

the official magazine of  **Composites**
Australia

Connection

Magazine

Issue 70 • September 2026

Gets you



Inside

COMPOSITES IN AUSTRALIAN MOTORSPORT AND RESTOMODS

Garry Rogers
Motorsport's

Renner Auto
DY Composites

Borland Racing
King's Fibreglass

Sydney Composites
Beacham CFE/Gurit

allnex
GOLD SPONSOR

 **COLAN**
AUSTRALIA
BRONZE SPONSORS

 **CohesiveTec**

 **H.B. Fuller**
COPPER SPONSORS



HETRON® CORROSION & FIRE RETARDANT VINYL ESTER RESINS

Providing unmatched durability for infrastructure, transportation and architectural applications

allnex, the leader in innovative composite resins in Australia and New Zealand, is proud to partner with **ALTA Performance Materials** to offer a full range of HETRON® Resins for a wide range of Composite applications.

With over 60 years of successful application experience, Hetron epoxy vinyl ester resins have a legacy of excellence in fiberglass reinforced plastics (FRP) and have been specified by architects and engineers the world over to replace traditional materials of construction from steel, aluminium and wood to stone and concrete.

In addition to being fire retardant, HETRON® resins provide unmatched durability for infrastructure, mass transit and architectural applications.

If your **focus** is on delivering high performance products, **Hetron** is the right choice.

Contact us by calling **Customer Service** on **1800 789 607** or visit www.allnex.com



Contents

Issue 70 • September 2026



Feature Article

GRM now returns to Supercars, the category it left in 2019, with a wildcard entry for the 2026 Bathurst 1000 putting the team back on the grid for the first time in six years. **Page 8**

President's letter	4	Forty years, Three Continents:	16
VIEWPOINT		Borland Racing	
Composites in Australian Motorsport:	5	Standing in for Drivers:	18
Built in Australia, Raced at 300 km/h		King's Fibreglass	
Built In-House:	8	Grounded in Carbon Fibre:	20
Garry Rogers Motorsport's Manufacturing Edge		Sydney Composites	
Rebuilding the Past with Today's Engineering:	12	Education and Training:	22
Renner Auto		Building the Composites Workforce	
The Manufacturing Behind Motorsport:	14	Engineering the Beacham CFE in Carbon:	24
DY Composites		Gurit	
		SPONSORED FEATURE	27
		Local Capability:	
		Security of Supply	
		allnex	



Front Cover

Supercars can push beyond 300 km/h, placing significant loads on components. The demands on both materials and workmanship become clear. Credit Edge Photographics/Supercars. **Page 5**



DY Composites: Aluminium and carbon fibre inlet manifold for a Nissan SR20 engine, produced using resin transfer moulding (RTM). Designed and tooled by Daniel Young. **Page 14**



Connection Magazine
Is the official magazine of Composites Australia Inc.
ABN 28 611 244 813

Next issue: November 2026
Copyright © Composites Australia Inc.

Publisher:
Kerryn Caulfield
Executive Director

Editorial inquiries:
kerryn@compositesaustralia.com.au

Design:
Stefan Morris
smasheddesigns.com.au

Kerryn Caulfield
Composites Australia Inc.
0412 556 698
kerryn@compositesaustralia.com.au
compositesaustralia.com.au

President's Letter

LinkedIn: compositesaustralia
Facebook: compositesaustralia
Twitter: @CompositesOz



Lynden Vikingur, **President**

It is a pleasure to introduce this edition of Connection, which turns to composites in Australian automotive, motorsport in particular. The opening article, Composites in Australian Motorsport: Built in Australia, Raced at 300 km/h, sets the scene for the profiles that follow.

My own background sits closer to the water than the track. Vikal International has built marine craft for well over three decades. More recently, Vikal Modular has carried those composite and

fabrication skills into modular construction. That same grounding in craft and engineering has drawn us into restoring cars, work built on a similar premise to this edition: precision engineering, sophisticated design constructed with advanced materials and often paired high tech electronics.

On the racetrack, composites are pushed to extremes. Weight, stiffness and durability are not balanced on paper. They are measured on the track, in tenths of a second, and in components that must survive impulsive, dynamic loading events, kerb strikes and bump impacts, layered on top of the steady torsion, bending and shear every chassis carries, without failure. That discipline has pushed our members to invest in fabricating equipment, refine layup, tooling and quality control years ahead of where the same techniques land in broader manufacturing.

This edition profiles the workshops behind that performance. Garry Rogers Motorsport (GRM) shows what in-house manufacturing capability looks like when quality,

turnaround and precision cannot be outsourced. Borland Racing Developments, marking forty years of work across three continents, shows the same depth of experience internationally. DY Composites and Sydney Composites, a newer generation of suppliers, bring advanced carbon fibre technology to motorsport components. King's Fibreglass demonstrates a different application of fibre reinforced manufacturing within the sport. Renner Auto and Beacham go beyond my restomods, using carbon fibre and current engineering to recreate classic cars, with Gurit engineering the carbon chassis beneath the CFE.

Alongside these profiles, this issue examines how the composites workforce is built, and where the next generation of laminators, engineers and technicians will come from. Motorsport shows what our industry can achieve at the limit. Training and education sustain it.

Warm regards,
Lynden Vikingur
President, Composites Australia Inc.

Composites in Australian Motorsport: Built in Australia, Raced at 300 km/h

Written by Kerryn Caulfield, Executive Director, Composites Australia Inc and Scott Compson, Trainer and Assessor, the Australian Institute of Engineering.

Every splitter, wing, dashboard, roof, bonnet, diffuser and underbody panel on an Australian racing car faces a relentless trial: airflow at speeds pushing 300 km/h, bone-rattling vibration, heat, friction and the unpredictable, harsh jolt of contact.

Composite materials have become an essential part of that environment. Carbon fibre is the headline material where low mass and high stiffness matter most, but it is only part of the story. Glass fibre, aramid and hybrid laminates, often combined with lightweight core materials, also have an important place where cost, impact behaviour, repairability and production method influence the choice. Aluminium and alloy steels remain important across the car as well.

The stakes are high. A component has to perform consistently under race conditions while remaining

secure, predictable and safe. A failure can end a competitor's race, but even relatively minor damage can cost performance. A restricted brake-cooling duct can reduce cooling and compromise brake performance, while damage to a front splitter or undertray can reduce downforce and cornering speed. More serious failures can scatter debris across the circuit, create a hazardous projectile or contribute to a race interruption. Reliability also matters to teams, manufacturers and sponsors, where a highly visible failure can cost track time, results and reputation.

Behind many of these components is a highly capable Australian composites industry, producing everything from one-off aerodynamic parts and replacement panels to tooling, moulds and complete composite assemblies. In motorsport, materials are pushed hard — and the lessons learned on the track continue to drive better manufacturing, repair and processing

techniques throughout the wider composites industry.

This edition of Connection dives deeper into that industry: the Australian companies manufacturing, repairing and supporting composite components for Supercars, Trans Am, and the prestige GT and customer racing programs competing across the country. Each category operates under different technical rules, cost structures and performance demands, but beneath them all lies the same need for skilled people who understand materials, processes, precision and the consequences of getting it wrong.

SUPERCARS: PERFORMANCE WITHIN TIGHT CONTROLS

The category operates under a tightly controlled homologation system that defines how each model is built, with extensive parity testing used to keep the different manufacturers closely matched. Composite bodywork and



VIEWPOINT

aerodynamic components play an important role, where low mass, stiffness, repeatability and accurate control of shape all matter.

But in Supercars, lighter is not automatically better. The car and some removable body and aerodynamic components must meet regulated minimum weights, with ballast added where required. For composite fabricators, that means controlling dimensions, laminate quality and weight from one part to the next. If a damaged component gains weight through repair, ballast can be reduced while still meeting the minimum. In this environment, every layer of reinforcement and every gram of resin matters.

Weight also matters because of where it sits in the car. Overall vehicle weight, weight distribution and the placement of ballast influence handling, while centre of gravity is also measured and controlled in some categories. Removing weight high in the body can have a very different effect on the car from removing the same amount close to the floor. For the composites industry, this is an important distinction. Motorsport is not simply about making carbon fibre components as light as possible. It is about controlled mass, repeatability, structural performance, dimensional accuracy and understanding exactly where that mass sits on the vehicle.

The current Supercars field adds another dimension. Ford Mustang and Chevrolet Camaro are now joined by Toyota's GR Supra, bringing three

manufacturers to the grid in 2026. The Holden brand was retired in 2020, although the Commodore continued competing in Supercars until the end of 2022 before the Camaro arrived with Gen3 in 2023.

Each homologated model has its own controlled body surfaces and manufacturer-specific components, while the category works to achieve aerodynamic parity between them. For composite manufacturers, that places a premium on accurate tooling, controlled manufacturing, repeatable laminate quality and close dimensional control. Small variations in shape, stiffness, fit or mass can have consequences well beyond appearance.

BATHURST: WHERE EVERYTHING IS TESTED

Mount Panorama's 6.213-kilometre circuit combines high-speed straights, heavy braking, rapid changes in direction and the unforgiving descent through the Esses. On Conrod Straight, Supercars can push beyond 300 km/h, placing significant loads on splitters, underbody panels and other aerodynamic components. Add vibration, heat, friction, kerb strikes and the unpredictable jolt of contact and the demands on both the material and workmanship become clear. A component failure here can mean far more than losing a grid position. It can reduce performance, end a race, damage other parts of the car, create debris on the circuit or force a team into an urgent repair under

race-weekend pressure. That is where design, manufacturing quality and repairability all come together.

TRANS AM: A DIFFERENT COMPOSITE BRIEF

Drawing on the heritage of America's Trans-American muscle-car racing, the Australian series uses purpose-built race cars carrying the familiar shapes of Mustangs, Camaros and Challengers. Cost control is central to the category, so the composite story is less about pursuing the lightest possible component at any cost and more about producing bodywork that is consistent, durable, repairable and suitable for repeated competition. That creates a different brief from Supercars, but one that places just as much emphasis on workmanship and practical repair.

GT RACING: PRECISION REPAIR AND MANUFACTURER CONTROL

Then there is the prestige GT and customer racing sector. Manufacturers including Audi, Mercedes-AMG, Lamborghini, Porsche, Ferrari, Aston Martin and McLaren supply highly developed GT racing cars to customer teams around the world, including those competing in Australia.

Here, the role of the local composites industry changes again. The cars and many of their original composite components are manufactured



overseas, so Australian expertise is often focused on inspection, damage assessment, repair and replacement in accordance with manufacturer requirements.

The question is not simply whether a carbon component can be repaired, but whether it can be repaired correctly, within the permitted limits and returned to service with confidence. Where repair is not permitted or damage exceeds the allowable limits, replacement becomes the only option. That requires technicians who can recognise impact damage, delamination, crushed core, fibre failure and damage that may extend well beyond what can be seen on the surface.

ADVANCED COMPOSITES — AGAINST THE RACE CLOCK

Motorsport draws on many advanced-composites techniques also seen in industries such as aerospace: controlled laminating, vacuum consolidation, prepreg processing, bonded construction, controlled curing and detailed inspection.

What makes racing different is the clock. Damage sustained in one session may need to be assessed and dealt with before the next — sometimes within hours — creating an unusual balance between precision and speed. A repair still has to follow the correct process, but the workshop may be operating in a pit garage, at night, with the next practice session or race already counting down. There is little room for shortcuts, because a repair that fails at speed can have consequences far beyond a lost lap.

ACROSS SUPERCARS, TRANS AM AND GT RACING, THE CONSTANT IS PEOPLE.

Advanced materials and sophisticated manufacturing processes only work when technicians understand fibre orientation, resin systems, core materials, bonding, curing, surface preparation, tooling, inspection and repair. They also need the judgement to recognise when a component can be repaired,

when it must be replaced and when something that looks acceptable on the surface may be hiding more serious damage underneath.

For plenty of young rev heads, working on the engineering behind a Supercar or repairing the carbon structure of a GT3 car is close to the ultimate job. But enthusiasm for racing is only the starting point.

The industry needs people who can combine practical composite skills with disciplined processes, technical understanding and the ability to work accurately under pressure. The pathways into that work can run through Australia's Vocational Education and Training system or through engineering education, with each developing different parts of the capability the industry needs.

The following pages look at both: what is currently being taught, where training has kept pace with modern composite technology, where gaps remain, and what it takes to develop technicians and engineers capable of meeting both the precision of the composites workshop and the unforgiving clock of a race weekend.

In Trans Am, the composite story is less about pursuing the lightest possible component at any cost and more about producing bodywork that is consistent, repairable and suitable for repeated competition. Image: Jules Ingall, Trans Am Cup Series

The Supercars grid at Mount Panorama, where composite bodywork must meet strict shape and weight rules. Edge Photographics/ Supercars



grmotorsport.com.au

Built In-House: Garry Rogers Motorsport's Manufacturing Edge

Written by Kerry Caulfield, Executive Director, Composites Australia Inc.
and Scott Compson, Trainer & Assessor, Australian Institute of Engineering

A tube-frame Ford Mustang built for the Trans Am grid, an open-wheel S5000 chassis, a Peugeot 308 shaped for touring car racing and an ex-Triple Eight Chevrolet Camaro bound for October's Bathurst 1000 wildcard sit under the same roof in Melbourne's eastern suburbs: four race cars built or maintained to four entirely different sets of rules, by the same team of engineers and fabricators.

Six decades of competition have developed GRM from Garry Rogers' weekend racing operation in 1963 into a multidisciplinary motorsport engineering organisation capable of designing, building and maintaining vehicles for the National Trans Am Series, TCR Australia, S5000 and Supercars.

GRM has been an early adopter of advanced composite manufacturing throughout its history, bringing techniques developed in high-performance industries into a motorsport workshop well ahead of many of its peers. Carbon fibre was adopted early and remains the material of choice where mass and stiffness matter most, though glass fibre, aramid and hybrid laminates, often paired with lightweight core materials, take over where cost, impact behaviour, repairability or production method make more sense.

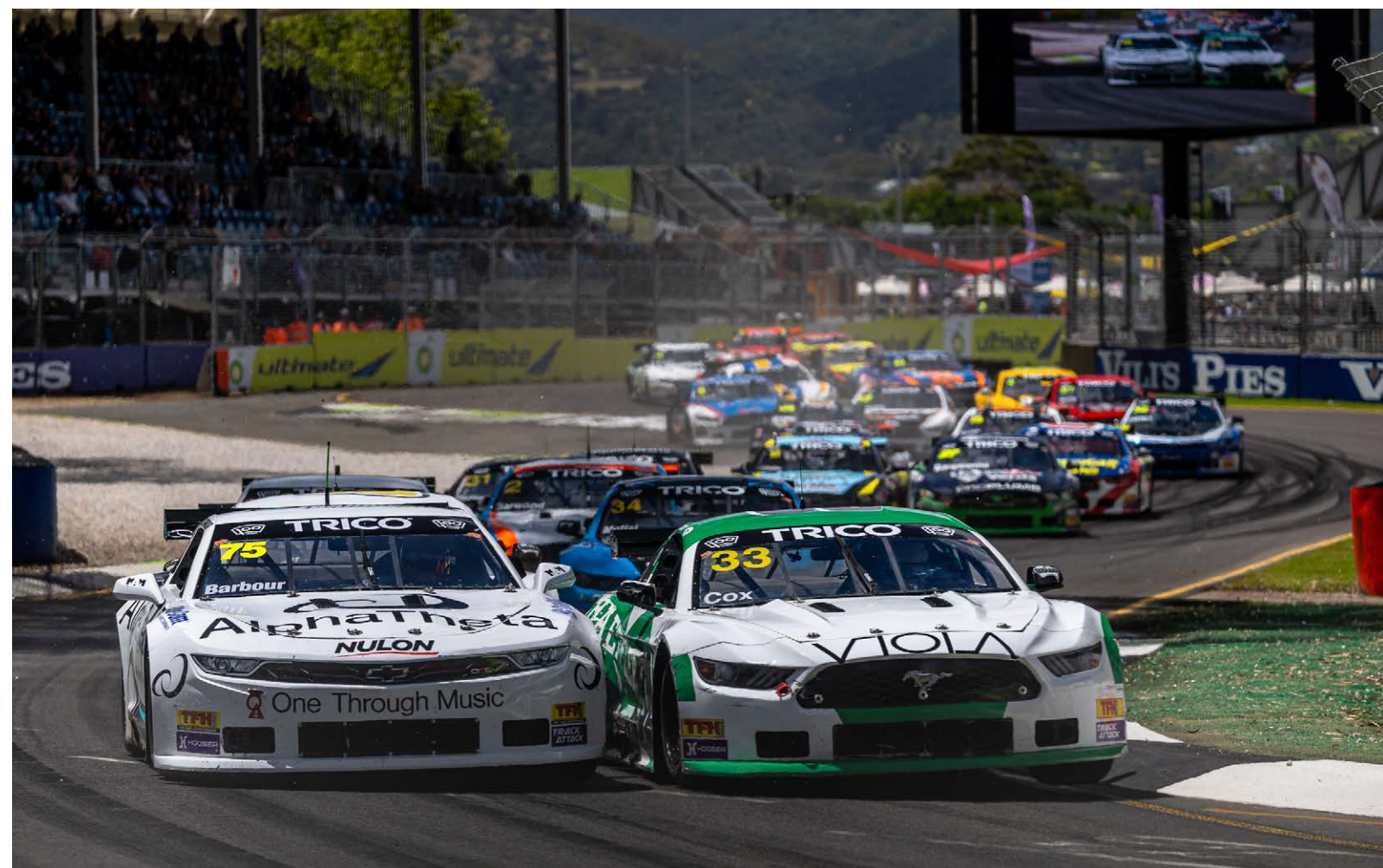
The #8 Chevrolet Camaro spits flame on the overrun. Trans Am cars run on a tube-frame chassis, a very different build philosophy from the monocoque construction of CR and Supercars.
Image credit GRM Gallery.



Opposite page. A tube-frame Ford Mustang built for the Trans Am grid, an open-wheel S5000 chassis, a Peugeot 308 shaped for touring car racing and an ex-Triple Eight Chevrolet Camaro sit under the same roof at GRM in Melbourne's eastern suburbs

Above. The #18 S5000, powered by a 5.0-litre V8, lifts its nearside wheels over a kerb. GRM built the category's first batch of cars and remains its technical partner.
Image credit GRM Gallery

Below. The #75 Camaro and #33 Mustang go side by side at the head of a National Trans Am field. These control-category cars run on a tube-frame chassis, often likened to NASCAR stock cars. Image credit GRM Gallery



GRM also invested in closed moulding and resin infusion processes, including controlled-temperature curing for composite panels, chassis tubs and components. Vacuum infusion provides controlled fibre-to-resin ratios and laminate consolidation, allowing structural composite components to be produced with repeatable properties without the cost and cycle times associated with autoclave processing.

Additive manufacturing followed the same drive to expand what could be produced within the workshop. Reinforced-polymer 3D printing has become a genuine production technology at GRM, not just for prototyping but for finished components, allowing the team to shave grams, refine a duct and tighten a tolerance where conventional manufacturing may be less efficient. It has helped close the gap between what CFD-driven designs call for and what the workshop can actually produce.

CNC machining has also become integral to the manufacturing process, providing the dimensional accuracy, repeatability and surface finish that lightweighting and aerodynamic efficiency demand in a high-stress racing environment.

The clearest demonstration of this integrated approach came with S5000. Ahead of the category's 2019 launch, Motorsport Australia appointed GRM as technical partner for Australia's revived open-wheel V8 category, a 5.0-litre, naturally aspirated, Ford Coyote-based formula producing around 560 hp in a car weighing close to 890 kg, fast enough to exceed 300 km/h with almost no electronic driver aids.

The team developed and refined the race car package, handling vehicle integration, suspension development, cooling and brake-package optimisation, then testing and validating the car before the championship's first race. It

FOUNDER: GARRY ROGERS

Garry Rogers Motorsport began in 1963, when Garry Rogers started racing Appendix J Holdens in Victoria. As a driver, he competed successfully in Sports Sedans through the 1960s and 1970s before moving into touring cars, racing Holden Toranas and making numerous starts at the Bathurst 1000 between 1978 and 1993.

His greater legacy, though, was as a team owner and mentor. The operation he built around his own racing evolved into a professional motorsport organisation that developed both technicians and drivers including Steven Richards, Jason Bargwanna, Garth Tander, Jamie Whincup, Lee Holdsworth and Scott McLaughlin, several of whom went on to become champions and Bathurst 1000 winners in their own right. Under his ownership, the team won the 2000 Bathurst 1000 and the 2002 and 2003 Bathurst 24 Hour races. Garry Rogers died in October 2025, aged 80. His son Barry Rogers continues to lead the operation he built.



built and has maintained the fleet since. The work drew on CAD design, vehicle dynamics, chassis engineering and composite bodywork integration in combination: a complete vehicle development programme delivered end to end by an Australian team.

The #40 Valvoline Holden ZB Commodore crests the Mountain at Bathurst. Super2 is where GRM has long brought young drivers through to the Supercars main game. Image credit GRM Gallery



The result is a manufacturing and engineering base that extends beyond any single category. GRM now returns to Supercars, the category it left in 2019, with a wildcard entry for the 2026 Bathurst 1000 putting the team back on the grid for the first time in six years. Veteran James Moffat will share the car with debutant Nathan Herne, with the programme drawing on capabilities developed across GRM's other racing programmes.

The workshop's role is not confined to contemporary competition cars. GRM has restored an ex-Peter Brock Monaro chassis for a private buyer and separately built a fourth Holden Monaro 427C to the specification of the cars that won the 2002 and 2003 Bathurst 24 Hour, for a client seeking an authentic, race-ready replica rather than a static display piece. Even builds that will never be raced are registered with Motorsport Australia, on the basis that a future owner may want to.

The team's own 2000 Bathurst 1000-winning Commodore is kept on permanent display at the Melbourne workshop, brought out for historic events rather than left in storage.

Every car, whatever its architecture, is then built and maintained to Motorsport Australia's technical and safety standards, the constant that runs underneath four otherwise unrelated build philosophies.

The Trico Trans Am Series field streams down the start-finish straight at Mount Panorama, Bathurst. Under the Mustang bodywork, each car is built on a steel tube-frame chassis with composite body panels, which are light, easily replaced and ideal for close-contact racing. Image credit GRM Gallery



Tensorgrip

COMPOSITE SPRAY ADHESIVES

MARINE • TRANSPORTATION • INFUSION MOULDING • RTM

CohesiveTec

1300 857 846 • australia@cohesivetec.com • tensorgrip.au

rennerauto.com.au

Renner Auto: Rebuilding the Past with Today's Engineering

Written by Kerryn Caulfield, Executive Director, Composites Australia Inc and Scott Compson, the Australian Institute of Engineering

James Dean raced one in 1955. Four years later, Steve McQueen won his class in one. The Porsche 356 Speedster was conceived as a stripped-back, lightweight sports car, its low windscreen, simple canvas roof and minimalist interior reflecting an era when the distinction between road car and race car was less clearly defined.

Almost 70 years later, the Speedster is being built again — but not as a conventional restoration. In a workshop in Melbourne's eastern suburbs, Jason Ferraro and the Renner Auto team recreate the character and unmistakable shape of the classic Porsche while replacing much of the technology beneath it with contemporary engineering, materials and manufacturing processes.

RENNER AUTO ISN'T RESTORING THE PAST, IT'S REBUILDING IT WITH TODAY'S ENGINEERING.

Ferraro founded Renner Auto in 2017 after almost three decades in the automotive industry, working across research and development and senior management with companies including Air International Thermal Systems, Futuris Automotive and TE Connectivity. His corporate experience is underpinned by a mechanical engineering degree from RMIT University.

That background influences how Renner Auto designs and builds classic vehicles. Rather than restoring an existing car or reproducing its components using traditional methods, Ferraro applies manufacturing

knowledge and technologies from the modern automotive industry to cars designed in the 1950s and 1960s. The finished cars retain historic styling while incorporating contemporary chassis, drivetrain, electrical and manufacturing technology.

ENGINEERING THE SPEEDSTER

The original 356A Speedster was built around a pressed steel unibody structure. Weight reduction was inherently part of the original car's character, with components like the doors and bonnets produced in aluminium on certain variants. To construct a modern version of this classic unibody system, Renner Auto utilises a combination of pressed steel alongside laser-cut, CNC-folded components. This re-engineered platform seamlessly incorporates a coil over modern double A-arm front suspension and semi-trailing arm rear suspension.

Renner takes the weight-saving principle further. Each Speedster shell is formed using an epoxy prepreg carbon-fibre system, producing a structure that is lighter and more rigid than the original steel construction. Customers can also choose to leave underhood and engine



Ferraro applies manufacturing knowledge and technologies from the modern automotive industry to cars designed in the 1950s and 1960s.

bay sections of the carbon weave exposed beneath a clear finish, making the composite construction part of the car's visual character.

The finished car retains the distinctive visual character of the original Speedster, with the chassis, drivetrain and electrical systems engineered for contemporary performance and reliability. That level of engineering is supported by control of the manufacturing process in-house. "We have invested significantly in advanced manufacturing tools to create original equipment manufacturer (OEM) components at production levels we couldn't reach before," Ferraro says.

The process begins with 3D scanning to create a digital representation of the vehicle structure. The team then develops computer-aided design models for the vehicle's systems and manufactures its own jigs. Prototypes and selected production components are 3D-printed before progressing to composite manufacture, fabrication and assembly.

The carbon-fibre body sections are manufactured using processes selected to control quality and weight. "The large front and rear parts of each carbon-fibre body are made using vacuum infusion, which helps us keep better control over quality and weight," Ferraro says.

"Each panel is checked against laser scan deviation reports after it leaves the mould." The chassis is also manufactured in-house, with Renner producing cars in both left- and right-hand drive configurations.

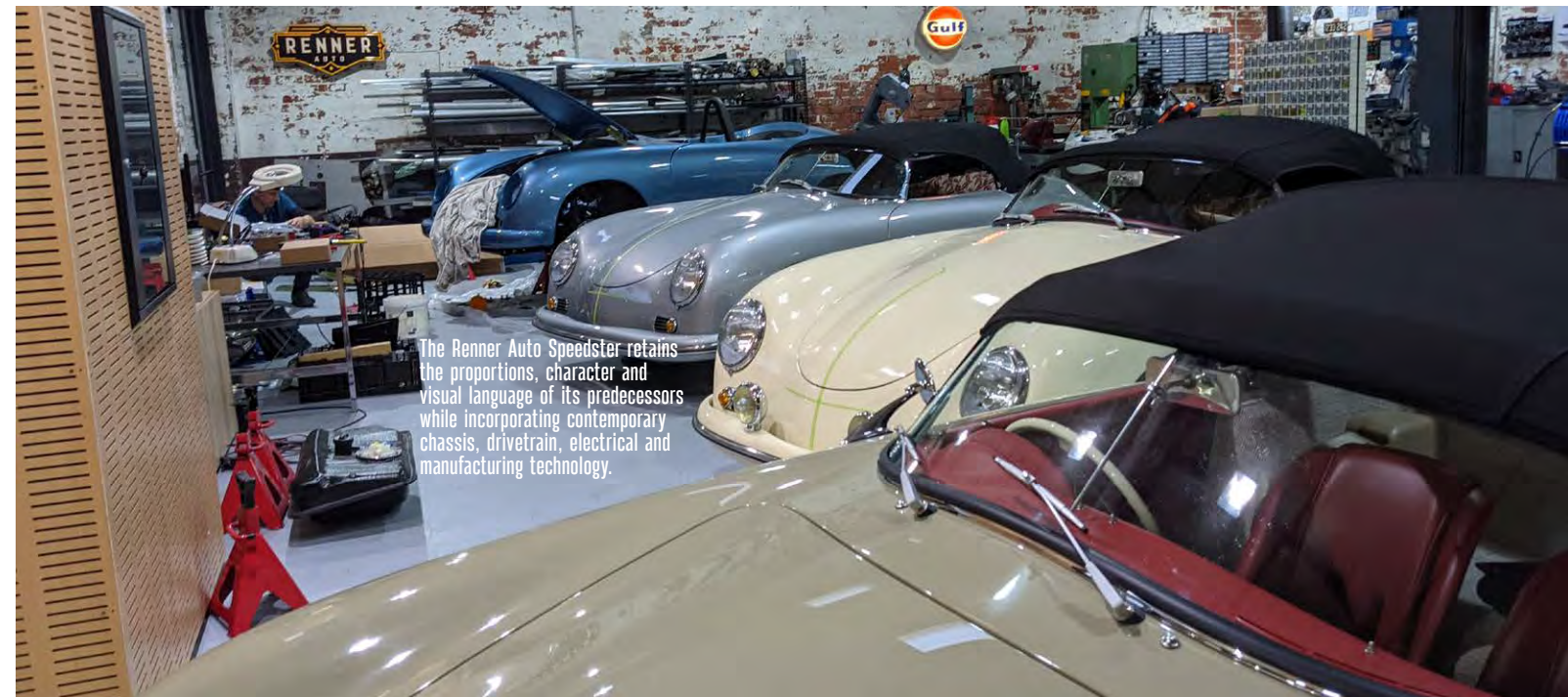
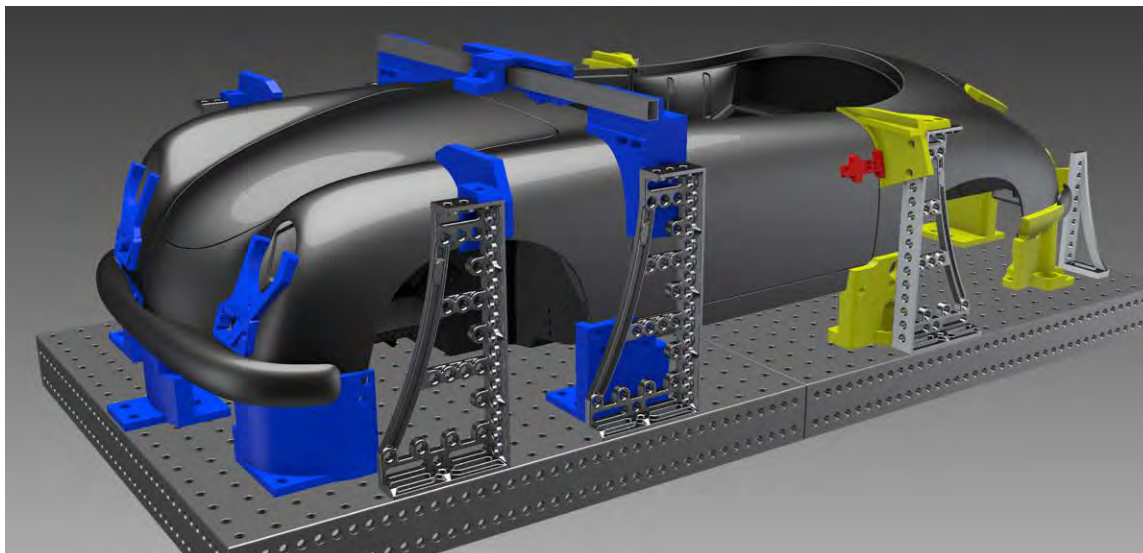
The same control extends to safety and compliance. Renner's vehicles undergo computer analysis and the relevant emissions, crash and road-safety testing, while the carbon-fibre seats are separately approved under the Australian Design Rules.

A single recreation takes between 1,000 and 2,500 hours to complete, with up to six vehicles typically in construction at any one time. A production volume that requires engineering, composite manufacture, fabrication and skilled assembly to work together with repeatable processes and controlled quality.

Renner Auto also brings undergraduate mechanical engineering students into the workshop as interns, giving the next generation of engineers practical experience in vehicle design, engineering and manufacturing before they enter the industry.

The cars may look as though they belong to another era. The processes used to create them do not. Ferraro and his team are taking some of the most recognisable performance cars of the 1950s and 1960s and rebuilding them with the materials, technology and manufacturing capability available today.

Each Speedster shell is formed using an epoxy prepreg carbon-fibre system, producing a structure that is lighter and more rigid than the original steel construction.



The Renner Auto Speedster retains the proportions, character and visual language of its predecessors while incorporating contemporary chassis, drivetrain, electrical and manufacturing technology.

danielyoungcomposites.com

The Manufacturing Behind Motorsport: **DY Composites**

Written by Kerryn Caulfield, Executive Director, Composites Australia Inc. and Scott Compson, The Australian Institute of Engineering

Manufacturing composite components for endurance racing requires precision, speed and resilience under strict deadlines. Components are engineered and produced to endure harsh conditions in which failure has immediate consequences. For Daniel Young, founder of DY Composites, the shared commitment to performance makes the challenge worthwhile.

Founded by Daniel Young in 2013 and based in Kilsyth South, Victoria, DY Composites specialises in advanced composite manufacturing for motorsport. Young's engineering discipline was shaped through his work at Perkins Engineering and Kelly Racing, where he developed specialist expertise in the manufacture of precision composite aerodynamic panels for Supercars racing. Building parts to fixed production timeframes, rather than flexible deadlines, established the benchmark for DY Composites.

Production begins with CNC programming and pattern-nesting software, which optimise material use and identify potential errors before material is cut. According to Young, "Our core manufacturing capability includes an autoclave with a 1450 mm internal diameter and 2400 mm length, operating at up to 90 psi and 180°C. Autoclave curing is the gold standard for producing ultra-lightweight, high-strength prepreg carbon fibre and composite motorsport components. The process uses precise vacuum pressure, high heat and external gas pressure to ensure uniform curing and strong bonding of composite laminates, delivering the structural integrity required for racing applications."

Aluminium and carbon fibre inlet manifold for a Nissan SR20 engine, produced using resin transfer moulding (RTM). Designed and toolled by Daniel Young.



A temperature-controlled infusion and curing room rated to 50°C, together with a large vacuum infusion facility, supports resin infusion production. The facility also includes a temperature-controlled clean room, large post-curing oven and paint and surface-coating area.

After curing, components undergo 3-axis CNC machining and trimming, with 5-axis machining outsourced where required. A SolidWorks CAD/CAM system and two large-scale 3D printers support design, tooling and production, completing an integrated manufacturing capability designed to maintain accuracy from raw material through to finished component.

DY Composites is a key supplier to the Supercars championship, providing composite components for GM, Ford and Toyota. The company also works directly with homologation teams on the design, engineering and production of new components. Its current work includes supplying Walkinshaw TWG Racing, which will field the Gen3 Toyota GR Supra for Chaz Mostert and Ryan Wood in the 2026 Repco Supercars Championship. Building components for a manufacturer entering a new season under the Gen3 rules requires precision from the outset, with every component required to meet its specification before installation.

For Young, the skills required to manufacture components for motorsport are developed through both practical experience and formal training. Trade qualifications and engineering studies provide foundations in composite forming, design, CAD, CNC machining, tooling and workplace health and safety, while experience in a motorsport manufacturing environment develops the ability to apply those skills under production pressure.

DY Composites currently supports an apprentice through the Australian Institute of Engineering, working towards a Certificate III in Engineering – Composites Trade. The company also supports higher-level



Factory work is generally structured around research, development, testing and production, but the pressure increases the lead-up to a new upgrade package as deadlines tighten. weekends bring demanding travel schedules and a high-adrenaline environment where every split-second is visible on the stopwatch and a driver's mistake can appear

A Jaguar XK race body in raw carbon fibre at DY Composites, with its wide arches, bonnet vents and front splitter already fitted.

engineering development, with one employee studying Mechanical Engineering at Swinburne University of Technology while contributing to the university's Formula SAE team as lead chassis designer. A graduate engineer with a Mechanical Engineering degree from La Trobe University has also joined the business.

Beyond its own trainee and graduate roles, DY Composites also gives up production time each year to support Formula SAE, the international student motorsport competition in which university teams design, build and race a small open-wheel car each season. DY Composites provides tooling, hard-to-come-by autoclave capacity and post-processing to the Swinburne team to cure a new carbon fibre chassis to competition standard each season. Young says, "It's a commitment to the next generation of composites practitioners."

instantly in the data.

For Young, however, the attraction lies in the connection between engineering, manufacturing and competition. For people with a genuine passion for motorsport, producing the components that ultimately go onto a race car can be a dream job. The pressure is demanding, but so is the satisfaction of seeing a component move from the manufacturing floor to the track and perform as intended.

A finished carbon fibre rear bumper, fresh from DY Composites' paint shop.



borlandracing.com

Forty Years, Three Continents: Borland Racing Developments

Written by Kerryn Caulfield, Executive Director, Composites Australia Inc.

Forty years after building its first Formula Ford, Borland Racing Developments continues to custom-build every chassis in its Braeside, Melbourne factory. Its Spectrum design has become the most successful Australian marque in Australian Formula Ford racing and, over more than three decades, has also found customers in New Zealand, the United Kingdom, the United States and Canada. From its Australian manufacturing base, Borland supplies cars to racers at home and across three continents.

Formula Ford began in England in 1967 and reached Sandown Raceway by 1969, sending drivers from Ayrton Senna to Lando Norris towards the top of world motorsport ever since. More than fifty years on, the category remains a national-level pathway in Australia, with around 250 drivers racing across the country each season. For Borland, its place in Formula Ford began with the Cheetah racing cars built by Michael Borland's uncle, Brian Shead.

A diesel mechanic by trade, Borland began engineering his uncle's Cheetah Formula Two cars in 1984, before turning his attention to building Formula Ford chassis.

His own team took several championships with those cars before Borland decided to focus on building Formula Ford chassis. Following several development years, the Spectrum 04 was raced by Steve Richards in 1991 and then to a Victorian state series win for Darren Hossack the following year. The first customer car went

to Jason Bright in 1993, after which Borland Racing Developments turned to producing the Spectrum Formula Ford outright. The chassis took second place in the 1996 national series for Jason Bargwanna, then a 1-2 finish in 1998 for Adam Macrow and Christian Jones marked its arrival as a serious contender. Chaz Mostert's 2010 championship, won in a Spectrum 012, added another national title to the marque's record and helped establish the competition pedigree that would underpin its overseas expansion.

New Zealand came first, with a national title for Phil Hellebrekers in 2000. The UK followed in 2006, when a Spectrum 011 built for the British championship took victory on debut at Brands Hatch in the hands of John Martin. The win led Borland to appoint Mark Bailey Racing as UK agent, and by 2008 leading UK team Kevin Mills Racing had switched to the Spectrum chassis, taking pole positions and race wins over the two seasons that followed.

North America became a key market. In 2013, Canadian businessman Michael Duncalfe began importing and distributing Spectrum in Canada. A second North American distribution agreement was



The Spectrum 015 has been supplied to customers in Australia and overseas since 2017. Forty years after the first Borland Formula Ford left Braeside, the marque still ships parts and complete cars to three continents from the same address.



Tom Grech aboard his Spectrum 011

established in 2018 with Greenvale FCP and Mike Scanlan.

Spectrum chassis are now distributed and serviced across the US. Market-specific variants include the Spectrum F2000 for the FRP F2000 Championship Series category and the Spectrum F1600 for the F1600 Championship Series and Toyo Tires F1600 Championship racing. Notably, the Spectrum F1600 secured the 2015 USA F1600 Formula F Championship title with Australian driver Scott Andrews.

Every one of these cars is custom-built at the Braeside factory, where Borland Racing Developments has produced its chassis, bodywork and running gear in-house for four decades. Running alongside that manufacturing operation for the same period has been a collaborative relationship with Bayswater-based King's Fibreglass, which supplies all the fibreglass components for the Spectrum Formula Ford and Sabre Formula Vee. That relationship has extended beyond component supply, with King's Fibreglass also sponsoring the Borland Racing Developments State Team for a number of years. The lightweight components contribute to the low weight and responsive handling that are central to the cars' appeal. The Spectrum continues to attract newcomers with a combination of speed, nimble handling and precise balance, delivering raw, unfiltered racing without downforce or driver aids. Its straightforward design also allows independent and family teams to compete on equal terms with professional outfits.

The Spectrum 015, the current chassis, has been supplied to customers in Australia and overseas since its 2017 debut. Forty years after the first Borland Formula Ford left Braeside, the marque ships parts and complete cars to three continents from the same address.

H.B. Fuller | Connecting what matters.™

One-Stop Adhesive Solutions
for the Global Transportation Industry

Looking for High-Performance Adhesive Solutions?
Take the right path at the right pace.
Contact us today!

www.hbfuller.com



kingsfibreglass.com.au

Standing in for drivers: King's Fibreglass

Written by Kerryn Caulfield, Executive Director, Composites Australia Inc.
and Scott Compson, the Australia Institute of Engineering

Lined up in rank formation in the King's Fibreglass showroom, is an army of "mini me" fibreglass figures, each a mere one metre high, and custom painted in race team colours of individual drivers. Cleverly disguised is their true purpose: race helmet and glove dryers, a necessary piece of equipment at a racetrack.

A racing cockpit is a hostile place, whatever the category. In Supercars, temperatures inside the car can run 20 to 30°C above ambient, reaching 65°C or more when the championship moves north to Darwin. The footwell is often the hottest area, with the exhaust system running directly beneath the driver's feet; blistering and burns are not uncommon.

Drivers are sealed inside nearly six kilograms of heavy gear, including dense fireproof clothing, a helmet, gloves and boots. In this sweltering armour, a driver can shed up to three kilograms in sweat during just one race. After a gruelling stint, helmets and gloves in particular, emerge drenched, saturated with sweat.

According to Glen King, founder of King's Fibreglass and self-proclaimed rev head, damp gear is more than just uncomfortable; it can sap a driver's focus and quickly become a hygiene nightmare. "Left wet between sessions, equipment can stink within hours, a warning sign of bacteria and mould. Rapid drying keeps drivers fresh and ready to return to the cockpit sharp and undistracted."

The 'mini me' figures were developed in-house at the company's Bayswater facility using a proprietary fibreglass mould based on King's design. Each figure contains a concealed electric fan at the base driving the cooling system. Gloves are placed over the raised arms, while the helmet sits on the crown. Vents channel air through the three outlets to dry equipment from the inside out. While all dryers share the same basic form, each is finished in team colours, providing every driver with a personalised unit.

At seasons commence, the dryers are delivered to each driver's garage, where their uncanny likenesses add a splash of personality that teams love and fans flock to photograph. At seasons end, they are gathered



King's army of "mini-me" fibreglass figures cleverly disguise their true purpose as race helmet and glove dryers



Driver sealed inside dense fireproof clothing, a helmet, gloves and boots, competing at the Shannons Speed Series Tasmania. Photo courtesy of Garry Rogers Motorsport Gallery

up and returned to King's to prepare them all for next season. Though built for function, these figures have become fan favourites, often starring in social media posts that celebrate and support the drivers. King's has also exported a number of these Helmet and Glove Dryers to New Zealand, the UK and the USA, extending their appeal well beyond the Australian racing scene.

King's motorsport pedigree runs deeper than the dryers themselves. The company has supplied fibreglass components to Borland Racing Developments since King's earliest years in business, fabricating parts for BRD's Spectrum Formula Ford and Sabre Formula Vee chassis.

Borland Racing itself is one of the more significant names in Australian open-wheel construction. Founded in Braeside, Victoria, in 1984, the company has produced championship-winning Formula Ford and Formula Vee chassis for four decades; its Spectrum has been the most consistently successful marque in Australian Formula Ford racing since 2004, and its Sabre Formula Vee — originally built from jigs purchased from Elfin Sports Cars — has claimed more than twenty state and national titles. It's a long way from a race-day dryer to a championship-winning chassis, but the same Bayswater facility, and the same skilled trades, have had a hand in both.

sydneycomposites.com

Grounded in Carbon Fibre: Sydney Composites

Written by Kerryn Gaulfield, Executive Director, Composites Australia Inc.

Keeping a race car firmly planted at speed requires aerodynamic precision, and that has become Sydney Composites' speciality. Ten years after founder Greg Kerba began building carbon fibre components for motorsport, the company's work now extends from Formula SAE and solar race cars to supersonic rockets, with carbon fibre structures engineered for applications where weight, strength and performance are critical.

Kerba's interest in composites began well before Sydney Composites. His Year 12 project, a Hiawatha-style canoe, was featured on the front page of a boating magazine and led to an apprenticeship offer from Sydney yacht builder McConaghy in 2010.

The turning point came through the World Time Attack Challenge (WTAC), where drivers compete individually against the clock to set the fastest possible lap. Unlike traditional wheel-to-wheel racing, time attack is about extracting the maximum performance

from a car for a single lap, making weight reduction, aerodynamic efficiency and mechanical grip critical to the result.

At WTAC events, Kerba began looking closely at who was manufacturing the aerodynamic components, how they were made and who was involved in their development. He was cognisant that carbon fibre offers the combination of low weight and high stiffness needed to produce large aerodynamic structures without adding unnecessary mass. At the front and rear of a race car, that means wings, undertrays and diffusers



can be engineered to generate downforce and improve grip while keeping weight under control. "What I looked into was who was making parts, how they were made, who was getting involved, and then I ended up speaking to an ex-Formula 1 aerodynamicist at the track. From that conversation, we started manufacturing some pre-preg wings for him," Kerba said. Front undertrays and rear diffusers were subsequently redesigned, with Sydney Composites taking on their manufacture and progressively developing its own production components. Vehicles fitted with the company's components began achieving podium finishes, providing a demanding real-world test of its growing capability in lightweight, high-performance aerodynamics.

That progression has seen Sydney Composites build a vertical capability across much of the composites manufacturing process. Carbon fibre is its primary reinforcement, but the workshop also works with glass, basalt, aramid, polypropylene and coated fibre systems according to the application. Components are produced using vacuum infusion, prepreg and wet lay methods, then cured in an oven measuring 6 x 5 x 2.5 metres, large enough to accommodate full-size aerodynamic structures.

A four-axis CNC machine, with a 3,000 x 1,600 x 600 mm bed, brings pattern and mould production in-house, while a downdraft spray booth provides capacity for 2K painting and refinishing. The combination allows the company to move from development and patternmaking through composite manufacture, curing, machining and finishing without having to outsource any stage of the process.

Maintaining that breadth of capability requires people with the skills to operate across different stages of production. Kerba has recently brought engineering in-house through the appointment of a CAD designer, a role that was previously outsourced, and the company has just celebrated a staff member completing their

apprenticeship. He is also seeking senior composite technicians, machinists and painters. The capability continues to be tested at the track.

Sydney Composites is building a custom carbon fibre Nissan Skyline R34 for Sports Sedan racing and in September it took part in preparing for the two-day Yokohama WTAC Sydney event at Eastern Creek where more than 30 competing cars ran Sydney Composites aerodynamic components and achieved eight podiums across the event. The company will celebrate its tenth anniversary in December.

The time attack Lamborghini Gallardo at speed at Sydney Motorsport Park, now wearing Sydney Composites' new carbon fibre aero mirrors alongside the company's front splitter, dive planes and towering rear wing.



At WTAC wings, undertrays and diffusers are engineered to generate maximum downforce and grip while keeping weight under control—all in the pursuit of the fastest lap.



Global Aircraft Services' Mitsubishi Evolution time attack Lancer Evolution runs a large carbon fibre front splitter, end plates and dive planes.

aiie.edu.au

Education and Training: Building the Composites Workforce

Written by Scott Compson, Trainer & Assessor, Australian Institute of Engineering

Manufacturers looking to grow their composites workforce have more than one door to knock on. Understanding how vocational training, engineering, and materials science feed into the sector helps employers plan recruitment and decide where to invest in training.

The most direct route into a composites workforce is vocational education and training (VET). A Certificate III apprenticeship combines structured off-the-job training with paid, supervised work in a manufacturer's own facility, which means the employer trains staff in their own processes from day one rather than hiring blind.

THE VET PATHWAY

Roles under this pathway include Composite Technician, Fibreglass Technician, Tradesperson and Shipwright, all built on a Certificate III apprenticeship. Several qualifications cover the range of industries using composite materials, including (but not limited to) Certificate III in Engineering – Composites Trade (MEM31119), Certificate III in Marine Craft Construction (MEM30719), Certificate IV in Engineering (MEM40119), Certificate III in Polymer Processing (PMB30121), and Certificate IV in Polymer Technology (PMB40121), Certificate IV in Aeroskills (Structures) (MEA41318) and Certificate III–IV in Recreational Vehicle Manufacturing (MSM31122). These qualifications and the training organisations that deliver them can be checked against the National Training Register at training.gov.au, which is worth doing before committing to a provider, as coverage and delivery modes vary by location.

VET qualifications and their units are built through national training packages developed jointly by government, Jobs and Skills Councils and industry, which keeps the training aligned to what workplaces actually



Apprentice graduates bring hands-on skills in layup, materials, component manufacture, repair and joining, plus the problem-solving to contribute to a production team from day one.



need and the resulting qualification recognised nationally. Several specialist providers deliver this training around the country, among them:

PARTEC, based in Brisbane, runs a dedicated composites training centre covering a wide range of polymer qualifications, with trainers drawn from industry delivering both theory and hands-on practice.

The Australian Institute of Engineering offers a flexible, nationwide delivery model that integrates training with workplace experience, developing programmes such as the Certificate III in Engineering – Composites Trade and Certificate III in Marine Craft Construction in partnership with employers and apprentices. AIE also has composite pathways in Certificate IV, Diploma and Advanced Diploma qualifications.

South Metropolitan TAFE's Naval Base campus in Western Australia delivers marine-focused training through its Certificate III in Engineering – Composites Trade and Certificate III in Marine Craft Construction.

A manufacturer taking on an apprentice through one of these pathways can expect a graduate with skills in layup, material selection, handling and storage, component manufacture, repair and modification, resin and chemical formulation and joining techniques, alongside the problem-solving and project coordination that let them contribute to a production team from early on.

BEYOND THE TRADE

Manufacturers with design, R&D or technical roles to fill often look to engineering or science graduates instead. Degrees in automotive, mechanical, aerospace or civil engineering all feed into composites work; there is no dedicated composites engineering degree in Australia, so the degree provides the foundation, and internships, graduate research or postgraduate study supply the specialist composites knowledge. Chemistry and polymer science graduates are equally valuable where the work depends on understanding resin systems and processing.

The two pathways aren't sealed off from each other. Depending on the qualification, field and institution, VET graduates can progress from a Certificate to higher vocational qualifications and, through university articulation arrangements, to an engineering degree, sometimes with credit or recognition of prior learning attached. Arrangements differ by institution, so it's worth checking directly with the university or RTO involved.

For manufacturers, the starting point is training. gov.au and a direct conversation with the relevant provider, whether that's a specialist centre such as PARTEC or the Australian Institute of Engineering, or a local TAFE. Composites Australia can help point members to the right contact.

Australian Made Composite Reinforcement Materials

COLAN
AUSTRALIA

- ✓ High quality input fibre
- ✓ Comprehensive range
- ✓ Locally produced and stocked

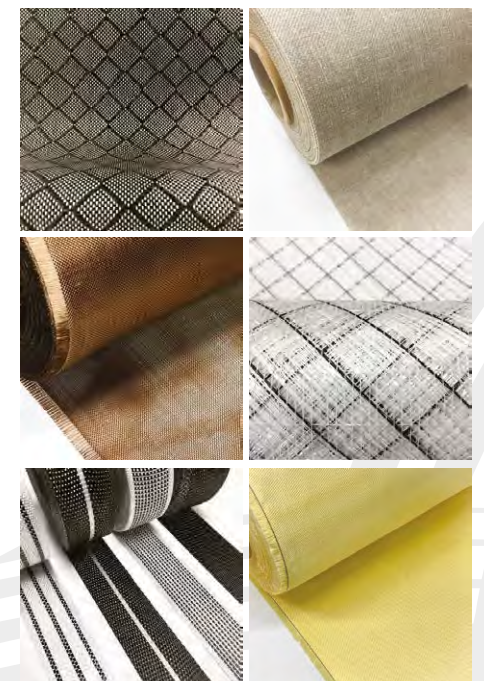
If you use composite reinforcements and are looking for quality materials that are readily available why not try Colan products for your next order?

We produce a wide range of woven fabrics, narrow tapes and non-crimp multiaxials using Fibreglass, Basalt, Carbon, Flax, Innegra, Kevlar and Polyester fibres.

In addition to our extensive catalogue of stocked options we also have the ability to manufacture custom made materials to suit your specific needs right here in Sydney, Australia.

Contact us now or visit our website to find out more....

(02) 9672 7888 | sales@colan.com.au | www.colan.com.au



gurit.com

Beneath an icon: Engineering the Beacham CFE in carbon

Written by Tony Stanton, Engineering Manager, Gurit

Few cars have achieved the visual impact or enduring appeal of the Jaguar E-Type, the iconic British sports car launched in 1961. With its long bonnet, sweeping curves and distinctive proportions, the E-Type became a benchmark for automotive design.

More than six decades later, Beacham has reimaged that classic shape in the CFE (Carbon Fibre E-Type), retaining the character and proportions of the original while delivering the performance, reliability and functionality of a modern Jaguar. Behind the familiar silhouette is now a fundamentally different structure. Gurit was

commissioned to develop the carbon-fibre laminate specification and assess its structural performance, using detailed finite element analysis to engineer a lightweight chassis for the demands of a modern drivetrain.

Achieving that required an entirely new carbon-fibre structure, substantially lighter than the original steel construction and engineered for the structural loads of



Left. Integration of the steel front end to the carbon fire wall

Below. The completed chassis, with the carbon tub and steel frame



the CFE, including frontal impact. Composite materials behave differently from steel, with strength and stiffness determined by fibre direction, laminate construction and the way loads are introduced into the structure. While the overall chassis geometry and adjoining metal assemblies were designed by others, Gurit's analysis incorporated the wider chassis system, tracing loads from the suspension and forward metal spaceframe into the carbon tub. The forward metal frame forms a key part of the energy absorption structure in a head-on impact.

STARTING WITH THE LOADS

Gurit established a defined engineering methodology for the structural assessment, based on limit-state principles. Serviceability conditions, including deflection, clearances and normal operation, were assessed separately from ultimate load cases addressing strength, rupture and buckling. Nine load cases covered static and road-going conditions,

including the vehicle's static weight, a vertical jounce representing a severe road input, hard front and rear braking, single-wheel kerb impacts, diagonal chassis twist and torsional stiffness. The braking cases applied a horizontal load equivalent to twice the associated vertical wheel load. The kerb-impact cases applied a lateral load 2.5 times the vertical component at one wheel, while the twist cases applied three times that component at one chassis corner.

The target was 50 percent greater torsional stiffness than the measured steel reference structure, exceeding the low-volume vehicle guidance used for the programme. Five simplified impact cases included two 260 kN frontal load cases, applied through different parts of the forward frame, and 66 kN cases at the door attachments, sill and rear wheel-arch structure.

These were simplified, quasi-static load cases for assessing load paths and identifying vulnerable structural details. They were not physical crash tests, time-dependent collision simulations or whole-vehicle crash certification.

MODELLED ONE PLY AT A TIME

The composite structure was modelled with shell elements to account for carbon fibre's orthotropic properties. Each ply was modelled individually, allowing the contribution of 0/90-degree material, ± 45 -degree reinforcement and unidirectional carbon to be assessed. The forward spaceframe, wishbones, uprights and other metal components were represented with beam elements, while spherical suspension joints modelled load

The finished Beacham CFE keeps the proportions and character of the 1961 original, but it has a carbon-fibre chassis and a modern Jaguar drivetrain.



transfer. Fourteen individual point masses represented major items including the engine, gearbox, doors and occupants.

Under the 3g vertical jounce case, the model predicted 5.5 mm of deflection at the middle of the sill and a 4.0 mm reduction at the top of the door aperture. The results provided data for assessing door operation and panel clearances.

WHERE THE ANALYSIS EARNED ITS KEEP

The impact cases identified local load concentrations at the interface between the metal spaceframe and carbon firewall. The analysis recommended changes to the load path, including extending and wrapping metal end plates to distribute forces, increasing a critical mould radius, adding tapered solid-carbon reinforcement and tying a forward infill panel into the firewall to remove a vulnerable free edge. Local laminate reinforcement was specified around the firewall mounts, suspension locations, gearbox attachments, door hinges and locks, sill ends and rear-impact areas.

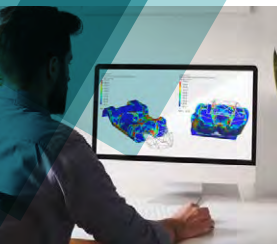
Continuous high-modulus unidirectional reinforcement ran through the sills to increase chassis torsional rigidity. Away from load introductions, thin-walled honeycomb structures provided stiffness with lower mass, while additional carbon was concentrated around fittings and other highly loaded areas.

STIFFNESS WITHOUT THE MASS

The proposed composite chassis was estimated to weigh approximately 100 kg, including ply overlaps at corners and edges, compared with 260 kg for the steel reference tub. The carbon structure therefore achieved the required performance at approximately 38 percent of the steel tub's mass.

With high-modulus reinforcement in the sills, the modelled carbon tub delivered 77 percent greater torsional stiffness across the floorpan than the steel reference—approximately 1.8 times the stiffness at considerably lower mass. On a stiffness-to-weight basis, the carbon structure was around 4.5 times more efficient in torsion. Across the complete wheelbase, including the forward and rear metal assemblies, the predicted improvement was 39 percent. Once the carbon tub became sufficiently stiff, a significant proportion of the remaining chassis twist occurred in the forward metal spaceframe.

The results also showed the importance of assessing the complete structural system. Increasing the stiffness of one component can shift the limiting behaviour elsewhere in the chassis. The preliminary report recommended testing as-built laminates to confirm that manufactured properties matched the design assumptions, with further fatigue and through-thickness assessment.



**PERFORMANCE,
ENGINEERED FROM
THE FIRST PLY**

Gurit combines advanced prepreg materials with specialist composite engineering to help deliver lighter, stronger and more efficient structures.

SE140 & SE140BL

- > Fast-cycle epoxy prepreg for compression moulding and autoclave cure
- > Flow-controlled, toughened resin for high-quality structural and cosmetic components
- > 140°C Tg performance with flexible cure and reinforcement options

COMPOSITE ENGINEERING

- > Material selection, laminate design and detailed engineering
- > FEA optimisation and ply-by-ply structural analysis
- > Mechanical testing, processing and production support



allnex Local Capability:
Security of Supply

SPONSORED FEATURE

Australian manufacturers depend on reliable supplies of the materials and inputs required for production. Domestic manufacture of those inputs helps sustain the capacity to manufacture in Australia, particularly when geopolitical uncertainty and global shipping disruptions affect international supply chains.

For the composites industry, allnex Australia maintains R&D, formulation and manufacturing capability at its Wacol site in Brisbane, producing composite resins, gelcoats and flowcoats. The range includes AQUAGUARD®, POLYPLEX®, NUTECH®, ULTRATEC® and VIAPAL®, products that are used across construction, infrastructure, marine, pools and transportation. This capability is supported by a national distribution network supplying materials to manufacturers across Australia.

The combination of technical expertise, R&D, local production and distribution enables close collaboration with industry. This provides a direct link between technical development, manufacturing requirements and the

conditions in which composite materials are processed and used in Australia.

“Understanding how a material needs to perform in a particular application and environment is central to formulation. Having R&D and manufacturing capability in Australia provides a foundation for working closely with manufacturers to develop materials suited to local conditions and specific processing requirements,” said David Stevenson, Product Line Manager, Composites AO.

The Wacol operation brings together R&D, manufacturing, the sole remaining manufacturer of resins and gelcoats in Australia, commercial and warehouse teams, while the national distribution network provides access to materials across the country. New packaging identifiers are also being introduced to make it easier to recognise products manufactured in Australia.

Together, these capabilities support domestic supply of manufactured inputs required by Australia's composites industry and contribute to the resilience of the broader manufacturing sector.



Wacol 18 kilometres southwest of the Brisbane (QLD) manufacturer of resins, gelcoats and flowcoats for industrial and composite markets.



100 years of premium respiratory protection

A flexible modular respiratory system Ideal for the Composite Industry

SR500 fan unit with combination gas/vapour & particle filters
Protection from fibreglass, carbon particulates,
organic vapour and acid gas

SR570 Face shield with flip-up visor
Lightweight, comfortable and robust head-top

175 + 240 l/min
flow rates



Contact us to tap into our knowledge

Safety Equipment Australia Pty Ltd.

 sea.com.au

 SEA.Enquiries@sea.com.au

 1800 655 129 | +61 2 9910 7500

