Global Pumps

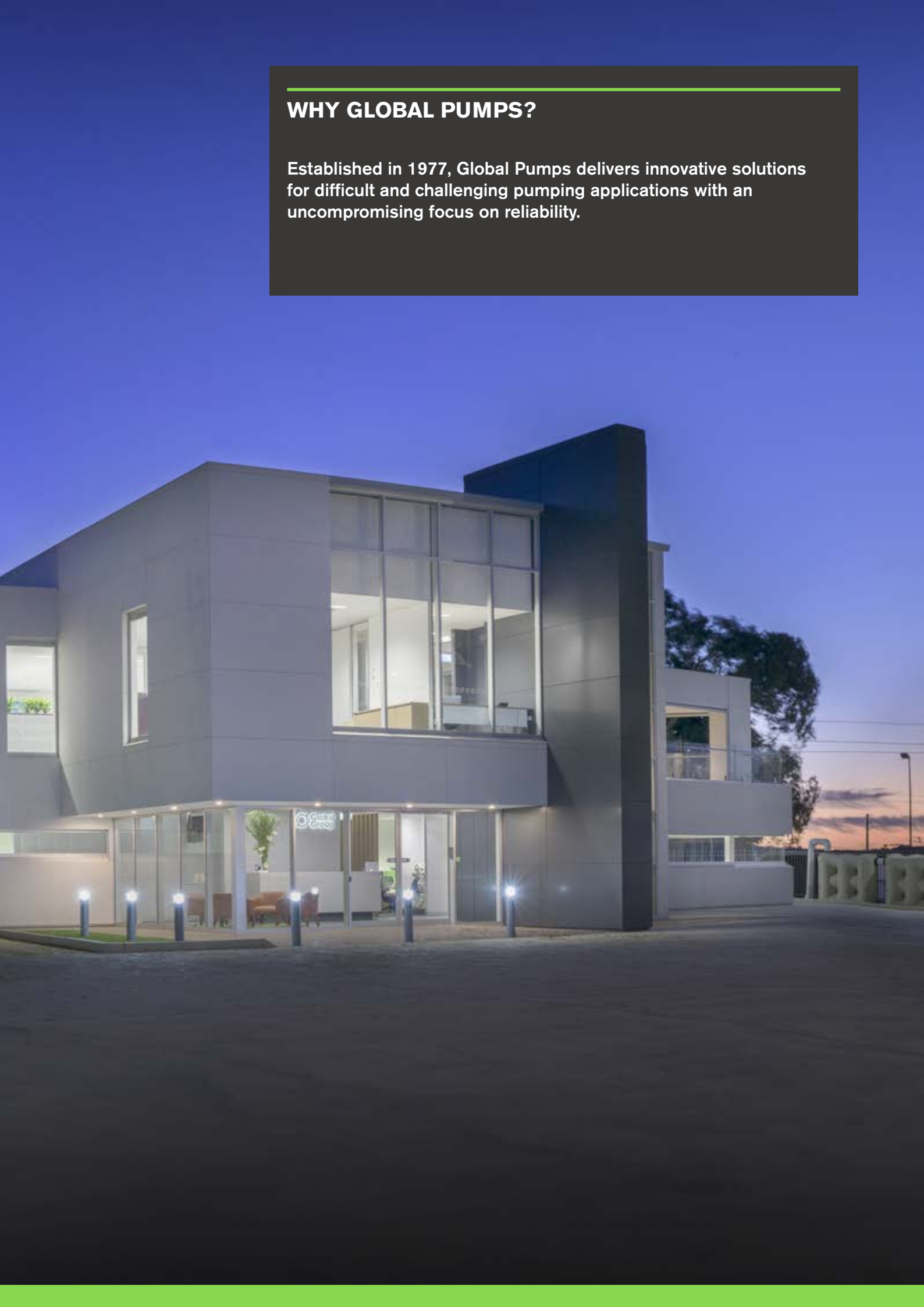
solving tough challenges

CORPORATE PROFILE


Global Group

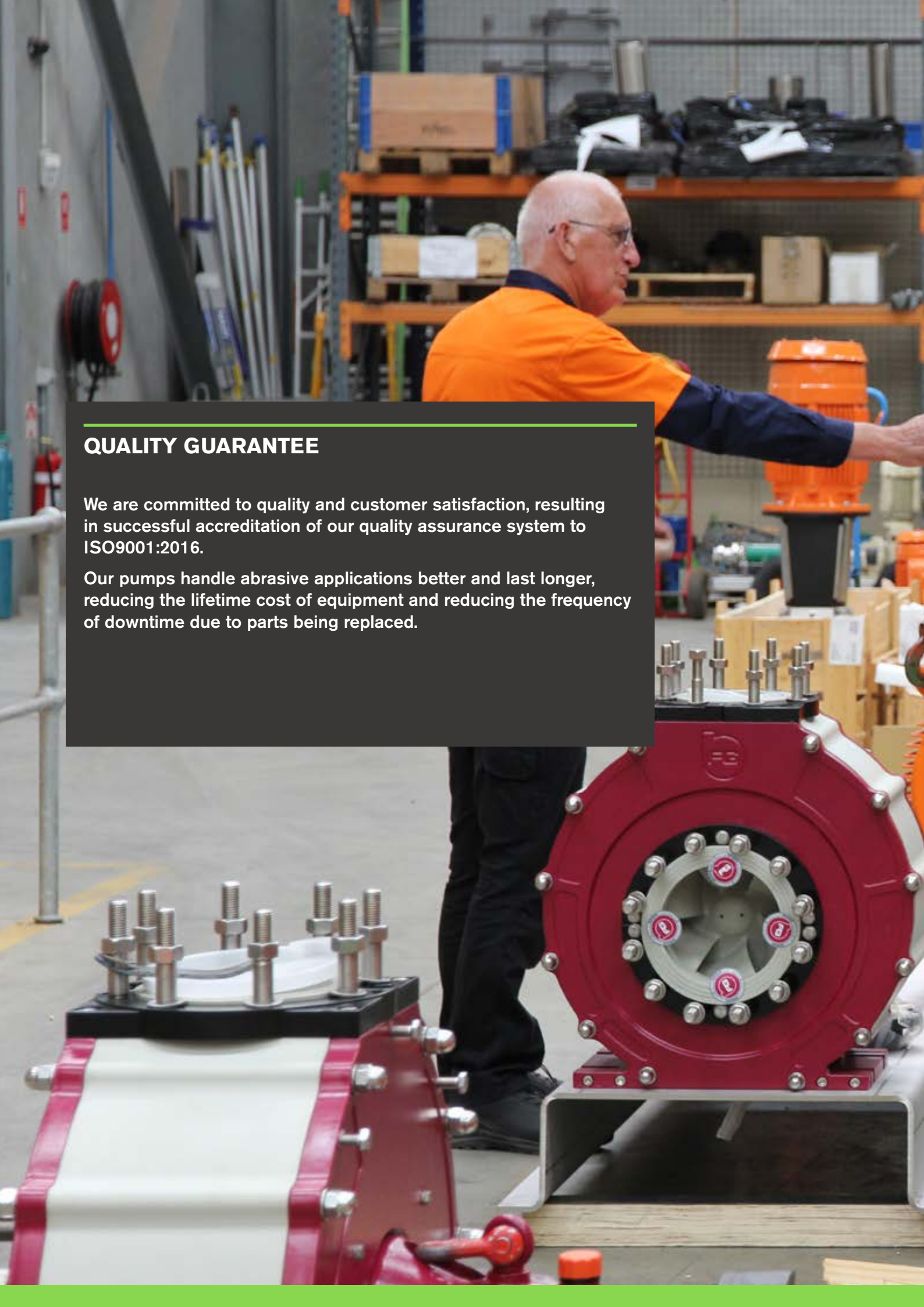
WHY GLOBAL PUMPS?

Established in 1977, Global Pumps delivers innovative solutions for difficult and challenging pumping applications with an uncompromising focus on reliability.



EXPERT ADVICE AND RAPID RESPONSE

We provide expert advice you can trust, with a responsive 'can-do' attitude, efficient after-sales service and nation-wide support. We are dedicated to establishing long-term relationships with our clients.



QUALITY GUARANTEE

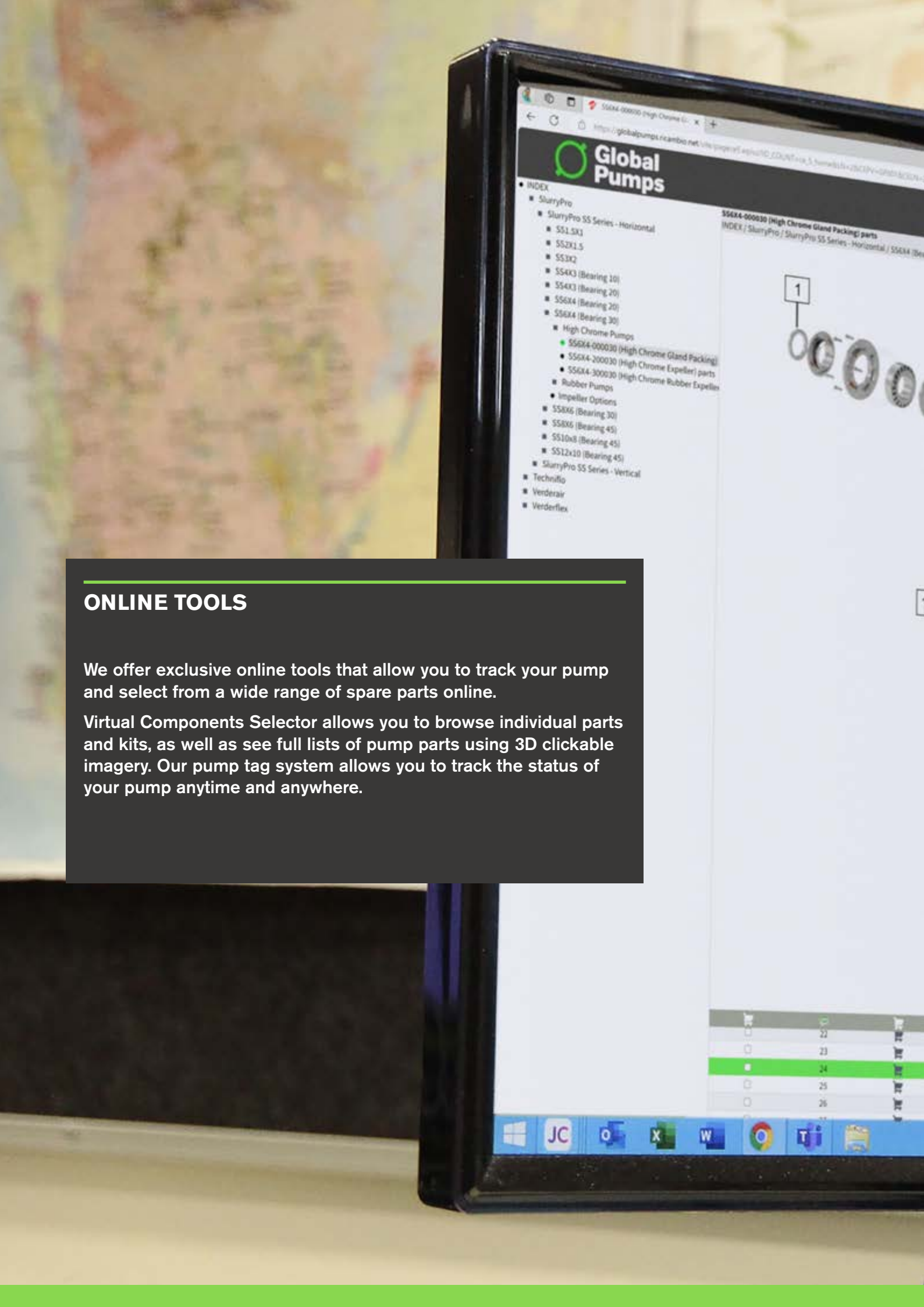
We are committed to quality and customer satisfaction, resulting in successful accreditation of our quality assurance system to ISO9001:2016.

Our pumps handle abrasive applications better and last longer, reducing the lifetime cost of equipment and reducing the frequency of downtime due to parts being replaced.


Global Group

EXTENSIVE RANGE DELIVERED WORLDWIDE

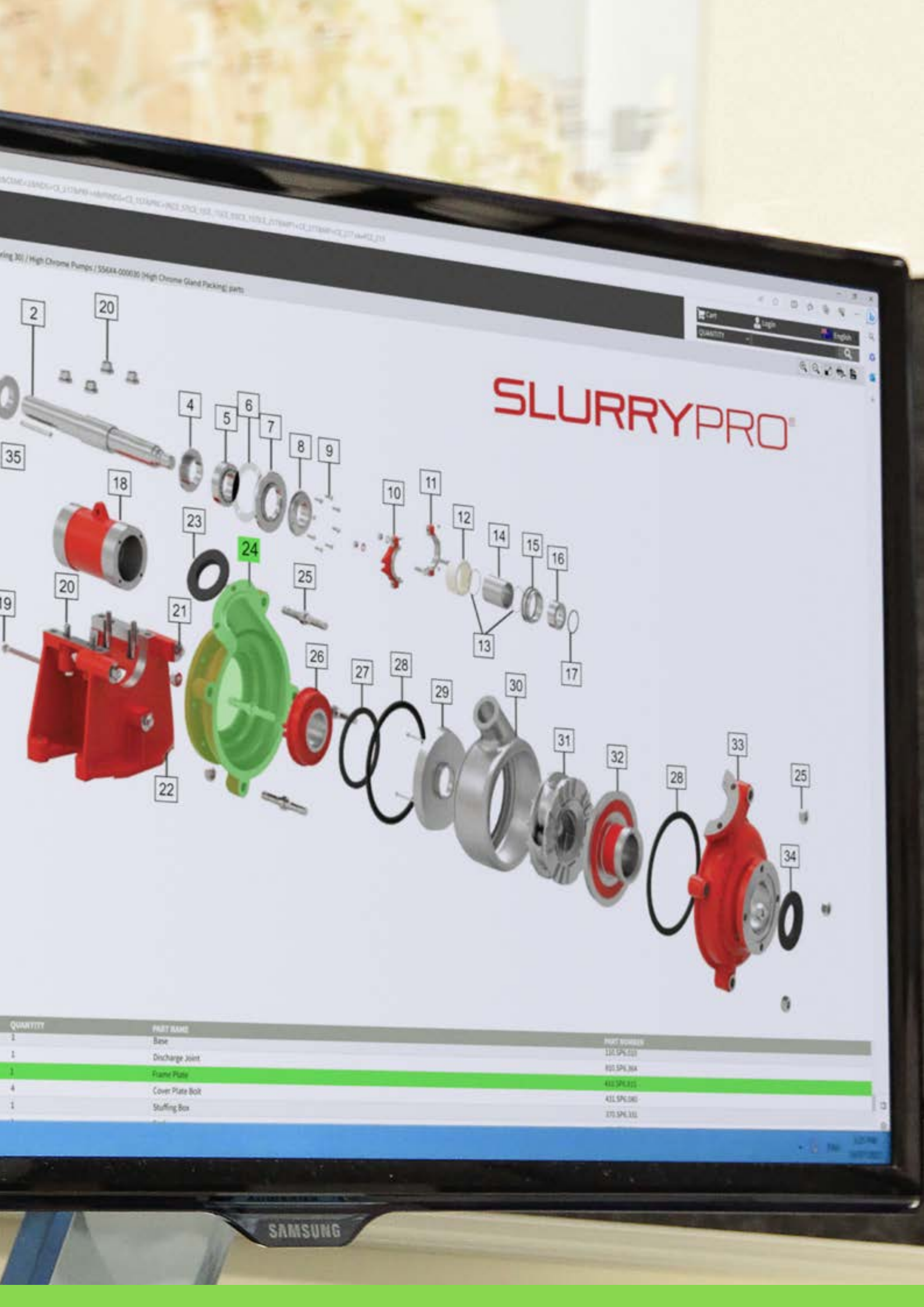
We manufacture and import an extensive range of pumps for difficult and challenging applications that are market leaders in technology and reliability.



ONLINE TOOLS

We offer exclusive online tools that allow you to track your pump and select from a wide range of spare parts online.

Virtual Components Selector allows you to browse individual parts and kits, as well as see full lists of pump parts using 3D clickable imagery. Our pump tag system allows you to track the status of your pump anytime and anywhere.


SLURRYPRO
SAMSUNG

PERISTALTIC HOSE PUMPS

COPPER MINE USES VERDERFLEX HOSE PUMPS FOR SLURRIES

Mining processes involve transferring of slurries that often contain solids in an excess of 80% by weight and have specific gravities (SGs) above 2.0. These slurries are highly abrasive in nature and can often be corrosive. Verderflex peristaltic hose pumps are ideal for slurry pumping due to their abrasion resistance and reinforced hoses.

A copper mining company located in north-Western Australia approached Global Pumps. They faced numerous problems pumping slurries that contained particles and highly corrosive sulphuric acid. The experts at Global Pumps recommended a Verderflex hose pump, model VF50 for their application.

The copper mining company initially installed a small number of VF50 models, which proved to be highly successful in transferring the corrosive slurries. The difficulties that they had been facing were resolved within short period of time. Many more pumps were installed at the site due to their ability to solve tough challenges.

The Verderflex hose pumps delivered highly efficient and effective slurry transfer and reduced maintenance downtime. Features of the VF50 include its ability to be dry running and is especially designed to maximise fatigue strength due to the nature of the long hose life. Hose replacement is an easy task, therefore there is minimal downtime.

The mining company were very impressed with their purchase and were satisfied with Global Pumps recommendation. The site has a long-term solution to their problem, and have increased productivity, reduced downtime and saved on maintenance and repair costs associated with the hoses.

SLURRY PUMPS
LEAD SMELTER

Plant

This plant is an integrated multi-metals recovery facility with the flexibility to process a wide range of lead rich concentrates and smelting industry by-products.

Located approximately 200 km north of Adelaide, South Australia, the smelter has been in constant operation for more than 120 years. There is an adjacent dedicated port facility where concentrates are received, with final products dispatched by road and rail.

This plant is one of the world's largest primary lead smelting facilities, its competitive position is enhanced by its ability to produce a range of metals and treat a variety of by-products, together with its focus on supplying the growing markets of Asia. The plant is linked to another smelter through flows of by-products such as paragoethite and leach products.

Technology

The technology available includes:

- lead smelter, transitioning to top submerged lance furnace
- a sinter plant, with a blast furnace including lead refinery, slag fuming leach, electrowin copper, and solvent extraction

Products

The plant processes many concentrates and smelting products including:

- commodity grade lead
- copper cathode
- silver and gold ore
- sulphuric acid

Pumps

The plant has the following pumps:

- SlurryPro SS3x2-500010: high-chrome liners and impeller fitted with Sealtek mechanical seal, coupled to a 5.5 kW 4-pole electric motor
- thickener recycle pump - thickener underflow
- conditioning discharge pump 'A'
  – conditioned milk of lime pump 'A'
- conditioning discharge pump 'B'
  – conditioned milk of lime pump 'B'


10-PU-11B
CONDITIONING DISCHARGE PUMP B
LOCAL ISOLATOR
FED FROM MCC ET-5-001 TIER 70.3
EMERGENCY
APACHE

MAGNETIC DRIVE PUMPS

SOLVING A TOUGH CHEMICAL TRANSFER REQUEST

Global Pumps supplies a wide range of chemical manufacturers safe, reliable and durable pumping options. Ixom has been a long-time customer of Global Pumps, working with the team to find solutions for some of the most corrosive chemical pumping known.

Ixom supplies manufactured chemicals and services, traded chemical products, and provides logistic solutions and products to the mining, oil and gas industries. Chemicals manufactured by Ixom are commonly used across industries, including those that produce and manufacture the food we eat, the water we drink and the utilities that we enjoy and add value to our lives.

Ixom's product range covers the following industries:

- food, beverage and nutrition
- process cleaning technology
- personal care, health and household
- agriculture
- water treatment
- pulp and paper
- building and construction
- industrial
- plastics
- mining and metals
- oil and gas

Global Pumps and Ixom

Our team have provided a wide range of durable, reliable chemical pumps to Ixom site's across Australia. We have worked closely with Dave Hodges from Ixom's Obsorne site. Dave is Site Manager, and is responsible for the safe operation of their local site.

In a recent interview with Dave he discusses working with our team and the solutions we offered for Ixom's harsh chemicals.

Global Pumps have provided a wide range of solutions for Ixom, all specifically designed to handle the harsh nature of the chemicals.

#1 Tough pumping challenge

- chemical: 15% caustic
- flow rate: 466 L/minute
- head: 12 m

Solution: Techniflo magnetic drive pump 505PW-C.FV

Sodium hydroxide (NaOH), also known as caustic soda or lye, is used to manufacture everyday products such as paper, aluminium, commercial drain and oven cleaners and soap and detergents. However, due to its strong corrosive qualities, exposure to caustic can cause skin and eye irritation. If ingested it can also burn the lips, tongue, throat, stomach and ultimately, cause death.

With these characteristics in mind, it was critical that a pumping solution would provide the safe transfer of caustic. The pump also had to guarantee leak-free operation, as well as offer corrosion resistance and high flows.

Global Pumps suggested the Techniflo magnetic drive pump 505PW-C.FV with ETFE wetted parts and cast iron outer shell. These centrifugal pumps offer heavy duty materials of construction for extreme chemical resistance.

#2 Tough pumping challenge

- chemical: 98% sulphuric acid
- flow rate: 300 L/minute
- head: 12 m

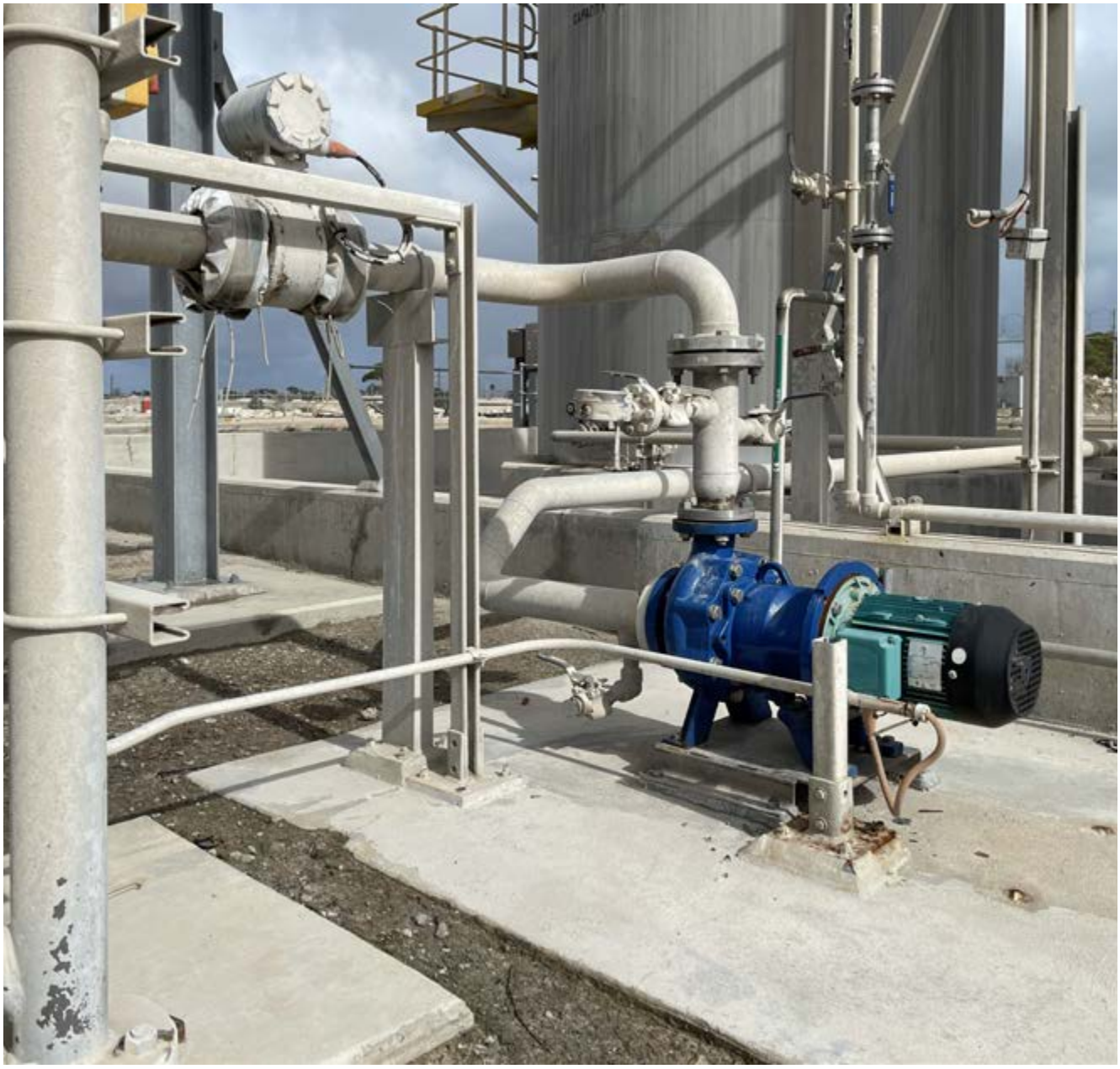
Solution: Techniflo magnetic drive pump 403PW-C.FV

Sulphuric acid is a colourless, odourless and viscous liquid, and in its purest form is highly corrosive towards other materials. Upon contact, sulphuric acid can cause severe chemical burns and even secondary thermal burns due to dehydration. It's important to note that even small amounts of the pure acid is dangerous.

Sulphuric acid is commonly used in fertilizer manufacture, but is also critical in mineral processing, oil refining, wastewater processing and chemical synthesis.

Given the corrosive composition and fact that the pump has to handle 98% sulphuric acid, it was critical that the materials of construction were appropriate.

Global Pumps offered the Techniflo magnetic drive pump 403PW-C.FV with ETFE wetted parts and a cast iron outer shell. This construction, as per the caustic solution, provided the heavy-duty characteristics required to withstand the nature of the sulphuric acid.



AIR OPERATED DIAPHRAGM PUMPS

PUMPING OIL, SAND & WATER

In the oil and gas industry, pumps are required to transfer many different types of fluids and chemicals.

A customer came to Global Pumps with a problem - they weren't happy with their current pumps, their pumps weren't operating with the efficiency and flexibility required at the site. The customer wanted to replace their current line-up of air operated double diaphragm pumps (AODD) with a more suitable option. Global Pumps was committed to helping this customer solve their tough challenge by recommending a pump that was to fit the requirements- the pumps were to be efficient, flexible and robust as they were to be used in high profile shale and conventional gas projects.

Global Pumps recommended Verderair's VA80 AODD pumps due to the type of duty that the pump was going to be used for. Most of the time, the pumps are used to fill crude oil into tankers, but occasionally they are used to transfer water to evaporating ponds, and even used to pump material with an extremely high solid content. Verderair's VA80 was chosen for its flexibility, robustness, and ease of maintenance.

The VA80 can pump a wide variety of liquids and solids without problems. The pump is designed to withstand aggressive and abrasive fluids and to work in the inhospitable environments typically found in the oil and gas industry.

Since they've replaced all their previous pumps with Verderair's VA80, the company discovered that the reliability and ease of use make the VA80 the preferred choice of pump. The customer remarked: *"we use them to pump all sorts of stuff like sand, etc. and when they stop, we just give them a clean and they start going again"*.


3,000 PSI

DRUM PUMPS
PUMPING LIME PUTTY FROM AN IBC

The challenge

A water authority in Western Australia needed to transfer lime putty, a slurry of water with suspended particles of calcium hydroxide of very high viscosity (2200 cP) from IBCs at a rate of 50 L/min. Because of its viscosity, suspended particles and chemically corrosive properties, it required a pump that could effectively pump viscous slurries, but that was chemically resistant to alkaline solutions as well as resistant to the abrasive properties of the suspended particles. The other constraint on the situation is they only had a small hole in the top of the IBC to insert a pump.

The solution

Global Pumps recommended a Techniflo eccentric screw drum pump suitable for viscous liquids to suit this purpose. In this type of pump design, a multi-spiral “rotor” or screw rotates inside a rigid “stator”. This rotation gently displaces the liquid by nature of the geometry of the rotor-stator assembly, and is appropriate for highly viscous fluids as well as sensitive fluids, due to the low mechanical effect of the pump on the pumped product. The entire assembly, in this case, is made of material that is resistant to the medium strength alkaline chemical properties of the lime putty and is hard wearing to resist the abrasive properties of the slurry due to the suspended particles of calcium hydroxide. This pump design can be used to pump liquids with viscosity up to 100,000 cP with or without solids, for example; paint, oil, soap, shampoo, sauces, glues, etc. The pump was supplied with a 54 mm diameter by 1200 mm long immersion tube to allow complete emptying of the IBCs being used to store the lime putty.

The result

Global Pumps supplied this pump in November of 2012. It has proven its reliability in the pumping of lime slurry from IBCs and continues to benefit the customer today. Officials from the water authority recently reported that the pump has been working well ever since its installation.

FIRE PUMPS

INTRODUCING THE ENDURANCE RANGE

The Endurance Series Fire Pump System is designed and built to a heavy-duty standard with the intent of severe service and a 25-year minimum service life. This is achieved by utilising high-quality OEM components which are nationally supported and rated for continuous industrial use. Low total cost of life and reliability are characteristics that can be expected of the Endurance product, far beyond the industry benchmark for fire pump systems.

The Endurance units are available in a complete package, including suction and discharge manifolds, valves, controllers, jacking pump and switches all pre-wired, pre-plumbed and tested. These units are built to fit any space and are offered alongside a flexible design approach, ensuring each set is tailored to suit exact requirements.

All design and manufactures are carried out at our modern Australian head office, with testing and qualification validated on our state-of-the-art testing facility. All pumps are manufactured to Australian Standard 2941-2013 and the Intent of American Fire pump standard, NFPA20.

Whether you need protection for a hospital, high-rise building or mine site, the Endurance Heavy Duty Fire Pump System will provide you with the peace of mind that you have made the right choice for the people and assets that you have been trusted to protect.

SURFACE PROTECTION
METALINE WEAR RESISTANT COATINGS

Hanson Trucks, with the help of Global Pumps, invested in MetaLine wear resistant coatings to help solve their tough challenge.

The challenge

MetaLine is a spray-on elastomeric wear resistant coating that is repairable, and it's saving industries a significant amount of time and money. Not only does it provide protection that extends equipment life, but it prevents abrasion and corrosion.

Hanson Trucks was suffering with a large amount of concrete build-up and abrasive wear and tear on their trucks that was taking a toll on performance and overall wear of life.

The solution

MetaLine wear resistant coating was chosen as the solution and Hansen Trucks immediately saw outstanding results in protection and efficiency.

The trucks were prepared for pressure cleaning, degreasing, and struck with an abrasive blast to remove excess concrete. Metaline 924 coating, Metaline 900 primer and Metaline 795 coatings were then applied.

The results

These coatings are extremely durable and abrasion resistant, providing extended service life to the trucks. This increased operational productivity and provided a long-term cost saving initiative.

Downtime was reduced due to there being less wear on equipment, therefore minimising maintenance costs and scheduling. Hanson Trucks no longer suffered concrete build up and minimised wear and tear due to how easy the trucks were to clean after the Metaline products were applied.

The spray-on, repairable coating is touch-dry after 15 minutes fully cured in 24 hours.


Hanson
Group

CUSTOMISED PACKAGED PUMPING SYSTEMS

Pumps can be mounted to trolleys, skids with fork-lift pockets, roll-frames or in cages depending on what your application demands. A wide range of materials of construction are available for these portable options, to ensure a durable structure for whatever the tough challenge.

Global Pumps' capabilities extend to include prefabricated packages with pumps, pipework and valves with the option of on-board electrical controls and instrumentation to simplify site installation.

Typical packages include:

- duty/stand-by pump sets
- batching systems
- cooling systems
- mixing and dosing systems
- fixed or mobile configurations
- belt-drive or direct coupled arrangements
- variable speed packaged systems
- fire pump systems

HOW GLOBAL PUMPS' SPECIALISED PROJECTS TEAM CAN HELP YOUR MINE SITE

Do you want to be more efficient? Maybe you want to reduce downtime, increase productivity, and ensure the safety and integrity of your site? If you have answered yes, consider speaking to Global Pumps' specialist Projects team.

We work with clients to implement efficient pumping practices to reduce your site's downtime, reach your production goals and ensure the safety of your team.

Turn-key packages

In some instances, your site may require a turnkey solution - a unique pumping system, built specifically for your requirements. Leading engineers work with you to design, customise, and build complete packaged pumping solutions. The overall goal of the project - to ensure this pumping system maximises your site's productivity and your reduces operational costs.

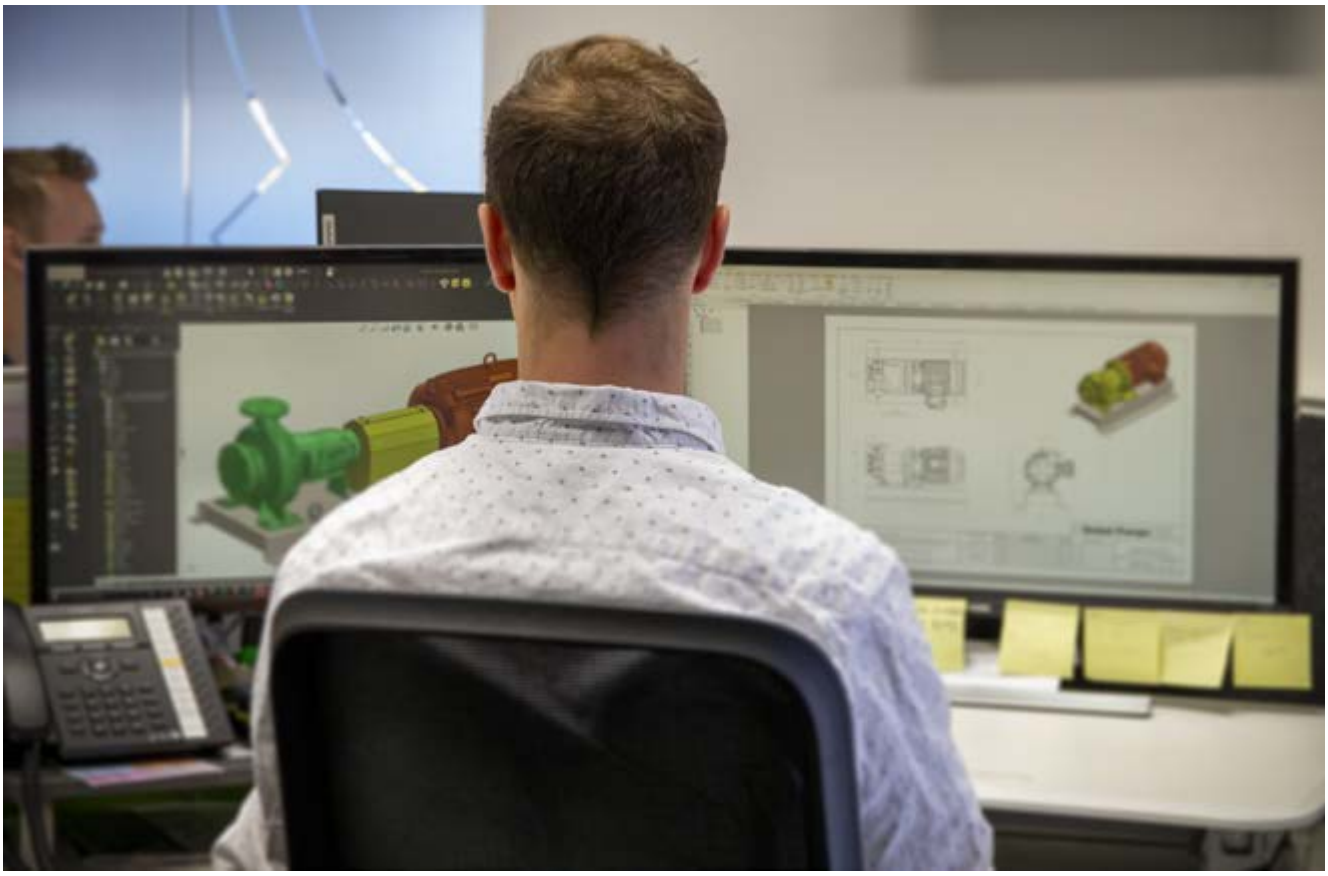
Engineering capabilities and technical expertise

Many of our clients have come to rely on us for our pump knowledge and expertise. We are committed to rapid response times to give you more time to focus on your project. Our team's technical services include chemical process and mechanical engineering, mechanical and electrical fault-finding and optimisation, field service assistance and preventative maintenance guidance.

Our purpose-built facilities at our head office location allow for fully equipped pump servicing, assembly and fabrication.

Support when you need it

We are committed to ensuring you feel supported throughout the entire life of your pumping system. Our qualified service technicians, as well as engineers, provide ongoing support for maintenance, upgrading, spare parts replacement or guidance and advice to ensure the continued optimisation of your plant's system.



CASE STUDY

CUSTOM COLLAPSIBLE STANDPIPE PUMP SETS

Global Pumps was recently commissioned to build six custom standpipes for multiple projects in WA. This client needed standpipes that were compact, collapsible and easy to move across various sites and applications.

Our in-house Project Engineer worked closely with the client to ensure all requirements were met across the design and build period. Standpipes are most commonly used to pump water from man-made reservoirs into trucks, which then spray down mine sites in order to prevent dust storms.

Transportability was the most important requirement to consider while designing the standpipes, and in turn our biggest challenge. In most circumstances, standpipes need to be taken apart into numerous pieces and require an entire truck, or more, for site transport. Another consideration was ease of use. The standpipe had to be created to meet compact requirements and ensure minimal setup/pack down time. This was solved by adding hinges to the standpipes.

These specialised standpipes, collaboratively constructed between our project engineer and workshop team, are easily packed down using hinges and a turn-key principle, ensuring only minimal parts are removed. Hinges allow the standpipe to be 'foldable' as it collapses into itself, making it so compact that it only uses the space of half a truck. Not only does this save space, but it also saves time, as multiple standpipes can be transported at once. This reduces setup time as less parts need to be put back together. The standpipes are also designed to automatically stop if their water supply runs out.

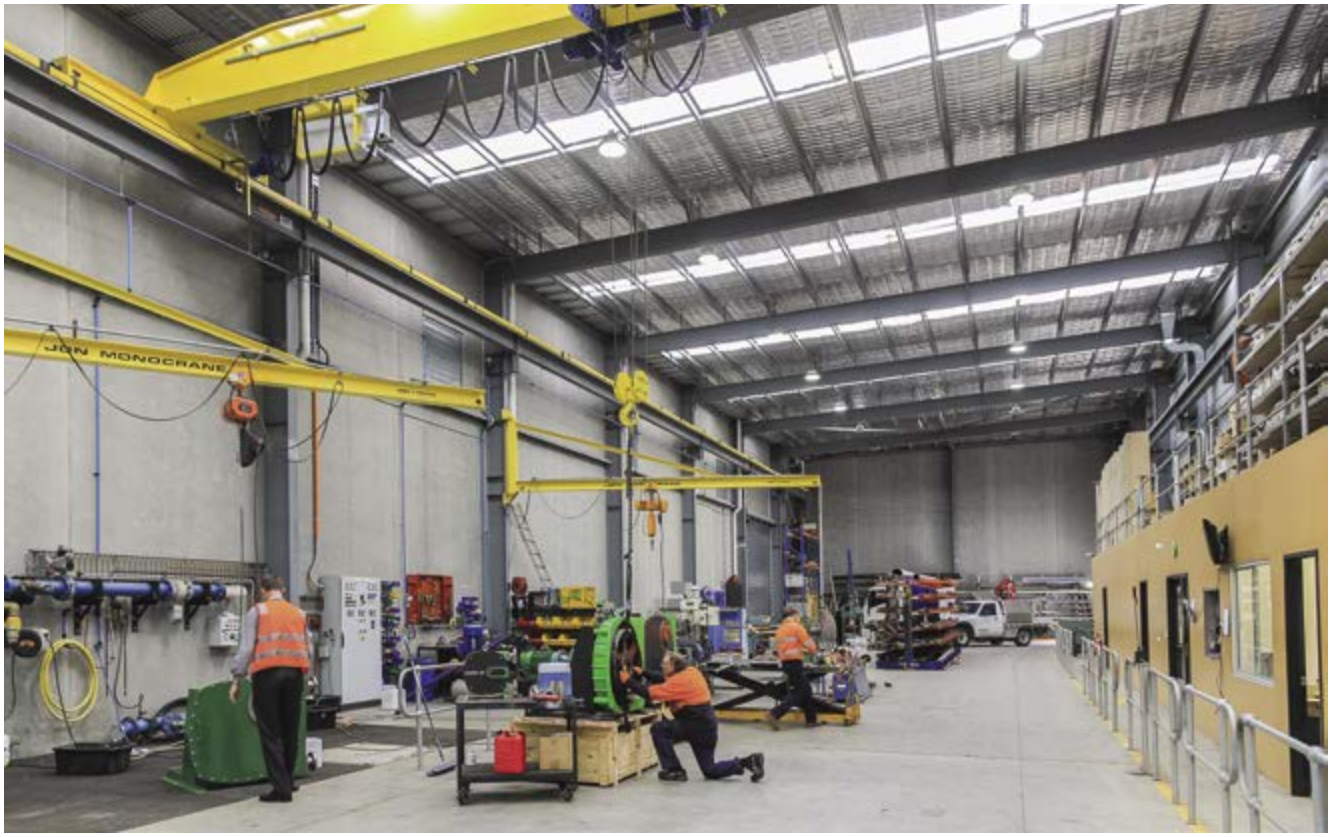
Prior to construction, CAD renderings were produced to view how the different components would function and to assess if all measurements were correct.

All six standpipes and their heavy duty bases were constructed with galvanised steel. The standpipes are fitted with either dam fed TORO self-priming pumps or tank fed centrifugal pumps, both of which are composed of cast iron. These pumps can be used across a variety of applications and industries, including: mining, scouring plants, civil works and tanker loading/unloading. They were thoroughly tested in the Global Pumps workshop to ensure all safety, product, client and company standards were met.

Project specifics

- weight of each standpipe: 1600 kg
- height of each standpipe: 6 metres
- flow rate: 2000 L/min

MANUFACTURING & WORKSHOP



Global Pumps provides quality engineered products and services to the mining and industry sectors, supported by state-of-the-art workshop facilities.

The workshop allows us to provide in-house engineering, specialised technical support, maintenance, service, repairs, overhaul of horizontal and vertical slurry pumps, plus field service assistance.

Our SlurryPro and Verderflex pump ranges have parts and replacement pump interchangeability with other well-known manufacturers, which allows an alternate supply to the existing pump brand.

WORKSHOP AND PLANT CAPABILITIES	
Workshop/Warehouse	3400 m^2
Manufacturing capabilities	Machining, fabrication, assembly and sheet metal working bays
Engineering	Full in-house design capability including 3D SolidWorks drafting
Lifting capacity	2 x 10 T, 1 x 5 T gantry crane; 2 x 1 T jib cranes
Forklift	2 x 3.5 T, 1 x 7.0 T forklifts; 3 x reach trucks
Wash bay	Wash down bay; high pressure water cleaner with sediment and solids separator tank for contamination control
Paint booth	Specialist coating and spray painting booth
Pump test facility	Up to 400 L/s or up to 400 kW electrical and up to 1000 kW mechanical, to Australian standards
Electrical	Design, manufacturing and site installation
Packages	Multi-pump skids, container mounted fire pump sets, wastewater pump stations, chemical dosing systems
Site works	Full site installation and commissioning with 2 x cranes equipped for confined space entry

intrax

Providing pump solutions to industry, globally

Intrax is a global leader in specialist pumping equipment for difficult and challenging industrial applications. We are known for excellence in bringing innovative, cost-saving ideas to our customers as well as offering unrivaled levels of customer service and response times.

Our combined wealth of experience of technical know-how in highly sophisticated applications has allowed us to work closely with the engineering teams on large-scale projects across the globe firmly establishing us as their trusted partner.

For further information, please visit our website: intraxglobal.com

Our brands

AUDEX

SLURRYPRO®

TECHNIFLO®

TORO robust pumping power

Global Pump Group Pty Ltd

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