Tunnel construction is subject to stringent design requirements, strict safety regulations and hard work in tight spaces. EzyStrut continues to prove their capabilities in these areas, producing world-first systems for several major tunnel projects. Our ISO9001 and ISO14001 certified precision manufacturing, range of 2,500 products, and expertise in international logistics, makes EzyStrut the perfect choice.
Korvest Ltd is an Australian owned, Australian manufacturer based in Kilburn, South Australia. Founded in 1970, Korvest has achieved an enviable reputation within the industry through being able to provide engineered solutions and finish projects on time and within budget.

4 SPECIALIST DIVISIONS

Together, EzyStrut, Korvest Galvanisers, Power Step & Titan Technologies produce a range of standard, as well as customised and innovative products.

ABOUT US

ASX Listed since 1970, Korvest has built itself a strong reputation for being a capable supplier of cable and pipe supports, industrial access and safety systems, fastening solutions, and galvanising services. We are ISO:9001, ISO 180001 and ISO14001 certified.

All Korvest’s business units work together, and can develop an integrated, complete solution quickly and finished to recognised Australian and international standards.

Korvest is efficient, reliable, and flexible. Our workforce is multi-skilled, and lead by a central management team able to adapt to sudden changes in demand and customer needs as they happen.

HEAD OFFICE

The company’s manufacturing plant and head office is based in Kilburn, South Australia. Centrally located under 10km from Adelaide city and Port Adelaide.

ACROSS AUSTRALIA AND INTERNATIONAL

Nationally, Korvest has offices located in Adelaide, Melbourne, Sydney, Brisbane and Perth, with distributors in Darwin, Townsville, Hobart, as well as New Zealand. National and international transport is achieved easily with Korvest’s existing network, or we can provide ex-works availability as required.

OUR PEOPLE

Korvest’s workforce of around 180 employees is multi-skilled, and lead by a central management team. And has the capacity to scale up production should a project require more hands or hours to meet strict deadlines.
DESIGN
EzyStrut continues to invest countless hours in the development and ongoing improvement of our cable and pipe support systems. Using the latest programs in design technology, new products can be prototyped through virtual modelling before commercial fabrication. A complete library of workshop and technical drawings is made available for integration into client construction designs.

ENGINEERING
Korvest Engineering has extensive experience in designing cable support systems for road and train tunnels. We have provided innovative and bespoke product solutions that meet the customer’s specifications and performance requirements while minimising overall installation time and effort. Our experience includes designing cable support systems to 450°C, WSSX classification to AS/NZS3013:2005, and seismic restraint to AS1170.4. We can also work to the customer’s design. Korvest Engineering works directly with customer’s engineering team in order to ensure design objectives are met economically and efficiently.

QUALITY
Ezystrut is committed towards quality at all levels within the organisation, and works and complies to requirements of ISO 9001: 2008 quality management systems. EzyStrut is ready and able to provide project specific quality control procedures and manuals to suit the most demanding project requirements. Our proven performance has been demonstrated through partnerships formed with many of the largest engineering and construction companies, responsible for building many of the highest profile projects across all sectors of industry.

MANUFACTURING
EzyStrut manufacture one of the most diverse range of cable and pipe support products in industry, suitable for virtually all applications. Our manufacturing facilities include a broad range of advanced manufacturing equipment capable of producing almost any engineered product efficiently and accurately, as well as one of the largest Hot Dip Galvanising facilities in Australia. Using only prime quality materials and manufactured to recognised standards, EzyStrut can respond to all industry demands. Our flexible approach toward production planning, rotating shift management and a multi skilled workforce has seen us meet the challenges of the largest projects.
To ensure that the project runs on time and the status is continually communicated effectively to all stakeholders, EzyStrut will assign a specific Project Manager to the project. The Project Manager’s role will be to ensure that any likely capacity constraints are highlighted early, and increased production capacity strategies are actioned to remain on schedule. EzyStrut will ensure that it’s supplier base is aware of the importance of delivery on time with continual support and management of our supplier base to perform to schedule. The project manager’s role will also be to ensure that quality checks are completed and distribution of that information is communicated effectively, with product distribution continually monitored for conformance to customer requirements.

EzyStrut will develop an execution plan across the entire project, as information is made available on the required delivery schedule by the customer. A manufacturing and distribution schedule will be available to view at any time, measuring EzyStrut’s project forecast to actual supply. If the plan’s actual supply deviates from the forecast, EzyStrut will develop and make available a recovery plan to ensure that the project is bought back inline with the forecast.

DISTRIBUTION

Whether it is around the corner, or the other side of the world, EzyStrut can cater to all the logistical needs of your next project. Export packaging, documentation, customs and clearance can be managed under our control. EzyStrut continues to set the industry benchmark for supply and reliability.

WE DELIVER ON OUR PROMISE

EzyStrut has built an enviable reputation within the industry by delivering projects on time and within budget. These simple words have become the cornerstone to our success, by providing the level of service and reliability needed in today’s market.
Ezystrut offers design, manufacturing and supply of support structures to various sizes depending on the location in the tunnel and load rating of the instruments attached to the crown of the tunnel.

For the West Connex M5, our in-house engineering team has worked with the contractor’s designs to ensure the highest quality, safest and most economical support structures are designed and provide ongoing support throughout the project. Our in-house production and galvanising team ensures products are manufactured as per the schedule.

The instruments supported using EzyStrut Support Structures include:
- ISLUS - Integrated Speed Limit and Lane Use Sign
- TMS – Tunnel Message Sign
- CCTV – Incident Protection Cameras
- PA – Public Announcement Speaker system
- PTZ Camera Brackets

*Based on WestConnex Road Traffic Model V2.1, WestConnex Updated Strategic Business Case, November 2015.
PROJECT:
BRISBANE AIRPORT LINK TUNNEL

EzyStrut’s engineering team designed a revolutionary new concept for fire-rated cable support systems to handle the cable management for the tunnel.

This was the first cable support system to comply with the AS/NZS3013:2005 standard. Our product passed an independent test where it was subjected to temperatures peaking at 1050°C over a 2 hour period. EzyStrut delivered a special matte black powder coat finish to prevent unwanted light reflections that could affect drivers using the tunnel.

PROJECT OVERVIEW

$6.5bn | 6.7km | up to 150k | 15km | 750,000kg
Project | Road Tunnel | Vehicles use this tunnel daily | Cable ladder supplied on time | Can be supported by the installation
EzyStrut’s engineering was actively involved in design and supply of cable support systems for the tunnel system and the station.

Products supplied:
- Cable Ladder (various sizes) - 12,000m
- MTO Brackets
  - Emergency Lighting System - Fire Rated Cantilever Bracket >17,300
  - Signalling Containment System - Made to Order Cantilever Bracket >7,100
  - Low Voltage Containment System - Made to Order Cantilever Bracket >10,700

### WHAT WE SUPPLIED

<table>
<thead>
<tr>
<th>Ladders</th>
<th>Bends</th>
<th>Risers</th>
<th>Trapezes</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Ladder" /></td>
<td><img src="image2.png" alt="Bend" /></td>
<td><img src="image3.png" alt="Riser" /></td>
<td><img src="image4.png" alt="Trapeze" /></td>
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<tr>
<td><img src="image5.png" alt="Tri-Foil Clamp" /></td>
<td><img src="image6.png" alt="LV Cantilever Bracket" /></td>
<td><img src="image7.png" alt="ELS Cantilever Bracket" /></td>
<td></td>
</tr>
</tbody>
</table>

Photo: Sydney Metro North West  
Source: cjcmanagement.com.au
FIRE RATED CABLE SUPPORT SOLUTIONS

TECHNICAL INFORMATION

**Longer Support Span**
- Less Support Points
- Lower Load Capability
- Greater Deflection

**Shorter Support Span**
- More Support Points
- Higher Load Capability
- Less Deflection

**Load Over Span**
When choosing your cable support system, it is important to consider the weight (load) you want to support over a certain span. In the case of trapeze mounted cable trays or ladders, the span is the distance between these trapezes, separate from the overall length of the cable support product.

In many cases, the higher your desired load, the shorter the maximum allowable spans become, because shorter spans can support more weight. Shorter spans also result in less deflection. However, if you require longer spans and less fixing points for your support product, this can be achieved by reducing the maximum load per metre allowable over that span. All published loads assume a uniformly distributed load on installed products.

**AS/NZS3013:2005**
All EzyStrut Fire Rated Cable Supports are certified to AS/NZS3013:2005 Appendix C Classification WS5X (2 Hours) with a peak temperature of 1050°C.

**Fire Rated Cable Tray**
**Fire Rated Cable Ladder**
**Design Profiles**

**Support Span** is the distance between trapeze supports on your tray or ladder.

**Overall Length** is the total length of your support product regardless of the quantity of supports.

**Available Lengths**
Cable tray offers continuous support of cables along the entire length. Normally it is offered in 3m lengths.

Cable ladder offers greater strength when compared to other cable support products, using welded rungs to support your cables, and is offered in 3 or 6m lengths.

**Materials and Finishes**
By standard, EzyStrut Fire Rated components are manufactured from steel, and are hot dip galvanised after fabrication to meet AS4680:2006. This gives them a strong, all over coating of zinc that is metalurgically bonded to the parent steel, and means that the product is protected against corrosion in most outdoor environments.

Tray can also be fabricated from pre-galvanised steel, which has a visually clean appearance, and is ideal for inside installations where the product will be visually exposed.

**Handy Info**
EzyStrut’s fabrication services (EzyFab) can assist with arranging for powder coating of all products, as an optional, additional finish, to provide any colour necessary for design reasons, as well as special matte black to prevent reflections on the steel if the product is being installed in an environment such as a road tunnel.

**Testing**
All testing of EzyStrut Fire Rated Cable Supports is carried out in accordance with relevant loading, and AS/NZS3013:2005 requirements.

All results are independently certified by a NATA accredited facility.
The widest range of AS/NZS3013:2005 compliant Fire Rated Cable Support Solutions. EzyStrut understands the needs of installers for projects requiring AS/NZS3013:2005 conformance. These projects need reliability, effortless installation, options for different loads and spans, and assurance of compliance with the stringent standard.

Furthermore, our Australian engineering team can work with your site requirements to design an appropriate solution for your needs.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Design Profile</th>
<th>Cable Laying Depth</th>
<th>Cable Laying Widths</th>
<th>Support Span</th>
<th>Available Orientations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FR20</strong> Fire Rated 20kg/m</td>
<td>Single</td>
<td>45mm</td>
<td>150mm 300mm 450mm 600mm</td>
<td>2000mm</td>
<td>Horizontal</td>
</tr>
<tr>
<td><strong>FR26</strong> Fire Rated 26kg/m</td>
<td>Single</td>
<td>83mm</td>
<td>150mm 300mm 450mm 600mm</td>
<td>2000mm</td>
<td>Horizontal</td>
</tr>
<tr>
<td><strong>FR50</strong> Fire Rated 50kg/m</td>
<td>Single</td>
<td>45mm</td>
<td>150mm 300mm 450mm 600mm</td>
<td>1500mm</td>
<td>Horizontal Vertical On-edge^</td>
</tr>
</tbody>
</table>

*Minimum Order Quantities Apply.

^These systems can also be installed vertically and on-edge configuration (ladder rung perpendicular to ground) with the same spans as horizontal assemblies. Please contact EzyStrut for further information.