



**Australian Government**

# **PMBPROD385 Program computer controlled equipment**

**Release: 1**

# **PMBPROD385 Program computer controlled equipment**

## **Modification History**

Release 1. Supersedes and is equivalent to PMBPROD385A Program computer controlled equipment

## **Application**

This unit of competency covers the skills and knowledge required to program computer controlled equipment for simple machine operations.

This unit of competency applies to experienced operators who are required to identify computer controlled machine program elements; write, trial and edit the program and solve problems within area of responsibility. The operator will have an understanding of the operation of all relevant equipment and processes but is not required to demonstrate 'hands on' operation of equipment as part of this competency.

This unit of competency applies to an experienced operator demonstrating theoretical and technical knowledge and well developed skills in situations that require some discretion and judgement. The operator may work alone or as a member of a team or group and will work in liaison with other shift team members, team leader and supervisor, as appropriate.

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

## **Pre-requisite Unit**

Nil

## **Competency Field**

Production

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

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

- |   |                                      |     |                                                                                                               |
|---|--------------------------------------|-----|---------------------------------------------------------------------------------------------------------------|
| 1 | <b>Write program</b>                 | 1.1 | Select appropriate program elements for machine controller                                                    |
|   |                                      | 1.2 | Interpret engineering drawings/product specification and define basic machine function and tool path geometry |
|   |                                      | 1.3 | Calculate coordinates for simple tool path or basic machining functions                                       |
|   |                                      | 1.4 | Write program in standard code format in accordance with standard operating procedures (SOPs)                 |
| 2 | <b>Check program</b>                 | 2.1 | Produce operation sheets to specification in accordance with SOPs                                             |
|   |                                      | 2.2 | Operate machine in manual mode to test and prove program as required                                          |
|   |                                      | 2.3 | Edit program if necessary to adjust operation as required                                                     |
|   |                                      | 2.4 | Check components for conformance to specification as required                                                 |
| 3 | <b>Anticipate and solve problems</b> | 3.1 | Recognise a problem or a potential problem                                                                    |
|   |                                      | 3.2 | Determine problems needing priority action                                                                    |
|   |                                      | 3.3 | Seek information and assistance as required to solve problems                                                 |
|   |                                      | 3.4 | Solve problems within area of responsibility                                                                  |
|   |                                      | 3.5 | Follow through items initiated until final resolution has occurred                                            |

## **Foundation Skills**

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, manual handling and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- SOPs
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Tools and equipment** Tools and equipment include:

- computer controlled machine
- desktop computer.

**Hazards** Hazards must be identified and controlled. Identifying hazards requires consideration of:

- fumes/vapours
- weight, shape, volume of materials to be handled
- hazardous products and materials
- rotational equipment or vibration
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- smoke, dust or other atmospheric hazards
- high temperatures
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

**Problems** Routine and non-routine problems must be resolved.

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts, to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person.

Non-routine problems are unexpected problems or variations of previous problems and include one or more of:

- tool selection and design problems
- emergency situations
- intermittent faults.

Operational knowledge includes one or more of:

- procedures

- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people.

Routine problems are predictable and have known solutions.

## **Unit Mapping Information**

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## **Links**

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>