



TRACK SOLUTIONS

Our Efficient Track Management Optimizes
Performance and Costs



FULFILLING THE CHALLENGES OF TODAY AND TOMORROW

EFFICIENT PRODUCTS AND SYSTEMS GUARANTEE OPTIMIZED PERFORMANCE AND COSTS

The world's population is expanding, more and more people are moving to bigger and bigger cities – the mobility of tomorrow is presenting us with new challenges. Efficient ecological solutions are now in demand. The railways play a key role here, and the growing need for transportation has to be satisfied swiftly, safely and economically.

This means the creation of optimum logistical solutions is the top priority for network operators.

At the same time however, they also have to continuously improve costs and efficiency for the rail service – and we make a key contribution here. voestalpine has played a significant role in the success of its customers for over 160 years. We respond to changing mobility needs with high-tech products, digital systems and integrated service solutions, developing solutions in close coordination with network operators to significantly improve the rail track of tomorrow.



From the idea to implementation, from training to consulting, from logistics to maintenance, to a complete solution from a single source – with our Track Solutions we offer a comprehensive 4-pillar concept which helps to substantially optimize service life, economic efficiency, availability, reliability and ease of maintenance throughout the rail network. We stand for customer-optimized systems and are able to boost availability while minimizing life cycle costs – we analyze the

needs of our customers and recommend the best technical and most cost-effective solution for rails, turnouts and systems based on precise calculations.



PREPARE



START



4 PILLARS, AN OPTIMUM RESULT

Individual Solutions for Different Requirements

We are familiar with the challenges confronting our customers: maximizing track availability while optimizing overall costs. We are able to make an efficient contribution here thanks to the combination of our innovative products with comprehensive services. As a smart provider of digital system solutions such as real-time monitoring systems, we assist infrastructure owners and general contractors in optimizing track performance and asset management.

The portfolio of voestalpine Railway Systems is wide-ranging and not only includes numerous out-of and in-track services, but also supply and logistics. Besides these services, our customers additionally benefit from the expertise of voestalpine, built up over many years. We are happy to pass it on and share it with customers in the framework of our engineering work and training programs.



RUN



PERFORM





PREPARE

CONSULTING, ENGINEERING & TRAINING

- » Analyses of track routing, rail-wheel contact and the entire track system
- » Surveying and line routing
- » Engineering
- » Development of maintenance strategies and operational scheduling
- » Theoretical and practical seminars and workshops at our academies
- » Tailor-made in-house training courses at our customer's premises

The realization of railway projects is becoming increasingly complex. Future availability and life cycle costs are decided by the overall track system, product technology in conjunction with signaling technology, track routing and cost-efficient maintenance planning.

More than 150 engineers are hard at work all over the world, developing specific solutions for our customers. As a global business we bring together expertise and operator experience from a wide range of projects. This is what characterizes our company.

From the planning, development and engineering phase through assisting with installation to perfecting maintenance strategies and recycling, we cover all major areas. In our engineering and design work we always take account of all relevant national standards and specifications.

We are also happy to pass on our extensive knowledge to customers. Our global presence means we are able to organize both theoretical and practical courses at our training centers in the local language, so contributing to staff development for our customers.



START

SUPPLY, LOGISTICS & INITIAL SERVICE

- » **Pre-assembly of turnouts at local production and/or logistics locations**
- » **Delivery using tilted-load freight cars (just-in-time and plug-and-play)**
- » **Just-in-time delivery of rails**
- » **Rail center services**
- » **Stationary rolling scale removal**
- » **Customization of demand-oriented rail strings**
- » **Warehouse and work site logistics**
- » **Assistance with installation**
- » **Welding in the track and in turnouts**
- » **Initial turnout service**

Initial product and installation quality are important factors that influence the life cycle costs of the overall track system from the outset.

Efficient operation partly depends on the subsequent transfer of high manufacturing quality to the rail track. The initial phase of the process is therefore of special importance.

In this decisive stage of the life cycle our range of services includes e. g. pre-assembled delivery solutions, welding of long rail bands, stationary removal of rolling scale, assistance with installation and quality control.

In combination with our diagnostic solutions, this forms the basis for efficient preventive or condition-based maintenance in the future.



RUN

MAINTENANCE & RECYCLING

Maximizing availability, minimizing operating costs – those are the strategic objectives of our customers. Our systems help them to achieve these goals through an innovative combination of products and services.

The maintenance of railway infrastructure calls for sophisticated concepts and sound strategies while giving consideration to safety, life cycle costs and availability. We carry out corrective and preventive maintenance according to the individual needs of our customers. We particularly rely on comprehensive preventive measures to ensure that maintenance / life cycle costs are optimized overall.

To promote the sustainability of the rail network, scrap materials are taken back and recycled so they can be put to another purpose.

- » **Regular inspections (also using test car)**
- » **Complete work site logistics**
- » **Preventive and corrective maintenance**
- » **Mechanized turnout grinding**
- » **Joining / repair welding**
- » **Acceptance of scrap materials**
- » **Recycling, disposal**



PERFORM TRACK MANAGEMENT

You want to concentrate on your business and ask capable partners to look after your railway infrastructure? We're the people for the job!

Whether rails, turnouts or signaling systems, we take charge of customized maintenance packages for your track infrastructure, supplementing this as needed with electronic diagnostic systems and so ensuring sustainable maintenance management. Condition-based maintenance guarantees

maximum availability and with it the smooth progression of your own value-added process.

Our integrated materials management safeguards your supply of spare parts while reducing capital tie-up.

Our track management guarantees high availability and simultaneously optimizes your maintenance costs.

- » **Maintenance of track infrastructure**
- » **Condition-based maintenance with the use of our electronic diagnostics systems**
- » **Digital asset management**
- » **Materials management**



Disclaimer:

The information published in this document, in particular but not limited to, procedures, processes and any other information is subject to explicit confidentiality. Any manner of reproduction, processing, distribution, storage or any manner of utilization shall require the prior written consent of voestalpine Railway Systems GmbH. The information in this document was created with the greatest possible care and to the best of our knowledge and belief. voestalpine Railway Systems GmbH nevertheless accept no guarantee for the applicability, completeness and correctness of any information contained in this document.

Version 3