ArcCell Robotic Welder – Kemppi AX+GXR Mig Welder 500 AMP Package, automated by Elite Robots CS620 and Verbotics software. For steel, stainless and aluminium welding

Overview

The Elite Kemppi ArcCell is a production robotic welding machine, tested and designed for commercial applications. It has been created with Australian and New Zealand fabrication businesses in mind. It's a multiplier of your existing talent, so you aren't as dependent on key personnel, you keep your intellectual capital in house – not in people's heads, and you up productivity by a factor of 3 – 4 times at the cost of an additional salary.

You can assemble a whole new production line without extra tradespeople. It just takes some limited upskilling in your drafting office in Verbotics and jig making, while your workers skill up on building their collaborative rhythm with the cobot. Boiler makers continue to set up the welders, check weld quality and fine tune settings as needed, so they can get on to more challenging and interesting jobs.

The welding package was developed by a welder for welders. Over the past 9 months of development, we have ironed out every possible scenario through hands-on toll manufacturing, using this product. We have collaborated with Elite Robots' engineers, Verbotics – an Australian company who are arguably the best welding programmers globally, and Finnish company, Kemppi to bring this work horse to you.

This is a full welding package that's 'ready to work'. It comes with the welder, torch and cobot integrated, an easy to use teach pendant, software subscription, a torch cleaner, 2400*1200 mm quality welding table and fixture set, along with training and commissioning at your site, and 2 – 3-year parts warranty extension options. It's suitable for steel, aluminium and stainless welding.

Like Elite Oceania, Kemppi are committed to holding spare parts here in Australia and New Zealand for this product. We have automation integrators across both countries who can offer local service and technical support.

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A Dozen Myth Busters:

Prejudices and Blockers	Alternate view
1. Cobots are not serious or robust, they are just toys and gimmicks.	This welder is built to be an industrial workhorse. Heavy steel, complex parts fabrication, fine aluminium welding – it will deliver great results for any of these uses and more. We expect that if this welder is treated right, that you will get a good 8 years' service, while increasing the productivity of one worker by 3 – 4 times. All components are quality products from respected OEMs (Kemppi, Elite Robots and Verbotics), chosen especially for their durability and value for money.
2. If I lose my key robotic person, the robot will become a white elephant.	We know the pressure created when your business or division is overly dependent on one or two key people who hold all the knowledge of your systems and processes. This robotic welder has been designed so that people of various abilities can be minimally upskilled to operate their area of expertise, reducing dependence on key personnel. Even better, all your weld programs, jigs and CAD drawings are kept on your virtual planning simulator, when someone leaves. Onboarding a new person is less onerous, and you can open your workplace up to different people. That forklift driver was great on the robot welder and enjoyed her shifts loading and unloading the jigs. Our philosophy is that robots should be operated by your existing workforce, not by specialised robotic operators.
3. Programming cobots is hard.	We've done all the hard work, and now we have a practical tool that many of your team will be able to operate. It's been designed so that the forklift driver only needs half a day's training and they can operate the welder efficiently. The drafts person will take about two days to become confident with Verbotics and how this integrates with your CAD drawings and the welding plan. And your boiler maker, they continue to monitor weld quality, design weld plans, fabricate jigs and make sure there are enough inputs to keep production going, requiring a small amount of training on making adjustments (welding science) and key areas to watch out for.
4. You need highly trained personnel.	As we've said, your existing people – especially the less qualified or experienced ones have got this! The rocket scientists have done their work in the background so every day people can be part of a massive productivity gain in your workplace.
5. Production needs to be stopped while you are programming.	You can be programming, adjusting weld settings, recalibrating, designing parts and fixtures for setting up the next job, without holding up production.

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6. Costly upfront Capex - AU$200,000 minimum.	Our most powerful welder, with all the gear to have a fully functioning work unit (including table, torch cleaner, dividers, fixtures and the offline program simulator etc) comes in at under A$150,000 – about the cost of one salary. We know that if you run it as designed, you will more than triple your productivity on each welding bay. That's a solid ROI.
7. Cobots are slower than industrial robots - less productive.	Sure, collaborative robots are slower than industrial robots, that's why people can work safely beside them and why they're called 'cobots'. On one half of the table the welding is being done consistently, every time; and on the other side of the table (behind the screen), the '3xperson' is unloading and reloading jigs, before the robot comes back to work on the next batch. Then they swap sides. If welding plans and jigs are designed optimally, there will just be time for a small breather for the '3xperson' before they head to the other side and unload/reload again. If this rhythm is created, there is real synergy in the output.
8. Shorter lifespan – Industrial robots last for 15 years with service intervals, while cobots have a life cycle of about 8 years – you won't get the ROI.	A few quick points – Ok, we are talking an initial outlay of less than half, often much less. Have you noticed how fast technology is changing, and often getting more affordable over time? Well, you get to replace it with the latest tech at the halfway point of an industrial welder's lifecycle. Obviously, there are horses for courses – a cobot welder is ideal for high mix/low volume work, and industrials are better low mix/high volume.
9. I'm concerned that anyone could take my designs?	Our multifactor access to your program helps with security. If a service agent remotely accesses your system to diagnose or fix issues, you can adjust settings to limit access to parts of your system. Where security is of the highest priority, servicing, repairs and technical support can be limited to onsite visits only.
10. There are no locally held spare parts – breakdowns take months to fix.	We know that most robotic spare parts are held overseas. We have made a commitment to hold key spare parts in each state and in New Zealand, so that our team of integrators and service agents can have you up and running within two business days.
11. I'm worried about taking jobs out of the economy.	Most clients decide to invest in automation when they cannot attract or retain enough quality people. After they are up and automating, a new world of larger tenders, reliable outputs, ability to employ more unqualified, older, or 'new to industry' people, and the option to run longer shifts etc. They actually grow their workforce.

Prejudices and Blockers	Alternate view
	We have clients who were assembling Chinese made components for their entire business. They invested significantly in more industrial space to buy container loads at cheaper rates. After investing in a multi-welder, designed by Elite Oceania's founder, they could make the components much cheaper here in Australia. With automation, our manufacturing can be back in the competitive 'ballpark' again.
12. Automation is only for those 'techy' types.	This welder has been designed for your average person. Our clients are backed by local tech support and authorised integrators – chosen because they are both practical and 'techy', and you can always invest in extended parts warranty, if that's helpful. So much of our R&D has been about making this easy to use and intuitive for industry people.
13. I'm confident that automating parts of our welding operation is the right move for us. But… I still need to convince the Op's Manager and Workshop Manager on this idea.	Managed well, we know that you will triple production in this work cell, and have fewer interruptions to deliverables, more consistent quality on repetitive jobs, and the list goes on; but do not underestimate the push back, the change management and adjustment that the first robot welder will bring. Initially, key people can see that their importance and skill – even their job, is being threatened. Experienced trades people may take time to adjust, other roles will assume a more critical part in production (drafts people), and some new skills will be asked from older 'dogs' (welding calibration). Automating your most repetitive jobs will democratise your workforce – less dependency on one or two people, and more input from a broader range of your team – drafts people, boiler makers, unskilled workers, project managers and sales personnel. **Key message:** Before you buy, get a range of people across the organisation on board and promote the upsides of this shift, such as more time to work on complex welding jobs, capacity to scale up and deliver reliably on larger tenders and jobs, less dependence on a few key people, less skilled people will deliver solid outputs, reduced impact of difficult attraction and retention circumstances, and greater protection of the company's IP, so it is stored within the company.