

<b>Domain</b>	<b>METAL FABRICATION-CORE</b>	<b>Unit ID: 240</b>
<b>Title:</b>	<b>Complete routine tasks using metal fabrication machines</b>	
<b>Level: 2</b>		<b>Credits: 12</b>

### Purpose

This unit standard specifies the competencies required to complete routine tasks using metal fabrication machines. It includes the selection, inspection, safe operation, maintenance and proper storage of mechanical engineering machines. 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. Glossary of terms:

Categories of mechanical engineering machines include but are not limited to:

- *Cutting machines*: guillotine, punch and shear machine, pipe cutting and threading machines.
- *Forming machines*: rollers and bending machines
- *Grinding machines*: pedestal and bench grinders.

3. To demonstrate competence, at a minimum, evidence is required of safely operating machines from the above categories in undertaking four metal fabrication tasks, incorporating the use of at least one machine from each of the categories listed in Special Note 2. These tasks should be performed ensuring correct identification of requirements and finishing of the tasks, correct identification and selection of appropriate processes, tools and equipment and completing all work to specification.

4. 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.

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

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

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: Select and inspect machines**

#### **Performance Criteria**

- 1.1 Machine is selected in accordance task requirements.
- 1.2 Pre operational checks are conducted in line with manufacturers' specifications.
- 1.3 Machines and machine guards are set up and adjusted to requirements.
- 1.4 Personal protection equipment is selected and used in line with workplace procedures.

### **Element 2: Operate machines**

#### **Performance Criteria**

- 2.1 Safety requirements are adhered to during use of machine.
- 2.2 Machine is operated to complete required tasks in accordance with manufacturers' recommendations and regulatory requirements.

### **Element 3: Maintain and store machines**

#### **Performance Criteria**

- 3.1 Machines are checked for faults and serviceability in line with workplace procedures.
- 3.2 Cleaning and routine maintenance of machines is undertaken in line with workplace procedures and manufacturers' recommendations.
- 3.3 Unsafe and faulty machines are identified and marked for repair according to designated procedures.
- 3.4 Machines are safely stored in appropriate location according to standard operating procedures and in line with manufactures' recommendations.

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

##### **Performance Criteria**

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