

# Drill and blast operator Job Description

A free job description template for Australian mining operations

Company Name: \_\_\_\_\_

Location: \_\_\_\_\_

Employment Type: \_\_\_\_\_

Reports To: \_\_\_\_\_

Date: \_\_\_\_\_

## DISCLAIMER

This drill and blast operator job description template is designed to reflect Australian workplace standards and mining industry practices at the time of publication. Explosives handling and shotfiring are safety-critical, licensed activities regulated at the state and territory level. Confirm the applicable modern award and all relevant explosives, work health and safety and mine safety laws for your business.

## 1. Position overview

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A drill and blast operator (also known as a shotfirer or blast crew member) loads, primes and charges blast holes with explosives so that rock can be broken to a design pattern for excavation. The role sits within the drill-and-blast team and works closely with drillers and the drill-and-blast engineer to deliver fragmentation targets safely and on schedule.

Most drill and blast operators work in surface mining and haulage operations, with some roles in underground mining. In Australia, the role is typically covered by the Mining Industry Award 2020 (MA000011), with drill and blast operators commonly classified around Level 3 to Level 5 depending on experience, licences held and the responsibility carried on shift.

This is a safety-critical, licensed position: a shotfirer's licence and an explosives handling authority are required before an operator can charge and fire blasts. This template provides a foundation for creating clear, compliant job descriptions that attract properly ticketed candidates. Once hired, manage your crews and complex FIFO roster patterns efficiently with mining rostering software.

## 2. Key responsibilities

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### Loading and charging blast holes

Loading, priming and charging blast holes with explosives to the approved blast design, and checking product quantities against the shot plan.

### Measuring and checking holes

Measuring and checking hole depth, spacing and burden, identifying wet or collapsed holes and reporting deviations to the drill-and-blast engineer.

### Tying-in initiation systems

Connecting and tying-in detonators, boosters and initiation systems, and verifying the firing circuit before the blast.

### Exclusion zones and firing

Establishing and enforcing exclusion zones, confirming the area is clear and following the site firing procedure for each blast.

### Post-blast and misfire management

Conducting post-blast inspections, identifying and managing misfires and fumes, and clearing the area for re-entry to regulation.

### Explosives handling and compliance

Handling, transporting and storing explosives to legislation, maintaining magazine and blast records and following mine safety and WHS procedures.

### 3. Skills and attributes

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- Safety focus: Uncompromising commitment to safe explosives handling, hazard awareness and strict adherence to firing and exclusion procedures.
- Attention to detail: Accuracy loading holes to the blast design, checking depths and spacing and verifying initiation circuits before firing.
- Communication: Clear radio and verbal communication with drillers, the blast engineer and site controllers during charging and firing.
- Teamwork: Coordinating effectively within the blast crew and supporting drillers, loaders and supervisors during the shift.
- Physical stamina: Ability to work on your feet in remote pits and benches across long shifts in heat, dust and varied weather.
- Problem solving: Sound judgement identifying wet holes, misfires and abnormal conditions, and knowing when to stop work and escalate.

### 4. Qualifications and requirements

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Drill and blast operator qualifications are safety-critical and largely mandatory. Explosives and shotfiring licences are issued at the state and territory level, so confirm the correct authority for your site's jurisdiction.

- Shotfirer's licence (required) — Current state or territory shotfirer's licence to charge and fire blasts
- Explosives handling authority (required) — Valid permit or authority to handle, transport and store explosives
- Site inductions (required) — Standard 11 or equivalent generic induction plus site-specific inductions
- Working rights (required) — Eligibility to work in Australia
- Drill and blast experience — Previous experience on a surface or underground blast crew is advantageous
- Driver's licence — Current licence, with HR or MC and load-and-haul tickets desirable

### 5. Working conditions

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- FIFO or drive-in drive-out to remote mine sites on rotating rosters
- Continuous 12-hour day and night shifts across the swing
- Strict safety procedures and permits when handling explosives
- Outdoor work in heat, dust and varied weather on pits and benches
- Mandatory PPE including hard hat, hi-vis, safety glasses and steel-capped boots
- Fatigue management requirements across long shifts and rotations

## 6. Award information

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### Mining industry award 2020

Most drill and blast operator positions in Australia are covered by the Mining Industry Award 2020 (MA000011). This modern award sets minimum pay rates, penalty rates, allowances and conditions for employees in coal, metalliferous and extractive mining operations. View current Mining Award pay rates.

For FY2026/27 the award ranges from an Introductory rate of \$27.53 per hour up to \$37.62 per hour at Level 7. Drill and blast operators typically sit around Level 3 to Level 5 depending on experience and the licences held. Casual employees receive a 25% loading. Use award interpretation software to calculate pay accurately, or estimate a shift with our overtime and penalty rate calculator.

### Penalties and allowances

Under MA000011, weekend and shift work attract penalties: Saturday work is paid at 150% for the first three hours and 200% after, Sunday work at 200% and public holidays at 250%. Afternoon and night shifts attract a 15% loading, rising to 30% for permanent night shift, and an underground allowance of around \$2.06 per hour applies where relevant.

Many mine sites operate under an enterprise agreement that can vary these rates, so always confirm which instrument applies. See our guide on mining and FIFO worker pay in Australia for a fuller breakdown of how overtime and penalties stack up on continuous rosters.

## 7. Frequently asked questions

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### About the role

Q: What does a drill and blast operator do?

A drill and blast operator, or shotfirer, loads, primes and charges blast holes with explosives to an approved blast design, ties-in the initiation system, enforces exclusion zones and fires the blast. After firing they conduct post-blast inspections and manage any misfires. They work in the drill-and-blast crew alongside drillers and the drill-and-blast engineer, most commonly in surface mining and haulage but also underground.

Q: What is the difference between a shotfirer and a driller?

A driller operates the drill rig that bores the pattern of blast holes to the design. A shotfirer, or drill and blast operator, then charges those holes with explosives, connects the initiation system and fires the blast. On many crews the roles overlap and operators hold both drilling and shotfiring tickets, but firing a blast always requires a licensed shotfirer.

Q: What award covers drill and blast operators in Australia?

Most drill and blast operators are covered by the Mining Industry Award 2020 (MA000011), which applies to coal, metalliferous and extractive mining. Many large sites also operate under an enterprise agreement that can set higher rates and different conditions, so always confirm which instrument applies to your operation.

Q: What classification level should I use for a drill and blast operator?

Under the Mining Industry Award, drill and blast operators typically sit around Level 3 to Level 5, depending on experience, the licences held and the responsibility carried on shift. See our Mining Award pay rates guide for current rates at each level and confirm against any enterprise agreement that applies.

## Qualifications

Q: What licences does a drill and blast operator need?

A drill and blast operator must hold a current shotfirer's licence and an explosives handling authority or permit to charge and fire blasts. These are issued at the state and territory level, so requirements differ across NSW, Queensland, WA and other jurisdictions, and a licence from one state may not be valid in another. Operators also need standard mining inductions and working rights in Australia.

Q: Is explosives training mandatory for this role?

Yes. Handling, transporting, storing and firing explosives are safety-critical, licensed activities regulated by state and territory explosives and mine safety legislation. Operators must hold the correct shotfirer's licence and explosives authority, complete site-specific inductions and follow the site's firing and exclusion procedures. Never allow unlicensed staff to charge or fire a blast.

Q: What qualifications should I require vs prefer for a drill and blast operator?

Mandatory requirements should include: a current shotfirer's licence, a valid explosives handling authority, standard and site inductions, and working rights in Australia. Preferred qualifications typically include previous surface or underground blast-crew experience, a driver's licence with HR or MC and load-and-haul tickets, and first aid. Emphasise the licensed, safety-critical nature of the role in the ad.

Q: Can I hire a drill and blast operator without experience?

The firing role itself requires a licensed shotfirer, so it is not an entry-level position. However, you can hire less experienced crew members into support roles on the blast crew and develop them toward a shotfirer's licence over time. Be clear in the job description about which licences are mandatory before the operator can charge and fire independently.

## Employment

Q: Should I hire casual or permanent drill and blast operators?

This depends on your operation. Casual employees offer flexibility for short campaigns or contract work but attract a 25% loading under the Mining Industry Award. Permanent staff on a FIFO roster provide continuity and are easier to build a stable blast crew around. Many operations use a mix of permanent crew and casuals or contractors for peak periods.

Q: What penalty rates apply to drill and blast operators?

Under the Mining Industry Award, Saturday work is paid at 150% for the first three hours and 200% after, Sunday at 200% and public holidays at 250%. Afternoon and night shifts attract a 15% loading, rising to 30% for permanent night shift. An underground allowance of around \$2.06 per hour also applies where relevant. Use award interpretation software to calculate rates accurately.

Q: How does FIFO rostering affect pay for drill and blast operators?

FIFO and continuous 12-hour rosters mean a lot of hours fall on weekends, nights and public holidays, so overtime and penalty rates make up a significant part of total pay. Fatigue management rules also shape how swings and shifts are built. See our guides on mining and FIFO worker pay and FIFO roster patterns for detail.

Q: What should I include in a drill and blast operator employment contract?

Key elements include: position title and classification level, employment type (casual, part-time or full-time), hourly rate or salary, the applicable award or enterprise agreement, roster pattern and point of hire, main duties, required licences and the safety-critical nature of the role. For casuals, state the loading. Use our digital employment contracts to simplify this process.

## Rostering

Q: How do I roster drill and blast crews on FIFO patterns?

Blast crews usually work continuous 12-hour day and night shifts across a swing, so rosters must balance coverage, travel and mandated rest. Mining rostering software lets you build repeating FIFO patterns, see who holds current shotfirer's licences and track hours against fatigue limits. See our guide to rostering mining staff for a step-by-step approach.

Q: How do I manage fatigue for drill and blast operators?

Fatigue is a major risk on continuous 12-hour mining rosters and directly affects safe explosives handling. Build in adequate rest between shifts and swings, monitor consecutive shifts and hours, and follow your site's fatigue management plan. Our article on managing fatigue on FIFO rosters covers practical controls, and time and attendance tracking helps you monitor actual hours worked.

Q: How do I track hours and attendance across remote sites?

Remote pits and camps make manual timesheets error-prone. Time and attendance tools let crews clock on and off from site, capture actual hours against the roster and feed straight into payroll. This keeps penalty and overtime calculations accurate and gives supervisors visibility of who is on site each shift.

Q: How do I make sure only licensed operators are rostered to fire blasts?

Store each operator's shotfirer's licence and explosives authority, with expiry dates, in your HR software and reference them when building the roster. Only roster operators with current licences to charging and firing tasks, and flag upcoming expiries so nobody works past a lapsed ticket. This protects both compliance and site safety.