AUTOMOTIVE INDUSTRY MANUFACTURING TRAINING PACKAGE AUM 00

(PASSENGER MOTOR VEHICLE SECTOR)

CERTIFICATE II IN AUTOMOTIVE MANUFACTURING AUM 201 00

CERTIFICATE III IN AUTOMOTIVE MANUFACTURING FRONTLINE MANAGEMENT AUM 301 00

CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING FRONTLINE MANAGEMENT AUM 401 00 MANUFACTURING MAINTENANCE AUM 402 00

DIPLOMA OF AUTOMOTIVE MANUFACTURING FRONTLINE MANAGEMENT AUM 501 00 MANUFACTURING MAINTENANCE AUM 502 00

ADVANCED DIPLOMA OF AUTOMOTIVE MANUFACTURING DESIGN AND DEVELOPMENT AUM 601 00

JUNE 2000
IMPORTANT

Training packages are living documents. Changes are periodically made to reflect the latest industry practices.

As a user of the training package, and before commencing any form of training or assessment, you must ensure delivery is from the current version.

Ensure you are complying with this requirement by:

- Checking the version identifier code of the version you currently have (located on the imprint page, just below the copyright statement)
- Accessing the Australian Training Products (ATP) website and comparing the version identifier.
- Where the ATP website shows a different version, the modification history, again shown on the ATP website in the training package sample, will display the changes made in all versions.

ATP website for version comparison: [http://www.atpl.net.au](http://www.atpl.net.au)

Changes in units of competency and packaging of qualifications are reflected on the National Training Information Service which only displays current information: [http://www.ntis.gov.au](http://www.ntis.gov.au)
<table>
<thead>
<tr>
<th>Version</th>
<th>Date of Release</th>
<th>Authorisation:</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>08/10/2004</td>
<td>NTQC</td>
<td>Addition of 4 units of competence to the common area of Certificate III in Automotive Manufacturing (Bus, Truck &amp; Trailer) AUM25100 AUM9002A Receive and dispatch materials, equipment and tools AUM9003A Prepare and process materials and components AUM9005A Monitor and maintain continuous improvement of systems and processes AUM9007A Manage personal work priorities</td>
</tr>
<tr>
<td>3.00</td>
<td>09/02/2004</td>
<td>NTQC</td>
<td>Addition of thirteen Certificate III level competency standards: AUMNT3001A Rectify faults in vehicle metal components AUMNT3002A Rectify paintwork AUMNT3003A Control paint line production processes AUMNT3004A Conduct engine hot test AUMNT3005A Rework production engines AUMNT3006A Rectify mechanical faults on production vehicles AUMNT3007A Rectify electrical faults on production vehicles AUMNT3008A Rectify assembly faults in assembled vehicles AUMNT3009A Conduct die coating AUMNT3010A Conduct structural rectification of vehicle bodies AUMNT3011A Test welds ultrasonically AUMNT3012A Conduct tool setting AUMNT3013A Monitor and maintain metals treatment plant operations Note: There are no qualifications attached to these standards.</td>
</tr>
<tr>
<td>2.00</td>
<td>01/06/2001</td>
<td>NTQC</td>
<td>Addition of Bus, Truck &amp; Trailer Sector</td>
</tr>
<tr>
<td>1.00</td>
<td>06/08/2000</td>
<td>NTQC</td>
<td>Primary release of the Passenger Motor Vehicle Sector</td>
</tr>
</tbody>
</table>

**Forms control:** All endorsed training packages will have a version number displayed on the imprint page of every volume constituting that training package. Every training package will display an up-to-date copy of this modification history form, to be placed immediately after the contents page of the first volume of the training package. Comments on changes will only show sufficient detail to enable a user to identify the nature and location of the change. Changes to training packages will generally be batched at quarterly intervals. This modification history form will be included within any displayed sample of that training package and will constitute all detail available to identify changes.
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Editors Note:

Each tabbed section has its own contents page, each section is individually numbered, each standard is individually numbered.
AUTOMOTIVE INDUSTRY MANUFACTURING

USER GUIDE

TRAINING PACKAGE CODE
AUM 00
(PASSENGER MOTOR VEHICLE SECTOR)
# USER GUIDE
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</table>
THE AIM OF THE ‘USER GUIDE’

The Manufacturing National Training Package is one of two training packages developed for the Australian automotive industry by Automotive Training Australia Limited (ATA):

Package 1: Manufacturing sector
Package 2: Retail, Service & Repair sector

ATA is the National peak body of a National network of State and Territory Industry Training Advisory Bodies and Automotive Manufacturers providing strategic advice and liaison between the industry and Governments. The Board of ATA followed a consultative strategy to ensure that industry views and requirements were the basis of the Training Packages.

This User Guide provides an overview of the Automotive Industry Manufacturing sector National Training Package.

It is a guide for automotive manufacturers and training organisations which provide services to the industry. It explains how the Manufacturing National Training Package can develop skills required in the workplace, and provide nationally recognised qualifications for the many thousands of people who work in the industry.

THE MANUFACTURING SECTOR

The Manufacturing sector represents a complex and diverse range of enterprises involved in the manufacture of vehicles and components.

Over 43,000 people are employed across Australia in the Manufacturing sector of the automotive industry, with 23,000 involved in the manufacture of passenger cars and light commercial vehicles, and 20,000 in automotive component manufacture.

It is a sector where the majority of vocational training has traditionally been focussed in the four vehicle manufacturing plants and a number of key automotive component manufacturers.

The development of ‘competency-based’ Training Packages provides the opportunity to broaden the provision of recognised vocational training to a greater range of occupations and provide for skill development and recognition from entry level to management level.

KEY FEATURES OF THE MANUFACTURING TRAINING PACKAGE

- Developed by Industry for Industry
- Increased training opportunities
- Flexibility in:
  * content of training programs
  * how and where training will be delivered
  * choice of training providers
- National recognition of skill to Industry competency standards
- Assessment that measures outcomes
- Focus on skills required in the workplace
WHAT IS IN THE MANUFACTURING TRAINING PACKAGE?

ENDORSED COMPONENTS

These components are outlined in this User Guide.

Competency Standards
A set of broad-based Industry and occupational competency units defining the full range of workplace requirements across the Manufacturing sector of the industry.

Qualifications
A range of National qualifications, based on combinations of competency units, providing meaningful outcomes at an Industry or Enterprise level.

Assessment Guidelines
Comprehensive advice on specific Industry assessment arrangements to underpin the assessment of competencies attained and form the basis of the issuing of National Qualifications and Statements of Attainment.

NON–ENDORSED COMPONENTS

Optional materials that assist in delivery and assessment of training to achieve standards/qualifications detailed in the Training Package.

Professional Development Materials
ATA has produced a Training Package ‘Tool Kit’, as a professional development resource that provides information on:

Learning Strategies
How training programs may be organised in workplaces and through registered organisations, to deliver competency-based National qualifications.

The kit includes a database (CD ROM) of a wide range of teaching and learning resources developed in both the private and public sectors, available in the market place.

Automotive Assessment Toolmaker
This CD ROM provides information about methods of assessment, with examples and a printed “Guide to Developing Record Books” for the Automotive Industry.

Further details of the ‘Tool Kit’ and other resources are outlined on page 15 of this User Guide.
COMPETENCY STANDARDS

“Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace.”

“The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process, and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are involved.”

ATA has ensured that the Manufacturing Competency Standards accurately reflect:
- skills currently applied in the workplace
- the link between skills and assessment
- consistency between the competency stated and the elements and evidence listed
- current and new technology and its application in the workplace
- application in a broad range of industry contexts.
HOW TO INTERPRET THE COMPETENCY STANDARDS

AUM02101A

MAINTAIN PLANT, TOOLING, EQUIPMENT OR SYSTEMS

This unit identifies the competence required to conduct maintenance and service tasks on plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

UNIT DESCRIPTOR:

This number identifies the Unit Title

This is the Unit purpose and it clarifies the title

Elements of Competency should identify the work process to be undertaken in a logical order and be related to the unit purpose.

This is the Performance Criteria which identifies the work practices where a competency can be achieved.

<table>
<thead>
<tr>
<th>ELEMENTS OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM02101A.1 Develop preventative and remedial maintenance plans for plant, tooling, equipment or systems.</td>
<td>AUM02101A.1.1 Preventative maintenance requirements are identified from manufacturer recommendations and an analysis of the operational performance and maintenance history of the actual, or similar, plant, tooling, equipment or systems in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM02101A.1.2 Preventative maintenance plans, schedules and procedures are developed, based on the analysis of preventative maintenance requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM02101A.1.3 Documentation for periodic schedules of preventative maintenance are prepared in accordance with the company procedures and manufacturer recommendations.</td>
</tr>
<tr>
<td></td>
<td>AUM02101A.1.4 Remedial maintenance plans for emergency breakdown situations are developed in cooperation with production and engineering staff and submitted for approval of appropriate personnel in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM02101A.1.5 Details of approved preventative and remedial maintenance plans and related documentation, charts, etc. are distributed to relevant company personnel.</td>
</tr>
</tbody>
</table>

Each of the competency standards provides the following further details:

The Range of Variables statements identifies the range of contexts, sources of information and resources required, methods and any special requirements.

The Evidence Guide provides instruction on the context and critical aspects for assessment, and describes the underpinning knowledge and practical demonstration requirements.

Identification of National Key Competencies contained within the Unit of Competence.
## COMPETENCY STANDARDS LISTING

### Automotive Manufacturing Passenger Motor Vehicle (PMV) Competency Standards applicable to Certificate II level.

<table>
<thead>
<tr>
<th>COMPETENCY STANDARD NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9001A</td>
<td>Monitor and maintain workplace environment</td>
</tr>
<tr>
<td>AUM9002A</td>
<td>Receive and dispatch materials, equipment and tools</td>
</tr>
<tr>
<td>AUM9003A</td>
<td>Prepare and process materials and components</td>
</tr>
<tr>
<td>AUM9004A</td>
<td>Prepare and use/operate equipment, tools and/or machinery</td>
</tr>
<tr>
<td>AUM9005A</td>
<td>Monitor and maintain continuous improvement systems and processes</td>
</tr>
<tr>
<td>AUM9006A</td>
<td>Monitor and maintain equipment, tools and machinery</td>
</tr>
<tr>
<td>AUM9007A</td>
<td>Manage personal work priorities</td>
</tr>
<tr>
<td>AUM9008A</td>
<td>Maintain effective workplace relationships</td>
</tr>
<tr>
<td>AUM9009A</td>
<td>Work effectively with others in teams</td>
</tr>
</tbody>
</table>

### Automotive Manufacturing PMV Competency Standards applicable to Certificate levels III to Advanced Diploma, listing standards in numerical order by title under functional group.

<table>
<thead>
<tr>
<th>COMPETENCY STANDARD NUMBER</th>
<th>COMPETENCY STANDARD TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Designing</td>
<td></td>
</tr>
<tr>
<td>AUM1503A</td>
<td>Create new product designs</td>
</tr>
<tr>
<td>2 Installing</td>
<td></td>
</tr>
<tr>
<td>AUM1601A</td>
<td>Install plant, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM1602A</td>
<td>Install plant, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM1603A</td>
<td>Install plant, equipment or systems - Complex</td>
</tr>
<tr>
<td>3 Testing</td>
<td></td>
</tr>
<tr>
<td>AUM1701A</td>
<td>Test components of plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM1702A</td>
<td>Test components of plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM1703A</td>
<td>Test components of plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM1802A</td>
<td>Test plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM1803A</td>
<td>Test plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>4 Maintaining</td>
<td></td>
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<tr>
<td>AUM2101A</td>
<td>Maintain plant, tooling, equipment or systems Basic</td>
</tr>
<tr>
<td>AUM2102A</td>
<td>Maintain plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2103A</td>
<td>Maintain plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>5 Repairing</td>
<td></td>
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<tr>
<td>AUM2201A</td>
<td>Repair plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM2202A</td>
<td>Repair plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2203A</td>
<td>Repair plant, tooling, equipment or systems - Complex</td>
</tr>
<tr>
<td>6 Manufacturing/Modifying</td>
<td></td>
</tr>
<tr>
<td>AUM2301A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Basic</td>
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<tr>
<td>AUM2302A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2303A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>7 Assuring quality</td>
<td></td>
</tr>
<tr>
<td>AUM2401A</td>
<td>Apply quality assurance techniques – Basic</td>
</tr>
<tr>
<td>AUM2402A</td>
<td>Apply quality assurance techniques – Advanced</td>
</tr>
<tr>
<td>AUM2403A</td>
<td>Apply quality assurance technique - Complexs</td>
</tr>
<tr>
<td>8 Documenting</td>
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</tr>
<tr>
<td>AUM2803A</td>
<td>Document work-related records</td>
</tr>
<tr>
<td>AUM3003A</td>
<td>Document designs</td>
</tr>
<tr>
<td>COMPETENCY STANDARD NUMBER</td>
<td>COMPETENCY STANDARD TITLE</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>9 Planning and organising</td>
<td>AUM3103A Plan and organise personal work activities</td>
</tr>
<tr>
<td></td>
<td>AUM3201A Plan, organise and coordinate work activities in a team – Basic</td>
</tr>
<tr>
<td></td>
<td>AUM3202A Plan, organise and coordinate work activities in a team – Advanced</td>
</tr>
<tr>
<td></td>
<td>AUM3203A Plan, organise and coordinate work activities in a team – Complex</td>
</tr>
<tr>
<td>10 Interpreting</td>
<td>AUM3903A Interpret manuals, drawings and/or circuits for plant, tooling, equipment or systems</td>
</tr>
<tr>
<td></td>
<td>AUM4003A Interpret customer requirements</td>
</tr>
<tr>
<td>11 Maintaining Safety</td>
<td>AUM4502A Create a safe work environment</td>
</tr>
<tr>
<td>12 Computing</td>
<td>AUM4601A Monitor computers and computerised equipment using displays – Basic</td>
</tr>
<tr>
<td></td>
<td>AUM4602A Monitor computers and computerised equipment using displays – Advanced</td>
</tr>
<tr>
<td></td>
<td>AUM4603A Monitor computers and computerised equipment using displays – Complex</td>
</tr>
<tr>
<td></td>
<td>AUM4702A Program and monitor PLCs, robots and other computerised equipment – Advanced</td>
</tr>
<tr>
<td></td>
<td>AUM4703A Program and monitor PLCs, robots and other computerised equipment – Complex</td>
</tr>
<tr>
<td></td>
<td>AUM4803A Use computers in work locations</td>
</tr>
<tr>
<td></td>
<td>AUM4903A Use computers and computerised equipment in design and development applications</td>
</tr>
<tr>
<td>13 Drafting</td>
<td>AUM5403A Produce computer-aided drawings (CAD)</td>
</tr>
<tr>
<td>14 Researching</td>
<td>AUM5503A Produce research reports</td>
</tr>
<tr>
<td>15 Modelling</td>
<td>AUM5603A Develop stylistic models and prototypes</td>
</tr>
<tr>
<td>16 Communicating</td>
<td>AUM5802A Communicate information – Advanced</td>
</tr>
<tr>
<td></td>
<td>AUM5803A Communicate information - Complex</td>
</tr>
<tr>
<td></td>
<td>AUM5903A Seek, evaluate, organise and prepare information</td>
</tr>
<tr>
<td>17 Assessing competence</td>
<td>AUM6001A Assess competence – Basic</td>
</tr>
<tr>
<td></td>
<td>AUM6002A Assess competence – Advanced</td>
</tr>
<tr>
<td></td>
<td>AUM6003A Assess competence - Complex</td>
</tr>
<tr>
<td>18 Production</td>
<td>AUMNT3001A Rectify faults in vehicle metal components</td>
</tr>
<tr>
<td></td>
<td>AUMNT3002A Rectify paintwork</td>
</tr>
<tr>
<td></td>
<td>AUMNT3003A Control paint line production processes</td>
</tr>
<tr>
<td></td>
<td>AUMNT3004A Conduct engine hot test</td>
</tr>
<tr>
<td></td>
<td>AUMNT3005A Rework production engines</td>
</tr>
<tr>
<td></td>
<td>AUMNT3006A Rectify mechanical faults on production vehicles</td>
</tr>
<tr>
<td></td>
<td>AUMNT3007A Rectify electrical faults on production vehicles</td>
</tr>
<tr>
<td></td>
<td>AUMNT3008A Rectify assembly faults in assembled vehicles</td>
</tr>
<tr>
<td></td>
<td>AUMNT3009A Conduct die coating</td>
</tr>
<tr>
<td></td>
<td>AUMNT3010A Conduct structural rectification of vehicle bodies</td>
</tr>
<tr>
<td></td>
<td>AUMNT3011A Test welds ultrasonically</td>
</tr>
<tr>
<td></td>
<td>AUMNT3012A Conduct tool setting</td>
</tr>
<tr>
<td></td>
<td>AUMNT3013A Monitor and maintain metals treatment plant operations</td>
</tr>
</tbody>
</table>

**NOTE:** There are no qualifications attached to the competency standards in the above section titled Production. The thirteen competency standards are stand-alone and can be accessed by employees who have completed the Certificate II in Automotive Manufacturing. A Statement of Attainment will be issued on successful completion of individual standards.
### IMPORTED COMPETENCY STANDARDS

**Frontline Management Competency Standards**

<table>
<thead>
<tr>
<th>UNIT NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXFM 1301A</td>
<td>Manage personal work priorities and professional development</td>
</tr>
<tr>
<td>BSXFM 1302A</td>
<td>Provide leadership in the workplace</td>
</tr>
<tr>
<td>BSXFM 1303A</td>
<td>Establish and manage effective workplace relationships</td>
</tr>
<tr>
<td>BSXFM 1304A</td>
<td>Participate in, lead and facilitate work teams</td>
</tr>
<tr>
<td>BSXFM 1305A</td>
<td>Manage operations to achieve planned outcomes</td>
</tr>
<tr>
<td>BSXFM 1306A</td>
<td>Manage workplace information</td>
</tr>
<tr>
<td>BSXFM 1307A</td>
<td>Manage quality customer service</td>
</tr>
<tr>
<td>BSXFM 1308A</td>
<td>Develop and maintain a safe workplace and environment</td>
</tr>
<tr>
<td>BSXFM 1309A</td>
<td>Implement and monitor continuous improvement systems and processes</td>
</tr>
<tr>
<td>BSXFM 1310A</td>
<td>Facilitate and capitalise on change and innovation</td>
</tr>
<tr>
<td>BSXFM 1311A</td>
<td>Contribute to the development of a workplace learning environment</td>
</tr>
</tbody>
</table>

(Note: Certificate IV and Diploma Frontline Management standards are signified by the change from number ‘3’ to ‘4’ and ‘5’ respectively)

**Manufacturing, Engineering & Related Services Competency Standards**

<table>
<thead>
<tr>
<th>UNIT NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEM18.18 A A</td>
<td>Maintain pneumatic system components</td>
</tr>
<tr>
<td>MEM18.19 A A</td>
<td>Maintain and repair pneumatic systems</td>
</tr>
<tr>
<td>MEM18.20 A A</td>
<td>Maintain hydraulic system components</td>
</tr>
<tr>
<td>MEM18.21 A A</td>
<td>Maintain and repair hydraulic systems</td>
</tr>
<tr>
<td>MEM18.22 A A</td>
<td>Maintain/repair/replace fluid power controls</td>
</tr>
</tbody>
</table>
## MANUFACTURING QUALIFICATIONS

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advanced Diploma of Automotive</strong></td>
<td></td>
</tr>
<tr>
<td>Design and Development</td>
<td>AUM 601 00</td>
</tr>
<tr>
<td><strong>Diploma of Automotive</strong></td>
<td></td>
</tr>
<tr>
<td>Frontline Management</td>
<td>AUM 501 00</td>
</tr>
<tr>
<td>Manufacturing Maintenance</td>
<td>AUM 502 00</td>
</tr>
<tr>
<td><strong>Certificate IV in Automotive</strong></td>
<td></td>
</tr>
<tr>
<td>Frontline Management</td>
<td>AUM 401 00</td>
</tr>
<tr>
<td>Manufacturing Maintenance</td>
<td>AUM 402 00</td>
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<tr>
<td><strong>Certificate III in Automotive</strong></td>
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<tr>
<td>Frontline Management</td>
<td>AUM 301 00</td>
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<tr>
<td><strong>Certificate II in Automotive</strong></td>
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<td>AUM 201 00</td>
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Qualifications are in the context of the Australian Qualifications Framework Guidelines.

The Guidelines have been developed to assist employers, employees, professional associations, unions, curriculum developers, accrediting bodies and the wider public, including students, parents, and education and training bodies, to understand factors determining the level of a qualification available under the Australian Qualifications Framework (AQF).

Reference to Qualification Rationale can be found in Section 3 of the Training Package.
PATHWAYS TO MANUFACTURING QUALIFICATIONS

This diagram identifies current career pathways in Automotive Manufacturing.

The pathways enhance career options for future and current employees and encourage a range of technical and non-technical Automotive Manufacturing qualifications.

ENTRY

Certificate 6
Industry/External Qualification

Certificate 5
Industry and/or Equivalent Qualification

Certificate 4
Industry and/or Equivalent Qualification

Certificate 3
Frontline Management

Certificate 2
VIC or equivalent

Traditional Apprenticeship

Entry may occur through RPL

Certificate 3
Existing (relevant) Trade or Equivalent

Certificate 4-6 Streams Examples:
- Electrical/Electronics
- Mechanical
- Fabrication/Support
- Automotive Development
- Technical Support
- Management/Supervision
- Administration

NOTE:
Any other Nationally registered Competency Standards or Training Package may be used imported in total, or in part to provide or compliment a relevant Automotive Manufacturing Certificate 4-6 qualification eg:

- Business Services ITAB (Frontline Management)
- National Utilities & Electrotechnology ITAB Electrical/Electronic (Electrotechnology Industry Training Package)
- Manufacturing, Engineering & Related Services ITAB (Metals & Engineering Training Package)
- Transport & Distribution ITAB (Transport and Distribution Training Package)

NOTE:
The full name of the ITAB and the training package was added to this diagram on 20 March 2000)

Certificate 3
Enterprise specific streams eg Automotive Production

OR

Certificate 1-3 Streams (in accordance with structural efficiency agreements)
- Electrical/Electronics
- Mechanical
- Fabrication/Support etc.

Graduates from the VIC at Certificate 2 may, subject to the guidelines described within each company's Enterprise Bargaining Agreement (EBA), achieve a Certificate 3 or equivalent qualification that would facilitate entry to the Automotive Manufacturing Certificate 4-6 stream of certifications through a negotiated "Contract of Training" relevant to the specific job competencies and field of application of the Certificate 4-6 streams.

NOTE:
Any other Nationally registered Competency Standards or Training Package may be used imported in total, or in part to provide or compliment a relevant Automotive Manufacturing Certificate 4-6 qualification eg:

- Business Services ITAB (Frontline Management)
- National Utilities & Electrotechnology ITAB Electrical/Electronic (Electrotechnology Industry Training Package)
- Manufacturing, Engineering & Related Services ITAB (Metals & Engineering Training Package)
- Transport & Distribution ITAB (Transport and Distribution Training Package)

NOTE:
The full name of the ITAB and the training package was added to this diagram on 20 March 2000)
Automotive manufacturing qualifications entry and exit points are identified in the following diagram. Industry advice has confirmed:
- there is no Nationally agreed exit point at a Certificate I level
- a Certificate II level qualification is not a pre-requisite for training
- retention of adult apprenticeships which will become new apprenticeships under training packages
- retention of current recognition arrangements for “trade” in automotive manufacturing at Certificate III, IV and Diploma
- industry agreement to define further career pathways for trainees seeking to move from a qualification at a Certificate III to either a technical or managerial qualification at a higher level.

**Note:** Exiting from any level without completion of the qualification will entitle the trainee to receive a statement of attainment.
## QUALIFICATIONS PACKAGING MODEL

The Qualifications recognise achievement of groups of Competency Standards that define a person’s range of occupational skills.

The diagram below depicts the packaging model used for the qualification levels

### Advanced Diploma

- **FRONTLINE MANAGEMENT**: 11 competencies for qualification
  - (5 Core plus 6 Electives)
- **MANUFACTURING MAINTENANCE**: 6 competencies for qualification
  - (6 Competencies chosen at Advanced or Complex Level)

### Diploma

- **FRONTLINE MANAGEMENT**: 11 competencies for qualification
  - (5 Core plus 3 Electives)
- **MANUFACTURING MAINTENANCE**: 9 competencies for qualification
  - (Up to a maximum of 6 competencies chosen at Basic Level, minimum of 3 chosen at Advanced Level)

### Certificate IV

- **FRONTLINE MANAGEMENT**: 11 competencies for qualification
  - (4 Core plus 2 Electives)

### Certificate III

- **VIC**: All 9 Competencies for qualification

### Certificate II

- **VIC**: All 9 Competencies for qualification
**AUTOMOTIVE INDUSTRY ASSESSMENT GUIDELINES**

The Assessment Guidelines apply to the Automotive Manufacturing sector and the RS&R Sector.

The Automotive Manufacturing and RS&R National Training Packages include new recognition arrangements and promote **USER CHOICE**.

All Registered Training Organisations (RTOs) providing training and/or assessment leading to a qualification endorsed in an Automotive National Training Package will be required to assess against Automotive Industry competencies, utilising the Automotive Industry Assessment Guidelines.

**ASSESSMENT OF COMPETENCY**

(Industry consultation has confirmed this definition of assessment.)

“Assessment is the process of collecting evidence and making judgement on whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to standards expected in the workplace as expressed in the endorsed industry/enterprise competency standards.”

Automotive Assessment Guidelines have been developed to cover the following broad areas:

- **Assessment System Overview** – a description of the assessment system operating in the Automotive Industry.
  - Benchmarks for assessment
  - Role of Registered Training Organisation
  - Assessment options, partnerships and pathways
  - Recording and Reporting outcomes
  - Appeal process
  - Review and maintenance of assessment system

- **Assessor Qualifications and Training** – qualifications required for automotive assessors, how requirements can be met and training available for assessors.

- **Guidelines for Designing Assessment Materials** – how to design assessment materials which enable assessors to gather sufficient, valid information upon which to make an assessment.

- **Guidelines for Conducting Assessments** – an overview of the Automotive Industry-endorsed processes for conducting assessments. Planning, conducting, recording results, providing feedback and review process

- **Sources of Information on Assessment** – additional sources of information on Automotive Industry assessment.

The complete Automotive Industry Assessment Guidelines is available as a stand-alone booklet and is a compulsory reference for all training providers and businesses using this package.
NATIONAL SUPPORT FOR THE IMPLEMENTATION OF THE AUTOMOTIVE MANUFACTURING TRAINING PACKAGE

MANUFACTURING TRAINING PACKAGE - PUBLICATIONS LIST

User Guide
A stand-alone booklet providing a map to guide you through all aspects of the Automotive Manufacturing National Training Package.

Assessment Guidelines
A stand-alone booklet containing the complete Assessment Guidelines. A compulsory reference for all training providers and businesses using this package.

Qualifications
Two bound books specifying all requirements necessary to attain each Qualification within the package. The books contain full details of all Competency Standards required for each Qualification stream.

Compact Disc
An electronic copy of the Training Package is also available.

Price list and ordering details are available from ATA.

THE AUTOMOTIVE TRAINING PACKAGES ‘TOOL KIT’

To assist employers and training providers, Automotive Training Australia Limited has collated information and support materials and packaged them into a ‘Tool Kit’ which we will provide to support competency-based training and assessment against National competency standards.

The ‘Tool Kit’ has three parts and comprises both CD ROMs and manuals:

PROFESSIONAL DEVELOPMENT
‘About the Automotive Training Package’ (CD ROM and Manual) is a description of training packages and provides information about competency-based training and assessment against standards.

ASSESSMENT INSTRUMENTS
‘Automotive Assessment Tool Maker’ (CD ROM)
- Provides information about methods of assessment, with some guidelines and hints on how to assess against the automotive competency standards:
  - Instructs, in a simple sequence, the actual development of assessment tools, taking examples from the techniques of:
    - questioning
    - observation
    - testing
    - projects
    - portfolios
    - co-assessment

The examples from these techniques can be saved and used by assessors in any situation, as the templates can be edited/re-used to suit individual requirements. They are provided in Microsoft Word format.

‘Guide to Developing Record Books for the Automotive Industry’ (Manual)
Recording of Assessment is covered by the hard copy best practice guide. It provides information about developing and using student record books. The information contained in the guide is the result of research into existing record books and contains a sample recording template.

TEACHING AND LEARNING RESOURCES DATABASE
‘Resource Guide’ (CD ROM) is a data base of teaching and learning resources, assessment materials and professional development information. There are currently approximately 800 entries which can be searched using key words or course titles. The Guide will be updated regularly and expanded as additional resources become available.

TRAINING AND ASSESSMENT MATERIALS

ATA has available a range of specific materials to assist Registered Training Organisations and companies implementing the Manufacturing Training Package. These include:
- Automotive Development
- Metal Forming
- Metal Joining
- Vehicle Painting
- Vehicle Industry Certificate
- Training Record Books

ATA intends to build on these National resources, and users are encouraged to become an ATA subscriber to keep informed of developments and gain access to innovative materials as they become available.

IMPLEMENTING THE MANUFACTURING TRAINING PACKAGE

Following endorsement of the Manufacturing National Training Package, arrangements will progressively be put in place in each State and Territory to provide for the transition to the National Training Framework.

Arrangements will include:
- replacement of existing accredited courses with National Training Package Qualifications;
- registration of training organisations, including automotive companies where applicable, to operate on a National basis;
- recognition of training and assessment provided in a variety of ways, eg
  - through entry level Traineeships and Apprenticeships (now called New Apprenticeships)
  - informal attainment of skills through on-the-job experience and development
  - through ‘in-house’ company provided training and development programs
  - formal off-the-job training programs
  - vocational education and training at secondary schools;
- provision of public funds for delivery of training and assessment services.
# ASSESSMENT GUIDELINES

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BACKGROUND

The Assessment Guidelines for the Automotive Industry have been prepared under Australian National Training Authority (ANTA) Guidelines June 1997, for the development of Nationally endorsed Training Packages.

The Assessment Guidelines apply to the Automotive Retail, Service & Repair sector and the Manufacturing sector.

Automotive Retail, Service & Repair and Manufacturing Training Packages include new recognition arrangements and promote User Choice. All Registered Training Organisations (RTOs) which provide training and/or assessment which leads to a qualification endorsed in an Automotive Training Package, will be required to assess against Automotive Industry competencies utilising the Automotive Industry Assessment Guidelines.

COMPETENCY

The ANTA Guidelines set out definitions of competency. These definitions are applied throughout this document.

"Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace."

"The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are included."

ASSESSMENT OF COMPETENCY

Industry consultation has confirmed this definition of assessment.

"Assessment is the process of collecting evidence and making judgement on whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to standards expected in the workplace as expressed in the endorsed industry/enterprise competency standards."

Automotive Assessment Guidelines were developed to cover the following broad areas:

- **Assessment System Overview** - a description of the assessment system which operates in the Automotive Industry.
- **Assessor Qualifications and Training** - qualifications required for automotive assessors, how requirements can be met, and training available for assessors.
- **Guidelines for Designing Assessment Materials** – how to design assessment materials which enable assessors to gather sufficient, valid information from which to make an assessment.
- **Guidelines for Conducting Assessments** - an overview of the automotive industry endorsed processes for conducting assessments.
- **Sources of Information on Assessment** – additional sources of information on Automotive Industry assessment.
ASSESSMENT SYSTEM OVERVIEW

BENCHMARKS FOR ASSESSMENT

Competency Standards
Units of competency comprise:
• Unit Title
• Unit Purpose
• Elements of competency, and associated Performance Criteria
• Range of Variables statement
• Evidence Guide.

Competency Standards were formulated, then reviewed and validated considering the following:
• Units of competency are the basis and smallest element for formal assessment of skills and knowledge.
• Units of competency should capture the broad application of skills and knowledge needed in workplace performance.
• Units of competency must be relevant in different contexts, and to future needs.
• Unit breadth, size and structure are important factors in application of standards for training and assessment.
• The Unit Purpose clarifies the unit title.
• Elements are directly related to the unit purpose.
• Performance Criteria are precise and can be assessed.
• The Range of Variables statement identifies context and clarifies application.
• The Evidence Guide expands interpretation, implementation and assessment criteria.

ROLE OF REGISTERED TRAINING ORGANISATIONS

The National Recognition Framework is reliant on the use of Registered Training Organisations (RTOs) to carry out training, assessment and issuing of qualifications and RTOs must be registered with the State Training Authority for:
- the purposes of delivering training and undertaking assessment; or
- the sole purpose of undertaking assessment.

Responsibilities:
• Issue the relevant certificate, diploma or advanced diploma, subject to individual State/Territory arrangements, to a trainee who has been assessed as competent against the endorsed units of competency for the qualification.
• Conduct assessments of individuals against the endorsed units of competency stipulated for that qualification.
• Issue Statements of Attainment to a trainee who has been assessed as competent in one or more of the endorsed units of competency but not yet competent in the entire package of units.
• Comply with the Automotive Assessment Guidelines when performing any part of the assessment process.
• Provide to the industry assessors who meet the criteria stipulated by the industry.
• Implement quality assurance to ensure the integrity of the RTO assessment process.
• Review the RTO assessment process to ensure that the key principles of assessment are being implemented.
• Implement assessment so as to gather evidence from all relevant sources and on a number of occasions before completing assessment.
• Maintain records of trainees assessed as competent in all or some of the units of competency for a particular qualification.
• Provide security and privacy of assessment records. Access to the records should be confined to the employer, assessor and the trainee. Other persons requesting access to the records should obtain approval from the trainee.
• Develop a reporting process for assessment outcomes.
• Implement the industry assessment appeals and reassessment process when disputes arise over assessment.

REGISTERED TRAINING ORGANISATIONS AND ENTERPRISES - ASSESSMENT OPTIONS AND PARTNERSHIP ARRANGEMENTS

A number of options are available to enterprises. A key point is that the RTO has the responsibility for the integrity of the assessment process and for issuing the qualification.

• The enterprise may provide its own qualified assessor or enter into a partnership agreement with a qualified assessor, and negotiate an agreement with the RTO to monitor, validate and audit all assessment activities within industry guidelines.
• The enterprise may implement a team or panel approach for assessment of competencies. This would normally see the enterprise providing the technical experts and entering into a partnership agreement with the RTO who would provide the qualified assessor.
• The enterprise may become an RTO and under its scope of registration assess and issue qualifications for particular packages of industry-endorsed standards.

ASSESSMENT PATHWAYS

Assessment should be an integrated process and conducted under agreed arrangements that facilitate flexible assessment pathways. Such assessment will lead to a statement of attainment or a nationally recognised qualification under the Australian Qualification Framework.

Workplace Assessment
Assessment can be undertaken on-the-job. The on the job assessments should be conducted and recognised under an agreement between the employer, RTO and trainee. In the case of persons not in employment, appropriate workplaces should be sought under an agreed position with an employer. If this is not possible, a simulated environment may be appropriate.

Off-The-Job Assessment
Assessment can be undertaken off the job. The off-the-job assessments should be conducted and recognised under an agreement between the employer, RTO and trainee. In some circumstances it could be possible for the majority of competencies to be assessed off the job. For those not in employment, a simulated environment reflecting workplace conditions and practice may enable students to satisfactorily demonstrate competence. It is essential that any off-the-job assessment is carried out within the spirit and criterion of the standard.

Combination of on- and off-the-job Assessment
The partnership between an RTO and employer can facilitate a combination of both on- and off-the-job assessment. Where a person is not in employment, an RTO will need to make appropriate arrangements to obtain on-the-job exposure where deemed essential by the standard.

Simulated Workplace Assessment
The employer, trainee and RTO may make arrangements to assess the Competency Standards in a simulated workplace environment which must be consistent with the Automotive Industry Training Package and the requirements of the units of competency being assessed. For those in employment, a simulated workplace must be agreed to by the employer and the trainee.

For those not in employment, simulated environments must reflect current workplace practice and conditions.
Recognition of Current Competencies (RCC) and Recognition of Prior Learning (RPL)

RCC refers to assessment which confirms the trainee is competent against some or all of the required Competency Standards whether a training program has been undertaken or not. It is aimed at avoiding unnecessary duplication of effort when a person can demonstrate competence. RCC can be assessed by an RTO or an employer provided appropriate assessment processes are in place. RCC may result from assessments or recognition of current jobs/tasks being performed competently in the workplace.

Recognition of prior learning (RPL) refers to the analysis that a registered training organisation would conduct to ascertain if the individual at enrolment could already achieve some or all of the learning outcomes of the course of study. It should be noted that although RPL is not about recognising current competencies, the learning outcomes may contribute to the individual developing competency in particular industry-endorsed standards in a short period of time.

RECORDING ASSESSMENT OUTCOMES

Responsibility for recording, storing and accessing assessment outcomes rests with the body that issues the qualification under the AQF.

The completion of a single Unit of Competence should be the minimum assessment data formally recorded.

If completion of individual elements is recorded to provide a progress report for the trainee, this information should be kept separate from the formal recording document used to record and report final/formal assessment outcomes.

- An enterprise, if also an RTO, may make its own internal arrangements for recording assessments.
- Statements of Attainment, identifying Units of Competence achieved when the number or combination of the standards does not equate to a Nationally recognised qualification, should be recorded by the assessor, with a copy provided to the trainee.
- The industry-agreed certification/qualification against the AQF should be recorded when the prescribed number and combination of National Competency Standards has been met. Certification should be accompanied by a list of all National Competency Standards achieved.
- The trainee should have immediate access to his/her own assessment records in whichever format the records are maintained.

REPORTING ASSESSMENT OUTCOMES

Reporting assessment outcomes are governed by two requirements:

- privacy and confidentiality of information
- AQF Guidelines.

Privacy and Confidentiality

Information relating to a trainee’s assessment outcomes should be treated confidentially. Access to this information should be limited to the employer, supervisor, assessor, trainee and only those other people approved, in writing, by the trainee.

AQF Guidelines

The minimum assessment to be reported is against the unit of competence. If a National Competency Standard is partially completed, evidence of partial competence may be recorded to avoid the need to retrain unnecessarily.

Where the trainee has been assessed as competent in all of the required Competency Standards which lead to a nationally recognised qualification, the RTO undertaking or approving the assessments should issue the nationally recognised AQF qualification.
ASSESSMENT, APPEAL AND REASSESSMENT PROCESS

The main purpose of assessment, appeal and reassessment is to provide support to the trainee so that competence may be achieved. Careful preparation, self-evaluation by the trainee and a clear understanding of the assessment processes pave the way for successful outcomes so that appeals and reassessments are rare.

The processes that should apply are outlined below.

Assessment
- The assessor and/or employer/supervisor uses the assessment process to identify areas of skill and knowledge in need of further development.
- Where the trainee is deemed “not yet competent”, the assessor and/or employer/supervisor provides advice on options and preferred action to reach the required competence, eg. further training or more guided practice in the workplace.
- Where the trainee does not appeal, reassessment may be arranged in agreement with the employer/assessor, or another assessor, within a defined time, eg. one month.

Appeals
There is a requirement for an appeals process as:
- a matter of natural justice for a trainee, to avoid unfair treatment or an assessor’s error of judgement;
- an incentive to quality and consistent performance by assessors;
- assurance to employers and trainees of the objectivity of the assessment system.

Appeal for reassessment to gain an independent second opinion will apply in cases where a trainee is judged as “not yet competent” and believes they have been incorrectly assessed or processes have been inaccurate.

Appeals Process
- It is preferable that appeals processes be managed in a collaborative manner within the trainee’s workplace or RTO, as part of the established consultative framework used by the enterprise or RTO.
- In the case of enterprise and RTO partnership arrangements, where disagreements in relation to assessments arise it is recommended that the relevant parties meet to resolve the problem. The employer, trainee and the RTO should initially try to rectify the problem through discussion. Within the partnership, the seeking of other opinions from qualified assessors would be a means of attempting a resolution.
- If no resolution can be found under the point above, the RTO/Employer/Trainee should access additional advice from the State Training Authority or State/Territory ITAB, regarding dispute resolution mechanisms.

Appeals Principles
- The rights of all parties should be protected by being kept fully informed of all appeal proceedings.
- Records of all appeal processes, outcomes, recommendations and action plans should be maintained by the RTO’s administration systems.
- Appeals may also be used to monitor the basic elements of the system, eg. to ensure appropriate use of Competency Standards or to verify assessors’ processes internally.

Reassessment
This would take place as required, as outlined previously.

The assessment, appeals and recording system is outlined in Figure 1.
Figure 1: Assessment Process

COMPETENCY STANDARDS
National Training Packages
Assessment Guidelines
Partnership Arrangements:
• Employee/Assessee/Trainee
• Employer/Assessor
• Registered Training Organisation

ASSESSMENT
Assessment Criteria/Evidence
Pathways:
• Workplace assessment
• Off-the-job/simulation
• Recognition of current competency
• Recognition of prior learning

“Not Competent”

PLANNED LEARNING ACTIVITIES
• On-the-job work experience
• On/off-the-job training

“Competent”

APPEAL PROCESS

RECOGNITION

Statement of Attainment
For achievement of individual units of competency achieved

Qualification
National Certificate/Diploma
For completion of all core, stream and elective units specified in package

RECORDING SYSTEM
REVIEW AND MAINTENANCE OF THE ASSESSMENT SYSTEM

The automotive assessment system will require regular review and maintenance, to provide ongoing benefits to the trainee, employer and the industry.

The principles governing the review and maintenance processes include:

- ongoing revision of industry and enterprise standards, to meet the changing competency needs of the industry
- strategies to develop and maintain assessment and trainer competence. Processes should be implemented to validate the criteria for recognition of assessors and trainers and, when necessary, adjust that criteria to meet changing industry requirements
- review of both the assessment process and units of competency for: validity - measure what they intend to measure reliability - provide consistent results in given contexts flexibility - applicable on- or off-the-job and can be adapted to meet different workplace contexts or special needs fairness - do not disadvantage individuals clarity - easily understood by assessors and trainees simplicity - easily implemented and operated

- reporting of formal and informal feedback through mechanisms built into the system
- the review of partnership arrangements to enhance the partners’ level of competence
- strategic review of the assessment processes and outcomes, through random, independent validation determined by each State and Territory under industry guidelines
- review and maintenance processes, consistent with the Australian Recognition Framework (ARF) guidelines.

ASSESSOR QUALIFICATIONS

“Assessments against the competencies in the Training Package should be carried out in accordance with these endorsed guidelines. The guidelines include the necessary qualifications for those conducting assessments and provide for those situations where more than one person may contribute to the assessment and where the required technical and assessment competencies may not all be held by any one person.”

ASSESSOR QUALIFICATIONS

The competence of assessors is fundamental to the effectiveness and quality of competency-based assessment. Assessors, panels and industry/RTO partnerships must have:

- current workplace competencies in the areas being assessed
- current competence as a workplace assessor
- interpersonal skills
- adherence to equal opportunity and cultural diversity issues.

It is not mandatory for enterprise assessors working in partnerships with an RTO to have workplace assessor qualifications, but the achievement of minimum formal qualifications in assessment by all workplace assessors is encouraged.
Minimum requirements are three units of competence from “Assessment and Workplace Training Industry Training Package” (BSZ98).

The competencies are:
- BSZ401A Plan Assessment
- BSZ402A Conduct Assessment
- BSZ403A Review Assessment

ASSESSOR ARRANGEMENTS

The requirement to use competent assessors can be met by implementing any of the following strategies.

- an assessor who is competent against the assessor Competency Standards and has the relevant and current technical competencies. Assessor competency may be gained through an appropriate training program or through RPL/RCC;

- an assessor who is competent against the assessor Competency Standards, working in partnership with someone who has the relevant technical competencies at least to the level being assessed;

- an RTO advisory and support role for employers who hold an equivalent qualification to that being assessed within the workplace, the RTO to provide workplace assessment advice/assistance on processes and procedures, in partnership with employer/supervisor;

- an assessment panel which includes at least one person who is competent against the assessor Competency Standards and at least one person (supervisor or peer) who is competent in the relevant vocational/technical competencies, at least to the level being assessed;

- a qualified assessor, who is also competent in the technical competencies being assessed, validating the employer’s or supervisor’s assessment of on-the-job competency;

- an external assessor who has both assessor qualifications and relevant technical competencies to the level being assessed. The assessor may be from industry or from an RTO. The latter case would be of use in assessment centres, where simulated work conditions may be utilised, or when access or isolation problems need to be dealt with;

- co-operative arrangements, or assessment consortia, between small business employers. This would involve use of ‘external’ assessors, perhaps a ‘pool’ or panel who come from the workplace and meet industry requirements for assessors. Within the pool both assessment and relevant technical competencies must be present.
GUIDELINES FOR DESIGNING ASSESSMENT MATERIALS

Assessment materials should be designed to provide evidence of activities occurring in the workplace and in simulated environments.

Step one for designing assessment materials is the industry-endorsed standards. The designer of assessment material should interpret the evidence requirements from the information given in each unit of competency. The designer of assessment material should have assessment and technical expertise and be able to interpret Competency Standards and their parts. For example, the elements provide the outcomes, the performance criteria the level of performance, the range of variables the contexts and conditions, and the evidence guides the critical aspects of evidence required. The interpretation should also include the workplace context.

Step two is to select the methods of assessment that will provide the most appropriate evidence.

There are three main sources of evidence:

- **direct**
- **indirect**
- **supplementary**.

Direct sources of evidence are those assessment methods (practical tasks; demonstrations; simulations) that allow the individual to be observed in the workplace.

Indirect sources of evidence cover assessment methods (projects; products produced or services supplied; reports from third parties) where it may be too expensive, inappropriate or difficult to observe the individual.

Supplementary sources of evidence are those assessment methods (oral and written questions; self-assessment; off-line in the workplace) used to assess specific knowledge requirements and difficult or infrequent events or tasks.

Assessment materials will vary depending on the evidence source but they will be based on the following principles. They will be:

- **Valid** - measures what it is intended to measure.
- **Reliable** - provides consistent results in given contexts.
- **Fair** - does not disadvantage any individual and follows EEO principles.
- **Flexible** - applicable on- or off-the-job and can be adapted to meet different workplace contexts or special needs.
- **Safe** - does not endanger the individual or work colleagues.
- **Cost-effective** - minimises costs by collecting evidence already available and by not making it a special event, so disrupting the workplace.
- **Easily understood** - by both assessor and trainee.
Figure 2: Steps in the Design of Assessment Materials

1. Obtain industry-endorsed Automotive Competency Standards.

2. Interpret the competencies for evidence requirements (workplace context, type of evidence and amount):
- **Elements** - outcome required
- **Performance criteria** - level of performance
- **Range of variables** - contexts and conditions
- **Evidence guides** - critical aspects of evidence

3. Select methods of assessment that require evidence. Note that it is likely that some evidence already exists and only requires a method for collection.

4. Develop assessment items with criteria and/or checklists; provide clear instructions; list the conditions, and describe the resources required.

5. Trial and validate the assessment materials with a subject matter expert and a sample of the target population.

6. Modify the assessment materials with any changes required from the trial.

7. Implement the assessment materials.

8. Review and improve the assessment items as part of the quality assurance process.
GUIDELINES FOR CONDUCTING ASSESSMENTS

The guidelines are based on the following four stages:
1. Plan the assessment
2. Conduct the assessment
3. Record results and provide feedback to trainee
4. Review the assessment procedure

It is expected that the employer assessor/supervisor, the Registered Training Authority (RTO) and trainee will be active participants in the critical stages of assessment.

Reassessment/assessment is to be an on-going process as a result of requests for assessment from any of the parties involved after a period of preparation and self-evaluation. Assessment is also expected to be an integral and a cumulative learning process which guides the trainee/assessor towards final assessment. There should not be any restriction on the frequency of assessment. An employer in partnership with an RTO will continue to have the opportunity to assess in the workplace.

Assessment must take place against the industry-endorsed Competency Standards. The guidelines are applicable in RTO or workplace environments, but allow for flexibility depending on the context of the assessment and the assessment instruments chosen.

PLAN THE ASSESSMENT

The RTO is the body responsible for quality assured assessment and the ultimate issuing of the qualification. In planning the assessment, RTOs especially should undertake the planning. However, some employers may wish to be actively involved. The responsibilities for record keeping within the assessment process lies with the RTO. It is important that the partnership between an RTO and employer is actively formed to ensure that both parties are satisfied that a trainee is deemed competent.

Identify Assessment Context
- Identify the purpose of the assessment
  - Who wants the assessment?
  - Why is the assessment required?
  - What is to be assessed? (Skills/Competency Standard/s)
  - Who is going to be assessed? (trainee)
  - Who is going to conduct the assessment? (assessor/partnership arrangement)
- Plan for the assessment to comply with Automotive Industry Assessment Guidelines.
- Gain agreement with trainee regarding standard(s) to be assessed, date, time, place, and readiness to proceed.
- Allow for trainee’s self-assessment.
- Explain the role of assessor before, during and after assessment.

Clarify Evidence Requirements
- Ensure the evidence is consistent with the requirements of the competency standards.
- Identify the type and sufficiency of evidence to allow a valid decision.
- Clarify competence requirements to be demonstrated by the trainee to meet the criteria of the standard.
- Gain agreement with the trainee for the above.

Agree on Assessment Procedure with Trainee
- Select techniques that are:
  Reliable - provide consistent results in given contexts
  Valid - measure what they are intended to measure
  Fair - do not disadvantage any trainee
  Flexible - can accommodate range of contexts
  Practical - are cost-effective, clear, efficient and cause minimum disruption to the workplace.
• Identify assessment policies and requirements:
  - access to references, discussion with assessor, time limit, Occupational Health & Safety (OH&S) requirements, Equal Employment Opportunity principles
  - identify any specific rules for team assessments (if used)
  - explain the industry assessment appeals process.

Organise Assessment
Ensure workplace assessment takes place within the standard workplace environment and with all the tools, equipment and products required to carry out the assessment with due regard to Occupational Health and Safety (OH&S) issues.

CONDUCT THE ASSESSMENT

Gather Evidence
• Apply agreed assessment techniques.
• Ensure match exists between evidence being collected and industry standards.
• Ensure evidence allows a fair decision to be made.
• Document evidence as it is collected.
• Provide feedback during assessment to trainee:
  - discuss progress, give encouragement, be constructive.

Make Assessment Decision
• Based on the evidence collected being:
  Accurate - competency demonstrated
  Valid - evidence is relevant, necessary and predicts competency
  Consistent - consistent with other assessments; if not, explain
  Sufficient - the evidence is sufficient or additional is required
  Current - still current and relevant evidence
  Authentic - trainee’s work
• Based on the industry Competency Standards initially discussed with trainee.

RECORD RESULTS AND PROVIDE FEEDBACK TO TRAINEE

Record Results
• Record assessment results in the record book or electronically.
• Ensure recording complies with these Automotive Industry Guidelines.
• Restrict access
  - ensure confidentiality of assessment records
  - comply with Industry Guidelines.

Provide Feedback
• Provide feedback to trainee:
  - provide result(s) - competent/not yet competent
  - provide constructive feedback
• Provide guidance for further activities:
  - training/practice/skills development
  - further assessment
• Clarify appeals process with trainee if decision is challenged:
  - comply with Automotive Industry Guidelines
• Provide information to all parties as appropriate:
  - communicate results on a need-to-know basis

REVIEW ASSESSMENT PROCEDURE
• Review assessment procedure:
  - strengths and weaknesses
  - feedback from trainee
  - potential improvements.
SOURCES OF INFORMATION ON ASSESSMENT

NATIONAL, STATE AND TERRITORY INDUSTRY TRAINING BOARDS

Automotive Training Australia Limited
LaTrobe University, BUNDOORA VIC 3086
Phone: 1800 44 22 66
Fax: 03 9479 3480
Email: ata@automotivetraining.org.au
Website: www.automotivetraining.org.au

Automotive Training Victoria
Phone: 03 9866 1294
Fax: 03 9866 1295
Email: manager@atv.org.au

Automotive Training Board (NSW) Inc
Phone: 02 9281 4877
Fax: 02 9212 3146
Email: mpetersen@ozemail.com.au

Automotive Training Australia (QLD) Inc
Phone: 07 3244 1727
Fax: 07 3244 1799
Email: ataq@tlaq.com.au

Automotive Training Australia (NT)
Phone: 08 8941 8840
Fax: 08 8941 8850
Email: teatacnt@bigpond.net.au

Automotive Training Australia (WA) Inc
Phone: 08 9345 3466
Fax: 08 8941 8850
Email: rgoodlet@ntawa.com.au

Automotive Training Board (ACT) Inc
Phone: 02 6241 2923
Fax: 02 6297 6986
Email: rwaldron@suttonroad.com.au
AUSTRALIAN NATIONAL TRAINING AUTHORITY

Level 5/321 Exhibition Street
GPO Box 5347BB
MELBOURNE VIC 3001
Phone 03 9630 9800
Fax 03 9630 9888
Email: webmaster@anta.gov.au

STATE TRAINING AUTHORITIES

Accreditation & Registration Council
PO Box 985 Civic Square
CANBERRA ACT 2608
Phone: 02 6205 7777
Fax: 02 6205 7045
Email: karen.white@dpa.act.gov.au

Northern Territory Employment & Training Authority
1st Floor, Harbour View Plaza Building
Cnr McMinn & Bennett Streets
DARWIN NT 0800
Phone: 08 8999 4288
Fax: 08 8999 4223
Email: norm.buchan@nteta.nt.gov.au

NSW Vocational Education & Training Accreditation Board
Locked Bag 21
DARLINGHURST NSW 2010
Phone: 02 9244 5335
Fax: 02 9244 5344

Office of Training & Further Education - VIC
Client Relations Management Division
PO Box 266D
MELBOURNE VIC 3000
Phone: 03 9637 2762
Fax: 03 9637 2520

Queensland Vocational Education Training & Employment Commission
Recognition & Review Branch
Lock Mail Bag 527
BRISBANE QLD 4000
Phone: 07 3247 4988
Fax: 07 3247 5488
Email: wendy.gadsby@dtir.gov.au

SA Accreditation & Registration Council
Curriculum Policy & Training Recognition Branch
GPO Box 2352
ADELAIDE SA 5000
Phone: 08 8226 3398
Fax: 08 8226 3383
Email: carolwar@tafe.sa.edu.au
TAS Department of Vocational Education and Training
GPO Box 301C
HOBART TAS 7001
Phone: 03 6233 4539
Fax: 03 6234 4358
Email: reardonm@dvet.tas.gov.au

WA Department of Training
Accreditation Recognition Branch
GPO Box S140
EAST PERTH WA 6004
Phone: 08 9235 6035
Fax: 08 9235 6142
Email: cabrem@royalst.training.wa.gov.au

REGISTERED TRAINING ORGANISATIONS (RTO)

RTOs registered by State Training Authorities to conduct approved assessment and/or training programs.
PUBLICATIONS

The following are only several of a wide range of publications consulted in the preparation of the Automotive Assessment Guidelines.


GUIDE TO ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ANTA</td>
<td>Australian National Training Authority</td>
</tr>
<tr>
<td>AQF</td>
<td>Australian Qualifications Framework</td>
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<tr>
<td>ASF</td>
<td>Australian Standards Framework</td>
</tr>
<tr>
<td>ATA</td>
<td>Automotive Training Australia</td>
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<td>ITAB</td>
<td>Industry Training Advisory Board</td>
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<td>MINCO</td>
<td>Ministerial Council</td>
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<td>National Training Framework</td>
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<td>National Training Framework Committee</td>
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<tr>
<td>RCC</td>
<td>Recognition of Current Competencies</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning</td>
</tr>
<tr>
<td>RTO</td>
<td>Registered Training Organisation</td>
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# QUALIFICATION FRAMEWORK

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<td>3.8 List of Manufacturing Qualifications</td>
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SECTION 3: AUTOMOTIVE MANUFACTURING
PASSENGER MOTOR VEHICLE (PMV)
QUALIFICATIONS FRAMEWORK

3.1 INTRODUCTION

New Directions
A direct result of a training package being developed for passenger motor vehicle
manufacture has been the consideration by each enterprise of how their individual
enterprise-based training, governed by their individual industrial agreements, could
be adapted to provide a career pathway in automotive manufacturing from a
Certificate I to an Advanced Diploma.

The industrial parties (AMWU) and manufacturing companies (Ford, Holden,
Mitsubishi and Toyota) have reviewed current practice, undertaken research into
alternative training structures and negotiated individually and jointly to develop
nationally recognised qualifications. The Manufacturers Advisory Group (MAG) of
the ATA Board has consulted extensively and validated widely within industry to
confirm the direction of this training package.

Current Training – Certificate II and III
Over 70% of current training is concentrated on production skills at Certificate II
level. The four vehicle manufacturers implement production training and there is a
National industrial agreement in place covering training at this level.

Graduates from Certificate II may, subject to the guidelines described within each
company’s Enterprise Bargaining Agreement (EBA), achieve an Certificate III or
equivalent qualification that facilitates entry to the Automotive Manufacturing
Certificate IV, V and VI qualifications through a negotiated “Contract of Training”
relevant to the specific job competencies and field of application.

Approximately 10% to 15% of current training is at Certificate III level for training
in traditional “trades” and is allocated by the industrial Award under the streams of:

- Electrical/Electronic
- Mechanical
- Vehicle building/Fabrication/Support

The number of trainees undertaking trade training varies between manufacturers but
each has a current industrial agreement which supports retention of vocationally
based training depending on current skill needs in each enterprise.
There is an agreed position that current training at Certificate II and III levels can be aligned to competency-based training and assessment, subject to industrial agreements regarding implementation in individual plants.

**Current Training – Certificate IV, Diploma and Advanced Diploma**

Consultation and negotiation has been ongoing with the industrial parties and manufacturers since June 1997 in an effort to achieve national outcomes from what has been an ad-hoc, enterprise-based structure at these levels. The Manufacturers Advisory Group (MAG) of the ATA Board has confirmed that nationally agreed qualifications and their implementation at levels IV to Advanced Diploma will be introduced on the condition that:

- training is undertaken only as required in plant/s
- training at levels IV, Diploma and Advanced Diploma, remains flexible

**Alignment of Current Training**

It was decided by the MAG, after lengthy negotiation in-plant, with all parties and with consideration of all current industrial agreements, that the existing base trade level will equal the Certificate III level and that trainees of the nationally recognised Vehicle Industry Certificate (VIC) will gain a Certificate II qualification.

Trainees exiting at any point without having achieved the minimum competencies required for a qualification will be granted a Statement of Attainment.

Recognition of prior learning (RPL) and recognition of current competency (RCC) are agreed processes for competency-based assessment for training at the Certificate and Diploma levels defined under the Australian Qualification Framework.

### 3.2 PACKAGING AND PACKAGING MODELS

After extensive negotiation with the industrial parties, particularly the AMWU, guidelines for packaging Competency Standards and confirming current training arrangements have been agreed for Certificate II to VI.

**Qualifications Guidelines**

- The Automotive Manufacturing – Passenger Motor Vehicle (PMV) Training Package contains core and sufficient elective standards to achieve a Certificate II, III, IV, V and VI credential, that requires no more training or less training than is currently required under the existing relevant structural efficiency principle agreements, and the relevant industrial agreements of each enterprise.
• The Registered Training Organisation (RTO) is to be guided when determining the relevant elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA. Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile from the bank of Automotive Manufacturing Competency Standards.

Identification of Future Qualifications
• Any future change to the Automotive Training Package will in the first instance be the subject of discussion and agreement between the industrial parties.

• The industrial understandings reached will then be provided to the MAG to achieve appropriate training solutions which have proper regard to the Qualification outcomes. Existing enterprise agreements regarding training at Certificate III will remain as agreed in current enterprise bargaining agreements.

• The industrial parties recognise a qualifications gap at Certificate III Production within the Automotive Manufacturing Passenger Motor Vehicle training package.

• The development of any Certificate III National Industry Qualification other than “trade” will be based on the Automotive Manufacturing PMV Competency Standards. This issue is to be resolved under the consultative arrangements of current agreements.

Packaging Models
Packaging models vary according to the level of the proposed qualification:

• There is no automotive manufacturing qualification awarded at Certificate I.

• A Certificate II automotive manufacturing qualification is based on the successful assessment of nine common core Automotive Manufacturing Competency Standards which may be applied to any one or more than one of the thirteen recognised automotive manufacturing streams based on the current industrial agreements of each enterprise.

• A Certificate III non automotive manufacturing “trade” qualification at “trade” or equivalent to trade will continue to be recognised.

• A Certificate III automotive manufacturing qualification is based on a core and elective model applied to:
  • successful assessment in the Frontline Management competencies listed for this qualification level.

• A Certificate IV automotive manufacturing qualification is based on an elective model applied to:
  • successful assessment in the defined Automotive Manufacturing Competency Standards grouped at this level.

• A Certificate IV automotive manufacturing qualification is based on a core and elective model applied to:
  • successful assessment in the Frontline Management competencies listed for this qualification level.
• A Diploma of automotive manufacturing qualification is based on an elective model applied to:
  • successful assessment in the defined Automotive Manufacturing Competency Standards grouped at this level.
• A Diploma of Automotive Manufacturing is based on a core and elective model applied to:
  • Successful assessment in the Frontline Management competencies listed for this qualification level.
• An Advanced Diploma of Automotive Manufacturing is based on a core model applied to:
  • successful assessment in the defined Automotive Manufacturing Competency Standards grouped at this level.

Pre-requisite Qualifications
A qualification gained at one level is not necessarily a pre-requisite for a qualification at the next level although it may be accepted as such. It is possible for a trainee to achieve a level III qualification without first having achieved a level II qualification.

Recognition of Prior Learning and Current Competency
RPL and RCC processes will apply on assessment of all trainees whether currently employed or newly employed, according to current workplace practice.
AUTOMOTIVE MANUFACTURING PASSENGER MOTOR VEHICLE QUALIFICATIONS MODELS FOR:

CERTIFICATE II

All 9 Automotive Manufacturing Competency Standards
- AUM9001A
- AUM9002A
- AUM9003A
- AUM9004A
- AUM9005A
- AUM9006A
- AUM9007A
- AUM9008A
- AUM9009A

NOTE: The nine Competency Standards may be applied and assessed in one or more than one, of the thirteen recognised, automotive manufacturing streams depending on the current industrial agreements between the manufacturing enterprise and the union.

CERTIFICATE III

Two Pathways

All of the core competency standards

Pathway 1 Technical Pathway
Non-“Trade”

Pathway 2 Traditional vocational with no pre-requisite of a qualification equivalent to AQF level II. Pathway 2 provides for the recognition of current trades.

OR

Current traditional trade non-automotive manufacturing competency standards packaged at an AQF level III qualification

Including elective non-automotive manufacturing competency standards as defined by the industry of origin for the traditional vocations under one of the automotive streams:
- Electrical/electronic
- Mechanical and
- Fabrication/Support, etc.

NOTE: Pathway 2 leads to a trade qualification in an automotive manufacturing context from traditional or adult apprenticeships.
AUTOMOTIVE MANUFACTURING PASSENGER MOTOR VEHICLE QUALIFICATIONS MODELS FOR:

CERTIFICATE IV
Two Pathways

<table>
<thead>
<tr>
<th>Pathway 1</th>
<th>Pathway 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the pre-requisite of an Enterprise Specific Qualification or a vocational qualification under one of the automotive streams of electrical/mechanical/fabrication equivalent to Certificate III, Pathway 1 provides for specialist manufacturing technical skills</td>
<td>Frontline Management with no pre-requisites of a qualification equivalent to Certificate III, Pathway 2 provides for the recognition of supervisory/management with or without a technical background</td>
</tr>
</tbody>
</table>

9 automotive manufacturing competency standards selected from:

<table>
<thead>
<tr>
<th>AUM1601A</th>
<th>AUM1602A</th>
<th>AUM1701A</th>
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<th>AUM1801A</th>
<th>AUM1802A</th>
<th>AUM2101A</th>
<th>AUM2102A</th>
<th>AUM2201A</th>
<th>AUM2202A</th>
<th>AUM2301A</th>
<th>AUM2302A</th>
<th>AUM2401A</th>
</tr>
</thead>
</table>

OR

Certificate IV in Automotive Manufacturing (Manufacturing Maintenance)

Certificate IV in Automotive Manufacturing (Frontline Management)

All of the core competency standards

Plus elective competency standards defined in the Certificate IV frontline management model
### DIPLOMA

**Two Pathways**

#### Diploma of Automotive Manufacturing (Manufacturing Maintenance)

<table>
<thead>
<tr>
<th>6 automotive manufacturing competency standards selected from:</th>
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<tbody>
<tr>
<td>AUM1602A</td>
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<td>AUM1603A</td>
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<tr>
<td>AUM2402A</td>
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<td>AUM2403A</td>
</tr>
</tbody>
</table>

#### Diploma of Automotive Manufacturing (Frontline Management)

<table>
<thead>
<tr>
<th>All of the core competency standards plus elective competency standards defined in the Diploma of frontline management model</th>
</tr>
</thead>
</table>

#### OR

#### ADVANCED DIPLOMA

**One Pathway**

#### Advanced Diploma of Automotive Manufacturing (Design and Development)

<table>
<thead>
<tr>
<th>All 15 automotive manufacturing core competency standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM1503A</td>
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<tr>
<td>AUM2403A</td>
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<tr>
<td>AUM2803A</td>
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<tr>
<td>AUM4803A</td>
</tr>
<tr>
<td>AUM3003A</td>
</tr>
<tr>
<td>AUM3103A</td>
</tr>
<tr>
<td>AUM3903A</td>
</tr>
<tr>
<td>AUM4003A</td>
</tr>
</tbody>
</table>

#### Pathway 1
Progress from Certificate IV to Diploma with the attainment of 6 additional competencies.

#### Pathway 2
Frontline Management with no pre-requisite of a qualification equivalent to Certificate IV

#### Pathway 1
Technical Specialist
A pre-requisite of an automotive manufacturing qualification or an equivalent is expected but not mandatory.
3.3 FLEXIBILITY

There has been further review and validation by the manufacturers, of their in-plant training delivery since July 1998. Industry advice through the MAG has confirmed the need for maximum flexibility when delivering a National qualification. Training must support enterprise customisation so that enterprise work practices can be varied as required, to maintain production levels.

Enterprise production levels are neither constant nor predictable. Employees are required to adapt within tight time frames to changes to the production process and attainment of new on-the-job skills as required.

Certificate II
Trainees currently undertaking the VIC in any of the PMV manufacturing enterprises may achieve the qualification of a certificate level II but the skills pathway to achieve the qualification will be different in each PMV manufacturing enterprise. Some pathways will require completion of every function/skill in any one of the thirteen manufacturing streams while other pathways will require completion of some functions/skills from any number of the thirteen manufacturing streams.

The first attempt to cluster job functions as streamed technical competencies was unsuccessful. The manufacturers, with the agreement of the industrial parties, reviewed enterprise-based work practices and job functions. The manufacturers have developed and obtained agreement to nine new, compulsory Competency Standards which are functionally based and can be applied equally to all of the thirteen common production streams.

Flexibility is provided within the context of the practical application of the standards in the workplace. Workplace implementation is in turn governed by manufacturers’ industrial agreements and EBAs.

Certificate III
Flexibility is generally restricted to the completion of a currently recognised trade or trades under current structural efficiency agreements. There is the capacity for some trainees to obtain more than one “trade-based” qualification and/or to change between vocational streams and/or to undertake enterprise specific training developed from recognised trade skills subject to individual enterprise agreements.

There is a capacity for some trainees to achieve an enterprise-specific qualification which is not a trade but is equivalent to a Certificate III by acquiring technical skills in the workplace additional to skills recognised at the Certificate II level.

Manufacturers have agreed to provide more flexibility at this level by implementing frontline management training models where applicable to enterprise needs.
Certificate IV, Diploma and Advanced Diploma
A qualification at these levels is to be based on Automotive Manufacturing Competency Standards developed specifically for automotive manufacturing at Certificate III, IV, V and VI levels and/or on frontline management standards applied using the standard frontline management models.

Industry advice is that any national qualification developed for levels IV to VI must be flexibly modelled and able to be implemented to suit all manufacturers.

3.4 Packaging of Standards

- Certificate IV and Diploma in Automotive Manufacturing – to achieve a qualification, competency standards are selected from basic, advanced and complex levels and packaged according to requirement of the qualification (diagram below).

  Numbering of standards
  Competency Standards ending in 1 = Basic
  Competency Standards ending in 2 = Advanced
  Competency Standards ending in 3 = Complex

  Example:
  To achieve a Certificate IV or Diploma in Automotive Manufacturing (Manufacturing Maintenance) the following rules apply:
  Certificate IV Up to a maximum of six competency standards chosen at basic, with a minimum of three chosen at advanced to a total of nine.
  Diploma Six competency standards chosen at advanced or complex

- Certificate II in Automotive Manufacturing – all nine Certificate level II Automotive Manufacturing core competency standards are required for the qualification.

- Advanced Diploma in Automotive Manufacturing (Design and Development) – fifteen competencies required for the qualification (fourteen complex and one advanced).

- Frontline Management – in accordance with the guideline for issuing qualifications in Frontline Management.
3.5 CUSTOMISATION

Customisation/contextualisation is to be undertaken in the first instance with agreement from the employer, the employee and the registered training organisation.

Customisation/contextualisation of Automotive Manufacturing PMV Competency Standards is allowed within individual Competency Standards where the wording of the standard can be expanded from the generic to meet the specificity and relevance of the individual enterprise without either the integrity of the standard or the assessment requirements being affected.

Where a Competency Standard is contextualised:
- there must not be a change of Unit Number or Unit Title
- the Unit Descriptor can become specific but must not be decreased in content
- the number of Elements of Competency and Performance Criteria can be expanded to include specific enterprise information but must not be decreased in number or content
- any addition to the Unit Descriptor must also be able to be made as an addition to the Range of Variables within the Range of Contexts for the unit
- additions which specify detail may be made to the Evidence Guide but must not detract from the original, which must still apply in full.
- the automotive manufacturing common core competencies must be retained unaltered.
- industry expects that automotive competencies will be chosen as preferential, elective competencies especially where an automotive technical qualification has been undertaken.

3.5.1 The Exporting of the Automotive Manufacturing Competency Standards
- Automotive manufacturers have developed industry-specific standards and will agree to the use of these standards by other industry subject to the same guidelines for customisation of an individual standard as are applied to the automotive manufacturing industry.

- Other industries wishing to import automotive manufacturing standards must acknowledge the standard by its automotive coding. The automotive coding must be maintained for every use of that competency wherever it appears irrespective of which training package it may be used in.

3.5.2 The Importing of other industry Competency Standards
The automotive industry will only support importing of other industry standards if a provider is unable to meet the delivery and assessment of an automotive standard due to an extreme circumstance.

Where agreement is reached on importing a Competency Standard from outside the automotive industry, it must be shown that the imported standard is similar in intent and skill level to the original automotive standards for that occupation.

If a standard is imported, it must be agreed on by the employer, the trainee and the RTO, and the import notified to all the PMV manufacturers.
3.5.3 Use of imported Competency Standards

- Frontline Management Initiative x 11
- National Metals x 5

3.6 ALIGNMENT TO THE AQF

The process used by the MAG to decide upon the Certificate levels for each qualification depended on two basic criteria:

- AQF level descriptors from the Australian Qualifications Framework – Implementation Handbook\(^{(1)}\) which define the characteristics of autonomy; responsibility and accountability; complexity of skill knowledge; contexts of application; choice and range of contingencies and discretion and judgement.
- Historical precedent and industry support.

3.7 TITLING AND CODING OF QUALIFICATIONS

The Automotive Manufacturing PMV training package recognises Qualifications from Certificate II to Advanced Diploma. All the Qualifications within the package will begin with:

- Certificate II in Automotive Manufacturing
- Certificate III in Automotive Manufacturing
- Certificate IV in Automotive Manufacturing
- Diploma of Automotive Manufacturing
- Advanced Diploma of Automotive Manufacturing

It is expected that the reverse of the Certificate issued will list all competencies attained and identify, where appropriate, an occupation/manufacturing stream.

Example: Certificate IV in Automotive Manufacturing (AUM 401 00)

**Qualification Title**
Certificate IV in Automotive Manufacturing (Automotive Manufacturing)

**Qualification Code:** AUM 401 00

- **AU** - Automotive
- **M** - Manufacturing
- **4** - Qualification Level
- **01** - Which Qualification it is at that level
- **00** - The year in which the qualification was first registered

\(^{(1)}\) Ministerial Council on Education, Employment, Training & Youth Affairs August 1995
3.8 NEW APPRENTICESHIPS

Qualifications at Certificate levels II and IV listed in this package may be delivered under New Apprenticeship Guidelines.

The Certificate II has been developed from the original traineeship, and traditional apprenticeships have been aligned with Certificate III qualifications.

3.9 LIST OF MANUFACTURING QUALIFICATIONS

<table>
<thead>
<tr>
<th>QUALIFICATION TITLE</th>
<th>NATIONAL CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFICATE II IN AUTOMOTIVE MANUFACTURING</td>
<td>AUM 201 00</td>
</tr>
<tr>
<td>CERTIFICATE III IN AUTOMOTIVE MANUFACTURING</td>
<td>AUM 301 00</td>
</tr>
<tr>
<td>FRONLINE MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING</td>
<td>AUM 401 00</td>
</tr>
<tr>
<td>FRONLINE MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>MANUFACTURING MAINTENANCE</td>
<td>AUM 402 00</td>
</tr>
<tr>
<td>DIPLOMA OF AUTOMOTIVE MANUFACTURING</td>
<td>AUM 501 00</td>
</tr>
<tr>
<td>FRONLINE MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>MANUFACTURING MAINTENANCE</td>
<td>AUM 502 00</td>
</tr>
<tr>
<td>ADVANCED DIPLOMA OF AUTOMOTIVE MANUFACTURING</td>
<td>AUM 601 00</td>
</tr>
<tr>
<td>DESIGN AND DEVELOPMENT</td>
<td></td>
</tr>
</tbody>
</table>
Title  CERTIFICATE II IN AUTOMOTIVE MANUFACTURING

National Code  AUM 2 01 00

Qualification Requirements
To be awarded this qualification, the trainee must attain a successful assessment of the nine (9) Certificate level II Automotive Manufacturing core Competency Standards to meet the Automotive Manufacturing enterprise work place/job profiles requirement.

NOTE: This qualification will be achieved in accordance with individual enterprise/industrial agreements with the application of the nine (9) core competencies to any one or more than one of the thirteen (13) recognised Automotive manufacturing streams (listed on next page).

- Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry and allowing a choice of assessment in one or more than one of these manufacturing streams.

Qualification Rationale
The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate II Qualification :-
  - Breadth, depth, and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions is usually clear and there is limited complexity in the range of options to be applied
  - Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes
  - Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others through members of a group or team

- This qualification aligns with the following performance descriptors for an AQF 2 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included :-
  - demonstrate basic operational knowledge in a moderate range of areas
  - apply a defined range of skills
  - apply known solutions to a limited range of predictable problems
  - perform a range of tasks where choice between a limited range of options is required
  - assess and record information from varied sources
  - take limited responsibility for own outputs in work and learning

- The qualification has been supported by the industry at a Certificate II level
Competencies for Certificate II in Automotive Manufacturing

CERTIFICATE II

<table>
<thead>
<tr>
<th>Core Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 9001A Monitor and maintain workplace environment</td>
</tr>
<tr>
<td>AUM 9002A Receive and dispatch materials, equipment and tools</td>
</tr>
<tr>
<td>AUM 9003A Prepare and process materials and components</td>
</tr>
<tr>
<td>AUM 9004A Prepare and use/operate equipment, tools and/or machinery</td>
</tr>
<tr>
<td>AUM 9005A Monitor &amp; maintain continuous improvement of systems &amp; processes</td>
</tr>
<tr>
<td>AUM 9006A Monitor &amp; maintain equipment, tools &amp; machinery</td>
</tr>
<tr>
<td>AUM 9007A Manage personal work priorities</td>
</tr>
<tr>
<td>AUM 9008A Manage effective workplace relationships</td>
</tr>
<tr>
<td>AUM 9009A Work effectively with others in a team</td>
</tr>
</tbody>
</table>

NOTE: The units of competence will apply to the following streams

<table>
<thead>
<tr>
<th>PMV Manufacturing Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body construction</td>
</tr>
<tr>
<td>Aluminium die casting</td>
</tr>
<tr>
<td>Foundry operations</td>
</tr>
<tr>
<td>Engine machining</td>
</tr>
<tr>
<td>Spray painting</td>
</tr>
<tr>
<td>Automotive plastics</td>
</tr>
<tr>
<td>Stamping and press operations</td>
</tr>
<tr>
<td>Fabrication hardware</td>
</tr>
<tr>
<td>Seat manufacture</td>
</tr>
<tr>
<td>Trim manufacture</td>
</tr>
<tr>
<td>Vehicle assembly</td>
</tr>
<tr>
<td>Warehousing</td>
</tr>
<tr>
<td>Engine assembly</td>
</tr>
</tbody>
</table>

NOTE: The nine (9) core Competency Standards may be applied to one or more than one of the recognised PMV manufacturing streams and assessment will take place according to the stream and/or streams in which a trainee is employed.
Title  
CERTIFICATE III IN AUTOMOTIVE MANUFACTURING -  FRONTLINE MANAGEMENT

National Code  
AUM 3 01 00

Qualification Requirements  
To be awarded this qualification, the trainee must attain a successful assessment for four (4) of the five (5) core competencies and a successful assessment of a minimum of two (2) elective competencies equivalent to the endorsed Frontline Management Certificate III requirements, to meet the Automotive Manufacturing enterprise workplace/job profiles requirement.

• The RTO is to be guided when determining the number of elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA. Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile from the bank of Automotive Manufacturing Competency Standards.
• Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification Rationale  
The level of this qualification is based on the following criteria:

• The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate III Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specific problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available
  - Performance of a defined range of skilled operations usually within a range of broader related activities involving known routines, methods and procedures where some discretion and judgement is required in the selection of equipment, services or contingency measured and within known time constraints
  - Application involves responsibility for others. Participation in teams including group or team coordination may be involved.

• This qualification aligns with the following performance descriptors for an AQF III certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate some relevant theoretical knowledge
  - apply a range of well-developed skills
  - apply known solutions to a variety of predictable problems
  - perform processes that require a range of well-developed skills where some discretion and judgement is required
  - interpret available information, using discretion and judgement
  - take responsibility for own outputs in work and learning
  - take limited responsibility for the output of others.
Competencies for Certificate III in Automotive Manufacturing

**FRONTLINE MANAGEMENT**

<table>
<thead>
<tr>
<th>Core Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXF1M1301A ✓ Manage personal work priorities and professional development</td>
</tr>
<tr>
<td>BSXF1M1302A ✓ Provide leadership in the workplace</td>
</tr>
<tr>
<td>BSXF1M1303A ✓ Establish and manage effective workplace relationships</td>
</tr>
<tr>
<td>BSXF1M1305A ✓ Manage operations to achieve planned outcomes</td>
</tr>
<tr>
<td>BSXF1M1308A ✓ Develop and maintain a safe workplace and environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXF1M1304A   Participate in, lead and facilitate work teams</td>
</tr>
<tr>
<td>BSXF1M1306A   Manage workplace information</td>
</tr>
<tr>
<td>BSXF1M1307A   Manage quality customer service</td>
</tr>
<tr>
<td>BSXF1M1309A   Implement and monitor continuous improvement systems and processes</td>
</tr>
<tr>
<td>BSXF1M1310A   Facilitate and capitalise on change and innovation</td>
</tr>
<tr>
<td>BSXF1M1311A   Contribute to the development of a workplace learning environment</td>
</tr>
</tbody>
</table>
Title  
CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING - FRONTLINE MANAGEMENT

National Code  
AUM 4 01 00

Qualification Requirements  
To be awarded this qualification, the trainee must attain a successful assessment for the five (5) core competencies and a minimum of three (3) elective competencies equivalent to the endorsed Frontline Manager Certificate IV requirements, to meet the Automotive Manufacturing enterprise workplace/job profiles requirement.

- The RTO is to be guided when determining the number of elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA. Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile from the bank of Automotive Manufacturing Competency Standards.
- Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification Rationale  
The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate IV Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.
  - Application involves responsibility for, and limited organisation of, others.

- This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
  - identify, analyse and evaluate information from a variety of sources
  - take responsibility for own outputs in relation to specified quality standards
  - take limited responsibility for the quantity and quality of the output of others.
## Competencies for Certificate IV in Automotive Manufacturing

### FRONTLINE MANAGEMENT

<table>
<thead>
<tr>
<th>Core Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXFM1401A  ✔️ Manage personal work priorities and professional development</td>
</tr>
<tr>
<td>BSXFM1402A  ✔️ Provide leadership in the workplace</td>
</tr>
<tr>
<td>BSXFM1403A  ✔️ Establish and manage effective workplace relationships</td>
</tr>
<tr>
<td>BSXFM1405A  ✔️ Manage operations to achieve planned outcomes</td>
</tr>
<tr>
<td>BSXFM1408A  ✔️ Develop and maintain a safe workplace and environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXFM1404A  Participate in, lead and facilitate work teams</td>
</tr>
<tr>
<td>BSXFM1406A  Manage workplace information</td>
</tr>
<tr>
<td>BSXFM1407A  Manage quality customer service</td>
</tr>
<tr>
<td>BSXFM1409A  Implement and monitor continuous improvement systems and processes</td>
</tr>
<tr>
<td>BSXFM1410A  Facilitate and capitalise on change and innovation</td>
</tr>
<tr>
<td>BSXFM1411A  Contribute to the development of a workplace learning environment</td>
</tr>
</tbody>
</table>
Title    CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING – MANUFACTURING MAINTENANCE

National Code   AUM 4 02 00

Qualification Requirements
To be awarded this qualification, the trainee must attain a successful assessment of nine (9) elective competencies to achieve a Certificate level IV credential that requires no more training or less training than is currently required, under the existing relevant structural efficiency principle agreements, and the relevant industrial agreements of each enterprise. Elective Competency Standards are to be chosen on the basis of enterprise work place requirements/job profiles from the bank of Automotive Manufacturing Competency Standards (PMV) listed for this qualification.

- The RTO is to be guided when determining the relevant elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA.
- Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile and packaging guidelines from the bank of Automotive Manufacturing Competency Standards listed for this qualification.
- Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification Rationale
The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate IV Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills
  - Application involves responsibility for, and limited organisation of, others.

- This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others.

Competencies for Certificate IV in Automotive Manufacturing

**MANUFACTURING MAINTENANCE**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 1601A</td>
<td>Install plant, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM 1602A</td>
<td>Install plant, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 1701A</td>
<td>Test components of plant, tooling, equipment or systems- Basic</td>
</tr>
<tr>
<td>AUM 1702A</td>
<td>Test components of plant, tooling, equipment or systems - Advanced</td>
</tr>
<tr>
<td>AUM 1801A</td>
<td>Test plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM 1802A</td>
<td>Test plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 2101A</td>
<td>Maintain plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM 2102A</td>
<td>Maintain plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 2201A</td>
<td>Repair plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM 2202A</td>
<td>Repair plant, tooling, equipment or systems - Advanced</td>
</tr>
<tr>
<td>AUM 2301A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM 2302A</td>
<td>Manufacture or modify plant, tooling, equipment or systems -- Advanced</td>
</tr>
<tr>
<td>AUM 2401A</td>
<td>Apply quality assurance techniques – Basic</td>
</tr>
<tr>
<td>AUM 2402A</td>
<td>Apply quality assurance techniques – Advanced</td>
</tr>
<tr>
<td>AUM 3201A</td>
<td>Plan, organise and coordinate work activities in a team – Basic</td>
</tr>
<tr>
<td>AUM 3202A</td>
<td>Plan, organise and coordinate work activities in a team – Advanced</td>
</tr>
<tr>
<td>AUM 4601A</td>
<td>Monitor computers and computerised equipment using displays – Basic</td>
</tr>
<tr>
<td>AUM 4702A</td>
<td>Program and monitor PLCs, robots and other computerised equipment – Advanced</td>
</tr>
<tr>
<td>AUM 5802A</td>
<td>Communicate information - Advanced</td>
</tr>
<tr>
<td>AUM 6001A</td>
<td>Assess competence – Basic</td>
</tr>
<tr>
<td>AUM 6002A</td>
<td>Assess competence – Advanced</td>
</tr>
<tr>
<td>MEM 18-18</td>
<td>Maintain pneumatic components</td>
</tr>
<tr>
<td>MEM 18-19</td>
<td>Maintain and repair pneumatic systems</td>
</tr>
<tr>
<td>MEM 18-20</td>
<td>Maintain hydraulic components</td>
</tr>
<tr>
<td>MEM 18-21</td>
<td>Maintain and repair hydraulic systems</td>
</tr>
<tr>
<td>MEM 18-18</td>
<td>BAND A</td>
</tr>
<tr>
<td>MEM 18-19</td>
<td>BAND A / DUAL STATUS</td>
</tr>
<tr>
<td>MEM 18-20</td>
<td>BAND A</td>
</tr>
<tr>
<td>MEM 18-21</td>
<td>BAND A / DUAL STATUS</td>
</tr>
</tbody>
</table>

**PACKAGING GUIDELINES:**
Up to a maximum of six Competency Standards chosen at Basic, with a minimum of three chosen at Advanced to a total of 9.

**NUMBERING LEGEND:**
Competency Standards ending in 1 = Basic
Competency Standards ending in 2 = Advanced
Competency Standards ending in 3 = Complex
Title DIPLOMA OF AUTOMOTIVE MANUFACTURING - FRONTLINE MANAGEMENT

National Code AUM 5 01 00

Qualification Requirements

To be awarded this qualification, the trainee must attain a successful assessment for the five (5) core competencies and six (6) elective competencies equivalent to the endorsed Frontline Management Diploma requirements, to meet the Automotive Manufacturing enterprise workplace/job profiles requirement.

- The RTO is to be guided when determining the relevant elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA. Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile from the bank of Automotive Manufacturing Competency Standards.
- Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Diploma Qualification:
  - Breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination.
  - The self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.
  - Application involves participation in development of strategic initiatives, as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams concerned with planning and evaluation functions. Group or team coordination may be involved.
  - The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

- This qualification aligns with the following performance descriptors for an AQF 5 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts, with substantial depth in some areas
  - analyse and plan approaches to technical problems or management requirements
  - transfer and apply theoretical concepts and/or technical or creative skills to a range of situations
  - evaluate information using it to forecast for planning or research purposes
  - take responsibility for own outputs in relation to broad quantity and quality parameters
  - take limited responsibility for the achievement of group outcomes.
Competencies for Diploma of Automotive Manufacturing

**FRONTLINE MANAGEMENT**

<table>
<thead>
<tr>
<th>Core Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXFM1501A ✔</td>
<td>Manage personal work priorities and professional development</td>
</tr>
<tr>
<td>BSXFM1502A ✔</td>
<td>Provide leadership in the workplace</td>
</tr>
<tr>
<td>BSXFM1503A ✔</td>
<td>Establish and manage effective workplace relationships</td>
</tr>
<tr>
<td>BSXFM1505A ✔</td>
<td>Manage operations to achieve planned outcomes</td>
</tr>
<tr>
<td>BSXFM1508A ✔</td>
<td>Develop and maintain a safe workplace and environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXFM1504A</td>
<td>Participate in, lead and facilitate work teams</td>
</tr>
<tr>
<td>BSXFM1506A</td>
<td>Manage workplace information</td>
</tr>
<tr>
<td>BSXFM1507A</td>
<td>Manage quality customer service</td>
</tr>
<tr>
<td>BSXFM1509A</td>
<td>Implement and monitor continuous improvement systems and processes</td>
</tr>
<tr>
<td>BSXFM1510A</td>
<td>Facilitate and capitalise on change and innovation</td>
</tr>
<tr>
<td>BSXFM1511A</td>
<td>Contribute to the development of a workplace learning environment</td>
</tr>
</tbody>
</table>
Title       DIPLOMA OF AUTOMOTIVE MANUFACTURING
            – MANUFACTURING MAINTENANCE

National Code    AUM 5 02 00

Qualification
Requirements
To be awarded this qualification, the trainee must attain a successful assessment of six (6) elective competencies to achieve a Diploma credential that requires no more training or less training than is currently required, under the existing relevant structural efficiency principle agreements, and the relevant industrial agreements of each enterprise. Elective Competency Standards are to be chosen on the basis of enterprise work place requirements/job profiles from the bank of Automotive Manufacturing Competency Standards (PMV) listed for this qualification.

• The RTO is to be guided when determining the relevant elective standards required that are consistent with this principle, using the consultative provisions of the relevant EBA.
• Elective Competency Standards are to be chosen on the basis of workplace requirement/job/profile and packaging guidelines from the bank of Automotive Manufacturing Competency Standards listed for this qualification.
• Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification
Rationale
The level of this qualification is based on the following criteria:

• The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Diploma Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills
  - Application involves responsibility for, and limited organisation of, others.

• This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others.

Competencies for Diploma of Automotive Manufacturing

**MANUFACTURING MAINTENANCE**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 1602A</td>
<td>Install plant, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 1603A</td>
<td>Install plant, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM 1702A</td>
<td>Test components of plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 1703A</td>
<td>Test components of plant, tooling, equipment or systems - Complex</td>
</tr>
<tr>
<td>AUM 1802A</td>
<td>Test plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 1803A</td>
<td>Test plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM 2102A</td>
<td>Maintain plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 2103A</td>
<td>Maintain plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM 2202A</td>
<td>Repair plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 2203A</td>
<td>Repair plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM 2302A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM 2303A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM 2402A</td>
<td>Apply quality assurance techniques – Advanced</td>
</tr>
<tr>
<td>AUM 2403A</td>
<td>Apply quality assurance techniques – Complex</td>
</tr>
<tr>
<td>AUM 3202A</td>
<td>Plan, organise and coordinate work activities I - Advanced</td>
</tr>
<tr>
<td>AUM 3203A</td>
<td>Plan, organise and coordinate work activities in a team – Complex</td>
</tr>
<tr>
<td>AUM 4602A</td>
<td>Monitor computers and computerised equipment using displays – Advanced</td>
</tr>
<tr>
<td>AUM 4603A</td>
<td>Monitor computers and computerised equipment using displays - Complex</td>
</tr>
<tr>
<td>AUM 4702A</td>
<td>Program and monitor PLCs, robots and other computerised equipment - Advanced</td>
</tr>
<tr>
<td>AUM 4703A</td>
<td>Program and monitor PLCs, robots and other computerised equipment - Complex</td>
</tr>
<tr>
<td>AUM 5802A</td>
<td>Communicate information - Advanced</td>
</tr>
<tr>
<td>AUM 5803A</td>
<td>Communicate information - Complex</td>
</tr>
<tr>
<td>AUM 6002A</td>
<td>Assess competence - Advanced</td>
</tr>
<tr>
<td>AUM 6003A</td>
<td>Assess competence - Complex</td>
</tr>
<tr>
<td>MEM 18-19</td>
<td>Maintain and repair pneumatic systems BAND A / DUAL STATUS</td>
</tr>
<tr>
<td>MEM 18-21</td>
<td>Maintain and repair hydraulic systems BAND A / DUAL STATUS</td>
</tr>
<tr>
<td>MEM 18-22</td>
<td>Maintain/repair/replace fluid power controls BAND A / DUAL STATUS</td>
</tr>
</tbody>
</table>

**PACKAGING GUIDELINES:**
Six Competency Standards chosen at Advanced or Complex.

**NUMBERING LEGEND:**
Competency Standards ending in 1 = Basic
Competency Standards ending in 2 = Advanced
Competency Standards ending in 3 = Complex
Title ADVANCED DIPLOMA OF AUTOMOTIVE MANUFACTURING - DESIGN AND DEVELOPMENT

National Code AUM 6 01 00

Qualification Requirements
To be awarded this qualification, the trainee must attain a successful assessment of fifteen (15) competencies to achieve a Advanced Diploma credential that requires no more training or less training than is currently required, under the existing relevant structural efficiency principle agreements, and the relevant industrial agreements of each enterprise. Elective Competency Standards are to be chosen on the basis of enterprise work place requirements/job profiles from the bank of Automotive Manufacturing Competency Standards (PMV).

- Competencies must be achieved by assessment in accordance with the Assessment Guidelines for Automotive Industry.

Qualification Rationale
The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Advanced Diploma Qualification:
  - Breadth, depth and complexity involving analysis, diagnosis, planning, execution and evaluation across a broad range of technical and/or management functions including development of new criteria or applications or knowledge or procedures
  - The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contributions to the development of a broad plan, budget or strategy are involved and accountability for self and others in achieving the outcomes involved
  - Application involves significant judgement in planning, design, technical or leadership/guidance functions related to products, services, operations or procedures
  - The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

- This qualification aligns with the following performance descriptors for an Advanced Diploma (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of specialised knowledge with depth in some areas
  - analyse, diagnose, design and execute judgements across a broad range of technical or management functions
  - demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
  - generate ideas through the analysis of information and concepts at an abstract level
  - demonstrate accountability for personal outputs within broad parameters
  - demonstrate accountability for group outcomes within broad parameters.

- The Qualification has been supported by the industry at Advanced Diploma level
Competencies for Advanced Diploma of Automotive Manufacturing

**DESIGN AND DEVELOPMENT**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>AUM 1503A</td>
<td>Create new product designs</td>
</tr>
<tr>
<td>AUM 2403A</td>
<td>Apply quality assurance techniques - Complex</td>
</tr>
<tr>
<td>AUM 2803A</td>
<td>Document work-related records</td>
</tr>
<tr>
<td>AUM 3003A</td>
<td>Document designs</td>
</tr>
<tr>
<td>AUM 3103A</td>
<td>Plan and organise personal work activities</td>
</tr>
<tr>
<td>AUM 3903A</td>
<td>Interpret manuals, drawings and/or circuits for plant, tooling, equipment or systems</td>
</tr>
<tr>
<td>AUM 4003A</td>
<td>Interpret customer requirements</td>
</tr>
<tr>
<td>AUM 4502A</td>
<td>Create a safe work environment</td>
</tr>
<tr>
<td>AUM 4803A</td>
<td>Use computers in work locations</td>
</tr>
<tr>
<td>AUM 4903A</td>
<td>Use computers and computerised equipment in design and development applications</td>
</tr>
<tr>
<td>AUM 5403A</td>
<td>Produce computer-aided designs (CAD)</td>
</tr>
<tr>
<td>AUM 5503A</td>
<td>Produce research reports</td>
</tr>
<tr>
<td>AUM 5603A</td>
<td>Develop stylistic models and prototypes</td>
</tr>
<tr>
<td>AUM 5803A</td>
<td>Communicate information</td>
</tr>
<tr>
<td>AUM 5903A</td>
<td>Seek, evaluate, organise and prepare information</td>
</tr>
</tbody>
</table>

**CONDITIONS OF ENDORSEMENT:**

This qualification is endorsed conditional on further development of competency standards as electives at Advanced Diploma (AQF6) level to facilitate multiple pathways.

In addition, this work will develop identifiable pathways to Advanced Diploma (AQF6) providing exit points at Diploma (AQF5) and Certificate IV (AQF4).
# INTRODUCTION TO STANDARDS

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<td>4.2.3 Structure of National Automotive PMV Competency Standards</td>
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</table>
COMPETENCY STANDARDS

4.1 REVIEW OF AUTOMOTIVE MANUFACTURING PASSENGER MOTOR VEHICLE COMPETENCY STANDARDS

The Automotive Passenger Motor Vehicle (PMV) competency standards were revised by the Manufacturing Advisory Group (MAG) to the ATA Board, under the auspices of the National Training Packages Steering Committee from August to December 1997. Since February 1998 there has been further modification through validation by the manufacturing enterprises and the industrial parties.

Manufacturing Competency Standards were developed by different industry and provider groups in two stages. As a result, Manufacturing Competency Standards for entry level qualifications, i.e. at Certificate II, differ in content and intent from the Manufacturing Competency Standards for “post trade” qualifications, i.e. for Certificates at III, IV, Diploma and Advanced Diploma.

The unsuccessful submission to ANTA of July 1998, of entry level competency standards packaged to reflect workplace skills across the thirteen recognised manufacturing streams highlighted the need for further development.

Since July 1998, the MAG has consulted extensively to develop a generic, national approach to manufacturing competency. The new standards allow competency to be assessed in an extremely diverse range of contexts, not all of which are common to all enterprises.

In August 1998, the MAG also undertook research into the potential for frontline management standards to be applied to each enterprise-based training program. Part of this research mapped frontline management standards to automotive manufacturing standards applied from Certificate III to Advanced Diploma.

From February 1999, the competency standards for “post trade” qualifications, i.e. Certificate III, IV, Diploma and Advanced Diploma, have been reviewed and modified to accommodate current work practices.
4.2 CONTENT OF AUTOMOTIVE MANUFACTURING PMV STANDARDS

4.2.1 Consultation

ATA has consulted directly with manufacturers to ensure that in-plant review and validation processes developed in agreement through the MAG have produced revised, updated competency standards which reflect:

- application at plant level, in a very broad range of contexts, which include the production processes of all the manufacturers
- current and new technology and its application across the range of automotive PMV production processes
- the link between skills and their assessment in-house and off-the-job.

The automotive PMV competency standards have been reduced from three hundred and thirty seven to 56. Nine of these are broad-based, functional standards developed by the manufacturers and agreed to by the MAG instead of the two hundred and eighty standards originally submitted for packaging qualifications aligned to a Certificate level II. They were developed in response to industry needs and the ANTA requirement for the introduction of nationally endorsed training packages.

Automotive PMV Manufacturers’ recognition of Qualifications from other Industry

Inclusion of “Trades” Standards
Automotive manufacturers reviewed “trade” standards on which non-automotive trade/equivalent qualifications are based. The MAG has advised that current non-automotive “trade” training based on competency standards from the industry of origin will remain acceptable to automotive PMV manufacturers at the current Certificate level III.

Inclusion of Frontline Management Standards
Automotive manufacturers reviewed Frontline Management Standards. The MAG has advised their acceptance of Frontline Management Qualifications packaged at Certificate levels III, IV and Diploma as applicable to PMV without change.

4.2.2 Identification of Competency

All automotive PMV manufacturers are Registered Training Organisations (RTOs) registered to deliver and assess their training on and off-the-job. Advice from the manufacturers during the validation of the automotive competency standards has enabled rewording, so that current competency standards draw the assessment of practical skills and knowledge together.
The standards reflect the ANTA Guidelines definition of competency:

“Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace.”

“The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are involved.”

4.2.3 Structure of National Automotive PMV Competency Standards

Competency Standards, whatever their application, are comprised of the same six parts:

- Unit title
- Unit purpose
- Element of competency matched to Performance Criteria
- Performance Criteria
- A range of variables statement
- Evidence guide

The unit title should define the activity to be assessed for competency.

The unit purpose should clarify the title.

Elements of competency should identify the work process to be undertaken in a logical order and be related to the unit purpose.

Range of variables statement identifies context and should explain the application.

The Evidence Guide should provide adequate interpretation, implementation steps and assessment criteria.

The review process clarified the difference in training implementation across the PMV manufacturing sector. It was a complex task for manufacturers to revise the range of variables statements and the evidence guides in the standards and to include in them diverse enterprise practices which still deliver a national outcome.
4.3 MAINTENANCE OF COMPETENCY STANDARDS

There is rapid technological change occurring within the automotive industry. Competency standards will require modification and possibly new standards will need to be developed to reflect the latest technology and changing work practices.

ATA has reached agreement with the MAG that a national process for the maintenance of competency standards will require upkeep from the implementation of the training package by:

- MAG notifying ATA of:
  - changes required by new technology to be reflected in current competency standards in all of the technical streams and qualifications
  - changes required by manufacturers to be reflected in current competency standards in other than technical streams
  - any competency standards unused
  - any competency standards to be developed
  - elective standards most commonly chosen to support an automotive occupational qualification
  - imported standards most commonly chosen to support an automotive occupational qualification.

- ATA negotiating with the MAG to confirm:
  - further development of national, model/generic competency-based training and assessment
  - resource issues which may arise across the PMV sector due to implementation of training packages in manufacturing enterprises
  - issues specific to an automotive PMV enterprise which affect the implementation of national competency based training and assessment in that automotive enterprise.
4.4 IDENTIFICATION OF AUTOMOTIVE MANUFACTURING PMV STANDARDS

The national code is an identifier unique to the standard. It is a combination of the number granted to the standard plus letters which define the training package in which the standard appears and the version, e.g. first, second, etc., of that standard.

An example is Manufacturing PMV Competency Standard AUM 2101 A:
- AUM = the code for the National Automotive Manufacturing Training Package
- 2101 = the number for the title of the standard “Maintain plant, tooling, equipment or systems”
- A = the version of the standard being used in the package. “A” shows it is the first version of the standard. “B” would denote a second and “C” a third version.

Note: The coding of a competency standard, for example, AUM2101A, does not reflect a qualification level, an industry stream or an order in which the standard should be trained or assessed.

Pagination of Automotive Manufacturing Competency Standards
The Competency Standards in this Package vary in length from two to six pages. Each Competency Standard has been paginated independently to indicate the number of relevant pages eg. AUM4601A is 3 pages in length. This also allows for the inclusion and deletion of Competency Standards in future.

4.5 APPLICATION OF AUTOMOTIVE MANUFACTURING PMV STANDARDS

The automotive manufacturing PMV standards may apply in two distinct groups:
- nine (9) automotive manufacturing production standards for qualifications up to Certificate II level
- fifty-six (56) automotive manufacturing standards to qualifications at Certificate levels III, IV, Diploma and Advanced Diploma.

4.6 LIST OF AUTOMOTIVE MANUFACTURING PMV COMPETENCY STANDARDS

A list of manufacturing PMV competency standards follows. They are presented in qualifications order and grouped under functional headings according to skill clusters.

A standard can be referenced by number and title if known, or it can be sourced by checking under a functional heading.
4.6.1 Automotive Manufacturing PMV Competency Standards applicable to Certificate II level

<table>
<thead>
<tr>
<th>COMPETENCY STANDARDS NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9001A</td>
<td>Monitor and maintain workplace environment</td>
</tr>
<tr>
<td>AUM9002A</td>
<td>Receive and dispatch materials, equipment and tools</td>
</tr>
<tr>
<td>AUM9003A</td>
<td>Prepare and process materials and components</td>
</tr>
<tr>
<td>AUM9004A</td>
<td>Prepare and use/operate equipment, tools and/or machinery</td>
</tr>
<tr>
<td>AUM9005A</td>
<td>Monitor and maintain continuous improvement systems and processes</td>
</tr>
<tr>
<td>AUM9006A</td>
<td>Monitor and maintain equipment, tools and machinery</td>
</tr>
<tr>
<td>AUM9007A</td>
<td>Manage personal work priorities</td>
</tr>
<tr>
<td>AUM9008A</td>
<td>Maintain effective workplace relationships</td>
</tr>
<tr>
<td>AUM9009A</td>
<td>Work effectively with others in teams</td>
</tr>
</tbody>
</table>

4.6.2 Automotive Manufacturing PMV Competency Standards applicable to Certificate levels III to Advanced Diploma listing standards in numerical order by title under functional group.

<table>
<thead>
<tr>
<th>COMPETENCY STANDARD NUMBER</th>
<th>COMPETENCY STANDARD TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Designing</td>
</tr>
<tr>
<td>AUM1503A</td>
<td>Create new product designs</td>
</tr>
<tr>
<td>2</td>
<td>Installing</td>
</tr>
<tr>
<td>AUM1601A</td>
<td>Install plant, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM1602A</td>
<td>Install plant, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM1603A</td>
<td>Install plant, equipment or systems - Complex</td>
</tr>
<tr>
<td>3</td>
<td>Testing</td>
</tr>
<tr>
<td>AUM1701A</td>
<td>Test components of plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM1702A</td>
<td>Test components of plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM1703A</td>
<td>Test components of plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>AUM1801A</td>
<td>Test plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM1802A</td>
<td>Test plant, tooling, equipment or systems Advanced</td>
</tr>
<tr>
<td>AUM1803A</td>
<td>Test plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>4</td>
<td>Maintaining</td>
</tr>
<tr>
<td>AUM2101A</td>
<td>Maintain plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM2102A</td>
<td>Maintain plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2103A</td>
<td>Maintain plant, tooling, equipment or systems – Complex</td>
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<td>5</td>
<td>Repairing</td>
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<tr>
<td>AUM2201A</td>
<td>Repair plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM2202A</td>
<td>Repair plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2203A</td>
<td>Repair plant, tooling, equipment or systems – Complex</td>
</tr>
<tr>
<td>6</td>
<td>Manufacturing/Modifying</td>
</tr>
<tr>
<td>AUM2301A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Basic</td>
</tr>
<tr>
<td>AUM2302A</td>
<td>Manufacture or modify plant, tooling, equipment or systems – Advanced</td>
</tr>
<tr>
<td>AUM2303A</td>
<td>Manufacture or modify plant, tooling, equipment or systems - Complex</td>
</tr>
<tr>
<td>COMPETENCY STANDARD NUMBER</td>
<td>COMPETENCY STANDARD TITLE</td>
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<td>----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>7 AUM2401A</td>
<td>Apply quality assurance techniques – Basic</td>
</tr>
<tr>
<td>7 AUM2402A</td>
<td>Apply quality assurance techniques – Advanced</td>
</tr>
<tr>
<td>7 AUM2403A</td>
<td>Apply quality assurance techniques – Complex</td>
</tr>
<tr>
<td>8 AUM2803A</td>
<td>Document work-related records</td>
</tr>
<tr>
<td>8 AUM3003A</td>
<td>Document designs</td>
</tr>
<tr>
<td>9 AUM3103A</td>
<td>Plan and organise personal work activities</td>
</tr>
<tr>
<td>9 AUM3201A</td>
<td>Plan, organise and coordinate work activities in a team – Basic</td>
</tr>
<tr>
<td>9 AUM3202A</td>
<td>Plan, organise and coordinate work activities in a team – Advanced</td>
</tr>
<tr>
<td>9 AUM3203A</td>
<td>Plan, organise and coordinate work activities in a team – Complex</td>
</tr>
<tr>
<td>10 AUM3903A</td>
<td>Interpret manuals, drawings and/or circuits for plant, tooling, equipment or systems</td>
</tr>
<tr>
<td>10 AUM4003A</td>
<td>Interpret customer requirements</td>
</tr>
<tr>
<td>11 AUM4502A</td>
<td>Create a safe work environment</td>
</tr>
<tr>
<td>12 AUM4601A</td>
<td>Monitor computers and computerised equipment using displays – Basic</td>
</tr>
<tr>
<td>12 AUM4602A</td>
<td>Monitor computers and computerised equipment using displays – Advanced</td>
</tr>
<tr>
<td>12 AUM4603A</td>
<td>Monitor computers and computerised equipment using displays – Complex</td>
</tr>
<tr>
<td>12 AUM4702A</td>
<td>Program and monitor PLCs, robots and other computerised equipment – Advanced</td>
</tr>
<tr>
<td>12 AUM4703A</td>
<td>Program and monitor PLCs, robots and other computerised equipment – Complex</td>
</tr>
<tr>
<td>12 AUM4803A</td>
<td>Use computers in work locations</td>
</tr>
<tr>
<td>12 AUM4903A</td>
<td>Use computers and computerised equipment in design and development applications</td>
</tr>
<tr>
<td>13 AUM5403A</td>
<td>Produce computer-aided drawings (CAD)</td>
</tr>
<tr>
<td>14 AUM5503A</td>
<td>Produce research reports</td>
</tr>
<tr>
<td>15 AUM5603A</td>
<td>Develop stylistic models and prototypes</td>
</tr>
<tr>
<td>16 AUM5802A</td>
<td>Communicate information – Advanced</td>
</tr>
<tr>
<td>16 AUM5803A</td>
<td>Communicate information - Complex</td>
</tr>
<tr>
<td>16 AUM5903A</td>
<td>Seek, evaluate, organise and prepare information</td>
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<tr>
<td>17 AUM6001A</td>
<td>Assess competence – Basic</td>
</tr>
<tr>
<td>17 AUM6002A</td>
<td>Assess competence – Advanced</td>
</tr>
<tr>
<td>17 AUM6003A</td>
<td>Assess competence - Complex</td>
</tr>
</tbody>
</table>
Automotive Manufacturing PMV Competency Standards applicable to Certificate levels III to Advanced Diploma listing functional groups of standards in alphabetical order

<table>
<thead>
<tr>
<th>FUNCTIONAL GROUP NUMBER</th>
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<tbody>
<tr>
<td>17</td>
<td>Assessing Competence</td>
</tr>
<tr>
<td>7</td>
<td>Assuring quality</td>
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<tr>
<td>16</td>
<td>Communicating</td>
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<tr>
<td>12</td>
<td>Computing</td>
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<td>Designing</td>
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<td>8</td>
<td>Documenting</td>
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<td>Drafting</td>
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<td>Installing</td>
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<td>10</td>
<td>Interpreting</td>
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<td>4</td>
<td>Maintaining</td>
</tr>
<tr>
<td>11</td>
<td>Maintaining safety</td>
</tr>
<tr>
<td>6</td>
<td>Manufacturing/Modifying</td>
</tr>
<tr>
<td>15</td>
<td>Modelling</td>
</tr>
<tr>
<td>9</td>
<td>Planning and organising</td>
</tr>
<tr>
<td>5</td>
<td>Repairing</td>
</tr>
<tr>
<td>14</td>
<td>Researching</td>
</tr>
<tr>
<td>3</td>
<td>Testing</td>
</tr>
</tbody>
</table>

4.7 LIST OF IMPORTED COMPETENCY STANDARDS

4.7.1 Frontline Management Competency Standards

<table>
<thead>
<tr>
<th>UNIT NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSXF 1301A</td>
<td>Manage personal work priorities and professional development</td>
</tr>
<tr>
<td>BSXF 1302A</td>
<td>Provide leadership in the workplace</td>
</tr>
<tr>
<td>BSXF 1303A</td>
<td>Establish and manage effective workplace relationships</td>
</tr>
<tr>
<td>BSXF 1304A</td>
<td>Participate in, lead and facilitate work teams</td>
</tr>
<tr>
<td>BSXF 1305A</td>
<td>Manage operations to achieve planned outcomes</td>
</tr>
<tr>
<td>BSXF 1306A</td>
<td>Manage workplace information</td>
</tr>
<tr>
<td>BSXF 1307A</td>
<td>Manage quality customer service</td>
</tr>
<tr>
<td>BSXF 1308A</td>
<td>Develop and maintain a safe workplace and environment</td>
</tr>
<tr>
<td>BSXF 1309A</td>
<td>Implement and monitor continuous improvement systems and processes</td>
</tr>
<tr>
<td>BSXF 1310A</td>
<td>Facilitate and capitalise on change and innovation</td>
</tr>
<tr>
<td>BSXF 1311A</td>
<td>Contribute to the development of a workplace learning environment</td>
</tr>
</tbody>
</table>

(Note: Certificate IV and Diploma Frontline Management standards are signified by the change from number ‘3’ to ‘4’ and ‘5’ respectively)
### 4.7.2 Manufacturing, Engineering & Related Services Competency Standards

<table>
<thead>
<tr>
<th>UNIT NUMBER</th>
<th>UNIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEM18.18A A</td>
<td>Maintain pneumatic system components</td>
</tr>
<tr>
<td>MEM18.19A A</td>
<td>Maintain and repair pneumatic systems</td>
</tr>
<tr>
<td>MEM18.20A A</td>
<td>Maintain hydraulic system components</td>
</tr>
<tr>
<td>MEM18.21A A</td>
<td>Maintain and repair hydraulic systems</td>
</tr>
<tr>
<td>MEM18.22A A</td>
<td>Maintain/repair/replace fluid power controls</td>
</tr>
</tbody>
</table>
CERTIFICATE II
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AUM9001 -  Monitor and maintain workplace environment
AUM9002 -  Receive and dispatch materials, equipment and tools
AUM9003 -  Prepare and process materials and components
AUM9004 -  Prepare and use/operate equipment, tools and/or machinery
AUM9005 -  Monitor and maintain continuous improvement systems and processes
AUM9006 -  Monitor and maintain equipment, tools and machinery
AUM9007 -  Manage personal work priorities
AUM9008 -  Maintain effective workplace relationships
AUM9009 -  Work effectively with others in teams

IMPLEMENTATION GUIDELINES

The Automotive Manufacturing Competency Standards Certificate II contained in this section are a new set of standards which have been developed in response to the ANTA requirement for the introduction of nationally endorsed training packages throughout the VET System in Australia.

These standards will require a pilot implementation period and will be subject to workplace-based evaluation within the manufacturing sector of passenger motor vehicle.
# AUM9001A MONITOR AND MAINTAIN WORKPLACE ENVIRONMENT

**UNIT DESCRIPTOR:** This unit recognises that safety, security and care for the environment is everybody’s responsibility. The unit covers the competencies required for the maintenance of a safe and secure workplace and external environment within the Automotive Manufacturing (Passenger Vehicle) industry, in accordance with enterprise policy and procedures, OH&S and environmental legislation and community standards.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM9001A.1 Recognise and follow OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area. | **AUM9001A.1.1** OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area are recognised and correctly interpreted.  
**AUM9001A.1.2** OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area are followed.  
**AUM9001A.1.3** The roles and responsibilities of key personnel within the area connected with health, safety, security and the environment are identified.  
**AUM9001A.1.4** Employer and employee rights and responsibilities in relation to health, safety, safety and the environment are identified.  
**AUM9001A.1.5** Housekeeping is undertaken in accordance with enterprise procedures and OH&S guidelines. |
| AUM9001A.2 Use appropriate personal protective equipment. | **AUM9001A.2.1** Personal protective equipment appropriate for the area of operation is identified.  
**AUM9001A.2.2** Personal protective equipment is maintained and stored in accordance with enterprise policy and supplier instructions.  
**AUM9001A.2.3** Personal protective equipment is used when and where required. |
<p>| AUM9001A.3 Follow appropriate manual handling techniques. | <strong>AUM9001A.3.1</strong> Manual handling techniques and equipment appropriate for the area of work are identified. |</p>
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9001A.3 (continued) Follow appropriate manual handling techniques.</td>
<td>AUM9001A.3.2 Appropriate manual handling techniques and equipment are used in the workplace in accordance with enterprise procedures and legislative guidelines.</td>
</tr>
<tr>
<td>AUM9001A.4 Take appropriate action to deal with hazards and potential hazards in the workplace.</td>
<td>AUM9001A.4.1 Material related to the work area which is hazardous and/or potentially hazardous to the health and safety of individuals, the workplace and the environment is identified. AUM9001A.4.2 Correct procedures and precautions necessary in the use, storage and labelling of hazardous material related to the work area are followed in accordance with enterprise procedures and OH&amp;S and environmental legislation. AUM9001A.4.3 Non-conformances in the use, storage and labelling of hazardous material are identified and reported to the appropriate personnel in accordance with enterprise procedures.</td>
</tr>
<tr>
<td>AUM9001A.5 Complete incident/accident investigation reports as/when required.</td>
<td>AUM9001A.5.1 Enterprise incident/accident reporting procedures are identified. AUM9001A.5.2 Incident/accident investigation reports are completed correctly as/when required in accordance with enterprise procedures.</td>
</tr>
<tr>
<td>AUM9001A.6 Follow emergency procedures.</td>
<td>AUM9001A.6.1 Appropriate personnel to notify in the event of an emergency, accident or hazardous situation, and means of contacting the appropriate personnel are identified. AUM9001A.6.2 Evacuation and emergency response procedures are identified and applied. AUM9001A.6.3 Emergency equipment and its appropriate use is identified.</td>
</tr>
<tr>
<td>AUM9001A.7 Recognise and act on factors which lead to an unhealthy lifestyle.</td>
<td>AUM9001A.7.1 Factors within the workplace, including incorrect ergonomic practices and occupational stress which lead to an unhealthy lifestyle are recognised and acted upon. AUM9001A.7.2 Internal and external resources/agencies to assist employees deal with factors which lead to an unhealthy lifestyle are identified.</td>
</tr>
</tbody>
</table>
RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals

Key people responsible for health, safety, security and the environment within the work area may include, but are not restricted to:
- Supervisor
- Safety Specialist
- Health and Safety representative/committee
- Natural Work Group Leader
- Individual

Personal protective equipment may include, but is not restricted to:
- Gloves
- Safety boots
- Glasses
- Ear plugs
- Helmets
- Outer clothing

Potential hazards in the workplace include, but are not restricted to:
- Poor lighting
- Excessive noise
- Incorrectly placed materials and equipment
- Heat
- Radiation
- Chemical hazards - toxic, asphyxiants, sensitisers, irritants, corrosives, explosive/flammbles

Factors which lead to an unhealthy lifestyle may include, but are not restricted to:
- Poor ergonomic practices
- Alcohol and drug abuse
- Harassment/discrimination
- Occupational stress
- Smoking
- Excess weight
Evidence Guide:

Context:
- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit needs to be assessed in conjunction with the following units of competency:
- Receive and dispatch materials, equipment and tools
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- 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 the area of operation.

Assessment of underpinning knowledge of the following, listed in more detail in the range statement, is required:
- OH&S and Environmental regulations and company policies and procedures as they relate to the work area
- Key people responsible for health, safety, security and the environment
- Personal protective equipment and its use
- Potential hazards in the workplace
- Factors which lead to an unhealthy lifestyle

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.
Key Competencies:
In this unit, the following key competencies would be met:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>2</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>1</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>2</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>1</td>
</tr>
<tr>
<td>Use technology</td>
<td>1</td>
</tr>
</tbody>
</table>
**AUM9002A**  
**RECEIVE AND DISPATCH MATERIALS, EQUIPMENT AND TOOLS**

**UNIT DESCRIPTOR:** Process activities cannot occur unless the correct materials and equipment are in place, when and where required. This unit covers the activities required within the Automotive Manufacturing (Passenger Vehicle) industry for ensuring that materials/equipment/components/parts/tools are received and stored, and are also dispatched in a timely fashion so the next process can receive them.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| **AUM9002A.1**  
Receive and check materials/components/parts and equipment/tools required for the job. | **AUM9002A.1**  
Materials/components/parts required for the job are received in accordance with work plans, enterprise procedures and OH&S guidelines.  
**AUM9002A.1.1**  
Materials/components/parts required for the job are received in accordance with work plans, enterprise procedures and OH&S guidelines.  
**AUM9002A.1.2**  
Materials/components/parts required for the job are checked to ensure they comply with job requirements.  
**AUM9002A.1.3**  
Equipment and tools required to carry out the process are received in accordance with work plans, enterprise procedures and OH&S guidelines.  
**AUM9002A.1.4**  
Equipment and tools are checked to ensure that they are the correct type and are in working order to enable the process to be conducted, in accordance with work requirements, enterprise procedures and OH&S guidelines. |
| **AUM9002A.2**  
Unpack and store materials/components/parts and equipment/tools as required for the job. | **AUM9002A.2**  
Materials/components/parts required for the job are unpacked and stored correctly in accordance with the requirements of the job, enterprise procedures and OH&S guidelines.  
**AUM9002A.2.1**  
Materials/components/parts required for the job are unpacked and stored correctly in accordance with the requirements of the job, enterprise procedures and OH&S guidelines.  
**AUM9002A.2.2**  
Equipment and tools required for the job are unpacked and stored in accordance with job requirements, enterprise procedures and OH&S guidelines. |
| **AUM9002A.3**  
Stack/store materials/parts/components as required for the process. | **AUM9002A.3**  
Materials/parts/components required for the process are stacked/stored in accordance with enterprise procedures and OH&S guidelines.  
**AUM9002A.3.1**  
Materials/parts/components required for the process are stacked/stored in accordance with enterprise procedures and OH&S guidelines. |
| **AUM9002A.4**  
Dispatch materials/parts/components on completion of the process. | **AUM9002A.4**  
Materials/parts/components are dispatched in accordance with enterprise procedures and OH&S guidelines.  
**AUM9002A.4.1**  
Materials/parts/components are dispatched in accordance with enterprise procedures and OH&S guidelines. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9002A.5 Store equipment and tools on completion of the process.</td>
<td>AUM9002A.5.1 Equipment and tools are stored at the completion of the process in accordance with enterprise procedures and OH&amp;S guidelines.</td>
</tr>
</tbody>
</table>

RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

Examples of process include, but are not restricted to:
- Welding sub-assemblies
- Fitting hang-on components
- Fitting 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

EVIDENCE GUIDE:

Context:
- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.
Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery
- Monitor and maintain workplace environment

At the same time, evidence for the assessment of the following competencies will be gathered during the assessment of this unit:
- Manage personal work priorities
- Monitor and maintain continuous improvement systems and processes
- Monitor and maintain equipment, tools and machinery

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- 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.
- Knowledge of upstream customers and their requirements.
- Knowledge of the 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.
- Knowledge of the correct handling and storage of equipment and tools to comply with OH&S and environmental requirements.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>Nil</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>2</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>2</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>1</td>
</tr>
<tr>
<td>Use technology</td>
<td>Nil</td>
</tr>
</tbody>
</table>
### AUM9003A PREPARE AND PROCESS MATERIALS AND COMPONENTS

**UNIT DESCRIPTOR:** This unit describes the competencies required to undertake the preparation and processing of materials and components, under supervision, including finishing for the full range of manufacturing contexts in the Automotive Manufacturing (Passenger Vehicle) industry.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9003A.1 Select materials/components required for the operation/process.</td>
<td>AUM9003A.1.1 The appropriate materials/components are identified according to the job requirements. AUM9003A.1.2 The appropriate materials/components are selected according to the job requirements.</td>
</tr>
<tr>
<td>AUM9003A.2 Inspect and check materials/components prior to use.</td>
<td>AUM9003A.2.1 Materials/components are inspected to ensure they conform to enterprise quality standards and specifications. AUM9003A.2.2 Defective materials/components are identified and dispatched according to enterprise procedures.</td>
</tr>
<tr>
<td>AUM9003A.3 Prepare and/or load/secure materials/components as required.</td>
<td>AUM9003A.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. AUM9003A.3.2 Materials/components are loaded, aligned and secured if/as required by the process/operation in accordance with enterprise procedures and OHS regulations.</td>
</tr>
<tr>
<td>AUM9003A.4 Process materials/components as detailed in enterprise procedures to ensure a quality product.</td>
<td>AUM9003A.4.1 Materials/components are processed using correct tools and equipment. AUM9003A.4.2 Materials/components are processed in correct sequence as detailed in enterprise procedures. AUM9003A.4.3 Materials/components are processed following enterprise procedures, OH&amp;S and environmental regulations. AUM9003A.4.4 Materials/components are processed within enterprise specified timeframes.</td>
</tr>
</tbody>
</table>
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM9003A.4 (continued) Process materials/components as detailed in enterprise procedures to ensure a quality product. | AUM9003A.4.5 Materials/components are processed and finished to the quality required by the standard operating procedures or other enterprise specifications.  
AUM9003A.4.6 Quality control tools are identified and applied.

### RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

### Examples of selection procedures include, but not exclusively:
- 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, but not exclusively:
- Inspection for defects that may cause the manufactured components to be faulty on completion
- Inspection to ensure surfaces are cleaned 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
- Checking colour of paint meets the requirements of the job sheets

**NB - Defects may be surface, structural or other**

### Preparation may include, but not exclusively:
- Cleaning and preparation of surfaces
- Weighing and measuring materials to specified amounts
- Removal of 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, but not exclusively:
- 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

Examples of processes include, but are not restricted to:
- Welding sub-assemblies
- Fitting hang-on components
- Fitting dies to die boxes
- Pouring aluminium
- Machining parts
- Applying paint
- Cutting blanks
- Assembling components to form sub-assemblies
- Fitting parts to bodies
- Assembly of parts
- Parts processing in a warehouse

Finishing may include but is not restricted to:
- 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

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers operating instruction manuals
- Enterprise production process sheets
- Enterprise production schedules
- Enterprise supply requisition procedures/forms
- Enterprise inventory control procedures (paper or computer based)

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.
Critical Aspects of Evidence to be Considered:
• Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
• Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
• The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
• Receive and dispatch materials/components/parts and equipment/tools
• Prepare and use/operate equipment, tools and/or machinery
• Monitor and maintain workplace environment.

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency:
• Manage personal work priorities
• Monitor and maintain continuous improvement systems and processes
• Monitor and maintain equipment, tools and machinery
• Maintain effective workplace relationships
• Work effectively with others and in teams.

Underpinning Knowledge:
The following underpinning knowledge is common across the range of areas listed in the Range Statement:
• 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.

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>Nil</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>1</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>Nil</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>Nil</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>1</td>
</tr>
<tr>
<td>Use technology</td>
<td>1</td>
</tr>
</tbody>
</table>
**AUM9004A PREPARE AND USE/OPERATE EQUIPMENT, TOOLS AND/OR MACHINERY**

**UNIT DESCRIPTOR:** This unit describes the process required to prepare any equipment, tools and/or machinery ready for use and use/operate the equipment, tools and machinery, under supervision, as required for the full range of contexts in the Automotive Manufacturing (Passenger Vehicle) industry.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM9004A.1 Select equipment, tools and/or machinery required for the operation/process. | AUM9004A.1.1 The appropriate equipment, tools and machinery are identified according to the job requirements.  
AUM9004A.1.2 The appropriate equipment, tools and machinery are selected according to the job requirements. |
| AUM9004A.2 Inspect and check equipment, tools and/or machinery prior to use. | AUM9004A.2.1 Equipment, tools and machinery are checked to ensure they are in operational order.  
AUM9004A.2.2 Defective equipment, tools and machinery are identified and reported according to company procedures. |
| AUM9004A.3 Prepare equipment, tools and machinery as required by the process/operation. | AUM9004A.3.1 Equipment, tools and machinery are prepared according to OH&S, environmental and company procedures and manufacturer specifications. |
| AUM9004A.4 Use and/or operate equipment, tools and machinery as required by the process/operation. | AUM9004A.4.1 Equipment, tools and/or machinery are used correctly as required by the process/operation according to OH&S, environmental and company procedures and manufacturer specifications to ensure a quality product. |
| AUM9004A.5 Shut down and/or store equipment, tools and machinery at the conclusion of the operation. | AUM9004A.5.1 Equipment, tools and/or machinery are shut down and/or stored at the conclusion of the operation according to company procedures. |
RANGE STATEMENT:
The range of contexts for this unit of competency include:

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 could include, but are not restricted to:

- Welding sub-assemblies
- Fitting hang-on components
- Fitting 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 processing in a warehouse

Examples of equipment, tools and machinery include, but are not restricted to:

- Welding equipment
- Robots
- Forklift trucks
- Hand tools
- Power tools
- Spray guns
- Die boxes
- Furnace
- Core boxes
- Lubricating equipment
- Cutting equipment

Regulations, policies and procedures may include, but are not restricted to:

- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals
- Enterprise production process sheets
- Enterprise production schedules
- Enterprise supply requisition procedures/forms
- Enterprise inventory control procedures (paper or computer based)
EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Receive and dispatch materials/components/parts and equipment/tools
- Monitor and maintain workplace environment
- Prepare and process materials and components

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency
- Manage personal work priorities
- Monitor and maintain continuous improvement systems and processes
- Monitor and maintain equipment, tools and machinery
- Maintain effective workplace relationships
- Work effectively with others and in teams

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.
The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- 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 the area of operation.
- Relevant quality measurement tools for the area of operation to ensure the quality of the product and/or process.
The following underpinning skill is common across the range of areas listed in the Range Statement:

- Operation of the relevant equipment, tools and/or machinery required for the job. This must be determined before the commencement of the trainee’s operation of the process. Decisions must be made jointly with trainers, key operators, union representatives and other stakeholders. Off-the-job training in the operation of the equipment, tools and/or machinery may be required, eg Forklift Licence.

**Resource Implications:**
The resource required for this competency is a passenger vehicle manufacturing plant.

This unit may require considerable off-the-job training in the operation of the equipment, tools and/or machinery before application on the job. In some cases licensing may be required.

**Key Competencies:**
In this unit, the following key competencies would be met.

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<tr>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>Plan and organise activities</td>
<td>2</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>Nil</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
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</tr>
</tbody>
</table>
## AUM9005A  
**MONITOR AND MAINTAIN CONTINUOUS IMPROVEMENT OF SYSTEMS AND PROCESSES**

### UNIT DESCRIPTOR:
This unit covers the application of continuous improvement of systems and processes and the use of quality management tools and problem solving techniques, under supervision, to ensure there is continuous improvement of product and process within the Automotive Manufacturing (Passenger Vehicle) industry.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</table>
| AUM9005A.1 Apply continuous improvement of systems and processes to improve the quality of the product/process. | AUM9005A.1.1 Continuous improvement opportunities of systems and processes are identified.  
AUM9005A.1.2 Continuous improvement of systems and processes are applied in the work area. |
| AUM9005A.2 Monitor continuous improvement of systems and processes to ensure the quality of the product/process is continually improved. | AUM9005A.2.1 The enterprise continuous improvement of systems and processes are monitored to ensure that improvements are continually being sought.  
AUM9005A.2.2 Customer requirements are monitored to ensure the product/process continues to exceed their expectations. |
| AUM9005A.3 Use continuous improvement tools and problem-solving techniques to ensure the ongoing improvement of the product and process. | AUM9005A.3.1 Continuous improvement tools and problem-solving techniques relevant to the process are identified.  
AUM9005A.3.2 Continuous improvement of tools and problem-solving techniques relevant to the process are applied.  
AUM9005A.3.2 Recommendations and solutions to problems are made through enterprise processes. |
| AUM9005A.4 Apply continuous improvement of systems/processes/tools to eliminate waste. | AUM9005A.4.1 Enterprise waste minimisation principles and processes are identified.  
AUM9005A.4.2 Enterprise waste minimisation processes are continuously applied. |
| AUM9005A.5 Incorporate recognised improvement opportunities into the work area. | AUM9005A.5.1 Improvements to processes are trialled.  
AUM9005A.5.2 Improvements to processes are monitored and evaluated.  
AUM9005A.5.3 Improvements to processes are incorporated into work practices. |
RANGE STATEMENT:
The range of contexts for this unit of competency include:

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

Continuous improvement systems could include, but are not restricted to:
- QS-9000/ISO9001/2
- Kanban
- JIT
- Enterprise-specific improvement systems

Problem solving techniques could include, but are not restricted to:
- Using facts in analysis of data
- Step-by-step process
- Use of measurement
- Action plan
- Review

Continuous improvement of quality tools may include, but are not restricted to:
- Statistics
- Cause and effect diagrams
- Fishbone diagram
- Pareto diagrams
- Run charts
- X bar R charts
- PDCA

Customers could include:
- Upstream and downstream customers
- Internal and external customers – immediate and or final

Waste can include but is not restricted to:
- Over-processing
- Over-production
- Excess inventory/stock
- Corrections/rework
- Rejects

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals
EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Concurrent Assessment:
*Prerequisite units* - although this unit can be assessed concurrently with any of the other units of competency, candidates should have demonstrated competency in the following units before they can be credited with this unit.
- Receive and dispatch materials/components/parts and equipment/tools
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery
- Monitor and maintain workplace environment

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- 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 the area of operation.
- Relevant enterprise continuous improvement systems and processes
- Relevant quality measure tools for use in continuous improvement processes
- Relevant problem solving techniques
- Causes and effects of waste and methods of minimizing waste.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

<table>
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<tbody>
<tr>
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<td>Solve problems</td>
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</tr>
<tr>
<td>Use technology</td>
<td>1</td>
</tr>
</tbody>
</table>
AUM9006A

**MONITOR AND MAINTAIN EQUIPMENT, TOOLS AND MACHINERY**

**UNIT DESCRIPTOR:** This unit of competency describes the requirements for monitoring and maintaining equipment, tools and machinery to ensure optimum use in the production process within the Automotive Manufacturing (Passenger Vehicle) industry.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM9006A.1 Monitor equipment and processes. | AUM9006A.1.1 Processes are monitored to ensure that equipment, tools and machinery are operating in accordance with manufacturer instructions, enterprise requirements and OH&S guidelines.  
AUM9006A.1.2 The operation of equipment, tools and machinery is monitored to ensure they are performing in accordance with job requirements, manufacturer instructions and OH&S guidelines. |
| AUM9006A.2 Perform incidental maintenance when required. | AUM9006A.2.1 Incidental maintenance is performed on equipment, tools and machinery when required in accordance with enterprise procedures and OH&S regulations.  
AUM9006A.2.2 Maintenance requirements outside the range expertise of the operator are reported to the appropriate personnel, in accordance with enterprise procedures and OH&S regulations. |
| AUM9006A.3 Apply preventative maintenance systems/processes to maintain operation efficiency and effectiveness. | AUM9006A.3.1 Preventative maintenance systems or processes are applied in accordance with, and at intervals prescribed by, enterprise and manufacturer preventative maintenance policies and procedures and OH&S regulations.  
AUM9006A.3.2 Equipment, tools and machinery used in the process are visually and/or physically checked regularly in accordance with preventative maintenance procedures.  
AUM9006A.3.3 Equipment, tools and machinery used in the process are functionally checked regularly in accordance with preventative maintenance procedures.  
AUM9006A.3.4 Any identified requirements for adjustment, cleaning, repair, replacement or modification of equipment, tools and machinery are reported to appropriate personnel.  
AUM9006A.3.5 Preventative maintenance activities and resultant action are documented in accordance with enterprise procedures. |
RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

Equipment, tools and machinery may include, but are not restricted to:
- Welding equipment
- Robots
- Forklift trucks
- Hand tools
- Power tools
- Spray guns
- Die boxes
- Furnace
- Core boxes
- Lubricating equipment
- Cutting equipment

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals
- Enterprise production process sheets
- Enterprise production schedules
- Enterprise supply requisition procedures/forms

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.
Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Monitor and maintain continuous improvement systems and processes

Evidence for the assessment of this unit will be gathered also during the assessment for the following units of competency:
- Receive and dispatch materials/components/parts and equipment/tools
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and machinery

At the same time, aspects of the following unit of competency will be addressed during the assessment of this unit, and will be used as part of the evidence in the assessment of them:
- Manage personal work priorities.

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- 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 the area of operation.
- Preventative maintenance systems/processes
- Appropriate personnel to report maintenance requirements to, and procedures for reporting
- Methods of documenting preventative maintenance activities and resultant action.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

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<td>Work with others in a team</td>
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</tr>
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<td>Solve problems</td>
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</tr>
<tr>
<td>Use technology</td>
<td>2</td>
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</table>
AUM9007A MANAGE PERSONAL WORK PRIORITIES

UNIT DESCRIPTOR: This unit of competency prepares employees within the Automotive Manufacturing (Passenger Vehicle) industry to manage their own performance and work priorities so that allocated duties are performed within the required time span and production rates are maintained. This includes being able to adjust work priorities to cater for changes in schedules and problems as they arise, and to predict problems and take appropriate action to adjust schedules, under supervision.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</tr>
</thead>
</table>
| AUM9007A.1 Recognise requirements for the job according to schedules and work plans. | AUM9007A.1.1 Procedural instructions for the job are obtained, interpreted and clarified, if necessary, with appropriate personnel.  
AUM9007A.1.2 Relevant specifications for task outcomes are obtained, interpreted and clarified, if necessary, with appropriate personnel.  
AUM9007A.1.3 Schedules and work plans are obtained, interpreted and clarified, if necessary, with appropriate personnel so that completion times and other requirements are identified.  
AUM9007A.1.4 Task outcomes are identified.  
AUM9007A.1.5 Quality measures are identified. |
| AUM9007A.2 Plan time to meet work schedules so that production rates are maintained. | AUM9007A.2.1 Individual steps or activities needed to complete the required work are planned, sequenced and verified with appropriate personnel.  
AUM9007A.2.2 Competing demands are prioritised to achieve personal, team and the organisation’s goals and objectives.  
AUM9007A.2.3 Technology appropriate for the job is used efficiently and effectively to manage work priorities and commitments. |
| AUM9007A.3 Adjust work priorities to cater for changes in schedules. | AUM9007A.3.1 Changes in schedules are recognised and acknowledged when they occur.  
AUM9007A.3.2 Outcomes are compared with planned objectives, tasks, instructions, specifications and task requirements. |
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<th>ELEMENT OF COMPETENCY</th>
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</thead>
<tbody>
<tr>
<td>AUM9007A.3 (continued) Adjust work priorities to cater for changes in schedules.</td>
<td>AUM9007A.3.3 Work plans and actions are adjusted, under supervision, as and when changes to schedules occur, to meet objectives and task requirements.</td>
</tr>
<tr>
<td>AUM9007A.4 Predict and recognise problems and take appropriate action.</td>
<td>AUM9007A.4.1 Problems which will have an impact on work plans are predicted if possible, and recognised when they occur. AUM9007A.4.2 Action is taken, under supervision, to adjust work plans when changes to schedules occur.</td>
</tr>
</tbody>
</table>

**RANGE STATEMENT:**
The range of contexts for this unit of competency include:

- 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

**Examples of process include, but are not restricted to:**

- Welding sub-assemblies
- Fitting hang-on components
- Fitting 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

**Supervision:**
Work at this level is under supervision, and refers to tasks or functions carried out routinely.

Employees will be operating under supervision and will be provided with, for example:

- Production schedules
- Standard operating procedures
- Work plans
- Clear specifications and requirements
- Quality requirements
- Time allocation
Regulations, policies and procedures may include, but are not restricted to:

- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals

EVIDENCE GUIDE:

Context:

- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Critical Aspects of Evidence to be Considered:

- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.

- Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.

- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:

This unit should be assessed in conjunction with the following units of competency:

- Maintain effective workplace relations
- Work effectively with others in teams.

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency

- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery.

Underpinning Skill, Knowledge and Attitude:

Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment. The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- 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.
• Interpretation of the relevant work instructions, specifications, quality outcomes etc for
  the area.
• Actions to take if objectives are not being met, eg which personnel should be notified.

The following underpinning skill is common across the range of areas listed in the Range
Statement:
• Use of the relevant techniques required to complete the job.

**Resource Implications:**
The resource required for this competency is a passenger vehicle manufacturing plant.

**Key Competencies:**
In this unit, the following key competencies would be met:

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AUM9007A MANAGE PERSONAL WORK PRIORITIES

UNIT DESCRIPTOR: This unit of competency prepares employees within the Automotive Manufacturing (Passenger Vehicle) industry to manage their own performance and work priorities so that allocated duties are performed within the required time span and production rates are maintained. This includes being able to adjust work priorities to cater for changes in schedules and problems as they arise, and to predict problems and take appropriate action to adjust schedules, under supervision.

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<tbody>
<tr>
<td>AUM9007A.1 Recognise requirements for the job according to schedules and work plans.</td>
<td>AUM9007A.1.1 Procedural instructions for the job are obtained, interpreted and clarified, if necessary, with appropriate personnel. AUM9007A.1.2 Relevant specifications for task outcomes are obtained, interpreted and clarified, if necessary, with appropriate personnel. AUM9007A.1.3 Schedules and work plans are obtained, interpreted and clarified, if necessary, with appropriate personnel so that completion times and other requirements are identified. AUM9007A.1.4 Task outcomes are identified. AUM9007A.1.5 Quality measures are identified.</td>
</tr>
<tr>
<td>AUM9007A.2 Plan time to meet work schedules so that production rates are maintained.</td>
<td>AUM9007A.2.1 Individual steps or activities needed to complete the required work are planned, sequenced and verified with appropriate personnel. AUM9007A.2.2 Competing demands are prioritised to achieve personal, team and the organisation’s goals and objectives. AUM9007A.2.3 Technology appropriate for the job is used efficiently and effectively to manage work priorities and commitments.</td>
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<td>AUM9007A.3 Adjust work priorities to cater for changes in schedules.</td>
<td>AUM9007A.3.1 Changes in schedules are recognised and acknowledged when they occur. AUM9007A.3.2 Outcomes are compared with planned objectives, tasks, instructions, specifications and task requirements.</td>
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</table>
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM9007A.3 (continued) Adjust work priorities to cater for changes in schedules. | AUM9007A.3.3 Work plans and actions are adjusted, under supervision, as and when changes to schedules occur, to meet objectives and task requirements.

AUM9007A.4 Predict and recognise problems and take appropriate action. | AUM9007A.4.1 Problems which will have an impact on work plans are predicted if possible, and recognised when they occur.
AUM9007A.4.2 Action is taken, under supervision, to adjust work plans when changes to schedules occur.

### RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

### Examples of process include, but are not restricted to:

- Welding sub-assemblies
- Fitting hang-on components
- Fitting 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

### Supervision:

Work at this level is under supervision, and refers to tasks or functions carried out routinely.

Employees will be operating under supervision and will be provided with, for example:

- Production schedules
- Standard operating procedures
- Work plans
- Clear specifications and requirements
- Quality requirements
- Time allocation
Regulations, policies and procedures may include, but are not restricted to:

- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals

**EVIDENCE GUIDE:**

**Context:**

- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

**Critical Aspects of Evidence to be Considered:**

- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

**Concurrent Assessment:**

This unit should be assessed in conjunction with the following units of competency:

- Maintain effective workplace relations
- Work effectively with others in teams

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency

- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery

**Underpinning Skill, Knowledge and Attitude:**

Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment. The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- 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.
• Interpretation of the relevant work instructions, specifications, quality outcomes etc for the area.
• Actions to take if objectives are not being met, eg which personnel should be notified.

The following underpinning skill is common across the range of areas listed in the Range Statement:
• Use of the relevant techniques required to complete the job.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>2</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>2</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>Nil</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>1</td>
</tr>
<tr>
<td>Use technology</td>
<td>1</td>
</tr>
</tbody>
</table>
## AUM9008A MAINTAIN EFFECTIVE WORKPLACE RELATIONSHIPS

**UNIT DESCRIPTOR:** This unit acknowledges that working with others is a major aspect of the production process. The competencies in this unit cover a range of activities involving working with others in the Automotive Manufacturing (Passenger Vehicle) industry.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| **AUM9008A.1**<br>Give and receive instructions, information and messages as required by the job. | **AUM9008A.1.1**<br>Instructions, information and messages as required by the job are received and acted upon.  
**AUM9008A.1.2**<br>Instructions, messages and information received are confirmed with the person giving the message.  
**AUM9008A.1.3**<br>Instructions, information and messages as required by the job are delivered using an appropriate communication technique and in an appropriate format which is understandable to the receiver/s.  
**AUM9008A.1.4**<br>Feedback is sought from the person/s receiving the instructions, information or messages to ensure that the correct information has been received. |
| **AUM9008A.2**<br>Instruct and deliver training to others on- and off-the-job as required. | **AUM9008A.2.1**<br>Objectives of the training are identified.  
**AUM9008A.2.2**<br>Trainee(s) is/are instructed in the operation of work-related tasks one-on-one and/or in small groups off-the-job in accordance with job specifications, quality processes and OH&S and environmental guidelines, using suitable techniques.  
**AUM9008A.2.3**<br>Trainee is instructed in the operation of a work-related task one-on-one on the job in accordance with job specifications, quality processes and OH&S and environmental guidelines, using suitable techniques.  
**AUM9008A.2.4**<br>Trainee progress is monitored to ensure the training has been effective, and appropriate feedback is given. |
| **AUM9008A.3**<br>Follow enterprise Diversity and Equal Opportunity policies and procedures. | **AUM9008A.3.1**<br>Enterprise Equal Opportunity, Diversity and related policies are identified.  
**AUM9008A.3.2**<br>Personnel responsible for receiving complaints about breaches of enterprise Equal Opportunity, Diversity and related policies are identified. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</thead>
<tbody>
<tr>
<td>AUM9008A.3 (continued)</td>
<td>AUM9008A.3.3 Enterprise Equal Opportunity, Diversity and related policies are followed.</td>
</tr>
<tr>
<td>Follow enterprise Diversity and Equal Opportunity policies and procedures.</td>
<td>AUM9008A.3.4 Contract of Employment is identified and clarified with relevant personnel.</td>
</tr>
<tr>
<td>AUM9008A.4</td>
<td>AUM9008A.4.1 Processes within the organisation for resolving conflict and grievances are identified.</td>
</tr>
<tr>
<td>Identify procedures and processes for resolving conflict in the workplace.</td>
<td>AUM9008A.4.2 Processes within the organisation for resolving conflict and grievances are followed if/when required so that there is minimum disruption to production.</td>
</tr>
<tr>
<td>AUM9008A.5</td>
<td>AUM9008A.5.1 Forms required for the job are identified.</td>
</tr>
<tr>
<td>Fill out forms as required by the job.</td>
<td>AUM9008A.5.2 Forms required for the job are completed according to enterprise procedures and legislative requirements.</td>
</tr>
</tbody>
</table>

**RANGE STATEMENT:**
The range of contexts for this unit of competency include:

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

*Regulations, policies and procedures may include, but are not restricted to:*
- Enterprise regulations, policies and procedures including enterprise 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  
- Suppliers’ operating instruction manuals  
- Enterprise production process sheets  
- Enterprise production schedules  
- Enterprise supply requisition procedures/forms  
- Contract of Employment*
Appropriate communication techniques may include:
- Face-to-face communication to individuals and groups
- Memos
- Sketches/diagrams
- E-mail
- Telephone
- Use of non-verbal communication

Training techniques may include:
- Explanation
- Demonstration

Forms may include:
- Order forms
- Work orders
- Accident/safety report forms
- Internal job application forms
- Suggestion form

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed Assessment Guidelines for the Automotive Industry
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Work effectively with others and in teams

Evidence for the assessment of this unit will be gathered also during the assessment for the following units of competency:
- Manage personal work priorities
- Monitor and maintain continuous improvement systems and processes
- Monitor and maintain workplace environment

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.
The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- 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 the area of operation.
- Format of common communication techniques, including memos, e-mails, telephone conventions
- Range of training techniques
- Enterprise Diversity and Equal Opportunities policies
- Range of forms
- Contract of Employment

**Resource Implications:**
The resource required for this competency is a passenger vehicle manufacturing plant.

**Key Competencies:**
In this unit, the following key competencies would be met:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>Nil</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>2</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>2</td>
</tr>
<tr>
<td>Work with others in a team</td>
<td>2</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Nil</td>
</tr>
<tr>
<td>Solve problems</td>
<td>1</td>
</tr>
<tr>
<td>Use technology</td>
<td>1</td>
</tr>
</tbody>
</table>
**AUM9009A**  WORK EFFECTIVELY WITH OTHERS IN TEAMS

**UNIT DESCRIPTOR:** This unit covers the competencies required for employees to work effectively as part of teams within the Automotive Manufacturing (Passenger Vehicle) industry. Teams may be work groups or other teams required to meet enterprise needs.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM9009A.1</td>
<td>AUM9009A.1.1 Team leader and members are identified.</td>
</tr>
<tr>
<td>Participate in teams to</td>
<td>AUM9009A.1.2 Role of team and roles and responsibilities of members are identified.</td>
</tr>
<tr>
<td>achieve production targets.</td>
<td>AUM9009A.1.3 Contributions are made to structure team tasks in the workplace.</td>
</tr>
<tr>
<td></td>
<td>AUM9009A.1.4 Participation in a team to help it achieve its production targets is demonstrated.</td>
</tr>
<tr>
<td></td>
<td>AUM9009A.1.5 Effectiveness is maintained if/when changes in team occur or when working in different teams.</td>
</tr>
<tr>
<td></td>
<td>AUM9009A.1.6 Effectiveness is maintained when working in different environments.</td>
</tr>
<tr>
<td>AUM9009A.2</td>
<td>AUM9009A.2.1 Team decision-making processes are identified.</td>
</tr>
<tr>
<td>Participate in the decision-</td>
<td>AUM9009A.2.2 Active participation in the team decision-making process is demonstrated.</td>
</tr>
<tr>
<td>making process in team</td>
<td>AUM9009A.2.3 Reporting relationships within and beyond the team are identified.</td>
</tr>
<tr>
<td>meetings.</td>
<td>AUM9009A.2.4 Actions which show consideration for the needs of others and the effect of one’s behaviour on others is demonstrated.</td>
</tr>
<tr>
<td>AUM9009A.3</td>
<td>AUM9009A.3.1 The team’s key production indicators are identified.</td>
</tr>
<tr>
<td>Participate in addressing</td>
<td>AUM9009A.3.2 Participation in meeting team’s key production indicators is demonstrated.</td>
</tr>
<tr>
<td>team’s key production</td>
<td></td>
</tr>
<tr>
<td>indicators.</td>
<td></td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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<tr>
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</tr>
</tbody>
</table>
| AUM9009A.4 Organise and conduct team meetings. | AUM9009A.4.1 Procedures for organising team meetings are identified.  
AUM9009A.4.2 Team meetings are organised.  
AUM9009A.4.3 Team meetings are conducted following standard meeting procedures.  
AUM9009A.4.4 Minutes of team meetings are taken according to the enterprise procedures. |

RANGE STATEMENT:
The range of contexts for this unit of competency include:

- 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

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise 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
- Suppliers’ operating instruction manuals.

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- 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.
Critical Aspects of Evidence to be Considered:
• Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
• Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.
• The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
• Manage personal work priorities
• Maintain effective workplace relationships

Evidence for the assessment of this unit of competency will also be gathered during the assessment of the following units:
• Receive and dispatch materials/components/parts and equipment/tools
• Prepare and process materials and components
• Prepare and use/operate equipment, tools and/or machinery
• Monitor and maintain continuous improvement systems and processes
• Monitor and maintain workplace environment
• Monitor and maintain equipment, tools and machinery

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
• 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 the area of operation.
• Meeting procedures and minute taking.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

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<th>Competency</th>
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<tbody>
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<td>Use mathematical ideas and techniques</td>
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<td>Solve problems</td>
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<tr>
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<td>1</td>
</tr>
</tbody>
</table>
### AUM1503A CREATE NEW PRODUCT DESIGNS - Complex

**UNIT DESCRIPTOR:** This unit identifies the competence required to assist professional and other staff in the planning and design of new motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1503A.1 Establish design requirements. | AUM1503A.1.1 Information on customer needs, competitor products, company objectives, fashion trends, safety needs, relevant government policies, and company production capability is gathered in accordance with company procedures.  
AUM1503A.1.2 Information gathered as part of the product design process is analysed to develop key requirements needed in new designs.  
AUM1503A.1.3 Requirement of a new design is documented in accordance with company procedures. |
| AUM1503A.2 Identify constraints. | AUM1503A.2.1 Constraints on design concepts (such as market price or size, production capability, product complexity, etc.) are identified and documented.  
AUM1503A.2.2 Suitable strategies are developed to address identified constraints on designs. |
| AUM1503A.3 Create design concept. | AUM1503A.3.1 An initial design concept based on identified design requirements and constraints is created in accordance with company procedures.  
AUM1503A.3.2 Function, physical requirements and impact of the design concept are reviewed in conjunction with engineering and marketing staff.  
AUM1503A.3.3 Modifications to the initial design concept are made in accordance with feedback provided by engineering and marketing and other relevant staff in accordance with company procedures. |
| AUM1503A.4 Produce concept sketches. | AUM1503A.4.1 Sketches are prepared to illustrate and explain proposed design concept(s) in accordance with company procedures. |
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM1503A.4 (continued) Produce concept sketches. | AUM1503A.4.2 Concept sketches are reviewed in conjunction with engineering, marketing and other relevant staff and suitable changes made in accordance with a critical evaluation of the proposed design.

AUM1503A.5 Quantify design concept. | AUM1503A.5.1 Critical dimensions and data of a design concept are identified and quantified in accordance with company procedures.

 | AUM1503A.5.2 Drawings are prepared to required accuracy to enable suitable manufacturing methods to be identified and evaluated.

 | AUM1503A.5.3 Draft product specifications are prepared in accordance with company procedures.

 | AUM1503A.5.4 Estimates of required materials, components and related costs are calculated in conjunction with engineering, marketing and other relevant staff in accordance with company procedures.

AUM1503A.6 Determine suitable production methods, materials and processes. | AUM1503A.6.1 Components and sub-assemblies are drawn in accordance with the design requirements.

 | AUM1503A.6.2 Suitable manufacturing methods are identified for the production of components and sub-assemblies to meet design requirements.

 | AUM1503A.6.3 Identified manufacturing methods for components and sub-assemblies are evaluated in conjunction with production engineering staff.

 | AUM1503A.6.4 Suitable assembly and finishing methods for the proposed product design are identified and evaluated in accordance with company procedures.

AUM1503A.7 Evaluate feasibility. | AUM1503A.7.1 The proposed design and the manufacturing processes are evaluated against the design requirements in conjunction with design, engineering, marketing and other relevant staff in accordance with company procedures.

 | AUM1503A.7.2 Suitable trials and tests of the design are devised and conducted in conjunction with engineering and other relevant staff in accordance with company procedures.
<table>
<thead>
<tr>
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</table>
| AUM1503A.8 Modify design. | AUM1503A.8.1 The product design is suitably modified, based on the outcomes of the feasibility evaluations and trials.  
AUM1503A.8.2 Further tests are conducted to confirm the suitability of the modified design against the identified design requirements.  
AUM1503A.8.3 The outcomes of the modification and testing of the new design concept are documented in accordance with company requirements. |
| AUM1503A.9 Document design. | AUM1503A.9.1 All documentation requirements for the proposed new product design and associated manufacturing processes are identified.  
AUM1503A.9.2 The design of the new product is documented in accordance with company requirements.  
AUM1503A.9.3 The design documentation is processed for approval in accordance with company requirements.  
AUM1503A.9.4 The design documentation is stored and distributed in accordance with company requirements. |

**RANGE OF VARIABLES:**
- The designing of complex products or sub-assemblies that may involve a range of components and assembly processes

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Establishing and quantifying design requirements, determining suitable production methods, materials and processes, identifying constraints, producing concept sketches, evaluating feasibility, modifying designs and documenting designs.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning the development of plant, tooling, equipment or systems
- Advising on suitability of parts, tooling, equipment or plant
- Developing plant, tooling, equipment or systems
- Evaluating plant, tooling, equipment or systems
- Documenting the development of plant, tooling, equipment or systems
- Planning the installation of new or modified plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
### Key Competencies:

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<tr>
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<tbody>
<tr>
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<td>Work with others and in teams</td>
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<td>Use mathematical ideas and techniques</td>
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<td>Solve problems</td>
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</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
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</table>
### AUM1601A INSTALL PLANT, EQUIPMENT OR SYSTEMS - Basic

**UNIT DESCRIPTOR:** This unit identifies the competence required to install plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
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</thead>
</table>
| AUM1601A.1 Interpret installation plan. | AUM1601A.1.1 Installation plan is interpreted in terms of the sequence and timing of activities, and action plan is initiated in accordance with company procedures.  
AUM1601A.1.2 Arrangements are made for staffing to be available and/or contracted in accordance with company procedures.  
AUM1601A.1.3 Arrangements are made for physical resources to be available and/or purchased/leased in accordance with company procedures.  
AUM1601A.1.4 The proposed installation is discussed with designated staff to establish suitable times for the work to be conducted. |
| AUM1601A.2 Obtain component parts, plant and/or equipment. | AUM1601A.2.1 Supply arrangements of all component parts, plant and/or equipment are confirmed or arranged in accordance with company procedures.  
AUM1601A.2.2 Arrangements are made for the delivery of all component parts, plant and/or equipment to the required locations on the specified dates in accordance with the installation plan.  
AUM1601A.2.3 Where necessary, arrangements are made for the storage of component parts, plant and/or equipment in accordance with the installation plan. |
| AUM1601A.3 Prepare the work site. | AUM1601A.3.1 The preparations required for the work site are interpreted from the design drawings and documentation.  
AUM1601A.3.2 The work site is prepared in accordance with the installation plan and the requirements of the manufacturer of the component parts, plant and/or equipment and OH&S policies and procedures.  
AUM1601A.3.3 The prepared work site is checked for compliance with the design drawings and specifications, and any necessary adjustments made. |
<table>
<thead>
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<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| **AUM1601A.4**<br>Conduct installation of parts, equipment, fixtures and/or wiring. | **AUM1601A.4.1**<br>All parts, equipment, fixtures and/or wiring to be used in the installation are checked to ensure that they meet the specified technical and safety requirements.  
**AUM1601A.4.2**<br>Any required pre-installation preparation of the parts, plant, equipment, fixtures and/or wiring are carried out in accordance with the installation plan and the technical specifications for the work.  
**AUM1601A.4.3**<br>Installation of the parts, plant, equipment, fixtures and/or wiring is carried out in accordance with the technical specification, installation plan, company procedures and statutory and OH&S requirements. |
| **AUM1601A.5**<br>Verify installation. | **AUM1601A.5.1**<br>The installation is checked against the design specifications, company quality standards, manufacturer instructions and OH&S requirements.  
**AUM1601A.5.2**<br>Where the installation does not meet the specified requirements, the problem is reported and any necessary action taken in accordance with company procedures and/or manufacturer instructions.  
**AUM1601A.5.3**<br>The outcomes of the checks of the installation and any resulting action are documented in accordance with company procedures. |

**RANGE OF VARIABLES:**
- Apply the skills and knowledge of this unit carrying out installation of parts, equipment, fixtures and/or wiring.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
Methods include:
• Interpreting installation plans, obtaining component parts plant and/or equipment, preparing the work site, conducting installation of parts equipment, fixtures and/or wiring and verifying installation.

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Interpreting installation plan
• Operation of systems and components
• Obtaining component parts, plant and/or equipment
• Preparing the work site
• Conducting installation of parts, equipment, fixtures and/or wiring
• Verifying installation

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Apply housekeeping standards
• Apply knowledge of OH&S requirements
• Apply knowledge of required quality improvement techniques
• Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies:  
<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>3</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>3</td>
</tr>
<tr>
<td>Work with others and in teams</td>
<td>3</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
## AUM1602A INSTALL PLANT, EQUIPMENT OR SYSTEMS - Advanced

**UNIT DESCRIPTOR:** This unit identifies the competence required to install plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1602A.1 Interpret installation plan. | AUM1602A.1.1 Installation plan is interpreted in terms of the sequence and timing of activities, and action plan is initiated in accordance with company procedures.  
AUM1602A.1.2 Arrangements are made for staffing to be available and/or contracted in accordance with company procedures.  
AUM1602A.1.3 Arrangements are made for physical resources to be available and/or purchased/leased in accordance with company procedures.  
AUM1602A.1.4 The proposed installation is discussed with designated staff to establish suitable times for the work to be conducted. |
| AUM1602A.2 Obtain component parts, plant and/or equipment. | AUM1602A.2.1 Supply arrangements of all component parts, plant and/or equipment are confirmed or arranged in accordance with company procedures.  
AUM1602A.2.2 Arrangements are made for the delivery of all component parts, plant and/or equipment to the required locations on the specified dates in accordance with the installation plan.  
AUM1602A.2.3 Where necessary, arrangements are made for the storage of component parts, plant and/or equipment in accordance with the installation plan. |
| AUM1602A.3 Prepare the work site. | AUM1602A.3.1 The preparations required for the work site are interpreted from the design drawings and documentation.  
AUM1602A.3.2 The work site is prepared in accordance with the installation plan and the requirements of the manufacturer of the component parts, plant and/or equipment and OH&S policies and procedures.  
AUM1602A.3.3 The prepared work site is checked for compliance with the design drawings and specifications, and any necessary adjustments made. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1602A.4  
Conduct installation of parts, equipment, fixtures and/or wiring. | AUM1602A.4.1  
All parts, equipment, fixtures and/or wiring to be used in the installation are checked to ensure that they meet the specified technical and safety requirements.  
AUM1602A.4.2  
Any required pre-installation preparation of the parts, plant, equipment, fixtures and/or wiring are carried out in accordance with the installation plan and the technical specifications for the work.  
AUM1602A.4.3  
Installation of the parts, plant, equipment, fixtures and/or wiring is carried out in accordance with the technical specification, installation plan, company procedures and statutory and OH&S requirements. |
| AUM1602A.5  
Verify installation. | AUM1602A.5.1  
The installation is checked against the design specifications, company quality standards, manufacturer instructions and OH&S requirements.  
AUM1602A.5.2  
Where the installation does not meet the specified requirements, the problem is reported and any necessary action taken in accordance with company procedures and/or manufacturer instructions.  
AUM1602A.5.3  
The outcomes of the checks of the installation and any resulting action are documented in accordance with company procedures. |

RANGE OF VARIABLES:
- Carry out installation of parts, equipment, fixtures control systems and/or wiring utilising mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
Methods include:
• Interpreting installation plans, obtaining component parts plant and/or equipment, preparing the work site, conducting installation of parts equipment, fixtures and/or wiring and verifying installation.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Interpreting installation plan
• Operation of systems and components
• Obtaining component parts, plant and/or equipment
• Preparing the work site
• Conducting installation of parts, equipment, fixtures and/or wiring
• Verifying installation

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Apply housekeeping standards
• Apply knowledge of OH&S requirements
• Apply knowledge of required quality improvement techniques
• Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies:

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<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
**AUM1603A**

**INSTALL PLANT, EQUIPMENT OR SYSTEMS - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to install plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</thead>
</table>
| AUM1603A.1 Interpreting installation plan. | AUM1603A.1.1 Installation plan is interpreted in terms of the sequence and timing of activities, and an action plan is initiated in accordance with company procedures.  
AUM1603A.1.2 Arrangements are made for staffing to be available and/or contracted in accordance with company procedures.  
AUM1603A.1.3 Arrangements are made for physical resources to be available and/or purchased/leased in accordance with company procedures.  
AUM1603A.1.4 The proposed installation is discussed with designated staff to establish suitable times for the work to be conducted. |
| AUM1603A.2 Obtaining component parts, plant and/or equipment. | AUM1603A.2.1 Supply arrangements of all component parts, plant and/or equipment are confirmed or arranged in accordance with company procedures.  
AUM1603A.2.2 Arrangements are made for the delivery of all component parts, plant and/or equipment to the required locations on the specified dates in accordance with the installation plan.  
AUM1603A.2.3 Where necessary, arrangements are made for the storage of component parts, plant and/or equipment in accordance with the installation plan. |
| AUM1603A.3 Preparing the work site. | AUM1603A.3.1 The preparations required for the work site are interpreted from the design drawings and documentation.  
AUM1603A.3.2 The work site is prepared in accordance with the installation plan and the requirements of the manufacturer of the component parts, plant and/or equipment and OH&S policies and procedures.  
AUM1603A.3.3 The prepared work site is checked for compliance with the design drawings and specifications, and any necessary adjustments made. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM1603A.4</td>
<td><strong>Conduct installation of parts, equipment, fixtures and/or wiring.</strong></td>
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<tr>
<td></td>
<td>AUM1603A.4.1</td>
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<td></td>
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<td>AUM1603A.4.3</td>
</tr>
<tr>
<td>AUM1603A.5</td>
<td><strong>Verify installation.</strong></td>
</tr>
<tr>
<td></td>
<td>AUM1603A.5.1</td>
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<tr>
<td></td>
<td>AUM1603A.5.2</td>
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<td></td>
<td>AUM1603A.5.3</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Carry out installation of Manufacturing Processes and/or Transfer Systems involving the integration of control systems utilising a combination of electrical, electronic, hydraulic, pneumatic and mechanical principles.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
Methods include:
• Interpreting installation plans, obtaining component parts plant and/or equipment, preparing the work site, conducting installation of parts equipment, fixtures and/or wiring and verifying installation.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Interpreting installation plan
• Operation of systems and components
• Obtaining component parts, plant and/or equipment
• Preparing the work site
• Conducting installation of parts, equipment, fixtures and/or wiring
• Verifying installation

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Apply housekeeping standards
• Apply knowledge of OH&S requirements
• Apply knowledge of required quality improvement techniques
• Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 2
Communicate ideas and information 3
Plan and organise activities 3
Work with others and in teams 3
Use mathematical ideas and techniques 2
Solve problems 3
Use technology 3

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### AUM1701A TEST COMPONENTS OF PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Basic

#### UNIT DESCRIPTOR:
This unit identifies the competence required to test components of plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| **AUM1701A.1** Plan for the testing of components of plant, tooling, equipment or systems. | **AUM1701A.1.1** The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions.  
**AUM1701A.1.2** The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures |
| **AUM1701A.2** Prepare and/or calibrate testing equipment. | **AUM1701A.2.1** The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual.  
**AUM1701A.2.2** The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures.  
**AUM1701A.2.3** The components to be tested are prepared and connected to the test equipment in accordance with approved procedures. |
| **AUM1701A.3** Conduct tests of components of plant, tooling, equipment or systems. | **AUM1701A.3.1** The components are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications.  
**AUM1701A.3.2** Evidence of wear, unserviceability, malfunctions or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures. |
| **AUM1701A.4** Interpret test results of components of plant, tooling, equipment or systems. | **AUM1701A.4.1** The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides.  
**AUM1701A.4.2** As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1701A.5 Initiate corrective action on test results. | AUM1701A.5.1 Any required action for removal, repair, modification, or replacement indicated by the outcomes of tests is initiated in accordance with company procedures and manufacturer instructions.  
AUM1701A.5.2 All recommendations to remove, repair, modify or replace components are documented in accordance with company procedures. |
| AUM1701A.6 Document results of tests of components of plant, tooling, equipment or systems. | AUM1701A.6.1 The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with company procedures.  
AUM1701A.6.2 Test results and any recommended action are communicated to all relevant personnel for their advice and/or approval in accordance with company procedures.  
AUM1701A.6.3 The test documentation is stored and/or distributed in accordance with company procedures. |

**RANGE OF VARIABLES:**
- Apply the skills and knowledge of this unit conducting pre-determined test on basic components of plant, tooling, equipment or systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning for the testing of components of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up/corrective action and documenting results of tests.
Methods should be applied under normal operating conditions.
Other variables may include:
- Locations outside of the assembly plant eg. proving ground

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning for the testing of components of plant, tooling, equipment or systems
- Preparing and/or calibrating testing equipment
- Conducting tests of components of plant, tooling, equipment or systems
- Interpreting test results of components of plant, tooling, equipment or systems
- Initiating follow-up action on test results

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 2
Communicate ideas and information 2
Plan and organise activities 3
Work with others and in teams 2
Use mathematical ideas and techniques 2
Solve problems 2
Use technology 2
**AUM1702A**  
**TEST COMPONENTS OF PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Advanced**

**UNIT DESCRIPTOR:**  This unit identifies the competence required to test components of plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1702A.1 Plan for the testing of components of plant, tooling, equipment or systems. | AUM1702A.1.1 The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions.  
AUM1702A.1.2 The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures. |
| AUM1702A.2 Prepare and/or calibrate testing equipment. | AUM1702A.2.1 The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual.  
AUM1702A.2.2 The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures.  
AUM1702A.2.3 The components to be tested are prepared and connected to the test equipment in accordance with approved procedures. |
| AUM1702A.3 Conduct tests of components of plant, tooling, equipment or systems. | AUM1702A.3.1 The components are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications.  
AUM1702A.3.2 Evidence of wear, unserviceability, malfunctions or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures. |
| AUM1702A.4 Interpret test results of components of plant, tooling, equipment or systems. | AUM1702A.4.1 The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides.  
AUM1702A.4.2 As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability. |
**ELEMENT OF COMPETENCY** | **PERFORMANCE CRITERIA**
--- | ---
AUM1702A.5 Initiating corrective action on test results. | AUM1702A.5.1 Any required action for removal, repair, modification, or replacement indicated by the outcomes of tests is initiated in accordance with company procedures and manufacturer instructions.
AUM1702A.5.2 All recommendations to remove, repair, modify or replace components are documented in accordance with company procedures.

AUM1702A.6 Documenting results of tests of components of plant, tooling, equipment or systems. | AUM1702A.6.1 The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with company procedures.
AUM1702A.6.2 Test results and any recommended action are communicated to all relevant personnel for their advice and/or approval in accordance with company procedures.
AUM1702A.6.3 The test documentation is stored and/or distributed in accordance with company procedures.

**RANGE OF VARIABLES:**
- Conducting pre-determined test on advanced components of plant, tooling, equipment or systems involving either mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

*Note:* The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning for the testing of components of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up/corrective action and documenting results of tests.
  Methods should be applied under normal operating conditions.
Other variables may include:
  • Locations outside of the assembly plant eg. proving ground

EVIDENCE GUIDE:

Context:
  • Competency must be assessed in a safe working environment.
  • Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
  • The knowledge and practical component may be assessed in an on- or off-the-job environment.
  • Assessment may take place within the work place or appropriate simulated environment.
  • The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
  • Degree of complexity
  • Safe working practices
  • Documentation
  • Technical specifications
  • Planning

Underpinning knowledge:
  • Planning for the testing of components of plant, tooling, equipment or systems
  • Preparing and/or calibrating testing equipment
  • Conducting tests of components of plant, tooling, equipment or systems
  • Interpreting test results of components of plant, tooling, equipment or systems
  • Initiating follow-up action on test results

Practical assessments:
  • Perform work under the required level of supervision
  • Use and maintain all required materials, tools and parts
  • Diagnose and solve problems involved in the work
  • Achieve specified quality standards
  • Apply housekeeping standards
  • Apply knowledge of OH&S requirements
  • Apply knowledge of required quality improvement techniques
  • Demonstrate ability to minimise waste
  • Apply knowledge of relevant company procedures
  • Apply knowledge of emergency procedures
  • Apply knowledge of reporting and documentation requirements
  • Communicate effectively with team members, management and user departments

Key Competencies: Level
  Collect, analyse and organise information 2
  Communicate ideas and information 2
  Plan and organise activities 3
  Work with others and in teams 2
  Use mathematical ideas and techniques 2
  Solve problems 2
  Use technology 2
AUM1703A TEST COMPONENTS OF PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to test components of plant, equipment or systems required for the design, development and production of motor vehicles.

<table>
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</table>
| AUM1703A.1 Plan for the testing of components of plant, tooling, equipment or systems. | AUM1703A.1.1 The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions.  
AUM1703A.1.2 The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures. |
| AUM1703A.2 Prepare and/or calibrate testing equipment. | AUM1703A.2.1 The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual.  
AUM1703A.2.2 The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures.  
AUM1703A.2.3 The components to be tested are prepared and connected to the test equipment in accordance with approved procedures. |
| AUM1703A.3 Conduct tests of components of plant, tooling, equipment or systems. | AUM1703A.3.1 The components are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications.  
AUM1703A.3.2 Evidence of wear, unserviceability, malfunctions or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures. |
| AUM1703A.4 Interpret test results of components of plant, tooling, equipment or systems. | AUM1703A.4.1 The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides.  
AUM1703A.4.2 As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability. |
AUM1703A Test components of plant, tooling, equipment or systems – complex  

**ELEMENT OF COMPETENCY** | **PERFORMANCE CRITERIA**
--- | ---
AUM1703A.5 | AUM1703A.5.1
Initiate corrective action on test results. | Any required action for removal, repair, modification, or replacement indicated by the outcomes of tests is initiated in accordance with company procedures and manufacturer instructions.
AUM1703A.5.2 | All recommendations to remove, repair, modify or replace components are documented in accordance with company procedures.

AUM1703A.6 | AUM1703A.6.1
Document results of tests of components of plant, tooling, equipment or systems. | The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with company procedures.
AUM1703A.6.2 | Test results and any recommended action are communicated to all relevant personnel for their advice and/or approval in accordance with company procedures.
AUM1703A.6.3 | The test documentation is stored and/or distributed in accordance with company procedures.

**RANGE OF VARIABLES:**
- Conducting pre-determined test on components of complex control systems using a combination of electrical, electronic, pneumatic, hydraulic and mechanical principles.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning for the testing of components of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up/corrective action and documenting results of tests.
Methods should be applied under normal operating conditions.
Other variables may include:
- Locations outside of the assembly plant eg. proving ground

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning for the testing of components of plant, tooling, equipment or systems
- Preparing and/or calibrating testing equipment
- Conducting tests of components of plant, tooling, equipment or systems
- Interpreting test results of components of plant, tooling, equipment or systems
- Initiating follow-up action on test results

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
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<tr>
<td>Communicate ideas and information</td>
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<td>3</td>
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<td>Work with others and in teams</td>
<td>2</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
<td>2</td>
</tr>
</tbody>
</table>
**AUM1801A**

TEST PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Basic

**UNIT DESCRIPTOR:** This unit identifies the competence required to test plant, equipment, tooling and systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM1801A.1 Plan for the testing of plant, tooling, equipment or systems. | AUM1801A.1.1 The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions.  
AUM1801A.1.2. The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures. |
| AUM1801A.2 Prepare and/or calibrate testing equipment. | AUM1801A.2.1 The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual.  
AUM1801A.2.2 The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures.  
AUM1801A.2.3 The plant, equipment, tooling and/or systems to be tested are prepared and connected to the test equipment in accordance with approved procedures. |
| AUM1801A.3 Conduct tests of plant, tooling, equipment or systems. | AUM1801A.3.1 The plant, equipment, tooling and/or systems are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications.  
AUM1801A.3.2 Evidence of wear, unserviceability, malfunction or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures. |
| AUM1801A.4 Interpret test results of plant, tooling, equipment or systems. | AUM1801A.4.1 The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides.  
AUM1801A.4.2 As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability. |
## ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM1801A.5 | AUM1801A.5.1
Initiate follow-up/corrective action on test results. | Any required action for removal, repair, modification, or replacement indicated by the outcomes of tests is initiated in accordance with company procedures and manufacturer instructions.

AUM1801A.5.2 | All recommendations to remove, repair, modify or replace plant, tooling or equipment are documented in accordance with company procedures.

AUM1801A.6 | AUM1801A.6.1
Document results of tests of plant, tooling, equipment or systems. | The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with company procedures.

AUM1801A.6.2 | Test results and any recommended action are communicated to all relevant personnel for their advice and/or approval in accordance with company procedures.

AUM1801A.6.3 | The test documentation is stored and/or distributed in accordance with company procedures.

### RANGE OF VARIABLES:
- Apply the skills and knowledge of this unit conducting pre-determined test on basic plant, tooling, equipment or systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning for the testing of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up action and documenting results of tests.

Methods should be applied under normal operating conditions.
Other variables may include:
- Locations other than the assembly plant eg. proving ground

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning for the testing of plant, tooling, equipment or systems
- Preparing and/or calibrating testing equipment
- Conducting tests of plant, tooling, equipment or systems
- Interpreting test results of plant, tooling, equipment or systems
- Initiating follow-up/corrective action on test results
- Documenting results of tests of plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  

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<td>Solve problems</td>
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</tr>
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<td>Use technology</td>
<td>2</td>
</tr>
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</table>
# UNIT DESCRIPTOR:
This unit identifies the competence required to test plant, equipment, tooling and systems required for the design, development and production of motor vehicles.

<table>
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<tr>
<th>ELEMENT OF COMPETENCY</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>AUM1802A.1</strong> Plan for the testing of plant, tooling, equipment or systems.</td>
<td><strong>AUM1802A.1.1</strong> The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM1802A.1.2.</strong> The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures.</td>
</tr>
<tr>
<td><strong>AUM1802A.2</strong> Prepare and/or calibrate testing equipment.</td>
<td><strong>AUM1802A.2.1</strong> The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM1802A.2.2</strong> The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM1802A.2.3</strong> The plant, equipment, tooling and/or systems to be tested are prepared and connected to the test equipment in accordance with approved procedures.</td>
</tr>
<tr>
<td><strong>AUM1802A.3</strong> Conduct tests of plant, tooling, equipment or systems.</td>
<td><strong>AUM1802A.3.1</strong> The plant, equipment, tooling and/or systems are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM1802A.3.2</strong> Evidence of wear, unserviceability, malfunction or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures.</td>
</tr>
<tr>
<td><strong>AUM1802A.4</strong> Interpret test results of plant, tooling, equipment or systems.</td>
<td><strong>AUM1802A.4.1</strong> The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM1802A.4.2</strong> As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tr>
<tr>
<td>AUM1802A.5 Initiate follow-up/corrective action on test results.</td>
<td>AUM1802A.5.1 Any required action for removal, repair, modification, or replacement indicated by the outcomes of tests is initiated in accordance with company procedures and manufacturer instructions. AUM1802A.5.2 All recommendations to remove, repair, modify or replace plant, tooling or equipment are documented in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM1802A.6 Document results of tests of plant, tooling, equipment or systems.</td>
<td>AUM1802A.6.1 The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with company procedures. AUM1802A.6.2 Test results and any recommended action are communicated to all relevant personnel for their advice and/or approval in accordance with company procedures. AUM1802A.6.3 The test documentation is stored and/or distributed in accordance with company procedures.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:
- Conducting pre-determined test on advanced plant, tooling, equipment or systems involving either mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Planning for the testing of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up action and documenting results of tests.
 Methods should be applied under normal operating conditions.
Other variables may include:
- Locations other than the assembly plant eg. proving ground

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning for the testing of plant, tooling, equipment or systems
- Preparing and/or calibrating testing equipment
- Conducting tests of plant, tooling, equipment or systems
- Interpreting test results of plant, tooling, equipment or systems
- Initiating follow-up/corrective action on test results
- Documenting results of tests of plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  Level
Collect, analyse and organise information  2
Communicate ideas and information  2
Plan and organise activities  3
Work with others and in teams  2
Use mathematical ideas and techniques  2
Solve problems  2
Use technology  2
AUM1803A TEST PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Complex

UNIT DESCRIPTROR: This unit identifies the competence required to test plant, equipment, tooling and systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
<tbody>
<tr>
<td>AUM1803A.1 Plan for the testing of plant, tooling, equipment or systems.</td>
<td>AUM1803A.1.1 The required test equipment is identified and obtained in accordance with company procedures and manufacturer instructions. AUM1803A.1.2. The testing sequence and specified procedures for the tests are determined in accordance with manufacturer instructions and company procedures.</td>
</tr>
<tr>
<td>AUM1803A.2 Prepare and/or calibrate testing equipment.</td>
<td>AUM1803A.2.1 The test equipment is checked to ensure it is functioning correctly according to operating instructions and/or manual. AUM1803A.2.2 The test equipment is prepared for testing and where necessary calibrated in accordance with specified set-up procedures. AUM1803A.2.3 The plant, equipment, tooling and/or systems to be tested are prepared and connected to the test equipment in accordance with approved procedures.</td>
</tr>
<tr>
<td>AUM1803A.3 Conduct tests of plant, tooling, equipment or systems.</td>
<td>AUM1803A.3.1 The plant, equipment, tooling and/or systems are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications. AUM1803A.3.2 Evidence of wear, unserviceability, malfunction or out-of-tolerance adjustments is detected and reported, and any necessary action taken in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM1803A.4 Interpret test results of plant, tooling, equipment or systems.</td>
<td>AUM1803A.4.1 The results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides. AUM1803A.4.2 As required, further tests are conducted on the components of plant, tooling, equipment and/or systems to confirm or refute potential causes of malfunction or unserviceability.</td>
</tr>
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</tr>
<tr>
<td>AUM1803A.5</td>
<td>Initiate follow-up/corrective action on test results.</td>
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<td>AUM1803A.5.1</td>
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<td>AUM1803A.5.2</td>
</tr>
<tr>
<td>AUM1803A.6</td>
<td>Document results of tests of plant, tooling, equipment or systems.</td>
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<td>AUM1803A.6.3</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Conducting pre-determined test on complex control systems using a combination of electrical, electronic, pneumatic, hydraulic and mechanical principles.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning for the testing of plant, tooling, equipment or systems, preparing and/or calibrating testing equipment, conducting tests, interpreting test results, initiating follow-up action and documenting results of tests.
Methods should be applied under normal operating conditions.
Other variables may include:
- Locations other than the assembly plant eg. proving ground

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning for the testing of plant, tooling, equipment or systems
- Preparing and/or calibrating testing equipment
- Conducting tests of plant, tooling, equipment or systems
- Interpreting test results of plant, tooling, equipment or systems
- Initiating follow-up/corrective action on test results
- Documenting results of tests of plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  Level
Collect, analyse and organise information  2
Communicate ideas and information  2
Plan and organise activities  3
Work with others and in teams  2
Use mathematical ideas and techniques  2
Solve problems  2
Use technology  2
AUM2101A MAINTAIN PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Basic

UNIT DESCRIPTOR: This unit identifies the competence required to conduct maintenance and service tasks on plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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<tbody>
<tr>
<td>AUM2101A.1 Develop preventative and remedial maintenance plans for plant, tooling, equipment or systems.</td>
<td>AUM2101A.1.1 Preventative maintenance requirements are identified from manufacturer recommendations and an analysis of the operational performance and maintenance history of the actual, or similar, plant, tooling, equipment or systems in accordance with company procedures. AUM2101A.1.2 Preventative maintenance plans, schedules and procedures are developed, based on the analysis of preventative maintenance requirements. AUM2101A.1.3 Documentation for periodic schedules of preventative maintenance are prepared in accordance with company procedures and manufacturer recommendations. AUM2101A.1.4 Remedial maintenance plans for emergency breakdown situations are developed in cooperation with production and engineering staff and submitted for approval of appropriate personnel in accordance with company procedures. AUM2101A.1.5 Details of approved preventative and remedial maintenance plans and related documentation, charts, etc. are distributed to relevant company personnel.</td>
</tr>
<tr>
<td>AUM2101A.2 Control and coordinate maintenance operations.</td>
<td>AUM2101A.2.1 Relevant production and maintenance staff are made aware of approved preventative and remedial maintenance plans and are trained in the necessary procedures in accordance with company procedures. AUM2101A.2.2 All required preventative and remedial maintenance documentation is made available to relevant personnel. AUM2101A.2.3 Preventative and remedial maintenance operations are monitored against the approved plans and corrective action taken where procedures are not being correctly followed.</td>
</tr>
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<td>ELEMENT OF COMPETENCY</td>
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<tr>
<td>AUM2101A.2 (continued) Control and coordinate maintenance operations.</td>
<td>AUM2101A.2.4 Approved preventative and remedial maintenance plans and related documentation, charts, etc. are periodically reviewed in conjunction with production and maintenance staff and suggestions for possible changes and improvements considered and where found appropriate recommended. AUM2101A.2.5 Reports and summaries of maintenance operations are prepared in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM2101A.3 Conduct preventative maintenance procedures on plant, tooling equipment or systems.</td>
<td>AUM2101A.3.1 Preventative maintenance on daily, weekly, monthly, annual or other schedules is conducted in conjunction with production staff in accordance with prescribed preventative maintenance policies and procedures. AUM2101A.3.2 All relevant parts of plant, tooling, equipment or systems are visually or physically checked for signs of deformation, wear, defects or damage in accordance with preventative maintenance documentation and approved procedures. AUM2101A.3.3 All relevant parts of plant, tooling, equipment or systems are functionally checked for correct performance in accordance with company or manufacturer requirements. AUM2101A.3.4 Any identified requirements for adjustment, cleaning, repair, replacement, or modification of plant, tooling, equipment or systems are reported to appropriate personnel and action taken in accordance with company procedures. AUM2101A.3.5 Any patterns of maintenance requirements of plant, tooling, equipment or systems identified during the course of routine preventative maintenance are reported and, where appropriate, recommendations made to appropriate personnel of suggested changes to preventative maintenance schedules and/or procedures. AUM2101A.3.6 All preventative maintenance activities and resultant action are documented in accordance with workplace procedures.</td>
</tr>
<tr>
<td>AUM2101A.4 Conduct adjustments and service of plant, tooling, equipment or systems.</td>
<td>AUM2101A.4.1 Checks and adjustments are made to plant, tooling, equipment and/or systems in accordance with company or manufacturer requirements. AUM2101A.4.2 Greasing, lubrication and other regular servicing of plant, tooling, equipment or systems is carried out to company or manufacturer requirements.</td>
</tr>
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<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tr>
<tr>
<td>AUM2101A.4 (continued) Conduct adjustments and service of plant, tooling, equipment or systems.</td>
<td>AUM2101A.4.3 Adjustments and/or servicing of plant, tooling, equipment or systems are documented in accordance with company procedures.</td>
</tr>
</tbody>
</table>
| AUM2101A.5 Monitor performance of plant, tooling, equipment and systems. | AUM2101A.5.1 Critical performance measures/observations of the operation plant, tooling, equipment and/or systems are taken in conjunction with production staff and recorded in accordance with specified procedures.  
AUM2101A.5.2 The recorded performance measures/observations are compared against allowable tolerance levels and out-of-tolerance measures/observations, or significant variations or trends, noted and reported for further investigation. |
| AUM2101A.6 Document maintenance procedures and outcomes. | AUM2101A.6.1 All routine, emergency and preventative maintenance activities are documented in accordance with company procedures.  
AUM2101A.6.2 Any performance measures, critical deviations from the norm and any follow-up action taken in respect of the operations of plant, tooling, equipment or systems are documented in accordance with company and/or manufacturer requirements.  
AUM2101A.6.3 All defects, worn parts and equipment or malfunctioning plant, tooling, equipment or system detected during the course of maintenance and service activities are reported and any necessary action initiated in accordance with company procedures. |

RANGE OF VARIABLES:
- Apply the skills and knowledge of this unit conducting basic maintenance activities on plant, tooling, equipment or basic systems.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications  
- Enterprise operating procedures  
- Product manufacturer specifications  
- Customer requirements  
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation  
- Award provisions
Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Developing, controlling, co-ordinating and conducting preventative and remedial maintenance operations and procedures, and conducting adjustments and service of plant, tooling, equipment or systems, monitoring performance and documenting maintenance procedures and outcomes of plant, tooling, equipment or systems. Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Developing preventative and remedial maintenance plans for plant, tooling, equipment and systems
- Controlling and co-ordinating maintenance operations
- Conducting preventative maintenance procedures on plant, tooling, equipment or systems
- Conducting adjustments and service on plant, tooling, equipment or systems
- Monitoring performance of plant, tooling, equipment or systems
- Documenting maintenance procedures and outcomes

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
### Key Competencies:

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**AUM2102A MAINTAIN PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Advanced**

**UNIT DESCRIPTOR:** This unit identifies the competence required to conduct maintenance and service tasks on plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

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<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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<tbody>
<tr>
<td>AUM2102A.1</td>
<td>AUM2102A.1.1 Preventative maintenance requirements are identified from manufacturer recommendations and an analysis of the operational performance and maintenance history of the actual, or similar, plant, tooling, equipment or systems in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.1.2 Preventative maintenance plans, schedules and procedures are developed, based on the analysis of preventative maintenance requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.1.3 Documentation for periodic schedules of preventative maintenance are prepared in accordance with company procedures and manufacturer recommendations.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.1.4 Remedial maintenance plans for emergency breakdown situations are developed in cooperation with production and engineering staff and submitted for approval of appropriate personnel in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.1.5 Details of approved preventative and remedial maintenance plans and related documentation, charts, etc. are distributed to relevant company personnel.</td>
</tr>
<tr>
<td>AUM2102A.2</td>
<td>AUM2102A.2.1 Relevant production and maintenance staff are made aware of approved preventative and remedial maintenance plans and are trained in the necessary procedures in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.2.2 All required preventative and remedial maintenance documentation is made available to relevant personnel.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.2.3 Preventative and remedial maintenance operations are monitored against the approved plans and corrective action taken where procedures are not being correctly followed.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
</tr>
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</tr>
</tbody>
</table>
| AUM2102A.2 (continued) Control and coordinate maintenance operations. | AUM2102A.2.4 Approved preventative and remedial maintenance plans and related documentation, charts, etc. are periodically reviewed in conjunction with production and maintenance staff and suggestions for possible changes and improvements considered and where found appropriate recommended.  

AUM2102A.2.5 Reports and summaries of maintenance operations are prepared in accordance with company requirements. |
| AUM2102A.3 Conduct preventative maintenance procedures on plant, tooling equipment or systems. | AUM2102A.3.1 Preventative maintenance on daily, weekly, monthly, annual or other schedules is conducted in conjunction with production staff in accordance with prescribed preventative maintenance policies and procedures.  

AUM2102A.3.2 All relevant parts of plant, tooling, equipment or systems are visually or physically checked for signs of deformation, wear, defects or damage in accordance with preventative maintenance documentation and approved procedures.  

AUM2102A.3.3 All relevant parts of plant, tooling, equipment or systems are functionally checked for correct performance in accordance with company or manufacturer requirements.  

AUM2102A.3.4 Any identified requirements for adjustment, cleaning, repair, replacement, or modification of plant, tooling, equipment or systems are reported to appropriate personnel and action taken in accordance with company procedures.  

AUM2102A.3.5 Any patterns of maintenance requirements of plant, tooling, equipment or systems identified during the course of routine preventative maintenance are reported and, where appropriate, recommendations made to appropriate personnel of suggested changes to preventative maintenance schedules and/or procedures.  

AUM2102A.3.6 All preventative maintenance activities and resultant action are documented in accordance with workplace procedures. |
| AUM2102A.4 Conduct adjustments and service of plant, tooling, equipment or systems. | AUM2102A.4.1 Checks and adjustments are made to plant, tooling, equipment and/or systems in accordance with company or manufacturer requirements.  

AUM2102A.4.2 Greasing, lubrication and other regular servicing of plant, tooling, equipment or systems is carried out to company or manufacturer requirements. |
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<tbody>
<tr>
<td>AUM2102A.4 (continued)</td>
<td>AUM2102A.4.3</td>
</tr>
<tr>
<td>Conduct adjustments and service of plant, tooling, equipment or systems.</td>
<td>Adjustments and/or servicing of plant, tooling, equipment or systems are documented in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM2102A.5</td>
<td>AUM2102A.5.1</td>
</tr>
<tr>
<td>Monitor performance of plant, tooling, equipment and systems.</td>
<td>Critical performance measures/observations of the operation plant, tooling, equipment and/or systems are taken in conjunction with production staff and recorded in accordance with specified procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.5.2</td>
</tr>
<tr>
<td></td>
<td>The recorded performance measures/observations are compared against allowable tolerance levels and out-of-tolerance measures/observations, or significant variations or trends, noted and reported for further investigation.</td>
</tr>
<tr>
<td>AUM2102A.6</td>
<td>AUM2102A.6.1</td>
</tr>
<tr>
<td>Document maintenance procedures and outcomes.</td>
<td>All routine, emergency and preventative maintenance activities are documented in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.6.2</td>
</tr>
<tr>
<td></td>
<td>Any performance measures, critical deviations from the norm and any follow-up action taken in respect of the operations of plant, tooling, equipment or systems are documented in accordance with company and/or manufacturer requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2102A.6.3</td>
</tr>
<tr>
<td></td>
<td>All defects, worn parts and equipment or malfunctioning plant, tooling, equipment or system detected during the course of maintenance and service activities are reported and any necessary action initiated in accordance with company procedures.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Conduct maintenance activities as required on plant, tooling and equipment involving either mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions
Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Developing, controlling, co-ordinating and conducting preventative and remedial maintenance operations and procedures, and conducting adjustments and service of plant, tooling, equipment or systems, monitoring performance and documenting maintenance procedures and outcomes of plant, tooling, equipment or systems.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Developing preventative and remedial maintenance plans for plant, tooling, equipment and systems
- Controlling and co-ordinating maintenance operations
- Conducting preventative maintenance procedures on plant, tooling, equipment or systems
- Conducting adjustments and service on plant, tooling, equipment or systems
- Monitoring performance of plant, tooling, equipment or systems
- Documenting maintenance procedures and outcomes

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
**Key Competencies:**

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# AUM2103A Maintain Plant, Tooling, Equipment or Systems - Complex

**UNIT DESCRIPTOR:** This unit identifies the competence required to conduct maintenance and service tasks on plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

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<tbody>
<tr>
<td>AUM2103A.1 Develop preventative and remedial maintenance plans for plant, tooling, equipment or systems.</td>
<td>AUM2103A.1.1 Preventative maintenance requirements are identified from manufacturer recommendations and an analysis of the operational performance and maintenance history of the actual, or similar, plant, tooling, equipment or systems in accordance with company procedures. AUM2103A.1.2 Preventative maintenance plans, schedules and procedures are developed, based on the analysis of preventative maintenance requirements. AUM2103A.1.3 Documentation for periodic schedules of preventative maintenance are prepared in accordance with company procedures and manufacturer recommendations. AUM2103A.1.4 Remedial maintenance plans for emergency breakdown situations are developed in cooperation with production and engineering staff and submitted for approval of appropriate personnel in accordance with company procedures. AUM2103A.1.5 Details of approved preventative and remedial maintenance plans and related documentation, charts, etc. are distributed to relevant company personnel.</td>
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<tr>
<td>AUM2103A.2 Control and coordinate maintenance operations.</td>
<td>AUM2103A.2.1 Relevant production and maintenance staff are made aware of approved preventative and remedial maintenance plans and are trained in the necessary procedures in accordance with company procedures. AUM2103A.2.2 All required preventative and remedial maintenance documentation is made available to relevant personnel. AUM2103A.2.3 Preventative and remedial maintenance operations are monitored against the approved plans and corrective action taken where procedures are not being correctly followed.</td>
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<tr>
<td>AUM2103A.2 (continued) Control and coordinate maintenance operations.</td>
<td>AUM2103A.2.4 Approved preventative and remedial maintenance plans and related documentation, charts, etc. are periodically reviewed in conjunction with production and maintenance staff and suggestions for possible changes and improvements considered and where found appropriate recommended. AUM2103A.2.5 Reports and summaries of maintenance operations are prepared in accordance with company requirements.</td>
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<td>AUM2103A.3 Conduct preventative maintenance procedures on plant, tooling equipment or systems.</td>
<td>AUM2103A.3.1 Preventative maintenance on daily, weekly, monthly, annual or other schedules is conducted in conjunction with production staff in accordance with prescribed preventative maintenance policies and procedures. AUM2103A.3.2 All relevant parts of plant, tooling, equipment or systems are visually or physically checked for signs of deformation, wear, defects or damage in accordance with preventative maintenance documentation and approved procedures. AUM2103A.3.3 All relevant parts of plant, tooling, equipment or systems are functionally checked for correct performance in accordance with company or manufacturer requirements. AUM2103A.3.4 Any identified requirements for adjustment, cleaning, repair, replacement, or modification of plant, tooling, equipment or systems are reported to appropriate personnel and action taken in accordance with company procedures. AUM2103A.3.5 Any patterns of maintenance requirements of plant, tooling, equipment or systems identified during the course of routine preventative maintenance are reported and, where appropriate, recommendations made to appropriate personnel of suggested changes to preventative maintenance schedules and/or procedures. AUM2103A.3.6 All preventative maintenance activities and resultant action are documented in accordance with workplace procedures.</td>
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<td>AUM2103A.4 Conduct adjustments and service of plant, tooling, equipment or systems.</td>
<td>AUM2103A.4.1 Checks and adjustments are made to plant, tooling, equipment and/or systems in accordance with company or manufacturer requirements. AUM2103A.4.2 Greasing, lubrication and other regular servicing of plant, tooling, equipment or systems is carried out to company or manufacturer requirements.</td>
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### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM2103A.4 (continued) Conduct adjustments and service of plant, tooling, equipment or systems. | AUM2103A.4.3 Adjustments and/or servicing of plant, tooling, equipment or systems are documented in accordance with company procedures.

AUM2103A.5 Monitor performance of plant, tooling, equipment and systems. | AUM2103A.5.1 Critical performance measures/observations of the operation plant, tooling, equipment and/or systems are taken in conjunction with production staff and recorded in accordance with specified procedures.

AUM2103A.5.2 The recorded performance measures/observations are compared against allowable tolerance levels and out-of-tolerance measures/observations, or significant variations or trends, noted and reported for further investigation.

AUM2103A.6 Document maintenance procedures and outcomes. | AUM2103A.6.1 All routine, emergency and preventative maintenance activities are documented in accordance with company procedures.

AUM2103A.6.2 Any performance measures, critical deviations from the norm and any follow-up action taken in respect of the operations of plant, tooling, equipment or systems are documented in accordance with company and/or manufacturer requirements.

AUM2103A.6.3 All defects, worn parts and equipment or malfunctioning plant, tooling, equipment or system detected during the course of maintenance and service activities are reported and any necessary action initiated in accordance with company procedures.

### RANGE OF VARIABLES:
- Maintain or modify plant, tooling and equipment incorporating complex control systems which utilises combination of electrical/electronic, hydraulic, pneumatic and mechanical principles.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions
Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Developing, controlling, co-ordinating and conducting preventive and remedial maintenance operations and procedures, and conducting adjustments and service of plant, tooling, equipment or systems, monitoring performance and documenting maintenance procedures and outcomes of plant, tooling, equipment or systems.

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Developing preventative and remedial maintenance plans for plant, tooling, equipment and systems
- Controlling and co-ordinating maintenance operations
- Conducting preventative maintenance procedures on plant, tooling, equipment or systems
- Conducting adjustments and service on plant, tooling, equipment or systems
- Monitoring performance of plant, tooling, equipment or systems
- Documenting maintenance procedures and outcomes

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
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- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
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### AUM2201A REPAIR PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Basic

**UNIT DESCRIPTOR:** This unit identifies the competence required to repair plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

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<td>AUM2201A.1 Identify faulty plant, tooling, equipment or systems.</td>
<td>AUM2201A.1.1 Reported defects and malfunctions or out-of-tolerance performance of plant, tooling, equipment or systems are investigated and potential faults identified in accordance with company procedures and/or manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.1.2 Parts, plant, tooling, equipment and systems are visually inspected and/or operated through specified test procedures to establish serviceability or to confirm defects in accordance with prescribed requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.1.3 Faulty plant, tooling, equipment and systems are identified and the nature of the fault confirmed, reported and documented.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.1.4 Suitable corrective action is initiated to remedy the fault by adjustment, replacement or repair in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.1.5 An action plan/flow chart for the removal and/or repair and replacement of the faulty plant, tooling, equipment or system is developed in conjunction with the relevant production and maintenance staff in accordance with required procedures.</td>
</tr>
<tr>
<td>AUM2201A.2 Remove faulty plant, tooling, equipment or systems.</td>
<td>AUM2201A.2.1 If necessary, the faulty plant, tooling, equipment or system is removed in association with relevant staff in accordance with the agreed action plan, company procedures, and relevant statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.2.2 Where required, temporary replacement of the faulty plant, tooling equipment or system is made pending repair and/or permanent replacement.</td>
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<tr>
<td></td>
<td>AUM2201A.2.3 The faulty plant, tooling, equipment or system is transported to the repair area using appropriate materials handling equipment in accordance with company procedures and relevant statutory and prescribed OH&amp;S requirements.</td>
</tr>
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</tr>
<tr>
<td>AUM2201A.3 Diagnose faults in plant, tooling, equipment or systems.</td>
<td>AUM2201A.3.1 Available information from maintenance records and test results is used, where necessary to assist in fault determination.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.3.2 Logical processes are used to ensure efficient and accurate trouble shooting.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.3.3 Available fault diagnosis guides are used, where appropriate, to assist in the determination of faults in accordance with company procedures and/or manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.3.4 Faults are located, causes identified and fault rectification requirements determined to assist in planning the repair.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.3.5 Specialist advice is obtained, where necessary, to assist with, or confirm, the fault and rectification strategy.</td>
</tr>
<tr>
<td>AUM2201A.4 Repair faults in plant, tooling, equipment or systems.</td>
<td>AUM2201A.4.1 Faulty plant, tooling and equipment or systems are dismantled in accordance with the repair strategy, maintenance manuals, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.4.2 Component parts are assessed for wear and serviceability in accordance with the relevant maintenance documentation.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.4.3 Repair methodology is determined in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.4.4 Parts requiring specialist repair are tagged, and repair instructions are accurately specified and entered on a data base in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.4.5 Component parts are repaired, modified and/or replaced in accordance with the repair strategy and/or the manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.4.6 Plant, tooling and equipment are assembled within specified tolerances and in accordance with the appropriate maintenance documentation, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
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<tr>
<td>AUM2201A.5 Re-install plant, tooling, equipment or systems.</td>
<td>AUM2201A.5.1 A plan for the re-installation of the new or repaired plant, tooling, equipment or systems is developed in conjunction with the relevant production staff.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.5.2 The new or repaired plant, tooling, equipment or system is re-installed in accordance with manufacturer instructions, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.5.3 The installed new or repaired plant, tooling and equipment is visually checked to ensure it is correctly fitted in accordance with manufacturer requirements.</td>
</tr>
<tr>
<td>AUM2201A.6 Calibrate, adjust and/or test plant, tooling, equipment or systems.</td>
<td>AUM2201A.6.1 The installed new or repaired plant, tooling and equipment is calibrated, adjusted and/or tested through its operational cycle in accordance with manufacturer requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2201A.6.2 The details of the repair, the results of re-commissioning tests and the confirmation of serviceability are documented in accordance with company procedures.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:
- Apply the skills and knowledge of this unit carrying out repair activities on basic plant, tooling, equipment or systems.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying, removing, diagnosing, repairing, re-installing, calibrating, adjusting and/or testing, plant, tooling, equipment or systems.
Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Identifying faulty plant, tooling, equipment or systems
- Removing faulty plant, tooling, equipment or systems
- Diagnosing faults in plant, tooling, equipment or systems
- Repairing faults in plant, tooling, equipment or systems
- Re-installing plant, tooling, equipment or systems
- Calibrating, adjusting and/or testing plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:
- Collect, analyse and organise information
- Communicate ideas and information
- Plan and organise activities
- Work with others and in teams
- Use mathematical ideas and techniques
- Solve problems
- Use technology

Level
- 2
- 2
- 3
- 3
- 2
- 3
- 3
AUM2202A REPAIR PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Advanced

UNIT DESCRIPTOR: This unit identifies the competence required to repair plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2202A.1 Identify faulty plant, tooling, equipment or systems.</td>
<td>AUM2202A.1.1 Reported defects and malfunctions or out-of-tolerance performance of plant, tooling, equipment or systems are investigated and potential faults identified in accordance with company procedures and/or manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.1.2 Parts, plant, tooling, equipment and systems are visually inspected and/or operated through specified test procedures to establish serviceability or to confirm defects in accordance with prescribed requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.1.3 Faulty plant, tooling, equipment and systems are identified and the nature of the fault confirmed, reported and documented.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.1.4 Suitable corrective action is initiated to remedy the fault by adjustment, replacement or repair in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.1.5 An action plan/flow chart for the removal and/or repair and replacement of the faulty plant, tooling, equipment or system is developed in conjunction with the relevant production and maintenance staff in accordance with required procedures.</td>
</tr>
<tr>
<td>AUM2202A.2 Remove faulty plant, tooling, equipment or systems.</td>
<td>AUM2202A.2.1 If necessary, the faulty plant, tooling, equipment or system is removed in association with relevant staff in accordance with the agreed action plan, company procedures, and relevant statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.2.2 Where required, temporary replacement of the faulty plant, tooling equipment or system is made pending repair and/or permanent replacement.</td>
</tr>
<tr>
<td></td>
<td>AUM2202A.2.3 The faulty plant, tooling, equipment or system is transported to the repair area using appropriate materials handling equipment in accordance with company procedures and relevant statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| AUM2202A.3
Diagnose faults in plant, tooling, equipment or systems. | AUM2202A.3.1
Available information from maintenance records and test results is used where necessary to assist in fault determination.
AUM2202A.3.2
Logical processes are used to ensure efficient and accurate troubleshooting.
AUM2202A.3.3
Available fault diagnosis guides are used, where appropriate, to assist in the determination of faults in accordance with company procedures and/or manufacturer instructions.
AUM2202A.3.4
Faults are located, causes identified and fault rectification requirements determined to assist in planning the repair.
AUM2202A.3.5
Specialist advice is obtained, where necessary, to assist with, or confirm, the fault and rectification strategy. |
| AUM2202A.4
Repair faults in plant, tooling, equipment or systems. | AUM2202A.4.1
Faulty plant, tooling and equipment or systems are dismantled in accordance with the repair strategy, maintenance manuals, company procedures and statutory and prescribed OH&S requirements.
AUM2202A.4.2
Component parts are assessed for wear and serviceability in accordance with the relevant maintenance documentation.
AUM2202A.4.3
Repair methodology is determined in accordance with company procedures.
AUM2202A.4.4
Parts requiring specialist repair are tagged, and repair instructions are accurately specified and entered on a data base in accordance with company procedures.
AUM2202A.4.5
Component parts are repaired, modified and/or replaced in accordance with the repair strategy and/or the manufacturer instructions.
AUM2202A.4.6
Plant, tooling and equipment are assembled within specified tolerances and in accordance with the appropriate maintenance documentation, company procedures and statutory and prescribed OH&S requirements. |
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM2202A.5 | Re-install plant, tooling, equipment or systems.

**AUM2202A.5.1**
A plan for the re-installation of the new or repaired plant, tooling, equipment or systems is developed in conjunction with the relevant production staff.

**AUM2202A.5.2**
The new or repaired plant, tooling, equipment or system is re-installed in accordance with manufacturer instructions, company procedures and statutory and prescribed OH&S requirements.

**AUM2202A.5.3**
The installed new or repaired plant, tooling and equipment is visually checked to ensure it is correctly fitted in accordance with manufacturer requirements.

---

AUM2202A.6 | Calibrate, adjust and/or test plant, tooling, equipment or systems.

**AUM2202A.6.1**
The installed new or repaired plant, tooling and equipment is calibrated, adjusted and/or tested through its operational cycle in accordance with manufacturer requirements.

**AUM2202A.6.2**
The details of the repair, the results of re-commissioning tests and the confirmation of serviceability are documented in accordance with company procedures.

---

**RANGE OF VARIABLES:**

- Carry out repair activities as required on plant, tooling and equipment involving either mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**

- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**

- State/industry OH&S legislation
- Award provisions

**Resources may include:**

- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**

- Identifying, removing, diagnosing, repairing, re-installing, calibrating, adjusting and/or testing, plant, tooling, equipment or systems.

Methods should be applied under normal operating conditions.
**EVIDENCE GUIDE:**

**Context:**
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

**Critical aspects:**
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

**Underpinning knowledge:**
- Identifying faulty plant, tooling, equipment or systems
- Removing faulty plant, tooling, equipment or systems
- Diagnosing faults in plant, tooling, equipment or systems
- Repairing faults in plant, tooling, equipment or systems
- Re-installing plant, tooling, equipment or systems
- Calibrating, adjusting and/or testing plant, tooling, equipment or systems

**Practical assessments:**
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

**Key Competencies:**

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
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</tr>
<tr>
<td>Plan and organise activities</td>
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<td>Work with others and in teams</td>
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<td>Use mathematical ideas and techniques</td>
<td>2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
### AUM2203A REPAIR PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Complex

**UNIT DESCRIPTOR:** This unit identifies the competence required to repair plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM2203A.1 Identify faulty plant, tooling, equipment or systems. | AUM2203A.1.1 Reported defects and malfunctions or out-of-tolerance performance of plant, tooling, equipment or systems are investigated and potential faults identified in accordance with company procedures and/or manufacturer instructions.  
AUM2203A.1.2 Parts, plant, tooling, equipment and systems are visually inspected and/or operated through specified test procedures to establish serviceability or to confirm defects in accordance with prescribed requirements.  
AUM2203A.1.3 Faulty plant, tooling, equipment and systems are identified and the nature of the fault confirmed, reported and documented.  
AUM2203A.1.4 Suitable corrective action is initiated to remedy the fault by adjustment, replacement or repair in accordance with company procedures.  
AUM2203A.1.5 An action plan/flow chart for the removal and/or repair and replacement of the faulty plant, tooling, equipment or system is developed in conjunction with the relevant production and maintenance staff in accordance with required procedures. |
| AUM2203A.2 Remove faulty plant, tooling, equipment or systems. | AUM2203A.2.1 If necessary, the faulty plant, tooling, equipment or system is removed in association with relevant staff in accordance with the agreed action plan, company procedures, and relevant statutory and prescribed OH&S requirements.  
AUM2203A.2.2 Where required, temporary replacement of the faulty plant, tooling equipment or system is made pending repair and/or permanent replacement.  
AUM2203A.2.3 The faulty plant, tooling, equipment or system is transported to the repair area using appropriate materials handling equipment in accordance with company procedures and relevant statutory and prescribed OH&S requirements. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2203A.3</td>
<td></td>
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<tr>
<td>Diagnose faults in plant, tooling, equipment or systems.</td>
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<tr>
<td></td>
<td>AUM2203A.3.1</td>
</tr>
<tr>
<td></td>
<td>Available information from maintenance records and test results is used where necessary to assist in fault determination.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.3.2</td>
</tr>
<tr>
<td></td>
<td>Logical processes are used to ensure efficient and accurate trouble shooting.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.3.3</td>
</tr>
<tr>
<td></td>
<td>Available fault diagnosis guides are used, where appropriate, to assist in the determination of faults in accordance with company procedures and/or manufacturer instructions.</td>
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<td></td>
<td>AUM2203A.3.4</td>
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<tr>
<td></td>
<td>Faults are located, causes identified and fault rectification requirements determined to assist in planning the repair.</td>
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<tr>
<td></td>
<td>AUM2203A.3.5</td>
</tr>
<tr>
<td></td>
<td>Specialist advice is obtained, where necessary, to assist with, or confirm, the fault and rectification strategy.</td>
</tr>
<tr>
<td>AUM2203A.4</td>
<td></td>
</tr>
<tr>
<td>Repair faults in plant, tooling, equipment or systems.</td>
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<tr>
<td></td>
<td>AUM2203A.4.1</td>
</tr>
<tr>
<td></td>
<td>Faulty plant, tooling and equipment or systems are dismantled in accordance with the repair strategy, maintenance manuals, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.4.2</td>
</tr>
<tr>
<td></td>
<td>Component parts are assessed for wear and serviceability in accordance with the relevant maintenance documentation.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.4.3</td>
</tr>
<tr>
<td></td>
<td>Repair methodology is determined in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.4.4</td>
</tr>
<tr>
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<td>Parts requiring specialist repair are tagged, and repair instructions are accurately specified and entered on a data base in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.4.5</td>
</tr>
<tr>
<td></td>
<td>Component parts are repaired, modified and/or replaced in accordance with the repair strategy and/or the manufacturer instructions.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.4.6</td>
</tr>
<tr>
<td></td>
<td>Plant, tooling and equipment are assembled within specified tolerances and in accordance with the appropriate maintenance documentation, company procedures and statutory and prescribed OH&amp;S requirements.</td>
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<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tr>
<tr>
<td>AUM2203A.5</td>
<td>AUM2203A.5.1</td>
</tr>
<tr>
<td>Re-install plant, tooling, equipment or systems.</td>
<td>A plan for the re-installation of the new or repaired plant, tooling, equipment or systems is developed in conjunction with the relevant production staff.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.5.2</td>
</tr>
<tr>
<td></td>
<td>The new or repaired plant, tooling, equipment or system is re-installed in accordance with manufacturer instructions, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM2203A.5.3</td>
</tr>
<tr>
<td></td>
<td>The installed new or repaired plant, tooling and equipment is visually checked to ensure it is correctly fitted in accordance with manufacturer requirements.</td>
</tr>
<tr>
<td>AUM2203A.6</td>
<td>AUM2203A.6.1</td>
</tr>
<tr>
<td>Calibrate, adjust and/or test plant, tooling, equipment or systems.</td>
<td>The installed new or repaired plant, tooling and equipment is calibrated, adjusted and/or tested through its operational cycle in accordance with manufacturer requirements.</td>
</tr>
<tr>
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<td>AUM2203A.6.2</td>
</tr>
<tr>
<td></td>
<td>The details of the repair, the results of re-commissioning tests and the confirmation of serviceability are documented in accordance with company procedures.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:
- Carry out repair or modifying of plant, tooling and equipment incorporating complex control systems which utilise combination of electrical, electronic, hydraulic, pneumatic and mechanical principles.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying, removing, diagnosing, repairing, re-installing, calibrating, adjusting and/or testing, plant, tooling, equipment or systems.
 Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Identifying faulty plant, tooling, equipment or systems
- Removing faulty plant, tooling, equipment or systems
- Diagnosing faults in plant, tooling, equipment or systems
- Repairing faults in plant, tooling, equipment or systems
- Re-installing plant, tooling, equipment or systems
- Calibrating, adjusting and/or testing plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

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<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Level 2
Level 3
Level 2
Level 3
Level 3
Level 2
Level 3
Level 3
### AUM2301A

**MANUFACTURE OR MODIFY PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Basic**

**UNIT DESCRIPTOR:** This unit identifies the competence required to manufacture and modify plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AUM2301A.1</strong></td>
<td><strong>AUM2301A.1.1</strong></td>
</tr>
<tr>
<td>Plan manufacture or modification of plant, tooling, equipment or systems.</td>
<td>Requirements of the “client” for manufacture of, or modifications to plant, tooling, equipment and/or systems are assessed/re-checked in conjunction with engineering staff in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.2</strong></td>
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<tr>
<td></td>
<td>Approval is sought for the planned manufacture or modifications in accordance with company requirements, and any necessary changes made.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.3</strong></td>
</tr>
<tr>
<td></td>
<td>The steps involved in the manufacture of, or modifications to plant, tooling, equipment and/or systems are identified in consultation with designated staff.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.4</strong></td>
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<tr>
<td></td>
<td>An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture them or purchase/lease them.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.5</strong></td>
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<tr>
<td></td>
<td>Any fabrication/machining processes and instructions are determined and clarified with participating departments/sections/areas in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.6</strong></td>
</tr>
<tr>
<td></td>
<td>The timetable, budget, resource requirements, staffing and purchase/supply schedule for the modification of plant, tooling, equipment and/or systems are drawn up and confirmed in consultation with designated staff.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.1.7</strong></td>
</tr>
<tr>
<td></td>
<td>The approved plan is communicated to all relevant staff in management, production, engineering and other sections of the company concerned.</td>
</tr>
<tr>
<td><strong>AUM2301A.2</strong></td>
<td><strong>AUM2301A.2.1</strong></td>
</tr>
<tr>
<td>Make parts for plant, tooling, equipment or systems.</td>
<td>Specifications for parts are interpreted to determine the dimensions and processes for manufacture or modification.</td>
</tr>
<tr>
<td></td>
<td><strong>AUM2301A.2.2</strong></td>
</tr>
<tr>
<td></td>
<td>Required raw materials, tools, equipment and assembly or fabrication jigs or fixtures are selected and prepared for the particular specification requirements in accordance with company procedures.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tbody>
</table>
| AUM2301A.2 (continued) Make parts for plant, tooling, equipment or systems. | AUM2301A.2.3 Components or parts are manufactured or modified in accordance with the required specifications, company procedures and statutory and prescribed OH&S requirements.  
AUM2301A.2.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished components.  
AUM2301A.2.5 Completed parts are tagged, sealed and/or packaged as required and dispatched to the store or assembly area in accordance with job requirements and company procedures. |
| AUM2301A.3 Manufacture or modify tools, jigs and/or fixtures for production. | AUM2301A.3.1 Specifications for modifications of tools, jigs and/or fixtures are interpreted to determine the dimensions and processes for manufacture or modification.  
AUM2301A.3.2 Required raw materials, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures.  
AUM2301A.3.3 Modifications are conducted in accordance with the required specifications, company procedures and statutory and prescribed OH&S requirements.  
AUM2301A.3.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished tools, jigs or fixtures.  
AUM2301A.3.5 Completed tools, jigs or fixtures are tagged, sealed and/or packaged as required and despatched to the store or relevant production area in accordance with job requirements and company procedures. |
| AUM2301A.4 Cast, fabricate, machine, assemble and/or wire modified plant, tooling, equipment or systems. | AUM2301A.4.1 Specifications for manufactured or modified plant, tooling, equipment and/or systems are interpreted to determine the dimensions and processes for manufacture or modification.  
AUM2301A.4.2 Required raw materials, parts, sub-assemblies, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2301A.4 (continued) Cast, fabricate, machine, assemble and/or wire modified plant, tooling, equipment or systems.</td>
<td>AUM2301A.4.3 Plant, tooling and equipment is cast, fabricated, machined, assembled and/or wired in accordance with the required specifications, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td>AUM2301A.5 Check/test manufactured or modified plant, tooling, equipment or systems.</td>
<td>AUM2301A.5.1 Test equipment and rigs are used, where applicable, to confirm serviceability of manufactured or modified plant, tooling and equipment. AUM2301A.5.2 Completed plant, tooling and equipment is tagged, sealed and/or packaged as required and dispatched to the store or production area in accordance with job requirements and company procedures.</td>
</tr>
<tr>
<td>AUM2301A.6 Document manufacture or modifications to plant, tooling, equipment or systems.</td>
<td>AUM2301A.6.1 Manufacturing details or modifications to the plant, tooling and equipment are documented in accordance with company procedures. AUM2301A.6.2 Documentation is stored and/or distributed to required personnel in accordance with company procedures.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**

- Apply the skills and knowledge of this unit manufacturing or modifying basic plant, tooling, equipment or systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**

- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**

- State/industry OH&S legislation
- Award provisions

**Resources may include:**

- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**

- Planning, manufacturing parts for plant, tooling, equipment or systems
- Modifying tools, jigs and/or fixtures for production
- Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems
- Checking/testing manufactured or modified plant, tooling, equipment or systems
- Documenting manufacture or modifications to plant, tooling, equipment or systems

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:
Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Planning manufacture or modification of plant, tooling, equipment or systems
• Manufacturing parts for plant, tooling, equipment or systems
• Modifying tools, jigs and/or fixtures for production
• Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems
• Checking/testing manufactured or modified plant, tooling, equipment or systems
• Documenting manufacture or modifications to plant, tooling, equipment or systems

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Apply housekeeping standards
• Apply knowledge of OH&S requirements
• Apply knowledge of required quality improvement techniques
• Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies:  Level
Collect, analyse and organise information  2
Communicate ideas and information  2
Plan and organise activities  3
Work with others and in teams  3
Use mathematical ideas and techniques  2
Solve problems  3
Use technology  2
**AUM2302A MANUFACTURE OR MODIFY PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Advanced**

**UNIT DESCRIPTOR:** This unit identifies the competence required to manufacture and modify plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM2302A.1 Plan manufacture or modification of plant, tooling, equipment or systems. | AUM2302A.1.1 Requirements of the “client” for manufacture of, or modifications to plant, tooling, equipment and/or systems are assessed/re-checked in conjunction with engineering staff in accordance with company procedures.  
AUM2302A.1.2 Approval is sought for the planned manufacture or modifications in accordance with company requirements, and any necessary changes made.  
AUM2302A.1.3 The steps involved in the manufacture of, or modifications to plant, tooling, equipment and/or systems are identified in consultation with designated staff.  
AUM2302A.1.4 An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture them or purchase/lease them.  
AUM2302A.1.5 Any fabrication/machining processes and instructions are determined and clarified with participating departments/sections/areas in accordance with company procedures.  
AUM2302A.1.6 The timetable, budget, resource requirements, staffing and purchase/supply schedule for the modification of plant, tooling, equipment and/or systems are drawn up and confirmed in consultation with designated staff.  
AUM2302A.1.7 The approved plan is communicated to all relevant staff in management, production, engineering and other sections of the company concerned. |
| AUM2302A.2 Make parts for plant, tooling, equipment or systems. | AUM2302A.2.1 Specifications for parts are interpreted to determine the dimensions and processes for manufacture or modification.  
AUM2302A.2.2 Required raw materials, tools, equipment and assembly or fabrication jigs or fixtures are selected and prepared for the particular specification requirements in accordance with company procedures. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2302A.2 (continued) Make parts for plant, tooling, equipment or systems.</td>
<td>AUM2302A.2.3 Components or parts are manufactured or modified in accordance with the required specifications, company procedures and statutory and prescribed OH&amp;S requirements. AUM2302A.2.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished components. AUM2302A.2.5 Completed parts are tagged, sealed and/or packaged as required and dispatched to the store or assembly area in accordance with job requirements and company procedures.</td>
</tr>
<tr>
<td>AUM2302A.3 Manufacture or modify tools, jigs and/or fixtures for production.</td>
<td>AUM2302A.3.1 Specifications for modifications of tools, jigs and/or fixtures are interpreted to determine the dimensions and processes for manufacture or modification. AUM2302A.3.2 Required raw materials, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures. AUM2302A.3.3 Modifications are conducted in accordance with the required specifications, company procedures and statutory and prescribed OH&amp;S requirements. AUM2302A.3.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished tools, jigs or fixtures. AUM2302A.3.5 Completed tools, jigs or fixtures are tagged, sealed and/or packaged as required and despatched to the store or relevant production area in accordance with job requirements and company procedures.</td>
</tr>
<tr>
<td>AUM2302A.4 Cast, fabricate, machine, assemble and/or wire modified plant, tooling, equipment or systems.</td>
<td>AUM2302A.4.1 Specifications for manufactured or modified plant, tooling, equipment and/or systems are interpreted to determine the dimensions and processes for manufacture or modification. AUM2302A.4.2 Required raw materials, parts, sub-assemblies, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tr>
<tr>
<td>AUM2302A.4 (continued)</td>
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</tr>
<tr>
<td>Cast, fabricate, machine, assemble</td>
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<tr>
<td>and/or wire modified plant, tooling,</td>
<td></td>
</tr>
<tr>
<td>equipment or systems</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.4.3</td>
<td></td>
</tr>
<tr>
<td>Plant, tooling and equipment is cast,</td>
<td></td>
</tr>
<tr>
<td>fabricated, machined, assembled</td>
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<tr>
<td>and/or wired in accordance with the</td>
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<tr>
<td>required specifications, company</td>
<td></td>
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<tr>
<td>procedures and statutory and</td>
<td></td>
</tr>
<tr>
<td>prescribed OH&amp;S requirements.</td>
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<tr>
<td>AUM2302A.5</td>
<td></td>
</tr>
<tr>
<td>Check/test manufactured or</td>
<td></td>
</tr>
<tr>
<td>modified plant, tooling, equipment</td>
<td></td>
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<tr>
<td>or systems</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.5.1</td>
<td></td>
</tr>
<tr>
<td>Test equipment and rigs are used,</td>
<td></td>
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<tr>
<td>where applicable, to confirm</td>
<td></td>
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<tr>
<td>serviceability of manufactured or</td>
<td></td>
</tr>
<tr>
<td>modified plant, tooling and equipment</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.5.2</td>
<td></td>
</tr>
<tr>
<td>Completed plant, tooling and equipment</td>
<td></td>
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<tr>
<td>is tagged, sealed and/or packaged as</td>
<td></td>
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<tr>
<td>required and dispatched to the store</td>
<td></td>
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<tr>
<td>or production area in accordance with</td>
<td></td>
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<tr>
<td>job requirements and company</td>
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<tr>
<td>procedures.</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.6</td>
<td></td>
</tr>
<tr>
<td>Document manufacture or</td>
<td></td>
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<tr>
<td>modifications to plant, tooling,</td>
<td></td>
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<tr>
<td>equipment or systems</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.6.1</td>
<td></td>
</tr>
<tr>
<td>Manufacturing details or modifications</td>
<td></td>
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<tr>
<td>to the plant, tooling and equipment</td>
<td></td>
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<tr>
<td>are documented in accordance with</td>
<td></td>
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<tr>
<td>company procedures.</td>
<td></td>
</tr>
<tr>
<td>AUM2302A.6.2</td>
<td></td>
</tr>
<tr>
<td>Documentation is stored and/or</td>
<td></td>
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<tr>
<td>distributed to required personnel in</td>
<td></td>
</tr>
<tr>
<td>accordance with company procedures.</td>
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</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Manufacture or modify plant, tooling and equipment involving either mechanical, hydraulic, pneumatic, electrical, electronic skills and knowledge or some combination.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning, manufacturing parts for plant, tooling, equipment or systems
- Modifying tools, jigs and/or fixtures for production
- Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems
- Checking/testing manufactured or modified plant, tooling, equipment or systems
- Documenting manufacture or modifications to plant, tooling, equipment or systems

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Planning manufacture or modification of plant, tooling, equipment or systems
- Manufacturing parts for plant, tooling, equipment or systems
- Modifying tools, jigs and/or fixtures for production
- Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems
- Checking/testing manufactured or modified plant, tooling, equipment or systems
- Documenting manufacture or modifications to plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 2
Communicate ideas and information 2
Plan and organise activities 3
Work with others and in teams 3
Use mathematical ideas and techniques 2
Solve problems 3
Use technology 2
AUM2303A MANUFACTURE OR MODIFY PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to manufacture and modify plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2303A.1 Plan manufacture or modification of plant, tooling, equipment or systems.</td>
<td>AUM2303A.1.1 Requirements of the “client” for manufacture of, or modifications to plant, tooling, equipment and/or systems are assessed/re-checked in conjunction with engineering staff in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM2303A.2 Make parts for plant, tooling, equipment or systems.</td>
<td>AUM2303A.1.2 Approval is sought for the planned manufacture or modifications in accordance with company requirements, and any necessary changes made.</td>
</tr>
<tr>
<td>AUM2303A.1.3 The steps involved in the manufacture of, or modifications to plant, tooling, equipment and/or systems are identified in consultation with designated staff.</td>
<td>AUM2303A.1.4 An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture them or purchase/lease them.</td>
</tr>
<tr>
<td>AUM2303A.1.5 Any fabrication/machining processes and instructions are determined and clarified with participating departments/sections/areas in accordance with company procedures.</td>
<td>AUM2303A.1.6 The timetable, budget, resource requirements, staffing and purchase/supply schedule for the modification of plant, tooling, equipment and/or systems are drawn up and confirmed in consultation with designated staff.</td>
</tr>
<tr>
<td>AUM2303A.1.7 The approved plan is communicated to all relevant staff in management, production, engineering and other sections of the company concerned.</td>
<td>AUM2303A.2.1 Specifications for parts are interpreted to determine the dimensions and processes for manufacture or modification.</td>
</tr>
<tr>
<td>AUM2303A.2.2 Required raw materials, tools, equipment and assembly or fabrication jigs or fixtures are selected and prepared for the particular specification requirements in accordance with company procedures.</td>
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<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tbody>
</table>
| AUM2303A.2 (continued) Make parts for plant, tooling, equipment or systems. | AUM2303A.2.3 Components or parts are manufactured or modified in accordance with the required specifications, company procedures and statutory and prescribed OH&S requirements.  
AUM2303A.2.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished components.  
AUM2303A.2.5 Completed parts are tagged, sealed and/or packaged as required and dispatched to the store or assembly area in accordance with job requirements and company procedures. |
| AUM2303A.3 Manufacture or modify tools, jigs and/or fixtures for production. | AUM2303A.3.1 Specifications for modifications of tools, jigs and/or fixtures are interpreted to determine the dimensions and processes for manufacture or modification.  
AUM2303A.3.2 Required raw materials, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures.  
AUM2303A.3.3 Modifications are conducted in accordance with the required specifications, company procedures and statutory and prescribed OH&S requirements.  
AUM2303A.3.4 Test equipment and rigs are used, where applicable, to confirm serviceability of finished tools, jigs or fixtures.  
AUM2303A.3.5 Completed tools, jigs or fixtures are tagged, sealed and/or packaged as required and despatched to the store or relevant production area in accordance with job requirements and company procedures. |
| AUM2303A.4 Cast, fabricate, machine, assemble and/or wire modified plant, tooling, equipment or systems. | AUM2303A.4.1 Specifications for manufactured or modified plant, tooling, equipment and/or systems are interpreted to determine the dimensions and processes for manufacture or modification.  
AUM2303A.4.2 Required raw materials, parts, sub-assemblies, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements in accordance with company procedures. |
Automotive Manufacturing – PMV Sector

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</thead>
<tbody>
<tr>
<td>AUM2303A.4 (continued) Cast, fabricate, machine, assemble and/or wire modified plant, tooling, equipment or systems.</td>
<td>AUM2303A.4.3 Plant, tooling and equipment is cast, fabricated, machined, assembled and/or wired in accordance with the required specifications, company procedures and statutory and prescribed OH&amp;S requirements.</td>
</tr>
<tr>
<td>AUM2303A.5 Check/test manufactured or modified plant, tooling, equipment or systems.</td>
<td>AUM2303A.5.1 Test equipment and rigs are used, where applicable, to confirm serviceability of manufactured or modified plant, tooling and equipment. AUM2303A.5.2 Completed plant, tooling and equipment is tagged, sealed and/or packaged as required and dispatched to the store or production area in accordance with job requirements and company procedures.</td>
</tr>
<tr>
<td>AUM2303A.6 Document manufacture or modifications to plant, tooling, equipment or systems.</td>
<td>AUM2303A.6.1 Manufacturing details or modifications to the plant, tooling and equipment are documented in accordance with company procedures. AUM2303A.6.2 Documentation is stored and/or distributed to required personnel in accordance with company procedures.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Manufacture or modify plant, tooling and equipment incorporating complex control systems which utilise a combination of electrical, electronic, hydraulic, pneumatic and mechanical principles.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Planning, manufacturing parts for plant, tooling, equipment or systems
- Modifying tools, jigs and/or fixtures for production
- Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems

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• Checking/testing manufactured or modified plant, tooling, equipment or systems
• Documenting manufacture or modifications to plant, tooling, equipment or systems
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Planning manufacture or modification of plant, tooling, equipment or systems
• Manufacturing parts for plant, tooling, equipment or systems
• Modifying tools, jigs and/or fixtures for production
• Casting, fabricating, machining, assembling and/or wiring modified plant, tooling, equipment and systems
• Checking/testing manufactured or modified plant, tooling, equipment or systems
• Documenting manufacture or modifications to plant, tooling, equipment or systems

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Apply housekeeping standards
• Apply knowledge of OH&S requirements
• Apply knowledge of required quality improvement techniques
• Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
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<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>2</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>3</td>
</tr>
<tr>
<td>Work with others and in teams</td>
<td>3</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>2</td>
</tr>
</tbody>
</table>
### AUM2401A APPLY QUALITY ASSURANCE TECHNIQUES - Basic

**UNIT DESCRIPTOR:** This unit identifies the competence required to apply quality assurance techniques to all operations involving plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2401A.1 Interpreting and applying quality standards.</td>
<td>AUM2401A.1.1 Quality standards are interpreted and applied to individual and team work in accordance with company procedures. AUM2401A.1.2 Process improvement tools are used either individually or in a team to identify and solve design, development and production quality problems.</td>
</tr>
<tr>
<td>AUM2401A.2 Monitoring and reporting on quality.</td>
<td>AUM2401A.2.1 Quality of all received, in-work and finished materials and products is checked and appropriate action taken in accordance with quality management strategies. AUM2401A.2.2 Change in quality of performance is monitored using quality improvement tools and feedback data in accordance with company procedures. AUM2401A.2.3 Further action to improve quality is recommended, where required, using standard operating procedures either individually or in a team.</td>
</tr>
<tr>
<td>AUM2401A.3 Implementing quality improvement.</td>
<td>AUM2401A.3.1 Analytical tools are used to evaluate principal causes of process variation and the success of project improvement strategies in accordance with company procedures. AUM2401A.3.2 The outcomes of the evaluation of principal causes of process variation are used in a continuous cycle of quality improvement in accordance with company procedures.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Apply quality assurance techniques in the installation, manufacture, repair and/or maintenance of basic plant tooling, equipment or systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Interpreting and applying quality standards, monitoring quality and implementing quality improvement.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Interpreting and applying quality standards
- Monitoring quality
- Implementing quality improvement

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
**Key Competencies:**

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
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<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>3</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>3</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>2</td>
</tr>
<tr>
<td>Work with others and in teams</td>
<td>3</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>3</td>
</tr>
<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
<td>2</td>
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</tbody>
</table>
### AUM2402A APPLY QUALITY ASSURANCE TECHNIQUES - Advanced

**UNIT DESCRIPTOR:** This unit identifies the competence required to apply quality assurance techniques to all operations involving plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
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</table>
| AUM2402A.1 Interpret and apply quality standards. | AUM2402A.1.1 Quality standards are interpreted and applied to individual and team work in accordance with company procedures.  
AUM2402A.1.2 Process improvement tools are used either individually or in a team to identify and solve design, development and production quality problems. |
| AUM2402A.2 Monitor and report on quality. | AUM2402A.2.1 Quality of all received, in-work and finished materials and products is checked and appropriate action taken in accordance with quality management strategies.  
AUM2402A.2.2 Change in quality of performance is monitored using quality improvement tools and feedback data in accordance with company procedures.  
AUM2402A.2.3 Further action to improve quality is recommended, where required, using standard operating procedures either individually or in a team. |
| AUM2402A.3 Implement quality improvement. | AUM2402A.3.1 Analytical tools are used to evaluate principal causes of process variation and the success of project improvement strategies in accordance with company procedures.  
AUM2402A.3.2 The outcomes of the evaluation of principal causes of process variation are used in a continuous cycle of quality improvement in accordance with company procedures. |

**RANGE OF VARIABLES:**
- Interpret the application of quality standards to the installation, manufacture, repair and/or maintenance of plant, tooling, equipment or systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

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OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Interpreting and applying quality standards, monitoring quality and implementing quality improvement.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Interpreting and applying quality standards
- Monitoring quality
- Implementing quality improvement

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
<table>
<thead>
<tr>
<th>Key Competencies</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
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<td>Use technology</td>
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</tr>
</tbody>
</table>
## AUM2403A APPLY QUALITY ASSURANCE TECHNIQUES - Complex

### UNIT DESCRIPTOR:
This unit identifies the competence required to apply quality assurance techniques to all operations involving plant, tooling, equipment or systems required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM2403A.1 Interpret and apply quality standards.</td>
<td>AUM2403A.1.1 Quality standards are interpreted and applied to individual and team work in accordance with company procedures. AUM2403A.1.2 Process improvement tools are used either individually or in a team to identify and solve design, development and production quality problems.</td>
</tr>
<tr>
<td>AUM2403A.2 Monitor and report on quality.</td>
<td>AUM2403A.2.1 Quality of all received, in-work and finished materials and products is checked and appropriate action taken in accordance with quality management strategies. AUM2403A.2.2 Change in quality of performance is monitored using quality improvement tools and feedback data in accordance with company procedures. AUM2403A.2.3 Further action to improve quality is recommended, where required, using standard operating procedures either individually or in a team.</td>
</tr>
<tr>
<td>AUM2403A.3 Implement quality improvement.</td>
<td>AUM2403A.3.1 Analytical tools are used to evaluate principal causes of process variation and the success of project improvement strategies in accordance with company procedures. AUM2403A.3.2 The outcomes of the evaluation of principal causes of process variation are used in a continuous cycle of quality improvement in accordance with company procedures.</td>
</tr>
</tbody>
</table>

### RANGE OF VARIABLES:
- Use analytical tools to evaluate principle causes of process variation and the process of project improvement strategies

Examples of the application of this competency unit may include the following:
- Applying quality assurance techniques to the design and development of complex electronic circuits with microprocessors and/or embedded computers etc.
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
• Generate ideas through the analysis of information and concepts at an abstract level
• Demonstrate accountability for personal outputs within broad parameters
• Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
• Manufacturer specifications
• Enterprise operating procedures
• Product manufacturer specifications
• Customer requirements
• Industry/Workplace Codes of Practice

OH&S practices must abide by:
• State/industry OH&S legislation
• Award provisions

Resources may include:
• Type of plant, tooling and equipment (as per company installation)
• Documentation and reporting systems (as per company requirements)

Methods include:
• Interpreting and applying quality standards, monitoring quality and implementing quality improvement.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• Interpreting and applying quality standards
• Monitoring quality
• Implementing quality improvement
Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  
Collect, analyse and organise information  3  
Communicate ideas and information  3  
Plan and organise activities  2  
Work with others and in teams  3  
Use mathematical ideas and techniques  3  
Solve problems  2  
Use technology  2
AUM2803A DOCUMENT WORK-RELATED RECORDS - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to interpret, complete and use documentation required to support the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
<tbody>
<tr>
<td>AUM2803A.1 Select and/or collect documentation.</td>
<td>AUM2803A.1.1 Documentation requirements are determined and accessed, where necessary, from relevant sources in accordance with statutory and company requirements.</td>
</tr>
<tr>
<td>AUM2803A.2 Interpret documentation requirements.</td>
<td>AUM2803A.2.1 Information contained in existing documentation is interpreted correctly and, where necessary, requirements are carried out in accordance with statutory and company procedures.</td>
</tr>
<tr>
<td>AUM2803A.3 Complete documentation.</td>
<td>AUM2803A.3.1 Information requirements for new documentation or updating of existing documentation is determined to allow for accurate completion of records in accordance with company procedures. AUM2803A.3.2 Documentation is completed accurately and clearly to enable information to be easily read or interpreted.</td>
</tr>
<tr>
<td>AUM2803A.4 Store and/or distribute documentation.</td>
<td>AUM2803A.4.1 All statutory and company procedures for storing and distributing documentation are followed, to ensure ready access when required.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:
- Documenting to high level of detail (description and analysis) the investigation and correction of faults in machines involving 3 axis measuring to ultra high levels of accuracy
- Documentation may include specifications for products, instructions for the operations of products or equipment, specification and instructions for production operations, maintenance procedures, etc.

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.
Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Selecting and/or collecting, interpreting, completing, storing and/or distributing documentation.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Selecting and/or collecting documentation
- Interpreting documentation requirements
- Completing documentation
- Storing and/or distributing documentation

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
• Apply knowledge of relevant company procedures
• Apply knowledge of emergency procedures
• Apply knowledge of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

**Key Competencies:**

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<td>Use technology</td>
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</tr>
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</table>
**AUM3003A DOCUMENT DESIGNS - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to be able, in conjunction with professional and other staff, to document the design details and associated aspects required for the development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
</table>
| AUM3003A.1 Identify design requirements. | AUM3003A.1.1 Design requirements of a product or sub-assembly are identified in consultation with design, engineering, marketing and other relevant staff in accordance with company procedures.  
AUM3003A.1.2 All design drawings and information on technical specifications for the product or sub-assembly are identified and obtained.  
AUM3003A.1.3 The steps involved in the manufacture of the product or sub-assembly are identified in consultation with designated staff.  
AUM3003A.1.4 An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture them or purchase/lease them.  
AUM3003A.1.5 Any fabrication/machining processes and instructions are determined and clarified with participating departments/sections/areas in accordance with company procedures.  
AUM3003A.1.6 The timetable, budget, resource requirements, staffing and purchase/supply schedule for the manufacture of the product or sub-assembly are drawn up and confirmed in consultation with designated staff.  
AUM3003A.1.7 The approved plan is communicated to all relevant staff in management, production, engineering and other sections of the company concerned. |
| AUM3003A.2 Specify critical product quality parameters. | AUM3003A.2.1 Critical product or sub-assembly quality and technical parameters are identified and documented in accordance with company procedures.  
AUM3003A.2.2 Draft documentation on product or sub-assembly quality and technical parameters is validated with relevant design, engineering and other relevant staff. |
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<tr>
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</table>
| AUM3003A.3 Specify materials requirements. | AUM3003A.3.1 Required materials and components for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures.  
AUM3003A.3.2 Draft documentation on the required materials and components for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff. |
| AUM3003A.4 Specify production processes. | AUM3003A.4.1 Processes, plant and equipment required for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures.  
AUM3003A.4.2 Draft documentation on the processes, plant and equipment required for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff. |
| AUM3003A.5 Specify testing requirements. | AUM3003A.5.1 Required testing and quality assurance procedures for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures.  
AUM3003A.5.2 Draft documentation on the required testing and quality assurance procedures for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff. |
| AUM3003A.6 Specify cost estimates. | AUM3003A.6.1 All direct and indirect costs involved in the manufacture and assembly of the product or sub-assembly are estimated in conjunction with relevant finance, design, engineering, purchasing and other relevant staff in accordance with company procedures.  
AUM3003A.6.2 Cost estimates for the manufacture and assembly of the product or sub-assembly are documented in accordance with company requirements.  
AUM3003A.6.3 Draft documentation on the costs of the manufacture and assembly of the product or sub-assembly is validated with relevant finance, design, engineering, purchasing and other relevant staff. |
### ELEMENT OF COMPETENCY

AUM3003A.7
Disseminate documentation.

### PERFORMANCE CRITERIA

AUM3003A.7.1
All documentation related to the specification, costing, manufacture and assembly of the product or sub-assembly is processed for approval in accordance with company requirements.

AUM3003A.7.2
The documentation on product or sub-assembly design specifications, costs and manufacture and assembly processes is stored and distributed in accordance with company requirements.

### RANGE OF VARIABLES:

- Documenting designs for products or subassemblies involving a range of complex components and assembly processes

Examples of the application of this competency unit may include the following:

- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

### Sources of information/documents may include:

- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

### OH&S practices must abide by:

- State/industry OH&S legislation
- Award provisions

### Resources may include:

- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

### Methods include:

- Specifying critical product quality parameters, materials requirements, production processes, testing requirements, cost estimates and disseminating and storing documentation.

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Identifying design requirements
- Specifying critical product quality parameters
- Specifying materials requirements
- Specifying production processes
- Specifying testing requirements
- Specifying cost estimates
- Disseminating documentation
- Storing documentation

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 3
Communicate ideas and information 3
Plan and organise activities 3
Work with others and in teams 3
Use mathematical ideas and techniques 3
Solve problems 3
Use technology 3
**AUMNT3012A**  
**Conduct tool setting**

**Unit Descriptor**

This unit specifies the competency required to conduct tool setting in production machines in accordance with authorised maintenance schedules.

The unit includes the removal, replacement, checking, minor maintenance and storage of machining tools for all production machines on a line.

**Element**

Elements define the essential outcomes of a unit of competency.

**Performance Criteria**

Performance criteria specify the level of performance required to demonstrate achievement of the element.

1. **Plan and prepare**
   1.1 Work instructions, including relevant maintenance schedules, inspection reports and forms and quality requirements are obtained, confirmed and applied
   1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures
   1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement
   1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use
   1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied

2. **Select and check machining tools**
   2.1 Machining tool is correctly selected in accordance with the maintenance schedule and the machine specifications
   2.2 Machining tool is inspected and tested for compliance with specification
   2.3 Out of specification tools are processed for repair or disposal in accordance with enterprise procedures
   2.4 Machining tool is cleaned, prepared for use and protected during transit
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| 3 | Remove and replace machining tools | 3.1 Required location for the machining tools are checked and confirmed against machine specification  
3.2 Machine is made safe prior to commencing work in accordance with enterprise procedures  
3.3 Housings, guards are removed in accordance with machine specifications  
3.4 Machining tools are located and removed  
3.5 Replacement machining tools are installed and set to machine specification  
3.6 Housings, guards are replaced and restored in accordance with machine specifications  
3.7 Test runs are conducted and sample products are checked to certify the new machining tool  
3.8 Documentation is completed outlining the detail of the replacement in accordance with enterprise requirements |
| 4 | Maintain machining tool stocks | 4.1 Machining tools are processed for maintenance in accordance with enterprise procedures  
4.2 Stock levels of machining tools are reviewed and action taken to avoid stock out situations  
4.3 Stock levels of peripherals and consumables are maintained to support continuity of operations  
4.4 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements  
4.5 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements |
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

**Unit scope**
- Planning and preparation is to include but not be limited to tool inspection, defect identification, assessment of conditions and hazards and determination of work requirements
- Tool setting is to cover all the machining tools for a production line
- Preparation is to include the cleaning, measuring, inspection and minor maintenance of the machining tools
- Inspection is to include assessment of wear, compliance with specification and the functionality of securing systems

**Safety (OH&S)**
- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with the handling of machining tools, heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors
- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

**Environmental Requirements**
- Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management
Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures.

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice.

Tools and equipment

- Tools and equipment are to include but not be limited to relevant hand and power tools and lifting equipment.

Materials

- Materials are to include but not be limited to peripheral stores, cleaning agents and consumables.

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers.

Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches.
  - Safe work procedures related to tool setting.
  - Regulatory/legislative requirements pertaining to Automotive manufacturing.
  - Engineers design specifications and instructions.
  - Organisation work specifications and requirements.
  - Instructions issued by authorised enterprise or external personnel.
  - Relevant Australian Standards.


Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of the tool setting and maintenance operations for a production line over five (5) full shifts

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing production line techniques and processes
  - Automotive Industry terminology
  - Production line machines and equipment types, characteristics, uses and limitations
  - Tool setting techniques and equipment
  - Enterprise tool maintenance processes
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;
Level 2 – relates to the management or facilitation of conditions or processes; and
Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information
Collect, organise, interpret and understand the information required for tool setting, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Plan and organise activities
Conduct activities associated with tool setting, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Solve problems
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
Use mathematical ideas and techniques to correctly calculate time, assess alignment, apply accurate measurements and establish quality checks

Use technology
Use workplace technology related to tool setting, including the use of measuring equipment, computerised equipment, tool setting equipment, the use of communication devices and the reporting/recording of results

The context of assessment
- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to tool setting
  - equipment, hand and power tools appropriate to tool setting
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
AUM3103A  PLAN AND ORGANISE PERSONAL WORK ACTIVITIES - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to plan and sequence personal work activities involved in the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

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</table>
| AUM3103A.1 Identify task requirements of work activities. | AUM3103A.1.1 Procedural instructions are obtained, interpreted and, where necessary, clarified.  
AUM3103A.1.2 Relevant specifications for task outcomes are obtained, interpreted and where necessary clarified.  
AUM3103A.1.3 Task outcomes are identified in accordance with company requirements.  
AUM3103A.1.4 Task requirements such as completion time and quality measures are identified and applied to the development of a personal work plan. |
| AUM3103A.2 Plan and sequence steps to complete tasks. | AUM3103A.2.1 Based on interpretations of instructions and specifications the individual steps or activities are determined and, where necessary, verified.  
AUM3103A.2.2 Planned steps and outcomes are checked to ensure conformity with instructions and relevant specifications.  
AUM3103A.2.3 Means of identifying conformity of planned steps and outcomes with instructions and relevant specifications are identified in accordance with company procedures.  
AUM3103A.2.4 Sequence of required activities are identified in the plan in accordance with company requirements. |
| AUM3103A.3 Implement and review job plan. | AUM3103A.3.1 Task is executed in accordance with the plan and company requirements.  
AUM3103A.3.2 Outcomes are identified and compared with planned objectives, task instructions and specifications to ensure all requirements are met. |
ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM3103A.3 (continued) Implement and review job plan. | AUM3103A.3 The plan is revised, if necessary, based on the comparison of planned and actual outcomes to improve the achievement of objectives and task requirements.

RANGE OF VARIABLES:
- Develop, implement and review a personal work plan. This may include the planning implementation modification to control and monitoring system

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying task requirements of work activities, planning and sequencing steps to complete tasks and implementing and reviewing job plans.
- Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Identifying task requirements of work activities
- Planning and sequencing steps to complete tasks
- Implementing and reviewing job plans

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

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</table>
## AUM3201A PLAN, ORGANISE AND COORDINATE WORK ACTIVITIES IN A TEAM - Basic

**UNIT DESCRIPTOR:** This unit identifies the competence required to plan, organise and coordinate team work activities involved in the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

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<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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<tbody>
<tr>
<td>AUM3201A.1 Identify task requirements of team activities.</td>
<td>AUM3201A.1.1 Requirements of a team task are identified and clarified in conjunction with other team members to ensure correct interpretation of specifications and requirements in accordance with company requirements.</td>
</tr>
</tbody>
</table>
| AUM3201A.2 Plan and sequence steps to complete tasks of team. | AUM3201A.2.1 Task is interpreted and relevant steps are identified in conjunction with other team members to ensure efficient conduct of work to meet specifications and company requirements.  
AUM3201A.2.2 Steps are planned in conjunction with the work of other personnel to allow achievement of practical outcomes according to company and/or manufacturer procedures. |
| AUM3201A.3 Assign tasks to team members. | AUM3201A.3.1 Task activities are assigned to team members based on their areas of competence and expertise and their availability.  
AUM3201A.3.2 Team members are briefed on their assigned tasks and the relationships of their tasks to those of others.  
AUM3201A.3.3 Performance measures and requirements are agreed upon between team members in accordance with company procedures. |
| AUM3201A.4 Implement team’s work plan. | AUM3201A.4.1 Work activity is organised with other involved team members and personnel using relevant communication processes to ensure safe, unambiguous and appropriate sequencing of tasks.  
AUM3201A.4.2 All necessary documentation related to job planning and progress is completed and recorded in accordance with statutory, manufacturer and company requirements. |
ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
---|---
AUM3201A.5 Review team’s work plan. | AUM3201A.5.1 The outcomes of the team’s task activities are compared with the planned objectives, task instructions and specifications to ensure all requirements have been met.
AUM3201A.5.2 The team’s work plan is jointly revised if necessary, to improve the achievement of objectives and task requirements.

RANGE OF VARIABLES:
- Participate in the development of team work plans.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying task requirements of team activities, planning and sequencing steps to complete tasks of team, assigning tasks to team members, implementing team’s work plan, and reviewing team’s work plan.

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning
**Underpinning knowledge:**
- Identifying task requirements of team activities
- Planning and sequencing steps to complete tasks of team
- Assigning tasks to team members
- Implementing team's work plan
- Review team's work plan

**Practical assessments:**
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

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**AUM3202A**

**PLAN, ORGANISE AND COORDINATE WORK ACTIVITIES IN A TEAM - Advanced**

**UNIT DESCRIPTOR:** This unit identifies the competence required to plan, organise and coordinate team work activities involved in the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

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<td>AUM3202A.1 Identify task requirements of team activities.</td>
<td>AUM3202A.1.1 Requirements of a team task are identified and clarified in conjunction with other team members to ensure correct interpretation of specifications and requirements in accordance with company requirements.</td>
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| AUM3202A.2 Plan and sequence steps to complete tasks of team. | AUM3202A.2.1 Task is interpreted and relevant steps are identified in conjunction with other team members to ensure efficient conduct of work to meet specifications and company requirements.  
AUM3202A.2.2 Steps are planned in conjunction with the work of other personnel to allow achievement of practical outcomes according to company and/or manufacturer procedures. |
| AUM3202A.3 Assign tasks to team members. | AUM3202A.3.1 Task activities are assigned to team members based on their areas of competence and expertise and their availability.  
AUM3202A.3.2 Team members are briefed on their assigned tasks and the relationships of their tasks to those of others.  
AUM3202A.3.3 Performance measures and requirements are agreed upon between team members in accordance with company procedures. |
| AUM3202A.4 Implement team’s work plan. | AUM3202A.4.1 Work activity is organised with other involved team members and personnel using relevant communication processes to ensure safe, unambiguous and appropriate sequencing of tasks.  
AUM3202A.4.2 All necessary documentation related to job planning and progress is completed and recorded in accordance with statutory, manufacturer and company requirements. |
**ELEMENT OF COMPETENCY** | **PERFORMANCE CRITERIA**
--- | ---
AUM3202A.5 Review team’s work plan. | AUM3202A.5.1 The outcomes of the team’s task activities are compared with the planned objectives, task instructions and specifications to ensure all requirements have been met.
AUM3202A.5.2 The team’s work plan is jointly revised if necessary, to improve the achievement of objectives and task requirements.

**RANGE OF VARIABLES:**
- Facilitate the development of team work plans.

*Note:* The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Identifying task requirements of team activities, planning and sequencing steps to complete tasks of team, assigning tasks to team members, implementing team’s work plan, and reviewing team’s work plan.

Methods should be applied under normal operating conditions.

**EVIDENCE GUIDE:**

**Context:**
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

**Critical aspects:**
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning
Underpinning knowledge:
- Identifying task requirements of team activities
- Planning and sequencing steps to complete tasks of team
- Assigning tasks to team members
- Implementing team's work plan
- Review team's work plan

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

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AUM3203A PLAN, ORGANISE AND COORDINATE WORK ACTIVITIES IN A TEAM - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to plan, organise and coordinate team work activities involved in the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

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<td>AUM3203A.1 Identify task requirements of team activities.</td>
<td>AUM3203A.1.1 Requirements of a team task are identified and clarified in conjunction with other team members to ensure correct interpretation of specifications and requirements in accordance with company requirements.</td>
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| AUM3203A.2 Plan and sequence steps to complete tasks of team. | AUM3203A.2.1 Task is interpreted and relevant steps are identified in conjunction with other team members to ensure efficient conduct of work to meet specifications and company requirements.  
AUM3203A.2.2 Steps are planned in conjunction with the work of other personnel to allow achievement of practical outcomes according to company and/or manufacturer procedures. |
| AUM3203A.3 Assign tasks to team members. | AUM3203A.3.1 Task activities are assigned to team members based on their areas of competence and expertise and their availability.  
AUM3203A.3.2 Team members are briefed on their assigned tasks and the relationships of their tasks to those of others.  
AUM3203A.3.3 Performance measures and requirements are agreed upon between team members in accordance with company procedures. |
| AUM3203A.4 Implement team’s work plan. | AUM3203A.4.1 Work activity is organised with other involved team members and personnel using relevant communication processes to ensure safe, unambiguous and appropriate sequencing of tasks.  
AUM3203A.4.2 All necessary documentation related to job planning and progress is completed and recorded in accordance with statutory, manufacturer and company requirements. |
ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
------------------------|--------------------------------------------------
AUM3203A.5 Review team’s work plan. | AUM3203A.5.1 The outcomes of the team’s task activities are compared with the planned objectives, task instructions and specifications to ensure all requirements have been met.

AUM3203A.5.2 The team’s work plan is jointly revised if necessary, to improve the achievement of objectives and task requirements.

RANGE OF VARIABLES:
- Determine team goals and performance levels.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying task requirements of team activities, planning and sequencing steps to complete tasks of team, assigning tasks to team members, implementing team's work plan, and reviewing team's work plan.

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning
Underpinning knowledge:
- Identifying task requirements of team activities
- Planning and sequencing steps to complete tasks of team
- Assigning tasks to team members
- Implementing team's work plan
- Review team's work plan

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

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AUM3903A  INTERPRET MANUALS, DRAWINGS AND/OR CIRCUITS FOR PLANT, TOOLING, EQUIPMENT OR SYSTEMS - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to interpret manuals, drawings and/or circuit diagrams for plant, tooling, equipment or systems involved in the maintenance, tooling and development operations required for the design, development and production of motor vehicles.

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</table>
| AUM3903A.1 Identify and access manuals, drawings, circuits or specifications of plant, tooling, equipment or systems. | AUM3903A.1.1 Appropriate manuals, drawings, circuits and/or specifications are identified and accessed for the plant, tooling, equipment or systems to be maintained.  
AUM3903A.1.2 Amendment status of the drawings and documentation is clearly established to ensure correct specifications and procedures are applied. |
| AUM3903A.2 Interpret manuals, drawings, circuits or specifications of plant, tooling, equipment or systems. | AUM3903A.2.1 Relevant sections/chapters of the manuals, drawings, circuits and/or specifications of plant, tooling, equipment or systems are located in relation to the work to be carried out.  
AUM3903A.2.2 Information is interpreted and procedures to be followed are accurately determined in accordance with manufacturer’s and company requirements |
| AUM3903A.3 Apply information in manuals, drawings, circuits or specifications of plant, tooling, equipment or systems. | AUM3903A.3.1 Work is performed in accordance with manual or specified procedures and the information provided in relevant sections of drawings, circuits and schematics.  
AUM3903A.3.2 All correct sequencing and adjustments are carried out in accordance with the information provided in manufacturer manuals and/or specifications for the plant, tooling, equipment or systems to be maintained. |
| AUM3903A.4 Store manuals, drawings, circuits or specifications of plant, tooling, equipment or systems. | AUM3903A.4.1 Manuals, drawings, circuits, schematics and/or specifications of plant, tooling, equipment or systems are stored appropriately to ensure prevention of damage, ready access and updating of information, when required, in accordance with statutory and company requirements. |
AUM3903A Interpret manuals, drawings and/or circuits for Automotive Manufacturing – PMV Sector plant, tooling, equipment or systems - complex

RANGE OF VARIABLES:
- Interpreting complex manuals, drawings and/or circuits in the course of installing, maintaining, repairing and/or calibrating equipment or tooling

Examples of the application of this competency unit may include the following:
- Equipment or tooling electronically controlled by complex integrated analog or digital control systems
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying, accessing, interpreting, applying and storing information from manuals, drawings, circuits or specifications of plant, tooling, equipment or systems.
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Identifying and accessing manuals, drawings, circuits or specifications of plant, tooling, equipment or systems
- Interpreting manuals, drawings, circuits or specifications of plant, tooling, equipment or systems
- Applying information in manuals, drawings, circuits or specifications of plant, tooling, equipment or systems
- Storing manuals, drawings, circuits or specifications of plant, tooling, equipment or systems

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Demonstrate ability to minimise waste
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 3
Communicate ideas and information 3
Plan and organise activities 2
Work with others and in teams 1
Use mathematical ideas and techniques 2
Solve problems 2
Use technology 1
### AUM4003A

**INTERPRET CUSTOMER REQUIREMENTS - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to be able, in conjunction with professional and other staff, to interpret customer requirements and apply them to the design, development and production of motor vehicles.

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</table>
| AUM4003A.1 Identify market. | **AUM4003A.1.1** The potential market for a product is identified in consultation with marketing and engineering staff using information from surveys, published information and feedback from customers, dealers and sales staff in accordance with company procedures.  
**AUM4003A.1.2** The market for a product is defined in terms of the potential customer base, market segmentation, geographic location, price range, product features and extent of current and future likely competition.  
**AUM4003A.1.3** Information on the potential market for a product is documented in accordance with company procedures. |
| AUM4003A.2 Gather information on customers’ needs. | **AUM4003A.2.1** Using the potential market information, surveys of customers and dealers are conducted and analysed in accordance with company requirements to establish customer needs and preferences.  
**AUM4003A.2.2** Information is gathered from customers and other contacts on customer reactions to competitors' products in the same market including perceived strengths, weaknesses, special features and complaints. |
| AUM4003A.3 Evaluate customer information. | **AUM4003A.3.1** All collected information on customers' needs is evaluated in terms of design and production and quality assurance implications in conjunction with relevant design, marketing and engineering staff in accordance with company requirements. |
| AUM4003A.4 Document customer information. | **AUM4003A.4.1** The outcomes of the evaluation of customer needs is documented in accordance with company requirements.  
**AUM4003A.4.2** Information on customer needs is stored and distributed to marketing and design sections in accordance with company requirements. |
RANGE OF VARIABLES:
- Establishing and interpreting customer needs for products or sub-assemblies involving a range of complex components and assembly processes

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Type of products and sub-assemblies (as per company requirements)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Identifying markets, gathering information on customer needs, evaluating customer information and documenting customer information.

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning
Underpinning knowledge:
- Identifying markets
- Gathering information on customer needs
- Evaluating customer information
- Documenting customer information

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Interpret customer requirements
- Achieve specified quality standards
- Apply knowledge of OH&S requirements
- Apply knowledge of required quality improvement techniques
- Apply knowledge of relevant company procedures
- Apply knowledge of emergency procedures
- Apply knowledge of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

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<td>Use mathematical ideas and techniques</td>
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</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
UNIT DESCRIPTOR: This unit identifies the competence required to maintain, assess, report on and improve health and safety conditions and arrangements in their work area.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4502A.1 Maintain the necessary conditions for a safe work environment.</td>
<td>AUM4502A.1.1 Occupational Health and Safety procedures are developed according to OH&amp;S policy, standard operating procedures and statutory and company requirements. AUM4502A.1.2 Occupational Health and Safety procedures for the prevention of injury and disease are implemented. AUM4502A.1.3 Staff or team members are instructed to implement Occupational Health and Safety policies and procedures in accordance with company and statutory requirements. AUM4502A.1.4 Safety audit of workplace conducted in accordance with relevant regulations and codes of practice. AUM4502A.1.5 Accident/incident records and statistics are maintained and analysed in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM4502A.2 Monitor and improve safety within area of responsibility.</td>
<td>AUM4502A.2.1 Standard Occupational Health and Safety procedures are undertaken. AUM4502A.2.2 Occupational Health and Safety specialists are consulted through the use of Occupational Health and Safety Consultative forums. AUM4502A.2.3 Potential safety hazards are identified and reported in accordance with company procedures. AUM4502A.2.4 Hazard prevention strategies are developed and implemented in accordance with company procedures.</td>
</tr>
</tbody>
</table>
RANGE OF VARIABLES:
- Identifying safety hazards and implementing appropriate hazard prevention strategies in accordance with company procedures

Examples of the application of this competency unit may include the following:
- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
- apply solutions to a defined range of unpredictable problems
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Safety equipment (as per company installation)
- Type of plant and equipment (as per company installation)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Advising on the maintenance of health and safety conditions in the work area
- Assessment of health and safety conditions in the work area
- Reporting on health and safety conditions
- Advising on health and safety conditions
- Evaluating health and safety conditions
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- Maintenance of the necessary conditions for a safe work environment
- Monitoring and improvement of safety conditions in own area of responsibility

Practical assessments:
- Perform work under the required level of supervision
- Explain knowledge of procedures for reporting and documenting accidents and incidents
- Demonstrate an awareness of typical safety hazards and related hazard prevention strategies
- Demonstrate knowledge and application of relevant company and statutory policies and procedures
- Demonstrate knowledge of effective communication with team members, management and departments on safety matters

Key Competencies:  
<table>
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<tbody>
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<tr>
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<tr>
<td>Plan and organise activities</td>
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<tr>
<td>Work with others and in teams</td>
<td>3</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>3</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
AUM4601A MONITOR COMPUTERS AND COMPUTERISED EQUIPMENT USING DISPLAYS - Basic

UNIT DESCRIPTOR: This unit identifies the competence required to access and monitor information displayed via the screens of computers and computer-controlled equipment in the course of operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4601A.1 Access information using a computer and an appropriate application package.</td>
<td>AUM4601A.1.1 The information able to be retrieved from a computer-based information source is identified in accordance with company procedures. AUM4601A.1.2 The computer is activated and the relevant software application package accessed in accordance with the instructions of the computer and software manufacturer and company procedures. AUM4601A.1.3 Computer-based information is accessed using the necessary commands and protocol in accordance with the operating instructions of the computer software package and company procedures.</td>
</tr>
<tr>
<td>AUM4601A.2 Interpret information produced on a complex computer display.</td>
<td>AUM4601A.2.1 Retrieved information as displayed on the computer screen for a basic software application package is interpreted in accordance with requirements of the software package, the work task at hand and company procedures. AUM4601A.2.2 Retrieved information is correctly evaluated and action to be taken is accurately determined in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM4601A.3 Input commands and data to a computer in a workplace application.</td>
<td>AUM4601A.3.1 All relevant commands to operate the basic software application package are keyed in accordance with the operating instructions for the software application, the work task at hand and company procedures.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:  
- Monitor the performance of equipment using computer displays.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:  
- Manufacturer specifications  
- Enterprise operating procedures  
- Product manufacturer specifications  
- Customer requirements  
- Industry/Workplace Codes of Practice
OH&S practices must abide by:
• State/industry OH&S legislation
• Award provisions

Resources may include:
• Safety equipment (as per company installation)
• Type of plant and equipment (as per company installation)
• OH&S standards (as per company and statutory requirements)
• Documentation and reporting systems (as per company requirements)

Methods include:
• Accessing information displayed on computer screens
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
• Degree of complexity
• Safe working practices
• Documentation
• Technical specifications
• Planning

Underpinning knowledge:
• How to access information using a computer and an appropriate application package
• How to interpret information from a computer display
• How to input basic commands and data to a computer in a basic workplace application

Practical assessments:
• Perform work under the required level of supervision
• Use and maintain all required materials, tools and parts
• Diagnose and solve problems involved in the work
• Achieve specified quality standards
• Explain knowledge and application of relevant company procedures
• Explain knowledge and application of emergency procedures
• Explain knowledge and application of reporting and documentation requirements
• Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 2
Communicate ideas and information 3
Plan and organise activities 1
Work with others and in teams 1
Use mathematical ideas and techniques 2
Solve problems 2
Use technology 3
AUM4602A  MONITOR COMPUTERS AND COMPUTERISED EQUIPMENT USING DISPLAYS - Advanced

UNIT DESCRIPTOR:  This unit identifies the competence required to:
Access and monitor information displayed via the screens of
computers and computer-controlled equipment in the course of
operations required for the design, development and production of
motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4602A.1 Access information using a computer and an appropriate application package.</td>
<td>AUM4602A.1.1 The information able to be retrieved from a computer-based information source is identified in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM4602A.1.2 The computer is activated and the relevant software application package accessed in accordance with the instructions of the computer and software manufacturer and company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM4602A.1.3 Computer-based information is accessed using the necessary commands and protocol in accordance with the operating instructions of the computer software package and company procedures.</td>
</tr>
<tr>
<td>AUM4602A.2 Interpret information produced on a complex computer display.</td>
<td>AUM4602A.2.1 Retrieved information as displayed on the computer screen for a basic software application package is interpreted in accordance with requirements of the software package, the work task at hand and company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM4602A.2.2 Retrieved information is correctly evaluated and action to be taken is accurately determined in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM4602A.3 Input commands and data to a computer in a workplace application.</td>
<td>AUM4602A.3.1 All relevant commands to operate the basic software application package are keyed in accordance with the operating instructions for the software application, the work task at hand and company procedures.</td>
</tr>
</tbody>
</table>

RANGE OF VARIABLES:
• The monitoring by means of computer displays of performance during the installing and commissioning of equipment with computerised control systems using a combination of mechanical, hydraulic or pneumatic principles

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.
Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Safety equipment (as per company installation)
- Type of plant and equipment (as per company installation)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Accessing information displayed on computer screens
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to access information using a computer and an appropriate application package
- How to interpret information from a computer display
- How to input basic commands and data to a computer in a basic workplace application

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
**Key Competencies:**

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<thead>
<tr>
<th>Competency</th>
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</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>3</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>1</td>
</tr>
<tr>
<td>Work with others and in teams</td>
<td>1</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
AUM4603A  
MONITOR COMPUTERS AND COMPUTERISED EQUIPMENT USING DISPLAYS - Complex

UNIT DESCRIPTOR:  
This unit identifies the competence required to:  
Access and monitor information displayed via the screens of computers and computer-controlled equipment in the course of operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4603A.1 Access information using a computer and an appropriate application package.</td>
<td></td>
</tr>
</tbody>
</table>
AUM4603A.1.1 The information able to be retrieved from a computer-based information source is identified in accordance with company procedures.  
AUM4603A.1.2 The computer is activated and the relevant software application package accessed in accordance with the instructions of the computer and software manufacturer and company procedures.  
AUM4603A.1.3 Computer-based information is accessed using the necessary commands and protocol in accordance with the operating instructions of the computer software package and company procedures. |
| AUM4603A.2 Interpret information produced on a complex computer display. |  
AUM4603A.2.1 Retrieved information as displayed on the computer screen for a basic software application package is interpreted in accordance with requirements of the software package, the work task at hand and company procedures.  
AUM4603A.2.2 Retrieved information is correctly evaluated and action to be taken is accurately determined in accordance with company requirements. |
| AUM4603A.3 Input commands and data to a computer in a workplace application. |  
AUM4603A.3.1 All relevant commands to operate the basic software application package are keyed in accordance with the operating instructions for the software application, the work task at hand and company procedures. |

RANGE OF VARIABLES:  
- The monitoring by means of computer displays of performance during the installing and commissioning and/or maintenance of complex computerised plant, tooling, equipment or systems

Note:  
The application of this competency standard must comply with the appropriate AQF level descriptor criteria.
Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Safety equipment (as per company installation)
- Type of plant and equipment (as per company installation)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

Methods include:
- Accessing information displayed on computer screens
Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to access information using a computer and an appropriate application package
- How to interpret information from a computer display
- How to input basic commands and data to a computer in a basic workplace application

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
**Key Competencies:**

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<td>Use mathematical ideas and techniques</td>
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<tr>
<td>Solve problems</td>
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</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
AUM4702A Program and monitor PLCs, robots and other computerised equipment - Advanced

**UNIT DESCRIPTOR:** This unit identifies the competence required to program and monitor PLCs, robots and other computerised equipment in the course of operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AUM4702A.1 Program PLCs, robots or other computerised equipment.</td>
<td>AUM4702A.1.1 The PLC, robot or other computerised equipment is prepared for programming in accordance with manufacturer instructions and company procedures. AUM4702A.1.2 The PLC, robot or other computerised equipment is programmed in accordance with job requirements and manufacturer instructions and company procedures. AUM4702A.1.3 The programmed PLC, robot or other computerised equipment is tested against job specifications and manufacturer and company requirements, and any necessary adjustments and changes made. AUM4702A.1.4 The programming of the PLC, robot or other computerised equipment is documented in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM4702A.2 Step-through and monitor the operations of a PLC, robot or other computerised equipment.</td>
<td>AUM4702A.2.1 The PLC, robot or other computerised equipment is set up in accordance with the job requirements and manufacturer and company requirements. AUM4702A.2.2 The operations of the PLC, robot or other computerised equipment are stepped-through and monitored in accordance with the job requirements and manufacturer and company requirements. AUM4702A.2.3 Any malfunction of the PLC, robot or other computerised equipment is identified and reported in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM4702A.3 Identify and diagnose fault conditions in a PLC, robot or other computerised equipment.</td>
<td>AUM4702A.3.1 The cause of a malfunction in a PLC, robot or other computerised equipment is diagnosed with the aid of fault-finding guides and in accordance with the manufacturer instruction manuals and company procedures.</td>
</tr>
</tbody>
</table>
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM4702A.4 | **Rectify faults in a PLC, robot or other computerised equipment.**

**AUM4702A.4.1**
An identified malfunction of a PLC, robot or other computerised equipment is reported and/or rectified in accordance with manufacturer instructions and company procedures.

---

AUM4702A.5 | **Document programming, monitoring and repairs to PLCs, robots or other computerised equipment.**

**AUM4702A.5.1**
The outcomes of the step-through and monitoring of the operations of the PLC, robot or other computerised equipment and any related fault rectification action are documented in accordance with company requirements.

**AUM4702A.5.2**
Documentation on the outcomes of the step-through and monitoring of the operations of the PLC, robot or other computerised equipment and any related fault rectification action is stored and/or distributed to appropriate personnel in accordance with company procedures.

### RANGE OF VARIABLES:
- Program and monitor equipment with computerised control systems.

*Note:* The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Level of supervision (limited or minimum supervision)
- Type of plant and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
- Occupational Health and Safety standards (as per company and statutory requirements)

**Methods include:**
- Programming a PLC, robot, or other computerised equipment
- Monitoring the operations of a PLC, robot, or other computerised equipment
- Identification and diagnosis of faults in a PLC, robot, or other computerised equipment
- Rectifying faults in a PLC, robot, or other computerised equipment
- Documentation of programming, monitoring, and repairs to PLCs, robots, or other computerised equipment

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to program a PLC, robot or other computerised equipment
- How to step-through and monitor the operations of a PLC, robot or other computerised equipment
- How to identify and diagnose a fault in a PLC, robot, or other computerised equipment under operating conditions
- How to rectify faults in a PLC, robot, or other computerised equipment
- How to document programming, monitoring, and repairs to PLCs, robots, or other computerised equipment

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: 

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<td>Solve problems</td>
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</tr>
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<td>Use technology</td>
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</tr>
</tbody>
</table>
**AUM4703A PROGRAM AND MONITOR PLCs, ROBOTS AND OTHER COMPUTERISED EQUIPMENT - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to program and monitor PLCs, robots and other computerised equipment in the course of operations required for the design, development and production of motor vehicles.

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<tbody>
<tr>
<td><strong>AUM4703A.1</strong> Program PLCs, robots or other computerised equipment.</td>
<td><strong>AUM4703A.1.1</strong> The PLC, robot or other computerised equipment is prepared for programming in accordance with manufacturer instructions and company procedures. <strong>AUM4703A.1.2</strong> The PLC, robot or other computerised equipment is programmed in accordance with job requirements and manufacturer instructions and company procedures. <strong>AUM4703A.1.3</strong> The programmed PLC, robot or other computerised equipment is tested against job specifications and manufacturer and company requirements and any necessary adjustments and changes made. <strong>AUM4703A.1.4</strong> The programming of the PLC, robot or other computerised equipment is documented in accordance with company requirements.</td>
</tr>
<tr>
<td><strong>AUM4703A.2</strong> Step-through and monitor the operations of a PLC, robot or other computerised equipment.</td>
<td><strong>AUM4703A.2.1</strong> The PLC, robot or other computerised equipment is set up in accordance with the job requirements and manufacturer and company requirements. <strong>AUM4703A.2.2</strong> The operations of the PLC, robot or other computerised equipment are stepped-through and monitored in accordance with the job requirements and manufacturer and company requirements. <strong>AUM4703A.2.3</strong> Any malfunction of the PLC, robot or other computerised equipment is identified and reported in accordance with company procedures.</td>
</tr>
<tr>
<td><strong>AUM4703A.3</strong> Identify and diagnose fault conditions in a PLC, robot or other computerised equipment.</td>
<td><strong>AUM4703A.3.1</strong> The cause of a malfunction in a PLC, robot or other computerised equipment is diagnosed with the aid of fault-finding guides and in accordance with the manufacturer instruction manuals and company procedures.</td>
</tr>
<tr>
<td><strong>AUM4703A.4</strong> Rectify faults in a PLC, robot or other computerised equipment.</td>
<td><strong>AUM4703A.4.1</strong> An identified malfunction of a PLC, robot or other computerised equipment is reported and/or rectified in accordance with manufacturer instructions and company procedures.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
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</tr>
<tr>
<td>AUM4703A.5 Document programming, monitoring and repairs to PLCs, robots or other computerised equipment.</td>
<td>AUM4703A.5.1 The outcomes of the step-through and monitoring of the operations of the PLC, robot or other computerised equipment and any related fault rectification action are documented in accordance with company requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM4703A.5.2 Documentation on the outcomes of the step-through and monitoring of the operations of the PLC, robot or other computerised equipment and any related fault rectification action is stored and/or distributed to appropriate personnel in accordance with company procedures.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Program and monitor manufacturing processes involving two or more computerised control systems.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Level of supervision (limited or minimum supervision)
- Type of plant and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)

**Methods include:**
- Programming a PLC, robot, or other computerised equipment
- Monitoring the operations of a PLC, robot, or other computerised equipment
- Identification and diagnosis of faults in a PLC, robot, or other computerised equipment
- Rectifying faults in a PLC, robot, or other computerised equipment
- Documentation of programming, monitoring, and repairs to PLCs, robots, or other computerised equipment

Methods should be applied under normal operating conditions.

**EVIDENCE GUIDE:**

**Context:**
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to program a PLC, robot or other computerised equipment
- How to step-through and monitor the operations of a PLC, robot or other computerised equipment
- How to identify and diagnose faults in a PLC, robot, or other computerised equipment under operating conditions
- How to rectify faults in a PLC, robot, or other computerised equipment
- How to document programming, monitoring, and repairs to PLCs, robots, or other computerised equipment

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  
Collect, analyse and organise information  3
Communicate ideas and information  3
Plan and organise activities  3
Work with others and in teams  3
Use mathematical ideas and techniques  3
Solve problems  3
Use technology  3
### AUM4803A

**USE COMPUTERS IN WORK LOCATIONS-Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to use computers in work locations in the course of operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4803A.1 Select computer package.</td>
<td>AUM4803A.1.1 The computer processing requirements of a task are identified and a suitable computer hardware and a software application package selected in accordance with the task requirements, manufacturer instructions and company procedures.</td>
</tr>
<tr>
<td>AUM4803A.2 Set up computer hardware.</td>
<td>AUM4803A.2.1 The required computer hardware for the task is obtained and set up in accordance with manufacturer and company requirements. AUM4803A.2.2 The software application package is installed, if necessary, in accordance with the software manufacturer instructions, statutory requirements and company procedures.</td>
</tr>
<tr>
<td>AUM4803A.3 Boot up computer applications.</td>
<td>AUM4803A.3.1 The software application package is booted up in accordance with the software manufacturer instructions, statutory requirements and company procedures.</td>
</tr>
<tr>
<td>AUM4803A.4 Use application package for a task.</td>
<td>AUM4803A.4.1 The application package is used for the specified tasks in accordance with manufacturer instructions and company procedures. AUM4803A.4.2 The application package is accessed using the necessary commands and protocol in accordance with the operating instructions of the computer software package and company procedures. AUM4803A.4.3 Data is keyed into the computer in accordance with the operating protocols of the software application package, the task requirements and company procedures.</td>
</tr>
<tr>
<td>AUM4803A.5 Interpret computer output.</td>
<td>AUM4803A.5.1 Retrieved information as displayed on the computer screen for software application package is interpreted in accordance with requirements of the software package, the task at hand and company procedures. AUM4803A.5.2 Retrieved information is correctly evaluated and action to be taken is accurately determined in accordance with task requirements and company procedures.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
</tr>
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</tr>
</tbody>
</table>
| AUM4803A.6 Print computer output. | AUM4803A.6.1 Computer printer is activated in accordance with the software application package requirements and computer hardware protocols.  
AUM4803A.6.2 Retrieved information is correctly printed in accordance with software application package instructions, task requirements and company procedures. |

**RANGE OF VARIABLES:**
- Using word processing, database or spreadsheet application packages for producing major reports and documents; formatting and printing of complex documents related to design, development and maintenance operations; or developing and applying computerised databases or models as part of design, development or maintenance operations.

Example of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

*Note:* The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Level of supervision (limited or minimum supervision)
- Type of computers and software (as per company installation)
- Documentation and reporting systems (as per company requirements)
- OH&S standards (as per company and statutory requirements)

**Methods include:**
- Selecting a computer package
- Setting up computer hardware
- Booting up computer application
- Using application package for a task
- Interpreting of computer output
- Printing computer output

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to select a computer package
- How to set up computer hardware
- How to boot up a computer
- How to use an application package for a task
- How to interpret computer output
- How to print computer output

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  Level
Collect, analyse and organise information  3
Communicate ideas and information  3
Plan and organise activities  3
Work with others and in teams  3
Use mathematical ideas and techniques  3
Solve problems  3
Use technology  3
AUM4903A  

**USE COMPUTERS AND COMPUTERISED EQUIPMENT IN DESIGN AND DEVELOPMENT APPLICATIONS - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to use and computerised equipment in design and development applications in the course of operations required for the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM4903A.1 Select an application package.</td>
<td>AUM4903A.1.1 The design requirements of a development task are identified and suitable computer hardware and an application package selected in accordance with the task requirements, manufacturer instructions and company procedures.</td>
</tr>
</tbody>
</table>
| AUM4903A.2 Set up computer hardware. | AUM4903A.2.1 The required computer hardware for the workplace task is obtained and set up in accordance with manufacturer and company requirements.  
AUM4903A.2.2 The application packages is installed, if necessary, in accordance with the software manufacturer instructions, statutory requirements and company procedures. |
| AUM4903A.3 Boot up application package. | AUM4903A.3.1 The application package is booted up in accordance with the software manufacturer instructions, statutory requirements and company procedures. |
| AUM4903A.4 Use application package for a design or development task. | AUM4903A.4.1 The application package is used for the specified development tasks in accordance with manufacturer instructions and company procedures.  
AUM4903A.4.2 The application package is accessed using the necessary commands and protocol in accordance with the operating instructions of the computer software package and company procedures.  
AUM4903A.4.3 Data is entered into the computer in accordance with the operating protocols of the application package, the task requirements and company procedures. |
| AUM4903A.5 Interpret computer output. | AUM4903A.5.1 Retrieved information as displayed on the computer screen for the computer-aided design application package is interpreted in accordance with requirements of the software package, the work task at hand and company procedures. |
AUM4903A Use computers and computerised equipment in Automotive Manufacturing – PMV Sector
design and development applications - complex

<table>
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<tr>
<th>ELEMENT OF COMPETENCY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AUM4903A.5 (continued)</td>
<td>AUM4903A.5.2 Retrieved information is correctly evaluated and action to be taken is accurately determined in accordance with task requirements and company procedures.</td>
</tr>
<tr>
<td>Interpret computer output.</td>
<td></td>
</tr>
</tbody>
</table>

| AUM4903A.6 | AUM4903A.6.1 Computer printer is activated in accordance with the application package requirements and computer hardware protocols. AUM4903A.6.2 Retrieved information is correctly printed in accordance with application package, instructions task requirements and company procedures. |
| Print computer output. | |

RANGE OF VARIABLES:
- Using word processing, graphics, simulation and computer-aided design application packages for the design, development and specification of equipment and tooling
- This may include equipment controlled by complex integrated circuit analog or digital control systems

Example of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OHS practices must abide by:
- State/industry OHS legislation
- Award provisions

Resources may include:
- Level of supervision (limited or minimum supervision)
- Type of computers and software (as per company installation)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)
Methods include:
- Selecting an application package
- Setting up computer hardware
- Booting up application package
- Using application package for a design or development task
- Interpreting of computer output
- Printing computer output

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to select an application package
- How to set up computer hardware
- How to boot up a application package
- How to use an application package for a design or development task
- How to interpret computer output
- How to print computer output

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
<table>
<thead>
<tr>
<th>Key Competencies</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>3</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
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</tr>
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<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
AUM5403A PRODUCE COMPUTER-AIDED DESIGNS (CAD) - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to produce designs, using computer aided design techniques, required in the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM5403A.1</td>
<td>AUM5403A.1.1</td>
</tr>
<tr>
<td>Clarify CAD designer requirements.</td>
<td>For the design brief or problem, CAD project objectives are clarified and defined in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM5403A.1.2</td>
<td>For the design brief or problem, relevant parameters are identified and interpreted, including functional specifications, quality targets, materials, ergonomic considerations, documented standards (company, government etc.), technical information, cost constraints and manufacturing processes.</td>
</tr>
<tr>
<td>AUM5403A.1.3</td>
<td>CAD requirements and processes are clarified based on consideration of project objectives and identified parameters.</td>
</tr>
<tr>
<td>AUM5403A.2</td>
<td>AUM5403A.2.1</td>
</tr>
<tr>
<td>Select tools, equipment and computer hardware and software.</td>
<td>Required computer hardware and software, tools, and equipment for the CAD project are selected in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM5403A.2.2</td>
<td>Selected CAD hardware, software, tools, and equipment are prepared for the project in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM5403A.3</td>
<td>AUM5403A.3.1</td>
</tr>
<tr>
<td>Set up required CAD package.</td>
<td>The required computer hardware for the CAD task is set up in accordance with manufacturer and company requirements.</td>
</tr>
<tr>
<td>AUM5403A.3.2</td>
<td>The CAD software package is installed, if necessary, in accordance with the software manufacturer instructions, statutory requirements and company procedures.</td>
</tr>
<tr>
<td>AUM5403A.3.3</td>
<td>The CAD package is booted up in accordance with the software manufacturer instructions, statutory requirements and company procedures.</td>
</tr>
<tr>
<td>AUM5403A.3.4</td>
<td>Files of digitised information relevant to the project are retrieved and converted if required in accordance with the software manufacturer instructions and company procedures.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| AUM5403A.4 Gather object parameters and/or measurements. | AUM5403A.4.1 Any measurements of components, sub-assemblies, products, models, equipment, layouts or facilities needed for the preparation of the required designs are made and recorded in accordance with company procedures.  
AUM5403A.4.2 Calculations of required dimensions and other design details based on measurements and other relevant dimensional information are made in accordance with company requirements.  
AUM5403A.4.3 System accuracy, design and or drafting standards and tolerances and other critical information relevant to the CAD project are identified in accordance with company requirements. |
| AUM5403A.5 Prepare plots | AUM5403A.5.1 Critical dimensions and data for the required design are established.  
AUM5403A.5.2 As required, preliminary sketches are prepared and reviewed with design, engineering, production and/or other designated staff in accordance with company procedures.  
AUM5403A.5.3 The CAD package is used to prepare plots consistent with the project objectives and specifications, in accordance with manufacturer instructions and company standards and procedures.  
AUM5403A.5.4 The CAD package is accessed using the necessary commands and protocol in accordance with the operating instructions of the CAD software manufacturer and company procedures.  
AUM5403A.5.5 Peripheral equipment such as scanners, printers, plotters etc. is used as required in accordance with manufacturer instructions and company procedures.  
AUM5403A.5.6 Complex 2D and 3D computer graphics systems are used including file structure, menu utilisation, system library usage, data banking, archiving, file management and maintenance and transfer to peripheral devices in accordance with manufacturer instructions and company standards and procedures. |
| AUM5403A.6 Check designs and save files. | AUM5403A.6.1 Designs are checked against project objectives and specifications and company standards in accordance with company procedures. |
ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM5403A.6 (continued) Check designs and save files. | AUM5403A.6.2 CAD data files are stored in accordance with software manufacturer instructions and company procedures and archiving requirements.

AUM5403A.7 Plot | AUM5403A.7.1 Computer plotter is activated in accordance with the software application package requirements and computer hardware and peripheral protocols.

AUM5403A.7.2 Retrieved information is correctly plotted in accordance with software application package instructions, task requirements and company procedures.

RANGE OF VARIABLES:
- Design products or sub-assemblies involving a range of complex components and assembly processes using CAD techniques

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Level of supervision (operates independently or with minimal supervision))
- Type of products, sub-assemblies and CAD equipment (as per company requirements)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)
Methods include:
- Clarifying CAD requirements
- Selecting tools, equipment and computer hardware and software
- Setting up required CAD package
- Gathering object parameters and/or measurements
- Preparation of drawings/designs
- Checking of drawings/designs
- Saving files
- Plotting

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to clarify CAD requirements
- How to select tools, equipment and computer hardware and software
- How to set up required CAD package
- How to gather object parameters and/or measurements
- How to prepare drawings
- How to check drawings
- How to save
- How to plot

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments
**Key Competencies:**

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<tbody>
<tr>
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</tr>
<tr>
<td>Plan and organise activities</td>
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<td>Work with others and in teams</td>
<td>3</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>3</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Use technology</td>
<td>3</td>
</tr>
</tbody>
</table>
**AUM5503A PRODUCE RESEARCH REPORTS - Complex**

**UNIT DESCRIPTOR:**
This unit identifies the competence required to carry out research activities, analyse research data and produce research reports, in conjunction with professional and other staff, related to the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
</table>
| AUM5503A.1 Determine research requirements. | AUM5503A.1.1 The research brief or problem is defined in conjunction with the relevant design, engineering, marketing, production or other staff, in accordance with company requirements.  
AUM5503A.1.2 Research requirements are documented and validated with relevant staff. |
| AUM5503A.2 Select a research strategy. | AUM5503A.2.1 Suitable research strategies are identified and evaluated for use in the research project including literature search, questionnaire survey, interview survey, workshops, testing and analysis and computerised search of information databases either on-line or via CD ROM.  
AUM5503A.2.2 A project plan is developed in conjunction with relevant staff in accordance with company procedures.  
AUM5503A.2.3 The research plan is processed for approval in accordance with company requirements. |
| AUM5503A.3 Conduct research. | AUM5503A.3.1 Research activities are conducted in accordance with the project plan.  
AUM5503A.3.2 Collected information is processed and/or summarised in accordance with the research strategy. |
| AUM5503A.4 Evaluate research outcomes. | AUM5503A.4.1 Research data is analysed either manually or with a computer as required in accordance with the approved research strategy.  
AUM5503A.4.2 Research outcomes are structured to answer the questions posed in the research brief or problem.  
AUM5503A.4.3 Any specific issues and important additional findings are highlighted and summarised. |
### ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM5503A.4 (continued) Evaluate research outcomes. | AUM5503A.4.4 Research outcomes are discussed with relevant staff and appropriate adjustments made to findings based on the feedback obtained.

AUM5503A.5 Document research outcomes. | AUM5503A.5.1 Research outcomes are summarised in an appropriate format in accordance with company requirements.

AUM5503A.5.2 Research documentation is distributed to specified staff in accordance with company requirements.

AUM5503A.5.3 Research documentation is stored in hard copy and/or computer format in accordance with company requirements.

### RANGE OF VARIABLES:
- Carrying out complex research activities as part of the design of products or sub-assemblies or manufacturing processes for vehicle assembly

Examples of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Note:** In competency standard AUM5503A the resources MAY include section dot point one “level of supervision” remove word “independently” from the text in brackets.

### Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

### OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

### Resources may include:
- Level of supervision (operates independently or with minimal supervision)
- Type of product or sub-assembly (as per company requirements)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)
Methods include:
- Determination of research requirements
- Selecting a research strategy
- Conducting research
- Evaluation of research outcomes
- Documentation of research outcomes

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to determine research requirements
- How to select a research strategy
- How to conduct research
- How to evaluate research outcomes
- How to document research outcomes

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:  Level
Collect, analyse and organise information  3
Communicate ideas and information  3
Plan and organise activities  3
Work with others and in teams  2
Use mathematical ideas and techniques  1
Solve problems  2
Use technology  2
AUM5603A DEVELOP STYLISTIC MODELS AND PROTOTYPES - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to develop and trial stylistic models and prototypes, in conjunction with professional and other staff (eg. clay modeller), in the course of the design, development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AUM5603A.1</td>
<td>Determine model requirements.</td>
</tr>
<tr>
<td>AUM5603A.1.1</td>
<td>Requirements of the “client” for development of, or modifications to a stylistic model are assessed/re-checked in conjunction with relevant design and engineering staff in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM5603A.1.2</td>
<td>Approval is sought for the proposed development of, or modifications to a stylistic model in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM5603A.2</td>
<td>Plan model-making activities.</td>
</tr>
<tr>
<td>AUM5603A.2.1</td>
<td>The steps involved in the development of, or modifications to the model are identified in consultation with designated staff.</td>
</tr>
<tr>
<td>AUM5603A.2.2</td>
<td>An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture or purchase/lease them.</td>
</tr>
<tr>
<td>AUM5603A.2.3</td>
<td>Any fabrication/machining processes and instructions are determined and clarified with participating departments/sections/areas in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM5603A.2.4</td>
<td>The timetable, budget, resource requirements, staffing and purchase/supply schedule for the development of or modifications to the model are drawn up and confirmed in consultation with designated staff.</td>
</tr>
<tr>
<td>AUM5603A.2.5</td>
<td>The approved plan is communicated to all relevant staff in management, design production, engineering and other involved company sections.</td>
</tr>
<tr>
<td>AUM5603A.3</td>
<td>Prepare tools and equipment.</td>
</tr>
<tr>
<td>AUM5603A.3.1</td>
<td>The required tools and equipment to construct or modify the model are selected in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM5603A.3.2</td>
<td>All necessary materials and components are obtained in accordance with design requirements and company procedures.</td>
</tr>
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<tr>
<td>AUM5603A.3 (continued)</td>
<td>Prepare tools and equipment.</td>
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<tr>
<td></td>
<td>AUM5603A.3.3 Tools and equipment are prepared for use in accordance with manufacturer instructions and company requirements.</td>
</tr>
<tr>
<td>AUM5603A.4</td>
<td>Produce stylistic model.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.1 Core concept is sketched incorporating jacking and reference points for digitising.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.2 Core dimensions are established including any required process allowances.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.3 Core is constructed to design requirements.</td>
</tr>
<tr>
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<td>AUM5603A.4.4 Important sections of the required model are identified and accurate templates made to check and form them in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.5 Clay is inserted into the core and rough formed to model.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.6 Model is moulded to meet design staff requirements, sketches and specifications with the necessary attention being made to critical dimensions, form and highlights.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.4.7 Rough model is discussed with designated design, engineering and other staff and suitably modified as required in accordance with company procedures.</td>
</tr>
<tr>
<td>AUM5603A.5</td>
<td>Finish stylistic model.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.5.1 Model is smoothed to required surface finish in accordance with specifications.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.5.2 Surface rendering techniques are selected and applied as necessary to simulate required finished appearance.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.5.3 Surfaces are prepared and painted as required with multiple coats to simulate production painting.</td>
</tr>
<tr>
<td>AUM5603A.6</td>
<td>Test and modify model.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.6.1 Drawings are checked against project objectives and specifications and company standards in accordance with company procedures.</td>
</tr>
<tr>
<td></td>
<td>AUM5603A.6.2 Model is tested and checked in accordance with specifications.</td>
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</table>
ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
--- | ---
AUM5603A.6 (continued) Test and modify model. | AUM5603A.6.3 Test results are analysed and appropriate action taken to modify the model, if necessary.
AUM5603A.7 Document design and testing details and store model. | AUM5603A.7.1 Outcomes of modelling process and associated testing are documented in accordance with company requirements.
 | AUM5603A.7.2 Model and associated documentation are referred to appropriate design, engineering, marketing and management staff as required.
 | AUM5603A.7.3 Model is stored in accordance with company requirements.

RANGE OF VARIABLES:
- Producing stylistic models for products or sub-assemblies involving a range of complex components and assembly processes

Example of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Level of supervision (operates independently or with minimal supervision))
- Type of product or sub-assembly (as per company requirements)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)

Methods include:
- Determining model requirements
- Planning model making activities
- Preparing tools and equipment
- Producing stylistic model
- Finishing stylistic model
Testing stylistic model  
Modifying stylistic model  
Storing stylistic model

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:  
- Competency must be assessed in a safe working environment.  
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.  
- The knowledge and practical component may be assessed in an on- or off-the-job environment.  
- Assessment may take place within the workplace or appropriate simulated environment.  
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- Degree of complexity  
- Safe working practices  
- Documentation  
- Technical specifications  
- Planning

Underpinning knowledge:

- How to determine model requirements  
- How to plan model making activities  
- How to prepare tools and equipment  
- How to produce a stylistic model  
- How to finish a stylistic model  
- How to test a stylistic model  
- How to modify a stylistic model  
- How to store a stylistic model

Practical assessments:

- Perform work under the required level of supervision  
- Use and maintain all required materials, tools and parts  
- Diagnose and solve problems involved in the work  
- Achieve specified quality standards  
- Apply housekeeping standards  
- Explain knowledge and application of occupational health and safety requirements  
- Explain knowledge and application of required quality improvement techniques  
- Demonstrate ability to minimise waste  
- Explain knowledge and application of relevant company procedures  
- Explain knowledge and application of emergency procedures  
- Explain knowledge and application of reporting and documentation requirements  
- Communicate effectively with team members, management and user departments

Key Competencies:  

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# AUM5802A COMMUNICATE INFORMATION - Advanced

## UNIT DESCRIPTOR:
This unit identifies the competence required to communicate effectively with other persons on matters related to the design, development and production of motor vehicles. This includes communicating verbally, communicating in written form, participating in meetings, making presentations, and conducting negotiations.

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<tr>
<td><strong>Communicate information verbally.</strong></td>
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<tr>
<td>AUM5802A.1.1</td>
<td>The purpose of the verbal communication is clarified preferably with either the speaker or the listener(s).</td>
</tr>
<tr>
<td>AUM5802A.1.2</td>
<td>A suitable verbal communication style is selected, where possible, to match the communication purpose and audience.</td>
</tr>
<tr>
<td>AUM5802A.1.3</td>
<td>Verbal information that is given to others is delivered clearly, succinctly and unambiguously.</td>
</tr>
<tr>
<td>AUM5802A.1.4</td>
<td>Where verbal information has been given to others, the received information is checked with the listener(s) to ensure it has been received accurately and understood.</td>
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<td>AUM5802A.1.5</td>
<td>Verbal information that is received from others is listened to carefully and intently.</td>
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<td>AUM5802A.1.6</td>
<td>Where verbal information has been received from others, its meaning is checked with the speaker to ensure that it has been received accurately and understood.</td>
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<td>AUM5802A.1.7</td>
<td>Where a verbal communication has been received inaccurately, it is repeated and/or clarified with further detail as required.</td>
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<tr>
<td><strong>AUM5802A.2</strong></td>
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<td><strong>Communicate information in written form.</strong></td>
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<tr>
<td>AUM5802A.2.1</td>
<td>The purpose of the written communication is clarified preferably with either the writer or the reader(s) as the case may be.</td>
</tr>
<tr>
<td>AUM5802A.2.2</td>
<td>A suitable written communication style is selected, where possible, to match the communication purpose and audience.</td>
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<td>AUM5802A.2.3</td>
<td>Written information that is given to others is delivered clearly, succinctly and unambiguously.</td>
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<tr>
<td>AUM5802A.2 (continued) Communicate information in written form.</td>
<td>AUM5802A.2.4 Where written information has been provided to others, the received information is checked with the reader(s) to ensure it has been received accurately and understood.</td>
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<td>AUM5802A.2.5 Written information that is received from others is read carefully and intently.</td>
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<td>AUM5802A.2.6 Where written information has been received from another, it is checked with the writer to ensure that it has been read accurately and understood.</td>
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<td>AUM5802A.2.7 Where a written communication has been read inaccurately, further detail is sought to clarify the message.</td>
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<tr>
<td>AUM5802A.3 Achieve meeting outcomes.</td>
<td>AUM5802A.3.1 The purpose of a meeting is clarified with all of those participating.</td>
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<tr>
<td></td>
<td>AUM5802A.3.2 When a meeting is chaired, it is well-planned with a clear agenda, time and place of meeting, and the meeting is conducted efficiently in accordance with the official law and procedures of meetings and the constitution or requirements of the organisation concerned.</td>
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<td>AUM5802A.3.3 The outcomes of a meeting are accurately recorded and official minutes of the meeting are promptly provided to all participants.</td>
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<td>AUM5802A.3.4 All required action flowing from decisions reached at a meeting is accurately documented.</td>
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<td>AUM5802A.3.5 Persons responsible for implementing action from decisions at a meeting are promptly notified and details of the required action confirmed in writing.</td>
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<td>AUM5802A.3.6 Appropriate follow-up action is taken to ensure that all decisions of a meeting are acted upon as required.</td>
</tr>
<tr>
<td>AUM5802A.4 Make a presentation.</td>
<td>AUM5802A.4.1 The purpose of a presentation is identified and clarified with organiser(s), and where appropriate, confirmed with the intended audience.</td>
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<td>AUM5802A.4.2 The information to be communicated in a presentation is suitably organised and structured in accordance with company requirements.</td>
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<tr>
<td><strong>AUM5802A.4 (continued)</strong>&lt;br&gt;Make a presentation.</td>
<td><strong>AUM5802A.4.3</strong>&lt;br&gt;The resources available for the presentation are discussed with the organiser(s) and suitable media selected for use in the presentation.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.4.4</strong>&lt;br&gt;Presentation aids such as overhead projector transparencies, 35 mm slides, handouts, speech notes, and demonstrations are organised and prepared in advance, as required, in accordance with recognised standards of good practice.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.4.5</strong>&lt;br&gt;Where possible, resources such as projectors, microphones and amplifiers, etc. are checked prior to the presentation to ensure that they are properly functioning.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.4.6</strong>&lt;br&gt;The presentation is made as planned with attention to the reactions and feedback provided by the audience.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.4.7</strong>&lt;br&gt;The outcomes of the presentation are evaluated and acted upon in accordance with company procedures.</td>
</tr>
<tr>
<td><strong>AUM5802A.5</strong>&lt;br&gt;Negotiate a solution.</td>
<td><strong>AUM5802A.5.1</strong>&lt;br&gt;Adequate preparation is made for the negotiation in accordance with company procedures, including consideration of the subject matter, the significance of the outcomes for the parties involved, the facts, the issues and options, and the perceived positions of the parties involved.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.5.2</strong>&lt;br&gt;A suitable negotiation strategy is selected in accordance with company requirements, including the location, time and approach to be taken.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.5.3</strong>&lt;br&gt;Negotiations are conducted in accordance with the planned approach.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.5.4</strong>&lt;br&gt;Negotiation outcomes are reviewed in terms of desired outcomes of both parties and suitable further action initiated, if required, according to company requirements.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.5.5</strong>&lt;br&gt;All required follow-up action to the negotiations is carried out, including further discussions with the other party if necessary.&lt;br&gt;&lt;br&gt;<strong>AUM5802A.5.6</strong>&lt;br&gt;Outcomes of the negotiation are documented in accordance with company requirements.</td>
</tr>
</tbody>
</table>
RANGE OF VARIABLES:
- Make presentations and write formal reports.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

OH&S practices must abide by:
- State/industry OH&S legislation
- Award provisions

Resources may include:
- Level of supervision (operates independently or with minimal supervision)
- Type of communication (as per company requirements)
- Documentation and reporting systems (as per company requirements)
- Occupational health and safety standards (as per company and statutory requirements)

Methods include:
- Communicating information verbally
- Communicating information in written form
- Achieving meeting outcomes
- Making a presentation
- Negotiating a solution

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to communicate information verbally
- How to communicate information in written form
- How to achieve meeting outcomes
- How to make a presentation
- How to negotiate a solution
Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

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AUM5803A COMMUNICATE INFORMATION - Complex

UNIT DESCRIPTOR: This unit identifies the competence required to communicate effectively with other persons on matters related to the design, development and production of motor vehicles. This includes communicating verbally, communicating in written form, participating in meetings, making presentations, and conducting negotiations.

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AUM5803A.1.2 A suitable verbal communication style is selected, where possible, to match the communication purpose and audience.  
AUM5803A.1.3 Verbal information that is given to others is delivered clearly, succinctly and unambiguously.  
AUM5803A.1.4 Where verbal information has been given to others, the received information is checked with the listener(s) to ensure it has been received accurately and understood.  
AUM5803A.1.5 Verbal information that is received from others is listened to carefully and intently.  
AUM5803A.1.6 Where verbal information has been received from others, its meaning is checked with the speaker to ensure that it has been received accurately and understood.  
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<td>AUM5803A.4.1 The purpose of a presentation is identified and clarified with organiser(s), and where appropriate, confirmed with the intended audience.</td>
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<td>AUM5803A.4.2 The information to be communicated in a presentation is suitably organised and structured in accordance with company requirements.</td>
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<td>AUM5803A.4.4 Presentation aids such as overhead projector transparencies, 35 mm slides, handouts, speech notes, and demonstrations are organised and prepared in advance, as required, in accordance with recognised standards of good practice.</td>
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<td>AUM5803A.4.6 The presentation is made as planned with attention to the reactions and feedback provided by the audience.</td>
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<tr>
<td></td>
<td>AUM5803A.5.5 All required follow-up action to the negotiations is carried out, including further discussions with the other party if necessary.</td>
</tr>
<tr>
<td></td>
<td>AUM5803A.5.6 Outcomes of the negotiation are documented in accordance with company requirements.</td>
</tr>
</tbody>
</table>
RANGE OF VARIABLES:
• Conducting complex negotiations with a customer or supplier

Example of the application of this competency unit may include the following:
• Demonstrate understanding of specialised knowledge with depth in some areas
• Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
• Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
• Generate ideas through the analysis of information and concepts at an abstract level
• Demonstrate accountability for personal outputs within broad parameters
• Demonstrate accountability for group outcomes within broad parameters.

Note: The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

Sources of information/documents may include:
• Manufacturer specifications
• Enterprise operating procedures
• Product manufacturer specifications
• Customer requirements
• Industry/Workplace Codes of Practice

OH&S practices must abide by:
• State/industry OH&S legislation
• Award provisions

Resources may include:
• Level of supervision (operates independently or with minimal supervision)
• Type of communication (as per company requirements)
• Documentation and reporting systems (as per company requirements)
• Occupational health and safety standards (as per company and statutory requirements)

Methods include:
• Communicating information verbally
• Communicating information in written form
• Achieving meeting outcomes
• Making a presentation
• Negotiating a solution

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:

Context:
• Competency must be assessed in a safe working environment.
• Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
• The knowledge and practical component may be assessed in an on- or off-the-job environment.
• Assessment may take place within the work place or appropriate simulated environment.
• The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Automotive Manufacturing – PMV Sector

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to communicate information verbally
- How to communicate information in written form
- How to achieve meeting outcomes
- How to make a presentation
- How to negotiate a solution

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies: Level
Collect, analyse and organise information 3
Communicate ideas and information 3
Plan and organise activities 3
Work with others and in teams 3
Use mathematical ideas and techniques 3
Solve problems 3
Use technology 3
### AUM5903A
**SEEK, EVALUATE, ORGANISE AND PREPARE INFORMATION - Complex**

**UNIT DESCRIPTOR:** This unit identifies the competence required to gather, assess, record and store relevant information to assist in decision making.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM5903A.1 Obtain and evaluate information. | AUM5903A.1.1 Information is sought and updated on all relevant factors and problems which affect the supervisor's area of responsibility.  
AUM5903A.1.2 Information collected is relevant and sufficient.  
AUM5903A.1.3 A variety of sources of information are regularly reviewed for usefulness, reliability and cost.  
AUM5903A.1.4 Channels and sources of information are used effectively.  
AUM5903A.1.5 Opportunities are taken to establish and maintain contacts with those who may provide useful information.  
AUM5903A.1.6 Where information is unclear or difficult to understand, clarification and assistance is sought.  
AUM5903A.1.7 Where available information is inadequate, additional information is obtained.  
AUM5903A.1.8 Information is assessed for its validity and reliability.  
AUM5903A.1.9 Information is organised into a suitable form to aid decision-making.  
AUM5903A.1.10 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence. |
| AUM5903A.2 Record and store information. | AUM5903A.2.1 Information recorded is accurate, complete and legible.  
AUM5903A.2.2 Information is recorded and stored using accepted formats, systems and company procedures.  
AUM5903A.2.3 Information can be retrieved promptly when required. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM5903A.2 (continued)</td>
<td>AUM5903A.2.4</td>
</tr>
<tr>
<td>Record and store information.</td>
<td>New methods of recording and storing information are researched and suggested.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Obtaining, evaluating, organising and preparing information involved in the design and development and/or the manufacturing process for vehicle assembly

Example of the application of this competency unit may include the following:
- Demonstrate understanding of specialised knowledge with depth in some areas
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills
- Generate ideas through the analysis of information and concepts at an abstract level
- Demonstrate accountability for personal outputs within broad parameters
- Demonstrate accountability for group outcomes within broad parameters.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Work area (as per company requirements)
- Type of information (operational information related to a supervisor's/team leader's area of responsibility)
- Level of supervision (operates independently or with minimal supervision)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Obtaining and evaluating information
- Recording and storing information

Methods should be applied under normal operating conditions.

**EVIDENCE GUIDE:**

**Context:**
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the workplace or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.
Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to obtain and evaluate information.
- How to record and store information.

Practical assessments:
- Perform work under the required level of supervision
- Demonstrate ability to perform work under the required level of supervision
- Knowledge of methods used for recording, storing and retrieving information
- Knowledge of procedures for the security and confidentiality of information
- Knowledge and application of relevant company procedures
- Knowledge and application of reporting and documentation requirements
- Knowledge of how to communicate effectively with team members, management and departments

Key Competencies: Level
Collect, analyse and organise information 3
Communicate ideas and information 3
Plan and organise activities 3
Work with others and in teams 3
Use mathematical ideas and techniques 3
Solve problems 3
Use technology 3
### UNIT DESCRIPTOR:
This unit identifies the competence to assess, in conjunction with professional and other staff, the competence of employees involved in development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM6001A.1 Prepare for assessment. | AUM6001A.1.1 The purpose and context of the assessment is clarified and established in accordance with company requirements.  
AUM6001A.1.2 The assessment procedure to be used is established or confirmed in accordance with company requirements including the evidence that is to be collected, the way in which the evidence is to be collected (observation, tests, projects etc.), and the criteria and rules to be used when making an assessment judgement.  
AUM6001A.1.3 The assessment procedures are communicated to the persons being assessed in accordance with company requirements. |
| AUM6001A.2 Collect evidence. | AUM6001A.2.1 Evidence for the assessment is collected using the planned procedures in accordance with company requirements.  
AUM6001A.2.2 Evidence is collated and analysed as required. |
| AUM6001A.3 Make assessment decision. | AUM6001A.3.1 The collected evidence is compared with the assessment criteria in accordance with established procedures and rules.  
AUM6001A.3.2 A judgement is made as to whether the assessment criteria have been met or not.  
AUM6001A.3.3 The assessment decision is documented in accordance with company requirements. |
| AUM6001A.4 Follow up on assessment outcomes. | AUM6001A.4.1 All company requirements in terms of follow-up action are implemented.  
AUM6001A.4.2 The outcomes of the assessment are communicated to the persons being assessed. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM6001A.4 (continued) Follow up on assessment outcomes.</td>
<td>AUM6001A.4.3 The persons being assessed are counselled about the outcomes of the assessment, the implications of the result, and any options for further action including re-testing, further training and appeals.</td>
</tr>
<tr>
<td>AUM6001A.5 Evaluate assessment process.</td>
<td>AUM6001A.5.1 The assessment process is evaluated in accordance with company procedures with particular attention to matters of validity, reliability, flexibility and fairness. AUM6001A.5.2 The results of the evaluation are documented in accordance with company procedures and referred to designated staff.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Carry out assessment of team members against known and agreed competency standards applied at a basic level utilising appropriate assessment techniques.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of assessment (as per company requirements)
- Level of supervision (operates independently or with minimal supervision)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Clarifying for assessment purposes
- Preparing for assessment
- Collecting evidence
- Making assessment decisions
- Following up on assessment outcomes
- Evaluating the assessment process

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to clarify assessment purpose
- How to prepare for assessment
- How to collect evidence
- How to make assessment decisions
- How to follow up on assessment outcomes
- How to evaluate the assessment process

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

| Collect, analyse and organise information | 3 |
| Communicate ideas and information | 3 |
| Plan and organise activities | 3 |
| Work with others and in teams | 2 |
| Use mathematical ideas and techniques | 1 |
| Solve problems | 2 |
| Use technology | 2 |
### UNIT DESCRIPTOR:
This unit identifies the competence to assess, in conjunction with professional and other staff, the competence of employees involved in development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| AUM6002A.1 Prepare for assessment. | AUM6002A.1.1 The purpose and context of the assessment is clarified and established in accordance with company requirements.  
AUM6002A.1.2 The assessment procedure to be used is established or confirmed in accordance with company requirements including the evidence that is to be collected, the way in which the evidence is to be collected (observation, tests, projects etc.), and the criteria and rules to be used when making an assessment judgement.  
AUM6002A.1.3 The assessment procedures are communicated to the persons being assessed in accordance with company requirements. |
| AUM6002A.2 Collect evidence. | AUM6002A.2.1 Evidence for the assessment is collected using the planned procedures in accordance with company requirements.  
AUM6002A.2.2 Evidence is collated and analysed as required. |
| AUM6002A.3 Make assessment decision. | AUM6002A.3.1 The collected evidence is compared with the assessment criteria in accordance with established procedures and rules.  
AUM6002A.3.2 A judgement is made as to whether the assessment criteria have been met or not.  
AUM6002A.3.3 The assessment decision is documented in accordance with company requirements. |
| AUM6002A.4 Follow up on assessment outcomes. | AUM6002A.4.1 All company requirements in terms of follow-up action are implemented.  
AUM6002A.4.2 The outcomes of the assessment are communicated to the persons being assessed. |
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM6002A.4 (continued) Follow up on assessment outcomes.</td>
<td>AUM6002A.4.3 The persons being assessed are counselled about the outcomes of the assessment, the implications of the result, and any options for further action including re-testing, further training and appeals.</td>
</tr>
<tr>
<td>AUM6002A.5 Evaluate assessment process.</td>
<td>AUM6002A.5.1 The assessment process is evaluated in accordance with company procedures with particular attention to matters of validity, reliability, flexibility and fairness. AUM6002A.5.2 The results of the evaluation are documented in accordance with company procedures and referred to designated staff.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Carry out assessment of team members against known and agreed competency standards applied at an advanced level utilising appropriate assessment techniques.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of assessment (as per company requirements)
- Level of supervision (operates independently or with minimal supervision)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Clarifying for assessment purposes
- Preparing for assessment
- Collecting evidence
- Making assessment decisions
- Following up on assessment outcomes
- Evaluating the assessment process
Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to clarify assessment purpose
- How to prepare for assessment
- How to collect evidence
- How to make assessment decisions
- How to follow up on assessment outcomes
- How to evaluate the assessment process

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>3</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>3</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>3</td>
</tr>
<tr>
<td>Work with others and in teams</td>
<td>2</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>1</td>
</tr>
<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
<td>2</td>
</tr>
</tbody>
</table>
# AUM6003A ASSESS COMPETENCE - Complex

## UNIT DESCRIPTOR:
This unit identifies the competence required to assess in conjunction with professional and other staff, the competence of employees involved in development and production of motor vehicles.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM6003A.1 Prepare for assessment.</td>
<td>AUM6003A.1.1 The purpose and context of the assessment is clarified and established in accordance with company requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.1.2 The assessment procedure to be used is established or confirmed in accordance with company requirements including the evidence that is to be collected, the way in which the evidence is to be collected (observation, tests, projects etc.), and the criteria and rules to be used when making an assessment judgement.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.1.3 The assessment procedures are communicated to the persons being assessed in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM6003A.2 Collect evidence.</td>
<td>AUM6003A.2.1 Evidence for the assessment is collected using the planned procedures in accordance with company requirements.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.2.2 Evidence is collated and analysed as required.</td>
</tr>
<tr>
<td>AUM6003A.3 Make assessment decision.</td>
<td>AUM6003A.3.1 The collected evidence is compared with the assessment criteria in accordance with established procedures and rules.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.3.2 A judgement is made as to whether the assessment criteria have been met or not.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.3.3 The assessment decision is documented in accordance with company requirements.</td>
</tr>
<tr>
<td>AUM6003A.4 Follow up on assessment outcomes.</td>
<td>AUM6003A.4.1 All company requirements in terms of follow-up action are implemented.</td>
</tr>
<tr>
<td></td>
<td>AUM6003A.4.2 The outcomes of the assessment are communicated to the persons being assessed.</td>
</tr>
<tr>
<td>ELEMENT OF COMPETENCY</td>
<td>PERFORMANCE CRITERIA</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>AUM6003A.4 (continued) Follow up on assessment outcomes.</td>
<td>AUM6003A.4.3 The persons being assessed are counselled about the outcomes of the assessment, the implications of the result, and any options for further action including re-testing, further training and appeals.</td>
</tr>
<tr>
<td>AUM6003A.5 Evaluate assessment process.</td>
<td>AUM6003A.5.1 The assessment process is evaluated in accordance with company procedures with particular attention to matters of validity, reliability, flexibility and fairness. AUM6003A.5.2 The results of the evaluation are documented in accordance with company procedures and referred to designated staff.</td>
</tr>
</tbody>
</table>

**RANGE OF VARIABLES:**
- Carry out assessment of team members against known and agreed competency standards applied at a complex level utilising appropriate assessment techniques.

**Note:** The application of this competency standard must comply with the appropriate AQF level descriptor criteria.

**Sources of information/documents may include:**
- Manufacturer specifications
- Enterprise operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice

**OH&S practices must abide by:**
- State/industry OH&S legislation
- Award provisions

**Resources may include:**
- Type of assessment (as per company requirements)
- Level of supervision (operates independently or with minimal supervision)
- OH&S standards (as per company and statutory requirements)
- Documentation and reporting systems (as per company requirements)

**Methods include:**
- Clarifying for assessment purposes
- Preparing for assessment
- Collecting evidence
- Making assessment decisions
- Following up on assessment outcomes
- Evaluating the assessment process

Methods should be applied under normal operating conditions.
EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment.
- Assessment must be undertaken in accordance with endorsed industry assessment guidelines.
- The knowledge and practical component may be assessed in an on- or off-the-job environment.
- Assessment may take place within the work place or appropriate simulated environment.
- The trainee should be able to carry out the task to be assessed in a safe and correct manner without supervision on more than one occasion prior to assessment.

Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:
- Degree of complexity
- Safe working practices
- Documentation
- Technical specifications
- Planning

Underpinning knowledge:
- How to clarify assessment purpose
- How to prepare for assessment
- How to collect evidence
- How to make assessment decisions
- How to follow up on assessment outcomes
- How to evaluate the assessment process

Practical assessments:
- Perform work under the required level of supervision
- Use and maintain all required materials, tools and parts
- Diagnose and solve problems involved in the work
- Achieve specified quality standards
- Apply housekeeping standards
- Explain knowledge and application of occupational health and safety requirements
- Explain knowledge and application of required quality improvement techniques
- Demonstrate ability to minimise waste
- Explain knowledge and application of relevant company procedures
- Explain knowledge and application of emergency procedures
- Explain knowledge and application of reporting and documentation requirements
- Communicate effectively with team members, management and user departments

Key Competencies:

<table>
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</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
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<td>Communicate ideas and information</td>
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<tr>
<td>Plan and organise activities</td>
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<td>Work with others and in teams</td>
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<tr>
<td>Use mathematical ideas and techniques</td>
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<tr>
<td>Solve problems</td>
<td>2</td>
</tr>
<tr>
<td>Use technology</td>
<td>2</td>
</tr>
</tbody>
</table>
### AUMNT3001A Rectify faults in vehicle metal components

#### Unit Descriptor
This unit specifies the competency required to inspect, assess and repair damage to vehicle metal components as a result of manufacturing and production line damage or as a result of defective metal.

The unit includes the making of appropriate specialist tools/instruments to facilitate repair of the assessed damage or defect.

#### Element
Elements define the essential outcomes of a unit of competency.

#### Performance Criteria
Performance criteria specify the level of performance required to demonstrate achievement of the element.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Plan and prepare</td>
<td></td>
</tr>
<tr>
<td>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</td>
<td></td>
</tr>
<tr>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
<td></td>
</tr>
<tr>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
<td></td>
</tr>
<tr>
<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
<td></td>
</tr>
<tr>
<td>1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied</td>
<td></td>
</tr>
<tr>
<td>2 Assess damage/defect</td>
<td></td>
</tr>
<tr>
<td>2.1 Vehicle bodies/parts are inspected to confirm the extent and nature of damage or metal defect</td>
<td></td>
</tr>
<tr>
<td>2.2 Damage or defects found are assessed for remedial solution</td>
<td></td>
</tr>
<tr>
<td>2.3 Solution to repair the damage or defect is selected and planned</td>
<td></td>
</tr>
</tbody>
</table>
3 Produce specialised repair instruments

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Drawings or sketches are produced to design the necessary repair instruments to suit the assessed damage or defect</td>
</tr>
<tr>
<td>3.2</td>
<td>Equipment or tooling to make the instruments is selected</td>
</tr>
<tr>
<td>3.3</td>
<td>Instruments are produced according to drawings or sketches</td>
</tr>
<tr>
<td>3.4</td>
<td>Instruments are assessed and modified to suit the damage or defect</td>
</tr>
</tbody>
</table>

4 Repair damage/defect

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Damaged or defective area is prepared for repair</td>
</tr>
<tr>
<td>4.2</td>
<td>Specialist instruments and general body repair tools are applied to rectify the problem</td>
</tr>
<tr>
<td>4.3</td>
<td>Damage or defective area is finished to specifications</td>
</tr>
<tr>
<td>4.4</td>
<td>Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements</td>
</tr>
<tr>
<td>4.5</td>
<td>Repaired vehicle/parts are processed for inspection and returned to the production sequence</td>
</tr>
</tbody>
</table>

5 Clean up

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements</td>
</tr>
<tr>
<td>5.2</td>
<td>Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements</td>
</tr>
</tbody>
</table>
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to vehicle/part inspection, defect identification, assessment of conditions and hazards and determination of work requirements
- Vehicle bodies/parts include panels, doors, bonnets, boot lids and hatches and may include individual components, part or fully fabricated bodies
- Defective metal may include but not be limited to crazed areas, thickness inaccuracies, impregnations, cracks or splits
- Damaged metal may include but not be limited to dents, cuts, bumps, abrasions and holes incurred as a result of accidental incidents, error or supplier/delivery mis-handling
- Individually produced instruments may be produced from but not limited to metal (steel, cast or alloy), timber or plastic
- Preparation of damaged or defective area is to include but not be limited to wiping, cleaning, scuffing and removal of all foreign matter
- Finishing of damaged or defective area is to include but not be limited to grinding, sanding and may include the use of levelling compound

Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
Safety (OH&S) continued

- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements

- Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment

- Tools and equipment are to include but not be limited to standard body work tools, individually produced tools/instruments and tool making machinery and equipment

Materials

- Materials are to include but not be limited to metal and may include plastic, timber, abrasive sheeting and levelling compound

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to rectification of faults in vehicle metal components
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Inspection, assessment and rectification on a minimum of 5 separate and different damage incidents and at least 1 defective metal problem, to specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Automotive Industry terminology
  - Enterprise manufacturing and production techniques for vehicle metal components
  - Specialist metal repair tools and equipment types, characteristics, uses and limitations
  - Metal properties and workability limitations
  - Metal damage and defects
  - Metal component body repair techniques
  - Tool making equipment and techniques
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? **The candidate will need to:**
<table>
<thead>
<tr>
<th>Skill Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>Collect, organise, interpret and understand the information required for rectifying faults in vehicle metal components, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>Conduct activities associated with rectifying faults in vehicle metal components, including the coordination and use of equipment, materials and tools to avoid backtracking and rework</td>
</tr>
<tr>
<td>Work with others and in a team</td>
<td>Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity</td>
</tr>
<tr>
<td>Solve problems</td>
<td>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</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Use mathematical ideas and techniques to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks</td>
</tr>
<tr>
<td>Use technology</td>
<td>Use workplace technology related to rectifying faults in vehicle metal components, including the use of computers, measuring equipment, computerised equipment, sophisticated machinery, the use of communication devices and the reporting/recording of results</td>
</tr>
</tbody>
</table>
| The context of assessment | - The application of competency is to be assessed in the workplace or realistically simulated automotive site  
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints  
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards |
Methods of assessment

• Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package

• Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge

• Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies

• 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

Specific resource requirements for this unit

• The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to rectifying faults in vehicle metal components
  - equipment, hand and power tools appropriate to rectifying faults in vehicle metal components
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
AUMNT3002A Rectify paintwork

Unit Descriptor

This unit specifies the competency required to assess and repair paintwork on vehicle bodies and parts as a result of manufacturing and production line damage or as a result of defective painting procedures.

The unit includes the preparation of, repainting, drying and detailing of the repaired area.

Element

Performance Criteria

Elements define the essential outcomes of a unit of competency.

Performance criteria specify the level of performance required to demonstrate achievement of the element.

1 Plan and prepare

1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied

1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures

1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement

1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use

1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied

2 Assess paintwork damage/defect

2.1 Vehicle bodies/parts are inspected to confirm the extent and nature of paintwork damage or defect

2.2 Damaged or defective paintwork is analysed and assessed for remedial solution

2.3 Solution to repair the damage or defect is selected and planned
3 Repair paintwork damage/defect

3.1 Adjoining areas to the damaged/defective area are protected from the repair work procedures

3.2 Damaged or defective area is prepared for repair

3.3 Paint repair equipment and materials are selected and applied

3.4 Paint is applied to the damaged/defective area

3.5 Drying method is selected and applied for the vehicle being repaired

3.6 Damage or defective area is finished to specifications

3.7 Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements

3.8 Repaired vehicle is processed for inspection and return to production sequence

4 Clean up

4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

4.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to vehicle/part inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- Vehicle bodies include panels, doors, bonnets, boot lids and hatches and may include individual components or fully painted bodies

- Defective paintwork may include but not be limited to crazed areas, thickness and layer inaccuracies, impregnations, bubbles, orange peel effect and runs

- Damaged paintwork may include but not be limited to chips, abrasions, scratches and marks incurred as a result of accidental incidents

- Preparation of damaged or defective paintwork is to include but not be limited to wiping, cleaning, scuffing, levelling, rubbing back and removal of all foreign matter
Unit scope (continued)  
• Painting may include but not be limited to spray booth operations or partial spot painting  
• Drying methods may include but not be limited to oven baking, bar heating, fan heating or hot air blowers  
• Finishing of damaged or defective paintwork is to include but not be limited buffing and polishing  

Safety (OH&S)  
• OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances  
• Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices  
• Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors  
• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation  

Environmental Requirements  
• Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management  

Quality Requirements  
• Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures  

Statutory/Regulatory Authorities  
• Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice
Tools and equipment

- Tools and equipment are to include but not be limited to hand and power tools, vehicle protection equipment, high pressure guns, airless spray equipment, squeeze bottles, air recirculating systems, paint recirculating systems, extension nozzles, paint brushes, knives, air discs, hand sanding equipment, air oscillating sanding machines, tape dispensers, baths, spraying washes, manual wash guns, baking ovens, bar heaters, fans, hot air blowers and may include automatic/robotic spraying systems, lifting equipment and scaffolding.

Materials

- Materials and paint are to include but not be limited to phosphate dips, primer coatings, colour coatings, anti-chip materials, etch primers, lacquers, enamels, two pack paints, sealers, solvents, masking tapes and papers, abrasive papers, spirit wipes and de-mineralised water.

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers.

Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches.

- Safe work procedures related to rectification of paintwork.

- Regulatory/legislative requirements pertaining to painting operations.

- Engineers design specifications and instructions.

- Organisation work specifications and requirements.

- Instructions issued by authorised enterprise or external personnel.

- Relevant Australian Standards.
Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of analysis, assessment and rectification of at least 2 separate and different paint damage incidents and a minimum of 3 separate and different paint defects, to specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Automotive Industry terminology
  - Enterprise manufacturing and production techniques for vehicle painting
  - Tools and equipment types, characteristics, uses and limitations
  - Paint viscosity and limitations
  - Paint damage and defects
  - Paint repair techniques and equipment
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? **The candidate will need to:**
<table>
<thead>
<tr>
<th>Skill Description</th>
<th>Description</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>Collect, organise, interpret and understand the information required for rectifying paintwork faults, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions.</td>
<td>Level 2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes.</td>
<td>Level 2</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>Conduct activities associated with rectifying paintwork imperfections, including the coordination and use of equipment, materials and tools to avoid backtracking and rework.</td>
<td>Level 2</td>
</tr>
<tr>
<td>Work with others and in a team</td>
<td>Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity.</td>
<td>Level 2</td>
</tr>
<tr>
<td>Solve problems</td>
<td>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.</td>
<td>Level 1</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Use mathematical ideas and techniques to correctly calculate time, assess quantities, apply accurate measurements, calculate material requirements and establish quality checks.</td>
<td>Level 2</td>
</tr>
<tr>
<td>Use technology</td>
<td>Use workplace technology related to rectifying paintwork faults, including the use of computers, measuring equipment, computerised equipment, paint mixing equipment, the use of communication devices and the reporting/recording of results.</td>
<td>Level 2</td>
</tr>
</tbody>
</table>

**The context of assessment**

- The application of competency is to be assessed in the workplace or realistically simulated automotive site.
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards.
Methods of assessment

• Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package

• Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge

• Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies

• 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

Specific resource requirements for this unit

• The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to rectifying paintwork faults
  - equipment, hand and power tools appropriate to rectifying paintwork faults
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
### AUMNT3003A Control paint line production processes

#### Unit Descriptor
This unit specifies the competency required to control paint line production processes ensuring the paint continues to flow at a consistent viscosity and volume, avoiding vehicle painting inconsistencies.

The unit includes quality control of the paint line, rectification of problems and anticipation of supply problems.

#### Element
Elements define the essential outcomes of a unit of competency.

#### Performance Criteria
Performance criteria specify the level of performance required to demonstrate achievement of the element.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Plan and prepare</td>
<td>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</td>
</tr>
<tr>
<td></td>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
</tr>
<tr>
<td></td>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
</tr>
<tr>
<td></td>
<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
</tr>
<tr>
<td></td>
<td>1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied</td>
</tr>
<tr>
<td>2 Assess paint line flow</td>
<td>2.1 Paint line sterile environment is monitored and maintained</td>
</tr>
<tr>
<td></td>
<td>2.2 Flow of paint lines is checked for inconsistencies</td>
</tr>
<tr>
<td></td>
<td>2.3 Paint viscosity is regularly checked for consistency</td>
</tr>
<tr>
<td></td>
<td>2.4 Paint arriving from the supplier is checked for batch accuracy and viscosity prior to adding to the paint line</td>
</tr>
<tr>
<td></td>
<td>2.5 Forward planning of paint supply and production requirements is monitored to ensure steady flow or smooth transition to next colour</td>
</tr>
</tbody>
</table>
3 Remedy paint line production problems

3.1 Production line problems are assessed and cause located

3.2 Cause of problem is analysed and rectified

3.3 Paint line procedures are reassessed to avoid the same problem from reoccurring

3.4 Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements

4 Clean up

4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

4.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to product inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- A sterile environment includes one free of foreign bodies and dust which potentially may foul the paint lines

- Viscosity relates to the semifluid nature of paint, by its own nature is subsequently not free flowing, requiring correct levels of pressure to be maintained on the paint lines

- Viscosity testing is to include but not be limited to the measuring of viscosity using a viscosimeter

- Inconsistencies in flow may include but not be limited to air bubbles, hard lumps, blockages and paint supply inconsistency
Safety (OH&S) • OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

• Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

• Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements • Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements • Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities • Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment • Tools and equipment are to include but not be limited to hand and power tools, viscosimeter and other paint testing apparatus

Materials • Materials are to include but not be limited to paint

Communications • Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to control of paint line production processes
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of a paint line assessment including entry of a new batch of same colour paint and assessment of a changeover to a new colour
- Rectification of at least two different paint line faults including all enterprise documentation and reporting requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques for vehicle painting
  - Automotive Industry terminology
  - Tools and equipment types, characteristics, uses and limitations
  - Paint viscosity and limitations
  - Paint line systems
  - Paint line control techniques
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information
Collect, organise, interpret and understand the information required for controlling paint line production processes, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Plan and organise activities
Conduct activities associated with controlling paint line production processes, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Solve problems
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
Use mathematical ideas and techniques to correctly calculate time, assess quantities, apply accurate measurements, calculate material requirements and establish quality checks

Use technology
Use workplace technology related to controlling paint line production processes, including the use of computers, measuring equipment, computerised equipment, paint viscosity testing equipment, the use of communication devices and the reporting/recording of results

The context of assessment
- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to controlling paint line production processes
  - equipment, hand and power tools appropriate to controlling paint line production processes
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
**AUMNT3004A**  
**Conduct engine hot test**

**Unit Descriptor**  
This unit specifies the competency required to assess the status of an engine for operating inconsistencies or faults by connecting it to all service requirements and running it for a designated duration.

The unit includes the transfer of the engine to and from the inspection cradle, the connection and disconnection of services, the completion of computer/keypad aided and manual/sensory testing to specification and the reporting of non-conforming engines. The competency must require testing beyond that involving only computer/keypad aided monitoring systems.

**Element**  
Elements define the essential outcomes of a unit of competency.

**Performance Criteria**  
Performance criteria specify the level of performance required to demonstrate achievement of the element.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Plan and prepare</td>
<td>1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied</td>
</tr>
<tr>
<td></td>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
</tr>
<tr>
<td></td>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
</tr>
<tr>
<td></td>
<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
</tr>
<tr>
<td>2 Shift engine</td>
<td>2.1 Engine is transferred from the assembly line to the engine testing area</td>
</tr>
<tr>
<td></td>
<td>2.2 Engine is located in position ready for hot test procedures</td>
</tr>
<tr>
<td></td>
<td>2.3 Engines which pass inspection are transferred back to the assembly line</td>
</tr>
<tr>
<td></td>
<td>2.4 Non-conforming engines are transferred to the engine rectification area</td>
</tr>
</tbody>
</table>
3 Engine is hot tested

3.1 Engine is mounted in the engine testing cradle

3.2 Services are connected to the engine simulating normal operating conditions

3.3 Engine is brought to hot operating conditions

3.4 Computerised/keypad aided and manual/sensory tests are conducted on all operating facets of the engine against designated performance specifications

3.5 Minor modifications are carried out in accordance with enterprise procedures

3.6 Results of all tests are recorded and documented

3.7 Engine is designated as conforming or requiring rectification required, labelled and prepared for transfer

4 Clean up

4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

4.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to engine inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- Designated performance specifications for the engine are to include those contained in computer/keypad aided monitors, sensory indicators and specifications external to the monitoring systems

- Hot testing includes running an engine from initial ignition until hot and while hot, facilitating testing in normal operating temperature conditions.

- Testing may include but not be limited to discovery of faults such as ignition, misfire, bore discrepancies, fuel, electrical, exhaust, cooling, emission control, faulty seals and gaskets, leaks, abnormal noises and all other engine operations and parts
| Unit scope (continued) | • Load shifting equipment for movement of engines to and from assembly line and engine testing area are to include hoist, gantry crane and slings |
| Safety (OH&S) | • Engine services are to include but not be limited to fuel (or gas), oil, water, electrics and may include air |
| • OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances |
| • Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices |
| • Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors |
| • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation |
| Environmental Requirements | • Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management |
| Quality Requirements | • Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures |
| Statutory/Regulatory Authorities | • Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice |
| Tools and equipment | • Tools and equipment are to include but not be limited to testing devices, hoist, slings, gantry crane and relevant hand and power tools |
| Materials | • Materials are to include but not be limited to fuel, oil, water and may include gas |
Communications

• Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, two way radio, hand signals, telephones and pagers

Information

• Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches

• Safe work procedures related to hot testing engines

• Regulatory/legislative requirements pertaining to Automotive manufacturing

• Engineers design specifications and instructions

• Organisation work specifications and requirements

• Instructions issued by authorised enterprise or external personnel

• Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

• Location, interpretation and application of relevant information, standards and specifications

• Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations

• Compliance with enterprise policies and procedures including quality requirements

• Safe and effective operational use of tools and equipment

• Communication and working effectively and safely with others

• Application of hot test procedures to correctly identify a minimum of 5 different and significant non-conforming engines, which must include faults identified using both computer/keypad aided systems and manual/sensory capabilities
Relationship to other units
- None

Specific knowledge required to achieve the performance criteria
- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques for engines
  - Automotive Industry terminology
  - Tools and equipment types, characteristics, uses and limitations
  - Engine faults and symptoms
  - Engine parts and construction
  - Engine testing techniques and equipment
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria
These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information
Collect, organise, interpret and understand the information required for hot testing engines, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Plan and organise activities
Conduct activities associated with hot testing engines, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Solve problems
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
Use mathematical ideas and techniques to correctly calculate time, assess tolerances, bore and timing, apply accurate measurements, and establish quality checks

Use technology
Use workplace technology related to hot testing engines, including the use of computers, measuring equipment, computerised equipment, engine testing equipment, the use of communication devices and the reporting/recording of results

The context of assessment
• The application of competency is to be assessed in the workplace or realistically simulated automotive site
• Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
• Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to hot test engines
  - equipment, hand and power tools appropriate to hot test engines
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
## AUMNT3005A Rework production engines

### Unit Descriptor
This unit specifies the competency required to rework an engine after testing has discovered operating inconsistencies or faults.

The unit includes confirmation (or variation) of the test findings, detailed diagnosis, selection and application of the rework technique and correction of the fault.

### Element
Elements define the essential outcomes of a unit of competency.

<table>
<thead>
<tr>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements define the essential outcomes of a unit of competency.</td>
</tr>
</tbody>
</table>

### Performance Criteria
Performance criteria specify the level of performance required to demonstrate achievement of the element.

<table>
<thead>
<tr>
<th>1 Plan and prepare</th>
<th>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
</tr>
<tr>
<td></td>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
</tr>
<tr>
<td></td>
<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
</tr>
<tr>
<td></td>
<td>1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Validate, confirm or vary test findings</th>
<th>2.1 Engine is mounted in the engine testing cradle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.2 Services are connected to the engine simulating normal operating conditions</td>
</tr>
<tr>
<td></td>
<td>2.3 Engine is brought to hot operating conditions</td>
</tr>
<tr>
<td></td>
<td>2.4 Computerised and/or physical tests are conducted on the reported faults of the engine against designated performance specifications</td>
</tr>
<tr>
<td></td>
<td>2.5 Results of all tests are confirmed or varied and documented</td>
</tr>
</tbody>
</table>
3 Rectify engine fault

3.1 Fault is located

3.2 Fault is diagnosed and suitable method of correction planned

3.3 Minor and/or major rectification is applied, dependent on the fault and in accordance with engineering specifications

3.4 Engine is re-tested to ensure rework has eliminated the fault and final adjustments made

3.5 Documentation is completed outlining work conducted and outcome, in accordance with enterprise requirements

3.6 Engine is transferred to the designated holding area

4 Clean up

4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

4.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

**Range Statement**

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

**Unit scope**

- Planning and preparation is to include but not be limited to engine inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- Engine testing includes running an engine from initial ignition until hot and while hot, facilitating testing in normal operating temperature conditions.

- Testing and validation may include but not be limited to confirmation of faults such as ignition, misfire, bore discrepancies, fuel, electrical, exhaust, cooling, emission control, faulty seals and gaskets, leaks, abnormal noises and all other engine operations and parts

- Engine services are to include but not be limited to fuel (or gas), oil, water, electrics and may include air

- Location, diagnosis and rectification of faults may require manual dismantling of part or whole of the engine and subsequent rebuilding
Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements

- Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment

- Tools and equipment are to include but not be limited to testing devices, hoist, slings, gantry crane and relevant hand and power tools

Materials

- Materials are to include but not be limited to replacement parts, fuel, oil, water, seals, gaskets and may include gas

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to reworking production engines
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Safe and effective handling and placement of the engine
- Completion of diagnosis and rectification of at least 5 separate, different and significant engine faults to engineers specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques of engines
  - Automotive Industry terminology
  - Mechanical principles and functions within engines
  - Tools and equipment types, characteristics, uses and limitations
  - Engine faults and symptoms
  - Engine testing techniques and equipment
  - Engine rework techniques and equipment
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information

Collect, organise, interpret and understand the information required for reworking production engines, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Level 2

Communicate ideas and information

Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Level 1

Plan and organise activities

Conduct activities associated with reworking production engines, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Level 2

Work with others and in a team

Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Level 1

Solve problems

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

Level 2

Use mathematical ideas and techniques

Use mathematical ideas and techniques to correctly calculate time, assess tolerances, bore and timing, apply accurate measurements, and establish quality checks

Level 2

Use technology

Use workplace technology related to reworking production engines, including the use of measuring equipment, computerised equipment, engine testing equipment, the use of communication devices and the reporting/recording of results

Level 2

The context of assessment

- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
**Methods of assessment**

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

**Specific resource requirements for this unit**

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to reworking of production engines
  - equipment, hand and power tools appropriate to reworking of production engines
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
### AUMNT3006A

**Rectify mechanical faults on assembled vehicles**

**Unit Descriptor**

This unit specifies the competency required to rectify mechanical faults based on recommendations from the inspection records and report of the fully assembled vehicle.

The unit includes location, diagnosis and rectification of the faults in an off-line environment.

### Performance Criteria

**Elements** define the essential outcomes of a unit of competency.

**Performance Criteria** specify the level of performance required to demonstrate achievement of the element.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
</table>
| **1 Plan and prepare** | 1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied  
1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures  
1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement  
1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use  
1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied |
| **2 Diagnose and rectify mechanical fault** | 2.1 Inspection report is interpreted and fault located  
2.2 Fault is diagnosed and suitable method of correction planned  
2.3 Rectification is applied, dependent on the fault and in accordance with engineering specifications  
2.4 Fault is re-diagnosed to assess outcome of rectification and to ensure rework has eliminated the fault and final adjustments made  
2.5 Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements  
2.6 Vehicle is returned to production sequence |
3 Clean up

3.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

3.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to vehicle inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- Mechanical diagnosis includes applying diagnostic equipment to the engine which measures non-conformations in performance and highlights the amount of change necessary to rectify the fault

- Rectification of mechanical faults may include but not be limited to detection of faults such as misfire, bore discrepancies, fuel, exhaust, cooling, faulty gaskets, leaks, abnormal noises, mounting systems, steering, brake systems, suspension and all other mechanical operations and parts

- Location, diagnosis and rectification of faults may require minor in vehicle dismantling of mechanical parts and subsequent rebuilding
Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements

- Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment

- Tools and equipment are to include but not be limited to mechanical diagnostic equipment and relevant hand and power tools

Materials

- Materials are to include but not be limited to replacement parts, fuel, oil, water, seals, gaskets, brake fluids, lubricants and may include gas

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to mechanical rectification
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of diagnosis and rectification of mechanical faults on a minimum of five (5) separate vehicles each with different faults, rectified to engineers specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques for mechanical components and systems
  - Automotive Industry terminology
  - Tools and equipment types, characteristics, uses and limitations
  - Mechanical faults and symptoms
  - Engine parts and construction
  - Mechanical diagnosis techniques
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
<table>
<thead>
<tr>
<th>Skill Description</th>
<th>Description</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, analyse and organise information</td>
<td>Collect, organise, interpret and understand the information required for mechanical rectification, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions</td>
<td>Level 2</td>
</tr>
<tr>
<td>Communicate ideas and information</td>
<td>Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes</td>
<td>Level 1</td>
</tr>
<tr>
<td>Plan and organise activities</td>
<td>Conduct activities associated with mechanical rectification, including the coordination and use of equipment, materials and tools to avoid backtracking and rework</td>
<td>Level 2</td>
</tr>
<tr>
<td>Work with others and in a team</td>
<td>Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity</td>
<td>Level 1</td>
</tr>
<tr>
<td>Solve problems</td>
<td>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</td>
<td>Level 1</td>
</tr>
<tr>
<td>Use mathematical ideas and techniques</td>
<td>Use mathematical ideas and techniques to correctly calculate time, assess tolerances and timing, apply accurate measurements, and establish quality checks</td>
<td>Level 1</td>
</tr>
<tr>
<td>Use technology</td>
<td>Use workplace technology related to mechanical rectification, including the use of computers, measuring equipment, computerised equipment, mechanical diagnostic equipment, the use of communication devices and the reporting/recording of results</td>
<td>Level 1</td>
</tr>
</tbody>
</table>
| The context of assessment         | • The application of competency is to be assessed in the workplace or realistically simulated automotive site  
• Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints  
• Assessment is to comply with relevant regulatory requirements including specified Australian Standards |
Methods of assessment

• Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package

• Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge

• Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies

• 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

Specific resource requirements for this unit

• The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to mechanical rectification
  - equipment, hand and power tools appropriate to mechanical rectification
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
**AUMNT3007A**  
**Rectify electrical faults on assembled vehicles**

**Unit Descriptor**  
This unit specifies the competency required to rectify electrical faults based on recommendations from the inspection records and report of the fully assembled vehicle.

The unit includes location, diagnosis and rectification of the faults in an off-line environment.

<table>
<thead>
<tr>
<th>Elements</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td><strong>Performance Criteria</strong></td>
</tr>
<tr>
<td>Elements define the essential outcomes of a unit of competency.</td>
<td>Performance criteria specify the level of performance required to demonstrate achievement of the element.</td>
</tr>
<tr>
<td><strong>1</strong> Plan and prepare</td>
<td></td>
</tr>
</tbody>
</table>
1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied  
1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures  
1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement  
1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use  
1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied |
| **2** Diagnose and rectify electrical fault |  
2.1 Final report is interpreted and fault located  
2.2 Fault is diagnosed and suitable method of correction planned  
2.3 Rectification is applied, dependent on the fault and in accordance with engineering specifications  
2.4 Fault is re-diagnosed to assess outcome of rectification and to ensure rework has eliminated the fault and final adjustments made  
2.5 Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements  
2.6 Vehicle is returned to production line |
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to vehicle inspection, defect identification, assessment of conditions and hazards and determination of work requirements
- Electrical diagnosis includes applying diagnostic equipment to the circuitry which measures non-conformities in performance and highlights the amount of change necessary to rectify the fault
- Rectification of electrical faults may include but not be limited to detection of faults such as ignition, electronics, computerised programs, engine management systems, emission control, lights, dashboard display, air conditioning, heating and all other electrical operations and parts
- Location, diagnosis and rectification of faults may require minor in vehicle dismantling of circuitry and parts and the subsequent rebuilding
Safety (OH&S) • OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

• Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

• Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements • Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements • Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities • Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment • Tools and equipment are to include but not be limited to electrical/electronic diagnostic equipment, test lamp, multimeter and relevant hand and power tools

Materials • Materials are to include but not be limited to electrical/electronic cabling and circuitry components

Communications • Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to electrical rectification
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of diagnosis and rectification of electrical faults on a minimum of five (5) separate vehicles each with different faults, rectified to engineers specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

• A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques for electrical components and systems
  - Automotive Industry terminology
  - Tools and equipment types, characteristics, uses and limitations
  - Vehicle electrical systems
  - Electrical faults and symptoms
  - Electrical diagnosis techniques
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information

Collect, organise, interpret and understand the information required for electrical rectification, including work instructions, plans sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Level 2

Communicate ideas and information

Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Level 1

Plan and organise activities

Conduct activities associated with electrical rectification, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Level 2

Work with others and in a team

Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Level 1

Solve problems

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

Level 1

Use mathematical ideas and techniques

Use mathematical ideas and techniques to correctly calculate time, assess tolerances and timing, apply accurate measurements, and establish quality checks

Level 1

Use technology

Use workplace technology related to electrical rectification, including the use of computers, measuring equipment, computerised equipment, electrical diagnostic equipment, the use of communication devices and the reporting/recording of results

Level 1

The context of assessment

- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package

- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge

- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies

- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to electrical rectification
  - equipment, hand and power tools appropriate to electrical rectification
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
### AUMNT3008A Rectify assembly faults in assembled vehicles

**Unit Descriptor**

This unit specifies the competency required to rectify assembly faults, including sealing systems, based on recommendations from the inspection records and report of the fully assembled vehicle. It covers all faults not catered for under units AUMNT3006A (Mechanical) and AUMNT3007B (Electrical).

The unit includes location, diagnosis, rectification of the assembly and sealing faults and full re-assembly in an off-line environment.

**Element**

Elements define the essential outcomes of a unit of competency.

<table>
<thead>
<tr>
<th>Performance Criteria</th>
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<tbody>
<tr>
<td><strong>1. Plan and prepare</strong></td>
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</table>
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

**Unit scope**

- Planning and preparation is to include but not be limited to vehicle inspection, defect identification, assessment of conditions and hazards and determination of work requirements
- Assembly faults are those not covered in units AUMNT3006A (Mechanical) and AUMNT3007A (Electrical). They may include the non-electrical aspects of the instrument panel and associated parts, doors, locks, windows, upholstery and trimming
- Sealing system assessment includes applying water testing systems to the body seals which reveal non-conformities in sealing performance
- Sealing system faults may include but not be limited to faults such as holes, pinches, separation, de-bonding, twisting, perishing and raised segments and all other anomalies
- Rectification of sealing system faults may include but not be limited to the whole or partial replacement of sealing materials, the fixing of materials and the application of adhesives and other sealing consumables
- Location, assessment and rectification of faults requires in-vehicle dismantling to permit access to fault areas and associated parts and the subsequent rebuilding/re-assembly of the vehicle/components
Safety (OH&S)

• OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

• Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

• Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements

• Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management

Quality Requirements

• Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities

• Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment

• Tools and equipment are to include but not be limited to hand and power tools and water testing equipment,

Materials

• Materials are to include but not be limited to assembly line consumables and parts, seal material and seal bonding agents

Communications

• Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information

• Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches

• Safe work procedures related to assembly and sealing system rectification

• Regulatory/legislative requirements pertaining to Automotive manufacturing

• Engineers design specifications and instructions

• Organisation work specifications and requirements

• Instructions issued by authorised enterprise or external personnel

• Relevant Australian Standards
Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of the diagnosis, rectification and re-assembly to specification covering a minimum of five (5) significant assembly faults including those requiring:
  - the removal and re-assembly of the instrument panel
  - the disassembly and re-assembly of door components
  - the replacement of upholstery
  - the replacement of trimming
- Completion of diagnosis and rectification to specification of sealing system faults on a minimum of five (5) separate vehicles including a minimum of:
  - one involving a door
  - one involving a windscreen seal
  - one involving a boot seal fault; and
  - one involving the forward passenger compartment floor

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Automotive Industry terminology
  - Enterprise manufacturing and production techniques for vehicle assembly and sealing systems
  - Common assembly and sealing system faults
  - Tools and equipment types, characteristics, uses and limitations
  - Sealing system testing techniques including water testing
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards
  - Vehicle components and systems

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information
Collect, organise, interpret and understand the information required for assembly and sealing system rectification, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions
Level 2

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes
Level 2

Plan and organise activities
Conduct activities associated with assembly and sealing system rectification, including the coordination and use of equipment, materials and tools to avoid backtracking and rework
Level 2

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity
Level 2

Solve problems
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
Level 1

Use mathematical ideas and techniques
Use mathematical ideas and techniques to correctly calculate time, assess tolerances and timing, apply accurate measurements, and establish quality checks
Level 2

Use technology
Use workplace technology related to assembly and sealing system rectification, including the use of computers, measuring equipment, computerised equipment, water testing equipment, the use of communication devices and the reporting/recording of results
Level 2

The context of assessment
- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to the assembly and sealing system rectification
  - equipment, hand and power tools appropriate to assembly and sealing system rectification
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
AUMNT3009A Conduct die coating

Unit Descriptor

This unit specifies the competency required to conduct die coating, using insulation material, to provide separation between the die and the hot metal components.

The unit includes inspection, cleaning, coating preparation, assembly and disassembly of dies, basic fault analysis and completion of remedial action requirements.

Element

Elements define the essential outcomes of a unit of competency.

Performance Criteria

Performance criteria specify the level of performance required to demonstrate achievement of the element.

1 Plan and prepare

1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied

1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures

1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement

1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use

1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied

2 Disassemble and inspect die

2.1 Die is safely located to the coating area

2.2 Die coating insulation material is inspected for wear and removed

2.3 Die is inspected and analysed for defects

2.4 Defects found are assessed for remedial solution

2.5 Minor rectification is applied, dependent on the defect and in accordance with engineering specifications

2.6 Die is tested to ensure rework has eliminated the fault and final adjustments made

2.7 Documentation is completed outlining nature of the problem, work conducted and outcome, in accordance with enterprise requirements
3 Coat and assemble die

3.1 Die coating insulation material is selected and prepared for the die
3.2 Die is cleaned in preparation for coating
3.3 Heating processes are completed in accordance with enterprise requirements and available heating equipment
3.4 Die coating insulation material is applied to the die in accordance with enterprise requirements
3.5 Die is assembled and checked in preparation for pressing
3.6 Die is returned to production sequence

4 Clean up

4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements
4.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

• Planning and preparation is to include but not be limited to die inspection, defect identification, assessment of conditions and hazards and determination of work requirements
• Die coating insulation material provides protection to the cast aluminium die from extreme heat and provides for easy separation from the vehicle component
• Coating insulation is made from heat resistant, fire retardant materials
• Minor rectification is to include but not be limited to filling and levelling of hot spots, removal of metal beads and replacement of breathers/vents
• Inspection is to include assessment of the die for further use, minor repair or discarding
Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances.

- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices.

- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heating ovens, heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors.

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation.

Environmental Requirements

- Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management.

Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures.

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice.

Tools and equipment

- Tools and equipment are to include but not be limited to dies, relevant hand and power tools and lifting equipment.

Materials

- Materials are to include but not be limited to coating insulation material and cleaning agents.

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers.
Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to coating and rectifying dies
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Completion of the cleaning, coating, assembly, disassembly and inspection on a minimum of 10 dies, including rectification of minor defects on at least 5.

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

• A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Enterprise manufacturing and production techniques for vehicle metal components
  - Thermodynamic principles
  - Automotive Industry terminology
  - Tools and equipment types, characteristics, uses and limitations
  - Die coating techniques and equipment
  - Die faults and symptoms
  - Molten metal properties
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? **The candidate will need to:**
Collect, analyse and organise information
Collect, organise, interpret and understand the information required for die coating, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions
Level 2

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes
Level 1

Plan and organise activities
Conduct activities associated with die coating, including the coordination and use of equipment, materials and tools to avoid backtracking and rework
Level 1

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity
Level 1

Solve problems
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
Level 2

Use mathematical ideas and techniques
Use mathematical ideas and techniques to correctly calculate time, assess panel alignment, apply accurate measurements and establish quality checks
Level 1

Use technology
Use workplace technology related to die coating, including the use of measuring equipment, computerised equipment, die coating equipment, the use of communication devices and the reporting/recording of results
Level 1

The context of assessment
- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to die coating
  - equipment, hand and power tools appropriate to die coating
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
### AUMNT3010A
**Conduct structural rectification of vehicle bodies**

**Unit Descriptor**
This unit specifies the competency required to inspect, assess and repair structural faults to vehicle bodies or components as a result of manufacturing and production line inaccuracies or as a result of defective products or procedures.

The unit includes analysis and selection of remedial processes, the application of cutting and welding, finishing of the defective area and reporting.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
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<tbody>
<tr>
<td><strong>Elements</strong></td>
<td>Performance criteria specify the level of performance required to demonstrate achievement of the element.</td>
</tr>
<tr>
<td><strong>1 Plan and prepare</strong></td>
<td>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</td>
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<tr>
<td></td>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
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<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
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<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
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<td>1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied</td>
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<tr>
<td><strong>2 Assess structural fault/defect</strong></td>
<td>2.1 Vehicle bodies/components are inspected to confirm the extent and nature of the structural fault or defect</td>
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<td>2.2 Faults or defects found are assessed for remedial action and on-line or off-line solutions</td>
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<td>2.3 Solution to repair the fault or defect is selected and planned</td>
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<td><strong>3 Prepare for rectification</strong></td>
<td><strong>3.1</strong> Drawings or sketches are produced to plan and organise the rectification process</td>
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<td><strong>3.2</strong> Plans/drawings for rectification are presented to the appropriate authority for approval</td>
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<td><strong>3.3</strong> Equipment or tools to complete the rectification are selected</td>
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<td><strong>4 Repair fault/defect</strong></td>
<td><strong>4.1</strong> Structural fault or defect is prepared for repair</td>
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<td><strong>4.2</strong> Faulty welds, connectors or defective areas are cut or ground in preparation for new welding or connectors</td>
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<td><strong>4.3</strong> Rectification of structural fault or defect is performed with application of new connectors or re-welding</td>
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<td><strong>4.4</strong> Faulty or defective area is finished to specifications</td>
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<td><strong>4.5</strong> Documentation is completed outlining nature of problem, work conducted and outcome, in accordance with enterprise requirements</td>
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<td><strong>4.6</strong> Repaired vehicle/components are processed for inspection and returned to the production sequence</td>
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<tr>
<td><strong>5 Clean up</strong></td>
<td><strong>5.1</strong> Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements</td>
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<tr>
<td></td>
<td><strong>5.2</strong> Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements</td>
</tr>
</tbody>
</table>
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to vehicle/part inspection, defect identification, assessment of conditions and hazards and determination of work requirements
- Vehicle bodies/components include chassis, body shell, panels, doors, bonnets, boot lids and hatches and may include individual components, part or fully fabricated bodies
- Defective products or procedures may include but not be limited to missed or faulty rivets, bolts or other connectors, missed or faulty welds, blowouts or missed or faulty metal folds
- Structural faults may include but not be limited to failed welds, sheared or failed connectors, damage incurred through manufacture or structurally weak metals
- Welding may include but not be limited to MIG, TIG, Arc Welding or Oxy-Acetylene Welding
- Finishing of damaged or defective area is to include but not be limited to grinding

Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, welding operations, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors
<table>
<thead>
<tr>
<th>Safety (OH&amp;S) continued</th>
<th>• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Requirements</td>
<td>• Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management</td>
</tr>
<tr>
<td>Quality Requirements</td>
<td>• Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal company quality policy and standards and enterprise operations and procedures</td>
</tr>
<tr>
<td>Statutory/Regulatory Authorities</td>
<td>• Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice</td>
</tr>
<tr>
<td>Tools and equipment</td>
<td>• Tools and equipment are to include but not be limited to standard body work tools, grinders, welding equipment, cutting equipment, power drills and drivers</td>
</tr>
<tr>
<td>Materials</td>
<td>• Materials are to include but not be limited to metal, connectors (rivets, bolts), welding rods or wire and abrasive disks</td>
</tr>
<tr>
<td>Communications</td>
<td>• Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers</td>
</tr>
<tr>
<td>Information</td>
<td>• Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches</td>
</tr>
<tr>
<td></td>
<td>• Safe work procedures related to rectification of structural faults on vehicle bodies</td>
</tr>
<tr>
<td></td>
<td>• Regulatory/legislative requirements pertaining to Automotive manufacturing</td>
</tr>
<tr>
<td></td>
<td>• Engineers design specifications and instructions</td>
</tr>
<tr>
<td></td>
<td>• Organisation work specifications and requirements</td>
</tr>
<tr>
<td></td>
<td>• Instructions issued by authorised enterprise or external personnel</td>
</tr>
<tr>
<td></td>
<td>• Relevant Australian Standards</td>
</tr>
</tbody>
</table>
Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Inspection, assessment and rectification on a minimum of 5 separate and different structural faults to specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Automotive Industry terminology
  - Enterprise manufacturing and production techniques for vehicle metal components
  - Tools and equipment types, characteristics, uses and limitations
  - Metal properties and workability limitations
  - Structural faults and defects
  - Structural fault repair techniques
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:
Collect, analyse and organise information

Collect, organise, interpret and understand the information required for rectifying structural faults in vehicle bodies/components, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Communicate ideas and information

Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Plan and organise activities

Conduct activities associated with rectifying structural faults in vehicle bodies/components, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Work with others and in a team

Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Solve problems

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

Use mathematical ideas and techniques to correctly calculate time, assess tolerances and tensile strengths, apply accurate measurements, calculate material requirements and establish quality checks

Use technology

Use workplace technology related to rectifying structural faults in vehicle bodies/components, including the use of measuring equipment, computerised equipment, cutting and welding equipment, the use of communication devices and the reporting/recording of results

The context of assessment

- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to rectifying structural faults in vehicle bodies/components
  - equipment, hand and power tools appropriate to rectifying structural faults in vehicle bodies/components
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
# AUMNT3011A Test welds ultrasonically

## Unit Descriptor

This unit specifies the competency required to inspect, analyse and assess welds on vehicle bodies or components to ascertain tensile and penetration strength, using ultrasonic testing equipment.

The unit includes off-line examination, intensive testing regimes and technical reporting of outcomes.

## Element

<table>
<thead>
<tr>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements define the essential outcomes of a unit of competency.</td>
</tr>
<tr>
<td>Performance criteria specify the level of performance required to demonstrate achievement of the element.</td>
</tr>
</tbody>
</table>

## 1 Plan and prepare

<table>
<thead>
<tr>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</td>
</tr>
<tr>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
</tr>
<tr>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
</tr>
<tr>
<td>1.4 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
</tr>
<tr>
<td>1.5 Working environment considerations are identified and measures to reduce noise, dust and obstacles are applied</td>
</tr>
</tbody>
</table>

## 2 Analyse and test welds

<table>
<thead>
<tr>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Specified welds from various parts of the vehicle body and components are identified and selected</td>
</tr>
<tr>
<td>2.2 Welds are visually inspected, analysed and findings recorded</td>
</tr>
<tr>
<td>2.3 Welds are tested with ultrasonic equipment</td>
</tr>
<tr>
<td>2.4 Weld breaking points are established and tested with ultrasonic equipment</td>
</tr>
<tr>
<td>2.5 Testing sequence is repeated on multiple weld samples</td>
</tr>
<tr>
<td>2.6 Results of all tests are recorded and reported in accordance with enterprise requirements</td>
</tr>
</tbody>
</table>
3 Clean up

3.1 Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements

3.2 Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to weld inspection, defect identification, assessment of conditions and hazards and determination of work requirements

- Vehicle bodies/parts include chassis, body shell, panels, doors, bonnets, boot lids and hatches and may include individual components, part or fully fabricated bodies

- Ultrasonic testing includes but is not limited to tensile strength testing and penetration strength testing

- Weld types may include but not be limited to MIG, TIG, Arc Welding or Oxy-Acetylene Welding

Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances

- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices

- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with heavy objects, vehicular movement, toxic substances, electrical shock, machinery movement and operation, production line operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and plant evacuation
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<th>Environmental requirements are to include but are not limited to waste management, noise, dust, vibration and clean-up management</th>
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<tbody>
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<tr>
<td>Statutory/Regulatory Authorities</td>
<td>Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice</td>
</tr>
<tr>
<td>Tools and equipment</td>
<td>Tools and equipment are to include but not be limited to ultrasonic testing equipment and relevant hand and power tools</td>
</tr>
<tr>
<td>Communications</td>
<td>Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers</td>
</tr>
<tr>
<td>Information</td>
<td>Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches</td>
</tr>
<tr>
<td></td>
<td>Safe work procedures related to testing welds ultrasonically</td>
</tr>
<tr>
<td></td>
<td>Regulatory/legislative requirements pertaining to Automotive manufacturing</td>
</tr>
<tr>
<td></td>
<td>Engineers design specifications and instructions</td>
</tr>
<tr>
<td></td>
<td>Organisation work specifications and requirements</td>
</tr>
<tr>
<td></td>
<td>Instructions issued by authorised enterprise or external personnel</td>
</tr>
<tr>
<td></td>
<td>Relevant Australian Standards</td>
</tr>
</tbody>
</table>
Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Inspection, analysis, assessment and testing of a minimum of 30 welds to specifications and enterprise inspection requirements

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Relevant enterprise production quality standards
  - Automotive Industry terminology
  - Enterprise manufacturing and production techniques for vehicle metal components
  - Tools and equipment types, characteristics, uses and limitations
  - Metal properties and workability limitations
  - Weld structures and technology
  - Ultrasonic testing procedures
  - Processes for the calculation of tensile strength
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Materials handling, storage and environmentally friendly waste management
  - Enterprise safety policies and procedures
  - Relevant Australian Standards

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? **The candidate will need to:**
Collect, analyse and organise information

Collect, organise, interpret and understand the information required for testing welds ultrasonically, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Level 3

Communicate ideas and information

Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Level 2

Plan and organise activities

Conduct activities associated with testing welds ultrasonically, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Level 2

Work with others and in a team

Work with others and in a team by recognising dependencies and using co-operative approaches to optimise satisfaction and productivity

Level 2

Solve problems

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

Level 1

Use mathematical ideas and techniques

Use mathematical ideas and techniques to correctly calculate time, assess tolerances and tensile strengths, apply accurate measurements, calculate material requirements and establish quality checks

Level 1

Use technology

Use workplace technology related to testing welds ultrasonically, including the use of computers, measuring equipment, computerised equipment, ultrasonic testing equipment, the use of communication devices and the reporting/recording of results

Level 2

The context of assessment

- The application of competency is to be assessed in the workplace or realistically simulated automotive site
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
- Assessment is to comply with relevant regulatory requirements including specified Australian Standards
Methods of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- 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

Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to testing welds ultrasonically
  - equipment, hand and power tools appropriate to testing welds ultrasonically
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
## AUMNT3013A Monitor and maintain metals treatment plant operations

### Unit Descriptor

This unit specifies the competency required to monitor and maintain a multi-stage metals treatment plant designed to clean and prepare metal bodies for painting.

The unit includes the preparation of the plant and associated treatment and cleansing baths, the testing and adjustment of treatment solutions to maintain required specifications, the maintenance of the plant within operating specifications, the inspection of product and response to defective outcomes, and the operator servicing of the plant.

### Element

<table>
<thead>
<tr>
<th>Plan and prepare</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed and applied</td>
<td></td>
</tr>
<tr>
<td>1.2 Safety requirements are followed in accordance with enterprise safety policies and procedures</td>
<td></td>
</tr>
<tr>
<td>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</td>
<td></td>
</tr>
<tr>
<td>1.4 Materials and chemicals appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</td>
<td></td>
</tr>
<tr>
<td>Working environment considerations are identified and measures to reduce and protect against noise, dust and obstacles are applied</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjust and maintain treatment solutions</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Treatment solution specification and tolerances are identified and confirmed from the approved operating procedure or equivalent</td>
<td></td>
</tr>
<tr>
<td>2.2 Location of each sample source is identified from plant schematics and the sampling and testing schedule is identified and correctly interpreted</td>
<td></td>
</tr>
<tr>
<td>2.3 Sampling and labelling is carried in accordance with the approved procedure</td>
<td></td>
</tr>
<tr>
<td>2.4 Samples are tested in accordance with the approved procedure and the results recorded to enterprise standards</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Task Description</td>
</tr>
<tr>
<td>---------</td>
<td>------------------</td>
</tr>
<tr>
<td>2</td>
<td>Adjust and maintain treatment solutions (continued)</td>
</tr>
<tr>
<td>2.5</td>
<td>The method of adjusting <em>out of specification</em> solutions is selected and applied progressively to return the solution to specification</td>
</tr>
<tr>
<td>2.6</td>
<td>Plant solution records and reports are maintained in accordance with enterprise requirements</td>
</tr>
<tr>
<td>3</td>
<td>Adjust and maintain stage operations</td>
</tr>
<tr>
<td>3.1</td>
<td>The operating processes, control mechanisms, flow and specifications of each treatment stage is identified and confirmed from enterprise plant specifications and procedures</td>
</tr>
<tr>
<td>3.2</td>
<td>Stage plant components are inspected and prepared for operation, including pre operational servicing, in accordance with the enterprise procedures</td>
</tr>
<tr>
<td>3.3</td>
<td>Stage operations are test run and adjustments are made to controls, components and solutions to bring the Stage to the correct operating specification</td>
</tr>
<tr>
<td>3.4</td>
<td>Operations are monitored for compliance with specification in accordance with approved procedures</td>
</tr>
<tr>
<td>3.5</td>
<td>Faults in stage operations are diagnosed and rectified or reported for specialist support action</td>
</tr>
<tr>
<td>3.6</td>
<td>Excess, contaminated or unwanted materials, including chemicals and solutions are disposed of in accordance with authorised procedures</td>
</tr>
<tr>
<td>3.7</td>
<td>Documentation covering the operation of each stage, including fault resolution, is completed in accordance with enterprise requirements</td>
</tr>
<tr>
<td>4</td>
<td>Maintain product quality</td>
</tr>
<tr>
<td>4.1</td>
<td>Product quality checks are carried out in accordance with enterprise procedures</td>
</tr>
<tr>
<td>4.2</td>
<td>Defects are analysed and the likely cause is identified and investigated</td>
</tr>
<tr>
<td>4.3</td>
<td>Actions to restore the product quality are implemented, checked and confirmed in accordance with enterprise procedures</td>
</tr>
<tr>
<td>4.4</td>
<td>Defects which cannot be remedied are reported for specialist attention</td>
</tr>
<tr>
<td>4.5</td>
<td>Documentation covering each defect and response is completed in accordance with enterprise requirements</td>
</tr>
<tr>
<td>5</td>
<td>Clean up</td>
</tr>
<tr>
<td>5.1</td>
<td>Work area is cleared and materials disposed of, reused or recycled in accordance with enterprise requirements</td>
</tr>
<tr>
<td>5.2</td>
<td>Tools and equipment are cleaned, checked, maintained and stored in accordance with enterprise requirements</td>
</tr>
</tbody>
</table>
Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

- Planning and preparation is to include but not be limited to plant defect identification, assessment of conditions and hazards and determination of work requirements
- A multi-stage metals treatment plant covered by this unit is one which has no less than six stages
- Treatment stages are to include chemical and water based applications and/or immersion baths
- Solution sampling and testing is to include that for titration, contamination, concentrations, acid balance pressure and coating specifications
- Methods of solution adjustment are to include the addition of chemicals, the dilution of solutions and the total replacement of contaminated solution batches
- Fault rectification is to include the adjustment of pressure and flow and the adjustment of dispenser/nozzle direction

Safety (OH&S)

- OH&S 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, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
- Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
- Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with hazardous substances, electrical shock, machinery movement and operation, plant component operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors
Safety (OH&S) continued

- Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, chemical spills and contamination, extinguishing fires, enterprise first aid requirements and plant evacuation

Environmental Requirements

- Environmental requirements are to include but are not limited to chemical management, waste management, noise, dust, vibration and clean-up management

Quality Requirements

- Quality requirements are to include but not be limited to relevant regulations including Australian Standards, internal enterprise quality policy and standards and enterprise operations and procedures

Statutory/Regulatory Authorities

- Statutory/regulatory authorities may include Federal, State and Local Authorities administering the applicable acts, regulations and codes of practice

Tools and equipment

- Tools and equipment are to include but not be limited to hand and power tools, micrometers, titration and other solution testing equipment

Materials

- Materials are to include but not be limited to chemicals and treated water, filters and other consumables

Communications

- Communications are to include but not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers

Information

- Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches
- Safe work procedures related to the operation and maintenance of a chemically based treatment plant
- Regulatory/legislative requirements pertaining to Automotive manufacturing
- Engineers design specifications and instructions
- Organisation work specifications and requirements
- Instructions issued by authorised enterprise or external personnel
- Relevant Australian Standards
Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

- Location, interpretation and application of relevant information, standards and specifications
- Compliance with enterprise safety policies and procedures and OH&S legislation/regulations/codes of practice applicable to operations
- Compliance with enterprise policies and procedures including quality requirements
- Safe and effective operational use of tools and equipment
- Communication and working effectively and safely with others
- Individually monitor and maintain a multi-stage metals treatment plant over 5 full shifts during which:
  - Pre-start checks on all stages are to be completed to enterprise requirements
  - Solutions are to be maintained to specifications using approved sampling testing and remedial processes
  - Plant operations are to be maintained to specification
  - Product quality is to be maintained to specification
- Rectification of at least three different treatment related metal product faults including all enterprise documentation and reporting requirements (Some simulation may be required to ensure adequate scope)

Relationship to other units

- None
Specific knowledge required to achieve the performance criteria

- A knowledge of
  - Workplace and equipment safety requirements
  - Enterprise safety policies and procedures
  - Automotive Industry manufacturing terminology
  - Enterprise production techniques and quality requirements for vehicle painting
  - Metals treatment plant functions, flow systems, control and documentation systems
  - Common metals treatment plant product faults/defects
  - Treatment plant related tools and equipment types, characteristics, uses and limitations
  - Flow control systems, mechanisms and adjustment processes
  - Basic chemical uses and reactions in relation to the treatment of metals for painting
  - Testing processes and specifications related to titration, pressure and coating integrity
  - Processes for the calculation of material requirements
  - Material Safety Data Sheets
  - Plans, drawings and specifications
  - Hazardous materials (Dangerous Goods) regulatory requirements
  - Materials handling, storage and environmentally compliant waste management processes
  - Relevant Australian Standards
Automotive Manufacturing – PMV Sector

AUMNT3013A Monitor and maintain metals treatment plant operations

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? The candidate will need to:

Collect, analyse and organise information
Collect, organise, interpret and understand the information required for monitoring and maintaining metals treatment plant operations, including work instructions, plans/sketches/diagrams, safety instructions, signage, labels, quality procedures, material safety data sheets and equipment instructions

Communicate ideas and information
Communicate ideas and information orally and in writing, in simple English to enable confirmation of work requirements, passage of information and requests to other workers during operations and the reporting and recording of work outcomes

Plan and organise activities
Conduct activities associated with monitoring and maintaining metals treatment plant operations, including the coordination and use of equipment, materials and tools to avoid backtracking and rework

Work with others and in a team
Work with others and in a team by recognising dependencies and using co-operative approaches to optimise quality and productivity

Solve problems
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

Use mathematical ideas and techniques to correctly calculate time, assess quantities, apply accurate measurements, calculate material requirements and establish quality checks

Level 1

Use technology

Use workplace technology related to monitoring and maintaining metals treatment plant operations, including the use of computers, measuring equipment, micrometers, thermometers, chemical testing apparatus, the use of communication devices and the reporting/recording of results

Level 2

The context of assessment

• The application of competency is to be assessed in the workplace or realistically simulated automotive site
• Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints
• Assessment is to comply with relevant regulatory requirements including specified Australian Standards

Methods of assessment

• Assessment must satisfy the endorsed assessment guidelines of the Automotive industry’s Automotive Training Package
• Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
• Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
• 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
Specific resource requirements for this unit

- The following resources should be made available:
  - workplace location or simulated workplace
  - materials relevant to monitoring and maintaining metals treatment plant operations
  - equipment, hand and power tools appropriate to monitoring and maintaining metals treatment plant operations
  - realistic activities covering the mandatory task requirements
  - specifications and work instructions
# AUTOMOTIVE INDUSTRY: MANUFACTURING COMPETENCY STANDARDS

## FRONTLINE MANAGEMENT

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Unit BSXFMI301A Manage personal work priorities and professional development

Unit Descriptor
Frontline management is responsible for managing their own performance and taking responsibility for their professional development within the context of the organisation.

Elements of Competency and Performance Criteria

BSXFMI301A/01 Manage self
- Personal qualities and performance serve as a role model in the workplace.
- Personal goals and plans reflect the organisation's plans, and personal roles, responsibilities and accountabilities.
- Action is taken to achieve and extend personal goals beyond those planned.
- Consistent personal performance is maintained in varying work conditions and work contexts.

BSXFMI301A/02 Set and meet own work priorities
- Competing demands are prioritised to achieve personal, team and the organisation's goals and objectives.
- Technology is used efficiently and effectively to manage work priorities and commitments.

BSXFMI301A/03 Develop and maintain professional competence
- Personal knowledge and skills are assessed against competency standards to determine development needs and priorities.
- Feedback from clients and colleagues is used to identify and develop ways to improve competence.
- Management development opportunities suitable to personal learning style(s) are selected and used to develop competence.
- Participation in professional networks and associations enhances personal knowledge, skills and relationships.
- New skills are identified and developed to achieve and maintain a competitive edge.

Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints.
Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- business and performance plans
- ethical standards
- quality and continuous improvement processes and standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- uses available routine information appropriate to work responsibility
- manages work to achieve goals and results
- monitors/introduces ways to improve own performance
- assesses own performance
- seeks feedback and acts on constructive advice
- selects and uses available learning methods to maintain current competence
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI302A Provide leadership in the workplace

Unit Desciptor
Frontline management has an important leadership role in the development of the organisation. This will be most evident in the manner in which they conduct themselves, the initiative which they take in influencing others, and the way they manage their responsibilities.

Elements of Competency and Performance Criteria

BSXFMI302A/01 Model high standards of management performance
- Performance serves as positive role model for others.
- Performance plans are developed and implemented in accordance with the organisations goals and objectives.
- Key performance indicators are developed within the teams/organisations business plans.
- Performance meets the organisations requirements.

BSXFMI302A/02 Enhance the organisation's image
- The organisations standards and values are used in conducting business.
- Standards and values considered to be damaging to organisation are questioned through established communication channels.
- Personal performance contributes to developing an organisation which has integrity and credibility.

BSXFMI302A/03 Influence individuals and teams positively
- Expectations, roles and responsibilities are communicated in a way which encourages individuals/teams to take responsibility for their work.
- Individuals/teams efforts and contributions are encouraged, valued and rewarded.
- Ideas and information receive the acceptance and support of colleagues.

BSXFMI302A/04 Make informed decisions
- Information relevant to the issue(s) under consideration is gathered and organised.
- Individuals/teams participate actively in the decision making processes.
- Options are examined and their associated risks assessed to determine preferred course(s) of action.
- Decisions are timely and communicated clearly to individuals/teams.
- Plans to implement decisions are prepared and agreed by relevant individuals/teams.
- Feedback processes are used effectively to monitor the implementation and impact of decisions.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints.

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- business and performance plans
- ethical standards
- quality and continuous improvement processes and standards
- defined resource parameters.

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- manages work to achieve goals and results
- uses available routine information appropriate to work responsibility
- makes decisions within responsibility and authority
- explains the organisations goals, values and objectives
- monitors/introduces ways to improve performance
- uses effective consultative processes
- communicates routine and non-routine information clearly to senior managers, peers and subordinates
- promotes available learning methods to assist colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI303A Establish and manage effective workplace relationships

Unit Descriptor Frontline management plays an important role in developing and maintaining positive relationships in internal and external environments so that customers, suppliers and the organisation achieve planned outputs/outcomes.

Elements of Competency and Performance Criteria

BSXFMI303A/01 Gather, convey and receive information and ideas
  · Information to achieve work responsibilities is collected from appropriate sources.
  · The method(s) used to communicate ideas and information is appropriate to the audience.
  · Communication takes into account social and cultural diversity.
  · Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.

BSXFMI303A/02 Develop trust and confidence
  · People are treated with integrity, respect and empathy.
  · The organisations social, ethical and business standards are used to develop and maintain positive relationships.
  · Trust and confidence of colleagues, customers and suppliers is gained and maintained through competent performance.
  · Interpersonal styles and methods are adjusted to the social and cultural environment.

BSXFMI303A/03 Build and maintain networks and relationships
  · Networking is used to identify and build relationships.
  · Networks and other work relationships provide identifiable benefits for the team and organisation.
  · Cross-cultural cooperation results in positive outcomes for individuals, teams and the organisation.
  · Coaching and mentoring is used to assist colleagues develop effective relationships in a diverse workplace.

BSXFMI303A/04 Manage difficulties to achieve positive outcomes
  · Problems are identified and analysed, and action is taken to rectify the situation with minimal disruption to performance.
  · Colleagues receive guidance and support to resolve their work difficulties.
  · Continued poor performance is managed within the organisations processes.
  · Conflict is managed constructively within the organisations processes.
  · Difficult situations are negotiated to achieve results acceptable to the participants, and which meet organisation and legislative requirements.

Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
  · have some autonomy for operation
  · work under limited guidance
BSXFMI303A  ESTABLISH AND MANAGE EFFECTIVE WORKPLACE RELATIONSHIPS

Frontline Management Initiatives Competency Standards

- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints.

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- ethical standards
- access and equity principles and practices
- customer and supplier policies and practices
- quality and continuous improvement processes and standards.

They use legislation, codes and national standards relevant to their workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Customers and suppliers would typically be from internal sources, although there may be some limited external contact.

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- uses routine information appropriate to work responsibility
- manages relationships to achieve goals and results
- monitors and introduces ways to improve work relationships
- performs in a way which strengthens and reinforces relationships
- communicates clearly and concisely
- uses effective consultative processes
- encourages alternative views to be submitted and discussed
- treats people openly and fairly
- develops constructive responses when confronted with problems and difficulties
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI304A  Participate in, lead and facilitate work teams

Unit Descriptor
Frontline management has a key role in leading, participating in, facilitating and empowering work teams/groups within the context of the organisation. They play a prominent part in motivating, mentoring, coaching and developing team members, and in achieving team cohesion.

Elements of Competency and Performance Criteria

BSXFMI304A/01  Participate in team planning.
· The team establishes clearly defined purpose, roles, responsibilities and accountabilities within the organisations goals and objectives.
· The team performance plan contributes to the organisations business plan, policies and practices.
· The team agrees to processes to monitor and adjust its performance within the organisations continuous improvement policies.
· The team includes in its plans ways in which it can benefit from the diversity of its membership.

BSXFMI304A/02  Develop team commitment and co-operation.
· The team uses open communication processes to obtain and share information.
· The team encourages and exploits innovation and initiative.
· Support is provided to the team to develop mutual concern and camaraderie.

BSXFMI304A/03  Manage and develop team performance.
· The team is supported in making decisions within its agreed roles and responsibilities.
· The results achieved by the team contribute positively to the organisations business plans.
· Team and individual competencies are monitored regularly to confirm that the team is able to achieve its goals.
· Mentoring and coaching supports team members to enhance their knowledge and skills.
· Delegates performance is monitored to confirm that they have completed their delegation/assignment.

BSXFMI304A/04  Participate in, and facilitate the work team
· Team effectiveness is encouraged and enhanced through active participation in team activities and communication processes.
· Individuals and teams are actively encouraged to take individual and joint responsibility for their actions.
· The diversity of individuals knowledge and skills is used to enhance team performance.
· The team receives support to identify and resolve problems which impede its performance.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- performance/business plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Teams maybe one or a mixture of:

- on-going
- work-based
- project-based
- cross-functional.

Teams may include:

- full time employees
- contractors
- part time employees.

Frontline management roles in teams may include:

- leader
- facilitator
- participant
- coach
- mentor
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- manages work to achieve goals and results
- uses routine information appropriate to work responsibility
- establishes among teams a commitment to the organisations goals, values and plans
- monitors/proposes ways to improve team performance
- makes decisions within responsibility and authority
- uses effective consultative processes
- encourages team members to openly propose, discuss and resolve issues
- deals with conflict before it adversely affects team performance
- treats people openly and fairly
- supports team to share knowledge and skills
- promotes available learning methods to support team
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI305A Manage operations to achieve planned outcomes

Unit Descriptor
Frontline management is actively engaged in planning, implementing, monitoring and recording performance to achieve the business plans of the team/organisation. This pivotal role is carried out to create safe, efficient and effective products and services to customer satisfaction within the organisations productivity and profitability plans.

Elements of Competency and Performance Criteria

BSXFMI305A/01 Plan resource use to achieve profit/productivity targets.
- Resource information for use in operational plans is collected, analysed and organised in consultation with colleagues and specialist resource managers.
- Operational plans contribute to the achievement of the organisations performance/business plan.
- Operational plans identify available resources, taking into account customer needs and the organisations plans.
- Plans to maximise value gained from the diversity of the organisations resources.
- Contingency plans are prepared in the event that initial plans need to be varied.

BSXFMI305A/02 Acquire resources to achieve operational plan.
- Employees are recruited and inducted within the organisations human resource management policies and practices.
- Physical resources and services are acquired in accord with the organisations practices and procedures.

BSXFMI305A/03 Monitor operational performance.
- Performance systems and processes are monitored to assess progress in achieving profit/productivity plans and targets.
- Budget and actual financial information is analysed and interpreted to monitor profit/productivity performance.
- Unsatisfactory performance is identified and prompt action is taken to rectify the situation.
- Recommendations for variation to operational plans are negotiated and approved by the designated persons/groups.

BSXFMI305A/04 Monitor resource usage
- Systems and processes are monitored to establish whether resources are being used as planned.
- Problems with resource usage are investigated and rectified and/or reported to designated persons/groups.
- Mentoring and coaching is provided to support individuals/teams who have difficulties in using resources to the required standard.
- Systems, procedures and records associated with documenting resource acquisition and usage are managed in accordance with the organisations requirements.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints.

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- manages work to achieve goals and results
- uses routine information appropriate to work responsibility
- makes decisions within responsibility and authority
- organises and uses resources to achieve business plans
- manages resources within the accountability requirements
- eliminates/minimises resource inefficiencies and waste
- ensures that legislative requirements are met in work operations
- monitors/introduces ways to improve operations
- uses effective consultative processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to assist colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- records/reports information within established systems
- uses the key competencies to achieve results.
Unit BSXFMI306A Manage workplace information

Unit Descriptor
Frontline management is an important creator and manager of information. Their competency in identifying, acquiring, analysing and using appropriate information plays a significant part in the efficiency and effectiveness of the individuals/teams/organisations performance.

Elements of Competency and Performance Criteria

BSXFMI306A/01 Identify and source information needs
· The information needs of individuals/teams is determined and the sources are identified.
· Information held by the organisation is reviewed to determine suitability and accessibility.
· Plans are prepared to obtain information which is not available/accessible within the organisation.

BSXFMI306A/02 Collect, analyse and report information.
· Collection of information is timely and relevant to the needs of individuals/teams.
· Information is in a format suitable for analysis, interpretation and dissemination.
· Information is analysed to identify and report relevant trends and developments in terms of the needs for which it was acquired.

BSXFMI306A/03 Use management information systems.
· Management information systems are used effectively to store and retrieve data for decision making.
· Technology available in the work area/organisation is used to manage information efficiently and effectively.
· Recommendations for improving the information system are submitted to designated persons/groups.

BSXFMI306A/04 Prepare business plans/budgets.
· Individuals/teams are involved in business plan/budget preparation in a way which uses their contribution effectively and gains their support for the outcomes.
· Business plans/budgets are prepared and presented in accordance with the organisations guidelines and requirements.
· Contingency plans are prepared in the event that alternative action is required.

BSXFMI306A/05 Prepare resource proposals.
· Resource planning data is collected in consultation with colleagues, including those who have a specialist role in resource management.
· Estimates of resource needs and utilisation reflects the organisations business plans, and customer and supplier requirements.
· Proposals to secure resources are supported by clearly presented submissions describing realistic options, benefits, costs and outcomes.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business performance plans
- defined resource limits
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- action learning
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- manages work to achieve goals and results
- manages operations within budget constraints
- makes decisions within responsibility and authority
- uses routine information appropriate to work responsibility
- monitors/improves ways to manage routine information
- explains basic financial concepts in business plans/budgets
- prepares simple financial information within standard format
- ensures that legislative requirements are included in plans
- promotes available learning methods to assist colleagues
- uses effective consultative processes
- communicates with colleagues who have specialist resource responsibilities in resource and financial management
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI307A Manage quality customer service

Unit Descriptor
Frontline management is involved in ensuring that products and services are delivered and maintained to standards agreed by the organisation and the customer. This will be carried out in the context of the organisations policies and practices as well as legislation, conventions and codes of practice.

Elements of Competency and Performance Criteria

BSXFMI307A/01 Plan to meet internal and external customer requirements.
- The needs of customers are researched, understood, and assessed, and included in the planning process.
- Provision is made in plans to achieve the quality, time and cost specifications agreed with customers.

BSXFMI307A/02 Ensure delivery of quality products/services.
- Products/services are delivered to customer specifications within the teams/organisations business plan.
- Individual/team performance consistently meets quality, safety, resource and delivery standards.
- Coaching and mentoring assists colleagues overcome difficulty in meeting customer service standards.

BSXFMI307A/03 Monitor, adjust and report customer service.
- The organisations systems and technology are used to monitor progress in achieving product/service targets and standards.
- Customer feedback is sought and used to improve the provision of products/services.
- Resources are used effectively and efficiently to provide quality products/services to customers.
- Decisions to overcome problems with products/services are taken in consultation with designated individuals/groups.
- Adjustments are made to products/services, and those who have a role in their planning and delivery are informed of changes.
- Records, reports and recommendations are managed within the organisations systems and processes.

Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
Frontline management Initiatives Competency Standards

- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:
- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business performance plans
- defined resource limits
- ethical standards
- products/services standards

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:
- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:
- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time

Customers may be:
- internal or external
- drawn from existing or new sources

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:
- manages work to achieve goals and results
- manages products/services within budget constraints
- makes decisions within responsibility and authority
- uses routine information appropriate to work responsibility
- monitors/introduces ways to improve products/services
- uses effective consultative processes
- ensures that legislation and standards are met
- develops and maintains effective communication with customers
· seeks customer feedback and acts on constructive advice
· treats people openly and fairly
· promotes available learning methods to assist colleagues
· uses simple information management systems
· selects and uses available technology appropriate to the task
· uses the key competencies to achieve results.
Unit BSXFMI308A  Develop and maintain a safe workplace and environment

Unit Descriptor  Frontline management has a key role in ensuring that the workplace meets safety requirements set down in legislation, standards and the organisations policies and practices. While it is recognised that safety is everyone’s responsibility, frontline management has an important leadership role in promoting and monitoring a safe workplace and environment.

Elements of Competency and Performance Criteria

BSXFMI308A/01  Access and share legislation, codes and standards.
· Legislation, standards and the organisations policies and practices relevant to the creation and maintenance of a safe workplace and environment are made available to individuals/teams.
· Arrangements are made to provide information in a language, style and format which is understood by colleagues.
· Individuals/teams know their legal responsibility for maintaining a safe workplace and environment.
· The implications of an unsafe workplace and environment is clear to all within the workplace.

BSXFMI308A/02  Plan and implement safety requirements.
· Work practices are planned with colleagues to ensure compliance with workplace and environmental legislation and standards.
· Work practices are implemented in accordance with requirements specified in legislation and standards for safe workplaces and environments.
· Coaching and mentoring supports colleagues in managing their rights and responsibilities.

BSXFMI308A/03  Monitor, adjust and report safety performance.
· Actual and potential problems are identified, rectified and reported promptly and decisively to ensure workplace and environmental safety.
· Hazards are managed so that risks are minimised.
· Waste recycling, reduction and disposal is carried out within legislative and organisational requirements.
· Recommendations to make improvements to comply with legislation and associated standards are submitted to designated persons/groups.
· Individuals/teams are informed of the results of improvements in the workplace.
· Systems, records and reporting procedures are maintained according to legislative requirements.

BSXFMI308A/04  Investigate and report non-conformance.
· Non-conformance is investigated and dealt with according to legislative requirements.
· Coaching and mentoring supports colleagues to acquire and apply competencies to meet legislative requirements and the associated standards.
· Workplace practices are implemented to ensure that non-conformance is not repeated.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business performance plans
- defined resource limits
- ethical standards

They use legislation, codes and national standards relevant to the workplace, particularly those involved with:

- workplace safety
- environmental safety

Arrange of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- develops a safety conscious culture in work area
- uses routine information appropriate to work responsibility
- explains safety legislation, standards and procedures to individuals/teams
- maintains a safe workplace
- takes prompt action to rectify/report non-compliance
- monitors/introduces ways to ensure safety compliance
- promotes available learning methods to support colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- records/reports information within legislative requirements
- uses the key competencies to achieve results.
Unit BSXFMI309A  Implement and monitor continuous improvements to systems and processes

Unit Descriptor
Frontline management has an active role in managing the continuous improvement process in achieving the organisation's quality objectives. Their position, closely associated with the creation and delivery of products and services, means that they play an important part in influencing the on-going development of the organisation.

Elements of Competency and Performance Criteria

BSXFMI309A/01  Implement continuous improvement systems and processes.
- Team members are actively encouraged and supported to participate in decision making processes and to assume responsibility and authority.
- The organisation's continuous improvement processes are communicated to individuals/teams.
- Mentoring and coaching support ensures that individuals/teams are able to implement the organisation's continuous improvement processes.

BSXFMI309A/02  Monitor, adjust and report performance.
- The organisation's systems and technology are used to monitor progress and to identify ways in which planning and operations could be improved.
- Customer service is strengthened through the use of continuous improvement techniques and processes.
- Plans are adjusted and communicated to those who have a role in their development and implementation.

BSXFMI309A/03  Consolidate opportunities for further improvement.
- Individuals/teams are informed of savings and productivity improvements in achieving the business plan.
- Work performance is documented and the information is used to identify opportunities for further improvement.
- Records, reports and recommendations for improvement are managed within the organisation's systems and processes.

Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints
Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access & equity principles & practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:

- explains the organisations continuous improvement methods
- uses routine information appropriate to work responsibility
- manages work effectively to achieve goals and results
- monitors/introduces ways to improve performance
- encourages ideas and feedback to improve processes
- uses effective consultative processes
- promotes available learning methods to assist colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies.
Unit BSXFMI310A Facilitate and capitalise on change and innovation

Unit Descriptor
Frontline management has an active role in fostering change and acting as a catalyst in the implementation of change and innovation. They have a creative role in ensuring that individuals, the team and the organisation gain from change; and that the customer benefits through improved products and services.

Elements of Competency and Performance Criteria

BSXFMI310A/01 Participate in planning the introduction of change.
- The manager contributes effectively in the organisation's planning processes to introduce change.
- Plans to introduce change are made in consultation with designated individuals/groups.
- The organisation's objectives and plans to introduce change are explained clearly to individuals/teams.

BSXFMI310A/02 Develop creative and flexible approaches and solutions.
- Alternative approaches to managing workplace issues and problems are identified and analysed.
- Risks are assessed and action is taken to achieve a recognised benefit or advantage to the organisation.
- The workplace is managed in a way which promotes the development of innovative approaches and outcomes.
- Creative and responsive approaches to resource management improves productivity and/or reduces costs in a competitive environment.

BSXFMI310A/03 Manage emerging challenges and opportunities.
- Individuals/teams respond effectively and efficiently to changes in the organisation's goals, plans and priorities.
- Coaching and mentoring assist individuals/teams develop competencies to handle change efficiently and effectively.
- The manager uses opportunities within their responsibility and authority to make adjustments to respond to the changing needs of customers and the organisation.
- Individuals/teams are kept informed of progress in the implementation of change.
- Recommendations for improving the methods/techniques to manage change are negotiated with designated persons/groups.
Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes
to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:
- goals, objectives, plans, systems and processes
- access & equity principles & practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:
- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 3, frontline management:
- manages work to achieve goals and results
- explains the organisations methods to introduce change
- uses routine information appropriate to work responsibility
- identifies opportunities to introduce change within responsibility and authority
- monitors/introduces practices to improve performance
- uses effective consultation processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to support colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI311A Contribute to the development of a workplace learning environment

Unit Descriptor Frontline management plays a prominent role in encouraging and supporting the development of a learning organisation. Promoting a learning environment in which work and learning are integrated is an important goal to be achieved.

Elements of Competency and Performance Criteria

BSXFMI311A/01 Create learning opportunities.
· Workplace environments which facilitate learning are developed and supported.
· Learning plans are developed as an integral part of individual/team performance plans.
· Learning plans reflect the diversity of needs and learning opportunities.
· Individual/team access to, and participation in, learning opportunities is facilitated.
· Negotiation with training and development specialists results in the planning and provision of learning which enhances individual, team, and organisational performance.

BSXFMI311A/02 Facilitate and promote learning.
· Workplace activities are used as opportunities for learning.
· Coaching and mentoring contributes effectively to the development of workplace knowledge, skills and attitudes.
· The benefits of learning are shared with others in the team/organisation.
· Workplace achievement is recognised by timely and appropriate recognition, feedback and rewards.

BSXFMI311A/03 Monitor and improve learning effectiveness.
· Performance of individuals/teams is monitored to determine the type and extent of additional work-based support.
· Feedback from individuals/teams is used to identify and introduce improvements in future learning arrangements.
· Adjustments negotiated with training and development specialists results in improvements to the efficiency and effectiveness of learning.
· Records and reports of competency are documented and maintained within the organisations systems and procedures.

Range of Variables
At ASF level 3 frontline management will normally be engaged in a workplace context in which they:
· have some autonomy for operation
· work under limited guidance
· may have broad guidance and autonomy if working in teams
· have responsibility for others
· may have team co-ordination responsibilities
· apply a broad range of skills to a range of tasks/roles
· operate in a variety of workplace contexts
are involved in some complexity in the choice of actions
use competencies within routines, methods and procedures
use some discretion and judgement in using resources, services and processes
to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment
in which they use the organisations:
- goals, objectives, plans, systems and processes
- access & equity principles & practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

They use legislation, codes and national standards relevant to the workplace. A range of
learning methods may be used, for example:
- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the
competence of frontline management. Typically, in providing evidence of consistent
achievement of this Units workplace outcomes within the context of ASF level 3, frontline
management:
- manages work to achieve goals and results
- explains the organisations methods to introduce change
- uses routine information appropriate to work responsibility
- identifies opportunities to introduce change within responsibility and authority
- monitors/introduces practices to improve performance
- uses effective consultation processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to support colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI401A  Manage personal work priorities and professional development

Unit Descriptor  Frontline management is responsible for managing their own performance and taking responsibility for their professional development within the context of the organisation.

Elements of Competency and Performance Criteria

BSXFMI401A/01  Manage self
· Personal qualities and performance serve as a role model in the workplace.
· Personal goals and plans reflect the organisations plans, and personal roles, responsibilities and accountabilities.
· Action is taken to achieve and extend personal goals beyond those planned.
· Consistent personal performance is maintained in varying work conditions and work contexts.

BSXFMI401A/02  Set and meet own work priorities
· Competing demands are prioritised to achieve personal, team and the organisations goals and objectives.
· Technology is used efficiently and effectively to manage work priorities and commitments.

BSXFMI401A/03  Develop and maintain professional competence
· Personal knowledge and skills is assessed against competency standards to determine development needs and priorities.
· Feedback from clients and colleagues is used to identify and develop ways to improve competence.
· Management development opportunities suitable to personal learning style(s) are selected and used to develop competence.
· Participation in professional networks and associations enhances personal knowledge, skills and relationships.
· New skills are identified and developed to achieve and maintain a competitive edge.

Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:
· have some autonomy for operation
· work under limited guidance
· may have broad guidance and autonomy if working in teams
· have responsibility for others
· may have team co-ordination responsibilities
· apply a broad range of skills to a range of tasks/roles
· operate in a variety of workplace contexts
· are involved in some complexity in the choice of actions
· use competencies within routines, methods and procedures
· use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints
Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access & equity principles & practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- manages work to achieve goals and results
- develops links between work and learning
- explains basic principles of adult learning
- uses routine information appropriate to work responsibility
- monitors/introduces ways for people to develop knowledge and skills
- provides coaching and mentoring support
- encourages colleagues to share their knowledge and skills
- promotes available learning methods to support colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI402A Provide leadership in the workplace

Unit Descriptor
Frontline management has an important leadership role in the development of the organisation. This will be most evident in the manner in which they conduct themselves, the initiative which they take in influencing others, and the way they manage their responsibilities.

Elements of Competency and Performance Criteria

BSXFMI402A/01 Model high standards of management performance
- Performance plans are developed and implemented in accordance with the organisations goals and objectives.
- Key performance indicators are developed within the teams/organisations business plans
- Performance meets the organisations requirements.
- Performance serves as positive role model for others.

BSXFMI402A/02 Enhance the organisation's image
- The organisations standards and values are used in conducting business.
- Standards and values considered to be damaging to organisation are questioned through established communication channels.
- Personal performance contributes to developing an organisation which has integrity and credibility.

BSXFMI402A/03 Influence individuals and teams positively
- Expectations, roles and responsibilities are communicated in a way which encourages individuals/teams to take responsibility for their work.
- Individuals/teams efforts and contributions are encouraged, valued and rewarded.
- Ideas and information receive the acceptance and support of colleagues.

BSXFMI402A/04 Make informed decisions
- Information relevant to the issue(s) under consideration is gathered and organised.
- Individuals/teams participate actively in the decision making processes.
- Options are examined and their associated risks assessed to determine preferred course(s) of action.
- Decisions are timely and communicated clearly to individuals/teams.
- Plans to implement decisions are prepared and agreed by relevant individuals/teams.
- Feedback processes are used effectively to monitor the implementation and impact of decisions.

Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
BSXFMI402A PROVIDE LEADERSHIP IN THE WORKPLACE
Frontline Management Initiatives Competency Standards

- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- achieves planned results
- acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority
- explains the organisations goals, values and objectives
- establishes and monitors Key Performance Indicators for individuals/teams
- manages work effectively to achieve goals and results
- monitors/introduces practices to improve performance
- operates effectively in diverse work environments and contexts
- uses modern management techniques in work performance
- uses effective consultative processes
- communicates routine and non-routine information clearly to senior managers, peers and subordinates
- promotes available learning methods to support colleagues competence
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI403A Establish and manage effective workplace relationships

Unit Descriptor Frontline management plays an important role in developing and maintaining positive relationships in internal and external environments so that customers, suppliers and the organisation achieve planned outputs/outcomes.

Elements of Competency and Performance Criteria

BSXFMI403A/01 Gather, convey and receive information and ideas
- Information to achieve work responsibilities is collected from appropriate sources.
- The method(s) used to communicate ideas and information is appropriate to the audience.
- Communication takes into account social and cultural diversity.
- Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.
- Information to achieve work responsibilities is collected from appropriate sources.
- The method(s) used to communicate ideas and information is appropriate to the audience.
- Communication takes into account social and cultural diversity.
- Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.

BSXFMI403A/02 Develop trust and confidence
- People are treated with integrity, respect and empathy.
- The organisations social, ethical and business standards are used to develop and maintain positive relationships.
- Trust and confidence of colleagues, customers and suppliers is gained and maintained through competent performance.
- Interpersonal styles and methods are adjusted to the social and cultural environment.

BSXFMI403A/03 Build and maintain networks and relationships
- Networking is used to identify and build relationships.
- Networks and other work relationships provide identifiable benefits for the team and organisation.
- Cross-cultural cooperation results in positive outcomes for individuals, teams and the organisation.
- Coaching and mentoring is used to assist colleagues develop effective relationships in a diverse workplace.
BSXFMI403A/04 Manage difficulties to achieve positive outcomes

- Problems are identified and analysed, and action is taken to rectify the situation with minimal disruption to performance.
- Colleagues receive guidance and support to resolve their work difficulties.
- Continued poor performance is managed within the organisations processes.
- Conflict is managed constructively within the organisations processes.
- Difficult situations are negotiated to achieve results acceptable to the participants, and which meet organisation and legislative requirements.

Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Customers and suppliers may be:

- internal or external
- drawn from existing or new sources
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- uses information appropriate to work responsibility
- manages relationships effectively to achieve goals/results
- monitors and introduces ways to improve work relationships
- performs in a way which strengthens and reinforces relationships
- develops effective relationships in internal and external environments
- communicates clearly and concisely
- responds effectively to unexpected demands from a range of sources
- provides honest and constructive feedback
- uses effective consultative processes
- encourages contrary views to be submitted and discussed
- treats people openly and fairly
- develops constructive responses when confronted with problems and difficulties
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI404A Participate in, lead and facilitate work teams

Unit Descriptor
Frontline management has a key role in leading, participating in, facilitating and empowering work teams/groups within the context of the organisation. They play a prominent part in motivating, mentoring, coaching and developing team members, and in achieving team cohesion.

Elements of Competency and Performance Criteria

BSXFMI404A/01 Participate in team planning.
- The team establishes clearly defined purpose, roles, responsibilities and accountabilities within the organisations goals and objectives.
- The team performance plan contributes to the organisations business plan, policies and practices.
- The team agrees to processes to monitor and adjust its performance within the organisations continuous improvement policies.
- The team includes in its plans ways in which it can benefit from the diversity of its membership.

BSXFMI404A/02 Develop team commitment and co-operation.
- The team uses open communication processes to obtain and share information.
- The team encourages and exploits innovation and initiative.
- Support is provided to the team to develop mutual concern and camaraderie.

BSXFMI404A/03 Manage and develop team performance.
- The team is supported in making decisions within its agreed roles and responsibilities.
- The results achieved by the team contribute positively to the organisations business plans.
- Team and individual competencies are monitored regularly to confirm that the team is able to achieve its goals.
- Mentoring and coaching supports team members to enhance their knowledge and skills.
- Delegates performance is monitored to confirm that they have completed their delegation/assignment.

BSXFMI404A/04 Participate in, and facilitate the work team
- Team effectiveness is encouraged and enhanced through active participation in team activities and communication processes.
- Individuals and teams are actively encouraged to take individual and joint responsibility for their actions.
- The diversity of individuals knowledge and skills is used to enhance team performance.
- The team receives support to identify and resolve problems which impede its performance.
Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources,
- services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:
- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:
- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Teams may be one or a mixture of:
- on-going
- work-based
- project-based
- cross-functional

Teams may include:
- full time employees
- contractors
- part time employees

Frontline management roles in teams may include:
- leader
- facilitator
- participant
- coach
- mentor
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

· acquires and uses information appropriate to work responsibility
· establishes among teams a commitment to the organisation's goals, values and plans
· manages work effectively to achieve goals and results
· makes decisions within responsibility and authority
· provides clear direction in devolving responsibility and accountability
· provides constructive feedback to delegates
· monitors/proposes ways to improve team performance
· works effectively with team members who have diverse work styles, aspirations, cultures and perspectives
· uses effective consultative processes
· encourages teams to openly propose, discuss and resolve issues
· deals with conflict before it adversely affects team performance
· treats people openly and fairly
· supports team to share knowledge and skills
· promotes available learning methods to support team
· uses information management systems
· selects and uses available technology appropriate to the task
· uses the key competencies to achieve results.
Unit BSXFMI405A Manage operations to achieve planned outcomes

Unit Descriptor
Frontline management is actively engaged in planning, implementing, monitoring and recording performance to achieve the business plans of the team/organisation. This pivotal role is carried out to create safe, efficient and effective products and services to customer satisfaction within the organisations productivity and profitability plans.

Elements of Competency and Performance Criteria

BSXFMI405A/01 Plan resource use to achieve profit/productivity targets.
- Resource information for use in operational plans is collected, analysed and organised in consultation with colleagues and specialist resource managers.
- Operational plans contribute to the achievement of the organisations performance/business plan.
- Operational plans identify available resources, taking into account customer needs and the organisations plans.
- Plans to maximise value gained from the diversity of the organisations resources.
- Contingency plans are prepared in the event that initial plans need to be varied.

BSXFMI405A/02 Acquire resources to achieve operational plan.
- Employees are recruited and inducted within the organisations human resource management policies and practices.
- Physical resources and services are acquired in accord with the organisations practices and procedures.

BSXFMI405A/03 Monitor operational performance.
- Performance systems and processes are monitored to assess progress in achieving profit/productivity plans and targets.
- Budget and actual financial information is analysed and interpreted to monitor profit/productivity performance.
- Unsatisfactory performance is identified and prompt action is taken to rectify the situation.
- Recommendations for variation to operational plans are negotiated and approved by the designated persons/groups.

BSXFMI405A/04 Monitor resource usage
- Systems and processes are monitored to establish whether resources are being used as planned.
- Problems with resource usage are investigated and rectified and/or reported to designated persons/groups.
- Mentoring and coaching is provided to support individuals/teams who have difficulties in using resources to the required standard.
- Systems, procedures and records associated with documenting resource acquisition and usage are managed in accordance with the organisations requirements.
Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- manages work effectively to achieve goals and results
- acquires and uses information appropriate to responsibility
- makes decisions within responsibility and authority
- participates effectively in wider organisational processes which have an effect on operational performance
- organises and uses resources to achieve business plans
- provides input to the organisations planning processes
- eliminates/minimises resource inefficiencies and waste
- creates products/services which are safe for customer use
- develops alternative approaches to improve resource use
- ensures that legislative requirements are met in work operations
- prepares and negotiates recommendations to change operations
- uses effective consultative processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to assist colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- records/reports information within established systems
- uses the key competencies to achieve results.
Unit BSXFMI406A Manage workplace information

Unit Descriptor Frontline management is an important creator and manager of information. Their competency in identifying, acquiring, analysing and using appropriate information plays a significant part in the efficiency and effectiveness of the individuals/teams/organisations performance.

Elements of Competency and Performance Criteria

BSXFMI406A/01 Identify and source information needs
  · The information needs of individuals/teams is determined and the sources are identified.
  · Information held by the organisation is reviewed to determine suitability and accessibility.
  · Plans are prepared to obtain information which is not available/accessible within the organisation.

BSXFMI406A/02 Collect, analyse and report information.
  · Collection of information is timely and relevant to the needs of individuals/teams.
  · Information is in a format suitable for analysis, interpretation and dissemination.
  · Information is analysed to identify and report relevant trends and developments in terms of the needs for which it was acquired.

BSXFMI406A/03 Use management information systems.
  · Management information systems are used effectively to store and retrieve data for decision making.
  · Technology available in the work area/organisation is used to manage information efficiently and effectively.
  · Recommendations for improving the information system are submitted to designated persons/groups.

BSXFMI406A/04 Prepare business plans/budgets.
  · Individuals/teams are involved in business plan/budget preparation in a way which uses their contribution effectively and gains their support for the outcomes.
  · Business plans/budgets are prepared and presented in accordance with the organisations guidelines and requirements.
  · Plans are prepared in the event that alternative action is required.

BSXFMI406A/05 Prepare resource proposals.
  · Resource planning data is collected in consultation with colleagues, including those who have a specialist role in resource management.
  · Estimates of resource needs and utilisation reflects the organisations business plans, and customer and supplier requirements.
  · Proposals to secure resources are supported by clearly presented submissions describing realistic options, benefits, costs and outcomes.
Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices and processes
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- manages work effectively to achieve goals and results
- acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority
- monitors/improves ways to manage information
- explains basic financial concepts in business plans/budgets
- prepares basic financial information within standard format
- prepares resource proposals within budget constraints
- prepares and negotiates recommendations to improve the organisation's information systems
- ensures that legislative requirements are met in plans
- promotes available learning methods to support colleagues
- uses effective consultative processes
- communicates with colleagues who have specialist responsibilities in financial and resource management
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI407A Manage quality customer service

Unit Descriptor

Frontline management is involved in ensuring that products and services are delivered and maintained to standards agreed by the organisation and the customer. This will be carried out in the context of the organisations policies and practices as well as legislation, conventions and codes of practice.

Elements of Competency and Performance Criteria

BSXFMI407A/01 Plan to meet internal and external customer requirements.

- The needs of customers are researched, understood, and assessed, and included in the planning process.
- Provision is made in plans to achieve the quality, time and cost specifications agreed with customers.

BSXFMI407A/02 Ensure delivery of quality products/services.

- Products/services are delivered to customer specifications within the teams/organisations business plan.
- Individual/team performance consistently meets quality, safety, resource and delivery standards.
- Coaching and mentoring assists colleagues overcome difficulty in meeting customer service standards.

BSXFMI407A/03 Monitor, adjust and report customer service.

- The organisations systems and technology are used to monitor progress in achieving product/service targets and standards.
- Customer feedback is sought and used to improve the provision of products/services.
- Resources are used effectively and efficiently to provide quality products/services to customers.
- Decisions to overcome problems with products/services are taken in consultation with designated individuals/groups.
- Adjustments are made to products/services, and those who have a role in their planning and delivery are informed of changes.
- Records, reports and recommendations are managed within the organisations systems and processes.

Range of Variables

At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:
- goals, objectives, plans, systems and processes
- access and equity principles, practices and processes

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:
- manages work effectively to achieve goals and results
- manages products/services within budget constraints
- makes decisions within responsibility and authority
- acquires and uses information appropriate to work responsibility
- monitors/introduces ways to improve products/services
- uses effective consultative processes
- ensures that legislation and standards are met
- develops and maintains effective communication with customers
- seeks customer feedback and acts on constructive advice
- treats people openly and fairly
- promotes available learning methods to enable colleagues to maintain current competence
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI408A Develop and maintain a safe workplace and environment

Unit Descriptor Frontline management has a key role in ensuring that the workplace meets safety requirements set down in legislation, standards and the organisations policies and practices. While it is recognised that safety is everyone’s responsibility, frontline management has an important leadership role in promoting and monitoring a safe workplace and environment.

Elements of Competency and Performance Criteria

BSXFMI408A/01 Access and share legislation, codes and standards.
  · Legislation, standards and the organisations policies and practices relevant to the creation and maintenance of a safe workplace and environment are made available to individuals/teams.
  · Arrangements are made to provide information in a language, style and format which is understood by colleagues.
  · Individuals/teams know their legal responsibility for maintaining a safe workplace and environment.
  · The implications of an unsafe workplace and environment is clear to all within the workplace.

BSXFMI408A/02 Plan and implement safety requirements.
  · Work practices are planned with colleagues to ensure compliance with workplace and environmental legislation and standards.
  · Work practices are implemented in accordance with requirements specified in legislation and standards for safe workplaces and environments.
  · Coaching and mentoring supports colleagues in managing their rights and responsibilities.

BSXFMI408A/03 Monitor, adjust and report safety performance.
  · Actual and potential problems are identified, rectified and reported promptly and decisively to ensure workplace and environmental safety.
  · Hazards are managed so that risks are minimised.
  · Waste recycling, reduction and disposal is carried out within legislative and organisational requirements.
  · Recommendations to make improvements to comply with legislation and associated standards are submitted to designated persons/groups.
  · Individuals/teams are informed of the results of improvements in the workplace.
  · Systems, records and reporting procedures are maintained according to legislative requirements.

BSXFMI408A/04 Investigate and report non-conformance.
  · Non-conformance is investigated and dealt with according to legislative requirements.
  · Coaching and mentoring supports colleagues to acquire and apply competencies to meet legislative requirements and the associated standards.
  · Workplace practices are implemented to ensure that non-conformance is not repeated.
Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace, particularly those involved with:

- workplace safety
- environmental safety

A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time
Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

- develops/promotes a safety conscious culture in workplace
- provides a model to others in working safely
- acquires and uses information appropriate to work responsibility
- manages work effectively to achieve goals and results
- explains safety legislation, standards and procedures
- maintains a safe workplace
- takes prompt action to rectify/report non-compliance
- prepares and negotiates recommendations to improve safety
- monitors/introduces practices to ensure safety compliance
- promotes available learning methods to support colleagues
Unit BSXFMI409A Implement and monitor continuous improvements to systems and processes

Unit Descriptor
Frontline management has an active role in managing the continuous improvement process in achieving the organisation’s quality objectives. Their position, closely associated with the creation and delivery of products and services, means that they play an important part in influencing the on-going development of the organisation.

Elements of Competency and Performance Criteria

BSXFMI409A/01 Implement continuous improvement systems and processes.
- Team members are actively encouraged and supported to participate in decision making processes and to assume responsibility and authority.
- The organisation’s continuous improvement processes are communicated to individuals/teams.
- Mentoring and coaching support ensures that individuals/teams are able to implement the organisation’s continuous improvement processes.

BSXFMI409A/02 Monitor, adjust and report performance.
- The organisation’s systems and technology are used to monitor progress and to identify ways in which planning and operations could be improved.
- Customer service is strengthened through the use of continuous improvement techniques and processes.
- Plans are adjusted and communicated to those who have a role in their development and implementation.

BSXFMI409A/03 Consolidate opportunities for further improvement.
- Individuals/teams are informed of savings and productivity improvements in achieving the business plan.
- Work performance is documented and the information is used to identify opportunities for further improvement.
- Records, reports and recommendations for improvement are managed within the organisation’s systems and processes.

Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.
Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Unit's workplace outcomes within the context of ASF level 4, frontline management:

- manages work effectively to achieve goals and results
- explains the organisations continuous improvement methods
- acquires and uses information appropriate to work responsibility
- provides leadership to colleagues in the implementation of continuous improvement processes
- monitors/introduces ways to improve performance
- encourages ideas and feedback to improve processes
- prepares and negotiates recommendations to improve the continuous improvement processes
- gains the commitment of individuals/teams to continuous improvement principles and practices
- uses effective consultative processes
- promotes available learning methods
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies.
Unit BSXFMI410A Facilitate and capitalise on change and innovation

Unit Descriptor Frontline management has an active role in fostering change and acting as a catalyst in the implementation of change and innovation. They have a creative role in ensuring that individuals, the team and the organisation gain from change; and that the customer benefits through improved products and services.

Elements of Competency and Performance Criteria

BSXFMI410A/01 Participate in planning the introduction of change.
· The manager contributes effectively in the organisation’s planning processes to introduce change.
· Plans to introduce change are made in consultation with designated individuals/groups.
· The organisation’s objectives and plans to introduce change are explained clearly to individuals/teams.

BSXFMI410A/02 Develop creative and flexible approaches and solutions.
· Alternative approaches to managing workplace issues and problems are identified and analysed.
· Risks are assessed and action is taken to achieve a recognised benefit or advantage to the organisation.
· The workplace is managed in a way which promotes the development of innovative approaches and outcomes.
· Creative and responsive approaches to resource management improves productivity and/or reduces costs in a competitive environment.

BSXFMI410A/03 Manage emerging challenges and opportunities.
· Individuals/teams respond effectively and efficiently to changes in the organisation’s goals, plans and priorities.
· Coaching and mentoring assists individuals/teams develop competencies to handle change efficiently and effectively.
· The manager uses opportunities within their responsibility and authority to make adjustments to respond to the changing needs of customers and the organisation.
· Individuals/teams are kept informed of progress in the implementation of change.
· Recommendations for improving the methods/techniques to manage change are negotiated with designated persons/groups.
Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:

· manages work effectively to achieve goals and results
· explains the organisations methods to introduce change
· acquires and uses information appropriate to work responsibility
· identifies opportunities to introduce change within responsibility and authority
· draws on the diversity of workplace to assist the organisation benefit from change
· monitors trends in the external environment to develop and maintain a competitive edge
· monitors/introduces practices to improve performance
· uses effective consultation processes
· seeks feedback and acts on constructive advice
· promotes available learning methods to support colleagues
· uses information management systems
· selects and uses available technology appropriate to the task
· uses the key competencies to achieve results.
Unit BSXFMI411A Contribute to the development of a workplace learning environment

Unit Descriptor Frontline management plays a prominent role in encouraging and supporting the development of a learning organisation. Promoting a learning environment in which work and learning are integrated is an important goal to be achieved.

Elements of Competency and Performance Criteria

BSXFMI411A/01 Create learning opportunities.
· Workplace environments which facilitate learning are developed and supported.
· Learning plans are developed as an integral part of individual/team performance plans.
· Learning plans reflect the diversity of needs and learning opportunities.
· Individual/team access to, and participation in, learning opportunities is facilitated.
· Negotiation with training and development specialists results in the planning and provision of learning which enhances individual, team, and organisational performance.

BSXFMI411A/02 Facilitate and promote learning.
· Workplace activities are used as opportunities for learning.
· Coaching and mentoring contributes effectively to the development of workplace knowledge, skills and attitudes.
· The benefits of learning are shared with others in the team/organisation.
· Workplace achievement is recognised by timely and appropriate recognition, feedback and rewards.

BSXFMI411A/03 Monitor and improve learning effectiveness.
· Performance of individuals/teams is monitored to determine the type and extent of additional work-based support.
· Feedback from individuals/teams is used to identify and introduce improvements in future learning arrangements.
· Adjustments negotiated with training and development specialists results in improvements to the efficiency and effectiveness of learning.
· Records and reports of competency are documented and maintained within the organisations systems and procedures.

Range of Variables
At ASF level 4 frontline management will normally be engaged in a workplace context in which they:
· are autonomous, working under general guidance on progress and outcomes
· may supervise others
· may guide or facilitate teams
· have responsibility for, and limited organisation of work of others
· apply knowledge with depth in some areas
· apply a broad range of skills to a range of tasks/roles
· operate in a variety of workplace contexts

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are involved in some complexity in the choice of actions
· use competencies within routines, methods and procedures
· use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:
· goals, objectives, plans, systems and processes
· access and equity principles and practices
· quality and continuous improvement
· business performance plans
· processes and standards
· ethical standards
· defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:
· mentoring
· exchange/rotation
· shadowing
· coaching
· action learning
· structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 4, frontline management:
· promotes a learning culture
· manages work effectively to achieve goals and results
· explains the organisations methods to introduce change
· acquires and uses information appropriate to work responsibility
· identifies opportunities to introduce change within responsibility and authority
· draws on the diversity of workplace to assist the organisation benefit from change
· monitors trends in the external environment to develop and maintain a competitive edge
· monitors/introduces practices to improve performance
· uses effective consultation processes
· seeks feedback and acts on constructive advice
· promotes available learning methods to support colleagues
· uses information management systems
· selects and uses available technology appropriate to the task
Unit BSXFMI501A  Manage personal work priorities and professional development

Unit Descriptor  Frontline management is responsible for managing their own performance and taking responsibility for their professional development within the context of the organisation.

Elements of Competency and Performance Criteria

BSXFMI501A/01  Manage self
   · Personal qualities and performance serve as a role model in the workplace.
   · Personal goals and plans reflect the organisation's plans, and personal roles, responsibilities and accountabilities.
   · Action is taken to achieve and extend personal goals beyond those planned.
   · Consistent personal performance is maintained in varying work conditions and work contexts.

BSXFMI501A/02  Set and meet own work priorities
   · Competing demands are prioritised to achieve personal, team and the organisation's goals and objectives.
   · Technology is used efficiently and effectively to manage work priorities and commitments.

BSXFMI501A/03  Develop and maintain professional competence
   · Personal knowledge and skills are assessed against competency standards to determine development needs and priorities.
   · Feedback from clients and colleagues is used to identify and develop ways to improve competence.
   · Management development opportunities suitable to personal learning style(s) are selected and used to develop competence.
   · Participation in professional networks and associations enhances personal knowledge, skills and relationships.
   · New skills are identified and developed to achieve and maintain a competitive edge.

Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
   · are autonomous, working under general guidance on progress and outcomes
   · may supervise others
   · may guide or facilitate teams
   · have responsibility for, and limited organisation of work of others
   · apply knowledge with depth in some areas
   · apply a broad range of skills to a range of tasks/roles
   · operate in a variety of workplace contexts
   · are involved in some complexity in the choice of actions
   · use competencies within routines, methods and procedures
   · use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.
Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices and processes
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- promotes a learning culture
- manages work effectively to achieve goals and results
- explains basic principles of adult learning
- develops links between work and learning
- uses coaching and mentoring to assist knowledge/skill formation
- monitors/introduces ways for people to develop knowledge and skills
- facilitates opportunities for learning
- encourages colleagues to share their knowledge and skills
- creates opportunities for individuals/teams to learn from workplace performance
- negotiates with training and development specialist individual/team learning needs
- the opportunity for off-the-job learning to be applied in workplace
- promotes available learning methods to support colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI502A Provide leadership in the workplace

Unit Descriptor Frontline management has an important leadership role in the development of the organisation. This will be most evident in the manner in which they conduct themselves, the initiative which they take in influencing others, and the way they manage their responsibilities.

Elements of Competency and Performance Criteria

BSXFMI502A/01 Model high standards of management performance
- Performance meets the organisation's requirements.
- Performance serves as positive role model for others.
- Performance plans are developed and implemented in accordance with the organisation's goals and objectives.
- Key performance indicators are developed within the teams/organisations business plans.

BSXFMI502A/02 Enhance the organisation's image
- The organisation's standards and values are used in conducting business.
- Standards and values considered to be damaging to organisation are questioned through established communication channels.
- Personal performance contributes to developing an organisation which has integrity and credibility.

BSXFMI502A/03 Influence individuals and teams positively
- Expectations, roles and responsibilities are communicated in a way which encourages individuals/teams to take responsibility for their work.
- Individuals/teams efforts and contributions are encouraged, valued and rewarded.
- Ideas and information receive the acceptance and support of colleagues.

BSXFMI502A/04 Make informed decisions
- Information relevant to the issue(s) under consideration is gathered and organised.
- Individuals/teams participate actively in the decision making processes.
- Options are examined and their associated risks assessed to determine preferred course(s) of action.
- Decisions are timely and communicated clearly to individuals/teams.
- Plans to implement decisions are prepared and agreed by relevant individuals/teams.
- Feedback processes are used effectively to monitor the implementation and impact of decisions.

Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others.
will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for
  work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and
  processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex
workplace environments in which they use the organisations:
- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of
learning opportunities may be used, for example:
- mentoring
- action learning
- coaching
- shadowing

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the
competence of frontline management. Typically, in providing evidence of consistent
achievement of this Units workplace outcomes within the context of ASF level 5, frontline
management:
- manages effectively in diverse work environments and contexts
- achieves planned results
- researches, acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority
- explains the organisations goals, values and objectives
- negotiates, establishes and monitors Key Performance Indicators for
  individuals/teams
- manages work effectively to achieve goals and results
- monitors/introduces practices to improve performance
- uses modern management techniques in work performance
- contributes to the organisations standards and values
- uses effective consultative processes
- communicates routine and non-routine information clearly to senior managers,
  peers and subordinates
- promotes available learning methods to support colleagues competence
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI503A Establish and manage effective workplace relationships

Unit Descriptor
Frontline management plays an important role in developing and maintaining positive relationships in internal and external environments so that customers, suppliers and the organisation achieve planned outputs/outcomes.

Elements of Competency and Performance Criteria

BSXFMI503A/01 Gather, convey and receive information and ideas
- Information to achieve work responsibilities is collected from appropriate sources.
- The method(s) used to communicate ideas and information is appropriate to the audience.
- Communication takes into account social and cultural diversity.
- Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.

BSXFMI503A/02 Develop trust and confidence
- People are treated with integrity, respect and empathy.
- The organisations social, ethical and business standards are used to develop and maintain positive relationships.
- Trust and confidence of colleagues, customers and suppliers is gained and maintained through competent performance.
- Interpersonal styles and methods are adjusted to the social and cultural environment.

BSXFMI503A/03 Build and maintain networks and relationships
- Networking is used to identify and build relationships.
- Networks and other work relationships provide identifiable benefits for the team and organisation.
- Cross-cultural cooperation results in positive outcomes for individuals, teams and the organisation.
- Coaching and mentoring is used to assist colleagues develop effective relationships in a diverse workplace.
- Networking is used to identify and build relationships.
- Networks and other work relationships provide identifiable benefits for the team and organisation.
- Cross-cultural cooperation results in positive outcomes for individuals, teams and the organisation.
- Coaching and mentoring is used to assist colleagues develop effective relationships in a diverse workplace.
BSXFMI503A/04 Manage difficulties to achieve positive outcomes

- Problems are identified and analysed, and action is taken to rectify the situation with minimal disruption to performance.
- Colleagues receive guidance and support to resolve their work difficulties.
- Continued poor performance is managed within the organisations processes.
- Conflict is managed constructively within the organisations processes.
- Difficult situations are negotiated to achieve results acceptable to the participants, and which meet organisation and legislative requirements.

Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some areas and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints

Frontline Management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- business and performance plans
- ethical standards
- quality and continuous improvement processes and standards
- resources, which may be subject to negotiation

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- coaching
- exchange/rotation
- action learning
- shadowing
- structured training programs

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages relationships effectively to achieve goals/results
- researches, acquires and uses information appropriate to work responsibility
- monitors and introduces ways to improve work relationships in a diverse and complex workplace
· performs in a way which strengthens and reinforces relationships
· develops effective relationships in diverse internal and external environments
· mixes confidently in a broad range of people
· communicates clearly and concisely
· responds effectively to unexpected demands from a range of sources
· provides honest and constructive feedback
· uses effective consultative processes
· encourages contrary views to be submitted and discussed
· treats people openly and fairly
· contributes to the removal of discrimination/bias in the workplace
· develops constructive responses when confronted with problems and difficulties
· uses information management systems
Unit BSXFMI504A **Participate in, lead and facilitate work teams**

**Unit Descriptor**
Frontline management has a key role in leading, participating in, facilitating and empowering work teams/groups within the context of the organisation. They play a prominent part in motivating, mentoring, coaching and developing team members, and in achieving team cohesion.

**Elements of Competency and Performance Criteria**

**BSXFMI504A/01 Participate in team planning.**
- The team establishes clearly defined purpose, roles, responsibilities and accountabilities within the organisations goals and objectives.
- The team performance plan contributes to the organisations business plan, policies and practices.
- The team agrees to processes to monitor and adjust its performance within the organisations continuous improvement policies.
- The team includes in its plans ways in which it can benefit from the diversity of its membership.

**BSXFMI504A/02 Develop team commitment and co-operation.**
- The team uses open communication processes to obtain and share information.
- The team encourages and exploits innovation and initiative.
- Support is provided to the team to develop mutual concern and camaraderie.

**BSXFMI504A/03 Manage and develop team performance.**
- The team is supported in making decisions within its agreed roles and responsibilities.
- The results achieved by the team contribute positively to the organisations business plans.
- Team and individual competencies are monitored regularly to confirm that the team is able to achieve its goals.
- Mentoring and coaching supports team members to enhance their knowledge and skills.
- Delegates performance is monitored to confirm that they have completed their delegation/assignment.

**BSXFMI504A/04 Participate in, and facilitate the work team**
- Team effectiveness is encouraged and enhanced through active participation in team activities and communication processes.
- Individuals and teams are actively encouraged to take individual and joint responsibility for their actions.
- The diversity of individuals knowledge and skills is used to enhance team performance.
- The team receives support to identify and resolve problems which impede its performance.
Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:
- goals, objectives, plans, systems and processes
- quality and continuous improvement and processes
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:
- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Teams may be one or a mixture of:
- on-going
- work-based
- project-based
- cross-functional

Teams may include:
- full time employees
- contractors
- part time employees

Frontline management roles in teams may include:
- leader
- facilitator
- participant
- coach
- mentor
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages work effectively to achieve goals and results
- researches, acquires and uses information appropriate to work responsibility
- establishes among teams a commitment to the organisations goals, values and plans
- makes decisions within responsibility and authority in a diverse and complex workplace
- provides clear direction in devolving responsibility and accountability
- provides constructive feedback to delegates
- monitors/proposes ways to improve team performance
- works effectively with team members who have diverse work styles, aspirations, cultures and perspectives
- promotes networking between teams for mutual benefit
- uses effective consultative processes
- encourages teams to openly propose, discuss and resolve issues
- deals with conflict before it adversely affects team performance
- recognises rewards and supports team achievement
- supports team to share knowledge and skills
- promotes available learning methods to support team
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
BSXFMI505A  MANAGE OPERATIONS TO ACHIEVE PLANNED OUTCOMES
Frontline Management Initiatives Competency Standards

Unit  BSXFMI505A  Manage operations to achieve planned outcomes

Unit Descriptor
Frontline management is actively engaged in planning, implementing, monitoring and recording performance to achieve the business plans of the team/organisation. This pivotal role is carried out to create safe, efficient and effective products and services to customer satisfaction within the organisations productivity and profitability plans.

Elements of Competency and Performance Criteria

BSXFMI505A/01  Plan resource use to achieve profit/productivity targets.
· Resource information for use in operational plans is collected, analysed and organised in consultation with colleagues and specialist resource managers.
· Operational plans contribute to the achievement of the organisations performance/business plan.
· Operational plans identify available resources, taking into account customer needs and the organisations plans.
· Plans to maximise value gained from the diversity of the organisations resources.
· Contingency plans are prepared in the event that initial plans need to be varied.

BSXFMI505A/02  Acquire resources to achieve operational plan.
· Employees are recruited and inducted within the organisations human resource management policies and practices.
· Physical resources and services are acquired in accord with the organisations practices and procedures.

BSXFMI505A/03  Monitor operational performance.
· Performance systems and processes are monitored to assess progress in achieving profit/productivity plans and targets.
· Budget and actual financial information is analysed and interpreted to monitor profit/productivity performance.
· Unsatisfactory performance is identified and prompt action is taken to rectify the situation.
· Recommendations for variation to operational plans are negotiated and approved by the designated persons/groups.

BSXFMI505A/04  Monitor resource usage.
· Systems and processes are monitored to establish whether resources are being used as planned.
· Problems with resource usage are investigated and rectified and/or reported to designated persons/groups.
· Mentoring and coaching is provided to support individuals/teams who have difficulties in using resources to the required standard.
· Systems, procedures and records associated with documenting resource acquisition and usage are managed in accordance with the organisations requirements.
**Range of Variables**

At ASF level 5 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement and processes
- processes and standards
- business and performance plans
- resources, which maybe subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages work effectively to achieve goals and results
- researches, acquires and uses information appropriate to responsibility
- makes decisions within responsibility and authority in a diverse and complex workplace
- participates effectively in wider organisational processes which have an effect on operational performance
- organises and uses resources to achieve business plans
- provides input to the organisations planning processes
- eliminates/minimises resource inefficiencies and waste
- creates products/services which are safe for customer use
- develops alternative and innovative approaches to improve resource use
- ensures that legislative requirements are met in work operations
- prepares and negotiates recommendations to change operations
- uses effective consultative processes
- feedback and acts on constructive advice
- promotes available learning methods to assist colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- records/reports information within established systems
- uses the key competencies to achieve results.
Unit BSXFMI506A Manage workplace information

Unit Descriptor
Frontline management is an important creator and manager of information. Their competency in identifying, acquiring, analysing and using appropriate information plays a significant part in the efficiency and effectiveness of the individuals/teams/organisations performance.

Elements of Competency and Performance Criteria

BSXFMI506A/01 Identify and source information needs

- The information needs of individuals/teams is determined and the sources are identified.
- Information held by the organisation is reviewed to determine suitability and accessibility.
- Plans are prepared to obtain information which is not available/accessible within the organisation.

BSXFMI506A/02 Collect, analyse and report information.

- Collection of information is timely and relevant to the needs of individuals/teams.
- Information is in a format suitable for analysis, interpretation and dissemination.
- Information is analysed to identify and report relevant trends and developments in terms of the needs for which it was acquired.

BSXFMI506A/03 Use management information systems.

- Management information systems are used effectively to store and retrieve data for decision making.
- Technology available in the work area/organisation is used to manage information efficiently and effectively.
- Recommendations for improving the information system are submitted to designated persons/groups.

BSXFMI506A/04 Prepare business plans/budgets.

- Individuals/teams are involved in business plan/budget preparation in a way which uses their contribution effectively and gains their support for the outcomes.
- Business plans/budgets are prepared and presented in accordance with the organisations guidelines and requirements.
- Plans are prepared in the event that alternative action is required.

BSXFMI506A/05 Prepare resource proposals.

- Resource planning data is collected in consultation with colleagues, including those who have a specialist role in resource management.
- Estimates of resource needs and utilisation reflects the organisations business plans, and customer and supplier requirements.
- Proposals to secure resources are supported by clearly presented submissions describing realistic options, benefits, costs and outcomes.
Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement and processes
- processes and standards
- business and performance plans
- resources, which maybe subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages work effectively to achieve goals and results
- researches, acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority in a diverse and complex workplace
- monitors/improves ways to manage information
- explains basic financial concepts in business plans/budgets
- prepares financial information within standard format
- prepares resource proposals within budget constraints
- explains methods to gain efficiencies in resource management
- prepares and negotiates recommendations to improve the organisations information systems
- ensures that legislative requirements are met in resource plans
- promotes available learning methods to support colleagues
- uses effective consultative processes
- communicates with colleagues who have specialist responsibilities in financial and resource management
- prepares and negotiates recommendations to improve information systems
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
BSXFMI507A MANAGE QUALITY CUSTOMER SERVICE
Frontline Management Initiatives Competency Standards

Unit BSXFMI507A Manage quality customer service

Unit Descriptor
Frontline management is involved in ensuring that products and services are delivered and maintained to standards agreed by the organisation and the customer. This will be carried out in the context of the organisations policies and practices as well as legislation, conventions and codes of practice.

Elements of Competency and Performance Criteria

BSXFMI507A/01 Plan to meet internal and external customer requirements.
· The needs of customers are researched, understood, and assessed, and included in the planning process.
· Provision is made in plans to achieve the quality, time and cost specifications agreed with customers.

BSXFMI507A/02 Ensure delivery of quality products/services.
· Products/services are delivered to customer specifications within the teams/organisations business plan.
· Individual/team performance consistently meets quality, safety, resource and delivery standards.
· Coaching and mentoring assists colleagues overcome difficulty in meeting customer service standards.

BSXFMI507A/03 Monitor, adjust and report customer service.
· The organisations systems and technology are used to monitor progress in achieving product/service targets and standards.
· Customer feedback is sought and used to improve the provision of products/services.
· Resources are used effectively and efficiently to provide quality products/services to customers.
· Decisions to overcome problems with products/services are taken in consultation with designated individuals/groups.
· Adjustments are made to products/services, and those who have a role in their planning and delivery are informed of changes.
· Records, reports and recommendations are managed within the organisations systems and processes.

Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
· are autonomous, working under broad guidance
· may supervise others
· may guide teams
· may have responsibility for planning and managing the work of others
· will be involved in self-directed application of knowledge
· have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
· operate in varied or highly specific contexts
· use competencies independently for routine and non-routine purposes
· use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:
· goals, objectives, plans, systems and processes
· quality and continuous improvement
· processes and standards
· business and performance plans
· resources, which may be subject to negotiation
· ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:
· mentoring
· action learning
· coaching
· shadowing
· exchange/rotation
· structured training programs

Resources may include:
· people
· power/energy
· information
· finance
· buildings/facilities
· time
· equipment
· technology

Customers may be:
· internal or external
· drawn from existing or new sources

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:
· manages work effectively to achieve goals and results
· manages products/services within budget constraints
· makes decisions within responsibility and authority in a diverse and complex workplace
· researches, acquires and uses information appropriate to work responsibility
· monitors/introduces ways to improve products/services
· uses effective consultative processes
· ensures that legislation and standards are met in providing customer service
· develops and maintains effective communication with customers
· seeks customer feedback and acts on constructive advice
· treats people openly and fairly
· promotes available learning methods to enable colleagues to maintain current competence
· prepares and negotiates recommendations to improve customer service
· uses information management systems
· selects and uses available technology appropriate to the task
· uses the key competencies to achieve results.
Unit BSXFMI508A  Develop and maintain a safe workplace and environment

Unit Descriptor
Frontline management has a key role in ensuring that the workplace meets safety requirements set down in legislation, standards and the organisations policies and practices. While it is recognised that safety is everyones responsibility, frontline management has an important leadership role in promoting and monitoring a safe workplace and environment.

Elements of Competency and Performance Criteria

BSXFMI508A/01 Access and share legislation, codes and standards.
- Legislation, standards and the organisations policies and practices relevant to the creation and maintenance of a safe workplace and environment are made available to individuals/teams.
- Arrangements are made to provide information in a language, style and format which is understood by colleagues.
- Individuals/teams know their legal responsibility for maintaining a safe workplace and environment.
- The implications of an unsafe workplace and environment is clear to all within the workplace.

BSXFMI508A/02 Plan and implement safety requirements.
- Work practices are planned with colleagues to ensure compliance with workplace and environmental legislation and standards.
- Work practices are implemented in accordance with requirements specified in legislation and standards for safe workplaces and environments.
- Coaching and mentoring supports colleagues in managing their rights and responsibilities.

BSXFMI508A/03 Monitor, adjust and report safety performance.
- Actual and potential problems are identified, rectified and reported promptly and decisively to ensure workplace and environmental safety.
- Hazards are managed so that risks are minimised.
- Waste recycling, reduction and disposal is carried out within legislative and organisational requirements.
- Recommendations to make improvements to comply with legislation and associated standards are submitted to designated persons/groups.
- Individuals/teams are informed of the results of improvements in the workplace.
- Systems, records and reporting procedures are maintained according to legislative requirements.

BSXFMI508A/04 Investigate and report non-conformance.
- Non-conformance is investigated and dealt with according to legislative requirements.
- Coaching and mentoring supports colleagues to acquire and apply competencies to meet legislative requirements and the associated standards.
- Workplace practices are implemented to ensure that non-conformance is not repeated.
Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace, particularly those involved with:

- workplace safety
- environmental safety

A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing

Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- develops/promotes a safety conscious culture in workplace
- provides a model to others in working safely
- researches, acquires and uses information appropriate to work responsibility
- manages work effectively to achieve goals and results
- explains safety legislation, standards and procedures
- maintains a safe workplace in compliance with legislation and standards
- takes prompt action to rectify/report non-compliance
- prepares and negotiates recommendations to improve safety
- monitors/introduces practices to ensure safety compliance
- uses effective waste management processes and procedures
· explains the workplace and environmental impact of non-compliance with relevant legislation
· promotes available learning methods to support colleagues
· uses information management systems
· selects and uses available technology appropriate to the task
· uses the key competencies to achieve results.
**Unit BSXFMI509A**  
Implement and monitor continuous improvements to systems and processes

**Unit Descriptor**  
Frontline management has an active role in managing the continuous improvement process in achieving the organisations quality objectives. Their position, closely associated with the creation and delivery of products and services, means that they play an important part in influencing the on-going development of the organisation.

**Elements of Competency and Performance Criteria**

**BSXFMI509A/01 Implement continuous improvement systems and processes.**  
- Team members are actively encouraged and supported to participate in decision making processes and to assume responsibility and authority.  
- The organisations continuous improvement processes are communicated to individuals/teams.  
- Mentoring and coaching support ensures that individuals/teams are able to implement the organisations continuous improvement processes.

**BSXFMI509A/02 Monitor, adjust and report performance.**  
- The organisations systems and technology are used to monitor progress and to identify ways in which planning and operations could be improved.  
- Customer service is strengthened through the use of continuous improvement techniques and processes.  
- Plans are adjusted and communicated to those who have a role in their development and implementation.

**BSXFMI509A/03 Consolidate opportunities for further improvement.**  
- Individuals/teams are informed of savings and productivity improvements in achieving the business plan.  
- Work performance is documented and the information is used to identify opportunities for further improvement.  
- Records, reports and recommendations for improvement are managed within the organisations systems and processes.

**Range of Variables**  
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.
Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology

**Evidence Guide**

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages work effectively to achieve goals and results
- develops a workplace culture which supports continuous improvement
- explains the organisations continuous improvement methods
- researches, acquires and uses information appropriate to work responsibility
- provides leadership to colleagues in the implementation of continuous improvement processes
- monitors/introduces ways to improve performance
- encourages ideas and feedback to improve processes
- prepares and negotiates recommendations to improve the continuous improvement processes
- gains the commitment of individuals/teams to continuous improvement principles and practices
- develops ways of individuals/teams implementing continuous improvement processes
- uses effective consultative processes
- promotes available learning methods
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies.
Unit  BSXFMI510A  Facilitate and capitalise on change and innovation

Unit Descriptor  Frontline management has an active role in fostering change and acting as a catalyst in the implementation of change and innovation. They have a creative role in ensuring that individuals, the team and the organisation gain from change; and that the customer benefits through improved products and services.

Elements of Competency and Performance Criteria

BSXFMI510A/01  Participate in planning the introduction of change.
  · The manager contributes effectively in the organisation’s planning processes to introduce change.
  · Plans to introduce change are made in consultation with designated individuals/groups.
  · The organisation’s objectives and plans to introduce change are explained clearly to individuals/teams.

BSXFMI510A/02  Develop creative and flexible approaches and solutions.
  · Alternative approaches to managing workplace issues and problems are identified and analysed.
  · Risks are assessed and action is taken to achieve a recognised benefit or advantage to the organisation.
  · The workplace is managed in a way which promotes the development of innovative approaches and outcomes.
  · Creative and responsive approaches to resource management improves productivity and/or reduces costs in a competitive environment.

BSXFMI510A/03  Manage emerging challenges and opportunities.
  · Individuals/teams respond effectively and efficiently to changes in the organisation’s goals, plans and priorities.
  · Coaching and mentoring assists individuals/teams develop competencies to handle change efficiently and effectively.
  · The manager uses opportunities within their responsibility and authority to make adjustments to respond to the changing needs of customers and the organisation.
  · Individuals/teams are kept informed of progress in the implementation of change.
  · Recommendations for improving the methods/techniques to manage change are negotiated with designated persons/groups.
Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under broad guidance
- may supervise others
- may guide teams
- may have responsibility for planning and managing the work of others
- will be involved in self-directed application of knowledge
- have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
- operate in varied or highly specific contexts
- use competencies independently for routine and non-routine purposes
- use judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology
Evidence Guide
This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of ASF level 5, frontline management:

- manages work effectively to achieve goals and results
- explains the organisations methods to introduce change
- researches, acquires and uses information appropriate to work responsibility
- identifies opportunities to introduce change in a diverse/complex workplace
- responds promptly to new situations by developing appropriate strategies and plans
- draws on the diversity of workplace to assist the organisation benefit from change
- monitors trends in the external environment to develop and maintain a competitive edge
- uses management style(s) which facilitates change
- monitors/introduces practices to improve performance
- establishes with team appropriate change management processes
- uses effective consultation processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to support colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
Unit BSXFMI511A  Contribute to the development of a workplace learning environment

Unit Descriptor  Frontline management plays a prominent role in encouraging and supporting the development of a learning organisation. Promoting a learning environment in which work and learning are integrated is an important goal to be achieved.

Elements of Competency and Performance Criteria

BSXFMI511A/01  Create learning opportunities.
· Workplace environments which facilitate learning are developed and supported.
· Learning plans are developed as an integral part of individual/team performance plans.
· Learning plans reflect the diversity of needs and learning opportunities.
· Individual/team access to, and participation in, learning opportunities is facilitated.
· Negotiation with training and development specialists results in the planning and provision of learning which enhances individual, team, and organisational performance.

BSXFMI511A/02  Facilitate and promote learning.
· Workplace activities are used as opportunities for learning.
· Coaching and mentoring contributes effectively to the development of workplace knowledge, skills and attitudes.
· The benefits of learning are shared with others in the team/organisation.
· Workplace achievement is recognised by timely and appropriate recognition, feedback and rewards.

BSXFMI511A/03  Monitor and improve learning effectiveness.
· Performance of individuals/teams is monitored to determine the type and extent of additional work-based support.
· Feedback from individuals/teams is used to identify and introduce improvements in future learning arrangements.
· Adjustments negotiated with training and development specialists results in improvements to the efficiency and effectiveness of learning.
· Records and reports of competency are documented and maintained within the organisations systems and procedures.

Range of Variables
At ASF level 5 frontline management will normally be engaged in a workplace context in which they:
· are autonomous, working under broad guidance
· may supervise others
· may guide teams
· may have responsibility for planning and managing the work of others
· will be involved in self-directed application of knowledge
· have substantial depth of knowledge in some area and a range of skills for work tasks, roles and functions
Frontline management at this level will normally operate in diverse and complex workplace environments in which they use the organisations:

- goals, objectives, plans, systems and processes
- quality and continuous improvement
- processes and standards
- business and performance plans
- resources, which may be subject to negotiation
- ethical standards

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Unit's workplace outcomes within the context of ASF level 5, frontline management:

- promotes a learning culture in a diverse and complex workplace
- manages work effectively to achieve goals and results
- explains basic principles of adult learning
- develops links between work and learning
- uses coaching and mentoring to assist knowledge/skill formation
- monitors/introduces ways for people to develop knowledge and skills
- facilitates opportunities for learning
- encourages colleagues to share their knowledge and skills
- creates opportunities for individuals/teams to learn from workplace performance
- negotiates with training and development specialists individual/team learning needs
- provides the opportunity for off-the-job learning to be applied in workplace
- promotes available learning methods to support colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.
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## MEM18.18AA MAINTAIN PNEUMATIC SYSTEM COMPONENTS

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| MEM18.18AA/01 Check pneumatic system components | System components identified correctly.  
• Assessor guide: confirm that the full range of pneumatic system components can be identified.  
The characteristics and operational function of each system component are understood.  
• Assessor guide: confirm that the characteristics and operational function of each pneumatic system component can be identified.  
The operational function of each component inspected and tested.  
• Assessor guide: observe that a range of pneumatic system components are inspected and tested in accordance with standard operating procedures.  
• Assessor guide: confirm that the procedures for inspecting and testing pneumatic system components can be identified. The equipment required to test pneumatic system components can be identified.  
Correct operation of each component assessed against specifications.  
• Assessor guide: observe that all relevant data sheets and specifications are obtained in accordance with standard operating procedures.  
• Assessor guide: confirm that the specifications of each pneumatic system component can be identified. Pneumatic components not operating in accordance with specifications can be identified. The reason for pneumatic components not operating in accordance with specification can be given. |
| MEM18.18AA/02 Identify, repair/replace faulty pneumatic system components | Faulty system components localised and malfunction confirmed by inspection and testing using fluid power principles, procedures and safety requirements.  
• Assessor guide: observe that all relevant pneumatic circuits, drawings, instructions, manuals and data sheets obtained in accordance with workplace procedures. The individual components within the pneumatic system are checked for correct operation in accordance with standard operating procedures.  
• Assessor guide: confirm that the individual components within the pneumatic system can be identified. The safety procedures to be followed when working on pneumatic components can be identified. Where appropriate, faulty system components can be identified.  
Faulty system components dismantled and repaired to manufacturer's/site specifications.  
• Assessor guide: observe that faulty system components are dismantled and repaired to manufacturer's/site specifications in accordance with standard operating procedures. |
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<tr>
<td>MEM18.18AA/02 (continued) Identify, repair/replace faulty pneumatic system components</td>
<td>• Assessor guide: confirm that the procedure for repairing pneumatic system components can be identified. Replacement parts selected from manufacturer's catalogue according to required specifications. • Assessor guide: observe that where appropriate, replacement parts are selected from the manufacturers'/suppliers' catalogues in conformance with specifications. • Assessor guide: confirm that the parts to be replaced can be identified. The reasons for replacing the parts identified can be given. System components reassembled and tested for correct operation assessed against specifications. • Assessor guide: observe that the pneumatic system components are reassembled in accordance with standard operating procedures. The pneumatic components are tested for correct operation and conformance to specifications in accordance with standard operating procedures. Correct operation of the pneumatic system confirmed to standard operating procedure. • Assessor guide: observe that the operation of the pneumatic system is checked for conformance to specification in accordance with standard operating procedures. • Assessor guide: confirm that the correct operation of the pneumatic system can be identified. The procedures for checking pneumatic system operation can be given. Appropriate follow up procedures adopted according to standard operating procedure. • Assessor guide: observe that where appropriate, repaired/replaced pneumatic system components are checked for correct operation in accordance with standard follow up procedures. • Assessor guide: confirm that where appropriate, the follow up procedures with respect to repaired/replaced pneumatic system components can be identified. Where appropriate, service reports completed using standard operating procedures. • Assessor guide: observe that where appropriate, service reports are completed in accordance with standard operating procedures. • Assessor guide: confirm that the reporting/recording procedures can be identified. The reasons for completing service reports for pneumatic systems components repaired/replaced can be explained.</td>
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</tbody>
</table>
RANGE OF VARIABLES

- Work undertaken using predetermined standards of safety, quality and work procedures. Pneumatic system components identified, inspected and assessed using fluid power principles to predetermined specifications interpreted from data sheets and circuit diagrams.
- Repairs and replacements to site or manufacturers specifications.
- Pneumatic system components may include high pressure seals, linear, rotary actuators, directional control valves, proportional valves, timers, counters, sensors, pneumatic motors, pressure control valves, lines, hoses and other associated equipment. Correct operational function of equipment components confirmed and commissioned in conformance to specification, using standard operating procedures. For straightforward removal/replacement of components from a pneumatic system, see Unit 18.6A Dismantle/repair/replace/assemble and fit engineering components).

EVIDENCE GUIDE

Assessment context
This unit may be assessed on the job, off the job, or a combination of both on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

Critical aspects
This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the maintenance of pneumatic system components or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Assessment conditions
The candidate will have access to:
- All tools, equipment, materials and documentation required.

The candidate will be permitted to refer to the following documents:
- Any relevant workplace procedures.
- Any relevant product and manufacturing specifications.
- Any relevant codes, standards, manuals and reference materials.

The candidate will be required to:
- Orally, or by other methods of communication, answer questions put by the assessor.
- Identify colleagues who can be approached for the collection of competency evidence where appropriate.
- Present evidence of credit for any off-job training related to this unit.

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.

Special notes
During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
<th>PERFORMANCE CRITERIA</th>
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</table>
| MEM18.19AA/01 Undertake preventative maintenance checks/adjustments on pneumatic systems | System components, assemblies or sub-assemblies are identified and prepared for inspection/preventative maintenance.  
  - Assessor guide: observe that pneumatic system components are prepared for inspection/preventative maintenance in accordance with work site procedures.  
  - Assessor guide: confirm that common pneumatic system components can be identified.  

  Visual inspection and testing with appropriate test equipment is carried out according to fluid power principles, procedures and safety requirements.  
  - Assessor guide: observe that the pneumatic system and its components are inspected and tested safely in accordance with work site procedures.  
  - Assessor guide: confirm that pneumatic system/component faults that can be determined by visual inspection can be identified. The application of common pneumatic system/component test equipment can be given.  

  Scheduled preventative maintenance tasks are performed including obvious repairs and adjustments according to manufacturer's specification using fluid power techniques/practices.  
  - Assessor guide: observe that scheduled preventative maintenance tasks are performed in accordance with work site procedures. Where appropriate, obvious repairs are performed on the pneumatic system/components in accordance with work site procedures. Where appropriate, pneumatic system/components are adjusted to return the system to manufacturer's specification in accordance with work site procedures.  
  - Assessor guide: confirm that scheduled preventative maintenance tasks can be identified. The manufacturer's specifications can be identified. |
| MEM18.19AA/02 Undertake fault finding on pneumatic systems | Designated pneumatic system components are identified and a visual inspection of the system is carried out for the collection of fault finding data.  
  - Assessor guide: observe that the pneumatic system and its components are visually inspected for indications of correct/incorrect operation in accordance with work site procedures.  
  - Assessor guide: confirm that common pneumatic system and component faults can be identified.  

  System operator consulted where appropriate and additional data collected.  
  - Assessor guide: observe that where appropriate, the system operator is consulted with respect to the fault being investigated. |
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<th>ELEMENT OF COMPETENCY</th>
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</table>
| MEM18.19AA/02 (continued) Undertake fault finding on pneumatic systems | Maintenance reports and preventative maintenance schedules checked and reviewed for additional fault finding data.  
- Assessor guide: observe that maintenance reports and preventative maintenance schedules are obtained in accordance with work site procedures.  
- Assessor guide: confirm that any previous faults in the pneumatic system/components can be identified. Any previous maintenance carried out on the pneumatic system/components can be identified.  
Using fluid power principles checks and tests are undertaken using appropriate test equipment and techniques.  
- Assessor guide: observe that appropriate test equipment and techniques are used to check/test pneumatic system/component operation in accordance with work site procedures.  
- Assessor guide: confirm that typical checks/tests that can be carried out on pneumatic systems/components and their application can be identified. Pneumatic system/component tests and testing techniques can be identified.  
Faults and malfunctions are identified and verified.  
- Assessor guide: observe that apparent faults/malfunctions are verified/confirmed in accordance with work site procedures.  
- Assessor guide: confirm that apparent faults/malfunctions can be identified  
Faults and malfunctions documented or reported by appropriate means to designated personnel and actioned.  
- Assessor guide: observe that all verified faults/malfunctions are documented or reported in accordance with work site procedures. The repair/overhaul of the pneumatic system is initiated in accordance with work site procedures.  
- Assessor guide: confirm that the documentation/reporting requirements with respect to verified faults/malfunctions can be identified. The procedures for initiating repair and/or overhaul of the pneumatic system can be identified. |
| MEM18.19AA/03 Repair and/or overhaul pneumatic power system | System or sub-assembly isolated safely and residue pressure discharged in accordance with prescribed procedures or checked for correct isolation.  
- Assessor guide: observe that the pneumatic system is isolated and depressurised safely in accordance with work site procedures. The pneumatic system is checked to ensure isolation and depressurisation in accordance with work site procedures.  
- Assessor guide: confirm that the hazards associated with working on pneumatic systems/components can be identified. The procedures for isolating and depressurising pneumatic systems can be identified. |
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</table>
| MEM18.19AA/03 Repair and/or overhaul pneumatic power system | Isolated system or sub-assembly tagged according to designated means  
- Assessor guide: observe that the isolated pneumatic system is tagged in accordance with work site procedures.  
- Assessor guide: confirm that the tagging requirements for isolated systems can be identified.  
Component or sub-assembly removed from system using correct removal principles and techniques.  
- Assessor guide: observe that the pneumatic components/sub-assembly are removed from the system in accordance with work site procedures.  
Components or sub-assemblies dismantled, examined and verified for replacement, overhaul or repair, using correct and appropriate techniques and procedures.  
- Assessor guide: observe that the pneumatic components/sub-assemblies are dismantled in accordance with work site procedures. The pneumatic components/sub-assemblies and their parts are examined for conformance to specification.  
Components outside specification and not repairable are marked for replacement in accordance with work site procedures. Components outside specification and able to be returned to specification are marked for repair/overhaul in accordance with work site procedures.  
- Assessor guide: confirm that the structure of typical pneumatic components can be identified. The specifications of pneumatic components and their constituent parts can be identified. The reasons for deciding to repair, replace or overhaul pneumatic components can be given. Replacement items selected from manufacturers catalogues to meet specifications.  
- Assessor guide: observe that replacement parts selected from manufacturers’ catalogues in compliance with specifications.  
Faulty items repaired/overhauled, using correct and appropriate principles, techniques and procedures.  
- Assessor guide: observe that faulty items repaired/overhauled in accordance with work site procedures.  
- Assessor guide: confirm that the appropriate repair/overhaul procedures can be identified.  
Component or sub assembly items refitted to equipment and tested for correct operation assessed against specifications.  
- Assessor guide: observe that the pneumatic component/sub-assembly is refitted into the system in accordance with work site procedures. The pneumatic component/sub-assembly is tested for correct operation and compliance to specifications in accordance with work site procedures. |
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| MEM18.19AA/04 Recommission pneumatic system | System or sub-assembly recommissioned according to prescribed procedures, to specifications.  
  - Assessor guide: observe that the pneumatic system/sub-assembly is recommissioned to specification in accordance with standard operating procedures.  
  - Assessor guide: confirm that system recommissioning procedures can be identified. The pneumatic system operational specifications can be identified.  
  Using fluid power principles and system application techniques correct operation of the system is verified.  
  - Assessor guide: observe that the pneumatic system/sub-assembly is checked/tested for correct operation in accordance with work site procedures.  
  Appropriate follow up procedures are instigated.  
  - Assessor guide: observe that where appropriate, follow up procedures are initiated in accordance with work site procedures.  
  - Assessor guide: confirm that any appropriate follow up maintenance or operational checks can be identified.  
  Maintenance records/service reports updated and completed by appropriate designated means in accordance with work site procedures.  
  - Assessor guide: confirm that the maintenance recording/reporting requirements can be identified.  
  The consequences of inaccurate or incomplete recording/reporting of maintenance/service activities can be given. |

**RANGE OF VARIABLES**
Work undertaken autonomously or in a team environment. This unit relates to the use of pneumatic test equipment including leak testers, escape rate gauges, hand held pressure testers and other appropriate equipment. The use of hand tools, power tools and specialist tools is included. Work tasks include the preventative maintenance, testing diagnostic fault finding, adjustment, repair, replacement and overhauling of pneumatic systems to predetermined standards of quality, safety and work practices and procedures. Pneumatic components identified, inspected and correct operational function assessed using fluid power principles to predetermined specifications, interpreted from data sheets, manufacturer's catalogues, circuit diagrams and engineering drawings. Preventative maintenance schedules undertaken on a periodic basis and appropriate documentation maintained. Tests, checks, adjustments, repair, assemblies/sub-assemblies, stationary/mobile equipment, pneumatic power tools to site or manufacturer's specifications. Appropriate follow up procedures instigated, adopted and appropriate documentation maintained. Where required, work is undertaken to legislative and regulatory requirements.

**EVIDENCE GUIDE**
**Assessment context**
This unit may be assessed on the job, off the job, or a combination of both on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.
**Critical aspects**
This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the maintenance and repair of pneumatic systems or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Assessment conditions**
The candidate will have access to:
- All tools, equipment, materials and documentation required.

The candidate will be permitted to refer to the following documents:
- Any relevant workplace procedures.
- Any relevant product and manufacturing specifications.
- Any relevant codes, standards, manuals and reference materials.

The candidate will be required to:
- Orally, or by other methods of communication, answer questions put by the assessor.
- Identify colleagues who can be approached for the collection of competency evidence where appropriate.
- Present evidence of credit for any off-job training related to this unit. 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.

**Special notes**
During assessment the individual will:
- demonstrate safe working practices at all times;
- communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment;
- take responsibility for the quality of their own work;
- plan tasks in all situations and review task requirements as appropriate;
- perform all tasks in accordance with standard operating procedures;
- perform all tasks to specification;
- use accepted engineering techniques, practices, processes and workplace procedures.

Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.
# MAINTAIN HYDRAULIC SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCY</th>
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</table>
| MEM18.20AA/01         | System components identified correctly.  
| Check hydraulic system components  | - Assessor guide: confirm that the full range of hydraulic system components can be identified and their characteristics and operational function of each system component are understood.  
| | - Assessor guide: confirm that the characteristics and operational function of each hydraulic system component can be identified.  
| | The operational function of each component inspected and tested.  
| | - Assessor guide: observe that a range of hydraulic system components are inspected and tested in accordance with standard operating procedures.  
| | - Assessor guide: confirm that the procedures for inspecting and testing hydraulic system components can be identified. The equipment required to test hydraulic system components can be identified.  
| | Correct operation of each component assessed against specifications.  
| | - Assessor guide: observe that all relevant data sheets and specifications are obtained in accordance with standard operating procedures.  
| | - Assessor guide: confirm that the specifications of each hydraulic system component can be identified. Hydraulic components not operating in accordance with specifications can be identified. The reasons for hydraulic components not operating in accordance with specification can be given.  
| MEM18.20AA/02         | Faulty system components localised and malfunction confirmed by inspection and testing using fluid power principles, procedures and safety requirements.  
| Identify, repair/replace faulty hydraulic system components  | - Assessor guide: observe that all relevant hydraulic circuits, drawings, instructions, manuals and data sheets obtained in accordance with workplace procedures. The individual components within the hydraulic system are checked for correct operation in accordance with standard operating procedures.  
| | - Assessor guide: confirm that the individual components within the hydraulic system can be identified. The safety procedures to be followed when working on hydraulic components can be identified. Where appropriate, faulty system components can be identified.  
| | Faulty system components dismantled and repaired to manufacturer’s/site specifications.  
| | - Assessor guide: observe that faulty system components are dismantled and repaired to manufacturer’s/site specifications in accordance with standard operating procedures.  

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AUM00 V4 to be reviewed by 30 December 2004
MEM18.20AA/02 (continued)
Identify, repair/replace faulty hydraulic system components

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<th>ELEMENT OF COMPETENCY</th>
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| MEM18.20AA/02 (continued) Identify, repair/replace faulty hydraulic system components | • Assessor guide: confirm that the procedure for repairing hydraulic system components can be identified. Replacement parts selected from manufacturer's catalogues according to required specifications.  
• Assessor guide: observe that where appropriate, replacement parts are selected from the manufacturers'/suppliers' catalogues in conformance with specifications.  
• Assessor guide: confirm that the parts to be replaced can be identified. The reasons for replacing the parts identified can be given.  

System components reassembled and tested for correct operation and assessment against specifications.  
• Assessor guide: observe that the hydraulic system components are reassembled in accordance with standard operating procedures. The hydraulic components are tested for correct operation and conformance to specifications in accordance with standard operating procedures. Correct operation of the hydraulic system confirmed to designated operating procedure.  
• Assessor guide: observe that the operation of the hydraulic system is checked for conformance to specification in accordance with standard operating procedures.  
• Assessor guide: confirm that the correct operation of the hydraulic system can be identified. The procedures for checking hydraulic system operation can be given an appropriate follow up procedures adopted according to standard operating procedure.  
• Assessor guide: observe that where appropriate, repaired/replaced hydraulic system components are checked for correct operation in accordance with standard follow up procedures.  
• Assessor guide: confirm that where appropriate, the follow up procedures with respect to repaired/ replaced hydraulic system components can be identified.  
Where appropriate, service reports completed using standard operating procedures.  
• Assessor guide: observe that where appropriate, service reports are completed in accordance with standard operating procedures.  
• Assessor guide: confirm that the reporting/recording procedures can be identified. The reasons for completing service reports for hydraulic system components repaired/replaced can be explained. |
RANGE OF VARIABLES
Work undertaken using predetermined standards of safety, quality and work procedures. Hydraulic system components identified, inspected and assessed using fluid power principles to predetermined specifications interpreted from data sheets and circuit diagrams. Repairs and replacements to site or manufacturer's specifications. Hydraulic system components may include high pressure seals, linear, actuators, directional control valves, proportional valves, timers, counters, sensors, pumps, pressure control valves, lines, hoses and other associated equipment. Correct operational function of equipment components confirmed and commissioned in conformance to specifications, using standard operating procedures. For straightforward removals/replacement of components from a Hydraulic system, see Unit 18.6A (Dismantle/repair/replace/assemble and fit engineering components).

EVIDENCE GUIDE
Assessment context
This unit may be assessed on the job, off the job, or a combination of both on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

Critical aspects
This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the maintenance of hydraulic system components or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Assessment conditions
The candidate will have access to:

- All tools, equipment, materials and documentation required.

The candidate will be permitted to refer to the following documents:

- Any relevant workplace procedures.
- Any relevant product and manufacturing specifications.
- Any relevant codes, standards, manuals and reference materials.

The candidate will be required to:

- Orally, or by other methods of communication, answer questions put by the assessor.
- Identify colleagues who can be approached for the collection of competency evidence where appropriate.
- Present evidence of credit for any off-job training related to this unit.

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.

Special notes
During assessment the individual will:

- demonstrate safe working practices at all times;
- communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment;
- take responsibility for the quality of their own work;
- plan tasks in all situations and review task requirements as appropriate;
- perform all tasks in accordance with standard operating procedures;
- perform all tasks to specification;
- use accepted engineering techniques, practices, processes and workplace procedures.

Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.
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</table>
| MEM18.21AA/01 Undertake preventative maintenance checks/adjustments on hydraulic systems | System components, assemblies or sub-assemblies are identified and prepared for inspection/preventative maintenance.  
- Assessor guide: observe that hydraulic system components are prepared for inspection/preventative maintenance in accordance with work site procedures.  
- Assessor guide: confirm that common hydraulic system components can be identified.  
Visual inspection and testing with appropriate test equipment is carried out according to fluid power principles, procedures and safety requirements.  
- Assessor guide: observe that the hydraulic system and its components are inspected and tested safely in accordance with work site procedures.  
- Assessor guide: confirm that hydraulic system/component faults that can be determined by visual inspection can be identified. The application of common hydraulic system/component test equipment can be given.  
Scheduled preventive maintenance tasks are performed including obvious repairs and adjustments according to manufacturer's specification using fluid power techniques/practices.  
- Assessor guide: observe that scheduled preventative maintenance tasks are performed in accordance with work site procedures. Where appropriate, obvious repairs are performed on the hydraulic system/components in accordance with work site procedures. Where appropriate, hydraulic system/components are adjusted to return the system to manufacturer's specification in accordance with work site procedures.  
- Assessor guide: confirm that schedules preventative maintenance tasks can be identified. The manufacturer's specifications can be identified. |
| MEM18.21AA/02 Undertake fault finding on hydraulic systems | Designated hydraulic system components are identified and a visual inspection of the system is carried out for the collection of fault finding data.  
- Assessor guide: observe that the hydraulic system and its components are visually inspected for indications of correct/incorrect operation in accordance with work site procedures.  
- Assessor guide: confirm that common hydraulic system and component faults can be identified.  
System operator consulted where appropriate and additional data collected.  
- Assessor guide: observe that where appropriate, the system operator is consulted with respect to the fault being investigated. |
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| MEM18.21AA/02 (continued) Undertake fault finding on hydraulic systems | Maintenance reports and preventative maintenance schedules checked and reviewed for additional fault finding data.  
  • Assessor guide: observe that maintenance reports and preventative maintenance schedules are obtained in accordance with work site procedures.  
  • Assessor guide: confirm that any previous faults in the hydraulic system/components can be identified. Any previous maintenance carried out on the hydraulic system/components can be identified.  

Using fluid power principles, checks and tests are undertaken using appropriate test equipment and techniques.  
  • Assessor guide: observe that appropriate test equipment and techniques are used to check/test hydraulic system/component operation in accordance with work site procedures.  
  • Assessor guide: confirm that typical checks/tests that can be carried out on hydraulic systems/components and their application can be identified. Hydraulic system/component test and testing techniques can be identified.  

Faults and malfunctions are identified and verified.  
  • Assessor guide: observe that apparent faults/malfunctions are verified/confirmed in accordance with work site procedures.  
  • Assessor guide: confirm that apparent faults/malfunctions can be identified.  

Faults and malfunctions documented or reported by appropriate means to designated personnel and actioned.  
  • Assessor guide: observe that all verified faults/malfunctions are documented or reported in accordance with work site procedures. The repair/overhaul of the hydraulic system is initiated in accordance with work site procedures.  
  • Assessor guide: confirm that the documentation/reporting requirements with respect to verified faults/malfunctions can be identified. The procedures for initiating repair and/or overhaul of the hydraulic system can be identified.  

| MEM18.21AA/03 Repair and/or overhaul hydraulic system | System or sub-assembly isolated safely and residue pressure discharged in accordance with prescribed procedure and checked for correct isolation.  
  • Assessor guide: observe that the hydraulic system is isolated and depressurised safely in accordance with work site procedures. The hydraulic system is checked to ensure isolation and depressurisation in accordance with work site procedures.  
  • Assessor guide: confirm that the hazards associated with working on hydraulic systems/components can be identified. The procedures for isolating and depressurising hydraulic systems can be identified.  

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</table>
| MEM18.21AA/03 (continued) Repair and/or overhaul hydraulic system | Isolated system or sub-assembly tagged according to designated means.  
- Assessor guide: observe that the isolated hydraulic system is tagged in accordance with work site procedures.  
- Assessor guide: confirm that the tagging requirements for isolated systems can be identified.  
Components or sub-assembly removed from system using correct removal principles and techniques.  
- Assessor guide: observe that the hydraulic components/sub-assembly are removed from the system in accordance with work site procedures.  
Components or sub-assemblies dismantled, examined and verified for replacement, overhaul or repair, using correct and appropriate techniques and procedures.  
- Assessor guide: observe that the hydraulic components/sub-assemblies are dismantled in accordance with work site procedures. The hydraulic components/sub-assemblies and their parts are examined for conformance to specification  
Components outside specification and not repairable are marked for replacement in accordance with work site procedures. Components outside specification and able to be returned to specification are marked for repair/overhaul in accordance with work site procedures.  
- Assessor guide: confirm that the structure of typical hydraulic components can be identified. The specifications of hydraulic components and their constituent parts can be identified.  
Replacement items selected from manufacturer's catalogues to meet specifications.  
- Assessor guide: observe that replacement parts selected from manufacturer's catalogues in compliance with specifications.  
Faulty items repaired/overhauled, using correct and appropriate principles, techniques and procedures.  
- Assessor guide: observe that faulty items repaired/overhauled in accordance with work site procedures.  
- Assessor guide: confirm that the appropriate repair/overhaul procedures can be identified.  
Component or sub-assembly items refitted to equipment and tested for correct operation assessed against specifications.  
- Assessor guide: observe that the hydraulic component/sub-assembly is refitted into the system in accordance with work site procedures. The hydraulic component/sub-assembly is tested for correct operation and compliance with specifications in accordance with work site procedures. |
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<tbody>
<tr>
<td>MEM18.21AA/04</td>
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<tr>
<td>Recommission hydraulic system</td>
<td>System or sub-assembly recommissioned according to prescribed procedures to specifications.</td>
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<td>• Assessor guide: observe that the hydraulic system/sub-assembly is recommissioned to specification in accordance with work site procedures.</td>
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<td>• Assessor guide: confirm that system recommissioning procedures can be identified. The hydraulic system operational specifications can be identified.</td>
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<td>Using fluid power principles and system applications techniques correct operation of the system is verified.</td>
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<td>• Assessor guide: observe that the hydraulic system/sub-assembly is checked/tested for correct operation in accordance with work site procedures.</td>
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<td>Appropriate follow up procedures are instigated.</td>
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<td>• Assessor guide: observe that where appropriate, follow up procedures are initiated in accordance with work site procedures.</td>
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<td>• Assessor guide: confirm that any appropriate follow up maintenance or operational checks can be identified.</td>
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<td>Maintenance records/service reports updated and completed by appropriate designated means.</td>
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<td>• Assessor guide: observe that all maintenance records/reports are updated and completed in accordance with work site procedures.</td>
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<td></td>
<td>• Assessor guide: confirm that the maintenance recording/reporting requirements can be identified. The consequences of inaccurate or incomplete recording/reporting of maintenance/service activities can be given.</td>
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</table>

**RANGE OF VARIABLES**

Work undertaken autonomously or in a team environment. This unit relates to the use of hydraulic test equipment including leak testers, escape rate gauges, hand held pressure testers and other appropriate equipment. The use of hand tools, power tools and specialist tools included. Work tasks include the preventative maintenance, testing, diagnostic fault finding, adjustment, repair, replacement and overhauling of hydraulic systems to predetermined standards of quality, safety and work practices and procedures. Hydraulic components identified, inspected and correct operational function assessed using fluid power principles to predetermined specifications, interpreted from data sheets, manufacturer's catalogues, circuit diagrams and engineering drawings. Preventative maintenance schedules undertaken on a periodic basis and appropriate documentation maintained. Tests, checks, adjustments, repair, replacement and overhaul undertaken on hydraulic assemblies/sub-assemblies, stationary/mobile equipment, hydraulic power tools to site or manufacturers specifications. Appropriate follow up procedures instigated, adopted and appropriate documentation maintained. Where required, work is undertaken to legislative and regulatory requirements.
EVIDENCE GUIDE

Assessment context
This unit may be assessed on the job, off the job, or a combination of on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

Critical aspects
This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with maintaining and repairing hydraulic systems, or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Assessment conditions
The candidate will have access to:
• All tools, equipment, materials and documentation required.

The candidate will be permitted to refer to the following documents:
• Any relevant workplace procedures.
• Any relevant product and manufacturing specifications.
• Any relevant data sheets, catalogues, circuit diagrams and engineering drawings.

The candidate will be required to:
• Orally, or by other methods of communication, answer questions put by the assessor.
• Identify colleagues who can be approached for the collection of competency evidence where appropriate.
• Present evidence of credit for any off-job training related to this unit.

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.

Special notes
During assessment, the individual will:
• demonstrate safe working practices at all times;
• communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment;
• take responsibility for the quality of their own work;
• plan tasks in all situations and review task requirements as appropriate;
• perform all tasks in accordance with standard operating procedures;
• perform all tasks to specification;
• use workplace procedures.

asks involved will be completed within reasonable timeframes relating to typical workplace activities.
## MEM18.22AA MAINTAIN/REPAIR/REPLACE FLUID POWER CONTROLS

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| **MEM18.22AA/01** Install/replace fluid power systems and controls | Fluid power control principles and system/circuit diagrams interpreted and understood.  
- Assessor guide: observe that system/circuit diagrams, system operation and control data obtained in accordance with work site procedures.  
- Assessor guide: confirm that the system operational requirements and specifications can be identified. The application of common fluid power system components and controllers can be identified.  
System/circuit components identified and inspected for compliance with specifications.  
- Assessor guide: observe that system/circuit components are checked/inspected for compliance with specifications.  
- Assessor guide: confirm that the system/circuit components can be identified.  
Sequential installation undertaken according to manufacturer's specifications and standard operating procedure.  
- Assessor guide: observe that the installation of the fluid power system and controls is undertaken in accordance with manufacturer's specifications and work site procedures.  
- Assessor guide: confirm that any special installation requirements can be identified. |
| **MEM18.22AA/02** Check and adjust fluid power system control sequence and operation | Controls and system operation checked against operational specifications using appropriate test equipment and application principles/techniques.  
- Assessor guide: observe that appropriate test equipment is used to check control and system operation against specification in accordance with work site procedures.  
- Assessor guide: confirm that fluid power test equipment and application can be identified.  
Adjustments performed to sequence system to meet/align to operational requirements and specifications.  
- Assessor guide: observe that where appropriate, the system is adjusted to ensure that the sequence of operations conforms to operational requirements in accordance with work site procedures.  
- Assessor guide: confirm that the correct operational sequence of the system can be identified. Typical adjustments to correct sequencing variations from specification can be given. |
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| MEM18.22AA/02 (continued)  
Check and adjust fluid power system control sequence and operation | Modifications/alterations recorded and reported in accordance with standard operating procedures.  
• Assessor guide: observe that any modifications/alterations to the system are recorded/reported in accordance with work site procedures.  
• Assessor guide: confirm that the consequences of not recording/reporting modifications to systems can be given. The procedures for recording/reporting modifications/alterations can be identified.  
Controls and system operation checked and commissioned to specifications.  
• Assessor guide: observe that the operation of the controls and system is checked for conformance to specification. The system is commissioned in accordance with work site procedures.  
• Assessor guide: confirm that the operational and control specifications can be identified. The fluid power system commissioning procedures can be identified. |
| MEM18.22AA/03  
Fault find fluid power systems control circuit | System/circuit diagrams, data sheets interpreted and understood.  
• Assessor guide: observe that all relevant system/circuit diagrams and data sheets are obtained in accordance with work site procedures.  
• Assessor guide: confirm that the system components and their specifications can be identified.  
System/circuit components identified and inspected  
• Assessor guide: observe that the system/circuit components are checked/inspected for conformance to specifications.  
System/circuit traced and action of components diagnosed to identify and localise faults.  
• Assessor guide: observe that the system/circuit components are checked for correct operation in accordance with work site procedures. Components not conforming to operational specification identified and fault localised in accordance with work site procedures.  
System/circuit parts tested using appropriate test equipment and application principles.  
• Assessor guide: observe that appropriate tests are conducted on system/circuit parts in accordance with work site procedures  
• Assessor guide: confirm that Common test equipment and its application can be identified |
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| MEM18.22AA/03 (continued) Fault find fluid power systems control circuit | System/circuit parts assessed against operational specifications  
  • Assessor guide: observe that system/circuit parts are checked for conformance to specifications.  

Fault condition localised at the component level.  
  • Assessor guide: confirm that the component(s) not complying with operational specification can be identified.  

Faulty condition evaluated, root cause analysed and corrective action planned.  
  • Assessor guide: observe that an appropriate corrective action plan is documented in accordance with work site procedures.  
  • Assessor guide: confirm that typical causes of component failure can be given. The cause of the faulty condition in the component(s) can be identified. Appropriate procedures for rectifying the faulty condition can be identified. |
| MEM18.22AA/04 Maintain, repair/replace system control components | Correct maintenance procedures applied according to standard operating procedure.  
  • Assessor guide: observe that appropriate maintenance is carried out in accordance with work site procedures.  
  • Assessor guide: confirm that the appropriate maintenance schedule and procedures can be identified.  

Repair procedures selected and applied using correct and appropriate techniques, tools and equipment  
  • Assessor guide: observe that where appropriate, control components repaired in accordance with work site procedures.  
  • Assessor guide: confirm that appropriate control component repair procedures can be identified.  

Faulty items tested, repaired or replaced using sequential installation procedures according to manufacturer's recommendations  
  • Assessor guide: observe that faulty items tested for conformance to specification in accordance with work site procedures. Repaired/replaced components installed in accordance with manufacturer's requirements and work site procedures.  
  • Assessor guide: confirm that any special installation requirements can be identified. Component and operational specifications can be identified. Typical test equipment and its application can be identified. |
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<td>Maintain, repair/replace system control components</td>
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|                        | Replacement items selected from manufacturer's catalogues to meet specifications.  
|                        | • Assessor guide: observe that where appropriate, replacement items are selected from manufacturer's catalogues in conformance with specifications.  
|                        | System control components reassembled using appropriate principles and procedures according to specifications required.  
|                        | • Assessor guide: observe that where appropriate, control components reassembled in accordance with work site procedures.  
| MEM18.22AA/05          | Check and adjust sequence of fluid power system controls |
|                        | Using circuit diagrams and fluid power system control principles identify circuit sensors and controllers.  
|                        | • Assessor guide: observe that circuit diagrams are obtained in accordance with work site procedures.  
|                        | • Assessor guide: confirm that circuit sensors and controllers can be identified.  
|                        | Make necessary adjustments to sequence system control circuit to meet operational specification.  
|                        | • Assessor guide: observe that where appropriate, the control system is adjusted to ensure conformance to operational specification in accordance with work site procedures.  
|                        | • Assessor guide: confirm that the operational requirements/specifications of the system can be identified. Common adjustments that can be made to control systems and their effect can be identified.  
|                        | Correct operation of system control circuit checked against operational specification.  
|                        | • Assessor guide: confirm that the correct operation of the control system has been confirmed.  
|                        | Fluid power system controls commissioned to specifications.  
|                        | • Assessor guide: observe that the fluid power control system is commissioned to specification in accordance with work site procedures.  
|                        | • Assessor guide: confirm that the procedures for commissioning fluid power control systems can be identified.  

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ELEMENT OF COMPETENCY | PERFORMANCE CRITERIA
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MEM18.22AA/05 (continued) Check and adjust sequence of fluid power system controls | Appropriate follow up procedures adopted.  
• Assessor guide: observe that where appropriate, maintenance and/or service follow up procedures are initiated in accordance with work site procedures.  
• Assessor guide: confirm that any maintenance/service follow up procedures can be identified.  
| Service/maintenance report completed to standard operating procedures.  
• Assessor guide: observe that maintenance and/or service reports are completed in accordance with work site procedures.  
• Assessor guide: confirm that the maintenance/service recording/reporting requirements can be identified.

RANGE OF VARIABLES
Work undertaken using predetermined standards of quality, safety and work procedures, autonomously or in a team environment. This unit relates to the installation/repair/replacement and maintenance of fluid power systems controls. System circuit/components identified, traced, inspected and operational function assessed and verified using fluid power principles to predetermined specifications interpreted from data sheets and circuit diagrams. Installation, adjustment, repairs, replacements and overhauls undertaken to site or manufacturer's specifications using working knowledge and application of principles of fluid power systems control sequencing which may include: PLCs, relay logic control systems, unitised/modular sensors, transducers, timers, counters and associated equipment. If skills beyond the sequencing of PLC controls are required, then Units 10.4A (Enter and change programmable controller operational parameters) and/or Unit 10.5A (Commission programmable controller programs) should also be accessed. Correct operational function of the fluid power system controls verified and commissioned in conformance to specifications.

EVIDENCE GUIDE
Assessment context
This unit may be assessed on the job, off the job, or a combination of on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

Critical aspects
This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with maintaining, repairing and replacing fluid power controls, or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.
**Assessment conditions**
The candidate will have access to:
- All tools, equipment, materials and documentation required.

The candidate will be permitted to refer to the following documents:
- Any relevant workplace procedures.
- Any relevant product and manufacturing specifications.
- Any relevant data sheets, catalogues, circuit diagrams and engineering drawings.

The candidate will be required to:
- Orally, or by other methods of communication, answer questions put by the assessor.
- Identify colleagues who can be approached for the collection of competency evidence where appropriate.
- Present evidence of credit for any off-job training related to this unit. 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.

**Special notes**
During assessment, the individual will:
- demonstrate safe working practices at all times;
- communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment;
- take responsibility for the quality of their own work; plan tasks in all situations and review task requirements as appropriate;
- perform all tasks in accordance with standard operating procedures;
- perform all tasks to specification;
- use accepted engineering techniques, practices, processes and workplace procedures.

Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.