



Australian Government

MSMOPS201 Cut polymer materials

Release: 1

MSMOPS201 Cut polymer materials

Modification History

Release 1. Supersedes and is equivalent to MSAPMOPS201A Cut polymer materials

Application

This unit of competency covers the skills and knowledge required to prepare and operate specialised equipment and apply procedures to cut polymer materials, such as sheet, pipe or rod, to size, shape or to a pattern.

The operator will be required to make products to meet quality standards and workplace requirements and resolve routine problems according to procedures.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members.

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

Pre-requisite Unit

Nil

Competency Field

Operations

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes

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

1	Check work requirements	1.1	Identify work requirements
		1.2	Identify product, materials and equipment requirements for job
		1.3	Identify and control hazards
		1.4	Check with supervisor/appropriate person if requirements are not in accordance with usual practice

2	Conduct pre-cutting operations in accordance with procedures	2.1	Check raw materials are correct
		2.2	Mark out/lay out job for cutting taking account of directional properties in materials as appropriate
		2.3	Undertake other pre-cutting requirements in accordance with procedures
3	Cut to requirements	3.1	Cut materials using cutting tools/equipment in accordance with procedures
		3.2	Monitor dimensions, shape, quality and quantity of cuts
		3.3	Collect material which is able to be recycled or reused, separate and dispose of waste and scrap
4	Resolve routine problems	4.1	Identify likely problems during the operation/task
		4.2	Resolve routine problems in accordance with procedures
		4.3	Take appropriate action on other problems
		4.4	Complete required records in accordance with procedures

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, and include one or more of the
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following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

Work requirements

Work requirements will be determined from one or more of the following:

- job/shop orders
- plans/specifications
- procedures
- directions from authorised persons
- meeting (e.g. toolbox meeting)
- any similar instructions provided for the smooth running of the plant.

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 more of the following:

- emergency procedures
- work instructions
- standard operating procedures (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 one or more of the following:

- guillotines
- power saws
- jig saws
- band saws
- thermal cutting devices
- hand tools
- controllers, such as programmable logic controller (PLC), for tools and equipment fitted

Hazards

Hazards include one or more of the following:

- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- fire and explosion
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- incorrect pattern and marking errors
- equipment wear and breakage, temperature variations, loss of power or drives, controller sequence and timer issues
- sequencing problems

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience

Non-routine problems must be reported according to according to relevant procedures.

Records

Records include one or more of the following:

- log books/sheets
- electronic records
- job/work sheets
- other records used for the smooth running of the plant.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMOPS201A Cut polymer materials

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

Assessment Requirements for MSMOPS201 Cut polymer materials

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- set up and operate equipment according to procedures
- identify hazards and apply relevant hazard controls
- monitor equipment operation and product quality
- identify and take action on problems in accordance with procedures
- cut polymer materials to correct size, shape or pattern
- apply known solutions to routine problems
- complete workplace forms.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- hazards that may arise in the job/work environment
- potential effects of variations in raw materials and equipment operation in relation to quality of product
- factors which may affect product quality or production output and appropriate remedies
- directional properties of polymers as relevant to the job
- different types of materials and their behaviour when cut
- different cutting equipment and suitability for materials
- controls of cutting equipment.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor /third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency

- will typically include the use of an appropriate industrial item of equipment requiring demonstration of operation and responding to problems
- may use industry based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
 - walk-throughs
 - pilot plant operation
 - demonstration of skills
 - industry-based case studies/scenarios
 - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- 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.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

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