3 Select appropriate tools and equipment including personal protective equipment (PPE).</p>
3. Install vacuum drainage.	<p>3.1 Establish and set out levels and heights to align with existing or new connection points.</p> <p>3.2 Perform installation of above ground vacuum drainage pipes in accordance with AS/NZS 3500.2 Plumbing and drainage – Sanitary plumbing and drainage.</p> <p>3.3 Excavate trench to specified depth and grade using manual tools and equipment or mechanical means.</p> <p>3.4 Compact and fill trench base to determined height.</p> <p>3.5 Measure, cut and install vacuum drainage pipework.</p> <p>3.6 Connect to new or existing system.</p> <p>3.7 Check and test installation.</p> <p>3.8 Prepare an as constructed drawing.</p>
4. Clean up.	<p>4.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state and territory legislation and workplace policies and procedures.</p> <p>4.2 Clean tools and equipment, check for serviceability reporting any damage, store and secure.</p>

Foundation skills

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

Unit Mapping Information

No equivalent unit.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPDR3025

Plan layout and install vacuum drainage systems

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- preparing an as constructed drawing to jurisdictional requirements
- planning and installing a vacuum drainage system with a minimum drain length of 3 metres vertical and 5 metres horizontal to connect a:
 - o vacuum water closet (VWC) pan
 - o buffer, both gravity drainage inlet and vacuum waste outlet
 - o vacuum automatic interface unit (VAIU)
 - o vacuum main pipeline to a vacuum station
- cutting in a branch to an existing drain connecting a new VWC pan and another buffer
- joining two branches together
- fabricating a vacuum reforming pocket both open and closed.

All installations must comply with and support fixings of pipe works.

Knowledge Evidence

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

- terminology relating to the installation of below- and above-ground vacuum drainage systems
- principles of vacuum drainage design, working drawings conventions, symbols and abbreviations
- trench support where applicable
- inspection openings
- approved materials, their characteristics and application for the installation of below- and above-ground vacuum drainage systems
- processes, procedures and techniques for the installation of below- and above-ground vacuum drainage systems, including testing
- how to access relevant information, including codes and standards
- tools, materials and equipment used to plan the layout and installation of below- and above-ground vacuum drainage systems
- work health and safety (WHS) requirements for planning the layout and installation of below- and above-ground vacuum 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.

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