

INDUSTRIAL SOLUTIONS



CAPRAL
ALUMINIUM

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Bremer Park, Capral's Bundamba operation in Queensland, the largest extrusion facility in the Southern Hemisphere.

CAPRAL ALUMINIUM. DELIVERING ALUMINIUM SOLUTIONS.

Capral is an Australian leader in the manufacture and supply of aluminium products and associated services. We offer comprehensive end-to-end solutions, including manufacturing, fabrication capabilities for value add solutions, finishing, warehouse and distribution, and an expansive product range.

We work and support customers in key industries to deliver the best outcomes. We are a specialist supplier to the transport, marine, residential and commercial building, defence and resources, and signage industries (to name just a few).

Our dedicated personnel use their world-class experience and technical capabilities to work closely with your industry. Because we source both domestically and internationally, we can supply the most suitable materials for the job. We have long-standing relationships with some of the world's leading aluminium mills and stock a comprehensive range of aluminium plate, sheet, mesh and treadplate, as well as standard geometric and customer exclusive extrusions.

Our products are backed by one of the largest research and development building products teams in Australia, and ensure our products are compliant and fully tested to relevant NCC and Australian standards.

INDUSTRIAL SOLUTIONS

We are able to offer an abundance of solutions that alleviate your risk, cost and stress. We benefit from the technical and commercial backing only a big business like Capral Aluminium can provide.

We can offer:

- Customer specific ranges and development, and stock holding
- Consignment stock offers
- Supply chain management and expertise (onshore and offshore)
- Expedited delivery scheduling
- Project support
- Technical support
- Componentry and sub-assemblies
- Fabrication solutions.

Our enhanced supply partnership solutions provide best value for companies, to maximise commercial viability. Enjoy the convenience and security of dealing with a reputable Australian supplier that has national coverage and support.

We welcome the opportunity to have one of our specification specialists review your requirements.

ACCREDITATION AND CERTIFICATION

All extrusions manufactured by Capral Aluminium are produced to the chemical composition, mechanical property and dimensional tolerances in AS/NZS 1866:1997.

Capral Aluminium is also accredited to:

- AS/NZS ISO 9001:2015 – Quality Management Systems
- AS/NZS ISO 14001:2004 – Environmental Management Systems
- ISO/IEC 17025 – NATA Accredited Mechanical Testing Laboratory
- All major international marine classification societies including DNV (Det Norske Veritas) and Lloyds Register.

MANUFACTURING & FABRICATION

Capral Aluminium operations include five manufacturing plants and aluminium distribution centres throughout metropolitan and regional centres, all backed by our national network. We not only produce aluminium extrusions locally but offer fabrication and value add services including:

- CNC Machining
- Drawn products
- Product edge de-burring
- Drilling
- Cut Back
- Compound Cutting
- Mitre Saw Cutting
- Precision Cutting
- Sheet/Plate cutting and bending
- Slotting and Punching
- Weather Pile Installation
- Cold Drawing
- In-house paintline with state of the art VPL
- Anodising and Powdercoating
- Customer specific packaging
- Customer exclusive die design and cutting.

Further information about our fabrication and value add services are detailed in the "Fabrication Solutions" section of this guide.



SUPPLY SOLUTIONS

We operate a strategic regional network of mill direct account managers, distribution centres and an online store to supply aluminium products and services to our customers. These offer supply solutions and immediate stock availability to a wide range of industries and market sectors.

ALUMINIUM TRADE CENTRES

Capral's regional distribution centres support a network of conveniently located trade centres. You'll find Capral Aluminium Centres operating in strategic locations throughout Australia.

Capral Aluminium Centres supply a comprehensive range of aluminium extrusions, rolled, sheet and plate products to trade, wholesale and retail customers.

Operating Mondays to Fridays, customers can visit an aluminium centre where one of Capral's representatives are on hand to help with orders, samples, advice plus value add services.

Our national distribution network and warehousing facilities cater for high volume industrial requirements including building, transport and marine products. A range of value added services are available, including profile routing and cutting services to save you time and money.

MILL SALES

At Capral, we strive to deliver our customers exceptional service and meet their business needs. Each account is appointed a local Sales Account Manager, and is backed by regional internal sales support to provide accurate sales order processing and status.

Mill Sales is a division of Capral that allows customers to purchase product directly from the mill in large quantities. We are able to

provide our customers with large orders, on quick lead times, at competitive prices. We offer customers the opportunity to work with our sales and design teams to create exclusive designs and shapes, and assist in the design of extrusions, alloy selection and technical support, ensuring product specification can be manufactured in a reliable and competitive manner. With an increasing environmental awareness, we also aim to minimise packaging materials whilst ensuring products are received in line with Capral's terms and conditions of sale.

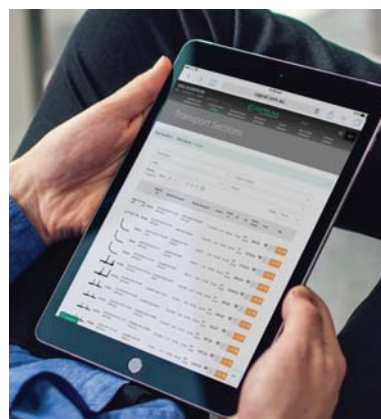
ONLINE ORDERING 24/7

Capral has embraced e-commerce and now services customers Australia-wide, 24/7, with the Capral e-store.

Customers can order from the core range of aluminium products anytime of the day or night, with most orders available for next day delivery.

Available on the e-store is Capral's comprehensive range of aluminium plate, sheet, mesh and treadplate, as well as standard geometric and customer exclusive extrusions. In addition you'll find products such as fencing, screening and posts, seating and seating accessories, scaffold planks, and industry specific sections.

The online range is continuously being updated. View the full range at capral.com.au.





FABRICATION SOLUTIONS

Capral Aluminium is committed to meeting the current and future needs of our customers through the development of our manufacturing capabilities and added value services. Our facilities not only provide aluminium plate and extrusion products, we deliver our customers a more streamlined process to a final product, supported by a team of experienced trained staff.

OUR CAPABILITIES

CNC MACHINING CENTRE

Our investments in state-of-the-art CNC machining technology adds value to the aluminium supply solutions for customers. Located at our extrusion plants in Campbellfield, Victoria and Bremer Park, Queensland, our CNC machine offers the ability to provide semi-finished aluminium extrusions into your business ready for further assembly. Reduce your inventory, workspace and manufacturing time, whilst reducing waste and eliminating potential costly errors in the process.

CNC machine is suited to rigid profiles that can be clamped without movement. Smaller profiles can be machined depending on their rigidity for clamping. Samples are required to test prior to quoting.

Drawing Requirements

- 2D .dxf drawing for each profile, scaled at 1:1
- 2D .dxf drawing of each side to be machined, scaled at 1:1
- All lines to be Polylined
- All contours must have a radius or a defined diameter
- All dimensions clearly presentable
- Rectangular and triangular cut-outs must include a radius which will determine the size of the mill tool.

CNC ROUTER

Capral's CNC Router Machines for both extruded and flat rolled products, complements core investments of state-of-the-art industrial presses and world-class extrusion/finishing facilities.

Components can be supplied individually or in kit-form as JIT, to reduce stock inventory, warehouse space and manufacturing time. Accurate nesting of components can also reduce waste, with potentially costly errors eliminated in the process.

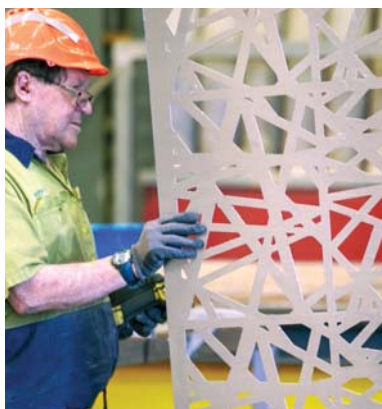
Our router capability gives us the ability to cut intricate shapes from aluminium plate.

Typical Specifications

Capral Aluminium process sheets and plates ranging from 0.6mm through to 32mm in 5005, 5052 and 5083 alloys as well as aluminium extrusions by application.

We can offer a range of bed sizes ranging up to 20m x 2.4m which can handle the largest requirements.

Samples are available on request with routers stationed in Sydney, Brisbane and Perth.



FABRICATION SOLUTIONS

CNC Router Machine Details:

- Bed Size: (cutting area) 12.5m x 2.5m
- Cutting thicknesses up to 25mm.

Features and Benefits

- Increased accuracy of finished goods
- More efficient assembly processes – Increase productivity
- Reduce scrap – Maximise yield through superior nesting capability
- Pen marking by machine – Mark stiffener positions, center lines or hole positions
- Minimise warehouse space – Reduce overheads
- Flexible working area (see Technical Specifications)
- Complex Cutting – Architectural designs and 3D cutting
- Capral Aluminium can deliver precut marine kits of various sizes ready for assembly – fabrication can start immediately.

Drawing Requirements:

Simple shapes can be accommodated, or for more complex shapes and drawings;

- All parts should be nested into sheet/plate sizes as per Capral's stock availability
- All parts to be closed polylines (no splines or small entities)
- All parts should be exported in .dxf -format
- No entry or exit marks required
- All layers to be associated by colour
- All parts should have 15mm buffers
- Mark lines and text available as pen or scribe.

In addition to routing, Capral Aluminium can also manage a multitude of processing for our customers. Speak to us today about cutting, drilling, marking, shearing, punching, bending, rolling, welding, painting, coating and much more.

FINISHING CAPABILITIES

A range of finishing options ensures your extrusions can be easily matched to your project.

Powder coatings supplied by Interpon and Dulux, are available in an extensive range of colours, gloss levels, textures and metallic shades for complete colour freedom. They contain no organic solvents or heavy metal pigments such as lead. The architectural range qualifies for several Green Star credits ensuring a sustainable finish for your project, with durability for up to 7, 10, 15 and 30 years on colour and film integrity. For further information and to view the full colour range options, visit interpon.com.au or dulux.com.au.

Anodising treatment can provide superior surface corrosion protection as well as hardness.

Capral Aluminium can offer anodising as well as sheet anodising (on application) in film thicknesses ranging from 10 micron to 25 micron. 10 – 15µm is recommended for interior use and 20 – 25µm for external use. Capral strongly recommends the use of 25µm for coastal areas and equivalently harsh environments.

See the "Solid Aluminium Facade Solution" section of this guide for information on other anodised products. The "Project Showcase" section also features examples of anodising.

ALUMINIUM LIGHT FABRICATION

With our state-of-the-art machining equipment, we have the capability to supply semi-fabricated and finished rolled, and extruded products. Components can be supplied 'just-in-time' to reduce stock inventory, warehouse space and manufacturing time.



OUR VALUE ADD SERVICES

Focused on the requirements of our customers, a significant investment has been made in processing and fabrication facilities.

Fabrication facilities include:

- 7 Axis Robotic Machining Centre for product fabrication up to 17 metres
- CNC Machining:
 - Four Axis CNC machining centre for products up to 170mm (H), 400mm (W), 14000mm(L);
 - Three AXIS CNC machining centre for products up to 180mm (H), 200mm (W), 7000mm (L);
 - CNC extrusion and plate router for products up to 200mm (H), 2500mm (W), 12,500mm (L), maximum cut depth of 25mm
- Drawn products: Precision ovality, work-hardened tubing, outer diameter 40mm to 130mm, wall thickness 1.8mm to 10mm
- Knurling: Application of non-slip surface to extrusions
- Product edge de-burring
- Drilling: A cutting process that uses a drill bit to cut or enlarge a hole
- Cut Back: An off line saw used to recut the extrusion to less than a standard length
- Compound Cutting
- Mitre Saw Cut: Saw used to make accurate cross cuts
- Precision Cutting: Cut back to less than standard extrusion tolerances
- Sheet/Plate cutting and bending
- Slotting and Punching: used to 'punch' a hole, typically in a window or door extrusion
- Weather Pile Installation: Mechanically install weather pile to an extrusion
- Customer cutting dies
- Cold Drawing

- Complete manufactured pieces
- Flashings: Supplied from sheet and able to be guillotined or bent
- Anodising: Controlled oxidation of the aluminium surface by immersion into a dilute sulphuric acid. The oxide film is an integral part of the aluminium surface and is not an applied coating
- Powdercoating: Paint powder applied electrostatically and then cured under heat to allow it to flow and form a surface coating
- Adhesive tape applied to critical extrusions to protect surface from scratching
- Customer specific packaging.

These fabrication capabilities allow us to supply material closer to a final form, providing the option of variable sizes and finishes previously unavailable and creating a real opportunity for a one-stop-shop.



TRANSFORM YOUR MANUFACTURING LINE INTO AN ASSEMBLY LINE FOR INCREASED PRODUCTIVITY

We have continued to work closely with our major customers to understand their fabrication requirements and develop an enhanced machining capability for the Transport, Marine and General Engineering markets. Our state-of-the-art 7-axis robotic machining centre compliments and expands on our extensive value add capabilities. We can machine transport top and bottom rails, marquee beams, light poles, bus cant rails and main beams, just to name a few.

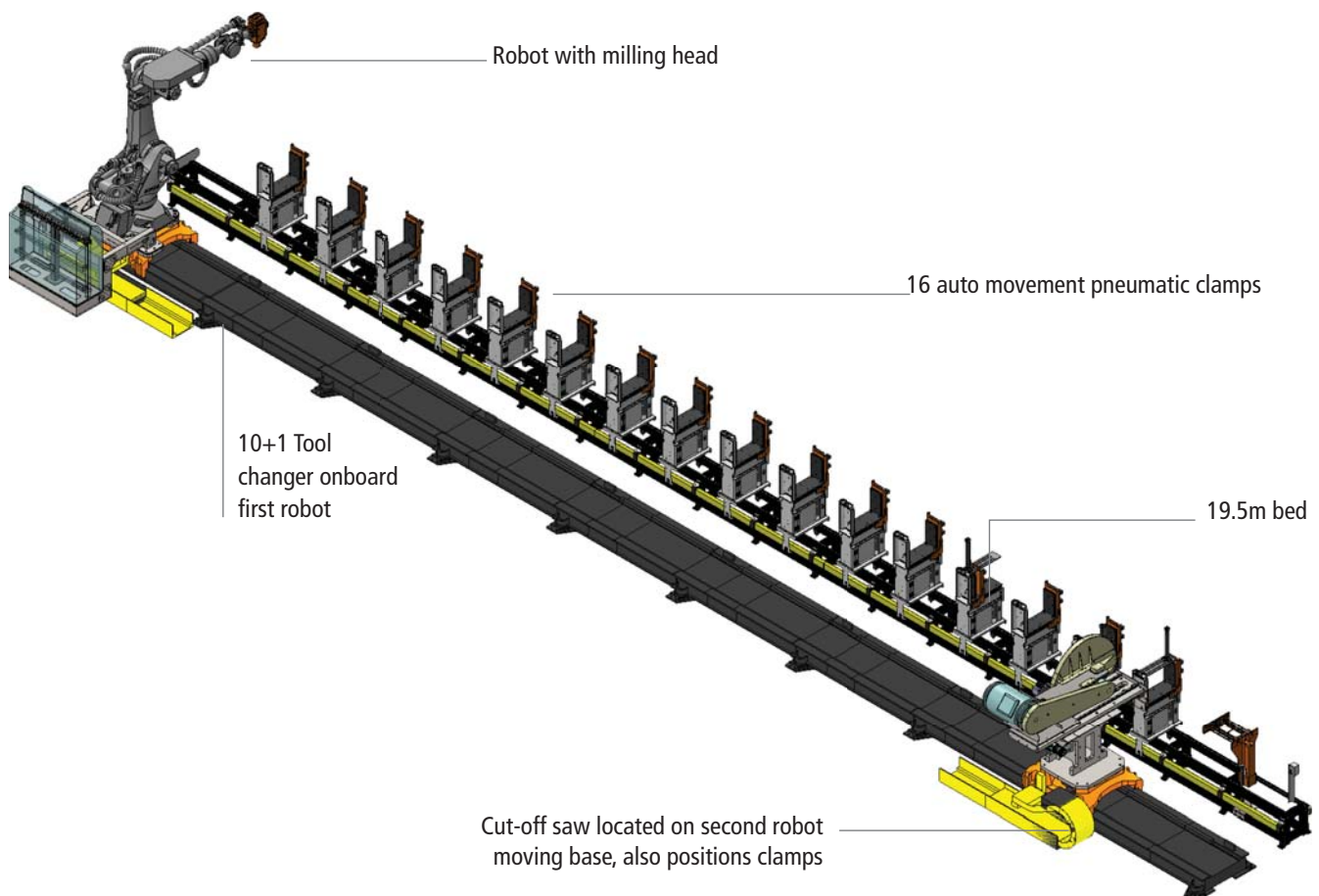
This robotic machining centre is a milling robot, mounted on a carriage that moves along a 19.5m track. It is designed to machine aluminium profiles of lengths up to 17m, with the clamping aperture accommodating profile sections of 450mm (W) by 350mm (H).

A 10+1 position tool changer is carried at the rear of the robot, moving up and down the track as the system itself moves. A second carriage is mounted on the robot bed containing a cut-off saw that can cut profiles perpendicular to the bed into sections. This carries the clamp movement peripherals and is the physical clamp repositioning device. The saw carriage also has a read head onboard for locating clamps on the track prior to movement.

Major components of the machine are:

- Clamping bed
- Robot track and two robot carriages
- Cut-off saw
- Robotic manipulator
- Milling Head
- Offline programming control panel for CAD/CAM design
- Online robotic control pendant.

Talk to us about how we can improve your productivity outcome and bottom line. Our experts are available to discuss your specific requirements.





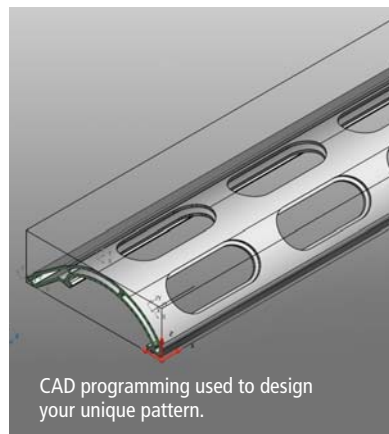
Unique routing and machining capabilities available.



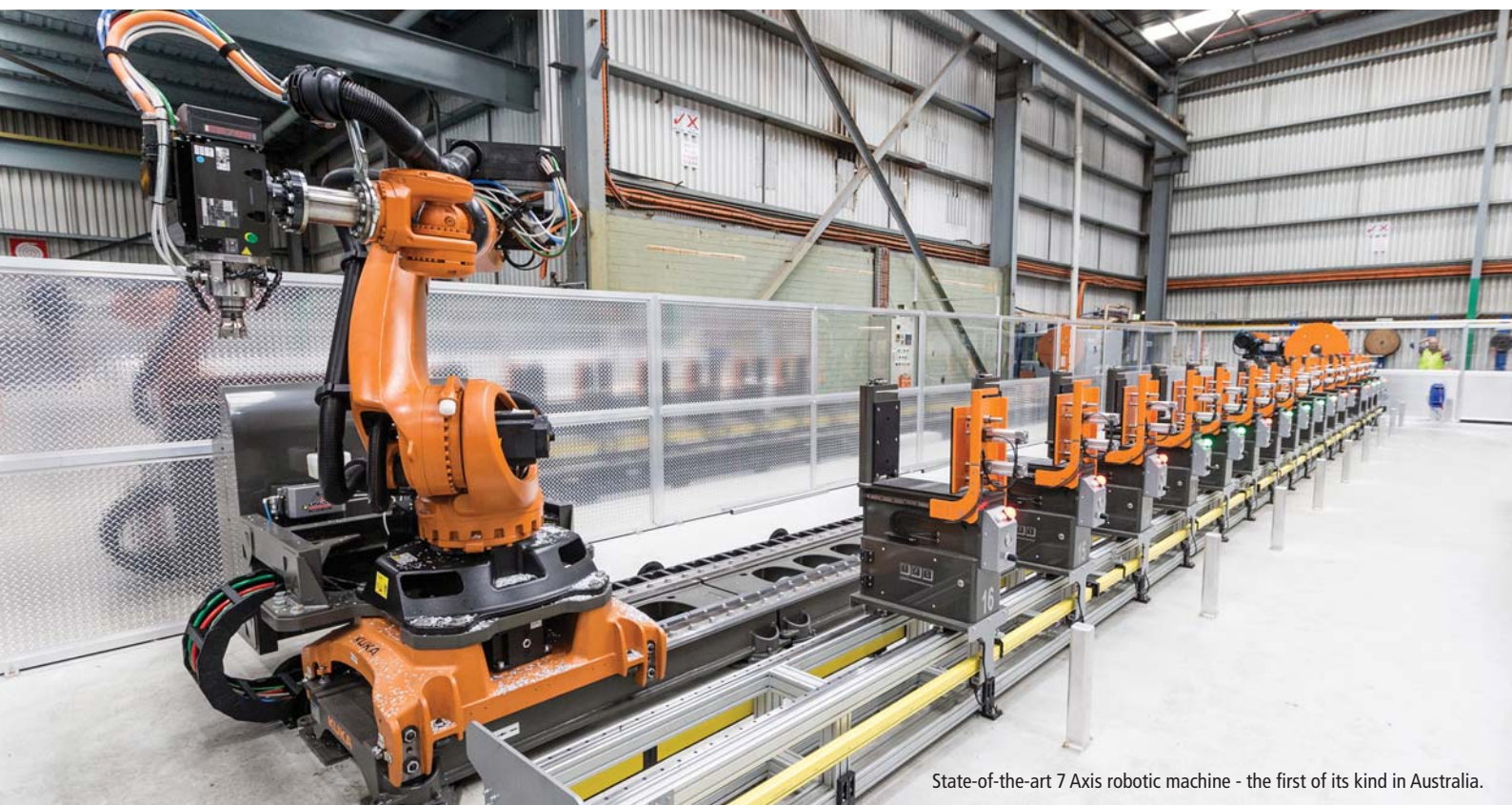
Designed to machine up to 17m lengths of aluminium profile.



Cut saw allows material to be cut to size.



CAD programming used to design your unique pattern.



State-of-the-art 7 Axis robotic machine - the first of its kind in Australia.

EXPORT SOLUTIONS

The Capral Aluminium team have been involved in the export of DNV certified aluminium sheet, plate and extrusions for over 25 years. We have exported to countries throughout Asia, the Middle East, the UK and the Pacific.

Setting the benchmark in export, we have established a well recognised reputation for quality and service that now encompasses a broad range of industries.

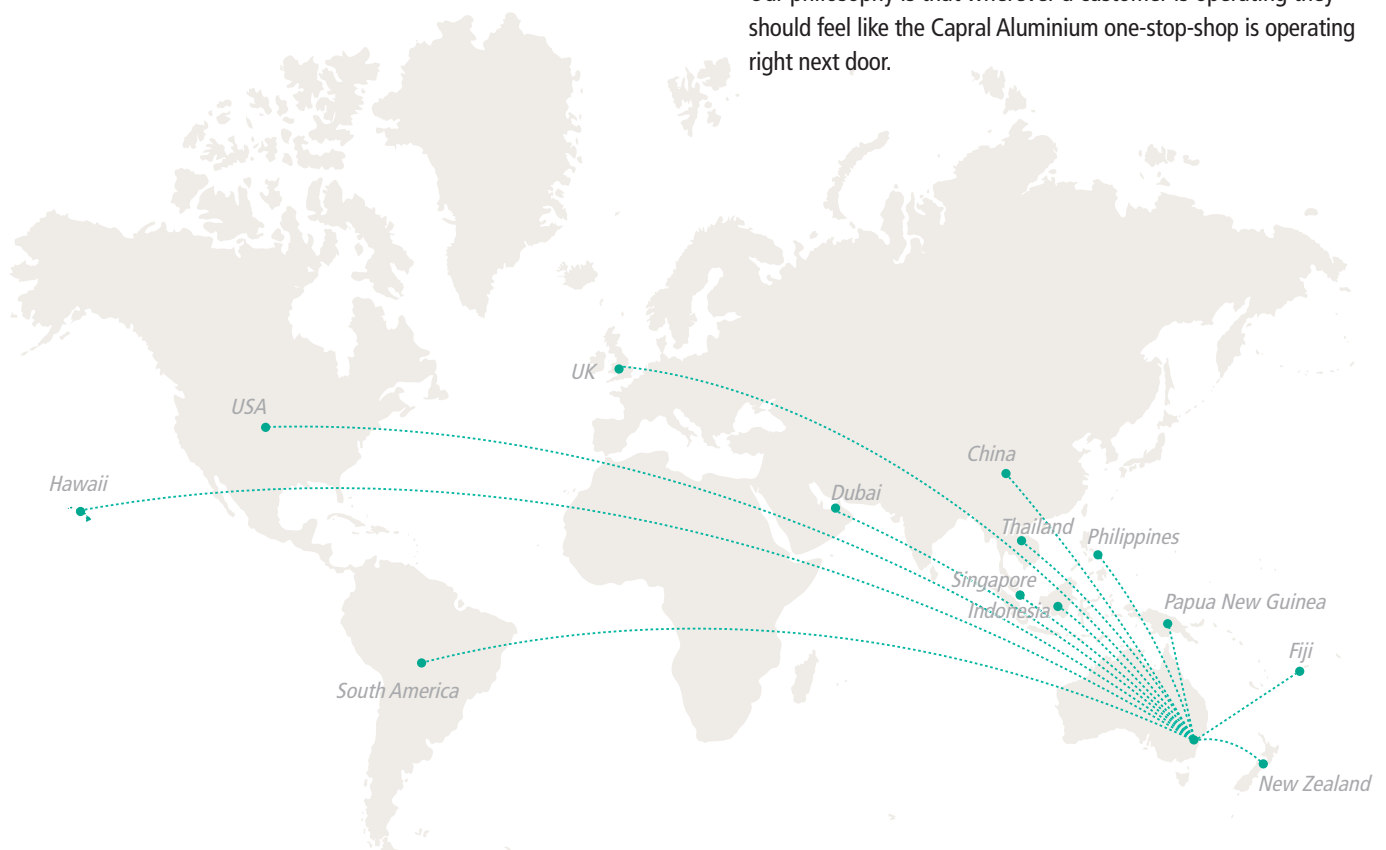
We are able to supply a complete package service, from materials, router cutting to packing and supply chain management - virtually anywhere in the world.

We are a leading supplier of router cutting and marking solutions, flat packed and delivered to customers internationally.

Working closely with our customers we pioneered profile cutting of aluminium sheet and plate for the marine industry – utilising CNC profile cutting machines.

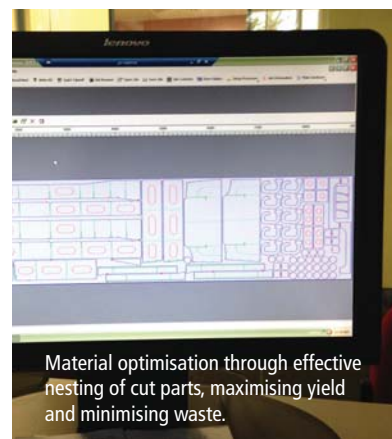
BENEFITS OF THE CAPRAL ALUMINIUM SERVICE

- Our team can assist with material optimisation through effective nesting of cut parts, maximising yield and minimising waste.
- Utilising our CNC router machines we can deliver precut marine kits of various sizes ready for assembly.
- Goods are securely packed into 40ft containers, CIF to any designated port. We can package and deliver the materials to suit the customer's specific requirements.
- We export to customers globally who build ferries, military craft, catamarans, pleasure yachts and fishing vessels. Vessels range in size from 4m - 100m in length, the concept is the same.
- Customers are able to take advantage of the benefits of dealing with Capral Aluminium and our established export capability. Our philosophy is that wherever a customer is operating they should feel like the Capral Aluminium one-stop-shop is operating right next door.





Goods are securely packed into 40ft containers, CIF to any designated port.



Material optimisation through effective nesting of cut parts, maximising yield and minimising waste.



Utilising our CNC router machines we can deliver precut kits of various sizes ready for assembly.



We export globally to customers for sizes ranging from 4m to 100m in length.

CAPRAL EXTRUSION MANUFACTURING CAPABILITY GUIDE

FACILITIES	LOG DIAMETER	ALLOYS USED			MEASUREMENTS			CIRCUMSCRIBING CIRCLE DIAMETER (mm)	
		Soft / Semi Structural	Hard / Structural	Extruded Finishes	Customer Length Range Saw (m)	Paintline LTM	Section Weight (kg/m)	Solid	Hollow
CANNING VALE 7" PRESS	178mm	6060 6063 6106		Architectural, Structural	3.0 – 6.8	3.0 – 6.8	0.1 – 2.5	160	120
ANGASTON 8" PRESS	203mm	6060 6063 6106	6005A	Architectural, Structural	3.0 - 7.2 Mill	3.7 - 6.5	0.1 – 5.0	230	210
CAMPBELLFIELD 9/12" PRESS	228/ 304mm	6060 6063 6101 6106	6005A 6061 6082 6351	Architectural, Structural	3.0 – 17 Longer/shorter lengths - refer to mill	–	2.0 – 20.0	420w x 60h	380w x 90h
PENRITH 8" PRESS	203mm	1350 6060 6063 6106	6005A	Architectural, Structural	3.0 – 9.0 Shorter lengths - refer to mill	–	0.2 – 3.0	190w x 40h	160w x 40h
BREMER - B1 8" PRESS	203mm	6060 6106		Architectural, Structural	3.0 – 7.2 Shorter lengths - refer to mill	3.5 – 7.0	0.1 – 5.5	200	180
BREMER - B2 7" PRESS	178mm	6060 6106		Architectural, Structural	3.0 – 7.2 Shorter lengths - refer to mill	3.5 – 7.0	0.1 – 5.5	165	130
BREMER - B3 7" PRESS	178mm	6060 6063 6106		Architectural, Structural	3.0 – 7.2 Shorter lengths - refer to mill	3.5 – 7.0	0.1 – 5.5	165	130
BREMER - B4 8" PRESS	203mm	6060 6063 6106	6005A	Architectural, Structural	3.0 – 7.2 Shorter lengths - refer to mill	3.5 – 7.0	0.1 – 5.5	250	180
SMITHFIELD 9" PRESS	228mm	6060 6063 6106 1350	6005A 6351 6082	Architectural, Structural	3.0 – 16.0 Shorter lengths - refer to mill	–	0.5 – 6.0	330	300

NOTES:

1. Cut lengths < 3m P.O.A. contact plant.
2. For shape dimensions outside those shown contact plant.
3. For section weight outside those shown contact plant.

CHEMICAL COMPOSITION LIMITS

EXTRUDED AND ROLLED PRODUCTS

ALLOY	MG	MN	FE	SI	CU	ZN	CR	MN+CR	TI	BI	PB	V	OTHER ELEM	TOTAL OTHER	AL
1350	–	≤0.01	≤0.40	≤0.10	≤0.05	≤0.05	≤0.01	–	–	–	–	≤0.02V+Ti	≤0.03	≤0.10	≥99.50
2011	–	–	≤0.70	≤0.40	5.00-6.00	≤0.30	–	–	–	0.20-0.60	0.20-0.60	–	≤0.05	≤0.15	Rem.
3003	–	1.00-1.50	≤0.70	≤0.60	0.05-0.20	≤0.10	–	–	–	–	–	–	≤0.05	≤0.15	Rem.
5005	0.50-1.10	≤0.20	≤0.70	≤0.30	≤0.20	≤0.25	≤0.10	–	–	–	–	–	≤0.05	≤0.15	Rem.
5052	2.20-2.80	≤0.10	≤0.40	≤0.25	≤0.10	≤0.10	0.15-0.35	–	–	–	–	≤0.05	≤0.05	≤0.15	Rem.
5083	4.00-4.90	0.40-1.00	≤0.40	≤0.40	≤0.10	≤0.25	0.05-0.25	–	≤0.15	–	–	–	≤0.05	≤0.15	Rem.
5251	1.70-2.40	0.10-0.50	≤0.50	≤0.40	≤0.15	≤0.15	≤0.15	–	≤0.15	–	–	–	≤0.05	≤0.15	Rem.
5454	2.40-3.00	0.50-1.00	≤0.40	≤0.25	≤0.10	≤0.25	0.05-0.20	–	≤0.20	–	–	–	≤0.05	≤0.15	Rem.
6005A	0.40-0.70	≤0.50	≤0.35	0.50-0.90	≤0.30	≤0.20	≤0.30	0.12-0.50	≤0.10	–	–	–	≤0.05	≤0.15	Rem.
6060	0.30-0.60	≤0.10	0.10-0.30	0.30-0.60	≤0.10	≤0.15	≤0.05	–	≤0.10	–	–	–	≤0.05	≤0.15	Rem.
6061	0.80-1.20	≤0.15	≤0.70	0.40-0.80	0.15-0.40	≤0.25	0.04-0.35	–	≤0.15	–	–	–	≤0.05	≤0.15	Rem.
6063	0.45-0.90	≤0.10	≤0.35	0.20-0.60	≤0.10	≤0.10	≤0.10	–	≤0.10	–	–	–	≤0.05	≤0.15	Rem.
6082	0.60-1.20	0.40-1.00	≤0.50	0.70-1.30	≤0.10	≤0.20	≤0.25	–	≤0.10	–	–	–	≤0.05	≤0.15	Rem.
6101	0.35-0.80	≤0.03	≤0.50	0.30-0.70	≤0.10	≤0.10	≤0.03	–	–	≤0.06	–	–	≤0.03	≤0.10	Rem.
6106	0.40-0.80	0.05-0.20	≤0.35	0.30-0.60	≤0.25	≤0.15	≤0.20	–	≤0.10	–	–	–	≤0.05	≤0.15	Rem.
6351	0.40-0.80	0.40-0.80	≤0.50	0.70-1.30	≤0.10	≤0.20	–	–	≤0.20	–	–	–	≤0.05	≤0.15	Rem.

MECHANICAL PROPERTY LIMITS

EXTRUDED

ALLOY	TEMPER	THICKNESS	TENSILE	YIELD	ELONGATION
1350	F H111	Not specified All	60	25	
2011	T6	≤25	350	220	8
6005A	T4	≤12	180	110	14
	T5	≤12	260	240	8
	T6	≤12	270	225	8
6060	T1	≤12	115	60	12
	T4	≤12	125	70	12
	T5	≤12	150	110	8
	T6	≤12	205	170	8
	T591	≤12	150-205	95-140	8
	T595	≤12	170-220	130-160	5
6061	T4	All	180	110	14
	T5	All	235	210	8
	T6	All	260	240	8
6063	T4	≤12	130	70	12
	T5	≤12	150	110	8
	T6	≤12	205	170	8
6082	T5	≤6	270	230	8
	T6	≤20	295	255	7
6101	T5	≤12	150	110	10
	T6	≤12	200	170	
6106	T4	≤12	130	70	12
	T5	≤ 12	150	110	8
	T6	≤12	235	210	8
6351	T4	≤150	185	115	16
	T5	≤150	260	240	8
	T6	≤150	295	255	8

SHEET AND PLATE

ALLOY	TEMPER	THICKNESS	TENSILE	YIELD	ELONGATION
3003	H16	1.6-4.0	165-205	145	4
5005	H34	1.2-6.3	135-180	105	5
5052	O	1.3-3.0	170-215	65	19
	H114	1.3-3.0	170-240	65	10
	H32	1.3-3.0	215-265	160	7
5083	H116	3.0-30.0	305	215	10
5251	H34	1.3-3.0	230-275	180	6
5454	H34	6.0-12.0	270-325	200	8

CHARACTERISTICS COMPARISON

EXTRUSION ALLOY/TEMPER

ALLOY	EXTRUDED TEMPER	MACHINING				FORMING				GAS & INERT GAS		WELDING		CORROSION RESISTANCE				ANODISING			
		D	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A
1350	H111																				
2011	T6																	NR			
6005A	T4																				
	T5																				
6060	T5																				
	T591																				
	T595																				
6061	T4																				
	T5																				
	T6																				
6063	T5																				
6082	T5																				
	T6																				
6101	T5																	NR			
	T6																	NR			
6106	T4																				
	T5																				
	T6																				
6351	T4																				
	T5																				
	T6																				

ROLLED ALLOY/TEMPER

ALLOY	SHEET & PLATE TEMPER	MACHINING				FORMING				GAS WELDING*				CORROSION RESISTANCE				ANODISING			
		D	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A
3003	H16																				
5005	H34																				
5052	O																				
	H114																				
	H32																				
5083	H116																				
5251	H34																				
5454	H112																				

A = Excellent; B = Good; C = Fair; D = Poor; NR = Not Recommended

*Under inert gas welding conditions Alloy/Tempera exhibit A = Excellent rating

ALLOY SPECIFICATIONS

EXTRUDED PRODUCTS

ALLOY	DESCRIPTION	APPLICATIONS
1350	<p>1350 is a high purity non-heat treatable alloy with a minimum aluminium content of 99.5%.</p> <p>It has very good extrudability, excellent corrosion resistance but low mechanical properties.</p>	<ul style="list-style-type: none"> • Principally used in electrical applications demanding the highest available electrical conductivity
2011	<p>2011 is a heat treatable free machining alloy designed to be used by the repetition machining industry. It is generally restricted to round rod and bar and its corrosion resistance is poor because of its high copper content.</p>	<ul style="list-style-type: none"> • Various machining components • Screws, bolts, fittings and nuts • Where good machinability and high strength are required
6005A	<p>6005A is the weakest of the three structural alloys (6005A, 6061 and 6082).</p> <p>As with all structural alloys it is difficult to produce thin walled or complicated extrusions in 6005A however, of the structural alloys, it has the best extrusion characteristics and mill surface finish.</p> <p>6005A is a heat treatable alloy with excellent corrosion resistance. It also has good weldability.</p>	<ul style="list-style-type: none"> • Ladders • Transport applications • Pylons • Platforms • Tubes and hollow sections • Pipelines • Applications that require greater strength than 6060 or 6063 alloy
6060	<p>6060 alloy is one of the most common alloys of the 6000 series. It is a heat treatable alloy with very good corrosion resistance and weldability.</p> <p>It is commonly used in window and door frames in residential and commercial applications.</p> <p>It is an ideal alloy for very complex cross sections and has a very good anodising response.</p>	<ul style="list-style-type: none"> • Architectural applications including door and window frames • Electrical components and conduits • Tube for irrigation systems • Curtain Walls • Lighting, furniture and picture frames • Carpet edging • Railings and fences • Applications where surface finish is important
6061	<p>6061 is a heat treatable alloy with mechanical properties slightly lower than 6082. It has good corrosion resistance but like 6082 its extruded surface finish is not as good as 6060.</p>	<ul style="list-style-type: none"> • Road, rail and marine transport • Scaffold tube • Structural members
6082	<p>6082 has excellent corrosion resistance and the highest strength of the 6000 series structural alloys. As with all structural alloys the extruded surface finish is not as good as alloys such as 6060 or 6063.</p> <p>The higher strength of 6082 has seen it replace 6061 in many applications.</p> <p>6082 has good weldability and when DNV (Det Norske Veritas) certified it is commonly used in marine applications.</p>	<ul style="list-style-type: none"> • Highly stressed applications • Bridges • Cranes • Marine applications • Other transport application
6101	<p>6101 is a heat treatable alloy specifically designed for electrical conductors with an electrical conductivity slightly higher than 6060 or 6063.</p>	<ul style="list-style-type: none"> • Used for electrical bus bars where mechanical strength is also a requirement
6106	<p>6106 is a heat treatable alloy with mechanical properties between 6060 and 6061/6082.</p> <p>It has excellent corrosion resistance and its good extrudability enables more complex shapes to be extruded than can be produced with 6061 or 6082.</p>	<ul style="list-style-type: none"> • Ladders • Tray bodies • Architectural shapes where increased strength is required
6351	<p>6351 is a heat treatable alloy very similar to 6082 with similar characteristics including corrosion resistance and strength. Many European specifications now call up 6082 in lieu of 6351.</p>	<ul style="list-style-type: none"> • Road, rail and marine transport • Structural members

ALLOY SPECIFICATIONS

ROLLED PRODUCTS

ALLOY	DESCRIPTION	APPLICATIONS
3003	<p>3003 is a medium strength alloy with very good resistance to atmospheric corrosion.</p> <p>It also has very good weldability and good cold formability. It is widely used for chemical equipment including silos and also caravan sidings.</p>	<ul style="list-style-type: none"> • Propellor plate • Cooking utensils • Chemical equipment • Sheet metal work • Storage tanks • Caravan sidings • Office equipment • Equipment for heating and cooling
5005	<p>5005 is a medium strength general purpose alloy with good weldability, good formability and good corrosion resistance.</p> <p>It is an extremely popular alloy and is the most commonly used grade of aluminium in sheet and plate form.</p> <p>It is suitable for decorative anodising and as a result is often used in architectural applications.</p>	<ul style="list-style-type: none"> • General sheet metal work • Architectural applications – cladding • Furniture • Packaging • Ducting in electrical cabinets
5052	<p>5052 is a medium strength alloy which has excellent corrosion resistance, particularly in marine atmospheres.</p> <p>One of the more popular alloys, 5052 has good weldability. It is significantly stronger than 5005 alloy and is widely used in the small boat market.</p>	<ul style="list-style-type: none"> • High strength sheet metal work • Tread plate • Small boats • Architectural paneling • Road signs • Truck fuel tanks
5083	<p>5083 is known for exceptional performance in extreme environments. 5083 is resistant to attack by seawater and general industrial environments.</p> <p>It has the highest strength of the non-heat treatable alloys but is not recommended for use in temperatures in excess of 65 degree.</p>	<ul style="list-style-type: none"> • Ship building • Drilling rigs • Rail cars • Vehicle and tip truck bodies • TV towers • Mine skips and cages
5251	<p>5251 is a medium strength non-heat treatable alloy which is often used as an alternative to 5052 although because of its lower magnesium content its mechanical properties are slightly lower.</p> <p>It has excellent corrosion resistance and weldability.</p>	<ul style="list-style-type: none"> • Sheet metal work requiring higher strength than available with 5005 • Tread plate • Small boats
5454	<p>5454 is a non-heat treatable alloy with a lower magnesium content than alloy 5083 and as such is suitable for elevated temperature applications.</p>	<ul style="list-style-type: none"> • Petroleum including bitumen road tankers • Chemical and process industries

PRODUCT SOLUTIONS

We don't just supply aluminium extrusions, we strive to develop speciality products and systems that extend beyond our core extrusion range and address the needs of the various industrial markets.



Mirvac Yarra's Edge Tower 5.
A classic anodising aluminium façade utilising the smartfix façade system.

SOLID ALUMINIUM FAÇADE SYSTEMS

There is growing concern with the high combustibility levels of plastic core materials. Capral answers this problem with solid aluminium sheet product offerings, to set a new standard in commercial and landmark building applications.

SMARTFIX® POWERED BY CAPRAL

Smartfix® delivers a facade cladding solution that is abrasive resistant, non-combustible and mechanically fixed, suitable for both low and high rise construction.

Smartfix® offers a more efficient way of creating a facade free of exposed fixings and sealants, acknowledging the importance of architectural and aesthetic demands, with an emphasis on flexibility, for both internal and external applications.

Specific process parameters of real metal anodising and sustainability of the environment are key underlying strengths of the new Smartfix® solid plate alloy façade solution.

The benefits of smartfix:

- Non-combustible solid aluminium sheet
- Concealed fixings
- Design flexibility provided by jointing and corner profiles
- Boot gasket assists with both acoustic and water performance
- Warranties provided for the complete system with recommended panels
- Onsite backup and technical support
- Two system options available – standard and captive
- Wide range of colour options
- Fully patent protected system – Australia, New Zealand, China and USA
- Red Dot Design Award – Honourable mention 2008.

CA55 SOLID ALUMINIUM SHEET

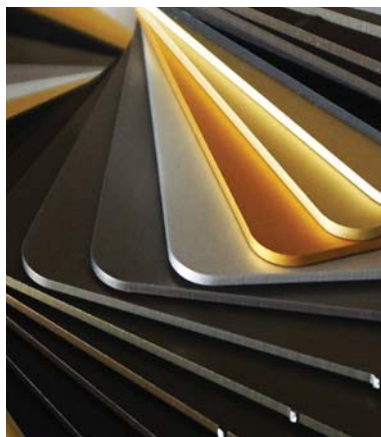
Capral's CA55 anodised quality 5005 H14 alloy is the new standard in commercial and landmark building applications.

Solid aluminium sheet, when anodised, offers a range of significant benefits when utilising aluminium architecturally. By protecting the aluminium with a relatively thin yet hard anodic layer, the resulting material is extremely durable, uniquely low-maintenance and non-combustible.

When anodising, the quality of the aluminium is an essential consideration to optimise your project's design aesthetic. After much research and development, Capral has created the CA55 Aluminium Sheet. Suitable for anodising, it overcomes previous issues with anodised aluminium sheets.

Advantages of Capral's new CA55

- Solid sheet that is non-combustible and 100% recyclable
- Specifically manufactured to meet the strict demands of the Architectural Façade market
- Manufactured from prime ingot, with stringent tolerances of rolling and chemical elements for a consistent surface finish after anodising
- Batch-tested for tighter control of colour variance, avoiding common issues such as "Zebra-Striped", "Dark-Toned" and "Pitted-Bright"
- Available in ex-stock or at short notice for larger projects.



QUIKLOK FENCING & PRIVACY SCREENS

Capral's Quiklok is one of the fastest and simplest fencing and privacy screening systems on the market.

Capral's unique Quiklok™ grip-spacers, available in either 10mm or 20mm depths, allow you to securely stack your slat system effortlessly like a grid. They are easily adaptable to accommodate different slat heights, as well as being stackable to provide increased spacings where required.

They conveniently face fill the cavity between the slat and channel, meaning no additional adaptors need to be inserted post project leaving no sneaky spots for spiders to start breeding.

Pole position is enhanced with the Quiklok™ Adaptor Channel allowing you to create corners quickly and easily. You can make a slat fence anywhere, anytime as the adaptor can be fitted to any secure surface such as timber, brickwork, and of course, aluminium.

Love the aerodynamic look? The Quiklok™ Elliptical Louvre Blade provides your screen with the truly unique look of louvres.

FEATURES OF THE QUIKLOK SYSTEM

- **Unique slat stacking system and concealed fixings** for a streamlined and aesthetically pleasing assembled product
- **Various slat sizes** available including 38mm, 65mm and 100mm heights
- **Genuine 67mm elliptical louvre blade option** with dedicated End Cap adaptors. Blades overlap at a 140° angle / 50mm pitch providing privacy and ventilation
- **Dedicated 10mm and 20mm Stacking Spacers** to achieve desired slat spacing
- **Universal Quiklok™ Adaptor extrusion fits to any secured surface**, enabling the slat system to be attached to any timber, brickwork or aluminium structure, where a screen is required. Teamed with aluminium surround frames to create custom panel modules and gates
- **Dedicated End Caps for the Quiklok™ Adaptor extrusion.** Functions to capture the stacked slats and neaten the final appearance of the assembly
- **Spacer Support Tool** available to assist with manufacture
- Dedicated components are available to achieve square and mitre cut joints for surround framing
- **Dedicated End Caps** for terminating 50mm x 50mm posts, creating a professional finish
- **Self drilling fixings** specific for slat assembly requiring no pre-drilling
- **Quiklok™ Components** produced in a durable UV stabilised material for long life
- **Various slat and louvre finishing options** including anodised, powdercoated colours and timber look
- **Pattern Stacking** is possible using different height slats or by adding the look of louvres to top off your Quiklok™ Screen.

For further information, download the Quiklok information brochure at capral.com.au.



65mm Powdercoat slat



100mm DecoWood Slat



Pattern Stacking



Elliptical Louvre Blades



ALUMINIUM SEATING SYSTEMS

Playgrounds, school ovals, gardens, parks, pools and marine vehicles... Capral Aluminium seating systems caters for anywhere that people want to sit comfortably and relax, especially in outdoor environments.

Capral's seating can be placed in a variety of formations, including formal and informal settings to ensure advantage is taken of shade, view, space and to maximise the number seating available in a given area. They are an attractive and low maintenance seating solution that will last for years.

Capral seating stays cooler to touch on hot sunny days. This is paramount in outdoor environments such as schoolyards, stadiums and sporting venues, particularly where school children are concerned. Made from durable, low maintenance aluminium, the Capral Aluminium Seating systems come in a variety of configurations.

Bench Seating

Available with and without backrests, in either free-standing or with concrete fixing configurations. Choose from 4 or 6 metre lengths.

Free Standing Stackable Seating

The stackable seating is strong, lightweight and can save on storage space. Stackable seating provides versatile seating for four people (or up to six children). They are designed for schools, halls and assembly rooms where 'seating space' must become 'open space' quickly and easily. Built for rugged use, light to lift and stack, these multi-purpose seats come in five classic colours which will last for years to come.

Picnic combination table and seat settings.

Our table and seating systems are ideal for parks and schools. Available in either 2 or 4 sided configurations, free standing with provision to bolt down and in either 4 or 6 metre lengths.

FEATURES AND BENEFITS

Lightweight and easy to install

- Lightweight and easily fabricated, offering substantial savings on installation costs
- Long lasting and able to withstand harsh elements, making it suitable for wet or ocean environments
- Attractive anodised finish requires minimal maintenance
- Will not stain, crack, warp, rust or splinter, and does not require painting, making it an appealing alternative to other seating materials.

Smooth and practical

- Smooth round edges and protective end caps
- No snagging or marking of clothing
- Vandal resistant and durable.

Versatile

- Varying heights to accommodate both adults and children
- Seat supports available in 300mm, 350mm and 400mm heights
- In ground or above ground fixing.

Finishes

- Anodised and powder coated finishes
- DecoWood™ for a natural finish that helps blend into natural environments. This photo imaging technology transforms the look of aluminium into a timber finish. Available in a wide range of colour and grain choices, backed with a 10 year warranty on all finishes.



QUBELOK MODULAR SYSTEM

The Qubelok system lets you design and create furniture, storage and display items. The clean lines of this system, combined with strong yet lightweight material provides many solutions for custom fabrication work.

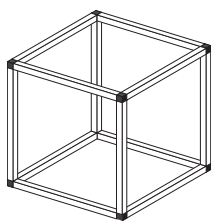
Qubelok is a light fabrication system of square hollow aluminium tubes and accessories including connectors, castors and end caps. Qubelok's lipped tubing also allows you to inset timber, particle board, glass or perspex for shelving or surface tops.

Available in a range of decorator colours and accessories, the only limit will be your imagination.

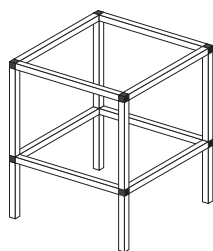
It is perfect for creating lightweight projects such as bookshelves, frames, storage and display units, stands, planter boxes, greenhouses, even animal enclosures...if you can think of it, you can build it. Anyone can put together the Qubelok system. All you need is the square aluminium tubing, connectors and your toolkit of hacksaw, file for smoothing rough edges and a tube of adhesive.

SHAPE EXAMPLES

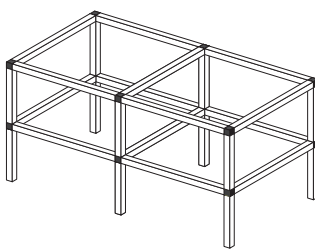
Versatile, solid geometric combinations are possible. Shapes like those illustrated below are the strongest. Connecting shapes make for the strongest units.



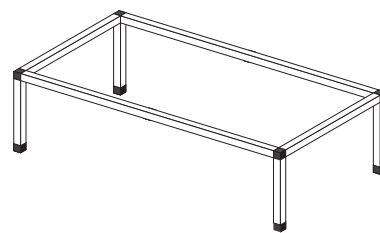
✓ Cube shapes are strongest



✓ Longer legs need a stiffening cross member.



✓ Usually all joints should be supported by downward struts.



✓ Legs up to 300mm long may be used on structures. Up to 400mm long on light duty tables and stands.

SHELVING OPTIONS

Qubelok lipped tubing allows you to inset timber or glass shelving to suit your needs. Flip the tubing over to create a low or high set lip for a flush finish and design flexibility.



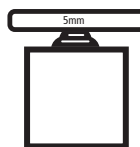
Timber

Shelves or table tops of 17mm timber or particle board fit neatly on the low set lip support.



Glass

When fitting glass or perspex, turn the lipped tubing over to set the lip height to 6mm.



Bumpons

It is possible to support glass when using Bumpons to cushion the glass.



QUBELOK
MODULAR SYSTEM

PROJECT SHOWCASE

Over the decades, Capral has worked closely with many of Australia's companies to shape the landscape of projects in the areas of commercial and residential buildings, transport, marine, defence and industrial manufacturing. Defined by a timeless passion for collaboration and ingenuity, Capral continues to guide Australia's industrial, commercial and residential development into an exciting future.



Optus Stadium, Perth.
Anodised Aluminium from the Capral Bronze colour range.

OPTUS STADIUM, PERTH

Optus Stadium is a world-class multi-purpose venue. The stadium and the surrounding park is located east of the Perth Central Business District and is transforming the way fans experience major sporting and entertainment events, re-shaping this Australian city and its landscape in the process.

The most striking feature of this innovative design is its bronze façade that wraps the whole stadium. The five-tier façade is constructed from Capral's anodised aluminium bronze range, embedded with a LED light system. The design reflects the state's unique geology and the colours are representative of WA's Kimberley region. It is a true testament to engineering ingenuity.

The surrounding Community Arbour, linking the new Stadium station to the Swan River is a key public art

element to the project, designed to incorporate local Aboriginal heritage.

At over 400m in length, the Arbour required 3,000+ perforated powder-coated aluminium artwork panels to be manufactured by Capral.

The full scope of Capral's involvement in the Optus Stadium project included the manufacture and supply of geometric extrusions, sheet and plate products, plus aluminium seating.

Build Date

11 December 2017

Architects

Hassell, Cox and HKS
(collaboration)

Builder

Brookfield Multiplex

Arbour

Design & construction
MakMax, Kinzi &
Structural Dynamics Aust



RACV CAPE SCHANCK RESORT, VICTORIA

The architecture embraces the raw landscape of the site and the warmth of the copper toned facade is reflected within the luxurious accommodation.

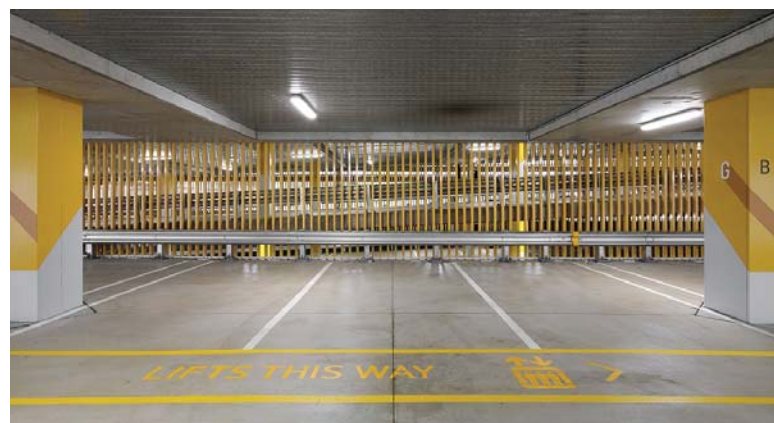
Capral collaborated with IND Windows to provide the project's window and door framing systems. The glazing required that each sliding door would open with ease and that the view would be elegantly framed in bronze. With hidden door heads in ceiling cavities and consistent sill levels, the frames virtually disappear, forming a slender transparent support for the structure above.



WESTMEAD CAR PARK, SYDNEY

Sunlite Australia designed this project using an exclusive Capral 100x50 RHS extruded louvre blade, utilised in a custom screen building façade.

A unique Sunlite edge of slab bracket and fixing system, was designed to allow louvre blades to run from the ground floor to seventh level/rooftop, creating a continuous appearance whilst maintaining natural ventilation.



AUSTAL SHIPS

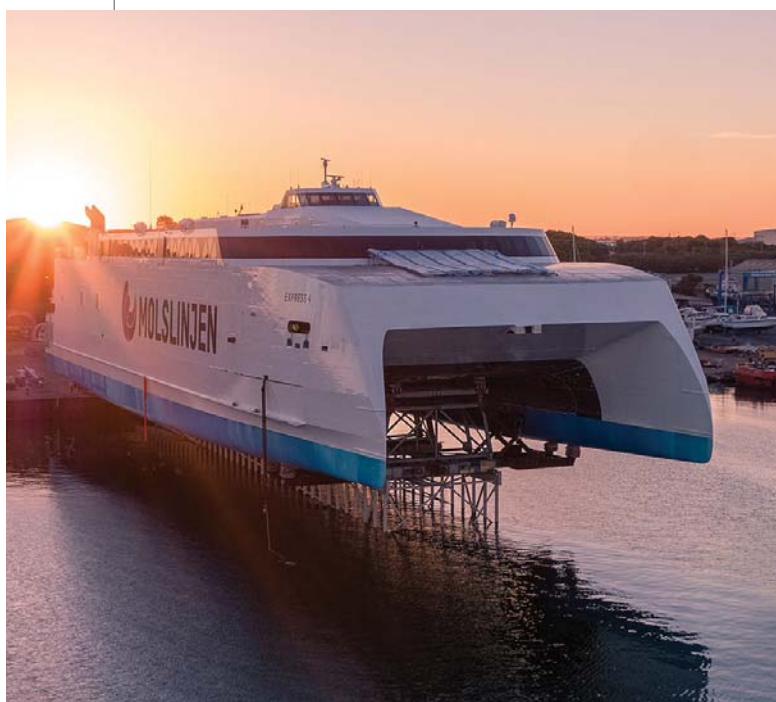
Austal is a global shipbuilder and defence prime contractor, based in Perth WA. Capral has a long-standing relationship with Austal as a specialist supplier of aluminium product.

The Molslinjen 109 metre high speed commercial RoPax ferry - Express 4, is a recent project. Its enhanced design is based on Austal's proven large catamaran platform, with a new optimised hull shape and vessel weight minimisation solution that delivers better performance and greater fuel efficiency, to achieve lower operating costs and deliver an enhanced passenger experience.

INCAT

Australian shipbuilder Incat is renowned for construction of high-speed lightweight catamarans. Capral has been a specialist supplier of aluminium product for various Incat projects including the 2018 launch of a 33 metre commuter passenger vessel built for Manly Fast Ferries, Sydney.

Another recent project was The Express 3, a 109 metre high speed vehicle-passenger ferry for Danish operator Molslinjen, becoming the fourth Hobart-built catamaran in the company's current fleet.



TRANSPORT (VARIOUS)

Capral is a leading aluminium supplier in the transport industry and is held in high regard as a reliable, one-stop-shop for all aluminium requirements, including rolled product, extrusions, and value add activities. Capral has a long standing history of servicing some of Australia's most recognised truck and trailer companies, and has an impressive record of supplying to all transport industry sectors including trucks, trailers, toolboxes, bull bars, ute trays and more.



URBAN ART (VARIOUS)

Capral has worked with many Australian artists in the creation of urban art installations, throughout Australia. The Capral team worked closely with the individual artists, working from sketches and plans, to realise their vision.

Aluminium is corrosion resistant, strong, lightweight and long lasting. It is a metal that may be cast, rolled, drawn or extruded and may be finished by polishing, anodising or coating to achieve a myriad of visual and functional effects.



Murmur by Perth artist Anne Neil.



Lismore Regional Council, NSW.



Parapool in Darwin, Sculpture and 70m facade by North Queensland artist Jill Chism.



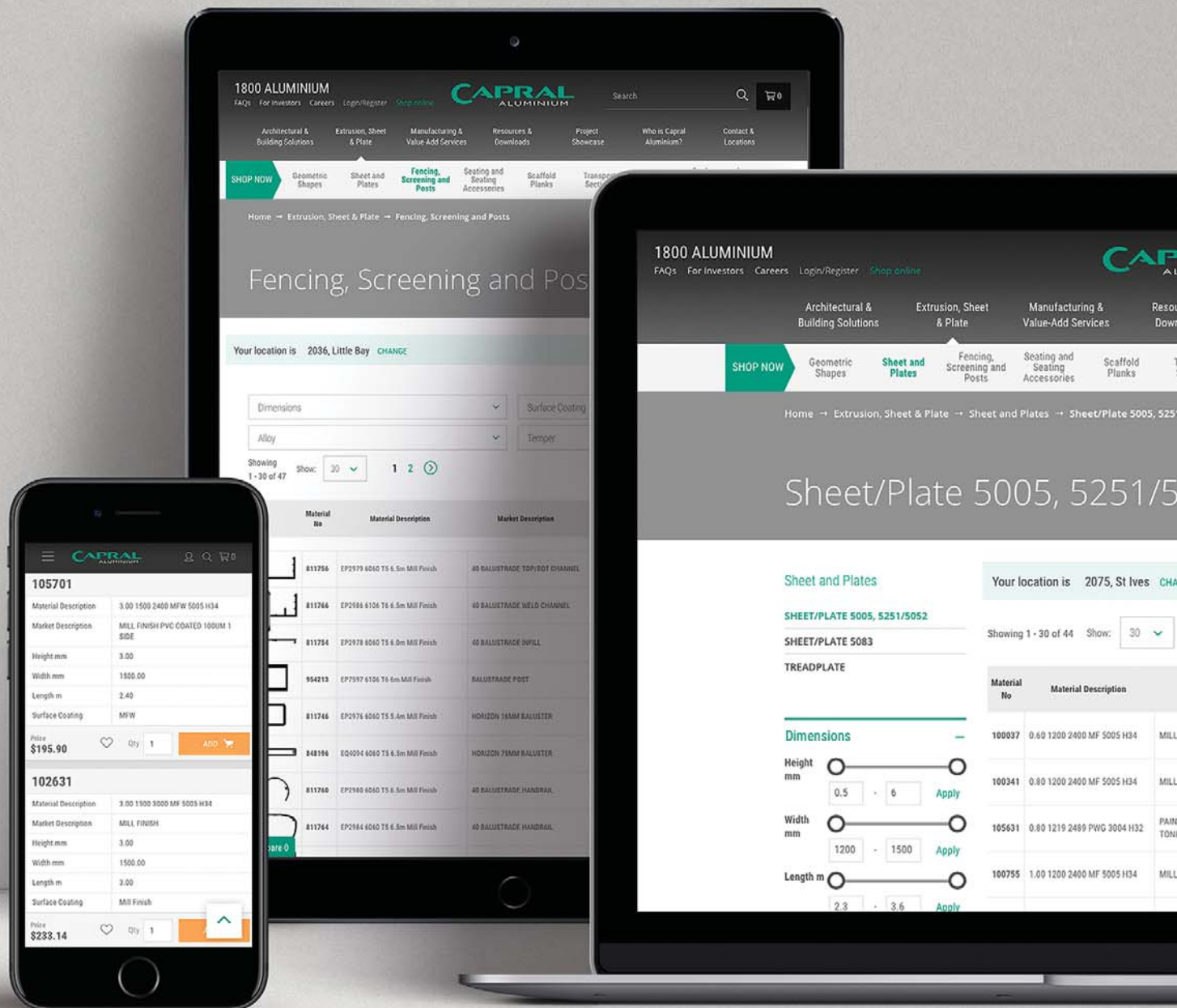
Cardinia Arts Centre, Pakenham, VIC.



Waiting in the Wings by Denise Pepper.

ANY ALUMINIUM. ANY DEVICE. ANY TIME.

Order online 24/7 on desktop, phone or tablet.



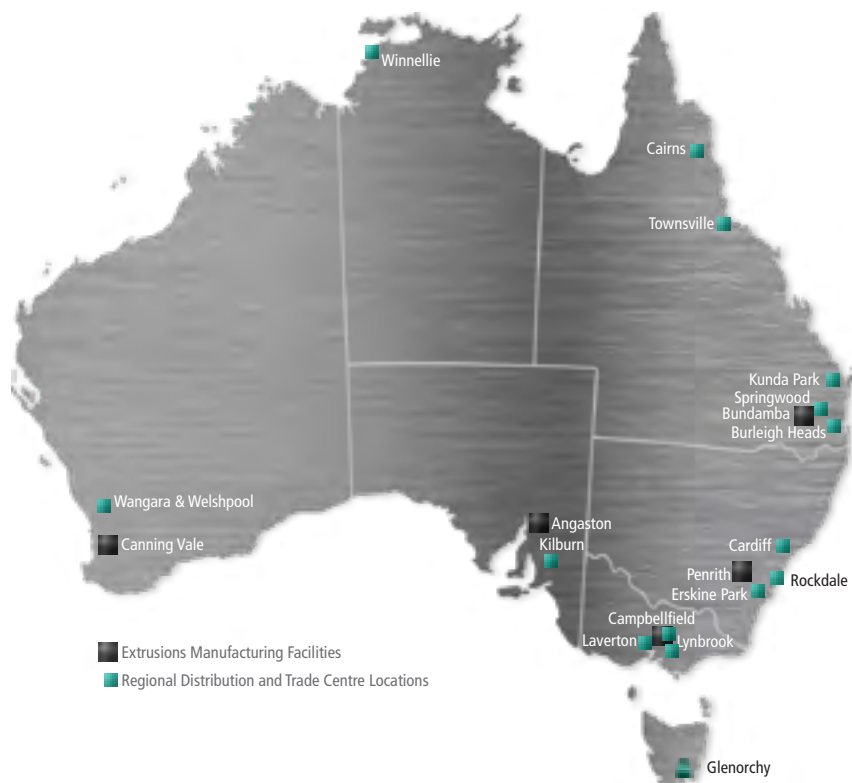
Introducing the newly enhanced and updated Capral estore, redesigned to make it even easier to order from our core range of industrial Aluminium products.

Optimised for hand-held devices, the estore offers a number of new features including the ability to save and recall your favourite products; easily reorder from previous transactions;

find products with our improved filtered search engine, as well as receiving online specials and offers. But some things remain unchanged, you can still order 24/7 with most items available for pickup in store or next business day delivery.*

It's just another way we're improving the service to our customers. Experience the estore today at **capral.com.au**.

*For metropolitan deliveries on orders placed before cut-off time.



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