



## MINING AND MINERALS TRAINING

# Drilling and Blasting Operations

5 day course

Classroom, online or in-house

## Course overview

Blasting sets the fragmentation every downstream process inherits, so a poor blast is paid for again at the crusher, in the mill and in equipment wear. This course covers designing and executing one. Delegates work through explosive types and their properties, initiation systems and timing, and blast design including burden, spacing, stemming and powder factor. Fragmentation and its measurement are treated as the actual objective. The course covers the control of flyrock, ground vibration and airblast against limits set by neighbours and regulators, alongside secondary blasting and misfire procedure, and closes on the safety, storage and legal requirements attaching to explosives.

## What you will learn

- Compare explosive types and select against rock and water conditions
- Specify initiation systems and design a timing sequence
- Design a blast using burden, spacing, stemming and powder factor
- Measure fragmentation and connect it to downstream cost
- Control flyrock, ground vibration and airblast against limits
- Apply misfire and secondary blasting procedures safely
- Meet the storage, handling and legal requirements for explosives

## Who should attend

- Drill and blast engineers and supervisors
- Mining engineers and production staff
- Shotfirers and blasting crews
- Health and safety professionals in mining and quarrying
- Quarry managers

## Course outline

- 01 Explosive types, properties and selection
- 02 Initiation systems and timing design
- 03 Blast design: burden, spacing, stemming and powder factor
- 04 Fragmentation and its downstream cost
- 05 Flyrock control
- 06 Ground vibration and airblast against regulatory limits
- 07 Misfires and secondary blasting
- 08 Storage, handling and legal requirements

## Upcoming dates

| Dates                              | Venue              | Format    | Fee per delegate |
|------------------------------------|--------------------|-----------|------------------|
| 26 to 30 October 2026              | Gaborone, Botswana | Classroom | R19,950          |
| 28 December 2026 to 1 January 2027 | Online             | Online    | R8,500           |
| 25 to 29 January 2027              | Lusaka, Zambia     | Classroom | USD 1,325        |
| 22 to 26 February 2027             | Windhoek, Namibia  | Classroom | R19,950          |



## Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit [www.afrisciencegroup.com](http://www.afrisciencegroup.com), email [info@afriscience.co.za](mailto:info@afriscience.co.za), or WhatsApp us on **+27 63 479 1136**.

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