

AUTOMATED WELDING SOLUTIONS

There are many factors that need considering when selecting a suitable project for robotic welding. Some of these factors for a robotic welding are listed below:

- Quantity
- Reliability
- Programming
- Type of joins
- Path accuracy
- Process flow
- Process time
- Simulation
- Fixture design
- Number of welds
- Type of material
- Size of component
- Weld accessibility
- Materials handling
- Seam tracking systems
- Weld system capacity
- Positioners (4T capacity)
- Adaptive weld control/adjustment
- Type of weld patterns (finish)
- Repeatability/consistency

Our updated **Laser Sensing Robotic Welding Cells** excel in performing repetitive tasks on both large and intricate components, including those made from ferrous and nonferrous materials. They are ideal for projects involving welds on multiple axes or where component access is challenging. The key benefits of these automated cells include enhanced precision, productivity, and repeatability. Once programmed, they deliver consistent welds on components with the same dimensions and specifications, ensuring that setups are ready and validated for subsequent batches.

An **additional benefit** of our Highly Accurate 8-Axis Robotic welding systems, equipped with Laser Range and Positional Measurement, is **cost reduction**. These systems enhance safety by distancing the human operator from hazardous fumes and molten metal near the welding arc.

Integrated intuitive simulation software automates torch motion, utilising the robot's multi-axes and manipulators, which minimises potential errors and programming time. This efficiency not only reduces scrap and rework but also reduces costs overall. Robot welding boosts output, ensures repeatability, and offers greater speed and safety than manual welding, significantly enhancing efficiency.

Get in touch today regarding your next project so we can assess your requirements and apply them to the correct setup and processes to bring your project in **ON TIME, ON BUDGET** and **TO SPECIFICATIONS**.

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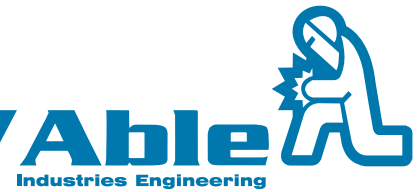
 **Able Industries Engineering**

PROUDLY 100% AUSTRALIAN OWNED & OPERATED



MANUFACTURING CAPABILITY

PROUDLY 100% AUSTRALIAN OWNED & OPERATED



All Sizes Listed are in mm

Welding Robots (Multiple ABB/OTC, Fronius TPS500i {500A} Welder)

4.2m Diameter, 10m Rail Travel, Component Size, 4 Ton Rotation Capacity, 10 Ton Static	Thickness		Component Size
	min	max	
Mild Steel (all sizes – Sheet/Plate, Section)	0.5	25	
Stainless Steel (all sizes – Sheet/Plate, Section)	0.5	25	
Aluminium (all grades – all sizes – Sheet/Plate, Section)	0.5	25	
Bisalloy and Hardox Steels	4	25	
Galvanised and Zinc Plated Sheet	0.5	5	

****Larger sizes & thickness possible upon request**

Welding (Spot) - Military Specification Rating – CNC Monitoring/Feedback

Mild Steel (all sizes)	0.5	10
Stainless Steel (all sizes)	0.5	10
Aluminium (all grades)	0.5	6
Bisalloy and Hardox Steels	0.5	10
Galvanised and Zinc Plated Sheet	0.5	6

****Larger sizes possible upon request**

Tube Laser Cutting 3D Bevel Head (3kW) – Semi Auto Loading – 400 Diameter

(CHS, SHS, RHS, UC, UB, PFC, EA, UEA, Other upon request)	Envelope		SHS	
	min	max	min	max
Mild Steel (all sizes – Various Sections)	20	400	20	280
Stainless Steel (all sizes – Various Sections)	20	400	20	280
Aluminium (all grades – all sizes – Various Sections)	20	400	20	280

Tube/Pipe Fiber Laser Angular/Bevel Cut Capability – Weld Preparation

	Thickness	
Mild Steel (all sizes – Various Sections)	0.5	16
Stainless Steel (all sizes – Various Sections)	0.5	10
Aluminium (all grades – all sizes – Various Sections)	0.5	10

****NOTE: Max Tube weight = 550kg, 10m Feed Length and up to 6m Auto-unloading tube length**

Flat Bed Laser Cutting (6kW) – Shuttle Tables

	Thickness		Sheet Size	
	min	max		max
Mild Steel (all sizes)	0.5	25		4000 x 2000
Stainless Steel (all sizes)	0.5	20		4000 x 2000
Aluminium (all grades)	0.5	20		4000 x 2000
Brass	0.5	10		4000 x 2000
Copper	0.5	10		4000 x 2000
Floor/Tread Plate (all grades)	0.5	16		4000 x 2000
Bisalloy and Hardox Steels	0.5	12		4000 x 2000
Galvanised and Zinc Plated Steel	0.5	5		4000 x 2000

Turret Punch (Multiple Form, Tapping & Cutting Tools, Brush Tables)

Multiple Auto Index Stations – Max Diameter Single Punch Hole 88.9mm	Thickness		Sheet Size	
	min	max		max
Mild Steel (all sizes)	0.5	6.35		5000 x 2000
Stainless Steel (all sizes)	0.5	6.35		5000 x 2000
Aluminium (all grades)	0.5	6.35		5000 x 2000
Galvanised and Zinc Plated Steel	0.5	6.35		5000 x 2000

****NOTE: EXTRA WIDE 2000mm Sheet Width : Longer sheet sizes possible upon request****

Brake Press (Multiple Machines up to 9 Axis & 6m Long)

	Thickness		Sheet Size	
Mild Steel (all sizes)	0.5	12		up to 6000
Stainless Steel (all sizes)	0.5	12		up to 6000
Aluminium (all grades)	0.5	12		up to 6000
Galvanised and Zinc Plated Steel	0.5	12		up to 6000
Bisalloy and Hardox Steels	0.5	12		up to 6000

Guillotine (CNC Programmable, 1m Back Gauge)

	Thickness		Sheet Size	
Mild Steel, Aluminium, Stainless Steel (all sizes)	0.5	8		up to 4050

****NOTE: Other materials can be cut, thickness determined by tensile strength**