ISSUE 21 - JULY 2025

AXIS

QUARTERLY NEWSLETTER FROM AUTOMATED SOLUTIONS AUSTRALIA

MEET THE ASA TEAM NATHAN WUTTKE

CUSTOMER IN FOCUS MCHND

AUSTRALIAN MANUFACTURING WEEK 2025

AUTOMATED SPRAY SYSTEMS

ROBOT IN FOCUS ARCMATE 100iD/8L

FROM THE DIRECTOR'S DESK

Welcome to the latest edition of Axis, ASA's quarterly newsletter, your inside look at the innovations, success stories, and standout people shaping the future of Australian manufacturing.

"Whether you're looking to boost uptime, cut manual strain, or just see what's possible with the right automation partner we think you'll find something worth your time in this issue."

We've packed this issue with real world wins and shared stories of hands on tech to keep you ahead of the game.

Just back from AMW 2025? Or maybe you missed it? Either way, we've got you covered with our event recap, showcasing how automation is solving big problems across the shop floor from machine tending to palletising and everything in between.

Our Customer in Focus for this edition is MCHND, an Adelaide based CNC machining powerhouse. See how they doubled their daily output and unlocked four days of lights out production with help from our team and a FANUC R2000iC/210F robot. It's a great story of precision, persistence, and practical results.

Our Robot in Focus is the ArcMate 100iD/8L, a versatile, high-performance robot built to handle jobs with precision and speed. Discover how this reliable, compact workhorse is helping manufacturers boost efficiency while keeping operations smooth and safe.

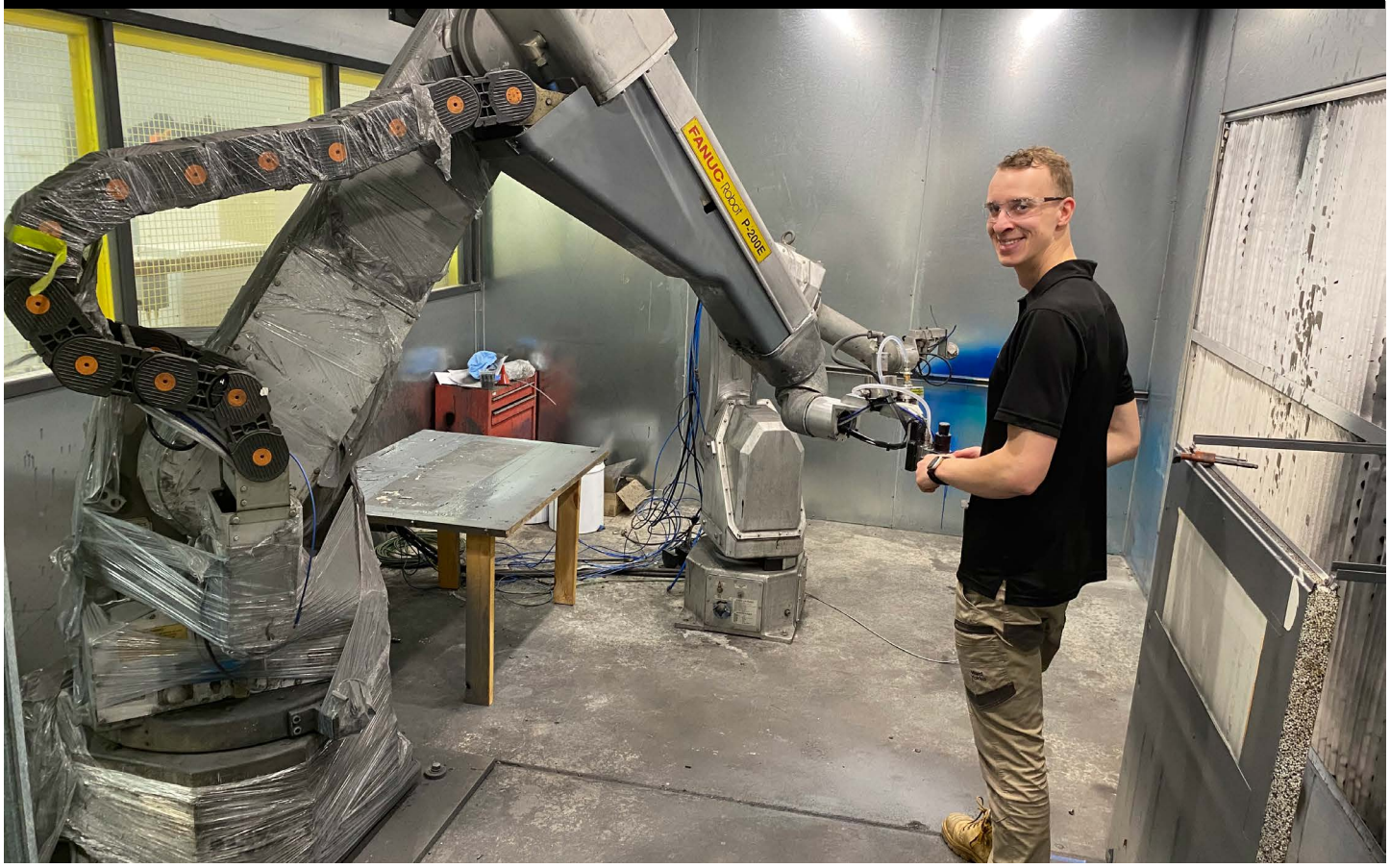
And don't miss our Meet the Team spotlight on Nathan Wuttke, one of our Automation Engineers working at the coalface of robotic paint processes. His story shows what's possible when experience meets problem solving grit, as we highlight our most important point of differentiation, our people.

We know your time is valuable, so we've kept this edition practical and packed with insight. Whether you're looking to boost uptime, cut manual strain, or just see what's possible with the right automation partner we think you'll find something worth your time in this issue.

Pat Green,
Director, Automated Solutions Australia (ASA)

DELIVERING TOMORROW'S SOLUTIONS, TODAY

MEET THE **ASA TEAM** - NATHAN WUTTKE



Nathan Wuttke has been part of the ASA family for almost a year now, working as a Paint Process Automation Engineer. What really drives Nathan is the variety his role brings - one day he's working on the next generation of front wheel drive sedans, the next it's bulky commercial vans, or fibreglassing solutions for the Australian industry.

Each project comes with its own unique challenges, and Nathan thrives on the diversity of robot setups he gets to work with, from pedestal mounted arms to rail based systems for both interiors and exteriors, and everything in between. No two jobs are ever the same, and that keeps things interesting.

One standout moment for Nathan was joining a team on site at a major automotive plant focused on increasing line speed. It was a chance to roll up his sleeves and dive deep into real world troubleshooting. He managed to solve some stubborn faults that had plagued the plant for years, making a real difference for the whole team.

A typical day for Nathan depends on where he's working, sometimes overseas, but his mornings always start with some quiet reflection and reading, followed by a strong coffee before the busy day begins. Whether he's programming offline or on-site with his paint suit ready, he makes sure to back up everything first. That way, if anything goes wrong later, there's always a safe fallback. The rest of his day is about keeping the robots running fault free and fine tuning their paths to hit production targets without missing a beat. Clear and constant communication with his team is vital to keep things moving smoothly and avoid duplicated effort.

When asked about his favourite robot, Nathan doesn't hesitate, the P-1000 paint robot tops the list. It's a complex machine with a 7th axis in its elbow that helps reduce the size of the paint booth required – an important consideration when understanding the overall cost of the zone. While the addition of another degree of motion creates more complexity in programming, the capabilities this creates in terms of programming far outweigh it, and Nathan admits – the units look pretty cool.

Looking ahead, Nathan is excited about how robotic automation continues to transform manufacturing. Faster, smarter, and safer production means people can work away from hazardous environments, and factories become more efficient. For him, being part of this Industry 4.0 revolution is both rewarding and motivating.

Of course, it's not always smooth sailing. Nathan recalls a tough night shift when some newly introduced functions didn't work as expected during physical testing. He stayed late, replicated the problems in simulation, and teamed up with colleagues to fix the programming remotely. The solution worked perfectly, proving the power of teamwork and persistence.

Nathan's problem-solving abilities and initiative shone through when resolved a frequent fault that had been a headache for years for one of our customers. This change eased the maintenance team's workload and improved overall production reliability.

Nathan's advice for those interested in Automation Engineering? Most of the work happens at a computer rather than detailed design, but the projects and companies you get to work with are truly impressive. Being able to say you've worked on advanced automation solutions is a real badge of honour and, of course, working with robots is pretty cool.

CUSTOMER IN FOCUS: **MCHND**

For our Customer in Focus, we look at the awesome team at MCHND. Renowned for its commitment to precision and quality, MCHND recently took on the challenge of revolutionising its production processes and increasing its output, allowing it to reduce the overhead cost associated with individual piece prices.

For this complex journey, MCHND partnered with ASA, introducing a FANUC R2000iC/210F robot into their CNC machine setup. The net result – MCHND has doubled its daily production output, reaching new heights of efficiency and consistency. We are excited to bring you an incredible success story in the landscape of Australian manufacturing.

For nearly five years, MCHND has been a driving force in the world of precision CNC machining, setting a benchmark for excellence in Adelaide, South Australia. With a cumulative experience of over 35 years, they've established themselves as leaders in the field, specialising in 3D CAM machining. Their commitment to quality is unwavering, operating under the rigorous ISO9001:2015 quality system to deliver world-class products consistently. MCHND prides itself on ensuring every part is not only precise but also aesthetically pleasing.

Their impressive CNC capabilities include turning up to 500mm diameter by 850mm long and milling at 1000 x 560 x 500. They cater to diverse needs, from short runs and prototyping to large-volume production. Their laser and rotary engraving capabilities span across various metals and plastics, and they serve a multitude of industries, with a primary focus on space, medical, aerospace, defence, food and beverage, agriculture, mining, and beyond.

MCHND's current roster of equipment includes cutting-edge machinery like the Okuma Genos M460-V 5-axis CNC machining centre and the Okuma Genos M560-V-E 4-axis CNC machining centre, both robot-fed with pallet pools.

MCHND's journey towards automation began with a desire to optimise their manufacturing process. The company, known for its dedication to excellence, was crafting products with meticulous attention to detail through manual labour. While their products were renowned for their superior quality, they faced the challenge of meeting growing demands without compromising their exacting standards.

The solution came in the form of a partnership with ASA, together, they integrated a FANUC R2000iC/210F robot into their CNC machine setup. This innovative collaboration has led to remarkable improvements in production efficiency and output.

What's unique about this cell is that it uses a Schunk NSR robot pallet coupling to tend the two machines. This pallet arrangement allows for any unique combination of work holding to be installed on top of a standard pallet. Unlocking a fully flexible production solution for low quantity mixed production to high volume continuous unmanned operation.

To facilitate long unattended operation, The robot is surrounded by five pallet racks which hold ten pallets in each rack, giving a fifty pallet pool total. ASA's HMI system allows the operator to select the pallet they want to retrieve, and the robot presents it at a loading station where the operator can change the parts at an ergonomic working height before requesting the robot to return and store the pallet at an elevated height. This maximizes the amount of pallet spaces available whilst minimising floor space.

One of the standout achievements of this partnership is the significant increase in daily production volumes. MCHND has made substantial strides in expanding their output, effectively doubling their manufacturing capacity. This boost in productivity has not only allowed them to meet growing customer demands but also to explore new markets and opportunities.

Nathan Jones, General Manager of the Australian business unit at ASA reflects 'It was great working with Mike and Jimmy at MCHND helping them to realise their automation goals. They had a clear vision from the very start that the cell needed to be flexible and easy to use. I'm proud of our team at ASA for once again delivering that requirement beyond expectation.'

Perhaps the most remarkable feat is MCHND's ability to achieve 'lights out' production for four consecutive days. The FANUC robot cell has proven to be faultless, ensuring a seamless production process even in the absence of human intervention. This achievement showcases the reliability and trustworthiness of the FANUC R2000iC/210F robot in a real-world manufacturing environment.

Another noteworthy aspect of MCHND's success story is their ability to run two parts on two machines simultaneously, with a 26-hour run time. The FANUC robot efficiently unloads and reloads the machines, allowing for uninterrupted production. After 26 hours, the production process is paused for a short time to unload and reload the pallets, before this process is repeated. This level of automation has not only improved efficiency but has also reduced the risk of errors associated with manual operations.

The partnership between MCHND and ASA, along with the introduction of the FANUC R2000iC/210F robot, has not only doubled production output but also enhanced overall quality and consistency. By automating repetitive and time-consuming tasks, MCHND's workforce can now focus on more value-added activities, such as quality control and product development.

MCHND's success story serves as an inspiring example of how embracing automation can lead to remarkable improvements in manufacturing efficiency, productivity, and competitiveness. It demonstrates that companies committed to quality and innovation can continue to thrive in an increasingly automated world.

AUSTRALIAN MANUFACTURING WEEK (AMW) 2025

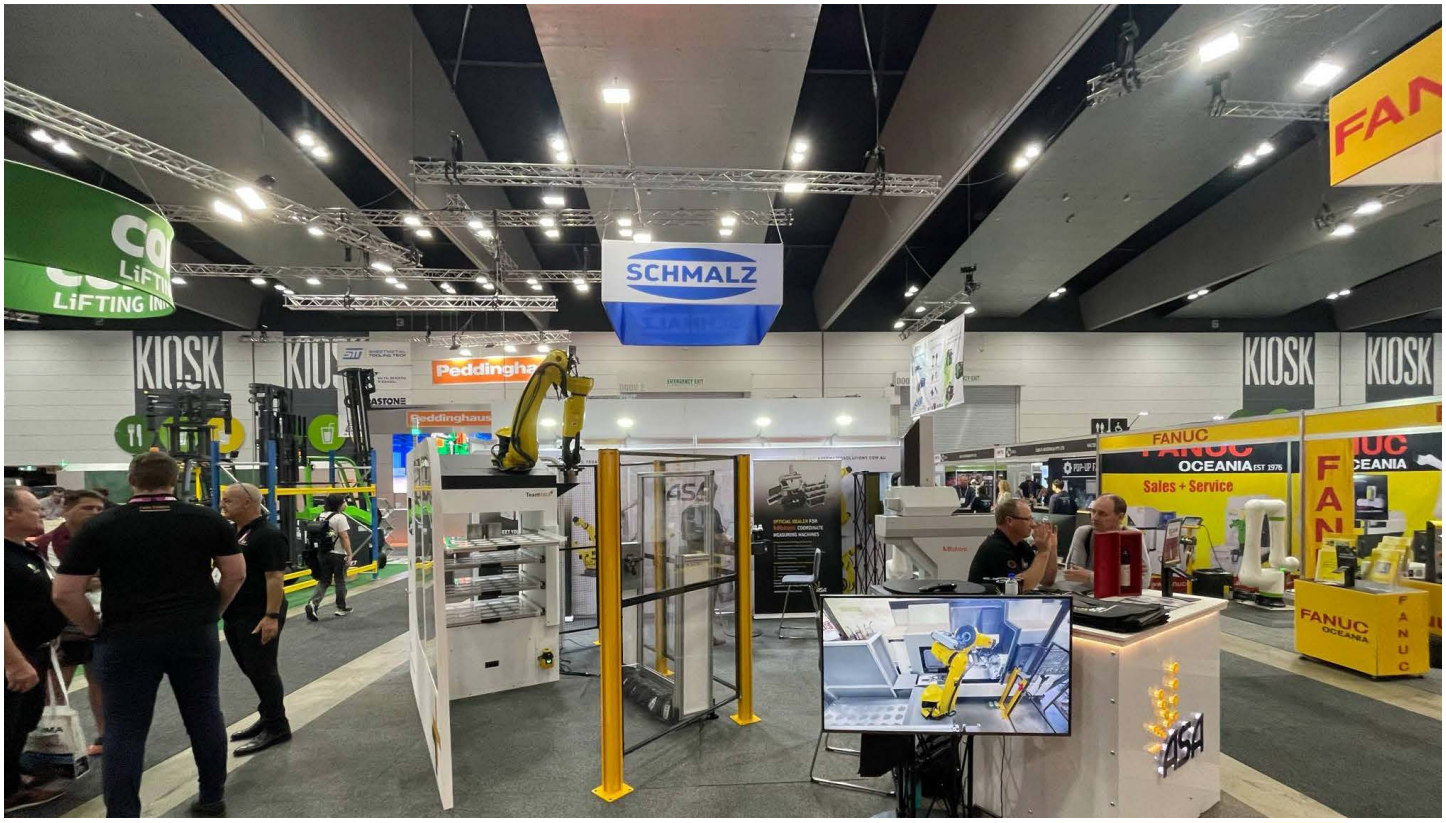
Our team at ASA recently enjoyed our time at Australian Manufacturing Week (AMW) 2025 in Melbourne, and we want to share all the exciting highlights with you. Over four action packed days, we connected with over 16,000 visitors who were buzzing about the future of manufacturing.

With nearly 400 exhibitors and 24,000 square metres of cutting-edge technology on display, the event was an amazing opportunity to showcase our latest solutions and meet face to face with clients, both old and new.

We were excited to showcase some game changing automation products, starting with our new TeamMate robotic loading system, a real standout. TeamMate is designed to make CNC machine tool operations faster, safer, and more efficient, and the best part is you don't need to be a robotics expert to use it. With a user-friendly touchscreen interface, TeamMate is simple to set up and run, giving you the power to streamline your operations without the headaches of complicated programming. Plus, it has payload options up to 25kg and can run unmanned, meaning you can work longer hours with fewer people on the floor. It's perfect for those companies striving for lights out manufacturing.

Another major highlight of AMW was our partnership with Mitutoyo Asia Pacific. We're officially a dealer for Mitutoyo's precision Coordinate Measuring Machines (CMMs) for robotic integration. Mitutoyo is a global leader in the metrology space, known for providing the highest standards of accuracy and quality. We were excited to demonstrate how Mitutoyo CMMs, when integrated with robotics, can automate your measurement processes, ensuring your parts are always within tolerance, while keeping everything running smoothly with minimal manual intervention. This integration between robot and CMM is a huge win for anyone looking to boost accuracy, speed, and overall efficiency in their operations.

We really enjoyed the conversations we had with so many of you at AMW this year. It was a great opportunity to talk through the wide variety of automation challenges you're facing, whether it was in painting, blasting, machine tending, welding, fibreglass, palletising, sealing, or dispensing (just to name a few). We always come away from



AMW with our cup full, excited for the future of advanced manufacturing in Australia.

It was clear that improving consistency, safety, and efficiency continues to be front of mind across the manufacturing sector. Many of you shared how you're looking to streamline workflows and reduce manual strain, especially in areas like welding and materials handling. Our discussions around palletising and sealing sparked a lot of interest too, particularly in how automation can ease end of line pressures. All up, it was a week of honest, practical conversations, and we appreciated hearing firsthand what matters most to you right now.

AMW was a fantastic event that brought together the best of the best in manufacturing, and we were proud to be a part of it. If you missed us at the show, or if you'd like to take a deeper dive into any of the products we showcased, don't hesitate to get in touch. We're ready to help you boost your efficiency, ramp up production, and stay ahead of the competition with the latest automation solutions.

We were excited to showcase some game changing automation products, starting with our new TeamMate robotic loading system, a real standout

MAXIMISE PERFORMANCE: SERVICE YOUR ROBOTS TODAY!

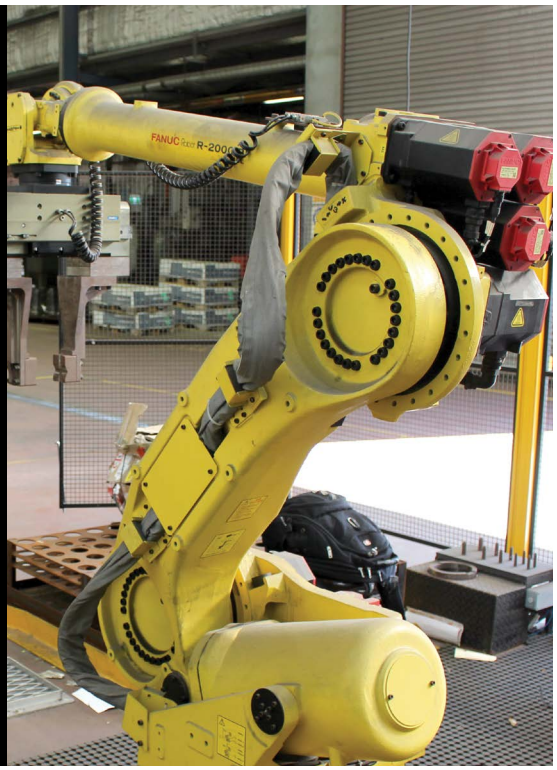
Your robots are the backbone of your manufacturing operations, tirelessly working around the clock to deliver precision, efficiency, and consistency. Like any high-performance machine—whether it's a car or a piece of advanced equipment—regular maintenance is essential to keep them running at their best.

Annual servicing ensures your FANUC robots stay in optimal condition, helping you avoid costly downtime and maintain the high standards your business depends on. Key maintenance tasks such as greasing, battery replacements, wear inspections, and backlash measurements safeguard motion repeatability and uphold the quality of your production processes.

Routine servicing doesn't just fix problems—it prevents them. By maintaining a high Mean Time Between Failures (MTBF) and detecting potential issues early, you can save time, money, and the hassle of unexpected disruptions.

Don't wait for a breakdown to act. Protect your investment, boost productivity, and keep your robots performing at their peak — schedule your service today!

Call ASA on 1800 ROBOTS to book.



AUTOMATED **SPRAY SYSTEMS**

In manufacturing, every second counts.

If your spray operations still rely on manual labour, you're likely facing similar challenges to what we're hearing from manufacturers across the country - inconsistent finishes and surface thickness operator to operator, wasted materials through poor transfer efficiency, slower production because of breaks, and safety concerns for your people through exposure to chemicals and hazardous materials.

Automated spray systems, powered by FANUC robots, are changing the game by helping businesses boost productivity, cut costs, and improve product quality.

An automated spray system is essentially a robotic arm fitted with spray applicators that precisely and consistently coat products with paint, adhesives, sealants, or other coatings. Unlike manual spraying, these robots deliver the exact amount of material needed at the right speed, angle, and pressure every time. Programmed correctly, the result can be a flawless finish, meaning less rework, and significant material savings.

What sets these systems apart is their precision. FANUC robots feature advanced sensors like closed loop fluid control that let them adjust in real time to the shape and size of whatever they're spraying. Whether it's a car body, delicate aerospace parts, or small electronic components, they ensure uniform coverage with minimal overspray and coverage in all those hard to reach spots, all without the fatigue or variability that come with manual operations.

Speed is another big advantage. Robots don't need breaks, lunches, or safety gear. They can work nonstop at high speeds, often colour changing in a matter of seconds. For industries facing rising demand and tight production schedules, this means your line can keep moving without sacrificing quality.

Safety is also a major benefit. Spraying paints and chemicals can expose workers to hazardous fumes and particles. Automating the process keeps your crew out of harm's way, helping meet workplace safety regulations and reduce health risks.

Material waste from manual spraying adds up quickly. Excess paint, uneven coats, and rework can cost thousands each month. Automated spray systems use smart algorithms to apply only the necessary amount of material, dramatically cutting waste and saving money on consumables.

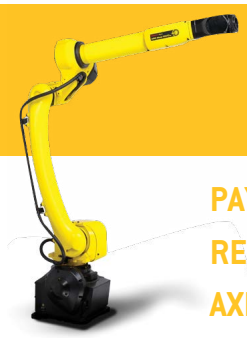
Flexibility is key too. FANUC robots are easily reprogrammable and adaptable, allowing quick switches between different spray jobs. Whether moving from large automotive parts to small electronics, ASA's team of Engineers can customise each system to deliver the perfect balance of speed, quality, and efficiency.

Across industries like automotive, aerospace, electronics, and consumer goods, automated spray systems powered by FANUC robots are already revolutionising manufacturing. From painting car bodies and coating aircraft components to protecting circuit boards and decorating packaging, these systems handle complex spraying tasks with unmatched accuracy and speed.

With over 20 years' experience integrating FANUC robots into automated spray systems, we understand the unique challenges manufacturers face. We design, install, program, and support tailored solutions that help you get the most out of your investment.

If you're ready to upgrade your spray process, boost efficiency, and improve product quality, discover how ASA and FANUC robots can transform your manufacturing. Check out the full article on our website for all the details and get in touch to explore a custom solution for your business.

ROBOT IN FOCUS: **ARCMATE 100iD/8L**



PAYLOAD: 8KG
REACH: 2032MM
AXIS: 6 AXIS

Welding is one of the toughest, most precise jobs on the factory floor. Getting it done right means better product quality, faster turnaround times, and less downtime, all critical to staying competitive in manufacturing today.

That's why the FANUC ARC Mate 100iD/8L is quickly becoming a favourite among manufacturers looking to upgrade their welding process with smart, flexible automation.

Built specifically with arc welding in mind, the **ARC Mate 100iD/8L** is a 6-axis robot designed to handle welding tasks in tight spaces where bigger robots just won't fit. Its slim profile and long reach, over two metres, make it ideal for smaller robotic cells. What's more, it can be mounted upside down or at an angle, giving you plenty of options to squeeze the robot into your existing workspace without a major redesign.

One of the stand out features of this robot is its fully integrated hose pack and cable management system. Welding robots need lots of cables and hoses; for gas, sensors, air, power, and sometimes cameras and these can get messy fast. The **ARC Mate 100iD/8L** solves this by routing all of these utilities neatly through its hollow arm, wrist, and body. This clever design keeps cables out of the way, reducing wear and tear and the risk of snagging, which means less downtime and fewer repairs. For manufacturers, that reliability adds up to big savings.

The robot's wrist deserves a special mention too. It has the largest hollow wrist in its class at 57mm, which allows it to handle even high density layouts and complicated seam tracking sensors without getting tangled. This gives the robot the freedom to reach difficult angles and welds with impressive precision even in tight or complex work cells.

At ASA, we've seen firsthand how adding a FANUC **ARC Mate 100iD/8L** can transform welding operations. Whether you're running a small fabrication shop or a large scale manufacturing plant, this robot offers a winning combination of flexibility, precision, and dependability.

But we don't just hand you the robot and walk away. Our experienced team at ASA manages your entire project, from system design and programming to installation, commissioning, and ongoing support. We take the time to understand your specific needs, tailor the solution to fit, and ensure your automation runs smoothly day after day.

DELIVERING TOMORROW'S SOLUTIONS, TODAY

ASA is a privately owned, wholly Australian company specialising in the design, engineering and integration of flexible automation solutions for the Australian manufacturing sector.

Whether your application is pick and place, palletising, packaging, part transfer or assembly, the development of a robotic solution offers significant benefits in almost any industry that is operating at high levels of throughput.

- Achieve uninterrupted speed, saving valuable production time.
- Achieve maximum repeatability, reliability and accuracy
- Lower costs versus manual labour
- Eliminate health and safety risks related to repetitive, tiring or dangerous operations

Contact ASA for more information or visit our website automatedsolutions.com.au

1800 ROBOTS (1800 762 687)

ASA

1800 ROBOTS (1800 762 687)
for 24 hours a day robot support

CONTACT

AUTOMATED SOLUTIONS AUSTRALIA PTY. LTD

ADMIN@AUTOMATEDSOLUTIONS.COM.AU

MAILING ADDRESS

GPO BOX 1090
ADELAIDE SA 5001

ADELAIDE

UNIT 2, 80 HOGARTH ROAD
ELIZABETH SOUTH SA 5112

MELBOURNE

34 BURGESS STREET
BROOKLYN VIC 3012

UNITED STATES

6522 DIPLOMAT DRIVE,
STERLING HEIGHTS, MI, 48314 USA

AUTOMATEDSOLUTIONS.COM.AU

1800 ROBOTS (1800 762 687)

T: +61 (08) 7289 4444