



Accredited Africa Training Institute for Capacity Development

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

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Demonstrate Knowledge Of Fans Fan Measurements And Performance Training

Health Sciences and Social Services / Preventive Health

Unit Standard 120322 · NQF Level 4 · 5 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to understand fan systems, perform accurate fan measurements, and evaluate fan performance in industrial and commercial settings. Participants will learn to apply relevant standards and calculations to ensure efficient and safe fan operation, supporting maintenance and energy optimization goals.

Category	Health Sciences and Social Services
Subfield	Preventive Health
Unit Standard	120322
Accreditation	SAQA Accredited · NQF Level 4 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of fan types, components, and operating principles.
- Apply fan laws and performance curves to analyze system behavior.
- Perform fan measurements including airflow, pressure, and speed using appropriate instruments.
- Evaluate fan performance against design specifications and industry standards.
- Identify common fan faults and recommend corrective actions.
- Implement safe work practices during fan measurement and testing procedures.

WHO SHOULD ATTEND

- This course is designed for maintenance technicians, mechanical engineers, and operations personnel responsible for the installation, testing, and performance monitoring of fans in industrial, mining, or HVAC environments.

COURSE OUTLINE

Day 1: Fundamentals of Fans and Measurement Principles

- Introduction to fan types: axial, centrifugal, and mixed flow fans.
- Fan laws and performance curves: understanding the relationship between speed, flow, pressure, and power.
- Measurement instruments: anemometers, manometers, tachometers, and power analysers.
- Setting up measurement points and ensuring safety during fan testing.
- Calculating airflow using velocity traverse methods.
- Determining static, dynamic, and total pressure in duct systems.
- Hands-on exercise: measuring fan performance parameters in a controlled environment.
- Data recording and error analysis for reliable measurements.

Day 2: Advanced Performance Evaluation and Practical Application

- Detailed analysis of fan performance curves: fan curves vs. system curves.
- Impact of system design on fan performance: ductwork, dampers, and inlet/outlet conditions.
- Efficiency calculations: fan static efficiency, total efficiency, and specific power consumption.
- Standards for fan testing: ISO 5801 and AMCA 210 requirements.
- Practical performance test: setting up a fan test rig, conducting measurements, and plotting results.
- Troubleshooting: identifying causes of reduced flow, vibration, or noise from measurement data.
- Energy optimisation strategies: variable speed drives and fan selection for system matching.
- Case study: interpreting real-world fan performance data and recommending improvements.

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 **5 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 15,400.00	R 15,400.00
1	In-House	R 20,000.00	R 20,000.00
1	On-Campus (Pretoria)	R 23,100.00	R 23,100.00

UPCOMING SESSIONS

Start	End	Method	Venue
11 Aug 2026	12 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	12 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	12 Aug 2026	On-Campus	Cape Town, South Africa
13 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
13 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	18 Aug 2026	On-Campus	Dubai, UAE
17 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 120322) 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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