



Australian Government

MEM08012 Prepare surfaces by abrasive blasting (basic)

Release: 1

MEM08012 Prepare surfaces by abrasive blasting (basic)

Modification History

Release 1. Supersedes and is equivalent to MEM08012B Prepare surfaces by abrasive blasting (basic)

Application

This unit of competency defines the skills and knowledge required to follow pre-determined procedures to perform, at a basic level of skill, surface preparation/cleaning on both ferrous and non-ferrous masonry and cementitious materials/components.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, should also be selected as appropriate.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM08016	Control blast coating by-products, materials and emissions
MEM11011	Undertake manual handling
MEM13003	Work safely with industrial chemicals and materials
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Surface finishing

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, job sheets or work instructions
2	Prepare to undertake work	2.1	Identify equipment to be used as per job requirements
		2.2	Obtain blasting media which meets job requirements
		2.3	Prepare worksite for surface cleaning activities
3	Set up equipment	3.1	Assemble, set up and correctly and safely prepare appropriate equipment and any required consumables in accordance with manufacturers' specifications and workplace procedures
		3.2	Obtain specified rust inhibitor, including the specified amount, to reduce the rate of corrosion when using wet abrasive blast methods, as required
		3.3	Carry out pre-operational checks on equipment, and rectify faults or report for further action
4	Prepare surfaces using abrasive blasting	4.1	Operate blasting equipment in accordance with procedures
		4.2	Undertake emergency shutdown procedures, as required
		4.3	Undertake work procedures to appropriate environmental requirements
		4.4	Carry out abrasive media disposal in accordance with environmental regulations and procedures

Elements describe the essential outcomes.

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

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| | | 4.5 | Disassemble, clean and inspect blasting equipment in accordance with manufacturers' specifications |
| | | 4.6 | Record equipment faults and report in accordance with SOPs |
| 5 | Inspect prepared surface | 5.1 | Assess surface preparation for cleanliness and conformance with specifications |
| | | 5.2 | Rectify faults or defects where required and record inspection results and report in accordance with SOPs |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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, accessibility of the item, and local industry and regional contexts) are included.

Blasting process includes one (1) or more of the following:

- water
- air steam
- grits
- blasting mediums

Blasting media includes one (1) or more of the following:

- abrasives
- shot
- glass beads
- sand
- steel shot
- garnet
- other mediums accepted by industry and all regulatory bodies

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, accessibility of the item, and local industry and regional contexts) are included.

Blasting equipment

includes one (1) or more of the following:

- electric and diesel compressors
- blast pots
- blast rooms
- centrifugal blast machines
- water pressure washers to 35,000 kPa
- air hoses and nozzles
- specified hand and power tools

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM08012B Prepare surfaces by abrasive blasting (basic)

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM08012 Prepare surfaces by abrasive blasting (basic)

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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 on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, supplier information, and Australian and international standards for abrasive blasting
- preparing surfaces by abrasive blasting
- setting up, using and maintaining surface blasting equipment safely and effectively, reporting any faults
- using the correct media for the blasting operation and preparing surfaces
- demonstrating emergency shutdown procedures
- disposing of abrasive media in accordance with regulatory and legislative requirements
- inspecting to ensure the prepared surface meets specifications and rectifying any non-conformance, as necessary.

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)
- reason for selecting the chosen sequence of operations
- blasting equipment and media required for various surface preparation methods
- importance of using an appropriate rust inhibitor
- process for undertaking pre-operational checks and procedures or using abrasive blasting equipment
- reasons for an emergency shutdown
- emergency shutdown procedures
- procedures for abrasive media disposal to meet environmental regulations
- procedures for maintaining and storing blasting equipment and recording/reporting procedures for any faulty equipment
- techniques for checking prepared surfaces and rectification techniques, as required.

Assessment Conditions

- Assessors must:
 - have vocational competency in preparing surfaces by abrasive blasting (basic) 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
- Where possible assessment must 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 that reflects 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
- 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.

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