



Australian Government

Assessment Requirements for AHCIRG309 Install irrigation pumps

Release: 1

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Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- follow plans, charts and instructions
- handle materials safely
- identify and respond to operational problems
- match pump output and flow rate to pipe diameter
- monitor the performance of valves
- open and close valves
- organise equipment and materials for installation work
- perform work-related calculations
- position pumps and valves
- prime and operate pumps
- set out and prepare the site
- use power tools and hand tools
- weld in both poly and steel

Knowledge Evidence

The candidate must explain:

- advantages and disadvantages of each pump type
- automatic pump switches including timers, pressure switches, irrigation controllers and flow switches
- basic principles of hydraulics (flow vs. pressure), energy loss due to friction
- characteristics and application of different valves, pipes and fittings including fixing and joining techniques and methods
- discharge and flow rates
- impellers, rotors, stators
- installation procedures for irrigation pumps

- properties of water including pressure and flow rates
- pump components and their principles of operation
- pump gauges and controls
- pump performance and pressure testing
- servicing requirements for pumps
- types of pumps and their application in irrigation, such as centrifugal, vertical turbine, submersible and propeller
- types of valves
- types suitable as booster and floating pumps

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>