



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

Drilling Machine Operation and Monitoring

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 258681 · NQF Level 2 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the skills to safely and effectively operate and monitor drilling machines in a manufacturing or engineering environment. It covers machine setup, operation, monitoring, and basic maintenance, ensuring compliance with quality standards and safety regulations.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	258681
Accreditation	SAQA Accredited · NQF Level 2 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate the correct procedures for setting up and preparing a drilling machine for operation.
- Operate a drilling machine safely and efficiently to produce components within specified tolerances.
- Monitor drilling machine performance and product quality during the production process.
- Apply basic maintenance procedures to ensure machine reliability and longevity.
- Identify and respond to common operational faults and deviations in drilling processes.
- Comply with health, safety, and environmental regulations relevant to drilling operations.

WHO SHOULD ATTEND

- This course is designed for machine operators, artisans, and production workers who are responsible for operating and monitoring drilling machines in industrial settings.

COURSE OUTLINE

Day 1: Introduction to Drilling Machines and Safety

- Types of drilling machines (e.g., pillar, radial, bench)
- Key components: spindle, chuck, table, base, feed mechanism
- Safety legislation: OHSA, SANS codes, and site-specific rules
- PPE: safety glasses, gloves, hearing protection, steel-toed boots
- Pre-operational checks: lubrication, guards, emergency stop
- Basic machine setup: securing workpiece, selecting drill bit
- Start-up and shut-down procedures

Day 2: Drilling Operations and Machine Monitoring

- Drill bit types: twist, center, step, and specialty bits
- Cutting speed and feed rate calculations
- Material considerations: metal, wood, plastic
- Drilling techniques: peck drilling, pilot holes, coolant use
- Machine monitoring: spindle speed, feed pressure, chip formation
- Defect identification: chatter, burning, oversized holes
- Tool wear inspection and replacement

Day 3: Advanced Applications and Practical Integration

- Tapping and reaming operations
- Use of jigs and fixtures for accuracy
- Quality control: hole diameter, depth, surface finish
- Measuring tools: calipers, micrometers, gauges
- Troubleshooting: motor issues, belt tension, alignment
- Maintenance tasks: cleaning, lubrication, basic repairs
- Practical assessment: drill a component to specification

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 **6 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	12 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Dubai, UAE
12 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	19 Aug 2026	On-Campus	Durban, South Africa
17 Aug 2026	19 Aug 2026	On-Campus	Dubai, 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 258681) 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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