

	Unit ID:	880
Domain	ELECTROTECHNOLOGY	
Title:	Install electric wire ways	
Level: 2		Credits: 3

Purpose

This unit standard specifies the competencies required to install electric wire ways. It includes plan to install electrical wire ways, prepare to install electrical wire ways, install electrical wire ways and complete the installation of wire ways. This unit standard is intended for those who work in electrotechnology environment.

Special Notes

1. Entry information
 - Prerequisite
 - Unit 864 – *Apply safety rules and regulations in an electrotechnology environment* or demonstrated equivalent knowledge and skills.
2. Performance of all elements in this unit standard must comply with industry standards.
3. Assessment evidence may be collected from a real workplace or an appropriate simulated realistic environment in which electrotechnology 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. 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
6. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act, No. 11, 2007.
 - Occupational Health and Safety Regulations No. 18, 1997 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.

Elements and Performance Criteria

Element 1: Plan to install electrical wire ways.

Performance Criteria

- 1.1 Job instructions are obtained from supervisor or works co-coordinator.
- 1.2 Specified wire ways are identified and obtained according to job and statutory requirements.
- 1.3 Specified tools and materials are identified and obtained according to job requirements.
- 1.4 Personal protective equipment is identified and obtained according to work place standards and procedures.

Element 2: Prepare to install electrical wire ways.

Range

Tools may include but are 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

- 2.1 Job instructions are read and followed as per the instructions requirements.
- 2.2 Work area is inspected and prepared for installation as per the marked out layout, job instructions and work site standards.
- 2.3 Specified wire ways, and materials are selected according to given instructions.
- 2.4 Specified type of tools are selected and checked for serviceability according to job and statutory requirements.
- 2.5 Appropriate personal protective equipment is selected for the job, as per work place safety requirements.

Element 3: Install electrical wire ways.

Range

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

Performance Criteria

- 3.1 Wire ways are installed according to instructions and pre-marked area.
- 3.2 Surfaces are prepared for the installation of wire ways as per job instructions.
- 3.3 Wire ways are marked out as per pre-determined measurements.
- 3.4 Wire ways are cut, formed and bent according to planned requirements, obstacles, environment (structure), using appropriate tools and equipment in accordance with work place standards and statutory requirements.
- 3.5 All wire way ends are de-burred.
- 3.6 Wire ways are assembled and joined and mounted according to planned and environmental requirements in accordance with work place standards and statutory requirements including earthing.
- 3.7 Safety precautions and statutory requirements are adhered to through out to ensuring the safety of oneself and others.
- 3.8 Wire ways are electrically continuous in accordance with regulations.

Element 4: Complete the installation of wire ways.

Performance Criteria

- 4.1 All end connections are ensured to be fitted and tightened.
- 4.2 Work is cleaned in accordance with house keeping standards.
- 4.3 All tools are stored in their designated places in accordance with work place practices and manufacturers' specifications.
- 4.4 Waste materials are disposed of, according to work site procedures and statutory requirements and environmental standards.
- 4.5 Documentation is completed and submitted to meet work site standards and procedures.
- 4.6 Completion of job is reported to designated personnel.

Registration Data

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