



Australian Government

PMBPROD236C Operate hand held air/power equipment for production processes

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the operation of hand held air or power equipment to contribute to the production process and the assembly of materials and equipment in preparation for production.

Application of the Unit

Application of this unit

This competency applies to operators of hand held equipment used in the assembly and finishing of components as part of the production process. The key factors are the safe and effective utilisation of the equipment and conformance with workplace safety requirements. This competency is typically performed by all operators working either independently or as part of a work team.

It includes:

- checking the equipment for cleanliness and possible hazards, frayed cables or hoses, loose components or other difficulties
- following approved hazard minimisation procedures for any hazards connected with materials and process, using work instructions, labels and materials safety data sheets, and in accordance with occupational health and safety legislative responsibilities
- prioritising work and maintaining production throughput
- bringing together different components for assembly or disassembly
- drilling, grinding, cutting or otherwise dealing with products
- identifying and taking action on routine process problems
- completing logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA
1. Identify equipment and power requirements.	<p>Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.</p> <p>1.1 Match appropriate equipment for drilling, cutting and grinding to work applications.</p> <p>1.2 Choose correct power and air sources, identifying and selecting correct voltage, amperage and air pressure.</p> <p>1.3 Select correct lubrication and/or water separation equipment as required.</p> <p>1.4 Inspect equipment for signs of damage or faults.</p> <p>1.5 Select correct accessories in terms of suitability for purpose and operable condition.</p>
2. Follow emergency shutdown procedures.	<p>2.1 Identify the circumstances which would justify an emergency shutdown of equipment.</p> <p>2.2 Identify appropriate switches and/or other shutoff apparatus.</p> <p>2.3 Shut down equipment in an emergency.</p> <p>2.4 Complete reporting required following an emergency shutdown.</p>
3. Control hazards associated with using the equipment.	<p>3.1 Identify potential hazards arising from power sources and/or compressed air.</p> <p>3.2 Recognise process by-products which may cause damage to the operator, environment, products, raw materials, other equipment or personnel.</p> <p>3.3 Follow procedures to control hazards.</p>
4. Set up equipment according to procedures.	<p>4.1 Check equipment settings, accessories and consumables for acceptable condition.</p> <p>4.2 Check equipment for sharpness/wear as appropriate.</p> <p>4.3 Use manufacturer or workplace instructions for equipment as the basis of work practices.</p> <p>4.4 Correctly set-up equipment for the required production process.</p> <p>4.5 Check equipment through the full operating range required for the task.</p>
5. Use equipment for production processes.	<p>5.1 Operate equipment within the parameters of the manufacturer or workplace instructions.</p> <p>5.2 Use appropriate consumables including cooling and</p>

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	lubricating fluids where required. 5.3 Deal with dust, swarf, off cuts and other production by-products and waste.
6. Shut down equipment according to procedure.	6.1 Shut down equipment as required. 6.3 Dispose of any dust, swarf, off cuts and other production by-products and waste.
7. Store equipment appropriately.	7.1 Clean equipment prior to storage. 7.2 Tag or take appropriate steps to arrange repair or servicing of equipment as required. 7.3 Maintain storage areas to workplace standards.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Application of knowledge of the materials, equipment and process sufficient to recognise out of specification products, process problems and materials faults. Knowledge of organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards. Knowledge of and skills in the operation of equipment and main components sufficient for consistent production of quality products including:

- impact of incorrect or faulty materials or tools
- production workflow sequences and materials demand
- focus of operation of work systems and equipment
- correct selection and use of equipment, materials
- processes and procedures
- hazards of the materials and process and appropriate hazard control procedures
- distinguish between causes of faults such as wrong materials, incorrect quantity of materials, contaminated materials, blunt or worn tools, tool or power failures.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and material labels as provided to operators.

Writing is required to the level of completing workplace forms.

Basic numeracy is also required, eg to determine that 20 components having 2 attachments each means that 40 attachments are required.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

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

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- recognise the importance of critical material properties and quantities
- recognise potential situations requiring action and then implement appropriate action.

Consistent performance should be demonstrated. For example, look to see that:

- production standards are met consistently
- tools are handled correctly
- tools are correctly cleaned and stored

- faulty tools are identified and handed in for repair.

Assessment method and context

Assessment will occur while using industrial power tools and will be undertaken in a work like environment.

Competence in this unit may be assessed:

- on a processing plant, allowing for operation under all normal and a range of abnormal conditions
- in a situation allowing for the generation of evidence of the ability to respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method.

Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

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. Add any 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.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to operators working either independently or as part of a work team.

Procedures

All operations are performed in accordance with procedures.

Procedures means all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- work stands

- portable air or power operated drills, grinders, cutters or saws
- impact wrenches
- hoists/lifting equipment not requiring any special permits or licences
- bolts, screws, rivets, etc
- vices, clamps and braces
- relevant personal protective equipment.

Hazards

Typical hazards include:

- frayed cables/hoses
- dusts/swarf
- metal and other shavings
- manual handling hazards
- equipment failures.

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'. Typical process and product problems may include:

- tool malfunctions
- damaged leads or hoses
- incorrect tool selected
- worn or blunt tools/tool bits
- damaged tools
- non-supply of components or fittings
- incorrect supply of components or fittings
- material failures
- out-of-specification products.

Variables

Key variables to be monitored include:

- tool speeds
- tool mass
- operating mediums
- condition of tools
- useability
- cleanliness.
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Unit Sector(s)

Not applicable.