



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

Use Water Circuits To Determine The Performance Of A Refrigeration Plant And Take Appropriate Remedial Action Training

Health Sciences and Social Services / Preventive Health

Unit Standard 120340 · NQF Level 4 · 3 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the skills to analyze water circuits in refrigeration plants, evaluate performance against design specifications, and implement corrective actions to ensure optimal operation. It focuses on practical application of thermodynamic principles and water circuit diagnostics to enhance plant efficiency and reliability.

Category	Health Sciences and Social Services
Subfield	Preventive Health
Unit Standard	120340
Accreditation	SAQA Accredited · NQF Level 4 · 3 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply thermodynamic principles to analyze water circuit parameters in a refrigeration plant.
- Evaluate the performance of water circuits using flow rates, temperatures, and pressure differentials.
- Diagnose common faults in water circuits such as scaling, fouling, or air locks.
- Implement remedial actions to restore water circuit performance to specified levels.
- Demonstrate compliance with safety and environmental regulations during water circuit maintenance.
- Document performance data and corrective measures for quality assurance records.

WHO SHOULD ATTEND

- This course is designed for refrigeration technicians, plant operators, and maintenance personnel who are responsible for monitoring and optimizing refrigeration plant performance in industrial or commercial settings.

COURSE OUTLINE

Day 1: Water Circuits and Refrigeration Plant Performance

- Overview of refrigeration plant components and water circuits (condenser, evaporator, cooling tower, pumps).
- Understanding the relationship between water circuit variables and refrigeration efficiency.
- Safety practices when working with water circuits and refrigeration equipment.
- Step-by-step procedure for measuring water temperature, flow rate, and pressure.
- Using data loggers and gauges to collect performance data.
- Interpreting data against manufacturer specifications and design parameters.
- Identifying common performance issues (e.g., fouling, low flow, incorrect temperature differentials).
- Selecting and implementing remedial actions: cleaning, adjusting flow rates, repairing pumps, or reporting faults.

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 **3 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	10 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	11 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	13 Aug 2026	On-Campus	Durban, South Africa
13 Aug 2026	13 Aug 2026	On-Campus	Mauritius
14 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	17 Aug 2026	On-Campus	Pretoria, South Africa
18 Aug 2026	18 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 120340) 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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