

Australian Industry

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WTIA National Diffusion Networks Project (NDNP) funded by the Federal and State and Territory Governments and industry



SUCCESS STORY NUMBER RT10: VALUE ADDED ALUMINIUM EXTRUSIONS – *Bus builders assisted by innovative manufacturing*

Aluminium for bus frames

Aluminium is being more widely used in the manufacture of a wide range of road transport vehicles and associated equipment. Capral Aluminium is a market leader in design technology, alloy development and extrusion of the many and varied shapes that are used in these applications.

Capral is a WTIA Corporate Member that has supported the WTIA's NDNP Road Transport Industry Sector. Personnel from the company contribute significantly to the WTIA Technical Panel 3 that has developed the Expert Technology Tool Technical Note 2 *Successful welding of aluminium*.

At a recent meeting of the Panel at the Capral facilities in Melbourne, members of the Panel, from industry and research, were impressed by the company's approach to value adding to extrusions for the bus fabrication industry.

A presentation to the Panel, by General Manager Richard Axe, detailed Capral's aluminium extrusion and cutting technologies. Leading technologies such as friction stir welding and laser welding and cutting were discussed as well as future directions and technology needs. A later tour of the Capral plant proved extremely interesting.

Features of Aluminium

Aluminium has excellent features for the road transport industry which also contribute positively to Australia's need to conserve fuel and reduce road wear through lighter vehicles.

Aluminium is lightweight when compared to most other metals. Complexity of shapes that can be designed and extruded and full laboratory testing and certification is available.

Value added extrusions

Capral extrudes sections in numerous standard Australian registered alloys including hard alloys for high strength.

The company specialises in extruding a wide range of geometrical shapes as well as suites of extrusions for the manufacture of road vehicles. The notching and milling of roof beam extrusions for bus manufacture, for example, is enabling Capral to deliver ready-for-assembly components to customers.



Volgren buses utilise Capral aluminium extrusions



Length of sections that can be produced, depending on the complexity of the shape involved. Capral offers a fine tolerance cut to length service for extrusions ordered from any of its manufacturing facilities. Repetition cutting is also available. A light fabrication service is available on request.

Capral offers in-house die design and manufacturing facilities for standard and custom shapes. Surface finishing facilities are provided for powder-coated and anodised finishes.

Companies such as award-winning Volgren, based in Victoria and Western Australia utilise pre-fabricated components such as roof beams, based upon standard extrusions but augmented in the factory, to reduce the need for on-site fabrication and improve their productivity. Volgren is Australia's largest and most respected bus body building company with over 250 employees and manufacturing plant covering 45,000 square metres.

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