



Australian Government

Department of Education, Employment and Workplace Relations

AUMGTW3006 Machine parts

Release: 1

AUMGTW3006 Machine parts

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the application of the required skills and knowledge to use a range of equipment to machine parts. 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	This unit applies to the automotive and related component manufacturing environment and involves application of skills and knowledge at a specialist 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

Not applicable.

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. Prepare machines for operation	<p>1.1. Work to be carried out is clarified and <i>legislative</i> and <i>OHS requirements</i> identified</p> <p>1.2. <i>Resources</i> list is correctly read and interpreted</p> <p>1.3. Appropriate hand/air tools are selected</p> <p>1.4. Machine controls and cutting tools/wheels are preset or adjusted to job specification</p> <p>1.5. Tools and machines are maintained in accordance with organisation policy</p> <p>1.6. Measuring equipment is <i>calibrated</i> to ensure accurate measurement within the tolerances specified</p> <p>1.7. Machine speed and feed controls are adjusted to the type of metal/alloy being machined</p>
2. Machine parts	<p>2.1. Parts are machined to specification using the appropriate machining process</p> <p>2.2. Parts are machined and checked for tolerances specified in the standard operating procedures and to minimise waste</p> <p>2.3. Identified faults and defects are rectified in accordance with <i>work quality goals</i></p> <p>2.4. Machined parts are washed, inspected and dried to ensure they are cleaned and contain no waste in cavities or chambers</p> <p>2.5. Production schedule is maintained and recorded in accordance with organisation procedures</p> <p>2.6. <i>Appropriate personnel</i> are notified of the completion of tasks</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- speak clearly and directly in order to notify appropriate personnel of completed tasks
- apply teamwork to a range of situations, including the calibration of measuring equipment
- solve problems particularly in teams in order to meet performance indicators
- 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, particularly to ensure tools and machines are maintained to required standards
- 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
- organisation technical work documentation covering procedures, specifications, schedules and work plans or equivalent
- organisation quality system documentation covering instructions, procedures, performance indicators and review processes or equivalent
- organisation cost minimisation/waste avoidance policies, procedures and practices
- environmental protection requirements relating to the disposal of waste material
- procedures for the safe and efficient set up and use of machining equipment
- read and interpret work orders
- organisation procedures for dealing with faulty parts
- organisation quality standards
- manual handling processes.

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 legislative, regulations, standards, codes of practice and establish safe practices and enterprise policies and procedures for managing personal work priorities
- maintaining a working knowledge of current work 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:
 - achieving production goals
 - achieving work quality goals
 - responding positively to changing work requirements
 - contributing effectively to cost reduction initiatives
 - effectively applying problem solving techniques
- modify activities to cater for variations in workplace context and environment
- set up and use of machining equipment
- machine parts to company standards
- produce machined components / parts to meet the production schedule
- limit the number of faulty parts to less than quality standards
- produce work flow records
- identify and mark faulty parts
- employ company OH&S policy and procedures
- apply manual handling techniques.

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.

EVIDENCE GUIDE**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 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.

<i>Legislative requirements</i> may include:	Applicable legislation, regulations and codes of practice, including those related to: <ul style="list-style-type: none"> • 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.
<i>OHS requirements</i> 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.
<i>Resources</i> may include:	<ul style="list-style-type: none"> • machines used include drills, lathes, millers, reamers, honers, threading, grinders, broaching, CNC robot controlled • micrometers, vernier gauges, calipers, feeler gauges.
<i>Calibration:</i>	<ul style="list-style-type: none"> • refers to the tolerance accuracy of measurement. This is the degree of accuracy that the measuring equipment can achieve and when it was last checked against a recognised standard of accuracy. Users may maintain an internal standard of measure against which they periodically check the measuring equipment.
<i>Work quality goals</i> may include:	those established within a quality system and may include identification, minimisation and elimination of defects, product/component specifications, tolerances, inspection systems, packaging specifications and non-conforming parts or products.
<i>Appropriate personnel</i> may include:	<ul style="list-style-type: none"> • clients and managers • supervisors • suppliers

RANGE STATEMENT

	<ul style="list-style-type: none">• team leaders• team members.
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Unit Sector(s)

Unit sector	Technical - Welding, Grinding, Machining and Soldering
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Competency field

Competency field	Manufacturing - Bus, Truck and Trailer
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Co-requisite units

Not applicable.