



Australian Government

Department of Education, Employment and Workplace Relations

MEM08012B Prepare surfaces by abrasive blasting (basic)

Release: 1

MEM08012B Prepare surfaces by abrasive blasting (basic)

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers performing a basic level of skill in surface preparation by abrasive blasting.
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Application of the Unit

Application of the unit	<p>This unit applies to surface preparation/cleaning on both ferrous and non-ferrous masonry and cementitious materials/components. Reference is made to supplier information and specifications as well as accepted and appropriate Australian and international standards.</p> <p>The majority of work is in a team environment and uses predetermined procedures and standards for safety and quality with all work and work practices undertaken to regulatory and legislative requirements.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM08016B	Control blast coating by-products, materials and emissions
	MEM13003B	Work safely with industrial chemicals and materials

Employability Skills Information

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

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. Determine job requirements	1.1. Work requirements are determined from job sheet, instructions or other predetermined specifications in accordance with standard operating procedures. 1.2. Appropriate abrasive blasting process, equipment and blasting media are identified to meet job specification. 1.3. Work site is prepared for surface cleaning activities.
2. Set up equipment	2.1. Appropriate equipment and any required consumables are assembled, set up and prepared correctly and safely in accordance with manufactures' specifications and standard operating procedures. 2.2. Correct rust inhibitor for use in wet abrasive blast methods is selected where required. 2.3. Pre-operational checks are carried out on equipment and faults and are rectified or reported for further action.
3. Prepare surfaces using abrasive blasting	3.1. Blasting equipment is operated in accordance with standard operating procedures. 3.2. Emergency shut-down procedures can be undertaken. 3.3. Work procedures are undertaken to appropriate environmental requirements. 3.4. Abrasive media disposal is carried out in accordance with standard operating procedures. 3.5. Blasting equipment is cleaned and disassembled and inspected in accordance with manufacturers' specifications and standard operating procedures. 3.6. Equipment faults are recorded and reported in accordance with standard operating procedures.
4. Inspect prepared surface	4.1. Surface preparation is assessed for cleanliness and conformance with specifications. 4.2. Faults or defects are rectified where required and inspection results are recorded and 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:

- planning and sequencing operations
- undertaking numerical operations within the scope of this unit
- selecting blasting equipment and media
- setting up equipment and consumables
- selecting rust inhibitor
- conducting pre-operational checks
- preparing surfaces using abrasive blasting
- disposing of abrasive media
- maintaining blasting equipment
- identifying, recording and reporting of faults
- inspecting prepared surface
- performing rectification work
- checking for conformance to specifications

Required knowledge

Look for evidence that confirms knowledge of:

- reason for selecting the chosen sequence of operations
- blasting equipment and media required
- equipment, consumables for various methods
- importance of using an appropriate rust inhibitor
- process for undertaking pre-operational checks
- procedures for using abrasive blasting equipment
- procedures for abrasive media disposal
- procedures for maintaining and storing blasting equipment
- recording/reporting procedures; faulty equipment
- checking prepared surfaces
- rectification techniques
- safe work practices and procedures
- hazards and control measures related to abrasive blasting

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
Overview of assessment	<p>A person who demonstrates competency in this unit must be able to prepare surfaces by abrasive blasting (at a basic level). Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>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.</p>
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with preparing surfaces by abrasive blasting (basic) or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	<p>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 should not require language, literacy and numeracy skills beyond those required in this unit. 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.</p>
Guidance information for	

EVIDENCE GUIDE

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.

Blasting processes

Surface preparation using propelled abrasives including water, air steam, grits and blasting mediums

Blasting media

Abrasives, shot, glass beads, sand, steel shot, garnet, and other mediums accepted by industry and all regulatory bodies

Rust inhibitor

A substance which, when added to a corrosive liquid in small amounts, reduces the rate of corrosion

Blasting equipment

Electric and diesel compressors, blast pots, blast rooms, centrifugal blast machines, water pressure washers to 35,000 kpa, air hoses and nozzles, and specified hand and power tools, etc.

Unit Sector(s)

Unit sector

Co-requisite units

Co-requisite units		

Competency field

Competency field	
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