

# ENVIRONMENTAL STATEMENT 2022

of voestalpine Rail Technology GmbH





Environmental Statement 2022 according to EMAS III of the Council allowing voluntary participation by organizations in a Community Eco-Management and Audit Scheme.

Umweltbetriebsprüfung (EMAS-Verordnung).

voestalpine Rail Technology (NACE-Code C24.10.-0)

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### PREFACE FROM THE BOARD OF MANAGEMENT

voestalpine Rail Technology GmbH is a subsidiary of voestalpine AG, and produces long products from steel. The mill is situated in Donawitz, in the upper Mur valley, about 60 km northwest of the Styrian provincial capital of Graz. Products from this long-established mill site are exported to more than 60 countries.

In all our business activities we feel committed not only to economic but also to ecological issues. This applies to our activities in the company itself, as well as to our external operations, especially our rail tracks, which form the basis of an environmentally friendly rail transport medium.

The commitment of our employees to the "Continuous Improvement Process" fundamentally supports our efforts to achieve an environmentally friendly production process. Our dedication is evidenced by our adherence to Environmental Management Systems according to EMAS III and EN ISO 14001. We have achieved the objectives determined and agreed upon in these systems and have activated them by involving all concerned. Having achieved these objectives, new objectives have been formulated to overcome many new and existing challenges, which means a new challenge for us.

Due to the increased transparency of business operations, we are able to better communicate the results of these activities internally and externally. This in turn is a stimulus for further changes. Together with our customers and partners, and with the support of experts, we have set the challenge to design our rail products in such a way that we continue to contribute to improvements in the environmentally friendly rail transport medium. voestalpine Rail Technology has achieved a high performance level through continuous improvements which among other things, is based upon state-of-the-art production plants and an extensive infrastructure for product testing and quality assurance.

voestalpine Rail Technology GmbH was the first European rail producer to receive the ISO 9001 certificate. Since this landmark achievement, we have obtained the following certifications: Environmental, according to ISO 14001 and EMAS (1998); Safety according to OHSAS 18001 (now security and health protection according to ISO 45001 (2001)); and Energy according to ISO 50001 (2012).

The company's competitiveness is built upon 130 years of experience and know-how at the Donawitz mill, as well as upon the commitment and the skills of the more than 700 highly qualified employees.

Responsibility is the guiding principle for the performance of voestalpine Rail Technology GmbH: responsibility towards customers, employees and society, as well as responsibility towards the environment.

### COMPANY HISTORY

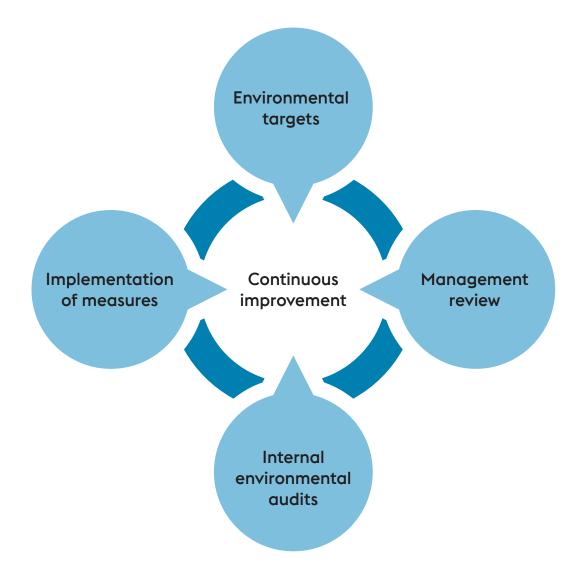
- 1837 First flat-headed rails made from bloomery iron
- 1850 First rail heads made from puddled steel (wrought iron)
- 1857 Annual production of 9,000 tonnes at Zeltweg according to the process of Peter Tunners
- 1869 First rails made from SM steel (SM = Siemens-Martin process)
- 1900 Donawitz builds SM steel mill and takes over rail production from Zeltweg
- 1928 Production starts of wear-resistant rails. Rails made from electric furnace steel in Donawitz
- 1932 Swiss Federal Railroad Company uses wear resistant rails from Donawitz on their mountain lines
- 1954 Austrian and Swiss Federal Railroad Companies approve L.D. rails
- 1976 Linz experimentally produces blooms of the S900A quality by means of the continuous casting process, which are then rolled at the Donawitz site
- 1980 Start of the continuous casting plant for blooms
- 1982 Donawitz is the first mill in Europe to produce rails from continuously cast steel
- **1990** Donawitz produces head-hardened rails (HSH rails) from rolling heat. Start of rail production in lengths of up to 120 m
- **1998** Production of 45.5 % of voestalpine Eisenbahnsysteme GmbH (production of turnout) by the voestalpine Stahl AG
- 2000 Commissioning of the compact LD steel mill at the Donawitz site
- 2002 Opening of second fully automated long goods warehouse
- 2006 Construction and commissioning of the new rail rolling mill
- 2009 Construction and commissioning of the new double heat treatment plant (DHTP)
- 2010 Construction and commissioning of Saw III
- 2011 Founding of Rail Research Center
- 2012 Installation of Open depot cranes 1 and 2
- 2013 Construction of roller maintenance workshop
- 2016 Commissioning of new walking beam furnace
- 2019 Awarded 20 years EMAS-certification
- 2022 Modernization of the horizontal and vertical roller straightening machine



### ENVIRONMENTAL MANAGEMENT SYSTEM

#### **Development of environmental protection**

Active environmental protection was introduced at the Donawitz site in the seventies. Since the division of the Donawitz site (due to the introduction of corporate laws in the nineties) each individual company has been responsible for its environment issues. Each company has been individually responsible for environmental issues. At the end of 1996, voestalpine Rail Technology GmbH decided to establish and implement an integrated Environmental Management System. Less than one year later, in September 1997, the project was rolled out. The validation of the EMS to EMAS-V and certification to ISO 14001 took place in December 1998. A great degree of success has been achieved in the areas of environment and economy by consistent implementation of the defined objectives.



#### Organization of environmental protection

Environmental protection is an integrated part of management policy and as such is a "management issue". The management of the company determines the environmental policy and is responsible for the regular monitoring of the Environmental Management System. The assessment takes place by means of an annual management review, in which the results of environmental audits are presented. The environmental officer reports directly to the Board of Management of the company and is responsible for the application of the management system as well as the implementation of work processes relevant to the environment. In addition, the environmental officer is the central contact point for authorities, customers and the interested public.

#### **Environmental audits**

Independent experts annually review the environmental objectives and the effectiveness of the defined measures. The results of these audits, also named "internal audits", are summarized in a report called the Management Review. The Board of Management of the company assesses the Management Review and decides to what extent the defined objectives have been achieved. Existing objectives can subsequently be revised and new objectives and measures formulated.

In the same way that the quality management system implies continuous quality improvement in all process and working stages, our Environmental Management System acts as a stimulus for the continued improvements in the area of environmental issues. This includes ensuring compliance with the law, the use of resources and energy as well as the control of all emissions. The environmental impact of all production processes and potential emergencies are continuously monitored. The implementation of the environmental policy, the environmental objectives and the environment programme is assured by the currently operational Environmental Management System. In the management manual of voestalpine Rail Technology Gmbh, the EMS according to ISO 14001 and EMAS III is documented as part of the management system according to ISO 9001, ISO 50001 and ISO 45001. Detailed implementation is regulated through process and work agreements. All requirements of EMAS III and ISO 14001 are fulfilled through the integration of the Environmental Management System.



# LEGAL COMPLIANCE

A list of the applicable laws, regulations and EU-standards are constantly observed through the externally maintained database Lextool and the responsible persons are informed of changes. In the case of uncertainties, the legal department is consulted. To ensure total legal compliance, all legacy authority notices relating to voestalpine Rail Technology GmbH, were reviewed in April 2009 and were approved by the local authority (Leoben).

In the case of new facilities or changes to existing facilities, projects are approved by the local authority and new notification are implemented alongside the previous notifications. The resulting requirements were randomly checked within the scope of the environmental inspections in 2014, 2017 and 2020 and found to be in order. voestalpine Rail Technology GmbH is an indirect discharger of waste water. Stahl Donawitz GmbH is contracted as the direct discharger of waste water and is consequently responsible for defining quantity and quality.

voestalpine Rail Technology GmbH implements energy efficiency measures on an ongoing basis and reports to the energy supplier once a year. Internal energy audits are carried out annually. The report of the energy audit according to §9 EEffG is sent to the Austrian Energy Agency (monitoring body) by means of a group report.

The guarantee of legal compliance is assessed in the form of the management review at least once a year. Findings are documented and made available to the relevant people.

### EVALUATION OF FACTORS HAVING A DIRECT AND INDIRECT IMPACT ON THE ENVIRONMENT

To fully assess all factors that have an impact on the environment at the location of voestalpine Rail Technology GmbH, an environmental audit and an Input-/Output balance is conducted.

The following are audited for environmental relevance: all materials, including raw, auxillary and working materials; energies; newly formed or incoming finished products; waste; emissions; and wastewater. In addition, the indirect impacts on the environment (purchase, traffic, development, transport and public relations) are assessed. The detailed instructions for this evaluation are precisely defined in an internal company process.

This has the following consequences: materials with high environmental relevance are no longer purchased if this is justifiable in terms of technology and economy. Instead, they are replaced by materials with lower environmental relevance.

If certain materials are indispensable in terms of production technology, an effort is made to define measures within the framework of the environmental program that lead to a reduction of those materials.

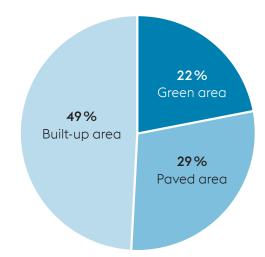
### The evaluation is performed according to a three-step scale:

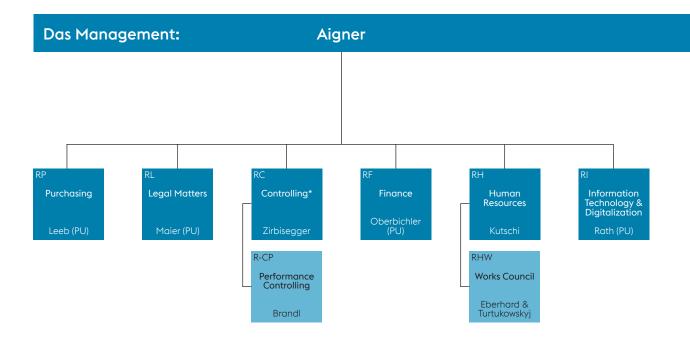
- 1 = low environmental relevance
- 2 = medium environmental relevance
- 3 = high environmental relevance

### PLANT LAND UTILIZATION

Total plant area	209 962 m2
Green area	46 950 m <sup>2</sup>
Built-up area (office and production buildings)	60 700 m <sup>2</sup>
Paved area (streets, storage areas, parking)	103 312 m <sup>2</sup>

As can be seen from the table, the majority of the area is used by voestalpine Rail Technology GmbH for technical production purposes.

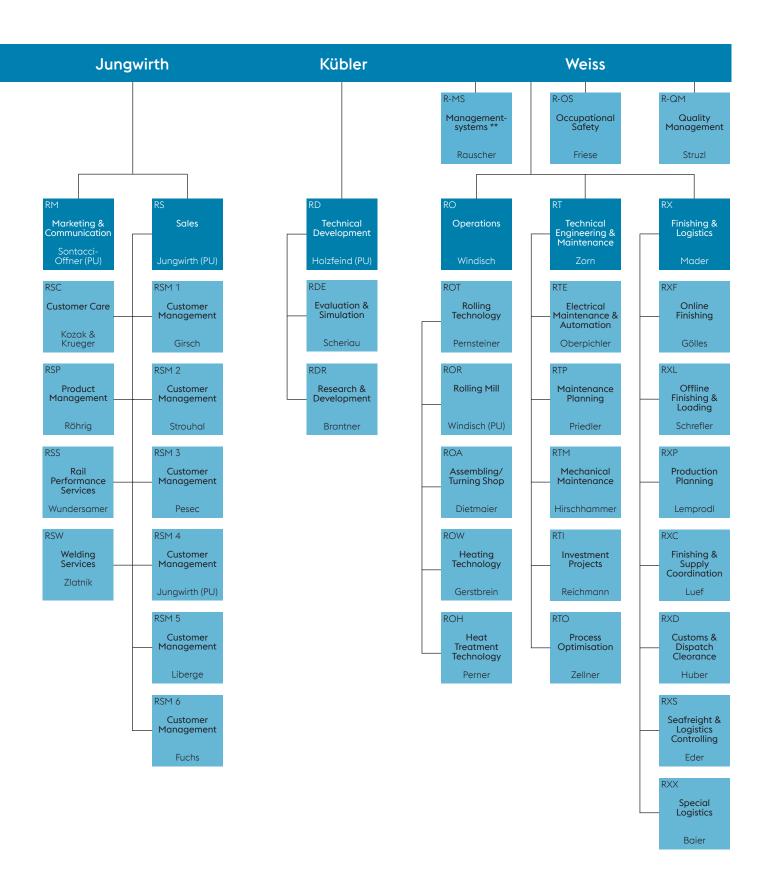




### ORGANIZATIONAL CHART

voestalpine Rail Technology GmbH is part of voestalpine AG and belongs to the Metal Engineering Division.

The detailed structure of voestalpine Rail Technology GmbH is shown in the adjacent organization chart.



\* incl. Risk Management

\*\* Environment, Quality, Energy, Safety and Health

## MANAGEMENT POLICY OF voestalpine Rail Technology GmbH

#### MAY 2022

As an innovative company, voestalpine Rail Technology GmbH is committed to the highest principles of environment protection, quality assurance, health and safety, and energy use. In order to contribute to these matters, the following basic principles were defined in cooperation with all employees. The integrated management system has to meet the requirements of ISO 9001, ISO 14001 and the EMAS regulations as well as ISO 45001 and ISO 50001.

# OUR MANAGEMENT POLICY FOR THE ENVIRONMENT, QUALITY, HEALTH AND SAFETY, AND ENERGY

#### We define quality by satisfying

- » the demand and expectations of internal and external clients and suppliers,
- » market requirements, in particular just-in-time deliveries of pre-finished, ultralong, head hardened rails,
- » development, production and delivery of products and services that meet the customer's demands and expectations.

#### Our definition of protection of the environment and energy

- » continuous reduction of environmental impact,
- » compliance with environmental and energy relevant legislation as well as other compliance obligations,
- » consideration of the environmental impact during the development, production, delivery and recycling of our products,
- » prevention of accident-related emissions via continuous checks in compliance with the environmental policy and targets,
- » an open communication with the general public, customers, suppliers and the authorities,
- » external partners work on the plant in accordance with our environmental rules,
- » best possible protection of recources,
- » continuous improvement of energy efficiency,
- » best possible use of available energy,
- » procurement of energy-efficient products and services,
- » design-related operations, which include optimization of energy-related performance.



#### Our definition of health and safety is

- » compliance with the labor protection law and other requirements that the organization is obliged to comply with,
- » protection and promotion of the health of our staff by preventative action and work with health professionals,
- » open communication with staff, stakeholders and authorities,
- » continuous development and implementation of accident prevention measures, prevention of work-related diseases and the promotion of a healthy lifestyle,
- » continuous improvement of the industrial health and safety performance,
- » continuous determination of risks, risk assessment and risk control of hazards that might endanger staff and third parties,
- » commitment of all staff and contract parties to comply with industrial health and safety regulations as well as active contribution,
- » age-based working is an ongoing target.

Our company attributes equal priority to quality, to the protection of the environment, energy conservation and industrial health and safety. The continuous improvement process (CIP) raises each employee's awareness of his/her responsibility for the environment, energy, quality and health and safety. Training measures consolidate this sense of responsibility. The board of management regularly verifies and assesses the efficiency of the integrated management systems.



Giah

Eva Aigner Nadja Jungwirth Frederick Kübler Dietmar Weiss



# OUR PRODUCTS

The product portfolio of voestalpine Rail Technology GmbH now comprises over 120 different profiles, ranging from classic railway rails, grooved rails and switch construction profiles to permanent way profiles and crane rails.

The rail product requires continuous investments and technical developments, which are subject to four basic criteria in their assessment: safety, economy, ecology and driving comfort for our customers and their passengers.

The aim of voestalpine Rail Technology GmbH is therefore to realise these maxims in a practical way. Through a series of fundamental innovations, the product range has grown into a unique portfolio of products and services.

#### 120 m rails

True to the company motto "One step ahead", voestalpine Rail Technology GmbH set new standards in railway construction as early as the 1990s with the production of up to 120 m long railway rails. These ultra-long rails allow for the minimization of weld joins, minimise the number of weld joints, which always represent a point of inhomogeneity and thus a potential source of defects in the track. Consequently, the reliability and availability of the entire track is increased.

The possibilities of "just-in-time delivery" directly to the construction site make the elimination of intermediate storage a significant logistical advantage for our customers. Ultra-long, unwelded, highly resistant railway rails address not only economic and technical advantages but also ecological aspects. New types of rail steel make it possible to extend the service life, stretch maintenance intervals and thus contribute to the technical and economic optimisation of the railway system.

#### HSH-flat bottom rails

It is not only high-speed trains and heavy haul trains around the world that are placing ever higher demands on the load-bearing capacity of railway rails, but also in mixed traffic where the acting forces are constantly increasing as a result of ever shorter train cycle times.

voestalpine Rail Technology GmbH has developed the worldwide patented HSH® (Head Special Hardened) heat treatment process for this purpose. In this process, the rail head is immersed in a special hardening medium directly after the rail leaves the rolling mill. This creates a high-strength, fine pearlitic steel structure in the rail head, while the rail remains ductile and fatigue-resistant in the foot.

The fine pearlitic structure in the rail head results in an extremely high resistance to wear and rolling contact fatigue. With HSH technology, the service life of a premium rail has been increased by three times (350HT HSH<sup>®</sup>) compared to a standard rail; with the Super Premium grade 400 UHC<sup>®</sup> HSH<sup>®</sup>, the improvement factor is six.

#### **HSH-grooved rails**

Grooved rails are mainly used in mass transit, where the rails are exposed to extreme wear in narrow curves. As the world's only manufacturer of heat-treated grooved rails, voestalpine Rail Technology GmbH has found two answers to the adverse conditions in mass transit.

Rails of the R340GHT and 400GHT® grades pursue the "put-in-and-forget" strategy and are characterized by the highest possible wear resistance and service life for our customers worldwide. In contrast, the focus of the R290GHT and 290GHT-CL rail grades is on extending service life through optimally coordinated repair welding cycles.

Both focuses lead to significant savings and thus considerably reduces maintenance costs. Compared to conventional grooved rails, the wear resistance of our premium grades is significantly increased by fine pearlite structures.

#### High performance rails

With the 400 UHC® HSH® rail grade, voestalpine Rail Technology GmbH has already set the next milestone in the direction of the maintenance-optimised permanent way. Following an innovative material concept, this rail grade has a further improvement factor of two compared to an 350HT. For this reason, rails of grade 400 UHC® HSH® are not only used in heavyduty applications as a standard solution; these rails are also becoming increasingly popular in mixed traffic and metros.

With the latest development, the 340 Dobain<sup>®</sup> HSH<sup>®</sup> grade, it is possible for railway operators in mixed traffic to reduce their maintenance operations to a minimum. Due to the special material structure, this rail is not susceptible to head checks, a rail damage that has become a major cost driver in maintenance, compared to conventional pearlitic rail steels.

In addition, we are constantly working on the further development of new rail steels. All this is done with the aim of providing our customers with optimal technical and economic solutions to their challenges.



## PRODUCTION PROCESS ROLLING LINE

#### **Bloom store**

In the bloom store the majority (80%) of the incoming blooms are intermediately stored before being inserted into the walking beam furnace. Twenty percent of the blooms coming from the steel mill can be used directly or stored intermediately in the soaking pits.

#### Soaking pits

The eight soaking pits maintain the bloom temperature or can be used to delay the heating or cooling of the blooms. Due to optimal thermal insulation, the blooms may be stored for up to one week without any appreciable loss of heat. By means of direct charging or intermediate storage in the soaking pits, it is possible to charge the blooms at higher initial temperatures. This helps to save energy in the walking beam furnace.

#### Walking beam furnace

Six zones within the furnace and in total 94 natural gas burners, heat the blooms to their rolling temperature (up to 1250°C). The initial heating time is about three hours. The majority of the blooms are inserted into the furnace at the ambient temperature; however, 20 to 30 percent of the blooms are pre-heated to between 200 and 350°C (max. 600°C) when they are inserted into the furnace.

#### Profile breakdown mill (BDM, Breakdown Mill)

Before entering the profile breakdown mill, the heated blooms are sprayed with high pressure water jets in order to remove scale (an oxide surface layer). In a fully automatic process, the descaled bloom is rolled in 7-13 passes into the pass cross-sections of the profile finishing line or into billet formats with a cross section of 130 by 225 mm. The removed scale is channeled to a setting basin where it is collected and then recycled.

#### Profile finishing line (UFR, Ultra-flexible Rail Mill)

After leaving the breakdown mill, the rolled bar is moved to the infeed of the profile finishing line via a conveyor and transverse carrier. The transverse carrier carefully manipulates the rolled bar so as to prevent surface damage.

A consistently high surface quality is obtained by the use of 260 bar descaling water jets, which are placed on either side of the rolling stand. Furthermore, rollers, guides and conveyors are meticulously maintained. The raised rolling mark (impression) is applied in the final pass.

# Walking beam cooling bed with integrated HSH plant

Using the remaining rolling heat, the head of the finished rail profile is suspended into the dip tank of the HSH plant (HSH = Head Special Hardened), if required by the customer. During this process, the rail is cooled down in a way that a high-tensile fine-perlitic structure is formed. By slowly and continuously moving the rails in a cross direction, the finished material has time to totally cool down in a natural manner on its way along the walking beam cooling bed.

# Horizontal and vertical roller type straightening machine

The rails that have been cooled to at least 50 °C on the cooling bed are then rotated by means of a manipulator and inserted into the roller type straightening machine in order to obtain a levelled and straight finished product in accordance with customer requirements. The roller straightening process is executed in a horizontal and a vertical direction. Scale that is generated during this plastic deformation process is collected by means of a central conveying plant where it is then reused.

### PRODUCTION PROCESS FINISHING

#### Non-destructive rail testing

The manufacturing of the rails must be followed by reliable test procedures. In the non-destructive testing centre, the rails are tested for surface defects with a crack detection system (eddy current testing) and a visual testing system (special camera technology). The tests for planarity are performed using laser technology and the tests for internal defects (inclusions) by means of ultrasound. All tests are performed in a cycle at 1.5 m/s.

#### Cutting and drilling line 1, 2 and 3

The rolled rails are then cut to the length ordered and drilled if necessary. The ensuing cutting waste is collected and reused as scrap for crude steel production.

#### **Rail inspection**

The rails are laid onto inspection beds, where specially trained staff inspect all four sides of the rail for correct dimensions and possible surface defects. The inspection beds are coated in plastic to prevent cold injures to the rails as they are turned.

#### Finishing

After inspection (in the test centre and on the inspection beds) the rails are deburred. A fourside straightening press and a rail milling facility are available for rails that need to be reworked. The straightening presses are used to achieve the rail straightness required by the customer (if this has not already been achieved in the production process).

During further processing of the rails (especially with grooved rails) a drilling and milling machine (for tie bar holes) and a railbending machine (for production of curved rails) are used.

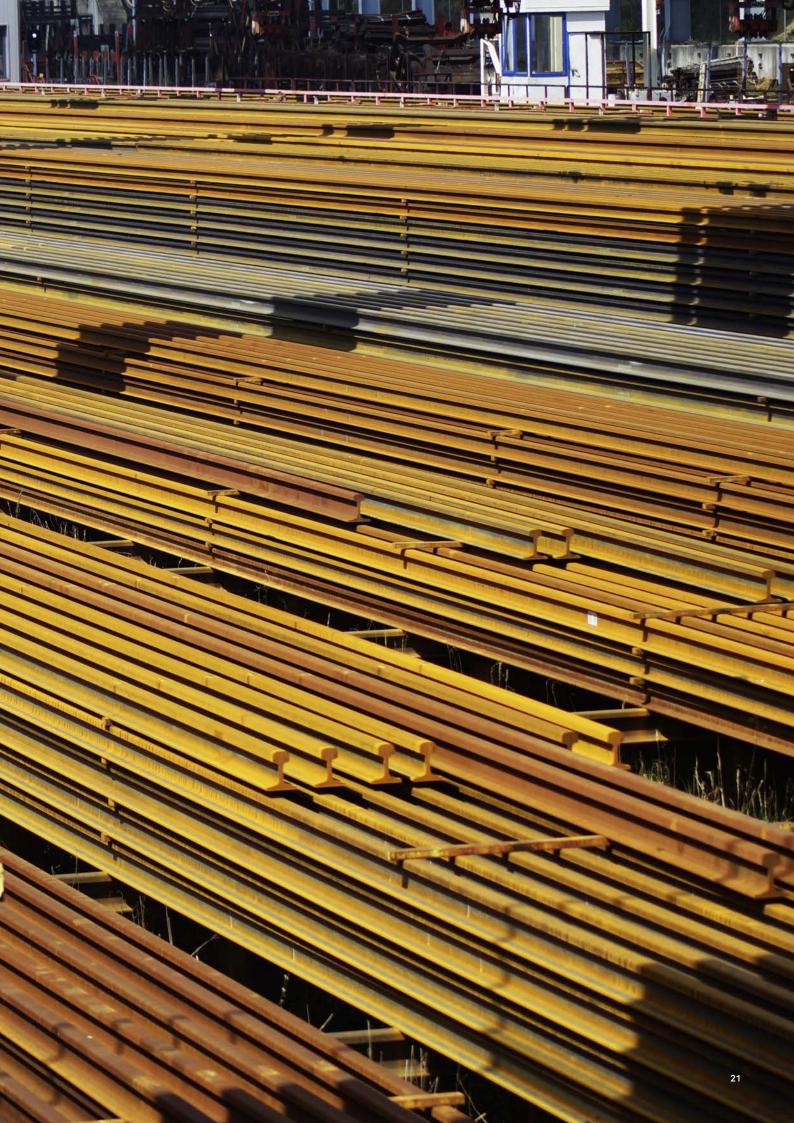
In the finishing of the rails (especially curved rails) a drilling-milling machine (for track rod perforation) and a bending machine (for the finishing of cam segments) are used.

#### **Rail store**

The rails ready for shipping are stored in a specially designated area, where they are stacked by means of cranes and loaded onto freight carriages or trucks for shipment.

#### Long rail store

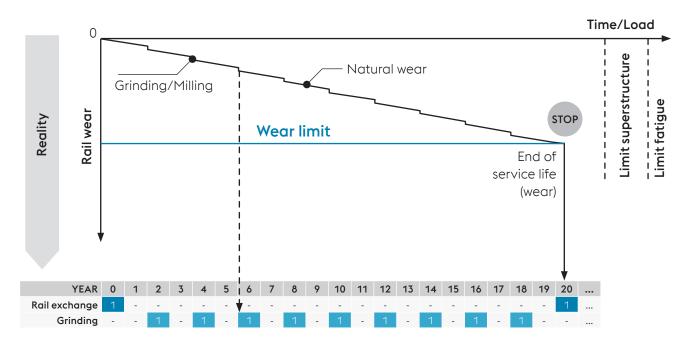
The loading and unloading of rails from stock with a delivery length of up to 120 m is done fully automatically by means of a special crane facility.



# LIFE CYCLE ASSESSMENT BY voestalpine Rail Technology GmbH

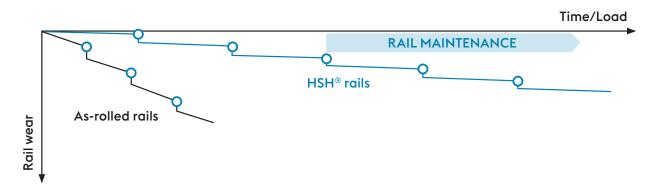
As the leader in railway infrastructure technology, voestalpine continuously strives to improve its products for a multitude of railway applications. Even under the most challenging conditions, we aim for nothing less than the longest possible service lives and the lowest maintenance needs.

In order to be able to evaluate the carbon footprint as well as the technical and economic customer benefits of our products, the LCC-Track software was developed. In addition to the LCC (life cycle costs), i.e. the total costs incurred in the life cycle of a product, the software also evaluates RAM key figures, which describe the reliability, availability and maintenance frequency of products. In addition, the average annual  $CO_2$  emissions can be used to show the potential for reducing emissions through our particularly durable products. All relevant investment and maintenance measures over the entire life cycle of the rail are taken into account. Damage models which are based on decades of in track measurements, can be adapted to the customers' specific in track environment. The ecological footprint of not only rail production but also of emissions relating to rail maintenance and transportation can be taken into account. As a result, an assessment can be made for not only individual curves but also for entire sections of a railway-line.



Schematic illustration – Influence of the rail steel on the Life Cycle of a rail in a curve

It is important to note that the choice of rail steel has a considerable influence on the operating behaviour. In track sections with increased demands (e.g. tight curves and/or high loads), the use of rails with improved operational behavior leads to an optimization of the entire life cycle, as evidenced by extended service lives and maintenance cycles. The LCC-Track software enables the evaluation of improved environmental footprint by comparing the average annual  $CO_2$  emissions for the proposed investment strategies or product scenarios.



Schematic example for the life cycle of a rail in a curve with specific annual traffic load and radius

In addition to the economic and technical evaluation, the LCC-Track software can be used to assess which product leads to the lowest environmental footprint for which application.

#### For further information, please refer to:

voestalpine Rail Technology GmbH Customer Solutions Lukas Prettner lukas.prettner@voestalpine.com

### MATERIAL BALANCE

#### Input

#### Quantities B.Y. 2021/22

	Quantity	Unit
Raw materials:		
Steel blooms for rails and permanent way material	580,067	t
Auxiliary and operating media:		
Oils and lubricants	86,389	kg
Metal rolls	480	t
Refractory products	30	t
Acetylene (gas)	1,038	m <sup>3</sup>
Packing material	18,596	kg
Wood	1,602	m <sup>3</sup>
Heating Oil	6,301	I
Petrol	2,008	
Diesel	22,694	
Energy sources:		
Natural gas	264,787	MWh
Electricity	42,108	MWh
Compressed air	24,835,685	m³
Oxygen	7,950	I
Water:		
Hot water	8,951	MWh
Drinking water	16,758	m³
Pure water	1,950,509	m³

#### Output

#### Quantities B.Y. 2021/22

	Quantity	Unit
Rails, input stock and superstructure profiles	552,261	t
Scale	6,381	t
Scrap incl. plant scrap	27,786	t
Rolls	338	t
Non-hazardous waste	116,697	kg
Hazardous waste	504,532	kg
NOx	24,045	kg
CO <sub>2</sub> *	47,892	t
СО	1,402	kg
Process waste water	1,950,509	m³
Waste heat production HBO	51,844	MWh

\* The  $\mathrm{CO}_{_2}$  data is checked during the annual  $\mathrm{CO}_{_2}$  verification audit by Lloyd's Register.





## KEY FIGURES B.Y. 2021/22

The following key figures refer to tonnes of rails produced, steel pre-material and track profiles (total output 552,261 t)

	Quantity 2021/22	Unit	Key figure 2021/22	Key figure 2020/21	Key figure 2019/20
Rails, input stock and superstructure profiles	552,261	t			
Electricity (natural gas, current)	315,846	MWh	0,572	0,604	0,606
Water	1,967,267	m³	3,562	3,736	3,771
Hazardous waste	504,532	kg	0,914	1,254	1,275
Non-hazardous waste	116,697	kg	0,211	0,344	4,812
NOx	24,045	kg	0,044	0,060	0,059
CO <sub>2</sub>	47,892,000	kg	86,720	91,661	92,299

#### Further key figures:

	B.Y. 2021/22	B.Y. 2020/21	B.Y. 2019/20	Unit
Material efficiency	95.21	93.86	93.62	%
Land use	see chapter land use			

### WASTE MANAGEMENT

The total waste production is listed in kilograms in the table given. The hazardous substances used in production as well as the "hazardous waste" generated after utilisation are treated according to the waste and safety regulations and disposed of exclusively by authorised reclamation enterprises (Juri, Saubermacher, Transbeton).

The declaration of waste material to be disposed of is done via the statutory waybill system, which is also used for the preparation of the yearly company internal waste register.

voestalpine Stahl Donawitz GmbH stores the data from waste material certificates and waybills in an SAP database, which is used to create an electronic waste register for several purposes (authorities, annual environmental audits, reports to the Group and to the Federal Environmental Agency) for the respective requested period (calendar year or business year). The waste register contains information which is divided according to key numbers about quantities, disposal channel, and producer (point of origin) for all material generated in the factory which is relevant from the point of view of waste management.

Used oil is delivered to Saubermacher. At the rolling mill, the grooves (rollers) are not lubricated, thus significantly improving waste water quality.



### CONTINUOUS IMPROVEMENT PROCESS (CIP)

The CIP process is an internal tool that offers Rail Technology employees the opportunity to actively contribute to the further development of the company. The CIP process is an active policy of ideas and an element of success for quick and non-bureaucratic decision-making on suggestions for improvement.

#### Ideas management pursues the following goals:

- » Increased employee motivation through involvement and participation in decisionmaking and change processes.
- » Promoting the creativity of employees and motivating them to adopt new approaches in day-to-day business.
- » Increased motivation of executives by creating opportunities for delegation and the involvement of their own employees in the implementation of suggestions.

In addition, the company suggestion system ensures that all employees are involved in the active implementation of environmental goals. An important platform has thus been created for future ideas relating to the ecological and economic development of the company.

- » Optimization of workflows, systems and information flows.
- » Use of knowledge, experience and team spirit.
- » Promotion of a motivating and satisfying working atmosphere.



Patrick Fadinger and Alexander Spitaler (right) came up with ideas from the roller turning department.

### PRESENTATION OF AN ENVIRONMENTAL IDEA IN THE FIELD OF ROLLER TURNING

#### **Refillable spray cans**

Our company was able to come up with an excellent idea to help protect the environment. Up until the idea implementation, commercially available disposable spray cans had been used to apply brake cleaner and cutting oil. Firstly, these are relatively expensive and secondly, they are difficult to dispose of, resulting in high disposal costs for the company.

#### THE SUBMITTERS' IDEA

» Acquisition of a system for manually refilling cans with the respective active ingredient and compressed air as the propellant instead of environmentally harmful propellants.

#### ADVANTAGE

- » No single-use spray cans, thus savings in waste management and cost reduction in procurement.
- » With the use of compressed air as a propellant instead of propellant gases, we are actively contributing to environmental protection with this idea.



Before: standard disposable spray cans



After: Refillable spray cans

# FINANCIAL STATEMENTS CORPORATE TARGETS B.Y. 2021/22

Agenda item	Target	Assessment
Safety	» Safety comes before performance, this principle is lived by everyone	$\checkmark$
	» Reduce LTIFR (lost time injury frequency rate) by 28% to by business year 2020/21	<ul> <li>✓ 11.7 LTIFR (Lost Time Injury Frequency Rate)</li> </ul>
	<ul> <li>Implementation of the occupational safety investment program (organizational and investments)</li> </ul>	✓ Foreman conference Projects; SVPS
Health	» The implementation of the Covid-19 hygiene regulations does not result in any interruption of operation	$\checkmark$
	» Improve health rate by 0.5 % compared to business year 2020/21	X Not reached
	» The remaining vacation time for all employees is 5 % less than in the previous business year	X Not reached (understaffed)
Quality	» Maintaining product quality with increasing product mix complexity	$\checkmark$
	» Improvement of the process quality planning / sales leads to a reduction in the safety surcharge of 0.5 %	X Not reached (scarcity of resources)
Production	<ul> <li>Further optimization of throughput for ultra-long rails (balanced production)</li> </ul>	✓ (+ 1.7 % target)
	» Roll lot optimization of sales, planning and production	$\checkmark$
Environment/ Energy	<ul> <li>Reduction of the specific energy consumption at key units through increased use of warm raw material (20% of total raw materials)</li> </ul>	✓ All time best!
	<ul> <li>Conservation of resources by reducing metallurgical additives and packaging/shipping materials</li> </ul>	$\checkmark$
	» Implementation of the investment program under the title "Environment / Energy"	$\checkmark$
Costs	» Further focused optimization of services, capacities and resources (personnel, primary material, cropped end lengths, operating resources) in all areas in order to meet the budgeted production overhead target	<ul> <li>Allocated production overhead reached and undercut, in all production and Maintenance areas (Cost increases are excluded)</li> </ul>

### CORPORATE GOALS B.Y. 2022/23

Subject area	Target	Measures / Actions	Appointment
Safety	» Safety comes before performance	Implement the project and guiding principle DREAM ACCIDENTS as the	31.03.2023 Managing
	» This principle is lived by everyone, the employees and the managers, in their daily activities!	next step for our understanding of safety;	directors
	» Reduction of LTIFR -10% compared to last BY		
Health	» Holidays are for recreation	The masters and all managers work on the implementation of the defined safety program	31.03.2023 Managing directors
	» Increase in consumption by 0.5% compared to the last BY	Communication and quarterly target control	31.03.2023 Weiss
Customers Market	» Implement new product division (semi-finished products via the UFR route) up to transport logistics	Implement individual measures (processes/procedures) and investment program of the divisions	31.03.2023 Weiss
Production	<ul> <li>Further increase in the Overall Equipment</li> <li>Effectiveness (OEE) value by 1 percentage point</li> <li>through the companies' programme of measures</li> </ul>	Implement individual measures of the divisions	31.03.2023 Weiss
	<ul> <li>» Living cross-location cooperation in order to leverage common, sustainable and future- oriented potentials</li> </ul>	Comprehensive technical quality improvement (TQM), joint further development of the degree of maturity in plant engineering with the companies	31.03.2023 Weiss
Quality	» Development of a common, internal understanding of quality and implementation of process, organizational and investment measures for further increases in output in this and next B.Y.	Rollout in the 2nd report level and the master level as part of our organizational development project	31.03.2023 Weiss
Environment/ Energy	<ul> <li>Further reduction of the specific energy consumption of key units (walking beam furnace) as part of the CO<sub>2</sub> program of the previous year</li> </ul>	Implement project plan	31.03.2023 Weiss
Environment	» Resource conservation by reducing metallurgical additives and packaging/shipping materials	Implement individual measures of the divisions with the support of MS in CIP groups	31.03.2023 Weiss
	<ul> <li>» Resource conservation by reducing traffic volume (CO<sub>2</sub> savings) through working from home</li> </ul>	Implementation of the working from home regulation	31.03.2023 Managing directors

### TEAM MANAGEMENT SYSTEMS



The team of the integrated management systems of voestalpine Rail Technology is happy to answer any questions you may have about the environment, quality, health and safety, and energy.

v. l. sitting: Kerstin Amer, Stefanie Werschonig

v. I. standing: Mario Radischnig, Hermann Rauscher, Andreas Schmidt, Herwig Otto, Peter Friese

# EMAS VALIDATION

This site operates an environmental management system and its environmental performance is reported to the public in accordance with the community eco management and audit scheme on the industrial environmental protection of this site (reg. no. at-000183).

The managing environmental experts authorised to sign of EMAS is Dipl. Ing. Christian Rezner.

#### TÜV SÜD Landesgesellschaft Österreich GmbH, Franz-Grill-Straße 1, Arsenal, Objekt 207, A-1030 Wien, Registrierungsnummer AT-V-0003

confirm the inspection, that the site or the entire organization, respectively, as stated in the environmental declaration of the organization

#### voestalpine Rail Technology GmbH, Kerpelystraße 199, 8700 Leoben mit der Registriernummer AT-000183

fulfils all requirements of the Regulation (EC) No. 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organizations in a community eco-management and audit scheme (EMAS).

#### With the signature of this declaration, we confirm that

- » Assessment and validation were performed in full compliance with the requirements of regulation (ec) no. 1221/2009, version RG VO 1505/2017 and that EC regulation 2018/2026 were carried out,
- » The results of assessments and validations confirm that there is no evidence for non-compliance with applicable environmental regulations,
- » The data and statements of the environmental declaration of the organization/the site provide a reliable, credible and true image of any activities of the organization or the site, respectively, within the area stated in the environmental declaration.

The environmental expert organization TÜV SÜD Landesgesellschaft Österreich GmbH has been authorised for the C24.10-0 (NACE-Code 2008) via notification by the federal Ministry of Agriculture, Forestry, Environment and Water management.

Leoben, 19.05.2022



Landesgesellschaft Österreich

The managing environmental experts authorised to sign of TÜV SÜD Landesgesellschaft Österreich GmbH Franz-Grill-Straße 1, Arsenal, Objekt 207, A-1030 Wien Our environmental officer, Hermann Rauscher, would be delighted to provide you with more detailed information regarding the latest environmental statement, the environmental objectives of the company and environmental measures taken so far.

Contact: Ing. Hermann Rauscher Environmental officer Kerpelystraße 199, 8700 Leoben, Austria Phone: +43 50304-26-3473 Telefax: +43 50304-66-4954 E-Mail: hermann.rauscher@voestalpine.com Internet: www.voestalpine.com/schienen

