



Australian Government

RIISAM205E Cut, weld and bend materials

Release: 2

RIISAM205E Cut, weld and bend materials

Modification History

| Release | Comments |
|-----------|----------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0. |
| Release 2 | Minor amendment to Knowledge Evidence to correct typographical error. |

Application

This unit describes the skills and knowledge required to cut, weld and bend materials in the resources and infrastructure industries.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take responsibility for the quality of work outcomes.

Licensing, legislative and certification requirements may apply to this unit and can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

Elements and Performance Criteria

| ELEMENT | 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 cut, weld and bend materials | 1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to cut, weld and bend materials 1.3 Identify and address potential risks, hazards and environmental issues, and implement control measures according to workplace procedures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Identify and implement signage and barricade requirements 1.6 Select appropriate plant, tools and equipment for the job, inspect them for serviceability and rectify or report any faults prior to commencement of work activities |

| ELEMENT | PERFORMANCE CRITERIA |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 1.7 Calculate material quantity requirements in accordance with plans and specifications within scope of own job role 1.8 Obtain and interpret emergency procedures and be prepared for emergency situations |
| 2. Set up and test equipment | 2.1 Select, locate and ensure accessibility to the fire extinguisher prior to and during operations according to workplace procedures 2.2 Attach regulators to Oxy and Acetylene bottles according to manufacturer specifications 2.3 Purge lines prior to lighting up according to manufacturer specifications 2.4 Test equipment for leaks and undertake corrective action or report faults to relevant personnel according to workplace procedures 2.5 Select correct pressures and cutting tips |
| 3. Cut material using oxyacetylene | 3.1 Measure and mark material, and secure the material for cutting according to workplace procedures 3.2 Light torch according to manufacturer specifications 3.3 Adjust setting of flame for cutting according to workplace procedures 3.4 Ensure correct cutting position during cutting to set out mark according to workplace procedures |
| 4. Cut and weld materials using electric welding equipment | 4.1 Complete and verify test runs according to workplace procedures 4.2 Complete welding and cutting according to workplace procedures 4.3 Clean welds using appropriate tools and techniques according to workplace procedures 4.4 Confirm weld and cut specifications by visual inspection and defects identified and repair according to workplace procedures |
| 5. Heat and bend material | 5.1 Measure and mark material, and secure the material for bending 5.2 Light torch according to manufacturer specifications 5.3 Control heat to specified material and minimise weakening effects of the heating process 5.4 Bend material to specification and cool correctly according to workplace procedures |
| 6. Shutdown | 6.1 Switch off torch according to manufacturer specifications 6.2 Shut off gas supply according to manufacturer specifications |
| 7. Clean up | 7.1 Clear work area and dispose of materials according to workplace procedures 7.2 Clean and maintain the plant and equipment, inspect for ensure serviceability and rectify or report any faults or issues to relevant personnel 7.3 Process written maintenance records according to workplace |

| ELEMENT | PERFORMANCE CRITERIA |
|---------|----------------------|
| | 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 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading | <ul style="list-style-type: none"> Identifies and interprets information from workplace procedures, documentation and regulations |
| Writing | <ul style="list-style-type: none"> Produces and completes written documents required for workplace procedures and legislative requirements |
| Self-management | <ul style="list-style-type: none"> Monitors and minimises own exposure to worksite risks and hazards during activities |

Unit Mapping Information

Supersedes and is equivalent to RIISAM205D Cut, weld and bend materials.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>