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Compressors

World-class sustainable compressed air solutions

ELGi Equipments has a long history of providing compressed air solutions, with a catalogue of more than 400 air compressor products. *Manufacturers' Monthly* investigates why the company is making ground in the Australian market with disruptive compressors for a variety of industrial applications.

N the 1960s, ELGi Equipments began as a garage equipment manufacturing company in India and added air compressors to its portfolio, with air compressors soon becoming the predominant product line. Today, the brand has a global presence with its range of air compressors, with manufacturing operations and representation in every continent serving markets around the world. At the forefront of design

excellence, ELGi was the first compressor company in the world to be certified with ISO 9001 for quality management systems in 1994, and in 2019 ELGi was the first and only global industrial air compressor manufacturer in over sixty years to be awarded the Deming Prize for excellence in Total Quality Management.

ELGi has been present in the Australian market for over 50 years, consolidating its presence in Australia twelve years ago – headquartered in Sydney – to grow its presence for its range of compressors that can be found in operation throughout a wide range of industrial sectors, including food processing, healthcare, construction and mining.

Ramesh Ponnuswami, executive director OSEA at ELGi said "We have thousands of customers across a diverse range of industries throughout Australia and New Zealand," he explained. "Our design capability and quality control results in a large range of products, from time-tested, robust workhorses to extremely sophisticated, high-tech solutions allowing us meet the needs of such a broad range of industry sector applications."

ELGi manufactures a complete range of industrial air compressors that include oil lubricated and oil-free electric powered rotary screw compressors, oil lubricated, and oil-free reciprocating compressors, dryers, air receiver tanks and other accessories. Ponnuswami attributes the company's growth to long-term partnerships and excellent customer service within the Australian market.

Since establishing a direct presence in Australia in 2011, ELGi has expanded its footprint through an acquisition and is now present in three states on the east coast, in addition to the already well established and dedicated distribution network around the country. "Many of our distributors have been with us for over 10 years now, which is testament to the quality and reliability of our products and the strong focus we have on building long term partnerships with our distributors," Ponnuswami added.

Ponnuswami highlighted the importance of providing reliable products and quick and efficient customer service.

"Availability is something we place a very heavy emphasis on and there's been a really good response from our customers," he said. "The company ensures that the right parts are available and that on-time service is provided to its customers. The products are really reliable, so we see next to no issues when products are maintained as per the recommended schedule. The combination of having ready availability and quick response from a service point of view is crucial."

With a global rise in electricity prices, and with energy costs representing around 80 per cent of the total lifecycle cost of owning a compressor, this is something that cannot be ignored. Compressors are a huge user of energy in industry, so more energy efficient solutions are not only more sustainable, they are absolutely necessary to minimise the impact of rising electricity prices. There simply isn't enough fuel to go around at the moment, so unfulfilled electricity needs are set to continue, making the pursuit of sustainable processes and improvements essential.

Oil lubricated compressors are the backbone of varied industrial applications. ELGi's oil lubricated range of compressors offer cost-effective, long-lasting compressed air solutions suitable for light to heavy duty industrial applications. "The emphasis on lowering the energy footprint is where our products really come into their own. By developing energy efficient, high reliability compressors that have minimal environmental impact, the customer benefits from a very low overall cost of ownership in the long run," he said, "Fundamentally, we are a technology driven company. In this business, you have to think, act and stay ahead by embracing new technology and continuous innovation. Even very small incremental gains, just decimal improvements make a big difference when it comes to energy savings."

ELGi's research and development program is comprehensive, spanning fundamental research to tactical and strategic development. With a team of experts from various disciplines – including multiple PhDs and engineers – the company has sophisticated tools to simulate and



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ELGi's products are designed for Australian conditions, with lifetime warranty applied as standard for its air-ends on the EG series.

model the design and packaging of its products. ELGi's focus on technology is evident in its annual program called State of the Future Art, which seeks to identify potential ideas from its team across the world, building industry partnerships and receiving input from leading engineering institutions in India.

The company's investment in R&D is driven by a commitment to environmental, social, and governance (ESG) goals. ELGi places a heavy emphasis on reducing its environmental footprint not only in its operations but also in how its products impact its customers' operations. ELGi's in-house expertise in design and testing is critical to its success, of which very few companies have the same luxury.

As well as edging ahead of the competition on stock products, ELGi is invested in being a disrupter for industry. One such example is its Always Better (AB) Series – from 11KW to 110KW – which brings a disruption to oil-free compressed air technology. Years of intense development have resulted in a no-compromise, energy-efficient oil-free solution at reduced lifecycle costs when compared to prevailing oil-free technology, reliability and lower maintenance costs and class zero certified, contamination-free air for sensitive industry applications.

The majority of the compressor market is comprised of oil-injected screw compressor technology. A proven





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commodity, the issue with oil free compressors are the significantly higher energy and capital costs. ELGi has set out on a mission to create a middle ground – a compressor which brings all the benefits of oil-free at the cost of standard oil lubricated compressors.

"We have a product which is in between with the AB series, which meets the standards of oil-free but is getting close to the efficiency of an oil-lubricated compressor," he said. "It's now found applications in a number of industries such as food and beverage, pharmaceutical, automotive and chemical process. It's a very disruptive product in the way we've configured the whole package, which we're very proud of."

And the way Ponnuswami sees it, the AB series has potential to improve even more over time, with leading brands already investing in the technology.

The AB series is starting to gain a reputation in Australia and New Zealand, with projects such as a fully turnkey

solution for a food science facility shared by Massey University in New Zealand.

The new facility includes over 1,800 sqm of research laboratory space that houses a range of hi-tech food science analytical equipment including mass

spectrometers. Mass spectrometers require high-purity nitrogen to analyse chemical molecules in food. Delivered by a nitrogen generator, the compressed air supply for the nitrogen generator needed to be 100 per cent oil-free and certified 'Class 0' in compliance with ISO 8573-1.

To find the right solution to meet these stringent requirements, Massey University contacted long-standing compressed air partner Compressed Air Controls, one of ELGi's authorised partners. Steve Carran, Territory Manager at Compressed Air Controls, said, "We designed a complete skidmounted turnkey solution, including an ELGi AB37 oil-free screw air compressor and an Airmate EGRD200 refrigerated air dryer complete with downstream filtration, and full stainless steel air lines to meet their needs."

ELGI's products are designed for Australian conditions, with a lifetime warranty applied as standard for its air-ends on the EG series (the heart of a screw compressor, equivalent to the engine in a car). The business will continue to leverage its ESG framework to improve the technology and service in the world of compressors.

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