



## 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

# Blasting Accessories Knowledge for Mining

Law, Military Science and Security / Safety in Society

Unit Standard 258013 · NQF Level 5 · 8 Credits · 5 Days

## COURSE OVERVIEW

This course equips learners with comprehensive knowledge of blasting accessories used in mining operations. Participants will understand the function, selection, and safe handling of detonators, explosives, initiation systems, and associated equipment to ensure compliance with South African mining regulations.

|                 |                                           |
|-----------------|-------------------------------------------|
| Category        | Law, Military Science and Security        |
| Subfield        | Safety in Society                         |
| Unit Standard   | 258013                                    |
| Accreditation   | SAQA Accredited · NQF Level 5 · 8 Credits |
| Duration        | 5 days                                    |
| Training Method | Online, On-Campus, In-House               |
| Certificate     | Issued via AATICD LMS – verifiable online |

## LEARNING OUTCOMES

- Identify and describe the types and functions of blasting accessories used in mining.
- Explain the safe handling, storage, and transportation procedures for blasting accessories.
- Demonstrate knowledge of initiation systems and their application in different blasting scenarios.
- Apply relevant South African mine health and safety regulations to blasting accessory use.
- Evaluate the compatibility and suitability of blasting accessories for specific mining conditions.

## WHO SHOULD ATTEND

- Blasting assistants, miners, and safety officers in the mining industry who require foundational knowledge of blasting accessories for safe and effective blasting operations.

## COURSE OUTLINE

### Day 1: Introduction to Blasting Accessories and Safety

- Overview of blasting accessories: detonators, boosters, connectors, lead-in lines
- Classification of accessories by function and application
- Legal framework: Mine Health and Safety Act, explosives regulations
- Safety precautions: handling, storage, and transport
- Manufacturer specifications and data sheets
- Environmental considerations and risk management

### Day 2: Detonators and Initiation Systems

- Electric detonators: construction, firing current, circuit design
- Non-electric detonators (NONEL): shock tube, delay elements
- Electronic detonators: programmability, accuracy, benefits
- Detonating cord: characteristics, connections, and safety
- Boosters and primers: types, placement, and compatibility
- Initiation systems: series, parallel, and hybrid configurations
- Testing and continuity checks
- Fault detection: misfires, cut-offs, and premature initiation

### Day 3: Connecting Accessories and Circuit Design

- Connectors: types (inline, surface, trunkline) and usage
- Lead-in lines and trunklines: specifications, length, and connections
- Circuit design principles: series, parallel, and combination circuits
- Resistance calculations and Ohm's law application
- Use of blasting machines and testers
- Connecting blocks and junction boxes: installation and safety
- Hook-up procedures for typical blast patterns
- Troubleshooting circuit faults

### Day 4: Blasting Accessories for Special Applications

- Underground blasting accessories: connectors, detonators, safety issues
- Surface mining accessories: large-diameter detonators, trunkline delays
- Controlled blasting: pre-split, smooth blasting, cushion blasting
- Timing devices: programmable delays, sequential timers
- Accessories for wet or harsh conditions
- Vibration monitoring and blast design adjustments
- Environmental controls: stemming plugs, dust suppression
- Case studies: accessory selection for different rock types

### Day 5: Practical Integration, Quality Control, and Assessment

- Quality control: inspection of accessories, storage conditions, expiry dates
- Maintenance and record-keeping for accessories
- Simulated blast design: selecting accessories for a given scenario
- Safety audits and risk assessment for blasting operations
- Emergency procedures: misfire handling, disposal of damaged accessories
- Review of key concepts and industry best practices
- Final assessment: written test and practical evaluation

## 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 **8 NQF credits** at **NQF Level 5**.

## PRICING (PER DELEGATE, EX-VAT)

| Delegates | Training Method      | Price per Delegate | Total       |
|-----------|----------------------|--------------------|-------------|
| 1         | Online               | R 24,200.00        | R 24,200.00 |
| 1         | In-House             | R 31,400.00        | R 31,400.00 |
| 1         | On-Campus (Pretoria) | R 36,200.00        | R 36,200.00 |

## UPCOMING SESSIONS

| Start       | End         | Method    | Venue                   |
|-------------|-------------|-----------|-------------------------|
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Durban, South Africa    |
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Abu Dhabi, UAE          |
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Pretoria, South Africa  |
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Dubai, UAE              |
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Cape Town, South Africa |
| 10 Aug 2026 | 14 Aug 2026 | On-Campus | Mauritius               |
| 17 Aug 2026 | 21 Aug 2026 | On-Campus | Dubai, UAE              |
| 17 Aug 2026 | 21 Aug 2026 | On-Campus | Pretoria, South Africa  |

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](http://www.aaticd.co.za), open the page for this course (Unit Standard 258013) 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](mailto: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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