

<b>Domain</b>	<b>METAL FABRICATION-CORE</b>	<b>Unit ID: 239</b>
<b>Title:</b>	<b>Make templates and jigs as part of metal fabrication operations</b>	
<b>Level: 2</b>		<b>Credits: 2</b>

### Purpose

This unit standard specifies the competencies required to make templates and jigs as part of metal fabrication operations. It includes the identification and selection of tools and material, marking off of templates and jigs, forming templates and jigs 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 making four templates and jigs to job requirements and specifications from any two of the materials listed in Special Note 6 below. 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. '*Specifications*' refers to any or all of the following: manufacturer's specifications and recommendations, site and workplace requirements.
  5. Performance of all elements of elements in this unit standard must comply with manufacturers' specifications and workplace specific requirements.
  6. Materials for making templates and jigs include but are not limited to sheet metal, cardboard, template paper and steel profiles.
  7. 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: Identify and select tools, and material**

#### **Performance Criteria**

- 1.1 Appropriate tools and material for making templates and jigs are identified and selected as per job requirements.

### **Element 2: Mark off templates and jigs**

#### **Performance Criteria**

- 2.1 Measurements are transferred onto templates and jigs from given sketches and drawings.
- 2.2 Templates and jigs are marked off in accordance with job requirements.

### **Element 3: Form templates and jigs**

#### **Performance Criteria**

- 3.1 Material is prepared for cutting, drilling, punching and bending.
- 3.2 Personal protective equipment is selected and used in line with workplace requirements
- 3.3 Material is cut, drilled, punched and bent as required.
- 3.4 Material is laid out for accuracy.
- 3.5 Templates and jigs are formed in accordance with defined procedures and according to specifications.

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

### **Performance Criteria**

- 4.1 Work is completed and appropriate personnel notified in accordance with worksite or workshop procedures.
- 4.2 Work area is cleared of waste, cleaned, restored and secured in accordance with worksite or workshop procedures.
- 4.3 Tools and equipment are cleaned, checked, maintained and stored in accordance with worksite and workshop procedures.
- 4.4 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
<b>Date this version registered:</b>	29 March 2007
<b>Anticipated review:</b>	2012
<b>Body responsible for review:</b>	Namibia Training Authority