



Australian Government

ACMFAR305 Perform welding tasks using a forge

Release: 2

ACMFAR305 Perform welding tasks using a forge

Modification History

Release	Comments
Release 2	This version released with ACM Animal Care and Management Training Package Version 2.0.
Release 1	This version released with ACM Animal Care and Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to determine welding requirements, prepare materials and carry out routine welding of either mild steel or aluminium using a forge. Welding in this unit is not required to meet the *AS/NZS 1554 General Purpose Standard*.

The unit applies to individuals who perform welding relevant to farriery services across different equine industry sectors.

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

Pre-requisite Unit

Nil

Unit Sector

Farriery (FAR)

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. Identify work requirements	1.1 Interpret instructions to determine task and time requirements 1.2 Identify welding or bending requirements from specifications 1.3 Identify locations of welds according to specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Prepare materials for welding	2.1 Calculate the amount of metal required for bending or welding 2.2 Clean and prepare materials using tools and techniques appropriate for task 2.3 Identify, fit and use personal protective equipment according to health and safety in the workplace procedures
3. Prepare and manage fire for welding	3.1 Select fuel and prepare tools to manage the fuel source 3.2 Set up forge according to workplace procedures 3.3 Manage the fire to maintain its effectiveness as a forge 3.4 Identify the correct forge heat for particular operations 3.5 Assess and control risks relating to preparing and managing fire for welding according to health and safety in the workplace procedures
4. Carry out farriery welding tasks using a forge fire	4.1 Apply and control heat to the material to be forged 4.2 Carry out farriery welding tasks using welds and tools appropriate for task 4.3 Extinguish the forge fire safely and complete clean-up procedures 4.4 Dispose of waste material safely according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret symbols and diagrams in welding instructions
Numeracy	- Estimate time to complete activities - Monitor temperature gauges
Navigate the world of work	Take responsibility for adherence to work health and safety requirements relating to welding activity and work area
Get the work	Plan, sequence and prioritise tasks and assemble equipment to carry out

Skill	Description
done	welding tasks, judging correct welding heat to perform process on selected material • Monitor safety and risk factors during welding operations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ACMFAR305 Perform welding tasks using a forge Release 2	ACMFAR305 Perform welding tasks using a forge Release 1	Changes to assessment requirements	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>

Assessment Requirements for ACMFAR305 Perform welding tasks using a forge

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has performed four distinct farriery welding tasks using both steel and aluminium, using a gas forge and/or a solid fuel/coke forge. For each task the individual must have:

- identified requirements and specifications, and prepared materials for welding
- selected and correctly fitted personal protective equipment (PPE)
- prepared and managed fire for welding
- completed tasks according to specifications and within designated timeframe.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of forges and fuel, including:
 - solid fuel - coke, coal or charcoal
 - LPG gas
- equipment used in welding tasks for farriery activities, including:
 - anvil and stand
 - welding flux
 - hand tools for fire welding
- principles and practices for welding using a forge, including:
 - materials to be welded and how they react to heat
 - process of welding by forge-produced heat including different heat levels
 - tools appropriate for different types of forges
- types of welding tasks, including:

- bending
- drawing down
- forge brazing
- forge welding - straight scarf and diagonal scarf welds
- punching and drifting
- upsetting or jumping up
- safe work practices, including:
 - manual handling
 - types of PPE
 - use of fire and dangers to operators
 - use of bottled gas
 - dry and ventilated location
 - emergency procedures
 - safe disposal of waste materials
 - workplace health and safety requirements relating to use of forges.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace or environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
 - forge (gas and/or solid fuel) and associated tools and equipment
 - PPE correctly fitted and applicable to tasks for individual
 - materials for welding
- specifications:
 - work instructions for welding tasks.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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