

<b>Unit ID: 880</b>	
<b>Domain</b>	<b>ELECTRICAL ENGINEERING - CORE</b>
<b>Title:</b>	<b>Install electric wire ways</b>
<b>Level: 2</b>	<b>Credits: 3</b>

### Purpose

This unit standard is intended for those who install electric wire ways. People credited with this unit standard are able to plan and prepare for work; install electrical wire ways; and clean-up work area.

This unit standard is intended for those who work in electrical workplace environment.

### Special Notes

1. Entry information

Prerequisite

- *Unit 1157 - Demonstrate basic knowledge of workplace health and safety*

2. To demonstrate competence, at a minimum, evidence is required of installing electric wire ways. Perform these tasks ensuring correct identification of requirements, 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 workplace environment in which electrical operations are carried out.

4. Personal protective equipment may include but are not limited to overalls, hard hat, gloves, safety shoes, safety glasses and shields.

5. Performance of all elements in this unit standard must comply with industry standards.

6. Glossary of terms

- 'Wire ways' refers to Conduit-flexible, metal or polyvinyl chloride (PVC), ducting-metal or PVC, power skirting-cable trays or bus bar trunking channels and racks.
- 'ISO' refers to International Organization for Standards
- 'SANS' refers to South Africa National Standards

7. Regulations and legislation relevant to this unit standard include the following:

- Labour Act, No. 11, 2007.
- Regulations relating to the health & safety of employees at work under Schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments.
- SANS 10142-1
- SANS 10142-2

- ISO 14001

## **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: Plan and prepare for work**

#### **Range**

Tools may include but not limited to portable drilling machine, pipe vice, range of appropriate engineering hand tools, spirit level, chalk line, reamers and stocks and dies.

#### **Performance Criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and interpreted.
- 1.2 Work area is inspected for installation as per the marked-out layout, job instructions and work site standards.
- 1.3 Signage and barricade requirements are identified and implemented, where necessary.
- 1.4 Personal Protective Equipment are selected in line job and safety requirements
- 1.5 Tools and equipment selected to carry out tasks are consistent with job requirements, checked for serviceability, and any faults are rectified or reported prior to commencement.
- 1.6 Material quantity requirements are calculated in line with plans, specifications and quality requirements.
- 1.7 Environmental protection requirements are identified and applied in line with environmental plans and regulatory obligations.

## **Element 2: Install electrical wire ways**

### **Range**

Assembling may refer but not limited to wire ways, connecting of inspection boxes, extensions pieces, termination boxes, extension box, joining through gluing, saddling, screwing and clipping.

### **Performance Criteria**

- 2.1 Wire ways are installed according to instructions and pre-marked area.
- 2.2 Surfaces are prepared for the installation of wire ways as per job instructions.
- 2.3 Wire ways are marked out as per pre-determined measurements.
- 2.4 Wire ways are cut, formed and bent according to planned requirements, obstacles, environment (structure) equipment in accordance with work place standards and legislative requirements.
- 2.5 Wire way ends are de-burred.
- 2.6 Wire ways are assembled, joined and mounted according to industry standards and legislative requirements.
- 2.7 Safety precautions and industry requirements are adhered to, for safety of oneself and others.
- 2.8 Wire ways are electrically continuous in accordance with regulations.
- 2.9 End connections are fitted and tightened.
- 2.10 Documentation is completed and submitted to meet work site standards and procedures.

## **Element 3: Clean-up work area**

### **Performance Criteria**

- 3.1 Work area is cleared, cleaned, restored and secured in line with workplace procedures.
- 3.2 Tools and equipment are cleaned, checked and stored in line with manufacturer specifications and workplace procedures.

- 3.3 Materials and wastes are disposed of, reused, or recycled in accordance with legislation, regulations, codes of practice and job specifications.
- 3.4 Completion of job is reported to designated personnel.

### **Registration Data**

<b>Subfield:</b>	Electrical Engineering
<b>Date first registered:</b>	18 November 2010
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