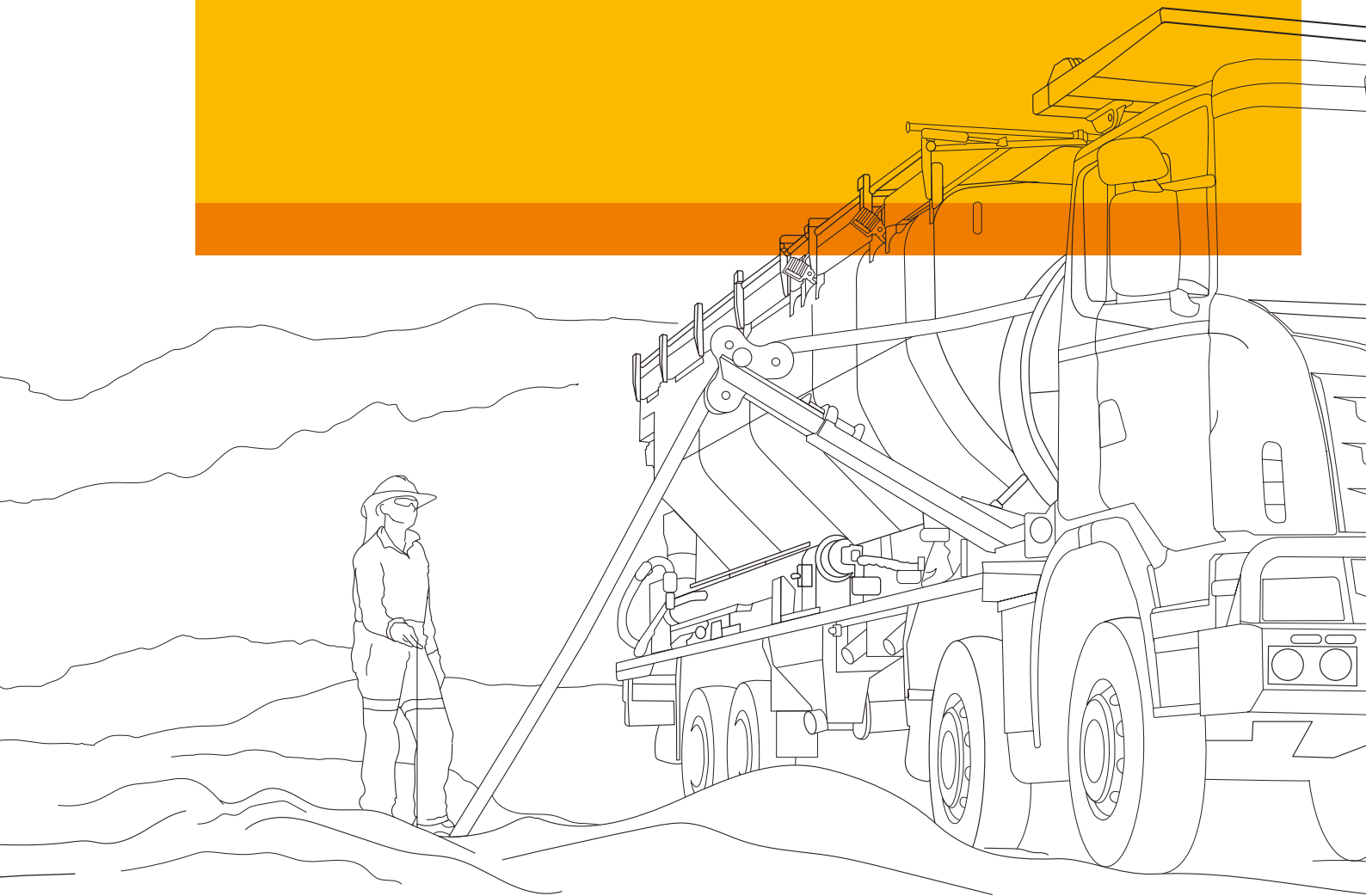


Your open cut blasting solutions



“We know that every project is different, that’s why our first step is to understand the unique requirements of our customer’s project so that we can deliver specialised blasting solutions to get the job done.”





Innovation – Performance – Success

At Downer Blasting Services (DBS), we support our customers through the full drill and blast cycle to meet your site specific requirements.

Innovation

DBS is one of Australia's largest blasting services providers, offering innovative blasting solutions across Australia. Our operations are supported by an extensive fleet of mobile processing units (MPUs), five state-of-the-art emulsion manufacturing facilities and a 150-strong workforce.

Our proven track record combined with leading-edge open cut blasting technology enables us to deliver award-winning solutions that help our customers increase productivity and minimise on-site risk.

Performance

With around 20 years' blasting experience and backed by 90 years of Downer's mining history, DBS has the expertise to deliver tailored products and services to your operations.

Our highly-skilled and committed people, together with leading suppliers and technology partners, allow DBS to offer best-practice solutions across all of your blasting requirements.

Success

We provide services to both major mining houses as well as numerous mining contractors, meaning we're uniquely positioned to tailor services to both owner-operators and contractors. At DBS, we share mutual values, experience and goals with our customers, enabling us to deliver flexible and personalised solutions.

With our vast experience in open cut blasting, we can ensure the very best blasting solutions are provided to site every time.

Our expertise

DBS provides each customer with excellent fragmentation results based on their unique site requirements allowing them to optimise digability and production rates.

Emulsion manufacturing facilities and technology

We strive to continually improve the capabilities of our emulsion technology across our five manufacturing facilities.

In collaboration with an international supplier, we have built – and own – two world's best-practice plants, located at Savage River Mine in Tasmania and Collie in Western Australia.

We also own emulsion manufacturing plants at Bajool Explosives Reserve in Central Queensland and Mount Thorley Industrial Estate in Singleton, New South Wales, where we produce a unique high-stability, low-fume propensity, dual salt emulsion formulation.

Additionally, we manage a third emulsion plant for our customer at the Boddington Mine in Western Australia.

These plants use state-of-the-art technologies to control and continuously measure all aspects of emulsion manufacturing, with the ability to remotely monitor. Each facility includes quality testing laboratories, which ensure manufactured products meet stringent DBS product specifications.

Tolling services

In addition to our standard emulsion manufacturing service, DBS is able to work with our customer to provide a flexible toll manufacturing service for emulsion.

This service is suited to customers who have secured ammonium nitrate (AN) supply or are willing to manage the AN supply chain independently. DBS is able to manufacture our superior formulation with customer-provided AN, allowing customers to access a market-leading emulsion and manage the procurement of AN in-house.

Supply chain security

With access to quantities of domestic and imported materials, we can provide our customers with a secure supply chain. This is further supported by our extensive security sensitive ammonium nitrate (SSAN) storage facilities, which can accommodate in excess of 20,000 tonnes of AN.

Our services

Down-the-hole service

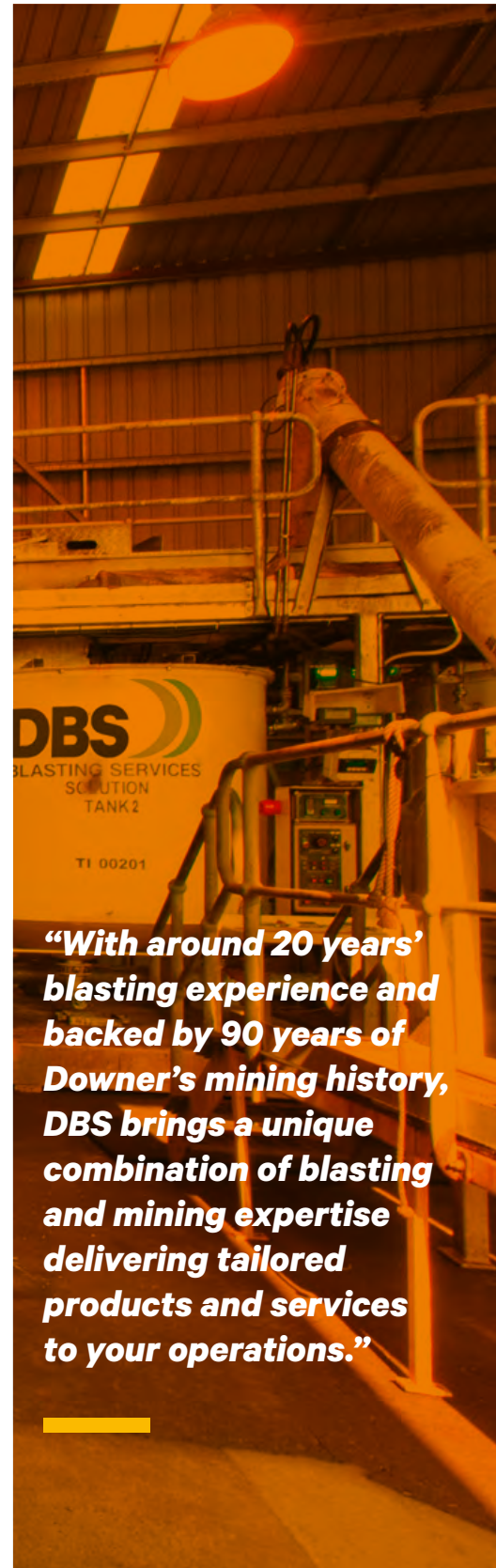
DBS's down-the-hole (DTH) service includes the manufacture, supply and delivery of bulk explosives down-the-hole. With a range of products and delivery systems to suit each operation's requirements, we can offer customers flexibility in their blasting plans. This option can be tailored to meet site-specific requirements to include MPUs, initiating systems and on-site raw material storage facility or reloads.

Total loading service

In addition to a DTH supply service, DBS offers a total loading service (TLS) encompassing all the associated open cut blasting.

This service includes the supply of trained and competent shotfirers, who are experienced in DBS' products, delivery system and procedures as well as blast crew to support the shotfirer by measuring hole depth and hole condition, priming the hole, tying up and blast guarding. This option can be tailored to meet site-specific requirements and deliver a low-cost blasting solution.





***“With around 20 years’
blasting experience and
backed by 90 years of
Downer’s mining history,
DBS brings a unique
combination of blasting
and mining expertise
delivering tailored
products and services
to your operations.”***



“We integrate innovative products and services with engineering expertise and advanced technology to provide customers with optimal and cost-effective solutions for their specific blasting challenges.”





Our product offerings

Customers value our ongoing commitment to researching and developing new, innovative blasting products that deliver cost-effective solutions for their projects.

Project specific

We work closely with our open cut customers to provide a bulk product that is suited to your unique site conditions. Through the combination of your site expertise and understanding, coupled with our explosive know-how, DBS deliver a superior blasting result.

By working closely with customers to understand their business drivers and project requirements, we are able to develop detailed and specific blast designs for all projects.

We are able to combine the latest developments in global equipment technologies with Australian innovation to deliver custom blasting products that meet site specific requirements.

HEAT® emulsion

High Energy Australian Technology (HEAT®) is a DBS-manufactured and owned emulsion matrix product. Our range of emulsions are compatible with various sources of prilled ammonium nitrate to manufacture our AquaMAX® and ThrowMAX® bulk product blends.

DBS' emulsion matrix products are oxygen balanced to allow the manufacture of a broad range of bulk explosives that are compatible with chemical sensitisation.

Our diverse emulsion matrix range includes:

- Single-salt emulsion for use in small diameter blast holes
- Double-salt emulsion for use in large diameter blast holes
- Bulk emulsion with a high water resistance suitable for wet in-hole conditions
- Bulk emulsion for use in reactive ground
- Bulk emulsion for use in hot ground.

ThrowMAX®

Our ThrowMAX® Heavy ammonium nitrate fuel oil (ANFO) product range blends DBS HEAT® emulsion with ANFO for use in dry and dewatered blastholes.

Key features

- Safe and efficient explosives
- Enables high blasthole loading rates
- Energy that can easily be adapted to meet the requirements for any rock type in dry or dewatered blastholes
- Range of densities and reasonable water resistance
- Can be used in dewatered blastholes with static water conditions.

AquaMAX®

Our AquaMAX® product range contains a blend of HEAT® emulsion and ANFO. Products are gassed and either pumped or augered into a blast hole depending on the in-hole condition. AquaMAX® is suitable for use in wet blastholes, as well as high-shock, low-heave blasting applications.

Key features

- Excellent safety characteristics
- High-energy yields capable of fracturing a variety of rock types
- Excellent water resistance in wet holes, providing extended sleep times in blastholes with no dynamic water
- Adaptable to meet the energy requirements of a variety of rock types
- Variable in density to meet the specific requirements of the blast and rock types
- Ideal for applications requiring high-shock energy for excellent fragmentation, while minimising ground movement and subsequent dilution.

DBS Speedloader®

(Patent pending #2017201195)

The Speedloader® provides a true on-bench reload system that delivers products to a MPU on the shot. This is achieved without any requirements for an on-bench compound or ancillary equipment. One of the many benefits is that this unit can be operated by customer teams, providing a significant cost saving to the overall operation.

The Speedloader® provides customers with:

- An integrated delivery system from storage to bench
 - A system configured to deliver a combination of ammonium nitrate (AN) or AN emulsion (ANE) to meet site requirements
 - The capacity to increase MPU productivity by up to 23 per cent
 - A reloading method able to occur at a temporary location
 - Labour savings through operation of Speedloader® by trained blast crew or other customer personnel
- Reduced wear and tear of MPU fleet through reduction of journeys to and from permanent reload
 - Reduced traffic interactions between MPU and mine traffic.

Industry recognised

DBS' Speedloader® was recognised as an industry-leading innovation, winning the Economx Time Saving Initiative at the 2018 Queensland Mining Awards.

“DBS' Speedloader® has the capability to increase MPU productivity by up to 23 per cent.”



DBS Twin Bowl ammonium nitrate storage

(Patent #20113408189)

With a storage capacity of 60 tonnes and no requirements for concrete foundations, this engineering solution eliminates manual handling risks associated with the storage of ammonium nitrate (AN) while maximising deliveries.

Our solution provides customers with a service that:

- Is capable of receiving and delivering AN in parallel processes
- Is capable of discharge rates up to 1,000 tonnes per minute
- Is fundamentally stable from 0 to 100 per cent capacity without any requirements for concrete foundations
- Eliminates the risk of product “caking” or hanging up (unaffected by “blocky” or heavily dusted AN)
- Accurately measures and delivers unknown qualities
- Allows for deliveries from a variety of tipper trailer combinations through utilisation of DBS’ swing auger.



At Downer, sustainability means not only being environmentally sustainable, but it also includes the safety of our people, sustainable growth, improving internal, supplier and customer relationships and ensuring we have a diverse and inclusive workforce.

Downer's sustainability strategy is shaped by our four Pillars; Safety, Delivery, Relationships and Thought Leadership. Our commitments to Environment and Sustainability are outlined in our Environmental Sustainability Policy.

We recognise that it is not possible to provide our diverse products and services without having some impacts on the environment. However we have sought to identify and respond to these through our management systems, risk management approach and materiality assessment to minimise harm and maximise value to our customers where possible.

We are committed to transitioning to a low carbon economy and pride ourselves on developing industry leading, environmentally sustainable solutions for our customers.

Downer is focused on developing solutions to reduce our energy consumption and greenhouse gas emissions associated with our operations and activities while at the same time increasing our cost competitiveness.

We will continue to cultivate robust environmental management systems and resource efficiency programs to sustain the natural and built environment for future generations.





Health, safety and environmental sustainability

Zero Harm is embedded in our culture and is fundamental to our future success. We are committed to achieving our goal of Zero Harm.

At Downer, Zero Harm means sustaining a work environment that supports the health and safety of our people, and conducting our operations in a manner that is environmentally responsible and sustainable.

Our Zero Harm culture is built on leading and inspiring, verifying the effective management of risks that have the potential to cause serious harm. It is about rethinking processes, continuously improving our management systems, applying lessons learnt and adopting and adapting practices which aim to achieve zero work-related injuries and unintentional harm to the environment.

Through embracing thought leadership, Downer's underground and open cut mining teams are the first to partner with an external provider to assist in facilitating the Downer Enabling Safety Transformation Program. This program is designed to introduce the leadership team to behavioural safety thinking and explore how to best identify and implement Enabling Safety principles, tactics and practices that enhance Downer's operational safety, efficiency and productivity, and evolve these into appropriate and repeatable safety behaviours and culture.

This unique program integrates with existing systems, including:

- Senior management Visible Active Leadership process when visiting each project
- Critical Risk Engagement tools
- Supervisor Capability program
- Task Observation process
- Assessment Familiarisation process
- Safe Behavioural Observations
- Pre-Start and Toolbox meetings
- Trialling peer-on-peer behavioural observation tool for employees to use.

Enabling Safety Transformation program

Downer is embarking on an Enabling Safety Transformation program. The program is a multi-staged approach to defining and empowering sites to embed behavioural safety cultures through all levels of site participation, which includes:

- Senior management undertaking a full-day Master Class – Enabling Safety
- Project management and supervision teams attending Safer Together workshops, followed by Enabling Safety workshops
- Leading Hands, Supervisors and employee delegates trained and coached in becoming effective safety leaders and coaches in their own right
- Employees and sub-contractors attending Safer Together workshops as part of their inductions.

The mantra of this project is that safety happens when work is well planned, resourced and delivered.

This will only happen if everyone, regardless of who they work for or the position held, works together in a way that builds trust, values people's expertise and encourages people to make the best decisions, drawing on a shared safety management system that is simple and easy to use.





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