

# Vossloh Sleeper Technologies Australia



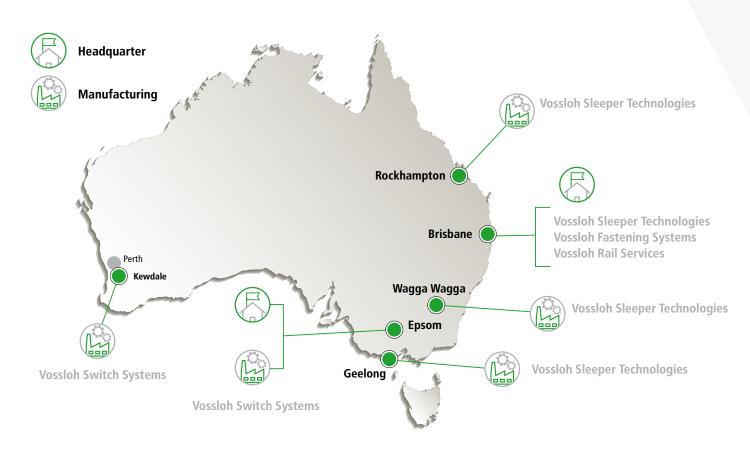
**Capability Statement** 

# **Vossloh in Australia**

### Integrated Rail Solutions - Global Strength, Local Expertise



From sleepers and switch systems to fastening technologies and expert services — Vossloh keeps Australia on track.



# The Company

### Here for the Long Haul

Vossloh Sleeper Technologies Australia combines decades of global rail expertise with a strong local presence. As part of the Vossloh Group, a global technology leader in rail infrastructure, the company offers integrated rail solutions from a single source, contributing to the safe, reliable and sustainable movement of people and goods worldwide.

Founded in 1980, the company has built a strong reputation as Australia's largest manufacturer of pre-stressed concrete sleepers and a world leader in sleeper design and manufacturing technology.

In 2018, Vossloh acquired the Australian company Austrak, a well-established expert in concrete sleeper design and production. Today, the business operates fully under the Vossloh name, continuing its legacy of technical excellence and reliability.

Vossloh Sleeper Technologies Australia is committed to delivering high-performance, durable, and sustainable sleeper solutions while providing Australian clients with direct access to the global Vossloh Group's suite of rail infrastructure technologies and services.

Safety, Quality, and Sustainability are underpinned by Innovation and Collaboration as the core principles of the Vossloh customer value proposition. We work in close partnership with our customers in an open and consultative way, understanding their needs across all key areas — from ballast condition to maintenance schedules to deliver optimal rail performance.

With extensive experience in design, construction, commissioning, and operation of sleeper manufacturing plants, Vossloh Sleeper Australia has built and operated 13 factories across Australia and overseas, with capacities ranging from 50,000 to more than one million sleepers per year.

To date, the company has produced over 24 million sleepers for heavy haul, passenger, and light rail applications — including two million sleepers for tram and light rail systems — offering a comprehensive range of products tailored to the diverse needs of its customers.

### Established 1980

24 Sleepers over 40 years

1.5 //Year Total capacity

120 **Employees** 

3 Factories 85% Repeat business¹

Across Australia<sup>2</sup>

standard Sleeper products<sup>3,4</sup>

<sup>&</sup>lt;sup>1</sup> Based on product volume

<sup>&</sup>lt;sup>2</sup> Rockhampton, Wagga Wagga and Geelong

<sup>&</sup>lt;sup>3</sup> Standard sleeper products range across Narrow, Standard and Broad gauge

<sup>&</sup>lt;sup>4</sup> Full product range includes Heavy Haul, Full Depth, Low Profile, Turn Out Beams, Gauge Widening, Transition, Guard Rail, Flat and Canted



# **Innovative Sleeper Solutions**

### Pushing the boundaries

Vossloh specialises in cost-effective sleeper solutions. Our emphasis on researching and developing sleeper design and production technologies is what makes us the industry leaders in Australia.

Our products meet exacting standards of structural design, beam strength, materials specification and selection, concrete durability, manufacturing process, correct stressing, concrete compaction, dimensional integrity, visual inspection processes, and performance testing. Therefore, our products and processes meet or exceed AS1085 Railway Track Material Specifications.

As part of our commitment to sustainability and innovation, we are developing leading edge sustainable sleepers that reduces the carbon footprint.

The key to our product advantage is the IP in our products, factory technology and operating systems. We have proven, robust systems, processes, and equipment developed over 40 years of operation.

# **Proven Reliability**

#### Over 24 million times

Vossloh is a dedicated sleeper company using state of the art manufacturing processes. Benchmarking between factories and performance monitoring ensures efficiency and optimal performance. Reliability, repeatability, and value for money are the hallmarks of the Vossloh system.

Our Standard Operating Procedures are the heart of our factory management system, which assures that every sleeper meets the exacting specifications that clients require for the whole design life.

Vossloh has designed its own Integrated Management System with built-in quality control processes outlining how the business is operated. This means our processes are repeatable to exacting standards, safely and consistently, giving our clients greater protection.

#### Processes include:

- > State-of-the-art concrete testing laboratories at all factories
- > Trained and competent management and operators
- Management systems that ensure compliance to the applicable standards including AS1085 Railway Track Material Specifications
- Record keeping of everything from raw material test results and daily production to operator training records



# **Health and Safety**

We take pride in ensuring we all get home safely every day

Health and Safety is a core value at Vossloh and will not be compromised. We are committed to creating safe working environments and improving the long-term health and well-being of our people.

# Our Guiding Principles for Safety are:

- > Safety is an ethical responsibility
- > People are the solution
- > Safety is the Presence of Positives

# Our Health and Safety Objectives are as follows:

- Prevent any and all major or disabling injuries and fatalities to employees and contractors
- Ensure the personal wellbeing of all employees is considered and maintained
- ▶ Ensure compliance with Australian law and Vossloh safety requirements
- Maintain an ISO certified Integrated Management System
- Create a culture of ongoing education, engagement and shop floor presence from management

Vossloh operate a program for Prevention of Fatal and Severe Risks by deploying and auditing standards for high-risk work. All our operating factories have third-party accreditation to ISO 45001, Health and Safety.









# **Community and Diversity**

#### The essence of care and inclusion

Vossloh factories are all located in regional areas, employing local people and using locally based suppliers where possible.

Ethnic and gender diversity is an important company value, and we maintain and are increasing employment and training of Aboriginal and Torres Strait people, who in 2022 make up 10% of our total workforce. We are also focused on raising the level of female participation in our workplace from 15% in 2022 to at least 25%.

Vossloh has partnered with Indigenous recruitment firms to help achieve higher than average participation.

In 2020/21, Vossloh sponsored a one year training program that resulted in 50 employees across all of our sites being awarded either a Cert III or IV in Process Manufacturing. We are proud of the effort our people made in achieving this goal.

The success of these programs underscore our commitment to leaving a lasting positive legacy in the communities in which we operate.



## **Product Range**

#### Versatile and comprehensive

#### **Axle Load**

Sleepers have been designed to accommodate axle loads varying from nine tonne for tram sleepers, through to 30 tonne for freight railways and right up to 50 tonne axle loads for heavy haul lines in the arduous environment of the Pilbara in Western Australia.

#### Gauge

Our product range includes: Broad gauge, Standard gauge, Narrow gauge, Narrow/standard dual gauge, Standard/broad gauge changeable, Turnout bearers, Level crossing panels, Monorail sleepers. We also have full depth and low profile designs in all gauges plus the various specialty sleepers needed for an operating railway.

#### **Turnout Bearers**

Vossloh is an industry leader in the specialised field of designing and manufacturing pre-stressed concrete beams for turnouts, crossovers, diamonds, and catch- points. These have been developed for varying axle loads and gauges as well as divergence ranging from 1:6 through to 1:25.

#### **Cable Safe Sleeper**

A sustainable sleeper designed to reduce the carbon footprint while allowing a 55 mm conduit to pass beneath the track for signaling or other applications.

#### **Fastening Systems**

Vossloh capability extends to producing sleepers and turnout products using any and all approved fastening systems including Vossloh, Pandrol and Delkor all being used as recently as 2021.

# **Low Profile Timber Replacement**

Following an extensive research, development, and testing process, Vossloh developed low profile timber replacement sleepers in 2005. The highly engineered solution for replacing ageing timber sleepers was based on extensive rail track data and analysis to ensure the sleepers are a similar size to timber and match the specifications of the line. The sleepers are longer-lasting, more economical, and lower maintenance than timber sleepers. In the last two decades more than 3.2 million low profile timber replacement sleepers have been placed in track across the east coast of Australia.

#### **Low Carbon Sleeper (Lo-C)**

Our Low Carbon Sleeper (Lo-C) reduces the carbon footprint by around 25% compared to standard sleepers while maintaining full compliance with Australian Standards and equivalent structural performance. It offers a scalable, sustainable solution to help rail networks meet their decarbonization goals without compromising quality or reliability.

#### **Customised Solutions**

We have produced a wide variety of customised product to meet ancillary client needs such as stacker-reclaimer and conveyor footings and monorail sleepers.





## Design

#### For any requirement

The in-house research and development capability at Vossloh ensures we can design sleepers and turnout beams for almost any type of railway requirement.

Whether designed in-house or in conjunction with other specialist consultants, the Vossloh experience ensures we can deliver innovative solutions for new requirements. Designs can be made from nominated bending moment requirements or from performance parameters. Design techniques used include the traditional allowable stress method to more modern limit state design.

Vossloh has developed and patented it's own rational design technique, allowable within the Australian Standards, using specific data collected on operating railroads, to design sleepers that meet the required load case with more material efficiency than the traditional standard design technique. This method enabled the design of low profile sleepers that can be side inserted in existing track.

# **Testing**

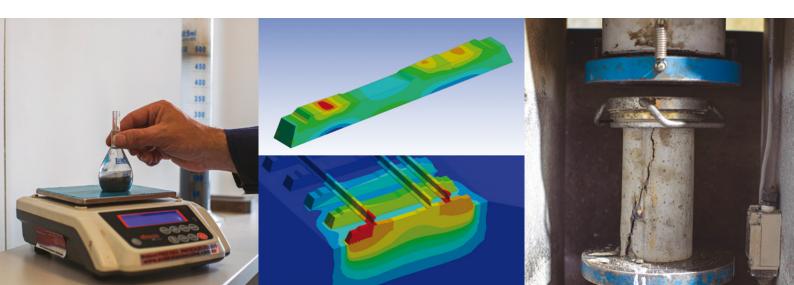
#### To the nth degree

Comprehensive testing is an integral part of the Vossloh design and production process. Sleeper designs are modelled, tested with repeated load cycles, and refined to ensure they meet the train speed and load-bearing specifications of our client's performance expectations.

During production we test materials to ensure conformity to material specifications, we test our concrete to ensure conformity to concrete specifications and we test sleepers to ensure they meet the design and load requirements.

Sample sleepers are taken from each batch and tested for bending moment, cracking, pre-stress wire bond development as well as checking of all the key dimensions. Every single sleeper is visually checked for defects as part of our Quality Assurance program.

Our on-site laboratories at our Wagga Wagga and Rockhampton f actories are undergoing full NATA accreditation and all sites' testing equipment is NATA calibrated in accordance with the prescribed schedule to give our clients additional piece of mind.



# **Production Technology**

### Systemised, scalable and responsive

The Vossloh robust, proven manufacturing systems, processes, and equipment as well as continual research and development all ensure that we stay a leader in the field of sleeper design and production.

Factory employees undergo rigorous training to ensure quality, productivity and safety are of the highest standard. Our operational and management staff bring extensive experience to the business and a client-focused approach to each project.

Vossloh has a national network of four strategically located factories. If needed however, we can build and operate factories near any larger projects to provide cost and logistics efficiencies. For example, two factories were built in the Northern Territory to manufacture two million sleepers for the 1,410 kilometre rail line from Alice Springs to Darwin.

Our factories operate under the Vossloh developed work methods and quality assurance standards which are third party accredited to ISO 9001, ISO 14001 and AS/NZS 4801.

### **Currently Vossloh Sleeper Technologies has factories in:**

- > Geelong, Victoria
- > Rockhampton, Queensland
- > Wagga Wagga, New South Wales

# In the past we have built and operated factories in:

- Dubai, U.A.E
- Mackay, Queensland
- > Wickham, Western Australia
- > Townsville, Queensland
- > Katherine, Northern Territory
- > Tennant Creek, Northern Territory
- > South Hedland, Western Australia
- > Port Hedland, Western Australia
- Malaysia











## **Major Projects**

### A record of reliability and repeatability

Vossloh has delivered projects internationally and domestically. These projects showcase not only our capacity on significant projects but also our remote capability; successfully completing projects ahead of schedule in some of the most remote locations in the world.

#### **ARTC Inland Rail, Melbourne to Brisbane**

Client: Australian Rail Track Corporation (ARTC)

Location: New South Wales

Overview: The Australian Rail Track Corporation (ARTC), with the support of the Federal Government, initiated the Inland Rail Project in 2017 to provide a double stacked freight track from Melbourne to Brisbane. Vossloh supplied over 200,000 sleepers for the Narrabri to Northstar section in 2019-2020 and is contracted to supply a further 1.3 million standard and dual gauge sleepers to Inland Rail for the remaining sections to the north of Narromine.



### **Alice Springs to Darwin Railway**

Client: Australasia Railway Corporation (Vossloh was a subcontractor to ADrail)

Location: Northern Territory

*Overview:* The Alice Springs to Darwin railway line was one of the largest infrastructure projects ever undertaken in Australia. As part of the overall project, Vossloh was charged with the responsibility of manufacturing approximately two million concrete sleepers in just 16 months for the 1410 kilometre single track railway.

To meet this daunting challenge, Vossloh designed, constructed and commissioned two strategically located factories at Tennant Creek and Katherine.

By constructing and managing its own factories, the project team was in complete control of the supply chain, manufacturing processes and quality control, being well positioned to deliver the job in the most cost effective and timely fashion.



#### **BHP Billiton Iron Ore**

Client: BHP Billiton Iron Ore

Location: Western Australia

*Overview:* Vossloh's long-term relationship with BHP commenced in 1986 when the company was contracted to manufacture and supply sleepers and turnout bearer sets for the partial duplication of the line to Mt Newman, Yandi, Whaleback and Jimblebar. The relationship continues with a new three year contract executed in 2021.

To date, Vossloh has manufactured and supplied about 1.6 million sleepers and 200 turnout bearer sets for BHP.

To support BHP's requirements, Vossloh rapidly built and commissioned a single bed rail sleeper factory at South Hedland in Western Australia. A new five bed factory was built and commissioned at Wedgefield in 2000 and this supports BHP's current needs.



### **Queensland Rail Projects**

**Client: Queensland Rail and Aurizon** 

Location: Queensland

*Overview:* Vossloh is proud to have a 30 year relationship with Queensland's passenger services. Vossloh have extended their current contract in 2021 for a further 3 years.



### **Aurizon Projects**

**Client: Queensland Rail and Aurizon** 

Location: Queensland

*Overview:* Vosslohis proud to have a 30 year relationship with Queensland's freight rail services, initially as Queensland Rail and now as Aurizon. In 2019, Vossloh renewed its long-standing relationship with Aurizon with a new 3 year contract.



### **Rio Tinto Iron Ore Projects**

Client: Rio Tinto Ltd, Norths Ltd and Robe River Associates

Location: Western Australia

*Overview:* Since 1987 Vossloh has had an ongoing relationship with Rio Tinto, one of the world's leading mining and exploration companies.

Vossloh has supplied various projects for Rio Tinto including Robe River Project, North Limited Project, Hope Downs 4 Rail, RCE283 and most recently Gudai-Darri between 2020 and 2021.





# **Our Management Team**

### Over 100 years of combined rail industry experience

The experience of our team is inimitable; having a deep knowledge of sleeper manufacturing and rail operations; underpinned by the global, technical and financial resources of the Vossloh Group.



**Murray Adams** *Managing Director* 



**Vanessa Scott Hubbard** *National Safety & Systems Manager* 



Richard Underwood Commercial Manager



**Adam Clifton** *National Engineering Manager* 



**Kim West** *Financial Controller* 



Claire Bauer Human Resources Manager



**Ross Smith** *National Operations Manager* 



**Tom Heyer** *Business Development Manager* 



Michael Willis National Quality and Improvement Manager





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