UEECD0019 Fabricate, assemble and dismantle utilities industry components

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to fabricate, assemble and dismantle utilities industry components using fitting and metal fabrication techniques. It includes the safe use of hand tools, fixed and portable power tools; cutting, shaping, joining and fixing; using metallic and non-metallic materials; dismantling and assembling equipment; mechanical measurement and marking out; and, reading drawings/diagrams. No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Cross Discipline

Unit Sector

Electrotechnology

Elements and Performance Criteria

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<th>ELEMENTS</th>
<th>PERFORMANCE CRITERIA</th>
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<td>Elements describe the essential outcomes.</td>
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1. Prepare for dismantling, assembling and fabrication work |

1.1 Work health and safety (WHS)/occupational health and safety (OHS) procedures for a given work area are identified and applied in accordance with workplace procedures
1.2 WHS/OHS risk control measures and workplace procedures are followed in preparation for the work

1.3 Work instructions and relevant workplace procedures, industry standards, codes of practice and regulations for dismantling, assembling and fabrication are identified and applied

1.4 Scope of work to be undertaken is obtained from relevant documentation and from work supervisor

1.5 Advice is sought from work supervisor to ensure work is coordinated effectively with other persons

1.6 Materials required for work are identified and obtained in accordance with workplace procedures

1.7 Tools, equipment and measuring devices needed to carry out the work are obtained and checked for correct operation and safety

2 Dismantle and assemble utilities industry apparatus

2.1 WHS/OHS risk control measures and workplace procedures for dismantling and assembling apparatus are followed

2.2 Circuits/apparatus/plant are checked and isolation confirmed in accordance with WHS/OHS workplace requirements and procedures

2.3 Relevant tools are selected and used correctly and safely in accordance with manufacturer instructions and workplace procedures

2.4 Relevant manufacturer guides and instructions are followed when dismantling and assembling apparatus

2.5 Apparatus components are marked or tagged correctly during dismantling to ensure correct and efficient reassembly in accordance with workplace procedures

2.6 Dismantled components and parts are stored to protect them against loss or damage in accordance with manufacturer instructions and workplace procedures

2.7 Apparatus is dismantled and assembled without waste of materials and energy, damage to apparatus, the surrounding environment or services

2.8 Unplanned events are referred to supervisor for
directions in accordance with workplace procedures

2.9 Quality checks are carried out in accordance with workplace procedures

2.10 Worksite is tidied, tools and equipment cleaned and securely stored in accordance with workplace procedures

2.11 Work supervisor is notified of dismantling and assembling apparatus completion in accordance with workplace procedures

3 Fabricate utilities industry components

3.1 WHS/OHS risk control measures and workplace procedures for fabricating components are followed

3.2 Circuits/apparatus/plant are checked and isolated in accordance WHS/OHS workplace requirements and procedures

3.3 Relevant tools and equipment are selected, used correctly and safely in accordance with manufacturer instructions and workplace procedures

3.4 Drawings, diagrams and instructions for fabrication of mechanical components are followed in accordance with workplace procedures

3.5 Component dimensions are determined directly by measuring, or by calculation from information supplied in job drawings and instructions

3.6 Mechanical components are fabricated by measuring, marking out, cutting, joining and fixing accurately using relevant equipment and tools, minimising waste of materials and energy and/or damage to the surrounding environment or services

3.7 Unplanned events are referred to supervisor for directions in accordance with workplace procedures

3.8 Quality checks are carried out in accordance with workplace procedures

3.9 Worksite is tidied, tools and equipment cleaned and securely stored in accordance with workplace procedures

3.10 Work supervisor is notified of fabrication completion in
accordance with workplace procedures

**Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

**Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

- Hand tools must include:
  - drills and drilling with different types of drills used in the electrotechnology industry
  - tools for holding, cutting, driving, shaping, breaking and bending materials
  - tools for cutting metallic and non-metallic material

- Relevant workplace policies and procedures must include:
  - circuits/apparatus/plant isolation procedures
  - workplace referral and reporting procedures

- Sheet metal work must include:
  - application of a range of fabrication material types
  - use of tools for cutting, bending, folding and punching sheet metals

- Tapping and threading must include:
  - tools for cutting internal and external threads to materials used for electrotechnology work

- Workshop planning processes and materials must include:
  - metallic and non-metallic materials used in the electrotechnology industry and their application

**Unit Mapping Information**

This unit replaces and is equivalent to UEEEEE102A Fabricate, assemble and dismantle utilities industry components.

**Links**

Companion Volume implementation guides are found in VETNet -