

<b>Domain</b>	<b>METALFABRICATION-BOILERMAKING</b>	<b>Unit ID: 262</b>
<b>Title:</b>	<b>Fabricate pipe joints using contour makers and centre finders as part of metal fabrication operations</b>	
<b>Level: 4</b>		<b>Credits: 6</b>

### Purpose

This unit standard specifies the competencies required to fabricate pipe joints by using contour markers and centre finders as part of metal fabrication operations. It includes marking out pipe joints, fabricating pipe joints using contour markers and centre finders and completion of work, including cleaning up. This unit standard is intended for those who work as 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 marking out and fabricating two pipe joints using contour markers and centre finders. 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. Materials include metal pipes and tubing.

4. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which 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:

- 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 [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Mark out pipe joints**

#### **Performance Criteria**

Circumference of object is calculated in line with job requirements.

Construction lines are displayed.

All angles to be cut are displayed.

### **Element 2: Fabricate pipe joints**

#### **Performance Criteria**

- 2.1 Appropriate personal protection clothing and equipment is used in line with workplace procedures.
- 2.2 Material is prepared for marking off in line with plan.
- 2.3 Material is marked out and dimensions checked for accuracy.
- 2.4 Templates are manufactured as required.
- 2.5 Material is cut and formed using appropriate machinery and tools.
- 2.6 Tools and equipment are operated in line with manufacturers' specifications.
- 2.7 Material is assembled using appropriate methods in line with job plan and specifications.
- 2.8 Distortion is prevented and controlled applying appropriate techniques in accordance with job requirements.
- 2.9 Final assessment is performed in accordance with the plan.

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

#### **Performance Criteria**

- 3.1 Work is completed and appropriate personnel notified in line with workplace procedures.
- 3.2 Work area is cleared of waste, cleaned, restored and secured in line with workplace procedures.
- 3.3 Tools and equipment are cleaned, checked, maintained and stored in line with workplace procedures.
- 3.4 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>Anticipated review:</b>	2012
<b>Body responsible for review:</b>	Namibia Training Authority