



**Australian Government**

# **AURTTA2008 Produce patterns and templates**

**Release 1**

## AURTTA2008 Produce patterns and templates

### Modification History

Release	Comment
Release 1	Replaces AURT225291A Produce patterns and templates Unit code updated to meet policy requirements Reference to OHS legislation replaced with new WHS legislation Licensing statement added to unit descriptor

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers the competence required to produce patterns and templates for production processes.  Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Application of the Unit

<b>Application of the unit</b>	Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.
--------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
-----------------------------	------------------------------------------

## 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.
-------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Dimensions of finished patterns or templates are determined	1.1. Customer orders are interpreted to determine required dimensions of finished products 1.2. Size requirements are checked in relation to the production process and finishing capacity of the workplace
2. Plan process	2.1. Material for pattern or template is identified for approximate size and characteristics 2.2. Required instruments and equipment are identified, located and assembled 2.3. Drawings and related specifications are interpreted 2.4. Procedures for using pattern development instruments and tooling are confirmed and equipment is prepared for use
3. Plot dimensions	3.1. Equipment and tooling are used following normal workplace procedures 3.2. Each dimension is measured, exploded and plotted maintaining angles, arcs and curves 3.3. Visual inspection and measurements are used to compare pattern dimensions and shapes with drawings and specifications
4. Complete pattern or template	4.1. Pattern or template is completed ensuring that the pattern indicates completion date and original drawing details. 4.2. Required workplace approval of pattern or template is obtained 4.3. Plans are marked with notations for workplace requirements, including authorship, process or customer requirements, authorisation and review dates 4.4. Plans are copied and filed according to workplace policies and procedures

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

## REQUIRED SKILLS AND KNOWLEDGE

### Required skills

- research and interpretive skills to locate, interpret and apply pattern and template production procedures
- technical literacy and communication skills sufficient to interpret and apply common industry terminology, and interpret materials required for the production of patterns and templates
- English literacy and communication skills in relation to dealing with others involved in the work
- questioning and active listening skills, for example when obtaining information of technical quality working practices and pattern and template production procedures
- apply planning and organising skills to own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance
- interact effectively with other persons both on a one-to-one basis and in groups, including understanding and responding to the needs of a customer and working effectively as a member of a team to achieve a shared goal
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and avoid wastage
- use mathematical ideas and techniques to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- use workplace technology related to the production of patterns and templates, including the use of measuring equipment and communication devices and the reporting/ documenting of results

### Required knowledge

A working knowledge of:

- WHS regulations/requirements, equipment, material and personal safety requirements
- common automotive terminology and vehicle safety requirements
- theory for production of patterns or templates
- pattern and template production techniques and procedures
- preparing drawings and presenting information
- site reporting procedures
- work organisation and planning processes
- enterprise quality processes

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<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>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:</p> <ul style="list-style-type: none"> <li>• observing safety procedures and requirements</li> <li>• communicating effectively with others involved in or affected by the work</li> <li>• selecting methods and techniques appropriate to the circumstances</li> <li>• completing preparatory activity in a systematic manner</li> <li>• determining dimensions of finished patterns or templates</li> <li>• planning processes for producing patterns or templates</li> <li>• plotting dimensions</li> <li>• completing a range of patterns or template in accordance with enterprise procedures</li> <li>• completing post-activity housekeeping</li> </ul>
<b>Context of, and specific resources for assessment</b>	<p>Application of competence is to be assessed in the workplace or simulated worksite</p> <p>Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints</p> <p>Assessment is to comply with regulatory requirements, including Australian Standards</p> <p>The following resources should be made available:</p> <ul style="list-style-type: none"> <li>• workplace location or simulated workplace</li> <li>• material relevant to the production of patterns and templates</li> <li>• equipment, hand and power tooling appropriate to the production of patterns and templates</li> <li>• activities covering mandatory task requirements</li> <li>• specifications and work instructions</li> </ul>
<b>Method of assessment</b>	<p>Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&amp;R Training Package</p> <p>Assessment methods must confirm consistency and accuracy of performance together with application of underpinning</p>

<b>EVIDENCE GUIDE</b>	
	<p>knowledge</p> <p>Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies</p> <p>Assessment may be applied under project related conditions and require evidence of process</p> <p>Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances</p> <p>It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements</p> <p>Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role</p>
<b>Guidance information for assessment</b>	

## Range Statement

<b>RANGE STATEMENT</b>	
<p>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.</p>	
<b>Patterns/templates</b>	<ul style="list-style-type: none"> <li>• Patterns/templates are to be used for the purposes of manufacturing parts or assisting the fitting of accessories</li> <li>• Patterns/templates can be polymer, cardboard or composite material type</li> <li>• Patterns/templates are to include those drawn and produced by hand and may include those produced by CAD means</li> </ul>

<b>RANGE STATEMENT</b>	
<b>WHS</b>	WHS requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, workplace environment and safety and enterprise first aid
<b>Personal protective equipment</b>	Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices
<b>Safe operating procedures</b>	Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with site safety, working in proximity to others and site visitors
<b>Emergency procedures</b>	Emergency procedures related to this unit are to include, but are not limited to enterprise first aid requirements and site evacuation
<b>Environmental requirements</b>	Environmental requirements are to include but are not limited to waste management and clean-up management
<b>Quality requirements</b>	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
<b>Statutory/regulatory authorities</b>	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice
<b>Resources</b>	Resources may include hand tooling, power tooling, specialist tooling for producing patterns and/templates, specifications, dimensions, drawing equipment, computer equipment and software
<b>Communications</b>	Communications are to include, but are not limited to verbal and visual instructions and may include site specific instructions, written instructions, plans or instructions related to



<b>RANGE STATEMENT</b>	
	job/task, telephones and pagers
<b>Information/documents</b>	<p>Sources of information/documents may include:</p> <ul style="list-style-type: none"> <li>• schedules/plans/specifications, memos, material safety data sheets, diagrams or sketches</li> <li>• regulatory/legislative requirements pertaining to the automotive industry, including Australian Design Rules</li> <li>• organisation work specifications and requirements</li> <li>• instructions issued by authorised enterprise or external persons</li> <li>• Australian Standards</li> </ul>

### Unit Sector(s)

<b>Unit sector</b>	Mechanical Miscellaneous
--------------------	--------------------------

### Co-requisite units

Not applicable.

### Competency field

<b>Competency field</b>	Technical
-------------------------	-----------