

<b>Domain</b>	<b>PLUMBING</b>	<b>Unit ID: 501</b>
<b>Title:</b>	<b>Plan and install hot water supply systems as part of plumbing operations</b>	
<b>Level: 4</b>		<b>Credits: 8</b>

### Purpose

This unit standard specifies the competencies required to plan and install hot water supply systems in domestic, commercial and industrial sites. It includes planning and preparing for work, installing hot water supply systems and cleaning up the work area.

This unit standard is intended for those who work as plumbers.

### Special Notes

1. Entry information:
  - Prerequisite
    - 434 - *Apply safety rules and regulations in plumbing operations* or demonstrated equivalent knowledge and skills.
2. Hot water supply systems may include but are not limited to direct low pressure, gas fired, electric oil fired, solid fuel and solar.
3. Assessment evidence may be collected from a real workplace or simulated real workplace or an appropriate simulated realistic environment in which plumbing operations are carried out.
4. Tools and equipment may include but are not limited to hand tools, lifting/load equipment, power tools, test equipment, ladders and measuring equipment.
5. Materials may include, but are not limited to hot water supply devices, piping, sealant, flashings and insulation materials.
6. Performance of all elements in this unit standard must comply with all relevant workplace requirements and/or manufacturers' specifications.
7. Regulations and legislation relevant to this unit standard include the following:
  - Labour Act, No. 6, 1992
  - Occupational Health and Safety Regulations No. 18, 1997
 and all subsequent amendments.

## **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**

#### **Performance Criteria**

- 1.1 Appliance, equipment, specifications and appropriate manufacturers' manual are developed in line with workplace procedures.
- 1.2 Safety requirements, including personal protective equipment, are adhered to throughout the work in line with workplace procedures.
- 1.3 Quality assurance requirements for company operations are identified and adhered to in line with workplace procedures.
- 1.4 Tools and equipment are selected consistent with disconnecting/reconnecting services, checked for serviceability and any faults recorded and rectified in line with workplace procedures.
- 1.5 Appropriate test equipment is selected for the job in line with workplace procedures.
- 1.6 Tasks are planned in conjunction with others involved or affected by the work in line with workplace procedures.

### **Element 2: Install hot water supply system**

#### **Performance criteria**

- 2.1 Hot water supply system requirements are developed in line with workplace procedures.
- 2.2 Hot water supply system is positioned in line with specifications.
- 2.3 Hot water supply system is installed in line with manufacturers' instructions and workplace procedures.
- 2.4 Hot water supply system is connected to connection and termination points in line with manufacturers' instructions and workplace procedures.

- 2.5 Hot water supply system is tested in line with manufacturers' instructions and workplace procedures.
- 2.6 Work is carried out in line with job instructions, without causing damage to surrounding equipment or structures.

**Element 3: Clean up work area**

**Performance criteria**

- 4.1 Work area is cleared and materials disposed of or recycled in line with workplace procedures.
- 4.2 Tools and equipment are cleaned, checked, maintained and stored in line with manufacturers' recommendations and workplace procedures.
- 4.3 Documentation is completed in line with workplace procedures.

**Registration Data**

<b>Subfield:</b>	General Construction
<b>Date first registered:</b>	15 November 2007
<b>Date this version registered:</b>	15 November 2007
<b>Anticipated review:</b>	2010
<b>Body responsible for review:</b>	Namibia Training Authority