



**Australian Government**

# **MEM20219 Certificate II in Engineering - Production Technology**

# MEM20219 Certificate II in Engineering - Production Technology

## Modification History

Release	Comments
3	Elective units updated.
2	Elective units updated. Supersedes and is equivalent to MEM20219 Certificate II in Engineering - Production Technology (Release 1).
1	This qualification was first released in MEM Manufacturing and Engineering Release 2.0.

## Qualification Description

This qualification defines the skills and knowledge required of an engineering/manufacturing employee within metal, engineering, manufacturing and associated industries.

The skills associated with this qualification are intended to apply to a wide range of engineering/manufacturing work, including production, distribution, stores and warehousing. It provides the skills and knowledge for a person to be responsible for the quality of their own work, work from complex instructions and procedures, coordinate work in a team environment or work individually under general supervision and assist in the provision of on-the-job training of other workers.

This qualification is specifically designed to cover the skills and knowledge required of workers employed as Engineering/Manufacturing Employees - Level IV as defined in the Manufacturing and Associated Industries and Occupations Award.

Assessment of some units of competency must, where indicated, include evidence of the candidate's performance in a functioning workplace where there is a sufficient range of appropriate tasks and/or materials to cover the scope of application of those units. All outcomes must reflect the standard of performance required of the work associated with the Unit/s.

This qualification is not suited and should not be used for people who are not employed in an engineering production or manufacturing environment, nor should it be used for school students unless they are formally engaged in a traineeship in accordance with the Australian Apprenticeships policy.

In some jurisdictions units in this qualification may relate to licensing or regulatory requirements. Local regulations should be checked.

## Licensing/Regulatory Information

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

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To be awarded the MEM20219 Certificate II in Engineering – Production Technology units of competency to the value of 64 points must be achieved, chosen as outlined below:

- core units of competency listed below (totalling 18 points)
- elective units of competency to the value of 46 points from Group A.

Appropriate elective units to the value of 11 points may be chosen from this Training Package, other endorsed Training Packages and accredited courses where those units are available for inclusion at Certificate II. Only select units that would be suitable for occupational outcomes in an engineering/manufacturing environment.

Registered Training Organisations (RTOs) must seek a determination from the industry parties in respect of the allocation of points values for units of competency drawn from other Training Packages or accredited courses. Determination of points requests are to be submitted to the industry parties through Manufacturing Industry Skills Alliance. Refer to the MEM Companion Volume Implementation Guide for information on determination of unit points values.

## Prerequisites

Points associated with prerequisites count towards the total. Units with prerequisite requirements are marked with an asterisk (refer to the individual units for details). All prerequisites are included in the units listed.

## CORE UNITS

Unit code	Unit title	Points	Prerequisites
MEM11011	Undertake manual handling	2	*
MEM12023	Perform engineering measurements	5	*
MEM13015	Work safely and effectively in manufacturing and engineering	2	
MEM16006	Organise and communicate information	2	*
MEM17003	Assist in the provision of on-the-job training	2	*
MEM18001	Use hand tools	2	*

MSMENV272	Participate in environmentally sustainable work practices	3	
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## ELECTIVE UNITS

### Group A

Unit code	Unit title	Points	Prerequisites
CPCCLDG3001	Licence to perform dogging	0	
CPCCLRG3001	Licence to perform rigging basic level	0	*
CPCCLSF2001	Licence to erect, alter and dismantle scaffolding basic level	0	
CPCCLSF3001	Licence to erect, alter and dismantle scaffolding intermediate level	0	*
MEM03001	Perform manual production assembly	4	*
MEM03002	Perform precision assembly	4	*
MEM03003	Perform sheet and plate assembly	4	*
MEM03004	Perform electronic/electrical assembly (production)	8	*
MEM03005	Rework and repair (electrical/electronic production)	8	*
MEM03006	Set assembly stations	2	*
MEM04001	Operate melting furnaces	4	*
MEM04002	Perform gravity die casting	2	*
MEM04003	Operate pressure die casting machine	4	*
MEM04004	Prepare and mix sand for metal moulding	4	*
MEM04006	Operate sand moulding and core making machines	8	*
MEM04007	Pour molten metal	4	*
MEM04008	Fettle and trim metal castings/forgings	4	*
MEM04018	Perform general woodworking machine operations	4	*

MEM04019	Perform refractory installation and repair	4	*
MEM05001	Perform manual soldering/desoldering - electrical/electronic components	4	*
MEM05002	Perform high reliability soldering and desoldering	4	*
MEM05003	Perform soft soldering	2	*
MEM05004	Perform routine oxy fuel gas welding	2	*
MEM05005	Carry out mechanical cutting	2	*
MEM05006	Perform brazing and/or silver soldering	2	*
MEM05007	Perform manual heating and thermal cutting	2	*
MEM05009	Perform automated thermal cutting	2	*
MEM05012	Perform routine manual metal arc welding	2	*
MEM05013	Perform manual production welding	2	*
MEM05014	Monitor quality of production welding/fabrications	2	*
MEM05027	Perform aluminothermic welding	2	*
MEM05049	Perform routine gas tungsten arc welding	2	*
MEM05050	Perform routine gas metal arc welding	2	*
MEM05057	Perform routine submerged arc welding	2	*
MEM06007	Perform basic incidental heat/quenching, tempering and annealing	2	*
MEM06010	Perform hand forging	4	*
MEM07001	Perform operational maintenance of machines/equipment	2	*
MEM07003	Perform routine machine setting	4	*
MEM07004	Perform complex machine setting	8	*
MEM07015	Set computer controlled machines and processes	2	*

MEM07024	Operate and monitor machine and process	4	*
MEM07028	Operate computer controlled machines and processes	2	*
MEM07029	Perform routine sharpening and maintenance of production tools and cutters	4	*
MEM07030	Perform basic metal spinning lathe operations	8	*
MEM07032	Use workshop machines for basic operations	2	*
MEM07033	Operate and monitor basic boiler	6	*
MEM07041	Perform production machining	8	*
MEM08001	Perform wire, jig and barrel load/unload work	4	*
MEM08002	Pre-treat work for subsequent surface coating	4	*
MEM08003	Perform electroplating operations	6	*
MEM08004	Finish work using wet, dry and vapour deposition methods	4	*
MEM08005	Prepare and produce specialised coatings	4	*
MEM08006	Produce clear and/or coloured and/or sealed anodised films on aluminium	2	*
MEM08007	Control surface finish production and finished product quality	4	*
MEM08008	Operate and control surface finishing waste treatment process	3	*
MEM08009	Make up solutions	2	*
MEM08010	Manually finish/polish materials	6	*
MEM08011	Prepare surfaces using solvents and/or mechanical means	2	*
MEM08012	Prepare surfaces by abrasive blasting (basic)	4	*
MEM08013	Prepare surfaces by abrasive blasting (advanced)	4	*
MEM08014	Apply protective coatings (basic)	4	*

MEM08015	Apply protective coatings (advanced)	4	*
MEM08016	Control blast coating by-products, materials and emissions	1	*
MEM08018	Electroplate engineering coatings	6	*
MEM08019	Electroplate protective finishes	6	*
MEM09002	Interpret technical drawing	4	*
MEM10002	Terminate and connect electrical wiring	3	*
MEM10013	Install split air conditioning systems and associated pipework	6	*
MEM11001	Erect/dismantle scaffolding and equipment	4	*
MEM11002	Erect/dismantle intermediate scaffolding and equipment	4	*
MEM11004	Undertake dogging	4	*
MEM11005	Pick and process order	4	*
MEM11006	Perform production packaging	2	*
MEM11007	Administer inventory procedures	4	*
MEM11008	Package materials (stores and warehouse)	2	*
MEM11009	Handle/move bulk fluids/gases	4	*
MEM11010	Operate mobile load shifting equipment	4	*
MEM11013	Undertake warehouse receival process	4	*
MEM11014	Undertake warehouse dispatch process	4	*
MEM11016	Order materials	2	*
MEM11019	Undertake tool store procedures	4	*
MEM11021	Perform advanced operation of load shifting equipment	2	*
MEM11022	Operate fixed/moveable load shifting equipment	4	*

MEM11023	Operate a bridge and gantry crane	4	*
MEM11024	Undertake basic rigging	4	*
MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity	4	*
MEM12001	Use comparison and basic measuring devices	2	*
MEM12002	Perform electrical/electronic measurement	2	*
MEM12019	Measure components using coordinate measuring machines	4	*
MEM12024	Perform computations	3	*
MEM13001	Perform emergency first aid	1	*
MEM13003	Work safely with industrial chemicals and materials	2	*
MEM13004	Work safely with molten metals/glass	2	*
MEM13007	Maintain water treatment systems for cooling towers	2	*
MEM13018	Work safely with ionizing radiation	4	
MEM13019	Undertake work health and safety activities in the workplace	3	
MEM14006	Plan work activities	4	*
MEM15001	Perform basic statistical quality control	2	*
MEM15003	Use improvement processes in team activities	4	*
MEM15004	Perform inspection	2	*
MEM16004	Perform internal/external customer service	2	*
MEM16005	Operate as a team member to conduct manufacturing, engineering or related activities	2	*
MEM16008	Interact with computing technology	2	*
MEM18002	Use power tools/hand held operations	2	*



MEM18055	Dismantle, replace and assemble engineering components	3	*
MEM18083	Handle fluorocarbon refrigerants according to regulations	1	*
MEM18084	Commission and decommission split air conditioning systems	4	*
MEM18086	Test, recover, evacuate and charge refrigeration systems	4	*
MEM18098	Prepare to perform work associated with fuel system installation and servicing	2	*
MEM27029	Maintain wheels and tyres	2	*
MEM27032	Service combustion engines	2	*
TLILIC0003	Licence to operate a forklift truck	0	
TLILIC0004	Licence to operate an order picking forklift truck	0	
TLILIC0016	Licence to operate a bridge and gantry crane	0	
TLILIC0040	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)	0	

## Pre-requisite Requirements

Unit of competency	Prerequisite requirement
MEM11023 Operate a bridge and gantry crane	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM16006 Organise and communicate information	MEM13015 Work safely and effectively in manufacturing and engineering
MEM18086 Test, recover, evacuate and charge refrigeration systems	MEM16006 Organise and communicate information

	<p>MEM18055 Dismantle, replace and assemble engineering components</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>
MEM04018 Perform general woodworking machine operations	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>
MEM03003 Perform sheet and plate assembly	<p>MEM16006 Organise and communicate information</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM18055 Dismantle, replace and assemble engineering components	<p>MEM16006 Organise and communicate information</p> <p>MEM18002 Use power tools/hand held operations</p>

	<p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>
MEM08018 Electroplate engineering coatings	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM07001 Perform operational maintenance of machines/equipment</p> <p>MEM08003 Perform electroplating operations</p> <p>MEM08001 Perform wire, jig and barrel load/unload work</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM27032 Service combustion engines	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05014 Monitor quality of production welding/fabrications	<p>MEM16006 Organise and communicate information</p> <p>MEM14006 Plan work activities</p>

	<p>MEM05056 Perform routine flux core arc welding</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM05012 Perform routine manual metal arc welding</p> <p>MEM05050 Perform routine gas metal arc welding</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM05004 Perform routine oxy fuel gas welding</p> <p>MEM11011 Undertake manual handling</p> <p>MEM05049 Perform routine gas tungsten arc welding</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM05057 Perform routine submerged arc welding</p> <p>MEM09002 Interpret technical drawing</p>
MEM05007 Perform manual heating and thermal cutting	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>

MEM15001 Perform basic statistical quality control	<p>MEM16006 Organise and communicate information</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>
MEM15004 Perform inspection	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07004 Perform complex machine setting	<p>MEM07027 Perform advanced press operations</p> <p>MEM16006 Organise and communicate information</p> <p>MEM07008 Perform grinding operations</p> <p>MEM07026 Perform advanced plastic processing</p> <p>MEM14006 Plan work activities</p> <p>MEM07025 Perform advanced machine and process operation</p> <p>MEM07007 Perform milling operations</p> <p>MEM07041 Perform production machining</p> <p>MEM18001 Use hand tools</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM07013 Perform machining operations using horizontal and vertical boring machines</p>

	<p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p> <p>MEM07006 Perform lathe operations</p>
MEM07028 Operate computer controlled machines and processes	<p>MEM16006 Organise and communicate information</p> <p>MEM07024 Operate and monitor machine and process</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11025 Operate a non-slewing mobile crane of greater than three tonnes capacity	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11009 Handle/move bulk fluids/gases	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11014 Undertake warehouse dispatch process	<p>MEM16006 Organise and communicate information</p> <p>MEM11008 Package materials (stores and warehouse)</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM17003 Assist in the provision of on-the-job training	<p>MEM16006 Organise and communicate information</p>

	MEM13015 Work safely and effectively in manufacturing and engineering
MEM11013 Undertake warehouse receipt process	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM05004 Perform routine oxy fuel gas welding	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM05012 Perform routine manual metal arc welding	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM11021 Perform advanced operation of load shifting equipment	MEM16006 Organise and communicate information MEM11010 Operate mobile load shifting equipment MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM11011 Undertake manual handling	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM18002 Use power tools/hand held operations	MEM16006 Organise and communicate information

	<p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07032 Use workshop machines for basic operations	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08019 Electroplate protective finishes	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM07001 Perform operational maintenance of machines/equipment</p> <p>MEM08003 Perform electroplating operations</p> <p>MEM08001 Perform wire, jig and barrel load/unload work</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07029 Perform routine sharpening and maintenance of production tools and cutters	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>



MEM04006 Operate sand moulding and core making machines	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08008 Operate and control surface finishing waste treatment process	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08009 Make up solutions	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07033 Operate and monitor basic boiler	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05027 Perform aluminothermic welding	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM16005 Operate as a team member to conduct manufacturing, engineering or related activities	<p>MEM16006 Organise and communicate information</p>

	MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM10002 Terminate and connect electrical wiring	MEM16006 Organise and communicate information MEM18001 Use hand tools MEM13015 Work safely and effectively in manufacturing and engineering MEM12002 Perform electrical/electronic measurement MEM09002 Interpret technical drawing
MEM05013 Perform manual production welding	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM04003 Operate pressure die casting machine	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling MEM13004 Work safely with molten metals/glass
MEM11004 Undertake dogging	MEM16006 Organise and communicate information MEM18001 Use hand tools MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM11001 Erect/dismantle scaffolding and equipment	MEM16006 Organise and communicate information

	<p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM03005 Rework and repair (electrical/electronic production)	<p>MEM16006 Organise and communicate information</p> <p>MEM03004 Perform electronic/electrical assembly (production)</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM05001 Perform manual soldering/desoldering - electrical/electronic components</p>
MEM11024 Undertake basic rigging	<p>MEM16006 Organise and communicate information</p> <p>MEM11004 Undertake dogging</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08011 Prepare surfaces using solvents and/or mechanical means	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>

MEM13003 Work safely with industrial chemicals and materials	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07030 Perform basic metal spinning lathe operations	<p>MEM16006 Organise and communicate information</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>
MEM07003 Perform routine machine setting	<p>MEM16006 Organise and communicate information</p> <p>MEM07024 Operate and monitor machine and process</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>
MEM18001 Use hand tools	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>

MEM11016 Order materials	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>
MEM08006 Produce clear and/or coloured and/or sealed anodised films on aluminium	<p>MEM16006 Organise and communicate information</p> <p>MEM08002 Pre-treat work for subsequent surface coating</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05006 Perform brazing and/or silver soldering	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11010 Operate mobile load shifting equipment	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07041 Perform production machining	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>

MEM11008 Package materials (stores and warehouse)	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM27029 Maintain wheels and tyres	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11006 Perform production packaging	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM04002 Perform gravity die casting	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM13004 Work safely with molten metals/glass</p>
MEM05005 Carry out mechanical cutting	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>

MEM13001 Perform emergency first aid	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM06010 Perform hand forging	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07024 Operate and monitor machine and process	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05009 Perform automated thermal cutting	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>
MEM15003 Use improvement processes in team activities	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>
MEM08001 Perform wire, jig and barrel load/unload work	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>

	MEM11011 Undertake manual handling
MEM03004 Perform electronic/electrical assembly (production)	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM14006 Plan work activities	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM03001 Perform manual production assembly	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM08015 Apply protective coatings (advanced)	MEM16006 Organise and communicate information MEM13003 Work safely with industrial chemicals and materials MEM08014 Apply protective coatings (basic) MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM11007 Administer inventory procedures	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM18083 Handle fluorocarbon refrigerants according to regulations	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM05003 Perform soft soldering	MEM16006 Organise and communicate information



	<p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM04004 Prepare and mix sand for metal moulding	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08003 Perform electroplating operations	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM07001 Perform operational maintenance of machines/equipment</p> <p>MEM08001 Perform wire, jig and barrel load/unload work</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM07001 Perform operational maintenance of machines/equipment	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11002 Erect/dismantle intermediate scaffolding and equipment	<p>MEM16006 Organise and communicate information</p> <p>MEM11001 Erect/dismantle scaffolding and equipment</p> <p>MEM18001 Use hand tools</p>

	<p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11019 Undertake tool store procedures	<p>MEM16006 Organise and communicate information</p> <p>MEM11007 Administer inventory procedures</p> <p>MEM12024 Perform computations</p> <p>MEM11013 Undertake warehouse receipt process</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
CPCCLSF3001 Licence to erect, alter and dismantle scaffolding intermediate level	CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level
MEM10013 Install split air conditioning systems and associated pipework	<p>MEM16006 Organise and communicate information</p> <p>MEM18055 Dismantle, replace and assemble engineering components</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM05006 Perform brazing and/or silver soldering</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>

MEM06007 Perform basic incidental heat/quenching, tempering and annealing	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM12002 Perform electrical/electronic measurement	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08010 Manually finish/polish materials	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM04001 Operate melting furnaces	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM13004 Work safely with molten metals/glass</p>
MEM08004 Finish work using wet, dry and vapour deposition methods	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM08002 Pre-treat work for subsequent surface coating</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>

	MEM11011 Undertake manual handling
MEM16008 Interact with computing technology	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM04008 Fettle and trim metal castings/forgings	MEM16006 Organise and communicate information MEM18002 Use power tools/hand held operations MEM18001 Use hand tools MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM08013 Prepare surfaces by abrasive blasting (advanced)	MEM16006 Organise and communicate information MEM13003 Work safely with industrial chemicals and materials MEM08016 Control blast coating by-products, materials and emissions MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling MEM08012 Prepare surfaces by abrasive blasting (basic)
MEM05001 Perform manual soldering/desoldering - electrical/electronic components	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM05050 Perform routine gas metal arc welding	MEM16006 Organise and communicate information

	MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM05049 Perform routine gas tungsten arc welding	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM11022 Operate fixed/moveable load shifting equipment	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM12001 Use comparison and basic measuring devices	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM12024 Perform computations	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM08007 Control surface finish production and finished product quality	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling
MEM03006 Set assembly stations	MEM16006 Organise and communicate information MEM18001 Use hand tools

	<p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08012 Prepare surfaces by abrasive blasting (basic)	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM08016 Control blast coating by-products, materials and emissions</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM13004 Work safely with molten metals/glass	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM12019 Measure components using coordinate measuring machines	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>
MEM03002 Perform precision assembly	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>
MEM09002 Interpret technical drawing	<p>MEM16006 Organise and communicate information</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>

	MEM12023 Perform engineering measurements
MEM12023 Perform engineering measurements	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM18084 Commission and decommission split air conditioning systems	MEM16006 Organise and communicate information MEM18055 Dismantle, replace and assemble engineering components MEM18002 Use power tools/hand held operations MEM18001 Use hand tools MEM12024 Perform computations MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling MEM12023 Perform engineering measurements MEM09002 Interpret technical drawing
MEM16004 Perform internal/external customer service	MEM16006 Organise and communicate information MEM13015 Work safely and effectively in manufacturing and engineering
MEM08014 Apply protective coatings (basic)	MEM16006 Organise and communicate information MEM13003 Work safely with industrial chemicals and materials MEM13015 Work safely and effectively in manufacturing and engineering MEM11011 Undertake manual handling

MEM18098 Prepare to perform work associated with fuel system installation and servicing	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM09002 Interpret technical drawing</p>
MEM04007 Pour molten metal	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM13004 Work safely with molten metals/glass</p>
MEM07015 Set computer controlled machines and processes	<p>MEM16006 Organise and communicate information</p> <p>MEM14006 Plan work activities</p> <p>MEM07028 Operate computer controlled machines and processes</p> <p>MEM18001 Use hand tools</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM07005 Perform general machining</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p> <p>MEM09002 Interpret technical drawing</p>
MEM08016 Control blast coating by-products, materials and emissions	<p>MEM16006 Organise and communicate information</p>



	<p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM04019 Perform refractory installation and repair	<p>MEM16006 Organise and communicate information</p> <p>MEM14006 Plan work activities</p> <p>MEM18002 Use power tools/hand held operations</p> <p>MEM18001 Use hand tools</p> <p>MEM12024 Perform computations</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p> <p>MEM12023 Perform engineering measurements</p>
CPCCLRG3001 Licence to perform rigging basic level	CPCCLDG3001 Licence to perform dogging
MEM08002 Pre-treat work for subsequent surface coating	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05002 Perform high reliability soldering and desoldering	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p>

	<p>MEM05001 Perform manual soldering/desoldering - electrical/electronic components</p> <p>MEM11011 Undertake manual handling</p>
MEM13007 Maintain water treatment systems for cooling towers	<p>MEM16006 Organise and communicate information</p> <p>MEM18001 Use hand tools</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM08005 Prepare and produce specialised coatings	<p>MEM16006 Organise and communicate information</p> <p>MEM13003 Work safely with industrial chemicals and materials</p> <p>MEM08002 Pre-treat work for subsequent surface coating</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM05057 Perform routine submerged arc welding	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>
MEM11005 Pick and process order	<p>MEM16006 Organise and communicate information</p> <p>MEM13015 Work safely and effectively in manufacturing and engineering</p> <p>MEM11011 Undertake manual handling</p>

## Qualification Mapping Information

Current Code and Title	Previous Code and Title	Comments	Equivalence
MEM20219 Certificate II in Engineering - Production Technology	MEM20205 Certificate II in Engineering - Production Technology		Equivalent

## Links

Companion volumes, including implementation guides, are found on the national training register - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=45a7f1d5-61a5-447a-9688-7abbd7e1a5c7>.