



CAPABILITY STATEMENT

LISTEN. CARE. DELIVER.

NITROSIBIR.COM.AU



WE DELIVER HIGH VALUE, CUSTOM SOLUTIONS TO THE MARKET

NITRO SIBIR AUSTRALIA IS AN INDUSTRY LEADER IN THE SUPPLY
OF EXPLOSIVES PRODUCTS AND SERVICES TO THE MINING SECTOR.

We work in partnership with our clients to deliver industry leading solutions specific to each project.

We take a proactive approach and back this with continuous product innovation and a strong supportive culture.



CONTENTS

04 COMPANY PROFILE

06 INFRASTRUCTURE

07 INNOVATION & TECHNOLOGY

08 PRODUCTS

- BULK PRODUCTS
- INITIATION SYSTEMS
- PACKAGED EXPLOSIVES
- DELIVERY SYSTEMS

12 SERVICES

- BLAST DESIGN
- BLAST MONITORING
- BLAST OPTIMISATION
- TRAINING

16 OUR WORK

- SCOPE OF WORKS
- SAFETY
- QUALITY
- OUR VALUES

ABOUT NITRO SIBIR AUSTRALIA



NITRO SIBIR AUSTRALIA (NSA) IS AN AUSTRALIAN MANUFACTURER AND A FULL LINE SUPPLIER OF EXPLOSIVES PRODUCTS AND SERVICES TO THE ASIA PACIFIC REGION.

We have a history of setting industry benchmarks in service, quality and experience, with a reputation synonymous with product leadership and responsive service.

We are a part of the global explosive specialists, Beijing Auxin Chemical Technology Ltd (Auxin Tech), a world-class and leading manufacturer and supplier of a comprehensive suite of civil blasting solutions including explosives, blasting accessories, delivery equipment, raw materials and drill & blast services.

Our customers' requirements drive the business strategy and innovation.

We work in partnership with our clients to deliver custom solutions, safely and efficiently. We bring to the table global innovation and best practice.

Nitro Sibir's global objectives:

- development of formulations and technologies for the production of cost effective explosives using domestic raw material inputs;
- design and commissioning of manufacturing plants, including on-site facilities;
- design and provision of bulk explosives charging units; and
- provision of a complete offering of fit-for-purpose explosives, blasting accessories and technical services.

NITRO SIBIR AUSTRALIA

VISION

To be the leading explosives supplier to the mining sector in the Asia Pacific region.

MISSION

To lead the market in innovation and service.

CORE PURPOSE

To deliver a comprehensive range of market leading products, backed by a highly responsive, client focused and safe culture.

SETTING THE STANDARD
IN INNOVATION, QUALITY
AND SERVICE

A photograph of two men in high-visibility work clothes standing next to a large white truck. The truck has 'NITRO SIBIR AUSTRALIA' and '450' written on it. One man is holding a clipboard. The background shows a construction or mining site under a blue sky.

THE NSA DIFFERENCE

NSA SETS ITSELF APART THROUGH INNOVATIVE DESIGN AND SERVICE. WE ARE HIGHLY RESPONSIVE TO THE MARKET AND COLLABORATE WITH OUR CLIENTS TO DELIVER CUSTOM SOLUTIONS. WE BACK THIS WITH CONTINUOUS PRODUCT INNOVATION AND A STRONG SUPPORTIVE CULTURE.

Every project is different.

In an industry where safety and efficiencies are both important, a 'one size fits all' approach can compromise the solutions. At NSA, we are generally reluctant to rapidly offer 'off the shelf' products to niche applications.

Our strength is in working closely with our clients over the longer term delivering results, as opposed to short term relationships.

We work in partnership with our clients to deliver innovative, industry leading solutions.

A differentiator is our genuine focus on listening to our clients. We believe that the development of the right products is improved with collaboration and an understanding of the blasting challenges for each site. We respect and value that our clients have the best knowledge about the circumstances around each project and that their input is vital to the development of safe and effective solutions.

After listening and understanding the requirements, we apply our skills and experience to tailor a product and service that addresses the identified and agreed needs.

Responsive. Experienced. Approachable.

We have grown on the back of our reputation and the results we deliver.

Experience plays a significant part in our ability to accurately determine the right product or service for the job at hand. Our senior management team have deep global experience in mining, explosives, chemistry, manufacturing and logistics. As a private company with a flat and very approachable management structure, we have the ability to move quickly and make decisions to minimise delays.

**WE DELIVER HIGH
VALUE, CUSTOM
SOLUTIONS**

In an industry where safety and efficiencies are both important, we are reluctant to rapidly offer 'off the shelf' products.

SETTING THE STANDARD
IN INNOVATION, QUALITY
AND SERVICE



SERVING THE ASIA PACIFIC REGION

NITRO SIBIR HAS RAW MATERIAL SUPPLIERS, MANUFACTURING FACILITIES, STORAGE FACILITIES AND OFFICES GLOBALLY. IN AUSTRALIA, WE MANUFACTURE BULK AND PACKAGED EXPLOSIVES AT OUR KALGOORLIE, WESTERN AUSTRALIA FACILITIES.

Our fleet of seventeen Mobile Processing Units (MPUs) and delivery trucks provide the ability to cater for a range of different order volumes. We can efficiently deliver from storage to site when required, ensuring timely deliveries with minimal delay.

Manufacturing & storage infrastructure

NSA carries manufacturing licenses for ANE bulk plants and has an Explosives Manufacturing License for packaged explosives and ANFO. We have the capacity to operate two bulk manufacturing facilities at the Kalgoorlie Explosives Reserve providing supply security and continuity.

The high volume plant has been manufactured in Europe to Australian standards and is capable of manufacturing 35,000 tonnes of ANE per annum on a single shift.

The second plant is also of European origin and is used as a pilot plant for development work, as well as a back up to the high volume plant. It has a capacity of 12,000 tonnes per annum on a single shift. This plant can manufacture the specialised formulations for underground applications.

KALGOORLIE

- Office
- Two ANE manufacturing plants
- Detonator storage for 2,200,000 units
- Hi-Ex magazine storage for 130 tonnes
- Explosives manufacture for packaged products
- Explosives manufacture for specialty perimeter products
- ANE storage for 420 tonnes
- AN storage for 1,000 tonnes
- Seventeen MPU's for open cut mining
- Seven MPU open pit depots with local support
- Six underground depots
- Ten underground bulk charging units for loading production holes and development headings
- Normet for underground operations

PERTH

- Office

SYDNEY

- Office

GLOBAL RESOURCES.
LOCAL CAPABILITIES.



LOCAL DEVELOPMENT



NSA CONTROLS THE DEVELOPMENT OF PRODUCT FORMULATIONS AND MANUFACTURES THESE THROUGH OUR OWN PRODUCTION FACILITIES.

When there is a requirement for a unique product solution or a need for optimisation, we have in-house, local capabilities to do this rapidly. This includes inhibited formulations for use in hot and reactive ground.

Additionally with our partnership with Explosives Manufacturing Services, development of niche, application specific perimeter, secondary breakage and 'mini bulk' products can be completed to specific project and site requirements.

Research and development

We stay ahead of the curve through research and development and being highly responsive to market requirements and trends. We innovate and deliver leading edge, best in class products with full access to global resources and facilities.

Emulsion and water gel technology

Our experience in the explosives and mining industry led us to invest in water gel technology for pre splitting and specialised underground perimeter products. The water gel formulation used is a low water content, high VOD product that delivers the ideal energy partition producing excellent results in perimeter applications.

Innovation and safety

A driving force behind the business is safety and the need to extend our safe work practices beyond where we work to the greater community.

We believe in the control of the drill and blast process by the operator; with the delivery systems designed with safety, reliability, and robustness as key attributes.

Current bulk explosive technology should be rolled out to more users, particularly to teams in the underground environment. The blasting results obtained from a fully coupled bulk emulsion product are superior to those obtained from cartridged products; and as such the change to this technology is commercially justified. The low water content emulsion delivers a high energy detonation at a VOD exceeding 4400m/s in a 45mm diameter hole underground.

Additional safety benefits can also be gained by reducing the volume of Class 1 products manufactured, transported and stored. This has a flow-on benefit to community safety.

SETTING
THE STANDARD



BULK PRODUCTS

THE POLAR RANGE OF BULK EMULSIONS ARE SPECIFICALLY MANUFACTURED FOR THEIR INTENDED USE IN SURFACE OR UNDERGROUND APPLICATIONS.

The Polar Range is available in conventional and inhibited formulations.

Features:

- low water content;
- the most cost-effective, energy efficient solution to mining operations for the breakage of rock;
- the formulation has the added benefit of reducing fume events;
- the bulk products are offered in a range of blends making explosive selection for specific geologies highly effective;
- the formulation manufactured for blasting in underground mines is oxygen balanced;
- can be loaded in a density range of 0.6 – 1.2g/cc; and
- is manufactured in Kalgoorlie, Western Australia.

The Polar range of bulk emulsions are sensitised as they are loaded into the blast hole, making their transport, handling and storage as safe as possible.

PRODUCT LEADERSHIP
AND CUSTOM SOLUTIONS

INITIATION SYSTEMS



OUR INITIATION SYSTEMS HAVE BEEN SELECTED FROM SUPPLIERS WITHIN THE INDUSTRY THAT ARE MANUFACTURERS OF WORLD CLASS OFFERINGS.

Our non-electric detonators have been used in leading mining markets for many years. With extensive supplier audits behind the range, it has been approved for use globally by some of the world's largest mining companies.

Products include:

- Maxprime cast boosters;
- Maxprime Trace boosters;
- Max-E electronic detonators;
- Maxcord detonating cord;
- Maxnel shock tube system with high quality tubes and reliable, accurate detonators;
- MSC surface delay connectors; and
- Maxline lead in line.



WORLD
CLASS SOLUTIONS

PACKAGED EXPLOSIVES



OUR PACKAGED EXPLOSIVES ARE LARGELY MANUFACTURED TO ORDER, PROVIDING MAXIMUM PRODUCT SHELF LIFE.

POLAR PX packaged emulsions are available in two forms – ‘STANDARD’ and ‘PLUS’, with each of these available in inhibited form.

The ‘PLUS’ variant is a higher energy formulation for tough blasting situations, for example lifter holes in mine development and shaft sinking.

Features:

- Premium formulation, in combination with the raw materials selected, ensure a quality product is offered for any blasting application.
- POLAR PX ‘I’ is an inhibited version for use in reactive ground situations; and
- manufactured in Kalgoorlie, Western Australia.

Pre-split explosives

- centrally corded;
- low water content water gel formulation; and
- available in several diameters and tailor-made configurations.

Customisation and clean walls

All customisation is done at the point of manufacture to ensure the delivery of a consistent, quality explosive string that can be loaded into the hole.

In addition, the combination of high energy, central detonating cord with low water content explosives ensures a very high brisance which ultimately delivers extremely good walls in pre-splitting zones.

A dedicated supply chain

Polar emulsion products are manufactured in Western Australia and delivered to client operations through a dedicated supply chain. The products are designed to withstand the conditions that mining environments present and to perform perfectly every time.



AUSTRALIAN MANUFACTURED
AND CONTROLLED

DELIVERY SYSTEMS



TAILORED FOR AUSTRALIAN MINES, OUR DELIVERY SYSTEM PROVIDES EFFICIENCY AND FLEXIBILITY.

A valuable part of our delivery system is our fleet and our operators. Our fleet of MPU's is the newest available to sites with units designed for specific applications within the industry.

Many of our operators have experience in drilling and shot firing. This means that we can offer more than just a load service, resulting in overall efficiencies and better blast results.

Our bulk products are delivered to the blast hole in a manner that best suits the user.

MPU for hire

We offer MPUs with GPS tracking for hire. In all instances, we can provide training on its operation and associated QA procedures.

Underground bulk loading units for sale or hire

- Mounted on your carrier, the units have been designed from the ground up to deliver a safe means of getting the product into the hole, as well as improved availability and simplicity of use
- At the heart of the system, the product delivery pump has been specifically designed with explosives applications in mind. With minimal moving parts, and intrinsic safety features, the pumps are the next generation in the art of bulk explosive loading. Despite their compact size, they are capable of loading both production and development holes very quickly.

Built in Australia, parts and support are readily available. The units are designed and built specific to special customer requirements; with their modular design and ease of adaptation to carrier type. We currently have nine EVO II maxi units operating in Australia equipped to load development and production both up and down holes.

TAILORED SOLUTIONS.
STATE-OF-THE-ART FLEET.



BLAST DESIGN

WE HAVE THE TECHNICAL CAPABILITY TO PROVIDE A FULL BLAST DESIGN SERVICE TO ACHIEVE THE RESULTS TARGETED.

From the initial design to optimising results, NSA is able to provide recommendations across all parameters involved in the drill and blast process.

Capabilities include:

- blast hole selection;
- blast parameters selection;
- advising on powder factor selection;
- designing the blast pattern using 3D design software and supplying digital files;
- pattern mark out;
- quality control;
- initiation design; and
- verification of blast design through post blast measurement.

Blast design, auditing and reporting

NSA can also conduct audits of blast design processes against industry best practice. To ensure blast designs are optimised, we provide detailed reporting on what is working and where improvement can be made. The end result is that we have the right blueprint for safe, efficient and clean projects.

LEADING DESIGN
AND ENGINEERING

BLAST MONITORING



WITH STATE-OF-THE-ART EQUIPMENT AND ADVANCED TECHNICAL EXPERTISE, WE PROVIDE A FULL SERVICE.

All aspects of environmental monitoring, fragmentation analysis and downstream measures, such as dig rate and crusher throughput can be undertaken. Fundamentally, these measures, particularly a set of baseline measures, are key components for project optimisation and improvement.

Compliance blast measurement, monitoring and reporting

With state-of-the-art equipment and advanced technical expertise, we can deliver a range of blast monitoring services including:

- compliance air blast overpressure monitoring and reporting;
- compliance blast vibration monitoring and reporting;
- continuous displacement monitoring for effects of climate and blasting on structure;
- blast fragmentation measurement and reporting;
- blast hole deviation measurement and reporting; and
- velocity of detonation measurement and reporting.

As well as monitoring and measurement services, NSA can also provide technical advice to optimise and improve results or reduce the effects of blasting on the neighbouring properties, infrastructure, heritage sites and high walls.

**FULL RANGE OF BLAST
MONITORING SERVICES**

BLAST OPTIMISATION



WE HAVE THE ABILITY TO SUPPLY STANDARD EMULSION BASED BULK EXPLOSIVES WITH A HIGHER ENERGY VALUE THAN EQUIVALENT PRODUCTS TO IMPROVE BLAST DESIGN.

Leveraging a higher energy value, NSA is able to improve the fragmentation in equivalent pattern parameters and further improve blast design by reducing costs.

Working in partnership with our clients, we deliver innovative, industry leading blast optimisation solutions.

Features:

- energy matching explosives to your geology;
- fragmentation improvement;
- initiation sequencing optimisation;
- dilution control through product selection and design optimisation;
- air blast and/or blast vibration control through product selection, design optimisation and modelling;
- development of site specific blast vibration models (seed hole);
- drill & blast process audits; and
- drill & blast operational audits.

OPTIMISED MINING EXPLOSIVES
FOR IMPROVED BLAST DESIGN

TRAINING



INTERNATIONAL EXPLOSIVES EXPERTISE COMBINED WITH QUALIFIED TRAINERS, WITH A FOCUS ON SAFETY AND QUALITY.

We provide training to blast crews through to managers, increasing knowledge and understanding across the board to improve operational performance.

Whether it is basic drill and blast familiarisation, or working towards getting your personnel their shot firer's licenses, we can tailor a training package to specific requirements. Our trainers hold approved training qualifications with QA accreditation; and have hands on experience in the relevant topics.

NSA training services include:

- surface shotfiring training to national competencies approved in SA, WA & NT;
- RIIBLA201D support shotfiring operations;
- blast design and application training;
- initiation sequencing training;
- virtual reality underground training;
- explosive awareness training; and
- electronic initiation design training.

NSA deliver training through industry leading experts, providing not only detailed theory, but also the ability to demonstrate real world examples that assist in reinforcing the learnings.

INTERNATIONAL EXPERTISE.
REAL WORLD EXPERIENCE.

SCOPE OF WORKS

WE WORK IN PARTNERSHIP WITH OUR CLIENTS TO DELIVER HIGH VALUE, CUSTOM SOLUTIONS.

Past and present projects include:

Customer	Operation	Supply Scope	Commenced	Finished
Paddington Gold Pty Ltd	Multiple	Full	Jul-2016	Ongoing
Rock on Ground Pty Ltd	Thunderbox	Full	Jul-2016	May-2020
Lukah Mining Pty Ltd	Widgiemooltha	Accessories	Aug-2016	Ongoing
Rock on Ground Pty Ltd	Halls Creek	Full	Dec-2016	Oct-2019
Dynamic Drill and Blast	Paris	Full	Mar-2017	Jul-2017
Rock on Ground Pty Ltd	Kailis	Full	May-2017	Mar-2020
Dynamic Drill and Blast	Moora	Bulk	Jun-2017	Jun-2018
Dynamic Drill and Blast	Penny	Full	Jun-2017	Apr-2018
Hampton Transport Services Pty Ltd	Multiple	Full	Jun-2017	Ongoing
Dynamic Drill and Blast	MTCA	Full	Jul-2017	Oct-2019
Dynamic Drill and Blast	Comet	Bulk	Aug-2017	Oct-2017
Dyno Nobel Asia Pacific Pty Ltd		Packaged Product & Boosters	Oct-2017	Ongoing
Dynamic Drill and Blast	Fortnum	Bulk	Nov-2017	Apr-2018
Rock on Ground Pty Ltd	Hermes	Full	Nov-2017	May-2019
JSW Australia	Bald Hill	Full	Jan-2018	Aug-2019
Aragon Resources Pty Ltd	Fortnum	Full	Feb-2018	Sep-2019
Quarry Manager Services	Multiple	Accessories & Packaged Product	Feb-2018	Ongoing
Action Drill & Blast	Dalgaranga	Full	Mar-2018	Ongoing
Minterra Pty Ltd	Multiple	Full	Apr-2018	Ongoing
Avoca Mining Pty Ltd	Higginsville	Full	Jul-2018	Ongoing
Big Bell Gold Operations Pty Ltd	Day Dawn	Full	Jul-2018	Ongoing
Beacon Mining Pty Ltd	Jaurdi	Full	Sep-2018	Ongoing
JSW Australia	Red Dog	Full	Sep-2018	Feb-2019
JSW Australia	Geko	Full	Oct-2018	Feb-2019
Rock on Ground Pty Ltd	Aquarius	Full	Feb-2019	Dec-2020
Xcel Drilling	Champan Valley	Full	Feb-2019	May-2019
Xcel Drilling	Simco	Bulk	Apr-2019	Jan-2020
Westdrill Pty Ltd	Bar 20	Full	Aug-2019	Oct-2019
South32 Worsley Alumina PTY LTD	Boddington	Accessories	Dec-2019	Jul-2020
Westdrill Pty Ltd	Lord Byron	Full	Dec-2019	Feb-2021
Mine Site Construction Services	Abra	Full	Jan-2020	Apr-2020
SRG Global Mining Australia PTY LTD	Carosue Dam	Bulk	Jul-2020	Ongoing
Stone Echo Mining and Civil Pty Ltd	Multiple	Accessories & Packaged Product	Jul-2020	Ongoing
Billabong Gold PTY LTD	Plutonic	Bulk ANFO	Aug-2020	Ongoing
Australia Ocean Logistics	Peculiar Knob	Full	Oct-2020	Ongoing
Westdrill Pty Ltd	Abra	Full	Oct-2020	Mar-2021
Westdrill Pty Ltd	Bungarra	Full	Dec-2020	Apr-2021
SRG Global Mining Australia PTY LTD	Great Western	Bulk	Feb-2021	Ongoing
Xcel Drilling	Port	Accessories	Mar-2021	May-2021
Rock on Ground Pty Ltd	Plutonic	Accessories	Apr-2021	Ongoing
Roc-Drill Pty Ltd	Multiple	Full	May-2021	Ongoing
Rock on Ground Pty Ltd	Julius Pit	Full	May-2021	Ongoing
Big Yellow Mining Pty Ltd	Wiluna	Full	Jun-2021	Ongoing

A REPUTATION SYNONYMOUS
WITH PRODUCT LEADERSHIP AND RESPONSIVE SERVICE



THE NSA SAFETY MANAGEMENT PLAN AND PHILOSOPHY - SAFETY TAKES PRIORITY ALWAYS.

NSA is ISO 45001 accredited. We understand that the work we do can, in case of adverse outcomes, have serious consequences and that we need to be pro-active in our safety processes and constantly look to innovation in our products.

The Nitro Sibir Australia (NSA) Safety Management Plan is one of the components of the overarching HSE Policy, which formalises our day to day approach to manufacturing and the delivery of our products and services.

Unconditionally, safety takes precedence ahead of production and delivery deadlines. All our employees are empowered to cease any task if they deem it to be unsafe. Day to day tools used by NSA include 'Take 5', JSA, Permit to Work and Risk Assessments for complex tasks.

Leading the industry in safety

As an industry, we all need to play a part in protecting our teams.

We believe that safety should extend beyond where we work to the greater community. To address this, we have in place processes and a product range that removes Class 1 products from the supply chain. By doing this, we markedly reduce the exposure of manufacturers, transport operators, the public and users to the potential effects of theft, incidents and other unplanned events involving explosive products.

Keep it simple. Keep it safe.

Our approach is based on safe work. We believe in the control of the drill and blast process by the operators; with the delivery systems designed with safety, reliability, and robustness as key attributes.

We also believe that the current bulk explosive technology should be rolled out to more users, particularly to teams in the underground environment.

By using a single product to satisfy all of the needs of mining operations, and ensuring that we don't have explosives in place until we are at the bore hole, we also keep the work and storage environment safer.

**SAFETY TAKES
PRIORITY ALWAYS**



QUALITY MANAGEMENT

AT THE HEART OF NITRO SIBIR AUSTRALIA'S REPUTATION IS THE QUALITY OF OUR PRODUCTS.

We back our products with innovation and technology; and staying ahead of the curve as market leaders. Our products undergo stringent research and testing, with checks, verifications and documentation at every stage.

Quality assurance and control measures include:

- raw material checks and verifications;
- in-process checks for all manufactured products;
- retained samples for all manufactured products;
- live fire testing of manufactured products;
- pre-shipping inspections of all imported products;
- retention of all manufacturing records; and
- retention of all batch information for manufactured products.

Manufacturing processes

Our manufacturing processes for AN emulsions and packaged explosives are all computer controlled. We support these controls with manual checks of key parameters and records are kept of all key indicators measured during production runs.

ISO accreditation

NSA has achieved ISO 9001 and ISO 14001 Accreditation. This means that all our systems are in place to ensure we deliver products that meet both client specifications and ISO compliance requirements.

Raw material, process and finished goods inspections support the work procedures that describe the methods to be used to make quality, fit for purpose products.

HIGH VALUE, MARKET
LEADING PRODUCTS

OUR VALUES



WE TRULY BELIEVE IN MAKING A DIFFERENCE

Our focus is on our clients and meeting the requirements of each project that we undertake, safely and efficiently. We take the time to listen and understand our clients' needs and be involved in their operations to enable the development and delivery of products that are best suited to each specific site.

Our values guide the way we work and make our everyday decisions.

LISTEN

- We genuinely listen and take action
- We are client focused, working collaboratively in teams.

CARE

- We take pride and responsibility in our work
- We look after each other and the environment in which we work.

DELIVER

- We are committed to the delivery of innovative and trusted solutions
- What we say, we do.

A close and united team, we take pride in that our input and involvement has a direct effect on the products and services we deliver and we go the extra mile.

LISTEN.
CARE.
DELIVER.



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OUR CLIENTS'
SUCCESS IS
OUR SUCCESS

