Unit ID: I&C11

Domain Control and Instrumentation

Title: Demonstrate knowledge of flow Measurement

Flow: 2 Credits: 2

#### **Purpose**

This unit standard specifies the competencies required to demonstrate knowledge of Flow Measurement. This unit standard is intended for those who work in instrumentation industry.

## **Special Notes**

1. Entry information:

Prerequisite

- none
- 2. Assessment evidence may be collected from a real workplace or a simulated workplace in which Instrumentation operations are carried out.
- 3. The evidence required to demonstrate competency in this unit must be relevant to workplace operations.
- 4. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.
- 4. Glossary of terms:
  - Specifications' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements.
- 5. Regulations and legislation relevant to this unit standard include the following:
  - Labour Act, No.11, 2007
  - Occupational Health and Safety Regulations No. 101, 1992 (act 6,1992)
  - And all subsequent amendments.
- 6. Performance of all elements in this unit standard must comply with industry standards.

#### **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. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website <a href="https://www.nta.com.na">www.nta.com.na</a>.

## **Elements and Performance Criteria**

### **Element 1: Demonstrate knowledge of Flow Measurement**

#### Range

Flow measuring devices include but not limited to vortex, thermal mass and ultrasonic

#### **Performance Criteria**

- 1.1 Operating principles of flow measurement and gauges are explained with the assistance of sketches.
- 1.2 Properties of flow measurement are described.
- 1.3 Types of flow measurement devices and gauges are described in terms of operating principles and features.
- 1.4 Methods of flow meter installation are described with regard to plate formats and applications and wiring and earthing requirements.
- 1.5 Laws and equations relating to flow measurement are used to perform flow measurement and calculations.
- 1.6 Flow meter calibration check procedures are applied.
- 1.7 Flow meter and associated equipment characteristic graphs are plotted.
- 1.8 Calculations related to flow measurement are demonstrated.
- 1.9 The use of relative flow measurement SI units recognized and applied.
- 1.10 Advantages and disadvantage of the various flow measuring techniques is underlined

# **Registration Data**

Subfield:	Electrical Engineering
Date first registered:	
Date this version registered:	
Anticipated review:	
Body responsible for review:	Namibia Training Authority