

# Unit of Competency CPCPMS3035

## Install and test ducting systems

### Application

This unit specifies the skills and knowledge required to install and test ducting systems used for ventilation systems, heating and/or cooling systems, and exhaust systems.

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.	<ul style="list-style-type: none"><li>1.1 Access, read and determine install and test ducting systems installation requirements from job specifications, relevant Australian Standards, codes, manufacturer's specifications and jurisdictional requirements.</li><li>1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.</li></ul>
2. Prepare for work.	<ul style="list-style-type: none"><li>2.1 Create a materials list and collect materials.</li><li>2.2 Select and check serviceability of appropriate tools, equipment and personal protective equipment (PPE).</li></ul>
3. Install and insulate duct system.	<ul style="list-style-type: none"><li>3.1 Set out system to comply with plans and specifications.</li><li>3.2 Position duct supports and fixings to comply with plans, job requirements and manufacturer's specifications.</li><li>3.3 Install duct work in accordance with plans and specifications.</li><li>3.4 Assemble and seal joints in accordance with plans and manufacturer's specifications</li><li>3.5 Install duct system in specified location without damage or distortion to surrounding environment or other services and in accordance with relevant standards.</li><li>3.6 Install insulation materials in specified location without damage or distortion to surrounding environment or other services and in accordance with relevant standards.</li><li>3.7 Install diffusers and terminal devices in accordance with plans and specifications and job requirements.</li></ul>
4. Test duct work.	<ul style="list-style-type: none"><li>4.1 Determine test requirements from plans and specifications.</li><li>4.2 Select and test duct work under pressure in accordance with instructions and workplace procedures.</li><li>4.3 Identify and repair leaks using specified procedures and materials to ensure correct flow operation.</li><li>4.4 Complete documentation according to relevant regulatory requirements and or workplace requirements.</li></ul>
5. Clean up.	<ul style="list-style-type: none"><li>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.</li><li>4.2 Clean tools and equipment, check for serviceability and report any damage, and store and secure according to workplace procedures.</li></ul>

## 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 CPCPMS3035A Install and test ducting systems.

## Links

Companion Volume Implementation Guide:

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

# Assessment Requirements for CPCPMS3035 Install and test ducting systems

## Performance Evidence

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

- locating, interpreting and applying relevant information, standards and specifications to install and test small ducting systems
- installing, insulating, testing and balancing ductwork from a fan coiled unit to three outlet grilles given the plans and specifications.

The installation must incorporate hard and flexible duct work, including one transition piece and air control dampers.

## Knowledge Evidence

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

- application of flow rates, pressure and volume principles to testing procedures
- characteristics of materials used in the system being tested
- processes of installing, insulating and testing ducting
- system types and identification of system components
- techniques for setting out, assembling, fixing and jointing duct work systems and components, including insulation and acoustic materials
- types of repairs for detected leaks in the duct work system
- how to access relevant information, including codes and standards
- tools, materials and equipment used to install and test ducting systems
- work health and safety (WHS) requirements to install and test ducting systems.

## Assessment Conditions

Assessors must meet the requirements for assessors contained 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

Companion Volume Implementation Guide:

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