

Unit of Competency CPCPGS3056

Size and install consumer gas piping systems

Application

This unit specifies the skills and knowledge required to size and install consumer gas piping.

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.	1.1 Access, read and determine consumer gas service installation requirements from job specifications, relevant Australian Standards, codes, manufacturer's specifications and jurisdictional requirements. 1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.
2. Prepare for work.	2.1 Estimate material quantities. 2.2 Create a materials list and collect materials. 2.3 Select appropriate tools and equipment including personal protective equipment (PPE).
3. Size and Install gas piping system.	3.1 Perform sizing of gas piping system. 3.2 Set out and install consumer gas piping system. 3.3 Test gas piping system using appropriate testing equipment. 3.4 Repair any identified leaks and retest. 3.5 Purge gas piping system. 3.6 Complete documentation according to regulatory requirements and workplace procedures.
4. Clean up.	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. 4.2 Clean tools and equipment, check for serviceability reporting any damage, store and secure.

Foundation skills

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

Unit Mapping Information

Supersedes and is non-equivalent to CPCPGS3056A Install gas piping systems, and CPCPGS3057A Size consumer gas piping systems.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPGS3056 Size and install consumer gas piping systems

Performance Evidence

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

- sizing and installing, in accordance with manufacturers specifications, Australian standards and jurisdictional requirements:
 - one natural gas (NG) consumer piping systems supplying three certified Type A appliances using two different piping systems, one of which must be a composite material
 - one single stage liquid petroleum gas (LPG) consumer piping systems supplying three certified Type A appliances using two different piping systems, one of which must be a composite material.

Knowledge Evidence

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

- pipe sizing including:
 - appliance pressure and gas consumption requirements
 - properties of gas
 - length of run
 - allowable pressure drop
 - available pressure
- approved materials, their limitations and application for installing gas piping systems, including:
 - testing for gas-tightness
 - using current testing equipment
- electrical safety and required precautions
- how to access relevant information, including codes and standards
- tools, materials and equipment used to size and install consumer gas piping
- work health and safety (WHS) requirements to size and install consumer gas piping
- properties of gas, gas safety, combustion principles, pressure and flow rates.

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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