

MISSION FUTURE

Environment and Sustainability





PERFORMANCE IN TUBULARS

Our world is based on high tech seamless pipes that can withstand the toughest conditions, day in, day out.

We promise highest performance based on the core values customization, innovation, sustainability and responsibility.



INDIVIDUAL SOLUTIONS



INNOVATION



SUSTAINABILITY



RESPONSIBILITY

MANAGEMENT SYSTEMS

The voestalpine Tubulars GmbH & Co KG facility in Kindberg has been registered as an EMAS site with an environmental management system certified in accordance with ISO 14001 since 1999.

The environmental management system is part of the integrated management system currently comprising 6 different certified management systems:

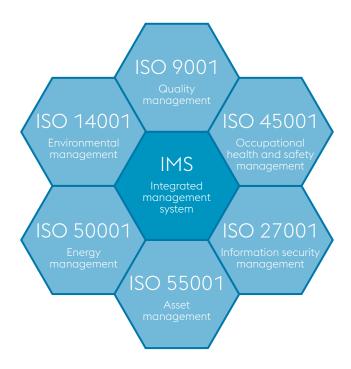
- » ISO 9001 (quality management system)
- » ISO 14001 (environmental management system)
- » ISO 45001 (health and safety management system)
- » ISO 50001 (energy management system)
- » ISO 55001 (asset management system)
- » ISO 27001 (information security management system)

In addition to three EMAS awards for the best environmental declaration, the company has so far received numerous other awards in the field of environmental practice (Ökoprofit, klima:aktiv).

The integration of the environmental management system into a fully integrated management system ensures all issues handled by the various systems receive equal treatment.

In addition, it enables synergistic effects to be utilised and unnecessary duplication to be avoided.

A unified system gives employees a greater understanding of the relevant company processes.



ENVIRONMENTAL PERFORMANCE OF THE COMPANY

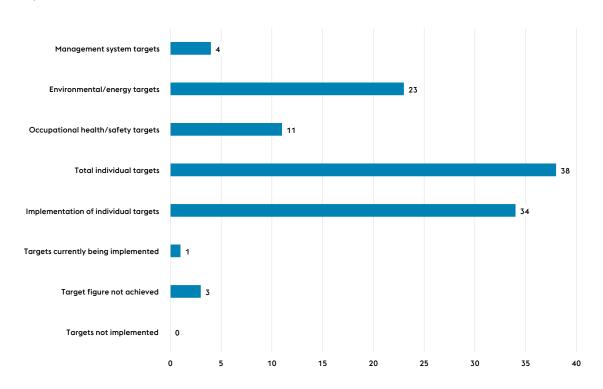
Environmental, energy and health & safety programme:

A common environmental, energy and health & safety programme was defined for the financial year 2023/24 (01/04/2023 to 31/03/2024) in which 38 individual targets were specified for the following areas:

- » Management system
- » Legal compliance
- » Sustainability
- » Input materials/resources
- » Waste
- » Water/waste water
- » Exhaust air
- » Energy
- » Transport
- » Safety
- » Health

Achievement of individual targets from the 2023/24 programme

Of the 38 environmental, energy and health & safety targets set for FY 2023/24, 34 were achieved on time, which equates to an achievement rate of 89.5%.



One target has been carried over to the 2024/25 programme with a new implementation deadline:

» Placing greater importance on safety representatives and safety coaches through specific tasks and the provision of resources to selected safety reps and safety coaches – being implemented (continued into FY 2024/25)

Three targets are still in the implementation phase.

Individual targets for FY 2023/24 by area:

Management system

Four individual targets were specified and implemented on schedule for the management system area.

- » Awareness-raising: Training on management systems and the environment, as well as energy aspects in the internal training catalogue – implemented
- » Project award: Receive award for the "Reheating furnace conversion" energy efficiency project as part of kilma:aktiv – implemented (award issued on 19/10/2023)
- » Ökoprofit certificate: Participation in Ökoprofit programme 2022/23 and preparation of environmental report – implemented (certificate received on 23/06/2023)
- » Processing findings: Provide evidence of documented environmental analyses for findings from the IMS audit 2023 throughout the company – implemented (14 topic areas handled)



Legal compliance

Two individual targets were defined for legal compliance and implemented on time.

- » Implementing Best Available Technology requirements: A GAP analysis and adaptation measures for Best Available Technology Document 2022 carried out and authorities informed – implemented (increase in exhaust air measurement frequency required for furnace)
- » Checking the new legislation database: Feasibility study and market analysis carried out for new electronic legislation database (selection narrowed down)

Input materials/resources

Three individual targets were defined for the area "Input materials/resources" and achieved on time.

- » **Chemicals savings:** 25% fewer chemicals thanks to automatic monitoring and sensor system implemented (cutting fluid on line 1 B2 and emulsions on testing press 2)
- » Standardised labelling: Label printer purchased and spray bottles correctly marked implemented
- » Boric-acid-free cutting fluid: Substitution in socket forming implemented (Hysol RD replaced with Prexut Fluid A 10 20 e)

Waste

One individual target was specified and implemented on schedule for the area of waste.

» Reduction in cutting disc consumption: 30% fewer thanks to targeted employee training and selective reuse of used cutting discs – implemented



Fig.: Chemical laboratory (waste water analysis)

Water/waste water

In the area of waste water, three individual targets were defined and implemented on time.

- » **Increase in failure safety:** Concept created for oil separators to prevent oil leakage implemented (oil separators were constructed in 2024)
- » Proper condition of pipelines: Inspection of surface water lines carried out implemented (by external specialist)
- » Homogenisation of lime slurry: Agitator purchased and installed for neutralisation plant implemented

Groundwater inspection:

Groundwater analyses must be carried out every two years in the area of the decommissioned building waste landfill site.

The **service water** is drawn from the Mürz river and treated in the site's own water management plant. Cooling water is reused in the cycle multiple times and clean water is fed back into the Mürz with added nutrients.

Exhaust air

One individual target was specified and implemented on schedule for the exhaust air area.

» Saving of fossil fuels and, therefore, avoidance of exhaust emissions by purchasing an electric stacker truck for the axle tube production line – implemented (electric stacker acquired)

Energy

There were nine individual targets defined for the area of energy, all of which were implemented on time. There were two targets for which the target figure could not be achieved.

» PV system: Installation on factory hall roofs with an output of 3.3 MWp – implemented



Fig.: Swans on the river next to the plant



Fig.: Exhaust chimney for heat treatment plant 1



Fig.: PV system

- » **Recovery heat exchanger for hardening furnace 1:** Exhaust duct improved, target not met new recovery heat exchanger in 2024
- » Tempering furnace 1: Gas to air ratio control improved, target not met new recovery heat exchanger being planned
- » Hardening furnace 2: Gas to air ratio control improved through engineering study completed, measures being planned
- » Seamless tube rolling mill and CT plant halls: Lighting control and motion sensors installed, >8 MWh savings per annum partially implemented, remainder to follow
- » Braking energy: Energy savings of >100 KWh per annum by recovering brake energy of motors implemented, 10.8 MWh per annum achieved
- » **Extraction systems:** Energy savings of >100 KWh per annum achieved by frequency converter with differential pressure control implemented, 3.3 MWh per annum achieved
- » Hall heating: 10% energy savings by replacing old electric heaters by efficient IR heaters implemented
- » Controls: 20% energy savings by using automatic controls instead of manual operation implemented

Transport

One individual target was specified and implemented on time in the area of transport.

» Increase in max. number of wagons from 18 to 20 for trains to the North Sea ports through cooperation with partners DB and RCA – implemented (variable option between 15 and 20 wagons)

The entire incoming supply of feedstock (continuously cast billets) is transported by rail. The finished products are mostly (73%) shipped out by rail; a smaller proportion (27%) is transported by road on HGVs. The volume of finished products shipped out in 2023 amounted to 300,000 mt.

Transport on site between the individual areas of the factory takes place by HGV.



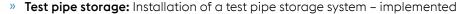
Fig.: Continuous rail network from the production site to numerous destinations

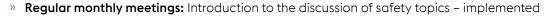
Safety

In the area of occupational health and safety, seven targets were defined, of which six were implemented on time. There was one target for which the target figure could not be achieved.

One target was not fully implemented and will be continued as part of the IMS programme in FY 2024/25.

- » Reducing accidents: "Consciously safe" programme continued, target partly achieved (overbalance and fall accidents in 2023: 13; hand injuries in 2023: 31)
- » Safety instructions: Electronic modules created for load securing and hazardous goods – implemented
- » Safety representatives: Assignment and resource provision – not implemented, continuation in 2024/25





- » Mandrel bar changing: Optimisation of storage and loading implemented
- » Fire extinguisher training: Theory and practical exercise carried out implemented



Fig.: Presentation of the "consciously safe" calendar

Health

There were four individual targets defined for the area of promoting health, all were implemented on time.

- » Health rate: Preventive measures increased the rate from 94.5% (2022) to 94.7% (2023) implemented
- » Participation rate: ≥20% participation in health courses and events 28.88% achieved (2023) – implemented
- » Consultation units: ≥600 physiotherapy consultation units 1,181 achieved (2023) implemented
- » Working conditions: Improved conditions with air-conditioned staff shelters implemented (containers in area TN22)



Fig.: On-site physiotherapy

SUSTAINABILITY

Three individual targets were defined for sustainability and implemented on time.

- » Greenhouse gas balance in accordance with ISO 14064-1: Greenhouse gas balance (company footprint) created and verified by TÜV Süd implemented (audit statement issued 12/05/2023)
- » Internal sustainability subjects: Sharepoint and presentation documents set up for sustainability subjects implemented
- » Customer awareness: Customers kept informed about carbon reduction in meetings, newsletters and customer visits implemented

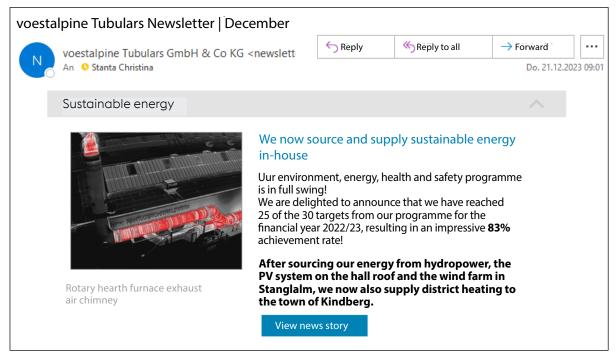


Fig.: Raising awareness among customers in the December 2023 newsletter

Alongside the life cycle analysis, numerous measures and projects in the area of sustainability were defined and implemented in 2023.

#preparedfortheworldafter campaign

voestalpine Tubulars launched the #preparedfortheworldafter campaign in 2021 with the aim of achieving a sustainable future. The campaign is based on the values of individual solutions, innovation, sustainability and responsibility and underlines the company's commitment to people and the environment.

Volume 1 shows the benefits of the new CC4 continuous casting plant for the production of purer steels and the use of 13CR and P5/P9 steel grades. Volume 2 emphasises the environmental protection provided by DryTec®, which reduces the use of lubricants, along with the benefits of the mini steelworks. Volume 3 focuses on greentec steel, an initiative for sustainable steel production. Volume 4 presents PexTec®, a solution designed to reduce wear and the costs of steel tubes, as well as additional environmentally-friendly product solutions. Volume 5 presents new products, including VAF and VAsuperior®-ET, as well as social responsibility and sustainability. Volume 6 addresses solutions for hydrogen, geothermal and offshore energy with an emphasis on quality, safety and climate targets.

Together with the new photovoltaic systems that use renewable energy and reduce carbon emissions, voestalpine Tubulars is highlighting its strong commitment to environmental protection and sustainability with innovative and efficient solutions.





Fig.: Excerpts from the #preparedfortheworldafter campaign

Divisional sustainability management

Sustainability is an integral component of the environmental and energy management at voestalpine Tubulars. In 2022, a sustainability management was established within the Division. All business units, including voestalpine Tubulars, have set up special organisational units for sustainability. Regular discussions make it possible to define and roll out sustainability measures across the Group. The Group has established climate targets and publishes a detailed CR report on an annual basis.

Core topics of the sustainability management include:

- » Sustainability strategy:
 - » Organisational structure for sustainability
 - » Market development (green steel)
 - » Certifications and gradings (ESG, EPD, CDP, SBTi, ISO, EcoVadis)
 - » Circular economy
 - » Energy efficiency potential reduction in greenhouse gas emissions
- » "Road to Zero" decarbonisation programme
 - » Production processes (natural gas)
 - » Heating (natural gas)
 - » Vehicle fleet (fuels)
- » Sustainability communication guidelines
 - » Basic knowledge of sustainability
 - » Transformation steps
 - » Energy supply
 - » Green products
- » Projects
 - » Examples: Waste heat utilisation, PV system, hydropower plants, hydrogen

- » Sustainable procurement
 - » Group-wide project
 - » Consideration of social and ecological risks and effects of suppliers within the supply chain management
 - » Establishment of a sustainable supply chain as an essential component of the sustainability strategy

EcoVadis

In 2022, voestalpine Tubulars underwent a sustainability assessment by EcoVadis and achieved platinum status, obtaining a score of 75 out of a maximum of 100 for its very first assessment.

This score means the 98th percentile, placing voestalpine Tubulars among the top 1% of the 100,000 companies assessed by EcoVadis.

In the course of an EcoVadis sustainability assessment, the following focus topics are taken into consideration:

- » Environment
- » Ethics
- » Employment and human rights
- » Sustainable procurement

EcoVadis scorecard:



Topic points score comparison

Distribution of overall ratings

Employment and human rights voestalpine TUBULARS GMBH & CO KG Environment Ø 100 % î 75 % 50 % 25 % Sustainable 0 % procurement Ethics 0 100 All businesses in this sector assessed by • Assessment of voestalpine Tubulars GmbH & Co KG **EcoVadis** All businesses in this sector assessed by EcoVadis

In terms of the environment in particular, an above-average score of 90 out of 100 was achieved. In all other areas, the company is performing well above the average.



Fig.: EcoVadis certificate

Sustainability projects

Photovoltaic systems

In February 2023, the first photovoltaic power plant with an output of 4,200 kWp installed on the roof of the seamless pipe rolling mill commenced operations. A total of 10,200 photovoltaic modules were installed parallel to the roof over an area of 15,400 m². The plant features a central SMA inverter with a peak output of 4,200 kW, which represents a novel innovation for large industrial facilities. The plant is integrated into the internal 20 kV medium-voltage grid via a 20 kV transformer located next to the inverter, thereby reducing the number of inverters required from no fewer than 40 down to one. This configuration helps to simplify maintenance work considerably, offers improved lightning protection and enhances safety in the factory grid by minimising potential hazards in the event of transformer disconnection. voestalpine Tubulars views this installation as a flagship project for the industry.



Fig.: PV system on roof of seamless tube rolling mill

In March 2024, a second photovoltaic power plant with an output of 3,100 kWp installed on the roofs of a number of production and storage facilities commenced operations. 7,600 photovoltaic modules were installed over 11,300 m^2 of roof area, spread over fifteen different roof structures. The plant also uses the central inverter configuration. A steel bridge was erected between coupling and protective cap production as a way to bundle the energy from different roof areas and facilitate access for maintenance.

The large photovoltaic systems on industrial roofs are a significant contributor to environmental protection thanks to their clean generation of renewable energy and reduced carbon emissions. The innovative technical implementation involving central inverters not only improves efficiency, but also maintenance and safety, thereby further enhancing the sustainability and operational reliability of the plants.



Fig.: PV plant in the coupling shop area

Heat recovery

When producing seamless tubes, voestalpine Tubulars heats the solid blocks of steel known as blooms to 1,300°C in the rotary hearth furnace. Working with Bioenergie, as much as 4 MW of waste heat is extracted and used to supply heat to the Kindberg municipality, helping to save up to 3,400 tonnes of carbon emissions in the process.

voestalpine Tubulars has installed a special chimney to recover heat and to centrally collect the exhaust emissions from the rotary hearth furnace. Bioenergie installed a heat exchanger containing 1,536 water-carrying tubes. A dedicated pumping station supplies the recovered heat to Kindberg's new district heating network.

Bioenergie's 4 MW biomass heating plant serves as a backup and addition to waste heat utilisation powered by waste from the wood and agricultural industries. The 9 km long district heating line runs underground through Kindberg, supplying its industrial and residential districts, as well as public buildings, such as the "Volkshaus", primary school, sports hall and housing estates since September 2023.

voestalpine Tubulars also uses a portion of the thermal energy produced by Bioenergie to heat its buildings, thereby securing a reliable, environmentally-friendly heat supply.



Fig.: The new district heating plant for heat recovery at voestalpine Tubulars

Hydropower

voestalpine Tubulars utilises renewable energy from two hydropower plants on the River Mürz, operated by Wien Energie.

Mürz hydropower plant in Kindberg-Aumühl:

» Output: 2,005 kW
 » Drop height: 10.5 m
 » Flow rate: 21 m³/s

- » Equipment: Kaplan turbine (axial flow with bevel gears) which powers the synchronous generator.
- » Integration: Power is fed into the internal UW2 substation via a block transformer and medium-voltage cable. Control is handled by a Siemens S7 Simatic control unit, which is monitored online.
- » Grid stabilisation: Is used by APG for tertiary and secondary control in order prevent blackouts.



Fig.: Mürz hydropower plant in Aumühl

Mürz hydropower plant in Mürzhofen:

» Output: 1,361 kW» Drop height: 6.7 m» Flow rate: 22.2 m³/s

- » Equipment: Axial turbine with bevel gears and horizontal shaft.
- » Integration: Power is fed into the plant's UW3 substation.
- » Grid stabilisation: Also used by APG for grid stabilisation.

The two power plants are expected to generate 14,753 GWh of electricity each year in total and thereby contribute significantly to the renewable energy supply and grid stability.



Fig.: Aerial view of the Stanglalm wind farm area

Wind farms

The electricity purchasing pool for the voestalpine sites in Styria has concluded a multi-year PPA agreement with Windheimat for the exclusive supply of the voestalpine sites. With forecast annual energy generation of 90 GWh for the Stanglalm wind farm and 45 GWh for the farm in Hochpürschtling, the two wind farms will also supply voestalpine Tubulars with around 8% of the annual quantities generated.

This results in a forecast wind energy supply of 10.8 GWh each year for voestalpine Tubulars.

Energy efficiency projects according to the action plan

voestalpine Tubulars has been certified in accordance with the international standard ISO 50001 since 2012. As part of the certification, an annual action plan to define the energy efficiency projects needs to be created and then published in the annual management review.

Since the introduction of the action plan, a total of 29 major projects have been completed, resulting in total energy savings of 31,626 MWh per year.

The projects that have resulted in the greatest energy savings (> 1,000 MWh per year) are as follows:

- » 2023: Adaptation of the rotary hearth furnace 3,930 MWh per year (furnace space expanded, new burner)
- » 2023: Heat recovery 6,673 MWh per year (supplied to the district heating network)
- » 2023: Hardening furnace 1 1,208 MWh per year (exhaust system improved)
- » 2018: Tempering furnace 1 1,705 MWh per year (air vents replaced)
- 2017: Tempering furnace 1 3,135 MWh per year (furnace control)
- » 2016: Hardening furnace 1 1,978 MWh per year (installation of low NOx torch)
- » 2014: Hardening furnace 1 5,495 MWh per year (implementation of tracking system, recovery heat exchanger)

Energy efficiency projects in the 2023 calendar year

- » Adaptation of the rotary hearth furnace 3,930 MWh per year (furnace space expanded, new burner and furnace wall)
- » Hardening furnace 1 1,208 MWh per year (exhaust system improved)
- » Tempering furnace 1 672 MWh per year (improved ratio control, reduced loss of combustion air)
- » Heat recovery 6,673 MWh per year (supplied to the Kindberg district heating network)
- » Door air curtains in the coupling shop 20 MWh per year (reduced heat loss)
- » Mandrel bar furnace 312 MWh per year (installation of low-pressure air generator)

The energy efficiency projects in 2023 have the potential to save a total of 12,815 MWh per year.

Sustainable products

Dope-free threaded connections (DryTec®)

voestalpine Tubulars developed the DryTec® product, starting with the project concept in 2008 and the subsequent launch of series production in 2016. DryTec® is a dope-free alternative for premium connections that boosts efficiency and safety during pipe installation while protecting the environment. The benefits of DryTec® include:

- » Ready-to-install threaded connections that make handling easier and conserve resources.
- » Avoidance of blockages and failure due to excess thread compound.
- » Additional corrosion protection during transport and storage.
- » No need to use water to remove transport/storage compound.
- » Reduced environmental pollution and enhanced safety for on-site personnel.



Pipes and systems for hydrogen management

voestalpine Tubulars is currently working on a total of twenty R&D projects aimed at developing solutions for hydrogen management. The focal points are:

Material development: High-strength steels (up to 500 MPa) and ultra-high-strength steels (up to 1,000 MPa) for high-pressure hydrogen up to 1,000 bar.

Threaded connections: Hydrogen-tight connections, such as VAhyper[®], for underground and high-pressure storage tanks.

Stationary storage systems: Tubes sealed with screwed end caps for flexible storage solutions with variable pressure levels, TÜV-approved.

Mobile storage systems: Development of a steel hydrogen transport container (H2RailTube) and steel cylinders for fuel cell vehicles.



Product solutions for geothermal energy

voestalpine Tubulars offers standard tubes (OCTG) in accordance with API specification 5CT for geothermal applications. These tubes feature proprietary connections, such as VAsuperior®, which ensure gas-tightness and the integrity of the wells. These tubes also feature thermal insulation and offer a longer service life as well as higher flow rates.





Seamless tubes made from greentec steel

voestalpine is committed to reducing carbon emissions by 2030 by hybridising the production route with introduction of a smart electric arc furnace (EAF). The greentec steel project aims to produce steel pipes with lower CO_2 emissions. Alternative alloy models are also being developed in parallel to guarantee product quality.

ToughTubes® - thermomechanically rolled seamless steel tubes

Since 2008, voestalpine Tubulars has marketed ToughTubes® seamless steel tubes with maximum strength and toughness. With a production volume of approx. 25,000 tonnes per year, this technology saves around 3,750 tonnes of carbon emissions annually by avoiding additional energy-intensive heat treatment.

Proprietary grades – EP and XP

Depending on the dimensions, weight savings of between 15% and 20% are possible as wall thicknesses can be reduced while maintaining the same performance level.

Sustainable processes

voestalpine Tubulars decarbonisation concept

As part of the NEFI greensteel project (NEFI = New Energy for Industry), a decarbonisation concept is being developed together with project partner AIT for the voestalpine Tubulars production site. More specifically, all processes involving the use of fossil fuels are being reviewed and a switch to potential alternative energy sources is being looked into on the basis of certain scenarios.

These reviews are focusing on natural gas-fired heating furnaces, whereby half of the emissions are produced by one main heating unit; the rotary hearth furnace.

As part of this project, a comprehensive concept for climate-neutral steel production is being developed in six project phases:

- » Identifying carbon-neutral energy sources to replace natural gas in steel processing
- » Developing efficient industrial furnaces that can be heated with 100% carbon-neutrality
- » Ensuring high product quality when switching to carbon-neutral energy sources
- » Demonstrating the developed concepts and technologies at real production sites for various voestalpine product lines
- » Preparing to scale and transfer the concepts and technologies to other production sites within the voestalpine Group and in other sectors
- » Obtaining social acceptance and trust in the developed solutions

Demand scenarios are calculated for the possible alternative energy sources, namely electricity, hydrogen, biogas and wood gas, and the carbon footprint is established on this basis. The decarbonisation concept for the production site is then developed on the basis of these scenarios. As a matter of course, other processes such as building heating or on-site transport will also be reviewed with regard to decarbonisation.

Hydrogen as an alternative energy source for heating and transport processes

Hydrogen is being closely considered as an alternative energy source. These considerations are also taking place in line with the national hydrogen strategy for Austria, which is being developed under the leadership of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). Internal plant considerations range from demand, on-site distribution, potential on-site generation, e.g. surplus energy from photovoltaic and hydropower plants, to the purposeful use of hydrogen in processes, primarily heating and transport processes.

Using hydrogen in testing technology for our product developments closes the on-site loop.

In addition to reviewing the hydrogen compatibility of all burners, installation parts and pipelines in the heating furnaces, the impact of the hydrogen found in the flue gas on product quality is also being scientifically investigated as part of a cooperation project with university partners. According to current findings, the main impact would be on scaling on the steel surface and the decarburisation depth in the edge area of the tube near to the surface.

ENVIRONMENTAL PROGRAMME 2024/25

voestalpine Tubulars has created a comprehensive quality, environmental, energy, health & safety, asset management and information security programme for the 2024/25 financial year (01/04/2024 to 31/03/2025), which has been approved by the executive management. Below is a summary of some of the programme's key points:

No.	Topic	Target	Programme	Managed by	Deadline
LEGAL	COMPLIANCE				
1	Legislation database	Ensuring legal compliance	Selecting and implementing new legal compliance software	TM	March 2025
SUSTA	INABILITY				
2	Sustainability organisation	Establishing a new corresponding sustainability organisation within MED	Assigning responsibilities	TM	March 2025
3	Communication	Publishing the sustainability strategy and all measures introduced to date to reduce the company's environmental footprint	Launching a subpage on the website and app	KP	February 2025
INPUT	MATERIALS				
4	DryTec® coating optimisation	Substituting PFAS (per- and polyfluoroalkyl substances)	Finding alternative raw materials through research and development work	TN31	February 2025
5	Operating supplies and consumables boards	Uniform appearance for the storage of various operating supplies, consumables and tools at workstations	Design and creation of operating supplies and consumables boards	TN31	February 2025
WASTE					
6	Waste disposal equipment	Easier handling and more ergonomic work when disposing of waste	Engineering and purchasing corresponding equipment	TN31	February 2025
WATER	2/WASTE WATER				
7	Oil separator	Accident prevention in relation to oil leaks and associated oil spills into the receiving waterway, river Mürz	Installation of an oil separator in the seamless tube rolling mill water management overflow area and another oil separator in front of the discharge point	TA	December 2024

8	Seamless tube rolling mill water management tank cleaning	Adaptation of the ongoing tank cleaning process to prevent leaks of contaminated process water	Procedural investigation with regard to serial tank cleaning using all existing tanks	TA2	February 2025
9	Neutralisation measurement technology	Increased transparency regarding the neutralisation plant in the coupling shop	Installation of new measurement technology in the neutralisation plant	TN32	February 2025
EXHA	UST AIR				
10	Coating application air extraction system	Reducing workplace impact when applying coatings to tube surfaces	Purchase of an electric stacker truck for the axle tube production line	TN2	February 2025
11	E-forklift	Preventing emissions in the threading department	Purchasing an electric forklift	TN31	February 2025
ENER	GY				
12	Share of internally generated electricity	Increase in the regional share of electricity generated internally through PV systems, hydropower plants and wind farms by 10%	Increasing the capacity of power generation plants	TA	March 2025
13	Hall lighting control	Reducing energy consumption in the halls by >240 MWh per annum by using lighting sensors	Installing lighting control and sensors	TA11	February 2025
14	Brake energy recovery motors	Energy savings of >10 MWh per annum by recovering brake energy	Installing inverters with energy recovery for new inverters in hollow section finishing	TA11	October 2024
15	Air extraction system energy consumption	Reducing the energy consumption of air extraction systems in hollow section finishing > 3 MWh per annum	Modernising the air extraction systems	TA11	December 2024
16	Hardening furnace 1 energy efficiency	Improving the energy efficiency of hardening furnace 1 and reducing energy consumption by 1.2%	Installing an energy- efficient recuperator	TA14	February 2025
17	Tempering furnace 1 energy efficiency	Improving the energy efficiency of tempering furnace 1 and reducing energy consumption by 1%	Installing an energy- efficient recuperator	TA14	February 2025
18	Use of district heating	Use of district heating for the first expansion stage for maintenance operations creating natural gas savings of approx. 170,000 m ³	Coupling district heating (approx. 1 MW) and the supply for the first expansion stage (TA1, TF- PRZ, TF technology centre, TA, assembly hall)	TA14	February 2025

g of a central Construction of a central system for the TN1 cooling supply for this area RKS area. Saves refrigerant and	TA14	February 2025
the number of units		
system for the TN31 cooling supply for this area ea. Saves 5 kg of ant and reduces the	TA14	February 2025
ption in reheating furnace floor and compared to structural adaptation of	TN1	February 2025
of outside air and curtain systems on the two r from the halls rolling doors MT15 and e rolling doors are MT17 in the coupling shop		October 2024
dal transport of tonnes transported	KL	February 2025
rt capacity on each cooperation with partners DB & RCA	TNK	February 2025
ce accidents by "consciously safe"	ТМ3	March 2025
	system for the TN31 ea. Saves 5 kg of ant and reduces the of units by 5. Decific energy ption in reheating compared to annual mill holidays Installation of the reheating furnace floor and the steel substructure for optimised insulation Installation of new air curtain systems on the two rolling doors MT15 and MT17 in the coupling shop hall Installation of new air curtain systems on the two rolling doors MT15 and MT17 in the coupling shop hall Implementation in cooperation with partners DB & RCA Implementation of the "consciously safe" programme and ongoing measures to raise awareness among employees along with the implementation of the "handle it safely" and "almost accidents"	cooling supply for this area ea. Saves 5 kg of ant and reduces the of units by 5. pecific energy ption in reheating compared to annual mill holidays so the undesired of or optimised insulation at the undesired of outside air and arrow or olling doors MT15 and mT17 in the coupling shop hall ag the number of dal transport of tonnes transported intermodally in FY 2024/25 compared to FY 2023/24 Ing the max. Art capacity on each parting to North ts from 20 to 27 ag the number of ce accidents by nax. LTIFR value of the "consciously safe" programme and ongoing measures to raise awareness among employees along with the implementation of the "handle it safely" and "almost accidents"

The programme includes additional measures in other areas, all of which have been approved by the executive management and aim to guide the company towards improved sustainability, safety and efficiency.





Alpinestrasse 17 8652 Kindberg-Aumuehl, Austria Tel. +43 (0) 50304 23-0 Fax. +43 (0) 50304 63-532 sales@vatubulars.com www.voestalpine.com/tubulars

