

Unit of Competency CPCPIG3022

Install and commission domestic irrigation pumps

Application

This unit specifies the skills and knowledge required to install and commission domestic irrigation pumps.

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. Prepare for work.	<ul style="list-style-type: none">1.1 Obtain irrigation plans and specifications and inspect site.1.2 Adhere to work health and safety (WHS) and environmental requirements associated with installing and commissioning domestic irrigation pumps throughout work.1.3 Identify and adhere to quality assurance requirements according to workplace requirements.1.4 Plan and sequence tasks in conjunction with others involved in or affected by the work and statutory and regulatory authorities' requirements.1.5 Select and check tools and equipment, including personal protective equipment (PPE), for installing and commissioning domestic irrigation pumps for serviceability.1.6 Prepare work area to support efficient installation and commissioning of domestic irrigation pumps.
2. Identify installation requirements.	<ul style="list-style-type: none">2.1 Identify irrigation system requirements from plans, specifications and relevant information.2.2 Select pump and installation materials according to type, installation, range of flow rates, operating head and delivery distance.2.3 Identify, order and collect pump, according to workplace procedures.2.4 Check pump for compliance with standards, docket and order form, and for acceptable condition.
3. Install and commission pump.	<ul style="list-style-type: none">3.1 Set out pump position to comply with irrigation plans and manufacturer recommendations.3.2 Install pump base according to plans and specifications and sustainability principles and concepts.3.3 Position and fix pump onto base.3.4 Connect suction and discharge lines to pump according to manufacturer specifications.3.5 Pressure test piping according to job specifications.3.6 Test and adjust operation of pump to achieve effective operation according to job and manufacturer specifications.3.7 Record and document test data in format required by quality assurance procedures.

4. Clean up.	4.1 Clear work area and dispose of reused or recycled materials according to legislation, regulations, codes of practice and job specification. 4.2 Clean, check, maintain and store tools and equipment according to manufacturer recommendations and workplace procedures. 4.3 Complete documentation according to workplace requirements.
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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 CPCPIG3022A Install and commission domestic irrigation pumps

Links

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

Assessment Requirements for CPCPIG3022 Install and commission domestic irrigation pumps

Performance Evidence

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

- installing and commissioning for operation, a centrifugal pump (25 mm suction and 25 mm delivery) to comply with given plans and specifications for a domestic irrigation system.

Knowledge Evidence

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

- characteristics and application of different pipes and fittings, including:
 - o fixing and joining techniques and methods
 - o flow rates
- processes for accessing information and for calculating material requirements
- properties of water, including pressure and flow rates
- relevant statutory and authority requirements related to installing and commissioning domestic irrigation pumps
- SI system of measurement
- mechanical, hydraulic and electrical principles
- standards applicable to the installation
- levelling and alignment processes
- processes for accessing information and for calculating material requirements various types of domestic irrigation pumps
- process of installing and commissioning domestic irrigation pumps
- workplace and equipment safety requirements.

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.

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