

Unit of Competency CPCPFS3044

Install distribution and range pipes

Application

This unit of competency specifies the skills and knowledge required to install distribution and range pipes to carry all commonly used fire extinguishing agents, above and below ground. The installation may involve a new system or an alteration (extension or modification) to an existing system.

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 Obtain, read and determine distribution and range pipes requirements from relevant job plans and specifications, codes, Australian Standards, 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>
2. Prepare for work.	<p>2.1 Create a materials list and collect materials.</p> <p>2.2 Select and check the serviceability of appropriate tools and equipment, including personal protective equipment (PPE).</p> <p>2.3 Prepare work area to support efficient installation of distribution and range pipes.</p>
3. Install piping system.	<p>3.1 Set out pipework and install pipe supports and fixings.</p> <p>3.2 Apply piping and materials.</p> <p>3.3 Attach mechanical jointing systems.</p> <p>3.4 Isolate and drain down system prior to installing pipework to avoid water damage when altering existing systems.</p> <p>3.5 Reinstate after completing works for water tightness.</p> <p>3.6 Complete documentation and submit within required timeframes.</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 and report any damage, and 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

Supersedes and is equivalent to CPCPFS3044A Install distribution and range pipes.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPFS3044

Install distribution and range pipes

Performance Evidence

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

- installing distribution and range pipes in both:
 - a new automated fire sprinkler system
 - an existing automated fire sprinkler system, incorporating two rolled grooves, three threaded joins, one mechanical Tee and one barrel union
- providing a free-flowing and leak-free water supply to at least three branches of new and an existing system
- installing a range to feed two sprinkler heads using a mechanical Tee and support all pipework according to AS 2118 Automatic fire sprinkler systems
- relocating two sprinklers in an existing system, including draining down the system.

Knowledge Evidence

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

- legislation, regulations, standards and codes
- processes, procedures and techniques of:
 - installing distribution and range pipes
 - fixing and joining of pipes
 - levelling and alignment
 - roll grooving
- applications of sustainability concepts and principles relating to plumbing, encompassing water and resource usage
- materials storage and environmentally responsible waste disposal relating to distribution and range pipe installation
- general fire protection systems terminology
- functional and operational features of tools and equipment used to install distribution and range pipes:
 - threading machines
 - roll grooving machines
 - roll grooving measuring devices
 - ladders
 - pipe wrenches
 - steel pipe
 - roll grooved and threaded fittings and valves
 - elevated work platform (EWP)
 - sockets

- o impact drills
 - o threaded rod cutters
 - o hammers and punches
- identification of incorrect roll grooving
- characteristics, application and limitation of approved materials and components:
 - o pipe fittings and fixture supports
 - o above and below ground pipework
- how to access relevant information including job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements
- tools, materials and equipment used for installing distribution and range pipes
- work health and safety (WHS) requirements for installing distribution and range pipes
- installation requirements for installing distribution, pipework above and below ground and range pipes.

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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