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“So we started by taking control of producing and fitting our own parts. Then we moved into blasting our own steel, and then onto cutting and the drilling steel, and so we continued on through all the other machines we purchased.”

Page Steel has invested heavily in automation, from a high definition plasma machine (that can process plate up to 32mm thick, 3,000mm wide and 12,000mm long), and a CNC oxy cutter (that can process plates over 32mm thick), through to a fully automated CNC angle and plate line, and an automated section blaster with the ability to blast steel at Class 1 to Class 2.5.

They have a multi spindle beamline that can cut and drill sections up to 21m in length, which integrates seamlessly into their internal 3D modelling drafting system and is programmed from their drafting office. A cross transfer system fast-tracks the in-feed and out-feed of material into the beamline conveyor, and eliminates handling with overhead cranes.

AN INVESTMENT IN THE FUTURE

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“The machinery we’ve invested in solves a lot of the issues we’ve been facing in terms of difficult to recruit workers, accuracy and speed. There are so many pluses to the machine besides the initial investment.”

“We’ve had the Zeman SBA single rail running for about a year now. It is incorporated with, and connected to, all the other machines in our facility, so our entire process can flow without the use of cranes – the steel flows from machine to machine to machine and unloads itself as well.”

PAGE STEEL: FUTURE PROOFING VIA AUTOMATION

ASI MEMBER PAGE STEEL FABRICATIONS WAS ESTABLISHED IN VICTORIA IN 1970. OVER THE LAST 50 YEARS, THE COMPANY HAS EXPANDED SIGNIFICANTLY, ADAPTING TO THE RAPIDLY CHANGING NATURE OF THE INDUSTRY WITH THE IMPLEMENTATION OF ADVANCED SOFTWARE AND CUTTING-EDGE AUTOMATION EQUIPMENT. RECENTLY, PAGE STEEL INVESTED OVER \$3.5 MILLION IN ROBOTIC FABRICATION MACHINERY, INCREASING THEIR CAPACITY BY UP TO 50% AND FUTURE PROOFING THE BUSINESS FOR THE NEXT TEN YEARS.

According to Director Chris Piacentini, Page Steel tackles larger projects. “We focus on industrial, commercial and government work—they are our three big sectors. We also target infrastructure work, as well as high-rise residential projects and multi-storey carparks. Our clients are generally tier one, two and three builders.”

Page Steel’s capabilities extend across the entire lifecycle of a project. “We have capabilities in drafting, fabrication, painting, transport and erection—we do it all,” said Chris.

It’s this end-to-end approach that has seen Page Steel working across some of the largest infrastructure projects currently underway in Victoria.

“We’re currently working on the Westgate Tunnel Project, producing 2,500 columns for a noise wall. This project will run for over a year and, as it’s a government project, traceability is essential.”

“We have a lot of external inspectors coming to check our work, and confirm our processes for tracing steel, all of which is 100% Australian steel supplied by either BlueScope or InfraBuild. Every piece of steel has to have a tracking number, and our software and processes are obviously set up for this,” said Chris.

“Another of our recent government projects involves the construction of a train maintenance facility in Victoria, for which we’re delivering 1,500 tonnes of steel. This has been a really interesting

job. Essentially, it’s a warehouse, but the steelworks required inside the building to maintain trains are really interesting. There are elements like platforms for the drivers and elevated monorails.”

EMBRACING AUTOMATION

“I really think what differentiates us is how we’ve embraced and tackled automation,” said Chris.

“Our automation journey all started about ten years ago. One of the reasons we started to automate was that we couldn’t rely on outsourcing services to companies. The lead time was too long and we just weren’t happy with the accuracy of the products being delivered.”

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TRACEABILITY WITH STEELTRACK

Each stage of the fabrication process is fully monitored by Page Steel's software: SteelTrack. This software was developed by Tracking Innovations, a company that specialises in software development for the manufacturing and fabrication sector. Using SteelTrack, Page Steel staff can determine the exact position of each member on any project with the click of a mouse.

SteelTrack can trace material test certifications per member, and records the employee who manufactured the item. A live system, SteelTrack provides real-time monitoring for each component on every project.

"We've spent a considerable sum on the development of this software over the last ten or 12 years, but it really has changed the way the business works. It's equivalent to employing another five or six people full time. It links our workshop, with the office, with the site—it's all automated. That's what really sets us apart from others."

"We're very big on traceability. Every person that operates a machine or performs welding and fabricating has their own ID code, and every piece of steel has a barcode. All our employees have mobile computers and there are scanners throughout our workshop."

"Every process is recorded from commencement to completion, we can instantly determine who made what and how long it took. We can trace heat numbers as the steel comes off the truck, all the way through painting, and delivery out to site."

SteelTrack produces weighted delivery dockets, and advises the status of surface coatings and fabrication. SteelTrack also indicates the status of each stage of a project and ensures all members are ready for erection before the due date. It can be used to help locate hard-to-find items by site personnel, and provides riggers and foreman exact delivery dates.

Above
Page Steel's facilities in Victoria.

Right
The Zeman SBA single rail robotic fabrication machine has a handling robot that can pick up 250kg per add-on part, and the beam weight has a maximum of 6 tonnes.

AUTOMATION IS ESSENTIAL

For Chris, automation is essential to the future of the Australian fabrication industry. "All automation is important. It doesn't have to involve robotics, it might just be CNC machines. Robotics just take automation to the next level."

"It's very difficult to get apprentices who are interested in a career in fabrication and welding. What's happening is that workers are aging and retiring, and taking a lot of the skills with them. And it's only going to get harder and harder to find good workers. When you automate, it future proofs your company."

"Automation is not just about protecting against a shortage of skilled labour, it's also about being able to increase your output within the same footprint. The Zeman SBA single rail could increase our capacity by 300%. We're not running at that capacity yet, because other processes within our facility cannot keep pace. However, our production has increased by around 40% to 50%," said Chris.

"Due to the increased rate of production enabled by the Zeman robot, strain had been placed on other processes in our facility. When the robot was initially installed, its output outstripped our fittings production, we then trained staff to operate machines on other

shifts to accommodate the additional requirements for the Zeman robot." "The robot is hungry—it has a very big appetite. And the key rule is to make sure that the robot has enough work. When the robot has enough work, it means more steel out the door and onto the worksite."

"These are all fantastic problems to have. We didn't want a machine that could only meet existing capacity. We wanted a machine capable of meeting our capacity five or ten years into the future—a machine that would help the company grow," said Chris.

THE FUTURE OF FABRICATION

Chris is optimistic about the future of the fabrication industry. "Now that governments are starting to put Australian content requirements into law, it really opens up the market for Australian fabricators to produce steel for infrastructure spend."

"If governments are successful in achieving 100% Australian content, then that's a lot of capacity that needs to be filled. It should mean that a lot of fabricators are really busy. There should be enough work for everyone."

"It's one of the reasons that we pulled the trigger on buying the robot—we figured that if we had the machine

ready and governments increased spending on local content, we'd have the capacity and win the work. We've already had success with the Westgate Tunnel Project and train maintenance facility, and we're hoping to win more work."

A long-term member of the ASI, Page Steel is always enthusiastic about giving back to the industry. Not only has Chris presented on a number of occasions, at both seminars and the annual Australian Steel Convention, he has been heavily involved in several working groups.

When it comes to the adoption of automation and robotics, Chris' desire to see the steel industry as whole succeed is refreshingly passionate.

Chris is willing to help anyone who needs a hand. "We're happy to help other fabricators, and the industry in general, to improve efficiencies. If the industry as a whole increases capacity, there is less need for clients to look offshore. So when it comes to automation, we encourage fabricators to embrace technology and look at ways to improve their business. We want everyone to succeed, because the entire industry will succeed together."

For more information about Page Steel, simply visit: <http://pagesteel.com.au>



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