



Australian Government

Department of Education, Employment and Workplace Relations

AUM2003B Prepare and process materials and components

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the application of the required skills and knowledge to undertake the preparation and processing of materials and components, including finishing for the full range of manufacturing contexts. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	The unit applies to the automotive and related component manufacturing environment and involves application of skills and knowledge at a production worker level. These skills and knowledge are to be used within the scope of the person's job and authority.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil
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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 required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or 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. Select materials/components required for the operation/process	1.1. Applicable legislative, OHS and organisation requirements relevant to preparing and processing materials and components are verified and complied with 1.2. The appropriate materials/components are identified according to the job context 1.3. The appropriate materials/components are selected according to the job requirements
2. Inspect and check materials/ components prior to use	2.1. Materials/components are inspected to ensure they conform to enterprise quality standards and specifications 2.2. Defective materials/components are identified and processed according to organisation procedures
3. Prepare and/or load/secure materials/ components as required	3.1. Specified preparation procedures are performed on the materials/components as required by the process/operation in accordance with enterprise procedures and OHS regulations 3.2. Materials/components are loaded, aligned and secured as required by the process/operation in accordance with organisation procedures and OHS regulations
4. Process materials /components as detailed in organisation procedures	4.1. Materials/components are processed using correct tools, equipment and settings 4.2. Materials/components are processed in correct sequence as detailed in organisation procedures 4.3. Materials/components are processed following organisation procedures, OHS and environmental regulations 4.4. Materials/components are processed within organisation specified timeframes 4.5. Materials/components are processed and finished to the quality required by the standard operating procedures or other organisation specifications 4.6. Quality control tools are identified and applied

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- speak clearly and directly in order to communicate with others in the workplace
- apply teamwork to a range of situations
- solve problems particularly in teams in order to maintain appropriate standards
- show initiative in adapting to changing work conditions or contexts particularly when working across a variety of work areas
- access, interpret and apply information on relevant organisation policies, procedures and instructions
- manage time when planning, preparing and organising work priorities
- take responsibility for organising own work priorities.

Required knowledge

- relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according to the area of operation
- relevant quality measurement tools for the area of operation to ensure the quality of the product and/or process
- upstream customers and their requirements
- material requirements for the job, which will vary according to the function, and their correct handling and storage to comply with OH&S and environmental requirements
- correct handling and storage of equipment and tools to comply with OH&S and environmental requirements
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- problem identification and resolution
- procedures for the recording, reporting and maintenance of workplace records and information.

Evidence Guide

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	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: • compliance with relevant legislation, regulations, standards, codes of practice and established safe practices and enterprise policies and procedures for the preparation and processing of materials and components • maintaining a working knowledge of current processing systems and practices • working and communicating effectively and positively with others involved in the work • applying, within authority, the requirements of the job or work role in relation to: • selecting the materials/components required for the process • inspecting and checking materials/components prior to their use. • preparing/loading/securing materials and components as per the process requirements • processing the materials to enterprise procedures and standards • modify activities to cater for variations in workplace context and environment.
Context of and specific resources for assessment	• assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process • assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • assessment methods must confirm consistency and

EVIDENCE GUIDE	
	accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge • assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application • assessment may be applied under project related conditions (real or simulated) and require evidence of process • assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.

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 in the Performance Criteria is detailed below. 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.

Legislative requirements may include:

Applicable legislation, regulations and codes of practice, including those related to:

- anti-discrimination
- award and enterprise agreements
- confidentiality and privacy
- duty of care
- employee relations
- environment protection
- equal opportunity
- industrial relations
- relevant industry codes of practice.

OHS requirements may include:

Legislation and regulations, organisational safety policies and procedures and may include: the use of personal protective equipment and clothing, rescue services, fire fighting organisation and equipment, first aid equipment, hazard and risk control and elimination, systems covering the use of hazardous materials and substances and manual handling procedures including lifting and carrying.

Organisation requirements may include:

- access and equity principles and practices
- environmental management (waste disposal, recycling and re-use guidelines)
- emergency and evacuation procedures
- equipment use procedures
- ethical standards
- legal obligations
- maintenance and storage procedures
- OHS requirements
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- procedural manuals
- quality assurance guidelines

RANGE STATEMENT	
	- quality and continuous improvement processes and standards - recording and reporting guidelines.
Job context may include:	- Work areas including: - body construction, aluminium die casting, iron foundry operations, engine machining, spray painting, automotive plastics, stamping & press operations, fabrication hardware, trim manufacture, vehicle assembly, warehousing, engine assembly, seat frame manufacture Processes including: - welding sub-assemblies, fitting hang-on components, fittings dies to die boxes, pouring aluminium, machining parts, application of paint, cutting blanks, assembly of components to form sub-assemblies, fitting parts to bodies, assembly of parts, parts picking and replenishment.
Selection procedures may include:	- matching part numbers to the model/code under construction - enterprise specifications for selection of materials/components may include size - shape - tolerances - critical measurements - identification of bin/batch numbers and codes - checking materials/components against requirements of production schedules/supply requisition.
Inspection of materials and components may include:	- inspection for defects that may cause the manufactured components to be faulty on completion - inspection to ensure surfaces are clean and dried to the required state as determined by the standard operating procedures - visual inspection - measuring - gauging - weighing - checking for correct part names/codes/numbers - check colour of paint meets the requirements of the job sheets

RANGE STATEMENT	
	- defects may be surface - structural or other.
Preparation may include:	- cleaning and preparation of surfaces - weighing and measuring materials to specified amounts - removal or external packaging - cleaning of surfaces - cleaning with solvents or air blowers - mixing paint - masking off of bodies - application of lubricants to parts to ensure ease of fitting during assembly operations.
Loading procedures may include:	- matching materials/components to equipment on the basis of part numbers and codes - alignment of components/materials with predetermined points on machinery - secure clamping of materials/components to prevent movement and distortion and minimise waste, as specified in standard operating procedures.
Finishing may include:	- final finish by grinding - metal finishing - panel flanging and hemming - hand filing - sanding - adjustment to tolerances - application of adhesives and sealants to ensure components are securely joined and free of leaks - nuts, bolts and screws tensioned to the specification.
Procedures, regulations and policies may include:	- organisation regulations - policies and procedures including organisation OH&S and environmental policy and procedures - ISO standards (Quality Management and Environmental) - Vehicle Industry OH&S Award - OH&S Legislation - Environmental Management Legislation - standard operating procedures

RANGE STATEMENT

	• suppliers operating instruction manuals • organisation production process sheets • organisation production schedules • organisation supply requisition procedures/forms • organisation inventory control procedures (paper or computer based).
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Unit Sector(s)

Unit sector	Automotive Manufacturing
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Competency field

Competency field	Passenger Motor Vehicle
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Co-requisite units

Co-requisite units	Nil
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