	Unit ID: 265
Domain	**METAL FABRICATION-BOILERMAKING**
Title:	**Perform fabrication of advanced pipe joints using the parallel line development method as part of metal fabrication operations**
Level: 4	**Credits: 6**

Purpose

This unit standard specifies the competencies required to perform fabrication of advanced pipe joints using the parallel line development method as part of metal fabrication operations. It includes laying out pipe joints, performing fabrication of advanced pipe joints using the parallel line development method and 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 laying out and fabricating two pipe joints for two different projects using the parallel line development method. 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. Material includes pipes and all tubing with wall thickness of 3 millimeters and above.

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:
   - 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 who meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with 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.

Elements and Performance Criteria

Element 1: Lay out pipe joints

Performance Criteria

1.1 Front and top views of the object are laid out.

1.2 Circumference of the object is calculated as per job requirements.

1.3 Pipe is laid according to drawing.

Element 2: Fabricate pipe joints

Performance Criteria

2.1 Appropriate safety clothing and personal protection equipment is used in line with workplace procedures.

2.2 Material is prepared prior to fabrication in line with plan.

2.3 Materials marked off and dimensions checked in line with plan.

2.4 Jigs and templates are made as required.

2.5 Material is cut and formed using appropriate machinery and tools in line with the drawing.

2.6 Equipment is operated during fabrication tasks in line with manufacturers' specifications.

2.7 Material is assembled using appropriate methods in line with plan and specifications.

2.8 Distortion is prevented and controlled applying appropriate techniques in line with job requirements.

2.9 Final assessment is performed in line with the drawing.

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

Subfield:	Mechanical Engineering
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Body responsible for review:	Namibia Training Authority