



Australian Government

MEM30010 Set up basic hydraulic circuits

Release: 1

MEM30010 Set up basic hydraulic circuits

Modification History

Release 1. Supersedes and is equivalent to MEM30010A Set up basic hydraulic circuits.

Application

This unit of competency defines the skills and knowledge required to set up and select components associated with single linear hydraulic systems.

This unit applies to all manufacturing and engineering workplace environments. It refers to simple hydraulic circuits containing single linear actuators and motors and is limited to linear actuators, motors, control valves and to the selection and verification of components for simple hydraulic circuits.

The unit applies to engineering or related activities and is suitable for people giving technical support in manufacturing or engineering operations and those pursuing technical qualifications and careers at paraprofessional or technician level. All work is carried out under supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Engineering technician

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine system requirements	1.1 Follow standard operating procedures (SOPs) and comply with work health and safety (WHS) requirements at all times 1.2 Obtain instructions regarding system requirements and clarify as necessary 1.3 Correctly interpret circuit drawings using standard symbols
2. Select components for simple hydraulic circuits	2.1 Select suitable fire-resistant fluids for hydraulic systems from specification charts

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Select linear actuators and motors to suit system requirements 2.3 Select control valves to suit system requirements 2.4 Select pipe or hose and fittings to suit system requirements
3. Verify component selection	3.1 Set up and trial basic hydraulic circuits on laboratory benches 3.2 Store approved sketches, drawings, specifications and catalogues 3.3 Issue approved sketches, drawings or specifications 3.4 Analyse operation and verify outcomes against system requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Safety procedures include:	- selecting a suitable fire-resistant fluid for a system, given its operating conditions - following required precautions when changing a system from one fluid to another - ensuring stored energy is released prior to commencing other work - using lock-out procedures.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM30010A Set up basic hydraulic circuits.

Links

Companion Volume Implementation Guides are available on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>