



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Install And Maintain A Water Supply System Training

Physical Planning and Construction / Building Construction

Unit Standard 119062 · NQF Level 2 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the practical skills and theoretical knowledge required to install and maintain a water supply system in a residential, commercial, or industrial context. Participants will learn to plan, execute, and troubleshoot water supply installations while adhering to South African regulations and safety standards. The course ensures competency in selecting materials, interpreting technical drawings, and performing routine maintenance to ensure system longevity and efficiency.

Category	Physical Planning and Construction
Subfield	Building Construction
Unit Standard	119062
Accreditation	SAQA Accredited · NQF Level 2 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Plan and prepare for the installation of a water supply system according to specifications and safety requirements.
- Install water supply system components, including pipes, fittings, valves, and storage tanks, in compliance with relevant regulations.
- Test and commission the installed water supply system to ensure functionality and leak-free operation.
- Perform routine maintenance and repairs on water supply systems to prevent failures and extend service life.
- Identify and resolve common faults in water supply systems using appropriate diagnostic techniques.
- Apply health, safety, and environmental practices throughout the installation and maintenance process.

WHO SHOULD ATTEND

- This course is designed for plumbers, construction workers, maintenance technicians, and anyone involved in the installation or upkeep of water supply systems.
- It is also suitable for individuals seeking formal recognition of their skills in water supply system installation and maintenance.

COURSE OUTLINE

Day 1: Introduction to Water Supply Systems and Safety

- Overview of water supply systems in South Africa.
- Key legislation: SANS 10252, OHS Act, and municipal bylaws.
- Personal protective equipment (PPE) and site safety.
- Basic tool identification and usage.
- Environmental considerations and water conservation.
- Introduction to system components: pipes, fittings, valves, and meters.

Day 2: Understanding Water Supply Principles and Design

- Hydraulic fundamentals: pressure, flow rate, and friction loss.
- Types of water supply systems: direct, gravity, and pumped.
- Reading and interpreting technical drawings.
- Pipe material selection: PVC, copper, HDPE, and galvanised steel.
- Sizing pipes based on demand and pressure.
- Design considerations for hot and cold water systems.

Day 3: Pipe Installation Techniques and Jointing Methods

- Measuring, marking, and cutting pipes.
- Jointing PVC: solvent cement welding.
- Jointing copper: soldering and compression fittings.
- Jointing HDPE: electrofusion and butt welding.
- Installing pipe clips, brackets, and supports.
- Leak testing procedures: pressure test and visual inspection.

Day 4: Installing Valves, Fittings, and Water Meters

- Types of valves and their functions.
- Installation procedures for valves and fittings.
- Water meter types: mechanical, smart, and bulk meters.
- Meter installation: orientation, straight pipe runs, and sealing.
- Backflow prevention devices and installation.
- Pressure reducing and pressure sustaining valves.

Day 5: Water Supply System Testing, Commissioning, and Troubleshooting

- Pressure testing: hydrostatic and pneumatic methods.
- Flow testing using pitot tubes and flow meters.
- Troubleshooting low pressure: blockages, undersized pipes, and pump issues.
- Diagnosing water hammer and noise problems.
- Commissioning checklist and system balancing.
- Handover documentation: as-built drawings and test certificates.

Day 6: Maintenance, Repair, and Replacement of Components

- Preventive maintenance tasks: cleaning, lubrication, and inspection.
- Repair techniques: pipe patching, coupling replacement, and valve overhaul.
- Replacing water meters and ensuring accurate reconnection.
- Dealing with corrosion, scale, and sediment buildup.
- Emergency shutdown procedures and isolation.

- Record keeping and maintenance logs.

Day 7: Practical Integration, Assessment, and Certification

- Full system installation project: layout, pipework, valves, and meter.
- Pressure testing and commissioning of the installed system.
- Troubleshooting common issues under supervision.
- Written assessment covering theory and regulations.
- Practical assessment with observation checklist.
- Course review, Q&A, and certification ceremony.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **10 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	11 Aug 2026	On-Campus	Dubai, UAE
04 Aug 2026	12 Aug 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	12 Aug 2026	On-Campus	Lagos, Nigeria
05 Aug 2026	13 Aug 2026	On-Campus	Johannesburg, South Africa
06 Aug 2026	14 Aug 2026	On-Campus	Mauritius
07 Aug 2026	17 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	18 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	19 Aug 2026	On-Campus	Abu Dhabi, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 119062) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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