

**High Speed
Rubber Level Crossings**
for Railway Systems

Trelleborg Worldwide

Trelleborg Engineered Systems is a leading global supplier of engineered solutions focusing on the sealing, protection and safety of investments, processes and people, in demanding environments.

Trelleborg Engineered Systems comprises four market segments:

General industry: precision components and systems in polymer materials, such as hoses, elastomer materials and polymer-coated fabrics. Polymer and bitumen-based construction products for sealing and waterproofing applications for industry and consumers.

Other special products include molded components for a variety of industry segments, printing blankets for the graphics industry and industrial antivibration applications.

Offshore oil/gas: niche-oriented products for offshore oil and gas extraction.

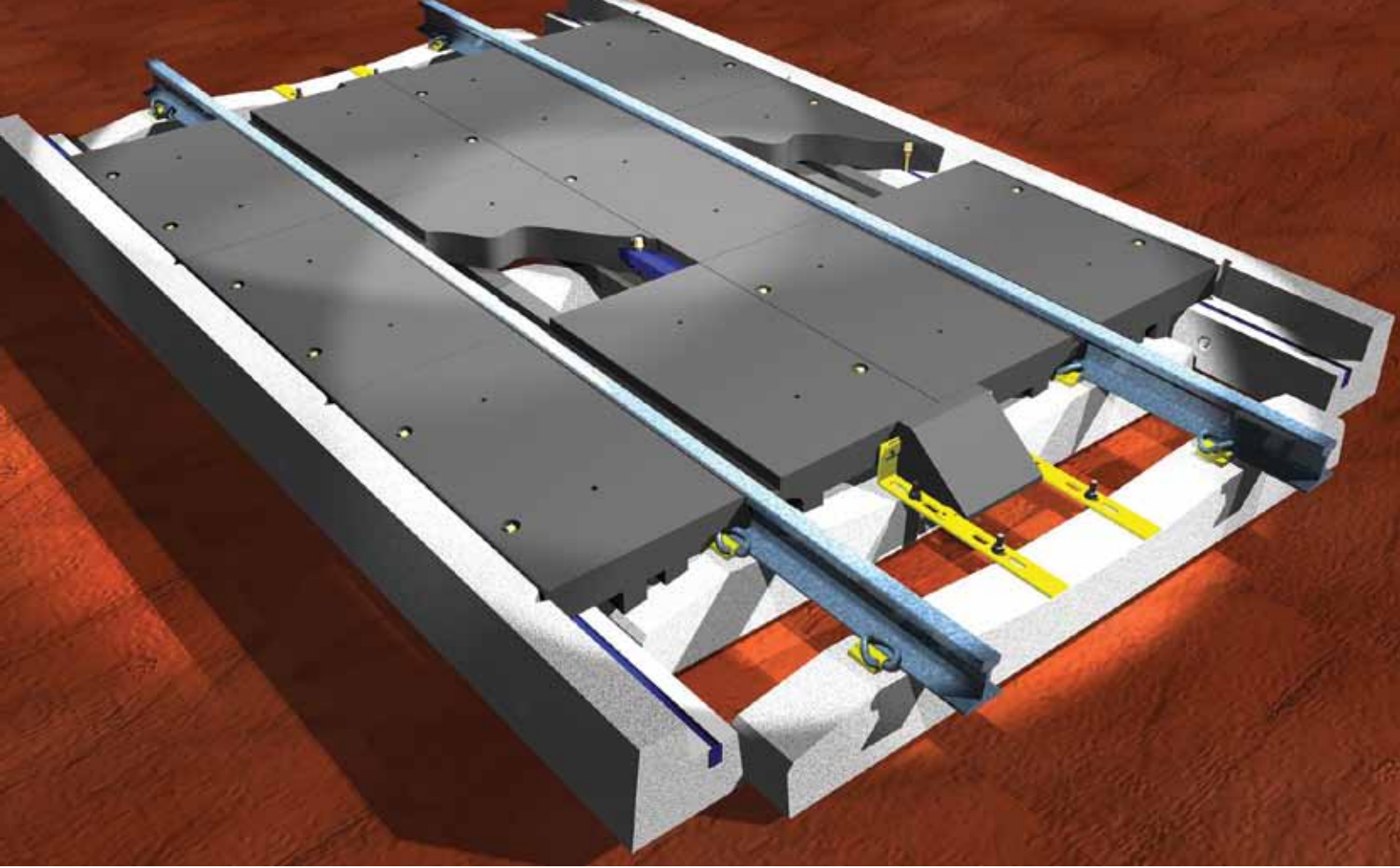
Infrastructure construction: specialised solutions for infrastructure projects such as, fender systems for harbours, tunnel seals, dredging systems, pipe seals, and acoustic and vibration-damping solutions for bridges.

Transportation equipment: Acoustic and vibration-damping solutions for railways and ships.

Head Office is located in Trelleborg, Sweden.

Production units are located in Australia, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Lithuania, the Netherlands, Norway, Poland, Singapore, Spain, Sweden, the UK and the US.





Practical Australian Design

The full depth virgin rubber construction allows for years of maintenance-free service and ensures that panel separation cannot occur while providing maximum load bearing capabilities for heavy duty applications.

The panels are contoured to ensure full contact with the sleeper surface.

The raised anti-slip road surface pattern, ASNZ 4586 Class V (IS > 44 = V.Low), has been designed to allow for efficient water drainage to minimise fouling of the track bed with debris.

Field panels are designed to fit our unique edge beam assembly.

Another unique feature is the quick removal of individual panels for safety and maintenance inspections without disturbance to the remainder of the crossing.

The use of concrete edge beams allows the panels to be removed for track maintenance without any disturbance to the road surface on either side while keeping road material away from track drainage areas.

Trelleborg Engineered Systems Australia has a quality assurance accreditation and maintains a comprehensive in-house testing facility to ensure components surpass industry standards.





The Trelleborg Advantage

- **Durable, type tested since 1991. Access to Trelleborg technical staff for assistance with specification details or installation training**
- **Concrete Edgebeams are ARTC approved for high speed and are rated to 110km/h and tested to 140km/h - within the tyre load ratings 'Interstate Road Transport Regulations 1986 - Schedule 4'**
- **The system comprises a minimum number of components, resulting in less track possession time and road closures significantly reduced**
- **The full depth rubber against the rail construction requires less maintenance while providing optimum track protection via its ability to absorb traffic impact. Track elasticity is also maintained and the system offers high electrical resistance**
- **Delkor Screws on both Field panels & Guage Panels ensure stable structure.**
- **The design flexibility ensures compatibility with all types of rail and sleeper combinations**

Designs are available for all types of rail and sleeper combinations including panels to fit existing concrete edge beam type crossings with easy to use identification documentation.

For all your special applications such as turnouts, industrial areas and tramways, contact our office.

Product Specifications

Field panels:

Length - 1200 mm

Width - to suit sleeper length

Gauge panels:

Length - 1200 mm

Width - to suit track gauge and sleeper profiles

Weight:

Field panel - Approximately 140 kg

Gauge panel - Approximately 140 kg

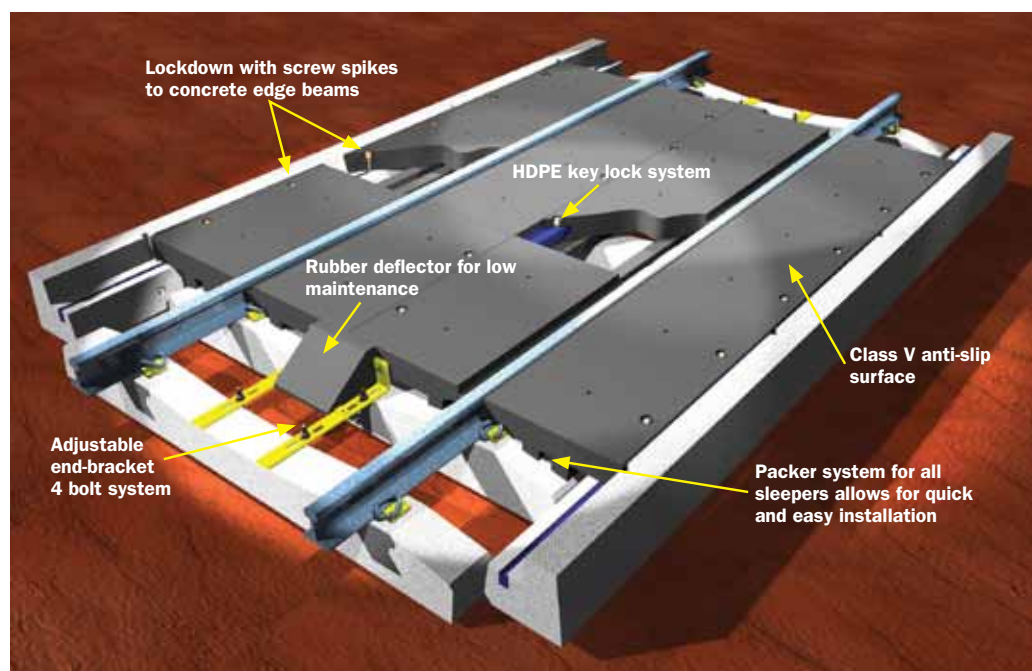
Concrete Edge Beams:

40 mpa concrete with HDPE inserts

All steel - galvanised beams also available with same high density plastic inserts to lock down panels



Panels feature a universal cutout for all clip types and are manufactured to the full contour of sleeper and rails.





Australian designed and tested since 1991

The field panel was loaded to 10 tonne to simulate a truck stopping suddenly on the crossing. The deflection was recorded.

At the 10 tonne load, a deflection of 1.72mm was noted at the spacer. The deflection was localised at the spacer and returned to zero once the load was removed.

The FB/11 rail panels exhibit little, or no deflection when coming under the vertical load equivalent to 10 tonne per tyre load of a heavy truck in the position midway between support points.

The rapid impact load test indicates that the Trelleborg all rubber panel compound maintains rigidity and its structural integrity under very high loads.



Load tested to 3 times the required safety factor

Trelleborg Rail Panels exceed all loading criteria as laid down in Australian regulations by a minimum factor of 3, ie;

- Interstate Road Transport Regulations 1986 - Schedule 4
- National Heavy Vehicle Reform, Vehicle Operations, Heavy Vehicle Mass, Loading and Access - Roads and Traffic Authority, NSW.

Quick and easy installation

Trelleborg High Speed Rubber Level Crossings are easy to install by 2 - 3 persons.

A comprehensive installation manual is provided.

1 hour:
Concrete edge beams in place,
install field panels



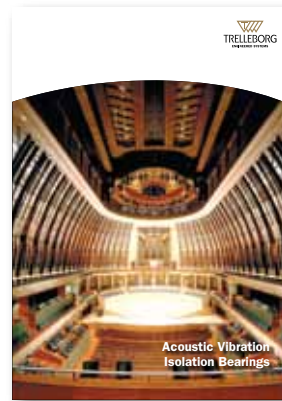
1.5 hours:
Install gauge panels
Fit end brackets



2 hours:
Reinstate road, crossing is now
ready for use



Other Trelleborg Products



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