

	<b>Unit ID: 238</b>
<b>Domain Title:</b>	<b>METAL FABRICATION-CORE Cut mild steel using oxy-acetylene cutting equipment as part of metal fabrication operations</b>
<b>Level: 2</b>	<b>Credits: 2</b>

### Purpose

This unit standard specifies the competencies required to cut mild steel using oxy-acetylene equipment. It includes preparation of mild steel and equipment, cutting mild steel as well as completing work and cleaning up. This unit standard is intended for those who work as welders and boilermakers.

### Special Notes

1. Entry information

Prerequisite:

- *Unit 228* - Apply safety rules and regulations in a metal fabrication work environment or demonstrated equivalent knowledge and skills.

2. To demonstrate competence, at a minimum, evidence is required of cutting two work pieces to requirements using oxy-acetylene cutting equipment. These tasks should be performed ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.

3. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which welder and boilermaker operations are carried out.

4. Performance of all elements in this unit standard must comply with manufacturers' specifications and workplace specific requirements.

5. '*Specifications*' refer to any or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.

6. Regulations and legislation relevant to this unit standard include the following:

- Occupational Health and Safety Regulations No. 18, 1997
- Labour Act 6 of 1992

and all subsequent amendments.

## **Quality Assurance Requirements**

This unit standard and others within this Subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Prepare mild steel and equipment**

#### **Performance Criteria**

- 1.1 Cutting instructions are determined using specifications and drawings.
- 1.2 Material is cleaned in accordance with workplace procedures.
- 1.3 Material is prepared and positioned using appropriate tools and techniques.
- 1.4 Equipment is assembled, inspected and set up in accordance with workplace procedures.

### **Element 2: Cut mild steel to specification using oxy-acetylene cutting equipment**

#### **Range**

Safety clothing and personal protective equipment is to include cutting goggles, skull caps, leather aprons, leather gloves, leather spats, safety boots and overalls.

#### **Performance Criteria**

- 2.1 Risks associated with oxy-acetylene equipment are identified and minimised prior to commencing of work.
- 2.2 Equipment start up procedure is implemented in line with manufacturer's and workplace requirements.
- 2.3 Appropriate safety clothing and personal protective equipment is selected, inspected and used as specified in line with workplace procedures.
- 2.5 Mild steel is cut in accordance with work instructions and drawing requirements.
- 2.6 Equipment shut down procedure is implemented in line with manufacturers' and workplace requirements.
- 2.7 Cut material is inspected for conformity with work instructions and job requirements.

### **Element 3: Complete work and clean up**

#### **Performance Criteria**

- 3.1 Work is completed and appropriate personnel notified in accordance with work site or workshop procedures.
- 3.2 Work area is cleared of waste, cleaned, restored and secured in accordance with worksite or workshop procedures.
- 3.3 Tools and equipment are cleaned, maintained and stored in accordance with worksite and workshop procedures.
- 3.4 Work completion details are finalised in accordance with worksite and workshop procedures.

#### **Registration Data**

<b>Subfield:</b>	Mechanical Engineering
<b>Date first registered:</b>	29 March 2007
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<b>Anticipated review:</b>	2012
<b>Body responsible for review:</b>	Namibia Training Authority