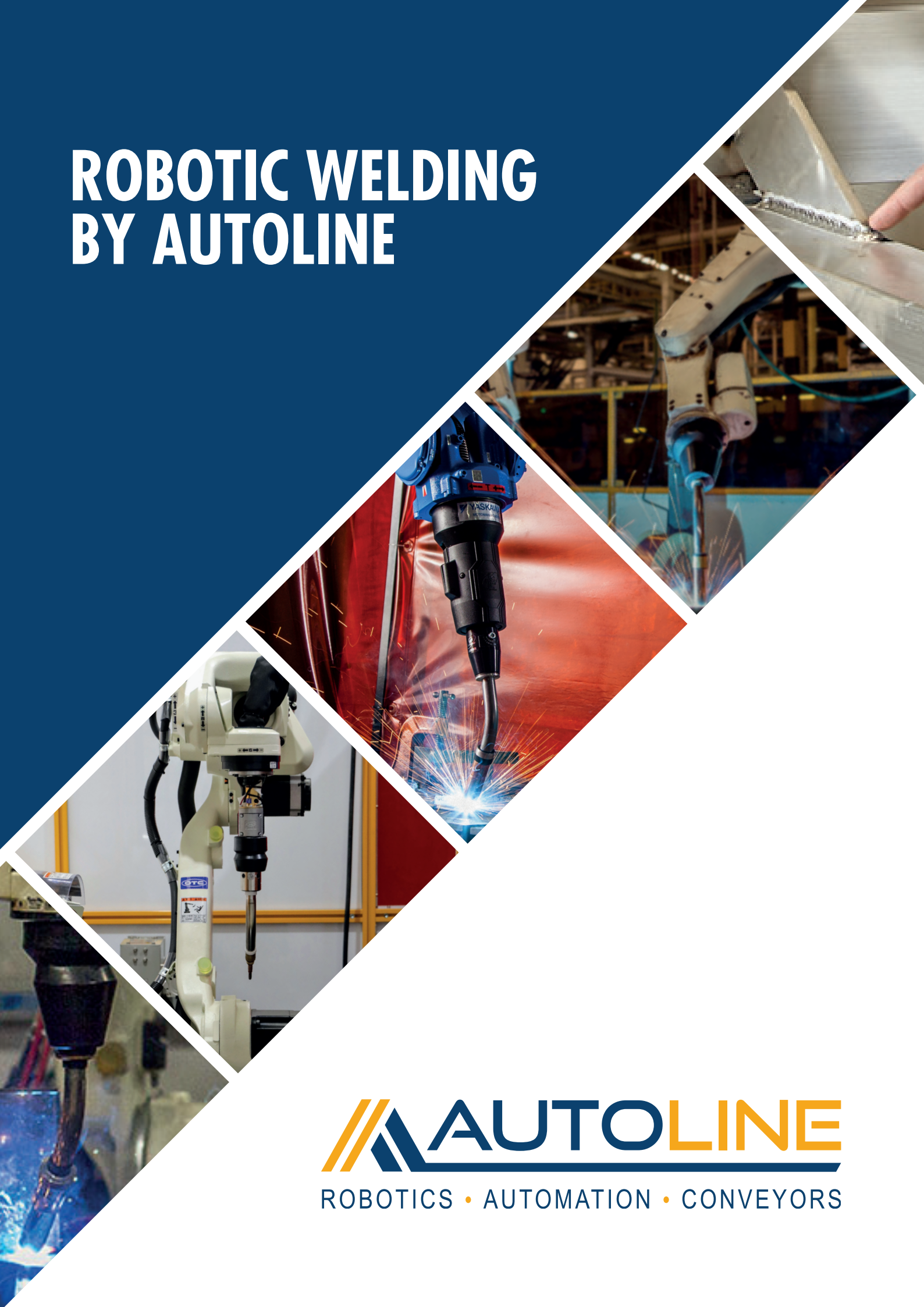


# ROBOTIC WELDING BY AUTOLINE



ROBOTICS • AUTOMATION • CONVEYORS



## We Are The Robotic, Automation and Conveyor Experts

Autoline began over 30 years ago selling press feeder and bowl feeding solutions to the manufacturing industry. As we grew, we introduced New Zealand to Aluminium T-Slot Extrusion and used the aluminium profile to build conveyors and automation systems.

We continued to expand and established ourselves as New Zealand's leading automation company, 'Conveying Excellence' in what we designed, manufactured and our customer experience.

With a progressive development approach to bringing the very best of automation to New Zealand industries, we branched out into robotics with the acquisition of Carbines Engineering, New Zealand's leading robotics integrator with over 35 years of experience in the industry.

Today we continue to lead as the Robotic, Automation and Conveyor Experts, bringing the latest technology and innovations to New Zealand.

## Robot Servicing and Maintenance

Our guarantee of expert service goes beyond delivering industry-leading robotic and automation solutions customised to your specific needs. After your automation equipment is installed, we will continue to provide dedicated support and ongoing service to ensure maximum robot performance and return on investment over the life of your asset. Autoline's in-house skilled robot technicians are trained service and application engineers with years of experience working with Yaskawa, OTC Daihen, and Doosan equipment.

The manufacturer's (Yaskawa and OTC Daihen) recommendation is to service a robot every 2 years or 6000 servo hours. A typical service consists of full lubrication and replacement of all encoder backup batteries. Replacement of encoder backup batteries is essential to maintain correct encoder positions as these cannot be restored with a backup of data and if allowed to fully discharge, it can involve extensive reprogramming of your robot and an urgent service call out.

**Contact us today to book your robot service or ask about our service contracts.**

## Robot Operator Training

We provide hands-on robot operator training services for our customers, so they are technically trained and have the knowledge to carry out their job as a robot operator and therefore maximise your robot equipment performance. Standard, modified, and customised training courses are available by our trained robot technicians and programmers to suit your robot/s and application.

Autoline robot technicians are active service and application engineers with extensive knowledge of our products including plentiful experience working with Yaskawa, OTC Daihen, and Doosan equipment.

Practical hands-on training at Autoline or on-site training at your site can be scheduled to teach robot operators of all experience levels to increase knowledge, improve skills, and reinforce safety practices.

**Contact us today to book in your robot operator training session.**

*"I just want to say how impressed we are with Autoline's trainer and what he has done over the last few days. He really engaged the team well and has given them some great tips for operating the robot. He has a great knowledge of the controller and the way to program properly. It has provided a real benefit to our team."*

**Jonathon, Engineer from Hawke's Bay, NZ.**



# Robot Welding by Autoline

Autoline specialises in Robotic Welding for the manufacturing industry. Manual welding is a process that is dull, dirty and has a high degree of repetitive motion injuries. But with the technology that is available today, most welding processes that are performed manually can be performed with robotic automation. The investment of robotic welding helps manufacturers overcome the labour shortage, demands for increased production, and provides consistent high-quality welds.

Autoline are the New Zealand agents for OTC Daihen, Yaskawa Motoman and Doosan Robotics.

## OTC Daihen Robot Welding



With a wide range of high-performance robots and products, OTC Daihen is a global leader in innovative welding and robotic solutions. Keeping it all together with one seamless system OTC are the world leading innovators for Synchro-pulse, wave-pulse, and digital power-source technologies.

The OTC Daihen line-up features the most advanced welding products, while their user-friendly features and interfaces enable both experienced and novice welders to achieve outstanding quality, consistency, and efficiency.

The OTC Daihen single-source approach is simple: they provide all the equipment needed for robotic arc welding - robot, welding power source, wire feeder, torch, and positioners.



## Yaskawa Robot Welding

**YASKAWA**

Yaskawa Motoman has a wide selection of robots purpose-built for welding and equipment that reduce weld distortion, shorter the cycle and programming time, increase efficiency and provide a very flexible welding system.

The Yaskawa welding robot models are designed for maximum welding efficiency, with fast travel speeds, and wide range of motion, boosting your welding cycle times.

Yaskawa Motoman's built-in robot controller software has unique welding-specification functions to fine-tune your path and coordinate motion with external axes and multiple robots. Combine that with Yaskawa's Universal Weldcom interface which allows you to integrate with your preferred welding power source, and your entire robotic welding process is supported with software and peripherals that give you more automation control.



## Doosan Collaborative Robot Welding

**DOOSAN**

Automate repetitive welding tasks with the Autoline Cobot welder, a safe and easy to program collaborative robot platform. A collaborative robot welder is a low-cost and effective way to get started with welding automation. It is a flexible automation solution that allows manufacturers to increase their capability quickly and easily.

Our Cobot Welder is a configuration of reliable and proven technology with a Doosan Collaborative Robot and OTC Daihen Welding Hardware. This innovation is a combination of world-leading cobot, and welding technology manufacturers bought together by Autoline.



# Autoline Cobot Welder

## Your Partner in Welding, Delivering Industrial Throughput and Quality

Automate repetitive welding tasks with the Autoline Cobot welder, a safe and easy to program collaborative robot platform. A collaborative robot welder is a low-cost and effective way to get started with welding automation. It is a flexible automation solution that allows manufacturers to increase their capability quickly and easily.

The Autoline cobot welder ensures maximum flexibility, easy programming, and consistent high-quality welds, for a rapid return on your investment. For engineers that have low-volume, high-mix manufacturing, the Autoline Cobot is ideal. Being quick and easy to teach via the Doosan teach pendant makes automated welding of smaller batches economical. Also, you have the ability to adjust weld parameters and speed during the welding process using the teach pendant.

Our Cobot Welder is a configuration of reliable and proven technology with a Doosan Collaborative Robot and OTC Daihen Welding Hardware. This innovation is a combination of world-leading cobot, and welding technology manufacturers bought together by Autoline.

Get your production up and running with the Autoline cobot welder. Installation and training are performed by Autoline robot technicians. We are there to support you every step of the way and will help you address the challenges of your specific cobot welder application.



### Key Features:

- **Increased Capacity and Boosted Productivity**

The cobot welder maximises production by minimising unnecessary unproductive time and allows human workers to focus on other higher skilled tasks.

- **Quick and Easy to Teach**

Simply hand guide the robot arm through the weld path for programme using the Doosan Cockpit.

- **Safe to be Around**

Outstanding safety and precise operation by 6 joint torque sensors.

- **Easy to Relocate**

Easy to manoeuvre and relocate around the workshop due to its small footprint.

- **Cost Savings and Flexibility**

A cobot welder delivers consistent quality with each weld; this level of precision helps you get the most out of your consumables, reducing costs.

- **Welds Longer, Continuous Seams**

Weld up to 2600mm in a straight continuous line with the 1700mm reach model cobot.





# Offline Robot Programming Software

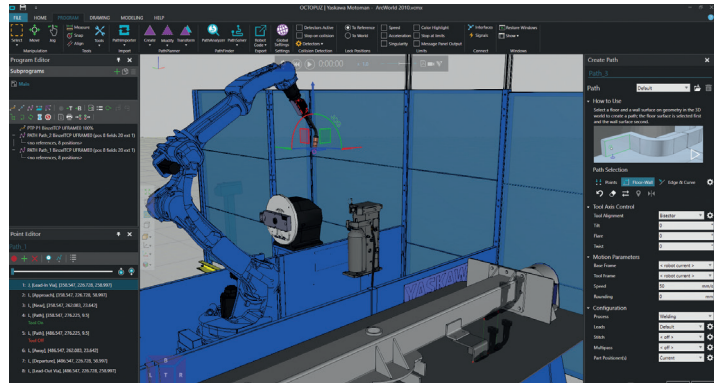
## Octopuz



Octopuz takes a revolutionary approach to robotic programming by combining the offline programming of robotics with a manufacturing process simulation, making it ideal simulation software for any application. The team at Autoline can design and simulate your manufacturing processes and plant layouts prior to any purchase of capital equipment. See your own products in real motion and in 3D!

### Key Features:

- Program, simulate and generate code for multiple robots.
- Generate code from Octopuz to be inputted directly to the robot controls.
- Simple simulation building. Drag, drop, and snap components together.
- Yaskawa, OTC Daihen and Doosan robot brands supported.



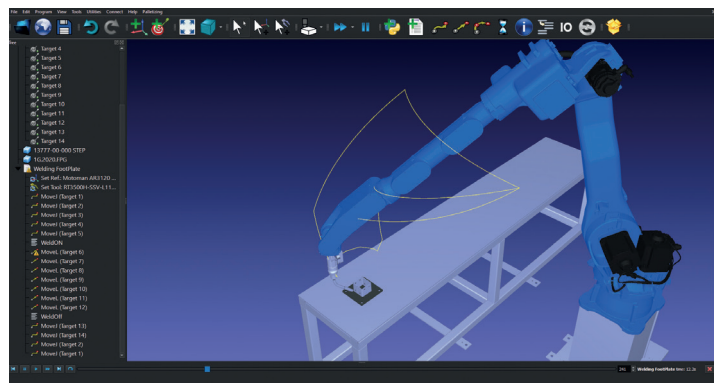
## RobotDK



RobotDK is a powerful and cost-effective simulator for industrial robots and robot programming allowing you to get the most out of your robot. The advantage of using RobotDK's simulation and offline programming tools is that it allows you to program robots outside the production environment. With RobotDK you can program robots directly from your computer and eliminate production downtime caused by shop floor programming.

### Key Features:

- No programming skills are required with RobotDK's intuitive interface.
- You can easily program any robot offline with just a few clicks.
- RobotDK has an extensive library with over 600 robot arms.



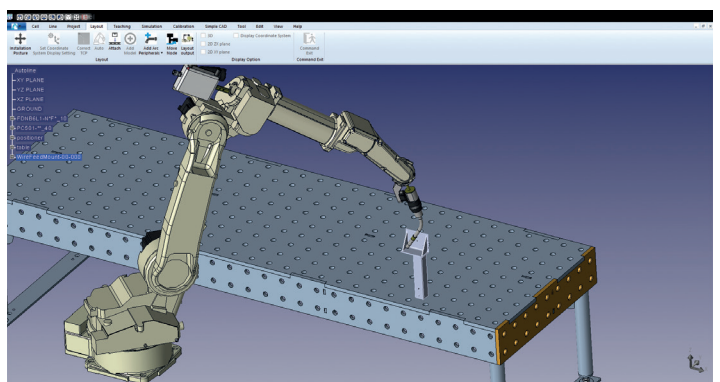
## OTC Daihen FD-ST



FD-ST Offline Teaching System is a full robot simulation and offline teaching through a PC application. Reduce up-front system implementation through cell building and production engineering through robot program simulation.

### Key Features:

- Offline 3D cell layout, programming and simulation package.
- Simplified external axis teaching.
- Sensor programs can be automatically created.
- Reduce the man-hours required for teaching/simulation of production robotics.
- Automatic creation of work programs from your CAD data.



# Welding Nozzle Cleaning Station

Our nozzle cleaning station is an all-in-one cleaning station for robot welding. Just one installation stand including a Wire Cutter, Nozzle Cleaner, and Anti-spatter Solution Sprayer makes nozzle cleaning efficiently in a minimum amount of space.

## Key Features:

- Easy installation due to air-driven design.
- Maintenance-friendly by simple design.
- The minimum space required is approx. 327mm x 255mm x 904mm.
- Both nozzle cleaning and anti-spatter spraying are performed in the same location, saving time.
- With one input signal from the internal PLC, the whole operation from the nozzle clamp to the anti-spatter spraying is performed in series.
- Using an ultra-hard reamer and air motor the spatter is firmly removed.
- A specialty steel cutting blade allows for long operating life and stability.



# Robot Welding Sensors



## FD-AR Through-Arc Seam Tracking

Automatic seam tracking by weaving.

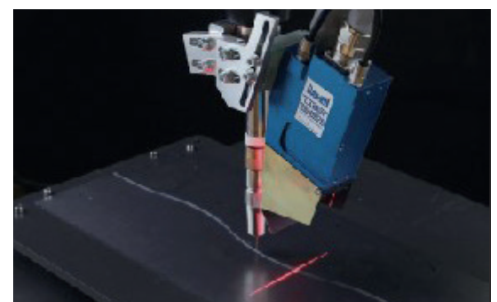
- Simple and easy operation.
- Most economical and most popular tracking sensor.
- High reliability and versatility.
- No additional torch components for easy maintenance.
- Suitable for workpieces of medium thickness or greater.



## FD-QT Laser Tracking Sensor

High accuracy welding line tracking by laser.

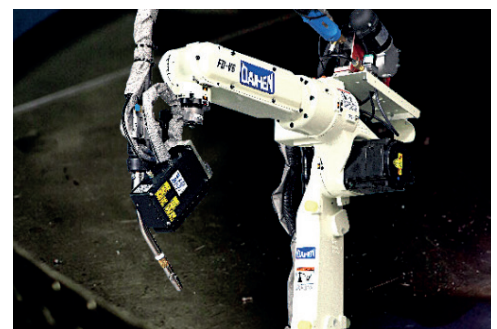
- Live view of joint profile.
- High speed with high accuracy.
- Simple setup and easy to use.
- Detects and automatically adjusts to welding positions and gaps.
- Suitable for thin workpieces.



## FD-QF Laser Search

High-speed workpiece position detection sensor using laser.

- Industries best weld seam detection for time and accuracy.
- Stable weld seam detection.
- Simple teaching with dedicated detection commands.
- Suitable for thin and thick-plate welding.
- High-gloss surfaces like stainless steel can be detected.





## Your One Stop Robot Welding Shop

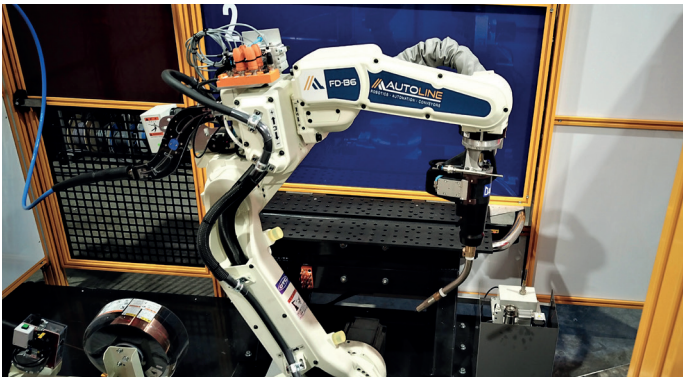
Autoline is the expert in Robotic Welding systems and solutions, bringing world-leading robot brands and the latest technologies to New Zealand. From industrial robot welding to collaborative robot welding systems, Autoline can offer a solution to meet your welding requirements. Whether it be heavy duty welding or welding small parts, MIG or Aluminium welding, our systems can be customised to suit.



Line-Up of Turn-Tilt Robotic Welding Cells



Collaborative Robotic Welding for Furniture



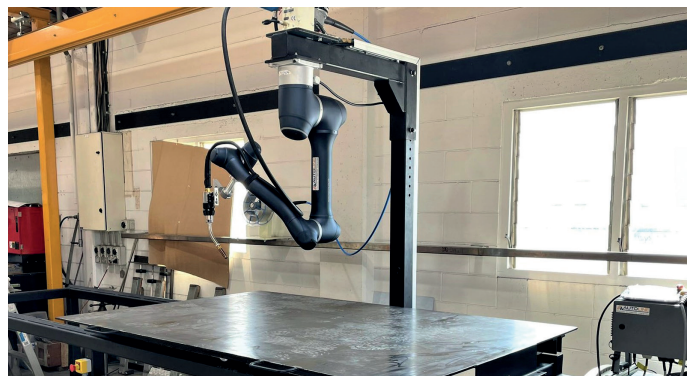
Robotic Tube Welding and Handling Solution



Long Reach Robotic Welding Cell for Machinery Components



Robotic Welding Cell for Aluminium Welding



Collaborative Robot Welding for General Engineering



Compact Robotic Welding for Agricultural Machinery



Twin Rotator, Arc Tracking Robot Welding Cell





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