



**Australian Government**

# **AURVTW104 Carry out tungsten inert gas welding**

**Release: 1**

## AURVTW104 Carry out tungsten inert gas welding

### 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 carry out welding operations using tungsten inert gas (TIG) welding. It involves preparing for the task, selecting and using TIG welding equipment, setting gas flow pressures and welder settings, selecting and using suitable personal protective equipment (PPE), performing welding to given specifications, inspecting and testing weld quality, and completing workplace processes and documentation.

This 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	1.1 Determine job requirements from workplace instructions 1.2 Access and interpret welding information 1.3 Identify hazards associated with the work and manage risks 1.4 Select and check tools and equipment for serviceability 1.5 Prepare work area and plan work to carry out TIG welding, minimise waste, and use time efficiently
2. Weld materials using TIG welder	2.1 Prepare, set up and adjust TIG welding equipment for specific welding job requirement 2.2 Use TIG welding equipment according to manufacturer operating procedures and safety and environmental requirements

ELEMENTS	PERFORMANCE CRITERIA
	2.3 Conduct weld test runs according to workplace instructions and weld specifications 2.4 Weld materials using standard or inverter TIG process to industry standards
3. Check welds	3.1 Clean welds using required tools and techniques and according to workplace instructions 3.2 Check and confirm weld specifications and quality requirements by non-destructive inspection 3.3 Identify weld defects, prepare for re-welding as required, and notify required personnel
4. Complete work processes	4.1 Conduct final inspection according to workplace procedures and confirm vehicle is ready for use 4.2 Clear work area and dispose of or recycle materials according to workplace procedures 4.3 Process workplace 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>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and sets TIG welder settings</li> <li>Identifies weld measurements from job requirements</li> <li>Measures material from specifications.</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>
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 defects, quality issues and potential problems associated with TIG welding processes and refers problems to required person.</li> </ul>
Technology	<ul style="list-style-type: none"> <li>Uses specialist TIG equipment.</li> </ul>

## Unit Mapping Information

Supersedes and is equivalent to AURVTW004 Carry out gas tungsten inert gas welding.

## Links

Companion Volume Implementation Guide is found on VETNet -

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