

## Competence brings acceleration

// We will fast-track your project – reliably and worldwide.
Rhomberg Sersa Rail Group. Your complete railway engineering service provider.





### 100% Progress

# Innovative strength and power of implementation.

We drive the development of rail transport with our services to ensure that the most efficient and sustainable means of transport remain competitive and relevant.

The Rhomberg Sersa Rail Group – the result of a merger between Rhomberg Rail and the Sersa Group in 2012 – is an owner-managed technology company for railway infrastructure with a reputation for delivering outstanding quality offering tangible customer benefits such as efficiency, reliability and on-time delivery. It manifests in the continuous innovative service, by achieving exceptional project delivery in a cost-efficient manner with high customer satisfaction.

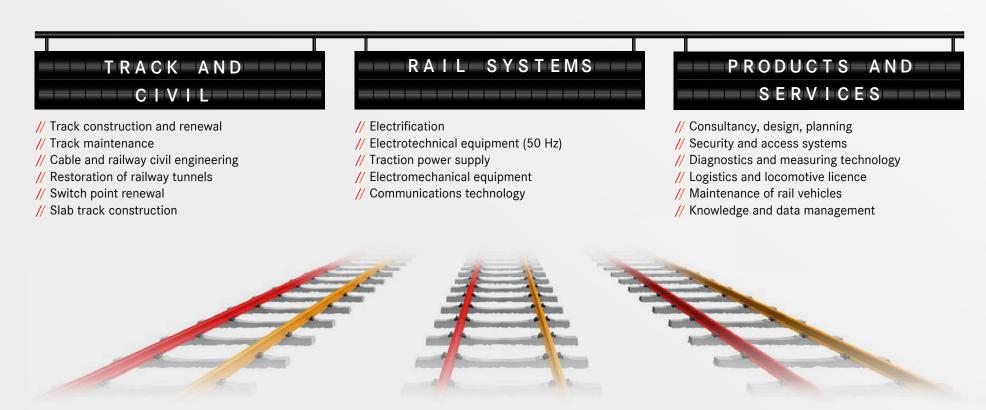
As a leading railway technology company, we offer our customers one of the most complete range of services in all aspects of railway construction and infrastructure services. This is supported by state-of-the-art technology, highly competent staff, with many years of experience and, most important of all, an outstanding professional and diverse workforce of over 2,500 employees. Our operatives are experts with invaluable experience gained from complex projects delivered worldwide. They work to implement our vision, which goes far beyond the company itself – driving towards the success of the railway through innovative solutions, reduction of cost, increased efficiency, reduced environmental impact whilst maintaining safety as a core objective of our business.



Konrad Schnyder, Owner Board President, and Hubert Rhomberg, CEO of the Rhomberg Sersa Rail Group

### Full railway engineering service provider

Prime and general contractor



# 100% Performance The complete railway engineering service.

#Benefit from the full service range offered by the Rhomberg Sersa Rail Group – affecting every aspect of the project and infrastructure lifecycle.

We plan for the long term and act with a view to the future. We consider our customers aspirations and needs when advising on the system requirements to ensure we have a positive impact on the entire lifecycle of the asset. We aim to deliver maximum benefit in all phases of the lifecycle by means of cost-efficiency. Irrespective of whether you commission us as a general contractor or as a subcontractor, we will always apply a holistic approach that encompasses more than just the day-to-day requirements.

We offer services covering the entire railway engineering spectrum; including consultancy, project design, planning and construction management. Our range of services includes specific construction and maintenance services inclusive of, but not limited to; mechanised track construction, plain line renewal, Switch and Crossing renewal, track maintenance, rail welding and ballast formation treatment. In addition, you will benefit from innovative products such as Slab Track design and renewal, measuring and surveying technology, the Sersa Second Life System® (SLS) and professional systems such as consultancy and safety critical labour supply. Our expertise also includes all aspects of high and low voltage electrical infrastructure.









# 100% Productivity Competence is the key to reliability.

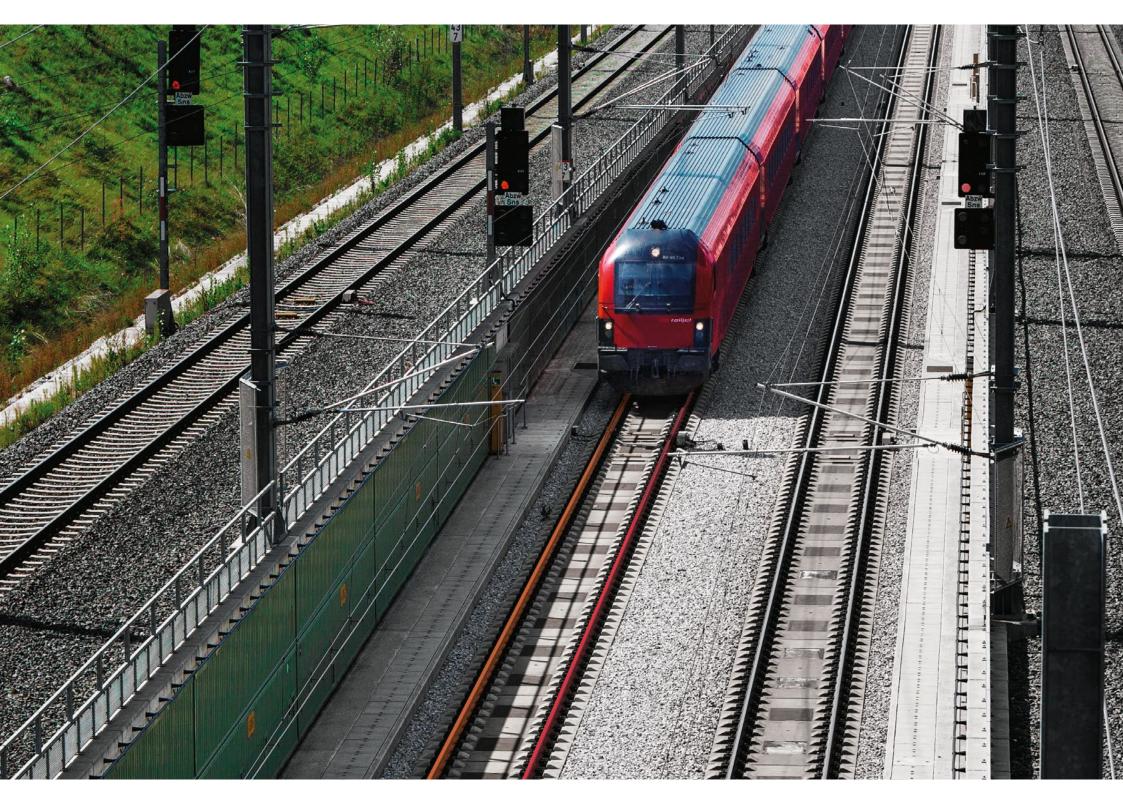
// Commuter systems in urban situations present a unique challenge.
Thanks to our experience we deliver quality solutions, on time and to budget.

Whether involved in mainline infrastructure, light rail tram systems, urban networks or underground systems, the Rhomberg Sersa Rail Group has the expertise necessary for tackling the requirements associated with complete construction or remodelling – particularly in geographically sensitive and demanding situations. We understand that projects in restricted or residential areas require considered solutions with minimal disruption to the public and environment. High productivity must be maintained while considering the safety of the local population, infrastructure and our own staff. It is also essential to avoid, where possible, disruptions to the travelling public and local transport networks.

Our expertise and competence gained through the delivery of numerous complex projects enables us to identify the right solution to meet our customer's needs. For example, for the complete renewal of Switch and Crossings, a competence in which we are global leaders, or with innovative Slab Track systems and construction including the ballast to slab transition. We also have the resources and expertise to offer 24-hour construction site security, access and control.









# 100% Precision The prerequisite for maximum speed.

High speed for main-line transport. The Rhomberg Sersa Rail Group has industry leading high performance mechanised construction systems, including advanced track surveying and measuring technology.

Precision is a quality that can be measured. Dedication and attention to detail are values that cannot be so easily measured but are just as important to us. We measure the requirements of our projects and the needs of our customers just as we measure our work to a fraction of a millimetre – over hundreds and thousands of kilometres – in order to fulfil defined criteria and meet the most demanding requirements.

The safety and comfort of passengers demands absolute precision of the track geometry and positioning. Achieving these objectives requires state-of-the-art measuring systems and efficient, cost-effective construction methods based on innovative technologies, high-performance machinery and well-planned systematic processes.









## 100% Efficiency

### You don't have much time. Let's use it well.

Our clients cannot wait. Whether we are dealing with the construction and maintenance of passenger lines or goods transport. They are surprised, again and again in what can be achieved in a short space of time.

It is obvious that infrastructure used for freight presents unique challenges that differ from high-speed railway lines. Both have tight deadlines. We are ideally equipped to deal with these situations and view such projects as a welcome challenge.

Railway lines for heavy and very heavy goods trains require an in-depth knowledge of the construction requirements and materials that affect the whole life-cycle performance. For these types of projects we can draw on our many years of experience of construction and maintenance of heavy haul lines in the Australian Outback and in North America. The railway infrastructure in the Pilbara and Hunter Valley in Australia or the transcontinental links in North America have to function perfectly under extreme conditions with axle loads of up to 40 tonnes carrying millions of tonnes of material per annum.









# 100% Optimisation Complete solutions and comprehensive support.

#The provision of private infrastructure elements and long-term interdisciplinary support is one of our strengths. Our customers benefit from complete cost optimisation.

Just imagine a port installation, a freight terminal or a private siding for goods trains in an industrial context. These lines often operate 24 hours a day. When capacities increase or other changes are called for, modifications have to be carried out without disrupting the operational railway.

The interdisciplinary teams within the Rhomberg Sersa Rail Group are able to design and manage these infrastructure projects, ensuring the functionality of the infrastructure and its long-term value whilst optimising costs and results for our customers.

















### **100% Focus**

## The complete range of railway construction services.

Railways are our passion. In all forms of construction, with innovative technology, under the open sky or in tunnels – we will drive your construction project.

#### Track construction and renewal

Our core competence is both mechanised and manual track construction, including track renewal in all track gauges. We underpin our highly efficient site management and logistics with high-performance machines and partial renewal systems. We are worldwide market leaders in the complete renewal of Switches and Crossings.

#### Track maintenance

Mechanised track maintenance is one of our specialities. We measure, align, level and compact ballasted infrastructure using an optimum array of resources. We also mill and grind rails. With the Sersa Second Life System® (SLS) we are able to refurbish Switches and Crossings re-establishing the correct track gauge and geometry.

#### Rail Infrastructure Electrical and Civil Engineering

From excavation through to asphalting work – we are able to carry out all disciplines of cable, rail and Civil Engineering works required as part of private sidings, e.g. cable trench excavation, plant clearance work, soil replacement, jetting micro-cables and speed pipes, installation of rail connection boxes, construction of complete new platforms, construction of railway culverts (pipe culverts, in-situ concrete).

#### Restoration of railway tunnels

Railway tunnels are particularly prone to problems, their restoration requires extensive know-how. Our expertise covers the restoration of the loadbearing structures, the track infrastructure, water ingress, the widening of tunnels to increase tunnel gauge and all installations and safety upgrades.

#### Switch and Crossing renewal

Innovative machine technology, optimised site planning and the use of synergies; the "total switch renewal" concept is based on the modular structure of all services in the field of Switches and Crossings. In this modular principle, all work processes perfectly complement each other while we maintain flexibility under a variety of site requirements and conditions.

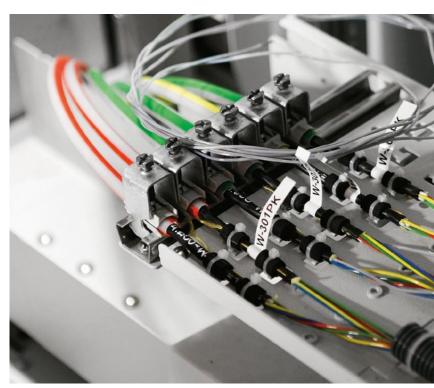
#### Slab Track

We are Slab Track specialists and have experience with systems such as Rheda 2000, LVT and ÖBB/PORR as well as plinth and direct fixation methods. We support this work with bespoke machinery such as a rail mounted concrete train and a variety of alignment systems. In addition, we offer our own Slab Track system IVES, as well as solutions for the construction of Slab to Ballast transitions such as the Rhomberg Sersa V-TRAS.

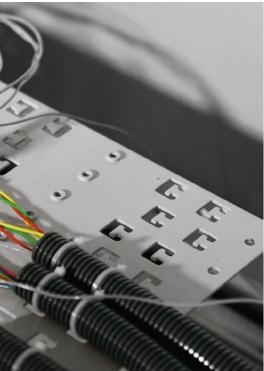












# 100% Reliability The range of railway services.

"Railway lines have to run safely and efficiently; to this end we provide state-of-the-art railway systems and power supply solutions.

#### Electrification

With our experience in overhead contact wire installation we guarantee maximum cost efficiency and reliability for the implementation of all projects. Irrespective of whether these revolve around new installations and the upgrading of existing infrastructure or overhead contact wire components for local and long distance transport. Our range of machines include; catenary maintenance, the latest generation of lift and crane, inspection and maintenance vehicles, all of which contribute to increase in the efficiency of overhead wire installation. We extend the range of our comprehensive high quality service portfolio by cooperating with other companies.

#### Electrotechnical equipment (50 Hz)

We install complex components of electrotechnical infrastructure alongside the rail. Starting with the design of high, medium and low voltage grids for the supply of power to railway stations, control and safety systems, industrial buildings and facilities. We install the required transformer stations with switching systems and wiring installations.

#### Railway power supplies

Our services include the design and installation of railway power supply systems, substations, Switch and Crossings and overhead contact wire systems, including cables and return conductor systems. We use our RhoSA product family for the installation of direct current railway supply systems. It consists of a system of inverters, direct current switching systems and innovative control mechanisms.

#### Electromechanical equipment

Our range of services includes the installation of infrastructure in railway tunnels, including electromechanical components such as doors for isolating tunnel sections, ventilation, air-conditioning systems, firefighting water, lighting and passenger route evacuation systems.

#### Communications technology

Data lines are used for connecting the various infrastructure components and communication equipment. We design transmission installations that best suit the customer project and provide the required network. For this purpose we use systems such as copper cable, optical fibre and radio transmission installations, including digital and analogue speech radio systems.













# 100% Customer orientation Specific products and services.

We focus on a comprehensive customer benefit. For this reason we undertake in-house development of technologies, products and services for new and better solutions in railway construction.

#### Consultancy, design, planning

Our consulting and design expertise covers the provision of personnel and systems, project management, quality assurance, logistics and measuring technology. We also specialise in the detailed design of railway engineering, interface design and the optimisation of complete solutions.

#### Security and access systems

Our Group offers you a range of site organisation systems: access and locating systems, barrier systems, video monitoring, security control stations, communication systems, alarm and fire alarm systems, air quality systems, power supply and site lighting.

#### Diagnostic and measuring technology

Using state-of-the-art measuring technology, our specialists survey the condition of the rail infrastructure, the subsequent data can be analysed with the client to define predictive maintenance concepts. Highly precise measuring systems, such as the PALAS guidance system for track construction machines, the VERSINUS premeasuring system and the HERGIE track adjustment system, are the basis for the construction and maintenance of modern track systems. Our own survey specialists will provide these services directly on site.

#### Logistics and locomotive licence

Outstanding logistics are an essential prerequisite for efficient construction and restoration. Our service includes the design of logistics concepts, the implementation of the complete site logistics, the letting of traction and special vehicles, including operators and drivers.

#### Rail vehicle maintenance

We carry out inspections, revisions and maintenance, guaranteeing compliance with the guidelines of all European railways. Our service includes rail vehicles in accordance with DIN 25 003 including ancillary vehicles with or without drive, tank cars, goods trucks of standard and special construction and diesel locomotives.

#### Knowledge and data management

We organise and develop seminars for current key topics in the railway industry. We support you to develop further your technical knowledge that is relevant for your infrastructure. Our expertise in surveying and digitalisation, quality assessment and development of industry norms enable our customers to step into the new phase of industrial revolution of "Rail 4.0" and "Network Maintenance 4.0".



# 100% Commitment Ideas encompass the world.

#The Rhomberg Sersa Rail Group are a global organisation with a global and diverse workforce. What they have in common is their pioneering enthusiasm for the railway and being passionate about achieving the very best for our customers: 100% and more.

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### Building for the future.

We consider the railway to be the commercially and ecologically leading means of transport in goods and passenger transportation. We see ourselves – the Rhomberg Sersa Rail Group – as the motor of a successful development of rail transport. Our services support the efficiency of the railway, benefitting its operators and users.





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