



Case Study

Telwater.

BOC welding equipment upgrades sees iconic boat manufacturer deliver quality results and improved training.

Delivering a high-quality product in an efficient, safe way is key to the success of Australia's leading aluminium boat and trailer manufacturer, Telwater.

The iconic boat building company opened its doors on the Gold Coast in 1988 and has become synonymous with its innovative designs, advanced technology, and range of aluminium boat models.

Telwater designs and manufactures four of Australia's leading aluminium boat brands including Quintrex, Stacer, Savage and Yellowfin Plate. The team consists of expert welders and painters, research and development technicians and many other trades, all committed to the highest quality workmanship.

To maintain its reputation as a leading manufacturer, Telwater invests in new solutions to improve efficiency, safety and reliability across its substantial manufacturing operations.

Challenge

Manufacturing multiple boats per day often to tight deadlines, the team at Telwater relies heavily on welding equipment and gases to deliver high quality aluminium welds.

"If we don't have a good end-product, it can lead to warranty claims which can be extremely time-consuming for our customers and employees. That is why we continually invest in the latest welding equipment and processes," said Robert Potts, Welding Supervisor at Telwater.

"The benefits of changing welding processes and investing in new equipment are significant and shouldn't be understated.

"We use welding equipment to manufacture every part of the boat so having efficient, reliable and updated technology is crucial."

After a review of the market, Telwater started using BOC's liquid argon in 2013 to support its welding. BOC's Air Separation Unit, located within an hour of the factory, was key for reliability of supply for Telwater.

As part of this, BOC offered the Telwater team training on the MIG and TIG projectors which were set up onsite at Telwater. The training worked through identifying welding defects and setting of parameters, which helped the Telwater team better understand how to set up their welding machines and maximise productivity.

After working with BOC for just over one year, Telwater switched to BOC for its welding wire.

"We use a great deal of welding wire per boat so it's really important we use a wire that is reliable and high quality. That's why we switched to BOC's premium aluminium wire," said Robert.

With 65 welders on site every day, Telwater's welding machines became dated with low reliability. Given the success of the gas mixtures and aluminium wire, Telwater decided to work with BOC to review their welding machines.



Solution

In 2016, Telwater commenced a welding trial and after a couple of weeks of testing, the Telwater team knew that to keep up with demand while consistently delivering a high-quality product, they needed to make the jump.

As the exclusive distributor of EWM welding machines in Australia, BOC has delivered 74 EWM PICOMIG 355 Pulse Multiprocess welders and 11 EWM TETRIX 300 AC/DC TIG machines.

Ideal for busy workshops involving heavy industrial work, the EWM Tetric 300 ACDC is designed with EWM patented processes for faster results. The Picomig 355 D3 Pulse is ideal for tough environments and boat building.

Results

Collectively, the welding wire, argon shielding gas and EWM machines led to an overall better weld quality for Telwater's boats resulting in less rework.

The EWM Tetric 300 ACDC allowed Telwater to be more flexible and specific when it came to its designs as the machine allows the user flexibility in joining different aluminium plates together.

The Picomig 355 is a four-in-one multi-process welder that offers MIG/MAG pulse. Its reliable pulse welding feature produces superior results when working with stainless steel and aluminium.

"The weld quality is better, there is less spatter, it's less time-consuming and we are using less consumables and wire. It's a win-win for us," said Robert.

The portable and easy-to-use equipment has become an integral part of Telwater's growing training program.

Both machines allow the user to program welding tasks to save time when working on repetitive tasks. This feature is important when an inexperienced welder is learning the basics.

"What also stood out to us the most was its useability. Since using EWM, we have been able to train more efficiently and more often. It has become key in our training processes," said Robert.

"We currently have five trainers, and we train in groups of between five and 10. EWM equipment has made it a lot easier for us to develop and improve our training program, something which helped us stand out from other boat manufacturers.

"Over the years, we have trialled a few different products but always came back to BOC. The end-result was always of a high quality, and it used less energy than other equipment we tested which saves us money on power bills.

"Whenever we have needed something, BOC has always been really good to deal with and would send out a representative within 24 hours. For us, working with BOC means you don't have to worry," concluded Robert.



BOC and Telwater continue to work together on quality and productivity improvements, including trialling new shielding gas mixtures that can offer over 20 percent cost reduction.



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