



**Australian Government**

# **MEM18071 Connect and disconnect fluid conveying system components**

**Release: 1**

# MEM18071 Connect and disconnect fluid conveying system components

## Modification History

Release 1. Supersedes and is equivalent to MEM18071B Connect/disconnect fluid conveying system components

## Application

This unit of competency defines the skills and knowledge required to safely remove and replace a range of fluid conveying components and assemblies, and inspect/test fluid conveying assemblies.

It applies to repairs and replacement to pressure and suction systems on fixed and mobile plant/equipment, including marine, heavy plant and manufacturing plant applications with system pressures range of 10.5 MPa to 35 MPa, ranging up to 70 MPa.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

This unit should not be selected when unit MEM18055 Dismantle, replace and assemble engineering components or unit MEM27017 Maintain, fault find and rectify hydraulic systems for mobile plant has already been selected.

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

**Band: A**

**Unit Weight: 2**

## Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13003	Work safely with industrial chemicals and materials
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools

## Competency Field

Maintenance and diagnostics

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Determine job requirements</b>	<p>1.1 Follow standard operating procedures (SOPs)</p> <p>1.2 Comply with work health and safety (WHS) requirements at all times</p> <p>1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs</p> <p>1.4 Identify job requirements from specifications, job sheets or work instructions</p>
2	<b>Disconnect fluid conveying components and assemblies</b>	<p>2.1 Carry out safety/risk assessment, identify potentially hazardous situations/conditions and position safety devices</p> <p>2.2 Note, record and label lay out of fluid conveying conductor</p> <p>2.3 Identify faulty component/assembly using specific troubleshooting procedures, reference documents and fluid power principles</p> <p>2.4 Disconnect and remove fluid conveying components and assemblies using appropriate tools, equipment, procedures and techniques</p> <p>2.5 Seal open system adequately with standard or special purpose sealing materials</p>
3	<b>Obtain replacement parts</b>	<p>3.1 Select replacement parts from manufacturer catalogues and other relevant reference sources according to international standards and specifications</p>
4	<b>Test and store</b>	<p>4.1 Pressure test fluid conveying assemblies and individual components according to industry and manufacturer</p>

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>components</b>		standards and using fluid power principles
	4.2	Assess and note condition
	4.3	Clean, seal and store components/assemblies according to industry and manufacturer standards
5	<b>Connect fluid conveying components and assemblies</b>	5.1 Check connections and prepare for reconnection
		5.2 Connect components and assemblies to equipment to specifications using appropriate techniques
		5.3 Remove tagged out equipment, signage and safety blocking devices according to SOPs
		5.4 Check equipment and fluid conveying systems and functional test, including in-situ and high pressure test rigs for correct operation according to manufacturer and industry standards
6	<b>Report results</b>	6.1 Follow reporting and certification procedures
		6.2 Complete all relevant information

## Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

**Fluid conveying applications include one**

- hydraulic
- pneumatic

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**(1) or more of the following:**

- water
- gas
- acids/corrosives/alkalines
- abrasives
- petroleum
- other dry/wet media

**Potentially hazardous situations/ conditions include one (1) or more of the following:**

- accumulated pressure
- contamination
- fluid handling

**Components and assemblies include one (1) or more of the following:**

- high pressure seals
- seats
- hoses
- tubes
- pipes
- fittings
- connectors
- adaptors and anchors
- other associated attachments

## Unit Mapping Information

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## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>