



Australian Government

MEM07023 Program and set up CNC manufacturing cell

Release: 2

MEM07023 Program and set up CNC manufacturing cell

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM07023 Program and set up CNC manufacturing cell (Release 1).

Release 1. Supersedes and is equivalent to MEM07023C Program and set up CNC manufacturing cell.

Application

This unit of competency defines the skills and knowledge required to program operations, set up and test the operation of a cell and extends to computer numerically controlled (CNC) machines and associated integrated equipment/robots used in flexible manufacturing cell and other advanced operations.

Where additional machining skills in excess of unit MEM07005 Perform general machining are required appropriate units should also be selected.

Where the selection and use of precision mechanical measurement is required unit MEM12003 Perform precision mechanical measurement should also be selected.

Where the selection and use of power tools/hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

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

Band: B

Unit Weight: 6

Pre-requisite Unit

MEM07015	Set computer controlled machines and processes
MEM07016	Set and edit computer controlled machines and processes
MEM07018	Write basic NC and CNC programs
MEM07019	Program NC and CNC machining centre
MEM07020	Program multiple spindle and multiple axis NC and CNC machining centre
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

Plus, one or more of the following including their prerequisites:

MEM07005	Perform general machining
MEM07028	Operate computer controlled machines and processes

Competency Field

Machine and process operations

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Program operations	2.1	Interpret engineering drawings and manufacturing specifications to determine required equipment
		2.2	Program equipment/cell schedule
		2.3	Link controllers for integration

Elements describe the essential outcomes.

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

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|---|--------------------|-----|---|
| 3 | Set up cell | 3.1 | Configure manufacturing cell machines and equipment to meet production specifications |
| | | 3.2 | Install tooling and work holding devices and adjust to meet specifications |
| | | 3.3 | Operate cell and adjust to produce components to specification |

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, accessibility of the item, and local industry and regional contexts) are included.

CNC manufacturing cell includes (1) one or more of the following:

- multi-spindle machines
- 4 and 5 axis machines
- pallet loaded machining centres

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM07023 Program and set up CNC manufacturing cell (Release 1).

Release 1. Supersedes and is equivalent to MEM07023C Program and set up CNC manufacturing cell.

Links

Companion Volume implementation guides are found in VETNet -

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