



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

Friction Driven Winder Operation And Safety Procedures Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110144 · NQF Level 3 · 15 Credits · 12 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to operate a friction driven winder safely and efficiently. It covers start-up, running, and shutdown procedures, as well as emergency response and lock-out/tag-out protocols. The training ensures compliance with South African health and safety regulations in mining and industrial environments.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110144
Accreditation	SAQA Accredited · NQF Level 3 · 15 Credits
Duration	12 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate the correct procedures for starting, operating, and shutting down a friction driven winder.
- Apply safety protocols, including lock-out/tag-out and emergency stop procedures, during winder operation.
- Identify and analyze potential hazards associated with friction driven winder operation.
- Perform routine inspections and basic maintenance checks to ensure safe operation.
- Evaluate operational parameters and adjust controls to maintain safe and efficient winding.
- Implement emergency response actions in the event of a winder malfunction or accident.

WHO SHOULD ATTEND

- This course is designed for machine operators, team leaders, and safety officers in mining, manufacturing, and industrial settings who are responsible for operating or overseeing friction driven winders.

COURSE OUTLINE

Day 1: Introduction to Friction Driven Winders and Safety Fundamentals

- Overview of friction driven winders: types and uses
- Key components: drums, rollers, brakes, clutches, and control systems
- Introduction to operational safety principles
- Understanding relevant legislation: OHS Act, SANS codes
- Roles and responsibilities of operators and supervisors
- Basic risk assessment concepts

Day 2: Mechanical Systems and Pre-Operational Checks

- Detailed study of mechanical components: bearings, gears, couplings
- Pre-operational inspection checklist
- Lubrication points and types of lubricants
- Identifying wear, misalignment, and damage
- Maintenance schedules and record keeping
- Practical demonstration of pre-start checks

Day 3: Electrical and Control Systems

- Introduction to electrical diagrams and symbols
- Control panel components: PLCs, VFDs, relays
- Safety devices: emergency stop, limit switches, guarding
- Lockout/tagout procedures for electrical work
- Troubleshooting common electrical issues
- Practical exercise: identifying components

Day 4: Hydraulic and Pneumatic Systems

- Fundamentals of hydraulics and pneumatics
- System components and their functions
- Reading schematics
- Pressure testing and adjustment procedures
- Common faults: leaks, contamination, seal failure
- Safety precautions: pressure release, fluid handling

Day 5: Operational Procedures and Controls

- Start-up sequence and shutdown procedures
- Control modes: local vs remote, manual vs automatic
- Setting and adjusting winding parameters
- Monitoring displays: speed, tension, current, temperature
- Alarm management and fault finding
- Practical exercise: simulated operation

Day 6: Material Handling and Web Control

- Material characteristics: thickness, strength, stretch
- Tension control principles and devices
- Web guiding systems: sensors, actuators
- Splicing techniques and adhesive selection
- Core preparation and roll removal

- Defect identification: wrinkles, telescoping, breaks

Day 7: Safety Systems and Emergency Procedures

- Safety system overview: guarding, interlocking, emergency stops
- Testing and verification of safety devices
- Emergency response: fire, chemical spill, injury
- Task-specific risk assessment (JSA)
- Incident reporting and investigation basics
- Practical drill: emergency stop scenario

Day 8: Troubleshooting and Fault Diagnosis

- Troubleshooting methodology: observe, analyze, isolate, correct
- Common mechanical faults: vibration, noise, overheating
- Electrical fault finding: continuity, voltage, signal testing
- Control system diagnostics: PLC indicators, HMI messages
- Use of manuals and schematics
- Practical fault-finding scenarios

Day 9: Routine Maintenance and Inspections

- Preventive maintenance schedule
- Inspection of braking systems: pad wear, adjustment
- Clutch maintenance: slipping, adjustment
- Bearing inspection and replacement
- Filter and seal replacement
- Maintenance documentation and CMMS entry

Day 10: Advanced Operational Techniques

- Advanced tension control: taper, inertia compensation
- Winding curves and roll hardness
- Center vs surface winding techniques
- Handling delicate or stretchy materials
- Performance optimization: speed, tension, lay-on pressure
- Practical exercise: parameter optimization

Day 11: Quality Control and Process Improvement

- Quality standards for wound rolls
- Measurement tools: hardness tester, micrometer, taper gauge
- Common defects: gauging bands, telescoping, core slips
- Root cause analysis techniques (5 Whys, fishbone)
- Process improvement: speed adjustments, tension changes
- Data collection and SPC basics

Day 12: Integration, Assessment, and Certification

- Review of key concepts and procedures
- Practical assessment: full operational cycle
- Written exam covering theory and safety
- Feedback session and gap analysis
- Certification requirements and portfolio of evidence
- Course evaluation and next steps

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 **15 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 41,000.00	R 41,000.00
1	In-House	R 53,300.00	R 53,300.00
1	On-Campus (Pretoria)	R 61,500.00	R 61,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
04 Aug 2026	19 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	20 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	20 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	21 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	24 Aug 2026	On-Campus	Mauritius
10 Aug 2026	25 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	26 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	27 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 110144) 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.

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 · WhatsApp: +27 65 077 6310 · apply@aatid.co.za · www.aatid.co.za