

Unit ID: 244

Domain

**METAL FABRICATION-CORE**

Title:

**Gouge metals using manual arc  
equipment as part of metal fabrication  
operations**

Level: 3

Credits: 2

### Purpose

This unit standard specifies the competencies required to gouge metals using manual arc equipment as part of metal fabrication operations. It includes the preparation of materials and equipment, application of manual arc gouging equipment as well as 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 gouging two metal work pieces to job requirements and specifications. Perform these tasks 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. Materials are to include mild steel and stainless steel of any thickness.
4. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which metal fabrication operations are carried out.
5. '*Specifications*' refers to any or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.
6. Preparation of materials is to include setting up jigs, fixtures and clamps.
7. Performance of all elements in this unit standard must comply with manufacturers' specifications and workplace specific requirements.
8. Regulations and legislation relevant to this unit standard include the following:
  - Labour Act 6 of 1992
  - Occupational Health and Safety Regulations No.18, 1997 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 materials and equipment**

#### **Performance criteria**

- 1.1 Gouging requirements are identified from specifications and drawings.
- 1.2 Material is correctly prepared using appropriate tools and techniques.
- 1.3 Materials are assembled and aligned to specification as required.
- 1.4 Equipment is assembled and set up safely and in line with workplace procedures.

### **Element 2: Apply manual arc gouging process**

#### **Performance criteria**

- 2.1 Equipment start-up procedure and settings are followed in line with manufacturers' and workplace procedure.
- 2.2 Appropriate safety clothing and personal protection equipment is used in accordance with standard operating procedures.
- 2.3 Appropriate gouging electrodes are selected.
- 2.4 Metals are gouged to specifications.
- 2.5 Completed work is checked against specifications.
- 2.6 Equipment shut down procedure is implemented in line with manufacturers' and workplace procedures.

## **Element 4: Complete work and clean up**

### **Performance criteria**

- 4.1 Work is completed and appropriate personnel notified in accordance with worksite procedures.
- 4.2 Work area is cleared of waste, cleaned, restored and secured in accordance with worksite procedures.
- 4.3 Plant, tools and equipment are cleaned and maintained and stored in accordance with worksite procedures.
- 4.4 Work completion details are finalised in accordance with worksite procedures.

### **Registration Data**

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