



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEM07028B Operate computer controlled machines/processes**

**Release: 1**

## **MEM07028B Operate computer controlled machines/processes**

### **Modification History**

Not Applicable

## Unit Descriptor

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit descriptor</b> | This unit covers obtaining the job instructions, conducting the pre-start checks, and operating and monitoring the computer controlled machine or process. |
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## Application of the Unit

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Application of the unit</b> | <p>This unit applies to a range of NC, CNC and robot operated machines or processes in a production environment.</p> <p>Work is performed to established processes, practices, specifications and instructions as appropriate. Technical difficulties are resolved in consultation with appropriate technical advisers.</p> <p>An appropriate level of measurement skill should be selected with this unit. Where it is required to use tools, then Unit MEM18001C (Use hand tools) should also be selected.</p> <p>Where basic operation excludes setting and tool adjustment skills, then Unit MEM07024B (Operate and monitor machine/process) should be selected.</p> <p>When operational maintenance is required, unit MEM07001B (Perform operational maintenance of machines/equipment) should be selected.</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 2</b></p> |
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## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

| Prerequisite units |           |                                     |
|--------------------|-----------|-------------------------------------|
| Path 1             | MEM07024B | Operate and monitor machine/process |
|                    |           |                                     |

## Employability Skills Information

|                      |                                          |
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| Employability skills | This unit contains employability skills. |
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## Elements and Performance Criteria Pre-Content

|                                                                   |                                                                                                                                                                                                                                                                                                                  |
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| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide. |
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## Elements and Performance Criteria

| ELEMENT                                        | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Obtain job instructions                     | 1.1.Job sheets or equivalent instructions are understood and correctly followed.                                                                                                                                                                                                                                                                                                                 |
| 2. Conduct pre-start checks                    | 2.1.Pre-start checks are undertaken to standard operating procedures.<br>2.2.Correct safety procedures are observed and all safety equipment is checked for correct operation.                                                                                                                                                                                                                   |
| 3. Operate computer controlled machine/process | 3.1.Installed computer controlled program is selected and verified in accordance with job instructions.<br>3.2.Computer controlled machine is operated safely to product specifications using standard operating procedures.<br>3.3.Machine malfunctions are identified and reported.<br>3.4.Production samples are checked for compliance to specification using standard operating procedures. |
| 4. Monitor machine/process                     | 4.1.Tool wear is monitored and, where appropriate, preset tools are replaced, tool offsets are identified in computer controlled program and adjusted, or other corrective action is taken using standard operating procedures.<br>4.2.Product deviation from specification is reported in accordance with standard operating procedures.                                                        |

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning and sequencing operations
- checking and clarifying task related information
- making pre-start checks
- checking safety equipment and guards for correct operation

**REQUIRED SKILLS AND KNOWLEDGE**

- following safety procedures
- selecting and verifying the correct computer controlled program
- operating the computer controlled machine
- identifying and reporting machine malfunctions
- checking parts/products for conformance to specification
- monitoring the machine or process for signs of tool wear
- taking corrective action
- reporting part or product deviations from specification

**Required knowledge**

Look for evidence that confirms knowledge of:

- pre-start checks
- safety equipment and features associated with the machine/process
- safety procedures associated with the machine/process
- procedures for accessing computer controlled programs installed in the machine controller
- procedures for verifying the correct computer controlled program
- computer controlled machine operating procedures
- typical machine malfunctions
- procedures for reporting machine malfunctions
- measuring instruments/techniques
- examples of tool wear and the effect on product or part specifications
- procedures to be followed once tool wear has been detected
- replacing preset tools
- adjustments to tool offsets
- the effect of adjustments on part or product specifications
- procedures for reporting product or part deviations
- hazards and control measures associated with operating computer controlled machines/processes, including housekeeping
- safe workplace practices and procedures

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

A person who demonstrates competency in this unit must be able to operate computer controlled machine/processes. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

#### Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with operating computer controlled machine/processes or other units requiring the exercise of the skills and knowledge covered by this unit.

#### Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**EVIDENCE GUIDE****Guidance information for  
assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

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**Unit Sector(s)**

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| <b>Unit sector</b> |  |
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**Co-requisite units**

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| <b>Co-requisite units</b> |  |  |
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**Competency field**

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| <b>Competency field</b> | Machine and process operations |
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