

Getting into the body sculpture business

Several successful businesses in the fleet market take a cab chassis or dual-cab ute and pump up the asset with a fit-for-purpose, tool-of-trade, bolt-on body.

Watch the nightly news and see yet another car that's hit a tree or a truck rollover somewhere - it's highly likely a piece of PT Rescue equipment is on the scene cutting through B-pillars or dousing flames.

Some of Australia's biggest mining operations use PT Industrial's hydraulic equipment or a rail operator PT Rail's locomotive, carriage and railway line servicing and maintenance tools.

Now PT is entering the service body business out of a modest office and warehouse space in Glen Waverley. It means more competition in a bustling market as growing Australian and New Zealand fleets are increasingly required to do more with less.

Adding lightness, a very British concept spawned by Lotus Formula 1 genius **Colin Chapman**, is a design highlight which PT Hydraulics' fire products manager **Stuart Coulton** explains with a quiet confidence typical of an ex-pat from Coventry, the home of Jaguar Land Rover.

"Nobody over here does plastic bodies - they really only do moulded plastic on the back of police paddy-wagons," he says.



"We're looking at that service body ute market and so far we just happen to have supplied the emergency ser-

vices because they are our immediate customer base."

The British ties are superfluous because the business wants to set up shop in Australia with its thriving ute and fleet market, as well as a fast-growing population.

"The poly bodies come here fully made up and we fit and engineer here," Coulton says.

"We fit Australian lights, wiring looms; the doors are actually Austral Monsoon doors which are made here in Australia, then get shipped to the UK and come back here on our bodies. We're going to change that so they stay here."



In an already competitive market, the relative newcomer has some stiff rivals with well-developed products – among them strong businesses such as CSM, Sammitr, Hidrive, CVS and others.

"Anybody can give you a steel or aluminium service body - poly bodies give you a properly lightweight solution," Coulton says.

"You can make a canopy out of fibreglass but they don't last like a body we make from polypropylene plastic sheet with a poly-welded joint. You get a flexibility with poly that you don't get with steel or aluminium."

It's in that flexibility that strength is found, Coulton says. It's like comparing the heavy steel armour used by medieval knights to modern Kevlar which uses energy dissipation to prevent damage and ensure security.

"These bodies are painted as you

would a normal car with etch primer and a top coat - it goes into a CNC machine, it gets routered, we cut it and weld it, all of which we want to do here in Australia," Coulton says.

"The more internal panels you have, the stronger it is in the box structure.

"We've hit them with axes, we do stress testing, we've even seen one which was completely unscathed in a full rollover crash apart from a structural roof rib which just required a simple poly-weld."

In most low-speed impacts, there is little or no damage because the polypropylene absorbs the impact and springs back into its original shape.

At a higher speed the plastic eliminates the shock transfer through the body, keeping damage to a minimum.

Polypropylene will not crack, corrode or suffer from the stress fractures associated with driving on gutted corrugations of the Australian outback roads.

"Being plastic, it doesn't conduct electricity and it's thermally insulated so it doesn't retain heat and you can have a UV-stabilised poly."

Australian fire and forestry crews are regularly in heat-soaked environments, including fire prevention exercises in dry high country areas.

"Poly is not really affected until 137 degrees; like anything else at that temperature, you'll start softening tyres, melting plastic trim and bubbling paint surfaces," Coulton says.

"This isn't regarded as an issue by the emergency services as most European fire trucks are already manufactured from poly and it doesn't really have much real-world impact in more common applications."

As the PT business expands steadily, it's fair to say the service body industry will be tough to get a foothold in.

But with a history stretching back to Ritch Engineering in 1935, the essence of PT is not without substance.

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Run by multiple directors and technically trained staff numbering 25, it has 120 distributors in Australia, New Zealand, Papua New Guinea and the Pacific, and several government and large corporation customers.

"There's the hydraulics and rescue side of the business, and there's the poly body side which will sit on its own eventually," Coulton says.

"South Australia State Emergency Service laid all their kit out on the floor, we took pictures and developed a bespoke design to fit everything in it.

"Our demonstrator vehicle, an Isuzu D-Max Spacecab, has an integral 300-litre water tank built in the design, an ultra high-pressure pump, all the rescue equipment we sell.

"Similar fast response vehicles have gone into Fire Emergency New Zealand based on Ford Ranger, Iveco and D-Max dual-cab vehicles and also a larger Mercedes-Benz Sprinter with an 800-litre water tank.

"Airport fire fleets have used our bodies - even a wood-chipping service.

"We get a design, we'll come back with dimensions in PDF and a 3D render which the customer can use to visualise their order.

"There's no heavy steel, even in the sub-chassis. It's all plastic in the sub-frame which is ours again, no additional sub-frame needs to be built, it's done with six chassis bolts and the

body builder's manual from the dealer.

"The dealer's manual basically shows us everything we can move, where it's positioned and how to work on the vehicle.

"With Australian Design Rules, our UK partners Pick-Up Systems do all the compliance work with us, including loading and weighting of vehicles, lighting, everything."

Coulton says a favourite but less noticeable feature of a poly body is



that at first glance it doesn't even look like plastic.

"They look like steel but they're much lighter and stronger. We add three-point locks, you can adapt central locking into them, doors can be made to fit, curved aluminium roller shutters or the more conventional hinged fold-out gullwing doors."

The bodies are bespoke for the time being but Coulton says manufacturing processes will quicken as more orders come in and the body building

becomes more streamlined.

It might also mean jobs for Australians in the near future.

"Basically our plans are to have the bodies manufactured in Melbourne, somewhere around Glen Waverley, and we'd love to give some of those people who've lost their jobs at our car factories a place to work in the next year or two," he says.

"We're aiming to provide solutions for fleets carrying big loads that need something more than a box on the back of a truck to throw tools in - electrical boards, food trucks, fire and rescue, gardening services, leased fleets.

"At the moment we know we're not as competitive in upfront costs but if you look at the whole-of-life costings - including a 10-plus year warranty which means the body can be swapped on to a new chassis, year-after-year fuel savings, their durability and imperviousness to rust and damage - it comes out as a good value proposition." ■




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