



**Australian Government**

# **MEM18019 Maintain pneumatic systems**

**Release: 2**

# MEM18019 Maintain pneumatic systems

## Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM18019 Maintain pneumatic systems (Release 1).

Release 1. Supersedes and is equivalent to MEM18019B Maintain pneumatic systems.

## Application

This unit of competency defines the skills and knowledge required to undertake preventive maintenance checks/adjustments on pneumatic systems, and fault-find, replace, repair or overhaul and recommission pneumatic systems.

It applies to pneumatic systems in industrial and mobile plant and equipment used in manufacturing, agricultural, forestry, mining and transport industries.

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

Band: B

Unit Weight: 4

## Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18003	Use tools for precision work
MEM18006	Perform precision fitting of engineering components
MEM18018	Maintain pneumatic system components

MEM18055 Dismantle, replace and assemble engineering components

## 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, drawings, job sheets or work instructions</p>   |
| 2 | <b>Undertake preventative maintenance checks/adjustments on pneumatic systems</b> | <p>2.1 Identify system components, assemblies or sub-assemblies and prepare for inspection/preventative maintenance</p> <p>2.2 Carry out visual inspection and testing with appropriate test equipment according to fluid power principles, procedures and safety requirements</p> <p>2.3 Perform scheduled preventative maintenance tasks, including obvious repairs and adjustments, according to manufacturers' specification using fluid power techniques/practices</p> |
| 3 | <b>Undertake fault-finding on pneumatic systems</b>                               | <p>3.1 Identify designated pneumatic system components and carry out visual inspection of the system for the collection of fault-finding data</p> <p>3.2 Consult system operator and collect additional data, where appropriate</p>   |

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.
		3.3 Check maintenance reports and preventative maintenance schedules and review for additional fault-finding data
		3.4 Undertake checks and tests
		3.5 Identify and verify faults and malfunctions
		3.6 Document or report faults and malfunctions to designated personnel using appropriate procedures
4	<b>Repair and/or overhaul pneumatic power system</b>	4.1 Isolate system or sub-assembly and discharge residue pressure safely in accordance with prescribed procedures or check for correct isolation
		4.2 Tag isolated system or sub-assembly according to SOPs
		4.3 Remove component or sub-assembly from system
		4.4 Dismantle components or sub-assemblies, examine and verify for replacement, repair or overhaul
		4.5 Select replacement items from appropriate sources
		4.6 Rectify faulty items
		4.7 Refit component or sub-assembly items to equipment and test for compliance against specifications
5	<b>Recommission pneumatic system</b>	5.1 Re-commission system or sub-assembly according to prescribed procedures and specifications
		5.2 Verify correct operation of the system using fluid power principles and system application techniques
		5.3 Instigate appropriate follow-up procedures
		5.4 Update maintenance records/service reports

## 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.

**Pneumatic systems include one (1) or more of the following:**

- pneumatic assemblies/sub-assemblies
- stationary/mobile equipment
- pneumatic power tools

**Test equipment includes one (1) or more of the following:**

- leak testers
- escape rate gauges
- hand held pressure testers
- other appropriate equipment

**Rectify includes one (1) or more of the following:**

- replacement
- repair and/or reuse of components

## Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM18019 Maintain pneumatic systems (Release 1).

Release 1. Supersedes and is equivalent to MEM18019B Maintain pneumatic systems.

## Links

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