



Australian Government

AUMGTW006 Machine Parts

Release: 1

AUMGTW006 Machine Parts

Modification History

Release	Comment
Release 1	Unit updated to reflect the new standards for Training Packages Replaces AUMGTW3006 Machine parts

Application

This unit describes the performance outcomes required to use a range of equipment to machine components and parts.

It applies to those in an automotive manufacturing environment and involves the application of skills and knowledge at a specialist level.

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

Competency Field

Manufacturing - Bus, Truck and Trailer

Unit Sector

Technical - Welding, Grinding, Machining and Soldering

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section
1. Plan and prepare	1.1 Work instructions and job specifications are identified and confirmed 1.2 Resources required for work instructions are selected 1.3 Machine controls and cutting tools are pre-set and adjusted to job specifications 1.4 Measuring equipment is calibrated to specification 1.5 Machine speed and feed controls are adjusted according to

Elements	Performance Criteria
	type of metal or alloy being machined
2. Produce parts	2.1 Workplace procedures are identified and followed 2.2 Parts are machined to specification using appropriate equipment and machining process 2.3 Parts are machined and checked against job specifications and specified tolerances 2.4 Identified faults and defects are rectified according to work quality goals
3. Complete work processes	3.1 Work area and equipment are cleaned and maintained according to workplace procedures 3.2 Faulty equipment is identified, tagged and reported 3.3 Machined parts are washed, dried and inspected according to workplace procedures 3.4 Work sheets and production schedule are completed and given to appropriate personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Skills	Description
Reading skills to:	- interpret work health and safety (WHS) requirements, workplace procedures, work instructions and job specifications - interpret machine operating procedures - identify inspection reports - interpret parts specifications.
Writing skills to:	- complete production schedules and workplace documents - complete machine maintenance forms - complete faulty equipment tags.
Numeracy skills to:	- follow working drawing specifications - set and adjust machines and equipment - use measuring equipment - calibrate equipment.
Digital literacy skills to:	use digitally controlled machining equipment.
Initiative skills to:	adapt to changing work conditions.
Planning and organising	plan and prepare production

skills to:	• prepare equipment, materials and work area.
Self-management skills to:	• conduct machining within required timelines • ensure workplace documentation is completed.
Problem-solving skills to:	• solve machining problems in order to meet required outcomes.
Technology skills to:	• measure equipment.

Range of Conditions

This section specifies 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. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Workplace procedures</i> must include:	• procedures for machining equipment operation and maintenance • procedures for recording and reporting the machining of parts • WHS requirements for machining parts.
<i>Work quality goals</i> must include:	• elimination of machining defects • inspection practices of machined parts.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bd587669-08b3-4cd5-85f0-f9fa0c6304c1>

Assessment Requirements for AUMGTW006 Machine Parts

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Performance Evidence

Before competency can be determined, individuals must have competently machined parts on a minimum of two occasions.

Individuals must demonstrate they can:

- identify machining requirements from work sheets and work instructions
- prepare and calibrate machining equipment and set speed and feed for the work to be performed according to workplace procedures and work health and safety (WHS) requirements
- operate machining equipment according to workplace procedures, applicable welding standards, and WHS requirements
- check machining work is to job specifications and tolerances and identify and rectify faults
- clean work area, and maintain and store machining equipment according to workplace procedures and WHS requirements
- complete machining work sheets.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- WHS requirements relating to machining parts:
 - personal protective equipment (PPE) relevant to the machining equipment
 - methods to apply to ensure safe and efficient operation of machining equipment
- types, applications and operation of common automotive production machining equipment
- causes of machining defects and methods of fault rectification.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the parts that they have machined, e.g. production work sheets.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- manufacturing workplace or simulated workplace
- working drawings and part specifications
- materials for machining
- machining tools and equipment
- machining equipment operating procedures
- measuring equipment relevant to machining parts
- personal protective equipment relevant to the machining equipment being used.

Links

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