



Australian Government

Assessment Requirements for AURVTW004 Carry out tungsten inert gas welding

Release: 1

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Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standard defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- carry out tungsten inert gas (TIG) welding to the following material sections:
 - 150 mm long:
 - aluminium
 - steel
 - stainless steel
 - perform the above TIG welding in the following weld positions:
 - butt
 - outside corner
 - fillet
 - lap.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS), and occupational health and safety (OHS) requirements relating to carrying out TIG welding, including procedures for:
 - selecting and using personal protective equipment (PPE) for TIG welding, including approved welding helmets
 - using specialist welding tools and equipment
 - using protective screens and fume extraction system
 - manually handling vehicle components and TIG equipment
 - identifying and controlling hazards

- environmental requirements, including procedures for trapping, storing and disposing of waste materials
- different types of shielding gases used in TIG welding
- TIG manufacturer operating procedures
- material and consumable preparation techniques, including:
 - aluminium
 - steel
 - stainless steel
- procedures for setting up and operating TIG equipment
- methods and techniques for TIG welding, including:
 - welding positions:
 - butt
 - outside corner
 - fillet
 - lap
 - weld distortion and distortion control techniques
 - TIG testing procedures, including procedures for visual or non-destructive weld testing
- procedures for identifying and rectifying weld defects, including:
 - lack of penetration
 - excessive weld build-up
 - excess heat
 - undercut
 - heat affected zone
- procedures for protecting vehicle electronics during TIG welding
- procedures for final inspection of welded components.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

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

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to TIG welding that they have carried out, e.g. work orders.

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

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- TIG equipment operating instructions

- PPE required for TIG welding
- protective screens and fume extraction system
- TIG welder and shielding gases
- TIG consumables
- materials specified in the performance evidence requiring TIG welding
- tools, equipment and materials appropriate for carrying out TIG welding.

Links

Companion Volume implementation guides are found in VETNet -

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

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