



## Case study

# Austin Engineering: Upgrade of cylinder fleet to new F3 VIPR delivers real rewards in safety and reliability

Austin Engineering based in Kewdale, Western Australia is one of the busiest workshops in Perth, designing and manufacturing customised dump truck bodies, buckets and ancillary products for some of the biggest mining companies in Australia. With up to 200 workers on the floor on any given day, a top priority is to ensure maximum efficiency by using a continuous improvement approach.

With a significant amount of welding carried out every day and anywhere between 80-120 G size cylinders used each week, Austin Engineering was keen to work with BOC to improve safety of its workers and reduce costs by upgrading its gas cylinders to the new BOC F3 VIPR with an in-built regulator.

Geoff Collins, Workshop Manager at Austin Engineering said: "We're firm believers in continuous improvement and are always looking for better ways to improve our efficiency and that's where these cylinders came in."

### Challenges

Working in a busy workshop with G size cylinders meant some challenges for the Austin Engineering team – particularly when connecting regulators and transporting them around the workshop.

"When staff detached a regulator from a cylinder, there was always a risk that they would drop it on the ground, break it, or crack the valve open too fast and blow the diaphragm. We were getting a lot of damage with the regulators."

"Also when transporting the welding machines around the workshop, the tall standard G size cylinder could at times, restrict the vision of workers. Depending on which way you pushed it, you couldn't always see over it."

### Solution

After an initial trial of several 33 litre F3 VIPR cylinders in the workshop, Austin Engineering made a decision to upgrade all its G size cylinders for ARGOSHIELD® 52 to the new cylinder.

Ideal for welding workshops that need to easily move cylinders, the F3 VIPR cylinder was perfect for the Austin Engineering team because it had a slightly higher capacity than the G size cylinders and an in-built regulator, eliminating the need to purchase separate regulators.

Filled to a pressure of up to 300 bar, the innovative F3 VIPR cylinder offered both a higher capacity and smaller size making it more portable. It also had improved safety features including a handle for trundling, protective casing for the regulator and a shorter height for easier transportation.

### Business Benefits

#### Smaller size, safer worksite

With up to 60 welders in their workshop, minimising the risk of manual handling injuries was a top priority for Austin Engineering. Since the F3 VIPRs were implemented, safety has improved for workers transporting cylinders throughout the workshop.

"We have a diverse group of welders who have different heights and strength, so having this sort of cylinder makes it easier for them to handle. When moving them, they now have a better point of balance with the lower F3 VIPR height – bringing the centre of gravity down which makes a world of difference for them."

Maneuverability of welding machines with the cylinder has also greatly improved with the new F3 VIPR. "Weight wise it's about the same as the standard G size but it's not as top heavy, making it easier to maneuver with a welding machine. It doesn't restrict the worker's vision at all as they're a lot shorter."



### In-built regulators – improved durability

Austin Engineering no longer needs to purchase its ARGOSHIELD® 52 regulators separately and since switching over to the F3 VIPR, the workshop has already saved money and improved productivity.

“Having an in-built regulator saves us a lot of costs because it is permanently attached to the cylinder making us less prone to damaging regulator equipment. It also means one less piece that we need to supply – saving us time. The top of the cylinder has a plastic casing which protects the regulator, so if it falls over it reduces the chance of the head breaking off.”

“We also like that they’re all the same type of regulator because we previously had different types. We have a lot of workers where English is their second language, so now they’re used to the same BOC regulator which certainly makes it far easier for them.”

### Reliability of gas flow

With their large mining customers expecting high quality welding work, gas flow from the cylinders was one feature that impressed Geoff about the F3 VIPR.

“A lot of other flowmeters and regulators can be inaccurate which is not ideal as gas flow is crucial to the welding operation. Knowing that we’ve got a BOC product with a BOC regulator in that cylinder, we can be sure of the quality because the regulator is actually protected and there is more consistency of gas coming through.”

## About the companies

### About Austin Engineering

Austin Engineering is a leading designer and manufacturer of customised dump truck bodies, buckets and ancillary products used in the mining industry. With over 30 years’ experience in the mining and manufacturing industry, Austin Engineering is an expert at solving engineering challenges. We are also a complete service provider, offering on and off-site repair and maintenance and heavy equipment lifting services to customers including miners,

mining contractors and original equipment manufacturers. With a presence in some of the world’s principal mining regions, Austin Engineering provides high quality, cost effective solutions, delivered on-time and backed by through-life product support. The company employs over 1500 people with a combined annual turnover of \$AUD288 million. While Austin Engineering has only been listed since 2004, the sum of its divisions has been around for 70 years. For more information go to [www.austineng.com.au](http://www.austineng.com.au)

### About BOC

BOC is a member of The Linde Group which supplies compressed and bulk gases, chemicals and equipment around the globe. The company develops safe, sustainable and innovative solutions for customers in many specialty sectors, heavy industry and medical environments. For more than a century the company’s gases and expertise have contributed to advances in industry and everyday life, including steelmaking, refining, chemical processing, environmental protection, wastewater treatment, welding and cutting, food processing and distribution, glass production, electronics and health care. For further information, see [www.boc-limited.com.au](http://www.boc-limited.com.au)

### About The Linde Group

In the 2014 financial year, The Linde Group generated revenue of EUR 17.047 bn, making it the largest gases and engineering company in the world with approximately 65,500 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment – in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development. For more information, see The Linde Group online at [www.linde.com](http://www.linde.com)

For further information visit [www.boc.com.au](http://www.boc.com.au)

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