



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

Supercalendered Paper And Board Production Skills Training

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 110031 · NQF Level 3 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the specialized skills required to operate and manage supercalendered paper and board production processes. It covers the principles of supercalendering, machine operation, quality control, and troubleshooting to ensure efficient production of high-quality paper and board products.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	110031
Accreditation	SAQA Accredited · NQF Level 3 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply the principles of supercalendering to adjust machine parameters for desired paper and board properties.
- Demonstrate safe operation of supercalender equipment, including start-up, running, and shutdown procedures.
- Analyze product quality issues related to supercalendering, such as gloss, smoothness, and caliper, and implement corrective actions.
- Evaluate the effects of roll pressure, temperature, and moisture on paper and board characteristics.
- Implement routine maintenance and troubleshooting procedures to minimize downtime and optimize production efficiency.
- Design a quality control plan for monitoring supercalendering output to meet customer specifications.

WHO SHOULD ATTEND

- This course is designed for production operators, process technicians, and supervisors working in paper and board manufacturing facilities who are involved in or responsible for supercalendering operations.

COURSE OUTLINE

Day 1: Introduction to Supercalendered Paper and Board

- Overview of paper and board grades.
- What makes SC paper unique: smoothness, gloss, density.
- Raw materials: pulp, fillers, coatings.
- Introduction to the supercalendering process.
- Quality parameters: brightness, opacity, smoothness.
- Applications: magazines, catalogs, inserts.

Day 2: Raw Materials and Stock Preparation

- Fiber types: chemical, mechanical, recycled.
- Filler selection: clay, calcium carbonate, talc.
- Additives: sizing agents, retention aids.
- Stock preparation stages: slushing, refining, blending.
- Consistency control and metering.

Day 3: Paper Machine Operations for SC Grades

- Headbox and forming: wire types, drainage.
- Press section: nip pressure, felt design.
- Dryer section: steam pressure, moisture profiling.
- Size press application: surface sizing.
- Coating: pre-coat and top-coat formulations.
- Machine speed and tension control.

Day 4: Supercalendering Theory and Equipment

- Mechanics of calendering: nip pressure, dwell time.
- Supercalender stack: number of nips, roll arrangement.
- Filled rolls vs. heated rolls.
- Temperature control in supercalendering.
- Moisture addition and rewetting.
- Winder and reel handling.

Day 5: Process Control and Optimization

- Online measurement: gloss, smoothness, moisture, caliper.
- Control loops: nip pressure, roll temperature, speed.
- Profile control: cross-direction and machine-direction.
- Defect analysis: blackening, blistering, streaks.
- Optimization techniques for productivity.

Day 6: Quality Assurance and Testing

- Physical tests: grammage, caliper, density.
- Surface tests: smoothness (Bekk, Parker Print-Surf), gloss.
- Optical tests: brightness, opacity, shade.
- Strength tests: tear, tensile, burst.
- SPC charts: control limits, capability indices.
- Customer specifications and complaints.

Day 7: Maintenance and Safety in Supercalendering

- Roll maintenance: regrinding, crown correction.
- Bearing and lubrication systems.
- Hydraulic and pneumatic systems.
- Safety hazards: nip points, high temperature, rotating equipment.
- Personal protective equipment (PPE).
- Emergency shutdown procedures.

Day 8: Advanced Applications and Troubleshooting

- Case studies: gloss variation, caliper profile issues.
- Root cause analysis tools: fishbone, 5 whys.
- Advanced coating formulations.
- Online defect detection systems.
- Trends: soft calenders, multi-nip calendering.
- Environmental considerations.

Day 9: Integration, Review, and Assessment

- Review of key concepts.
- Written assessment covering theory and calculations.
- Group discussion: application to own mill.
- Feedback and Q&A.;
- Certification requirements.
- Resources for further learning.

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 **12 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	13 Aug 2026	On-Campus	Dubai, UAE
04 Aug 2026	14 Aug 2026	On-Campus	Mauritius
05 Aug 2026	17 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	17 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	18 Aug 2026	On-Campus	Cape Town, South Africa
07 Aug 2026	19 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	20 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	21 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 110031) 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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