

Unit of Competency CPCPFS3048

Install fixed fire pumpsets

Application

This unit of competency specifies the skills and knowledge required to install fixed fire pumpsets, including the pump base, power sources, pumps, pipework and associated components in new or existing, domestic or 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. Plan the work.	<ul style="list-style-type: none">1.1 Access, read and apply fixed fire pumpsets installation requirements relevant job plans and specifications, codes, Australian Standards, 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.	<ul style="list-style-type: none">2.1 Create a materials list and collect materials2.2 Identify materials and components and calculate quantities.2.3 Check conformity of materials and components with delivery docket.2.4 Sequence tasks.2.5 Inspect site and determine location for fixed fire pumpset.2.6 Carry out preparation of work area to ensure efficient installation.2.7 Identify pump base requirements from drawings and specifications.2.8 Select and check the serviceability of appropriate tools, equipment and personal protective equipment (PPE).
3. Install fixed fire pumpsets.	<ul style="list-style-type: none">3.1 Set out and install pump base.3.2 Perform the installation of pumpset, pipework and associated valves.3.3 Check pipework, connections and pumpset valves to ensure they are watertight and operating correctly.3.4 Pressure test piping system and record results.3.5 Test pumpset and record test data in required format.3.6 Complete documentation as required.
4. Clean up.	<ul style="list-style-type: none">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 and report any damage, and 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 equivalent to CPCPFS3048A Install fixed fire pumpsets.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPFS3048 Install fixed fire pumpsets

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by installing fixed fire pumpsets to *AS 2419 Fire hydrant installations system design, installation and commissioning*, including:

- installing pump base and pump
- installing pipework and associated valves and components
- installing pressure relief valve and line
- pressure testing piping system and pumpset
- pressure maintenance pump (jockey pump)
- pump start arrangement (pressure switch loop).

Knowledge Evidence

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

- procedures and techniques for:
 - o installation of fixed fire pumpset
 - o pressure testing equipment
 - o aligning pump and driver
- structural systems, building materials and services that support or surround fixed fire pumpsets
- characteristics, applications and limitations of approved materials and components of fixed fire pumpsets, above and below ground
- types and operation of pumps used in fire protection:
 - o end suction
 - o multistage multi outlet centrifugal
 - o split case
 - o turbine
 - o screw
 - o jacking pumps
 - o jockey pumps
- types, requirements and operation of pump control panels
- pump room requirements
 - o ventilation requirements
- vibration dampening
- flexible tube vibration isolation
- diesel driver exhaust sizing requirements

- materials storage and environmentally responsible waste disposal relating to installing fixed fire pumpsets
- how to access relevant information, including relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements to install fixed fire pumpsets
- tools, materials and equipment used to install fixed fire pumpsets
- work health and safety (WHS) requirements to install fixed fire pumpsets.

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

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