



Australian Government

Assessment Requirements for MEM07023 Program and set up CNC manufacturing cell

Release: 2

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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.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, charts, lists, drawings and other applicable reference documents in programming and setting up computer numerically controlled (CNC) manufacturing cell
- loading/downloading CNC programs into individual machine controllers
- writing CNC programs
- linking machine controllers of CNC machines and transferring devices
- positioning machines and equipment to optimise manufacturing cell performance
- selecting and installing tooling and operating the cell to produce components
- checking components or products for conformance to specifications.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- operations to be performed in producing a given part or product
- appropriate types of CNC machines to perform required machining operations
- appropriate means of part or product transfer between machines and reasons for selecting the chosen equipment and machinery
- CNC programs for use in each of the cell components
- sequence of machining and transfer operations and the means of coordinating the operations of all components within the cell
- communication requirements between components of the cell and methods of linking machine controllers
- precautions to be taken when linking machine controllers
- optimum physical relationship between the machines and equipment within a cell

- reasons for selecting a configuration of machines and equipment and appropriate tooling for each component of the cell with reasons for tooling selection
- appropriate work holding devices for each component of the cell and reasons for selecting the chosen work holding devices
- effects of adjustments to tooling and/or work holding devices on the part or product specifications
- operating procedures for a manufacturing cell
- measurements to be taken to check a part or product for conformance to specification and the techniques/equipment to be used to measure the part or product
- effect of adjustments on cell performance
- causes of non-essential dwell times and action to be taken to minimise dwell times.

Assessment Conditions

- Assessors must:
 - have vocational competency in programming and setting up a CNC manufacturing cell at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Links

Companion Volume implementation guides are found in VETNet -

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