

Australian Industry **OZWELD**

WINS!

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



AusIndustry

SUCCESS STORY NUMBER R01: FAST TRACKING THE 'VLOCITY' PROJECT – WTIA working with a Victorian rail car fabricator to improve production and create more jobs.

The Project

Bombardier Transportation Australia Pty Ltd, a member of the WTIA's Rail Industry Sectoral Project, is manufacturing 38 2-car diesel train sets under a \$535 million contract for V-Line funded by the Victorian Government.

The stainless steel units are completely self-contained, each car being fitted with a diesel engine and transmission capable of speeds up to 160 kph. The entire concept, apart from the bogies, engine and transmission, from design to fabrication to assembly and commissioning is an Australian affair.

The contract is one of the largest rail car contracts in Victoria's history. It will create around 1,000 new jobs - 160 in the factory and hundreds more in supply industries across the State. There is 70 percent local content in their construction and a minimum of 80 to 90 percent in their maintenance.

In the case of the car shell, a subcontractor, Australian Rail Manufacturers (ARM) is supplying roll formed and laser cut profiles for assembly within the Bombardier factory. ARM is a consortium of three SMEs, and they have also been supplying welded substructures, which are then assembled into the main car structure.

The final set will be complete in mid 2006. At peak production the factory will be beginning a new car every 6 to 8 days.



WTIA Technologists

Local WTIA State Technology Manager, Alan Bishop, has assisted Bombardier throughout the project with designing, specifying, production planning and project welding engineering support. Graham Fulker, Bombardier's Technical Services Manager said this support from WTIA was invaluable.

The selection of appropriate processes and latest technologies played an important role in tackling some of the project challenges such as welding thin materials without weld shrinkage or distortion. The manufacturing tolerances for such a long vehicle are very tight, so each individual part has to be correct before it can be accepted into main assembly.

WTIA also carried out assessments on some of Bombardier's subcontractors, to help them benchmark and improve their performance against the International Standard AS/NZS ISO 3834 *Quality requirements for welding - Fusion welding of metallic materials*.

The Benefits to Victorian Industry

The Victorian Government's Department of Innovation, Industry and Regional Development, then headed by Minister Tim Holding, is wholeheartedly supporting the WTIA's NDNP Project. WTIA works closely with John Donaldson of the Office of Manufacturing for the benefit of Victorian industry by:

- ⇒ Sourcing leading-edge technologies through the OzWeld Technology Support Centres Network;
- ⇒ Diffusing technology to Victorian companies, especially SMEs;
- ⇒ Working directly with industry to improve its local and overseas competitiveness;
- ⇒ Facilitating national SMART Industry Groups for a range of specific sectors, such as the Rail group to which Bombardier belongs.

Picture: Almost complete vehicle in final assembly station, note the multi level work platform on the right

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