

CAPABILITY STATEMENT

 **AUTOA**
ROBOTIC WELDING SIMPLIFIED

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Innovative Robotic Solutions for Aluminium Smelting

WHO WE ARE

We Simplify Robot Welding.

With over 40 years of experience, we design and manufacture high performance robotic welding cells for high mix, low volume manufacturers, high volume manufacturers and structural steel fabricators across Australia and New Zealand. We provide complete integration, operator training and ongoing technical support, backed by dedicated training centres in Sydney and Marlborough. Today, 1 in 4 robotic welding cells in Australia and New Zealand are installed by Autoa.

In 2025, Autoa was awarded first place in the Manufacturing and Integration category at the Excellence in Robotics Awards, recognising our commitment to simplified robotic welding and measurable results.

We make robotic welding simple because your success depends on it.

“ Drawing on our extensive expertise and commitment to innovation, we are dedicated to the success of your robot welding journey. From seamless integration, to operator training, and ongoing excellent customer support, we're with you every step of the way. ”

Matthew Fisher
Managing Director

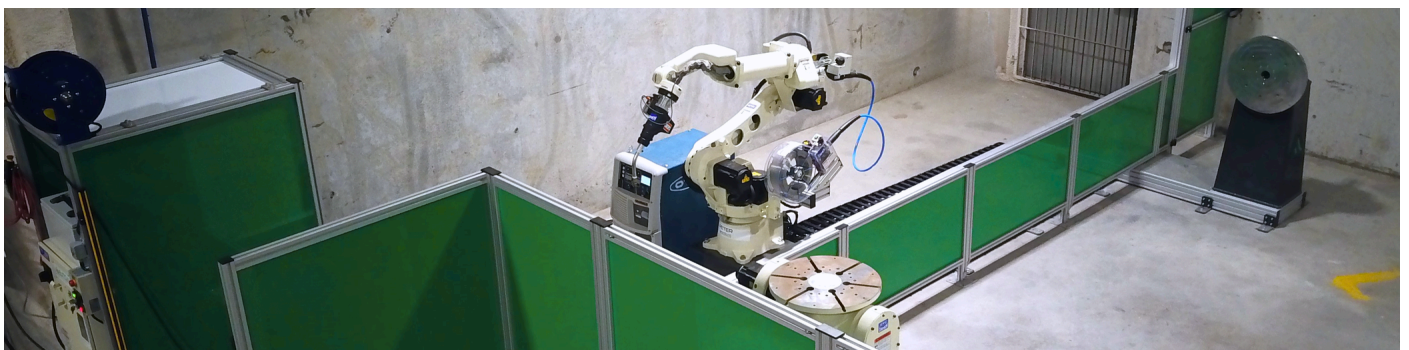


SINCE
1984

ROBOTS
1 in 4
INSTALLED*
*by Autoa in AU & NZ

INSTALLS IN
8
COUNTRIES

YEARS OF
40+
EXPERIENCE



“ Autoa Robot Welding supplied, installed, and continue to provide ongoing servicing, training, and support for our OTC robotic welding cell and AutoaWeld programming software in Wellington, New Zealand. Matt and Oakley have always been supportive, responsive, and quick to resolve any issues we've had. Their service technicians are also very knowledgeable and provide both remote and on-site support and training when needed. ”

Overall, they've been easy to work with and have helped us build confidence in our robotic welding capability. ”

 **James**
Wedglock

WHAT WE OFFER

Your **Single-Source** Solution.

We are a single source robotic welding provider, delivering fully configured robotic welding cells as one complete package. Each cell includes the robot, welding power source, wire feeder, torch, positioners where required, and AutoaWeld software, fully integrated and tested.

One partner. One complete solution. One point of contact. Robotic welding simplified from design and build through to commissioning, operator training, and ongoing technical support.



World Class Training Centre.

Experience free robot operator training for the life of your robot at any of our training centres world wide by our qualified robot technicians.

In-House Robot Technicians.

Our in-house robot technicians deliver ongoing support, conduct regular services, and work to ensure optimal returns on your investment.

Business Case Calculator.

Let us do the sums with our business case calculator, helping ease the decision with key numbers for your robot welding investment.

Consumables Ex Stock.

We maintain a large inventory of welding consumables to ensure your operations run smoothly, eliminating the middleman altogether.

AUTOA TRIPLE GUARANTEE

Robotic Welding **Simplified and Guaranteed.**

At Autoa, every robotic welding project is backed by our Triple Guarantee, designed to give manufacturers clarity, confidence, and measurable outcomes. It defines the standards we commit to across performance, support, and long term results.

Guaranteed Performance.

Your configured robot welding cell is specified to suit your application and production requirements.

Guaranteed Support.

Local installation, training, and ongoing technical support across Australia and New Zealand.

Guaranteed Results.

A clear focus on weld quality, productivity improvement, and return on investment from day one.

BACKED BY THE TRIPLE GUARANTEE

Trusted by **Local and Global Brands.**

Manufacturers across agriculture, heavy equipment and structural steel rely on Autoa robotic welding systems every day. With one in four robot welders in Australia and New Zealand installed by Autoa, customers know their investment is backed by proven results, lasting performance and dependable support. The Autoa Triple Guarantee gives businesses confidence that their system will continue delivering value long after installation.



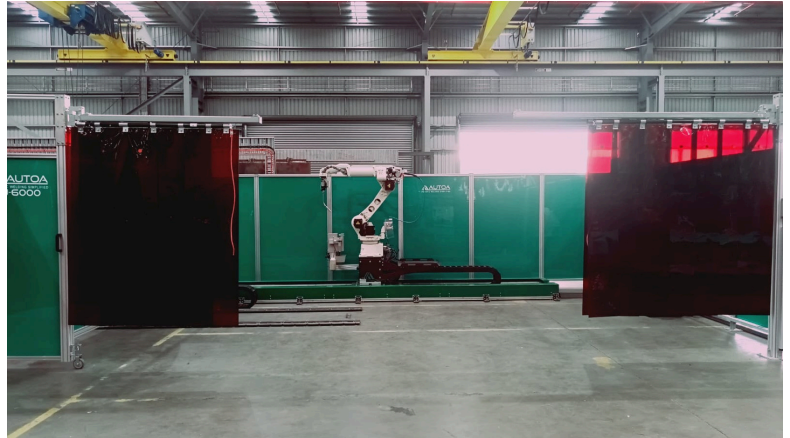
Start Your Robotic Welding Journey With Confidence.

CUSTOMER CASE STUDY

Advanced Fabrication Capability.



Customer: Nepean Engineering
Country: Prestons, Australia
Industry: Heavy Engineering and Industrial Manufacturing
Solution: U-6000 Robot Welding Cell



U-6000 robotic welding cell at Nepean Engineering.

Background.

Nepean Engineering, part of the NEPEAN Group, manufactures structural components and heavy fabricated assemblies for mining, transport, infrastructure and heavy industry. Increasing production requirements led the team to introduce robotic welding to improve weld consistency and throughput.

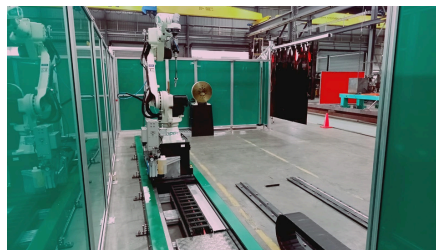
The Solution and Results.

Autoa supplied a U-6000 robotic welding cell configured for Nepean's structural fabrication requirements. The large format cell includes integrated positioners designed to handle longer and heavier assemblies. The system was programmed, tested and commissioned by Autoa, with operator training provided for immediate production use.

The U-6000 now delivers consistent weld quality and predictable cycle times across repeat production runs. Robotic welding manages programmed weld sequences while skilled fabricators focus on fit up and complex welding tasks, strengthening Nepean Engineering's fabrication capability and production stability.



Sliding wall within the U-6000 cell.



AutoaMotion sliding floor track in the cell.



Welding curtains enclosing the U-6000 cell.



"Autoa Robot Welding have made moving into robotic welding a breeze, their customisable welding cells really can be adapted for any product. Highly recommend! Will use again!"

Lachlan Hall



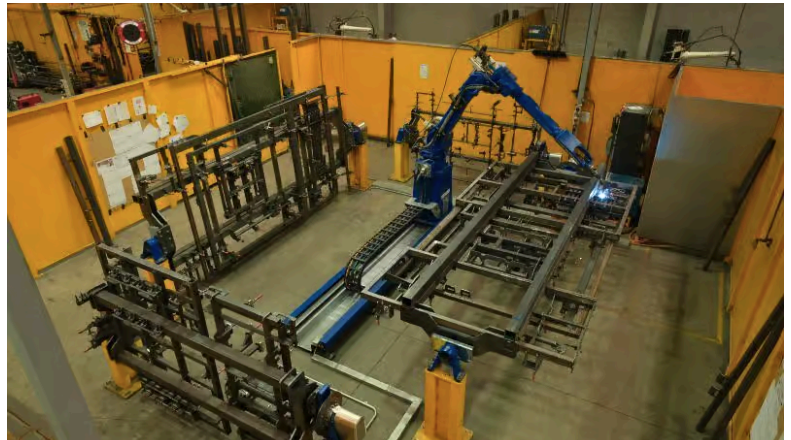
U-6000 robotic welding cell installed in the new facility.

CUSTOMER CASE STUDY

Boosting Productivity With Robot Welding.



Customer: Te Pari Products
Country: Otago, New Zealand
Industry: Agricultural Manufacturing
Solution: S-6000 Robot Welding Cell



Bird's-eye view of Te Pari's S-6000 robotic welding cell.

Background.

Te Pari Products is a third generation New Zealand manufacturer of livestock handling equipment. As demand increased, the company introduced robotic welding to improve productivity and maintain consistent weld quality across repeat assemblies. Te Pari invested in its first welding robot in 2007 and later expanded with additional Autoa systems.

The Solution and Results.

Autoa supplied a S-6000 robotic welding cell configured for Te Pari's livestock equipment assemblies, supporting repeat welding within their fabrication process. Nick Blampied of Te Pari explains, "Using robotics in manufacturing boosts productivity, improves quality, and supports business growth."

Robotic welding now delivers consistent weld quality while improving safety and reducing defects across production. As Blampied notes, "Welding robots provide a consistent, high quality finish, reduce defects, and improve worker safety." With accurate cut parts and well designed jigs, the system achieves strong output. "The key to success is accurate cut parts and jigs. Once set up, robots achieve high output."



Precision MIG welding with custom jig fixtures.



Robotic welding cell with servo-driven track.



Yaskawa AR3120 robot on a 4m linear track.



"Our business has expanded exponentially with the use of robotics. They make the process more efficient, which means you get busier and integrate more robots and then need to employ more people to keep up with the increased workload downstream in assembly and dispatch."

Nick Blampied



Yaskawa AR3120 robot welding livestock handling components.

AUTOA-SIMPLYWELD

Start Robot Welding With **No Upfront Costs.**

Autoa-SimplifyWeld is Autoa's Robot Welding as a Service (RWAAS) solution. It provides a fully supported robot welding cell on a fixed weekly or monthly rate, making robotic welding simple, accessible and practical for workshops of any size.

Giving You Confidence In Every Weld.

No Capital Cost.

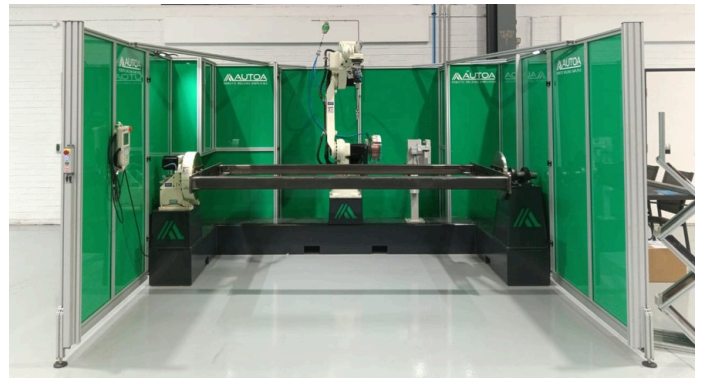
Start robotic welding without large upfront investment or long approval delays.

Everything Included.

Your cell comes complete with the robot, software, installation, training and support.

Full Support.

Training, servicing and technical support to keep your welding with confidence.



How Autoa-SimplifyWeld Works?

✓ **Discovery and Cell Layout.**

We assess your products and welding process, then configure the robotic welding cell and software to suit your application.

✓ **Delivery and Set Up.**

Your Autoa-SimplifyWeld cell is delivered, installed and commissioned by Autoa. We run onsite weld tests, verify performance and train your operators so you are ready to weld from day one.

✓ **Weld and Support.**

Once installed, Autoa-SimplifyWeld includes ongoing servicing, operator training and technical assistance. One weekly or monthly rate, full support and no upfront capital cost.

AUTOA-COWELD

Collaborative Welding **Made Simple.**

Autoa-CoWeld is a fully integrated collaborative robot welding cell designed for manufacturers introducing robotic welding into their workshop. Available in Compact, Single Station and Dual Station layouts, each configuration delivers the same core welding performance and programming experience, scaled to suit your floor space and production requirements.

Ready to Weld.

Fully configured, tested, and commissioned for immediate use.

Proven Results.

Stable arc control with consistent, repeatable weld quality.

Easy to Learn.

Intuitive touchscreen programming designed for fast operator adoption.

Key Features.

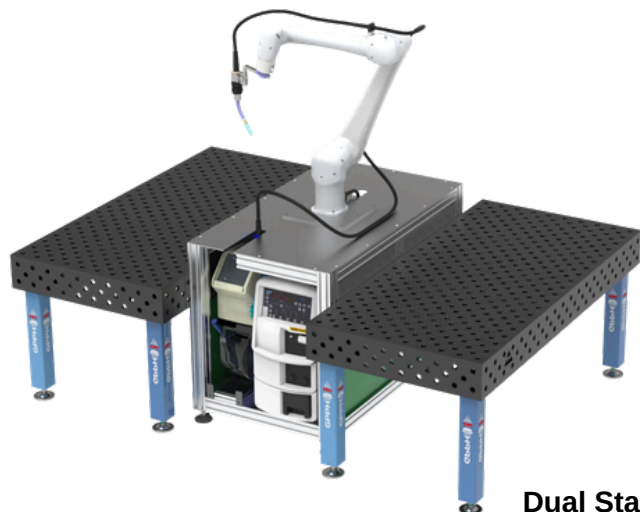
- **Flexible Work Zones:** Single or dual table layouts to suit different production requirements.
- **Accurate Fixturing:** Autoa WeldBase welding tables provide stable positioning for repeatable weld setup.
- **Flexible Programming:** Block teaching, drag and drop setup, or AutoaWeld offline programming.
- **Mobile and Adaptable:** Optional castor base with locking wheels allows relocation between work areas.
- **Local Support:** Installation, training and ongoing service across Australia and New Zealand.



Compact



Single Station



Dual Station

AUTOA-STEELWELD

Redefining **Structural Steel** Robot Welding.

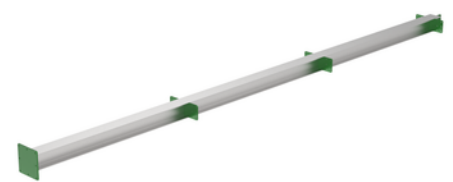
The Autoa-SteelWeld is a fully automated robotic welding system engineered for structural steel fabrication, delivering high-precision, high-throughput welding for beams, trusses, and columns. Designed to streamline complex welding processes, it ensures consistency, efficiency, and unmatched weld quality while reducing reliance on manual labour.



Ladder Beam



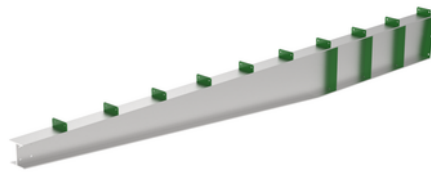
Rectangular Hollow Section



Universal Beam



Universal Column



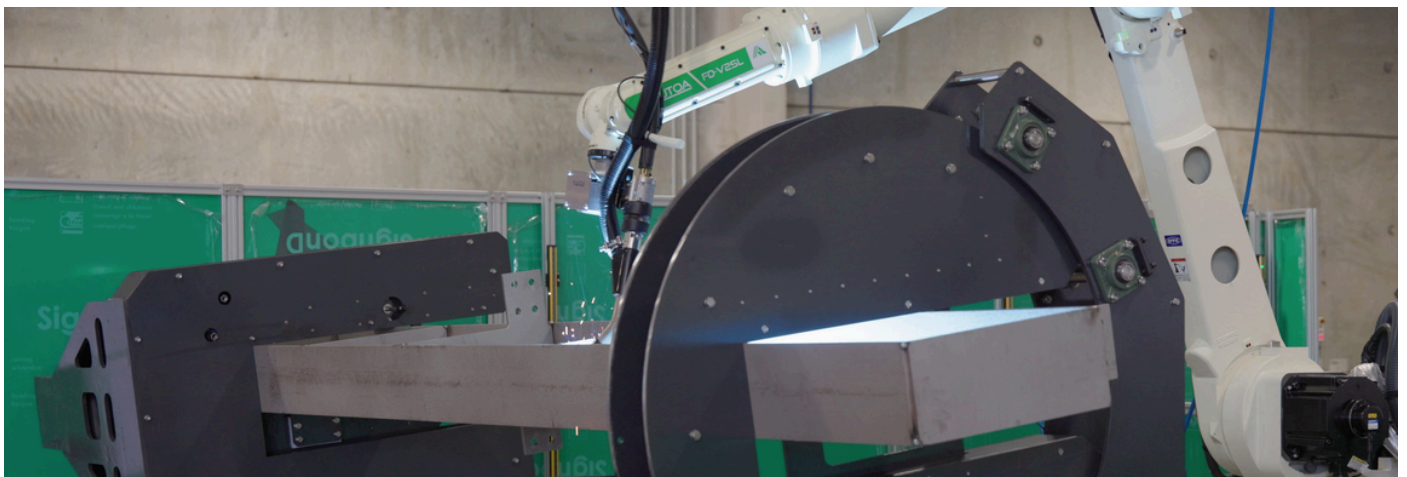
I Beam



Parallel Flange Channel

Why Choose Autoa-SteelWeld?

- **Automated Welding for Structural Steel:** Purpose-built for large-scale structural steel applications, handling everything from heavy beams to intricate trusses.
- **High Precision & Weld Quality:** Ensures strong, accurate welds for structural integrity and compliance with industry standards.
- **Increased Productivity:** Automates labour-intensive tasks, reducing production time and increasing output.
- **User-Friendly Programming:** Intuitive interface makes it easy for operators to set up and run jobs efficiently.
- **Built for Safety:** Designed to meet stringent safety standards, creating a safer and more controlled work environment.



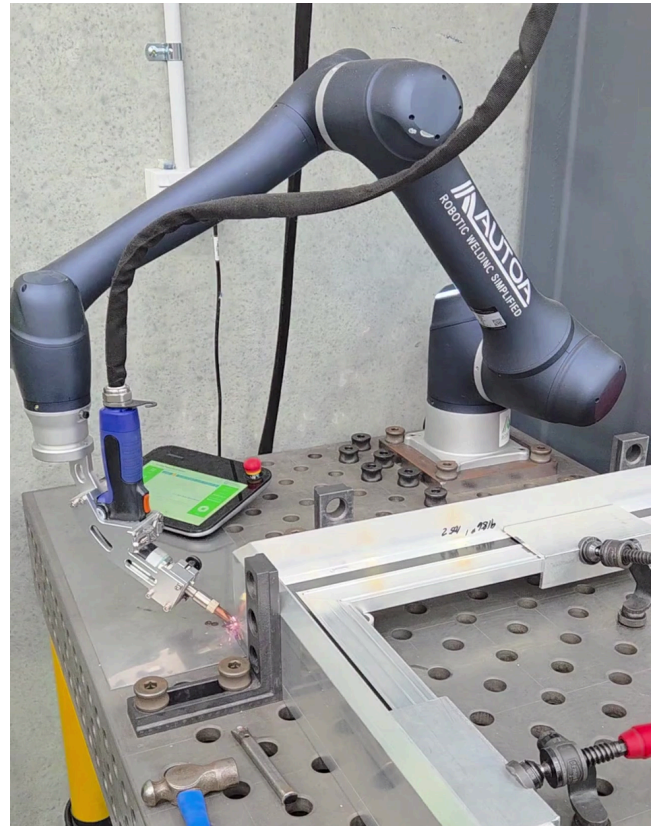
LASER WELDING

High Precision Welding for Manufacturing.

Laser welding uses a concentrated beam of light to fuse metal with very low heat input. This produces narrow, deep penetration welds with minimal distortion, making the process suitable for manufacturers requiring high accuracy and repeatable weld quality.

When integrated into robotic welding cells, laser welding provides fast welding speeds and consistent results across production runs.

The process produces clean weld seams with reduced spatter and minimal post processing, supporting efficient fabrication workflows.



IPG Photonics OEM Preferred Partner.

Autoa is an IPG Photonics OEM Preferred Partner, working with one of the world's leading manufacturers of industrial laser technology. This partnership enables Autoa to integrate advanced IPG laser sources into robotic welding systems, supported by globally recognised laser engineering and technology.

Advantages of Robotic Laser Welding.

- Extremely precise and repeatable welds
- Minimal heat input and reduced distortion
- Narrow weld seams with deep penetration
- Clean welds requiring minimal post processing
- Higher welding speeds compared with arc welding
- Stable weld quality across robotic production runs



Advanced Laser Integration.

Autoa robotic laser welding systems combine high performance laser sources with robust robotic automation. These systems are engineered to deliver precise weld control, consistent weld quality, and reliable performance within modern robotic welding environments.

AUTOAWELD SOFTWARE

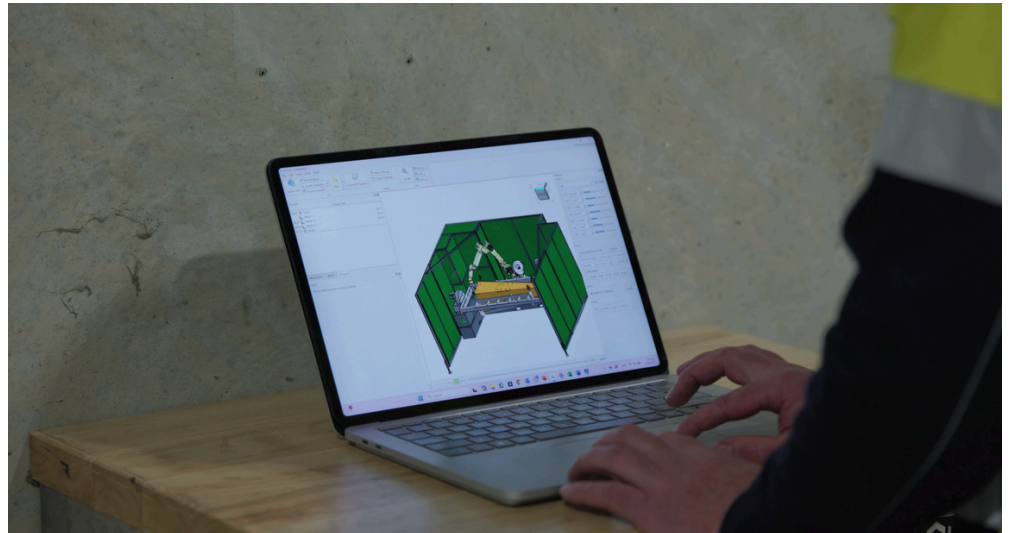
Intelligent Offline Programming.

Traditional robot programming is a bottleneck. AutoaWeld Programming Software removes that barrier by automating the programming process and significantly reducing setup time.

Powered by advanced algorithms, AutoaWeld translates CAD data directly into collision free robot welding paths, eliminating manual programming and reducing the possibility of human error. The software automatically generates reliable welding programs while managing the complexity of robot motion and path planning.

By simplifying robot programming, AutoaWeld allows operators to focus on production rather than code. The result is a faster transition from a 3D model to a live weld, completed in minutes rather than hours.

Ready To
Simplify
Your Robot
Welding?



Feature.

AI Path Planning.

Precision Seam Finding.

Digital Twin Simulation.

Intelligent Editing.

The Autoa Advantage.

Automatically generates optimised, collision-free toolpaths, approach and retreat motions without manual point-teaching.

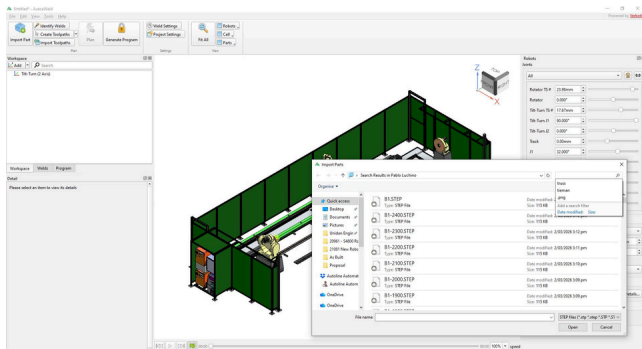
Integrated touch and laser sensing dynamically adjust the program to account for real-world part fit-up and variances.

Validate every weld and calculate exact cycle times in a virtual environment before the robot ever moves.

Rapidly reorder weld sequences, flip directions, or mirror patterns with intuitive, no-code tools.

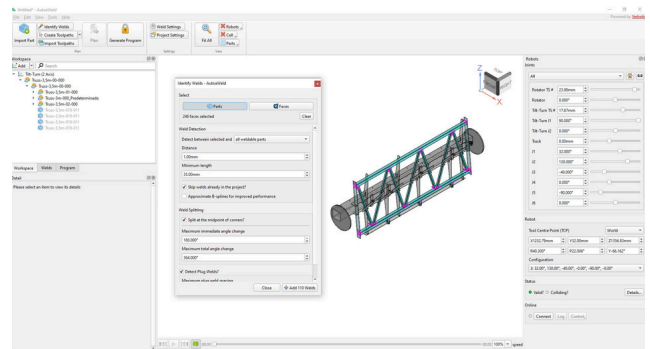
HOW IT WORKS

Programme Less, Weld More.



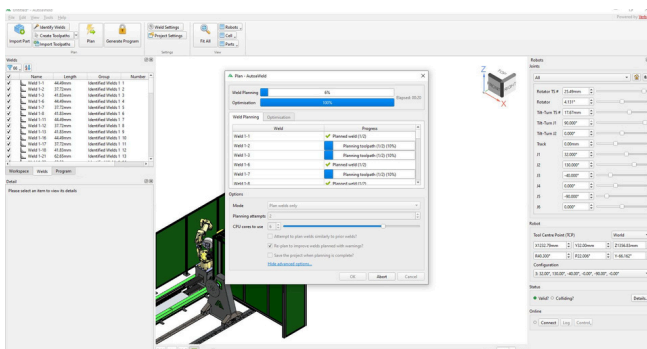
Step 1: Import CAD

Drag and drop your CAD files into AutoWeld to begin planning your robotic welds.



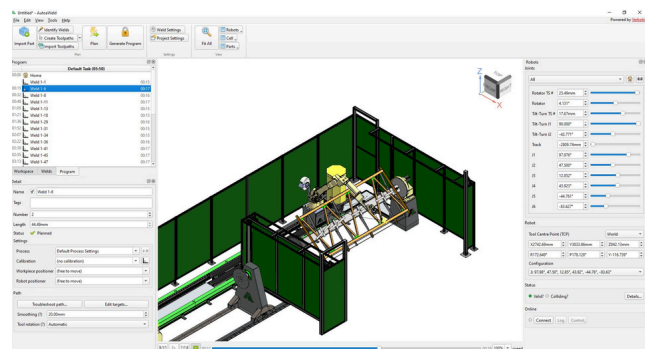
Step 2: Identify Welds

AutoWeld automatically identifies weld seams in your CAD model using built-in AI.



Step 3: Plan Welds

AutoWeld generates optimised robot welding paths with automatic collision avoidance.



Step 4: Simulate Welds

Seamlessly transfer the completed program directly to your robot. No USB required.



Step 5: AutoWelds

Execute the welding program on your robot. Collision-free and teach pendant free.

Robot Welding Made Simple With AutoWeld.

ROTOWELD 3.0

Automatic Pipe Spool Welding Robot.

Rotoweld 3.0 is a proven pipe spool welding system, backed by over 35 years of automated welding experience and hundreds of systems operating globally. The range includes four configurations, covering a wide span of pipe diameters.

Autoa supplies and supports Rotoweld 3.0 across Australia and New Zealand, helping fabricators achieve consistent weld quality and predictable cycle times.



3in. to 48in.

The combined pipe diameter capacity across all Rotoweld 3.0 configurations.

4,500kg to 9,000kg

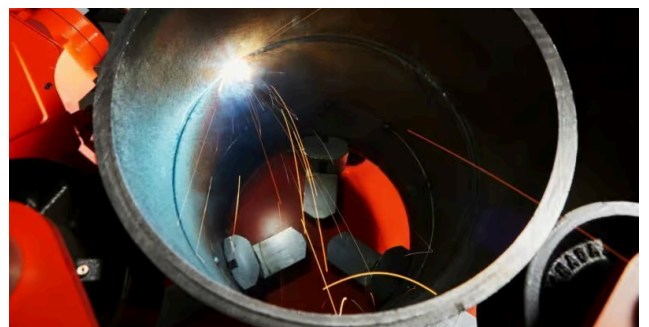
The combined load-handling capability across all Rotoweld 3.0 configurations

150-300+ dia in.

The combined daily output capability across the Rotoweld 3.0 configurations.

The RotoWeld Advantage.

Rotoweld brings consistency to pipe spool welding by controlling torch position, rotation, and travel throughout each pass. The system reduces the variation found in manual welding and helps fabricators achieve predictable results with less operator input.



PerfectPass-iQ Intelligence.

PerfectPass-iQ adjusts welding parameters in real time to suit joint preparation and changing conditions in pipe spool welding. Operators can start a weld with a single button and let the system manage root, fill, and cap passes with minimal intervention.

AUTOAMOTION

Robotic and Manual **Welding Positioners.**

AutoaMotion Welding Positioners are designed to improve weld access, increase arc time, and reduce manual handling across robotic and manual welding applications. Whether integrated into a configured robot welding cell or installed as a standalone unit, AutoaMotion gives manufacturers greater control over part positioning and weld quality.



Built For Your Application.

Available in nine AutoaMotion configurations, each designed to match part geometry, load capacity, and production requirements.



Single Axis Fixed Height



Single Axis Adjustable Height



Turn Tilt



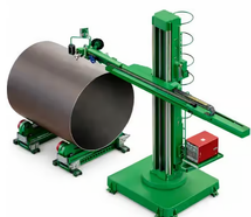
Chain Rotator



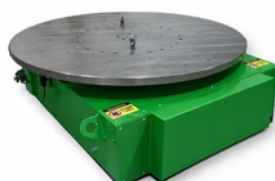
Sky Hook



Turning Rolls



Column and Boom



Horizontal Turn Table



Belt Rotator

AUTOA CLEARARC

Capture Welding Fumes At The Arc.

Autoa ClearArc is an on torch welding fume extraction system engineered for robotic and cobot welding cells.

During welding, metal vapour cools and condenses into extremely fine airborne particles that may contain hazardous metals and gases. ClearArc extracts these fumes directly at the arc before they disperse through the workshop, helping maintain cleaner air and clear visibility around the welding process.

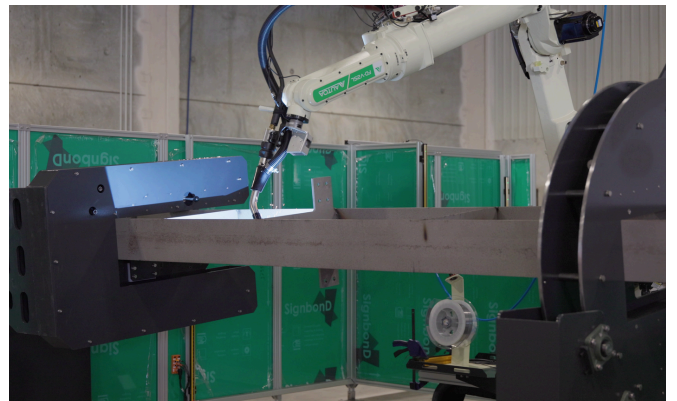


Key Features.

- **Source Capture Performance:** Captures up to 98% of welding fumes directly at the arc.
- **Direct Particulate Removal:** Removes hazardous particulate before it spreads through the workshop.
- **HEPA Filtration:** Prevents filtered airborne particles from returning to the workspace.
- **Compact Torch Design:** Suitable for robotic and cobot welding cells.
- **MIG System Compatibility:** Compatible with most MIG welding systems.

Why Fume Extraction Matters?

Welding fumes form when metal vapour cools and condenses into extremely fine airborne particles, often less than 1 micron in size. These particles can contain hazardous substances including hexavalent chromium, manganese and nickel. Capturing fumes at the source helps reduce operator exposure, improve air quality and maintain a safer robot welding environment.



Source Capture Technology.

Many ventilation systems remove fumes only after they have spread through the workspace. ClearArc extracts fumes directly through the welding torch at the point they are generated, limiting airborne contamination within the welding cell.

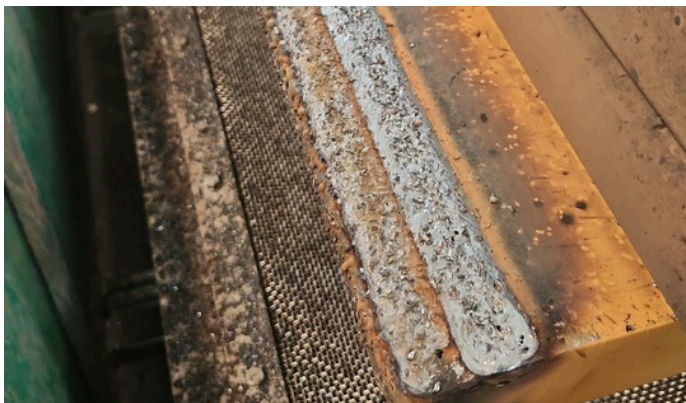
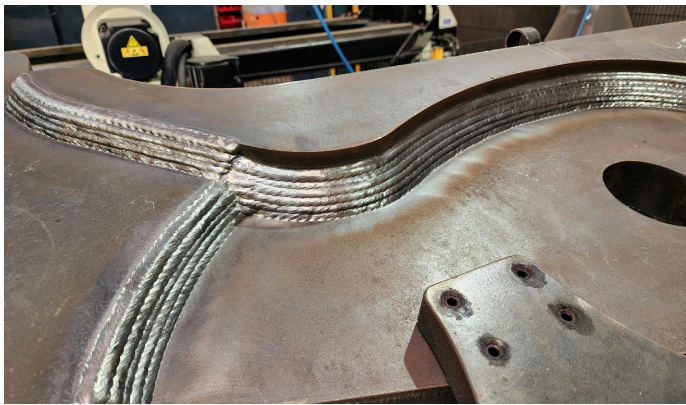
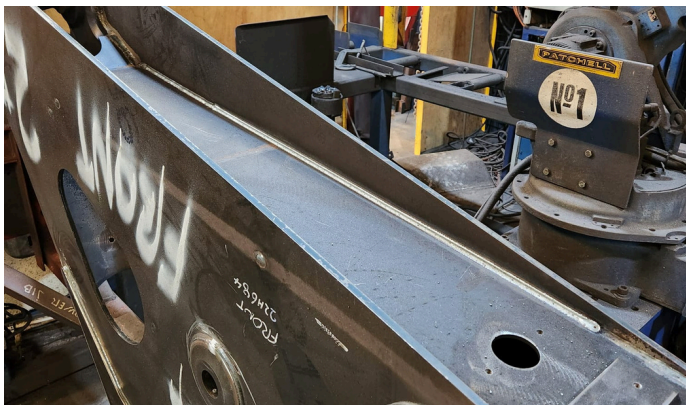
CONSUMABLES

Consumables and Welding Wire.

Autoa supplies a complete range of OTC Daihen and Yaskawa robotic welding consumables and maintains a large inventory across Australia and New Zealand to ensure fast availability and minimal production downtime.

WELDED BY AUTOA

Proven Weld Quality.



Performance.

Consistency.

Reliability.

INDUSTRY FEATURE

New Zealand's Only Aluminium Smelter Looks To A Settled Future In Southland.

RioTinto

According to Paul Cavanagh, a long serving staff member, Rio Tinto's Tiwai Point has always focused on protecting people and maintaining reliable production. **"It's about keeping people away from the load. People and safety first,"** he says.

Tiwai Point introduced robotic welding in 1995. The latest upgrade doubled the number of robots and introduced a new system for loading heavy steel pins, a task previously completed manually. Cavanagh notes the site now has a secure long term electricity supply deal, bringing greater certainty for the future.

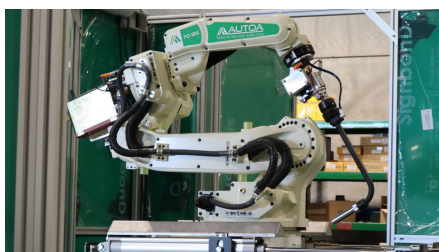
Around 550 aluminium anode rods are processed daily. The upgraded system now removes worn studs from damaged rods, reducing manual handling and keeping staff away from hazardous zones.

Aluminium remains a key structural material, used in multiple industries around the world.



Full View of Anode Yoke Repair Cell with Yoke Loading Stations.

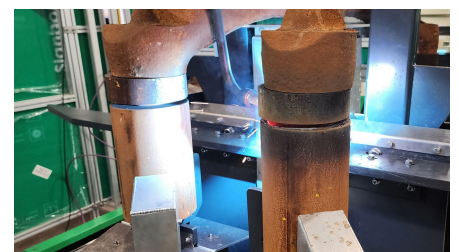
Designed and built by Autoa Robot Welding, the system delivers greater precision, reduced maintenance and improved reliability. The project was developed through close collaboration between Autoa and the smelter team, combining engineering expertise with a strong understanding of the production process. As Cavanagh notes, **"If we go on a journey together, you get a better result."**



Close-up of OTC-FDB6 Robot.



OTC V100 Handling Robot Managing Yoke Storage and Positioning.



Anode Yoke Undergoing Robotic Welding Process.

INDUSTRY FEATURE

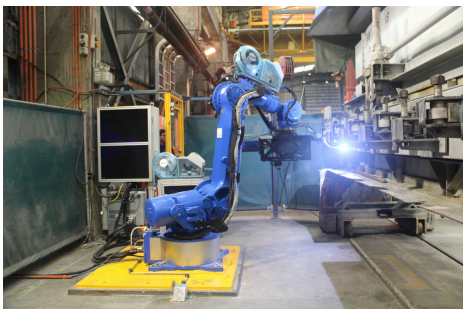
Innovative Robotic Solutions for Aluminium Smelting.

Autoa has been a leader in advancing aluminium smelter operations globally, collaborating with industry giants like Rio Tinto. “Since the mid-1990s, our innovative robotic welding solutions have transformed hazardous manual tasks into safe, automated processes,” says Matt Fisher, director of Autoa Robot Welding. “We’ve proudly worked with aluminium smelters worldwide, from Dubai to Argentina, helping to improve safety and efficiency.”

Automation Processes Developed by Autoa.

Super Structure Bus Bar Repair:

This process is for the automated repair of the bus bar face. Autoa has developed a ‘jig-less’ solution where the robot takes precise measurements and pre-mills the face using a 200mm diameter milling cutter. This is followed by continuous welding, which takes approximately 45 minutes per pass to rebuild the contact face. After welding, further milling ensures a clean, unpitted contact surface for the yoke to be bolted to, resulting in a robust and efficient repair.



Autoa welding robot in action, repairing a super structure.



L-R: Before, Welded and After on a super structure repair.



Autoa welding robot awaiting next super structure.

Automatic Stub Repair:

This process is for the automated repair of the stubs on the anode yokes. Automatic and manual loading solutions have been developed for three, four, and six-pin yokes. “Our unique water-cooled welding torch provides full access around the stub, accommodating yokes on an overhead conveyor or in a horizontal position off the chain,” says Fisher.



Autoa welding robot in action, repairing a stub.



Finished weld result, between 7-9 passes, full penetration.



Dual Autoa welding robots awaiting next yoke.



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ROBOTIC WELDING SIMPLIFIED