



**Australian Government**

# **AURVTW101 Carry out manual metal arc welding on components**

**Release: 1**

# AURVTW101 Carry out manual metal arc welding on components

## Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

## Application

This unit describes the skills and knowledge required to prepare and weld components using the manual metal arc welding (MMAW) process. It involves preparing for the task, setting up and operating MMAW equipment, performing welding to required standards and specifications, inspecting weld quality, and completing workplace processes and documentation.

The unit applies to those working in the automotive service and repair industry.

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

## Unit Sector

Vehicle Body Technical - Welding, Grinding, Machining and Soldering

## Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to weld component	<ul style="list-style-type: none"><li>1.1 Identify job requirements from workplace instructions</li><li>1.2 Obtain and interpret welding information</li><li>1.3 Identify hazards associated with the work, assess potential risks and implement control measures in line with workplace policies and procedures</li><li>1.4 Identify welding electrodes, weld size, type and sequence, and quantity of materials required according to workplace procedures</li><li>1.5 Identify tools and equipment required for welding and establish serviceability according to workplace procedures</li></ul>

ELEMENTS	PERFORMANCE CRITERIA
2. Weld materials using MMAW	2.1 Set up and operate welding equipment according to manufacturer specifications, workplace procedures, workplace health and safety and environmental requirements 2.2 Identify distortion prevention measures and adjust as required 2.3 Carry out welding test runs according to workplace procedures 2.4 Weld materials using MMAW process according to workplace procedures and required specifications
3. Check welds	3.1 Carry out non-destructive inspection and confirm weld quality and specifications 3.2 Identify weld defects and prepare for re-welding as required, notifying appropriate personnel
4. Complete work processes	4.1 Conduct final inspection according to workplace procedures and confirm component is ready for use 4.2 Clear work area and dispose of or recycle materials according to workplace procedures 4.3 Complete documentation according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.*

SKILL	DESCRIPTION
Learning	<ul style="list-style-type: none"> <li>Locates required sources of information efficiently.</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Clarifies instructions and procedures</li> <li>Reports quality issues and job outcomes clearly.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and set welding machine settings</li> <li>Identifies welding rod specifications.</li> </ul>
Planning and organising	<ul style="list-style-type: none"> <li>Plans own work requirements</li> <li>Prioritises actions to achieve required outcomes</li> <li>Ensures tasks are completed within workplace timeframes.</li> </ul>
Problem solving	<ul style="list-style-type: none"> <li>Identifies weld defects, quality issues and potential problems associated with MMAW process and refers problems to appropriate person.</li> </ul>
Technology	<ul style="list-style-type: none"> <li>Uses specialist MMAW equipment.</li> </ul>

## Unit Mapping Information

Supersedes and is equivalent to AURVTW001 Carry out manual metal arc welding on components.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>