MANAGEMENT MANUAL


voestalpine VAE GmbH
www.voestalpine.com/vae
voestalpine VAE has supplied its products to railway companies for over 160 years. When evaluating the expectations of these companies for the required products, it becomes apparent that safety is a very main concern. Safety is a decisive factor for railways; accidents, especially given the ever increasing speed in passenger and freight transport, can lead to enormous damage to people, transported goods and the environment. In this connection it is required to establish, document and maintain a quality management system and continually improve its effectiveness.

Know-How for over 160 years

voestalpine VAE is the head office of the group. In export markets voestalpine VAE services its costumers and acquires orders for turnout systems and turnout components as well as electronic safety and monitoring systems as well as hydraulic drives. The design for these orders is either carried out or coordinated by the head office. The products are manufactured in our more than 40 affiliates worldwide.

Structure of the voestalpine VAE
Switches as well as the electronic monitoring and safety systems, have always been developed, designed and produced with specially strict quality requirements.

To guarantee safe and reliable functioning of the voestalpine VAE turnout systems, we endeavor to achieve a high quality level in all our affiliates and optimize our processes according to ISO 9001.

voestalpine VAE as a pioneer was awarded the certificate according ISO 9001:2000 in April 2001 and holds a valid certification according to the actual standard ISO 9001:2008.

The audit was carried out by Lloyd's Register Quality Assurance.
For voestalpine VAE environmental protection and occupational health and safety have always been important. Therefore it is a logical consequence that also the holding company of the voestalpine VAE Group underwent certification for ISO 14001 and OHSAS 18001. voestalpine VAE in that way underlines the leading role in environmental and occupational safety within the voestalpine VAE Group. With the submission issues of group guidelines voestalpine VAE conducts active environmental protection beyond site limits.
Certifications of the production plants

ISO 9001

Europe / Middle East
- voestalpine Weichensysteme Zeltweg (A)
- WWG GmbH Wöhrth (A)
- voestalpine SIGNALING Zeltweg (A)
- voestalpine SIGNALING Siershahn (D)
- voestalpine SIGNALING Sainerholz (D)
- voestalpine SIGNALING Fareham (UK)
- voestalpine SIGNALING Sopot (PL)
- voestalpine BWG in Butzbach, Brandenburg und Gotha (D)
- voestalpine WBN Wisselbouw (NL)
- VAMAV VB Kft. Gyöngyös (H)
- JEZ SF S.L. Lodio Ludio (E)
- MFA Arberats (FR)
- voestalpine VAE Rigia (LV)
- voestalpine VAE Legetecha (LT)
- voestalpine VAE UK
- voestalpine VAE Sofia (BG)
- voestalpine VAE Apcarom (RO)
- VADEMSAS (TRK)
- voestalpine Track Solutions Saudi Arabia

North America
- voestalpine Nortrak Ltd. Richmond (CND)
- voestalpine Nortrak Inc. (US)

South America
- voestalpine VAE Brasil

Australia
- voestalpine VAE Railway Systems (AUS)

Africa
- voestalpine VAE South Africa in Isando und Kimberley (RSA)

Asia
- voestalpine VAE VKN in Sonepat und Batala
- CNTT China
- voestalpine Railway Systems (Thailand)

OHSAS 18001

- voestalpine Weichensysteme Zeltweg (A)
- voestalpine VAE Railway Systems (AUS)
- voestalpine Weichensysteme Zeltweg (A)
- voestalpine SIGNALING Zeltweg (A)
- WWG GmbH Wöhrth (A)
- voestalpine VAE Rigia (LV)
- voestalpine BWG in Butzbach, Brandenburg und Gotha (D)
- JEZ SF S.L. Lodio Ludio (E)
- MFA Arberats (FR)
- voestalpine VAE Apcarom (RO)
- voestalpine VAE Sofia (BG)
- voestalpine VAE VKN (India)
- VADEMSAS (TRK)
- voestalpine Track Solutions Saudi Arabia
- voestalpine Railway Systems (Thailand)

ISO 50001

- voestalpine Weichensysteme Zeltweg (A)
- voestalpine VAE Rigia (LV)
- voestalpine SIGNALING Zeltweg (A)
- voestalpine BWG in Butzbach, Brandenburg und Gotha (D)

ISO 14001

- voestalpine Weichensysteme Zeltweg (A)
- voestalpine SIGNALING Zeltweg (A)
- WWG GmbH Wöhrth (A)
- voestalpine VAE Legetecha (LT)
- voestalpine BWG in Butzbach, Brandenburg und Gotha (D)
- JEZ SF S.L. Lodio Ludio (E)
- MFA Arberats (FR)
- voestalpine VAE Apcarom (RO)
- voestalpine VAE Sofia (BG)
- voestalpine VAE South Africa (RSA)
- voestalpine VAE VKN (India)
- VADEMSAS (TRK)
- voestalpine VAE Rigia (LV)
- voestalpine SIGNALING Fareham (UK)
- voestalpine VAE South Africa Isando (RSA)
- voestalpine Railway Systems (Thailand)
For developing, implementing and improving the effectiveness of a quality management system a process approach was adopted. The most important – value adding – activities were identified. The sequence and interaction of the processes are managed by the persons responsible using the process structure, the procedures and the process measurements. The procedures define the sequences within our organisation in strict compliance with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007. They are binding for all employees of voestalpine VAE.
The procedures of voestalpine VAE

01 Tender Process
- Prequalification
- Processing of enquiries and offer management

02 Order Process
- Contract review and release for engineering
- Order related engineering process
- Order processing and coordination

03 Post-delivery activities

04 Purchasing
- Purchasing of affiliates
- Qualifying of affiliates
- Purchasing from third parties
- Purchasing from third parties with deliveries directly to the customers

05 Human Resources

06 Research & Development

07 Handling of Deviations
- Customer claims
- Deviations during manufacturing

08 Continual Development

09 Changes in Engineering

10 Marketing
- Customer satisfaction, pull
- Customer advantage, external communication, push

11 Information & Communication

12 Management Responsibility
- Vision, strategy, quality policy & objectives
- Organisation
- Agreement on objectives
- Management Review

13 Know How Transfer Process

14 Electronic Data Processing and Organisation

15 Quality Coordination, Control and Advice
- Planning of the management system
- Process structure and responsibilities
- Process measurements
- Documents and quality records
- Preparation and control of procedures
- Subscription to and control of standards
- Control of customer specifications
- Internal audits

16 Healths, Safety and Environment

17 Project Management

18 Internationalisation

19 RAMS
Quality Policy of voestalpine VAE

From a component supplier to a system provider

Complete solutions from a provider become ever more in demand. Therefore it became a question of developing new products as system components and opening new service areas within the value-added chain. This also includes strategic partnerships to optimise our prospects of success.

Close to the customer

The market success of our products and services is directly connected to the detection of needs and expectations of the customers. Special attention is paid to the fulfilment of the customer’s demands in technical regard and adherence to delivery schedule as well as customer expectations in view to the price performance ratio of our products and services.

Technological leadership

Derived from our present market position we endeavour to expand our technological leadership. We want to have the suitable technology available in all important railway markets.

Management by objectives

Quality objectives were defined to effectively transmit our policy and to be able to face the challenge of a measurable and efficient continual improvement of our processes, products and services. These objectives shall form the basis of measurable team objectives, the key data of which can be easily found with our standard software tools.
Quality Policy of voestalpine VAE

Customer satisfaction
Keeping the satisfaction of our customers with the products and services of the voestalpine VAE group as well as meeting the customer’s requirements regarding expert advice and presale and after sale services.

We want to advance
This means continual improvement of all activities. The first priority is to optimise the internal processes and to refine the communication between head office, production plant and external partners during manufacture.

Adherence to delivery schedules
Keeping agreed upon dates of delivery and communicating with the customer in good time in case of recognizable deviations. In a first step it is necessary to design a monitoring system, to measure strengths and weaknesses of our affiliates, partners and suppliers and to advice them in their continual improvement efforts.

Everyone contributes to voestalpine VAE’s success
Our executives are obliged to pass on the agreed quality objectives to their employees, to trace the fulfilment and to communicate openly with the employees during this continuous evaluation process. So that our employees are aware of their contribution to the fulfilment of the quality objectives, the objectives will be carried top down to agree upon operational team objectives. The meeting of the team objectives shall be measurable and the measures shall be easily found with our standard software tools.
Company Policy HSEE (Health, Safety, Environment & Energy)

The securing of the natural bases for life and the best possible employee protection represent primary corporate goals for voestalpine VAE GmbH and affiliates. These issues relate not only to technological leadership, but also a role as a forerunner with regard to ecological and safety matters in the component area of the environment-friendly railway sector and the acceptance of social corporate responsibility.

Consequently, we are committed to both comprehensive quality, safety, environmental and energy management subject to compliance with statutory requirements and the objective of continuous improvement. Therefore, the fundamental, integrated principles of our corporate activities in the areas of health, work safety, environment and energy (HSEE-policy) comprise the following:

» An adherence to all relevant laws and stipulations concerning environmental and employee protection and a declared commitment to the principles of sustainable development and social responsibility.

» On the basis of the UN Charter and the European Convention on Human Rights, human rights are seen as a fundamental value that is to be respected and observed by the entire workforce. Our corporate culture recognises and greets the fact that every person is unique and valuable and is to be esteemed for his or her individual abilities. Therefore, in our company we do not tolerate any form of discrimination or exploitation and attach particular importance to the safeguarding of the rights of children and young people. In this connection, we would also refer to the voestalpine AG’s code of conduct.

» A commitment to the continuous improvement of operational environmental protection, work safety and energy efficiency with the aim of eradicating environmental impact and accident and health hazards to an extent that is economically viable and possible using the best available technology.

» The furtherance of a sense of responsibility among our employees at all levels with regard to environmental and personal protection, and energy consumption.

» Efforts aimed at achieving the highest quality, safety and reliability, as well as user- and environment-friendliness during product development, whereby reduced maintenance, the protective use of raw materials and resources in production, and the minimisation of environmental impact during transport, consumption and disposal are of special relevance.

» The avoidance of waste and where this is impossible, its environmentally compatible return to the material cycle.

» The employment of active risk management in which materials and processes are logged and evaluated according to specific company requirements, in order to facilitate the advance planning of essential, operational safety measures.

» The on-going consideration of health, work safety, environmental and energy issues during the planning and operation of working facilities, production equipment and infrastructure.

» A focus on preventive measures for the retention of the health of our workforce, as well as the avoidance of accidents and their related after-effects on both people and the environment.

» The involvement of our suppliers, waste disposal companies and external enterprises in the implementation of both our environmental and safety guidelines and mutual dialogue aimed at further improvements in operational environmental protection and work safety.

» Candid and objective communications with our customers, the general public and the responsible authorities, as well as a request for suggestions and criticism in order to jointly reduce environmental impact and risks.

» Active strategic and operative energy management targeted on the greatest possible energy self-sufficiency at the Zeltweg location on the basis of renewable and sustainable energy sources, as well as maximum efficiency with regard to energy use during production and the life cycle of our products (not only taking into consideration the energy consumption of the products themselves, but also characteristics of relevance to energy consumption during railway operations).

For voestalpine VAE GmbH as a holding company, it is a matter of great importance that its subsidiaries improve their HSEE performance continually and live up to their individual responsibilities. Accordingly, without releasing them from their obligations, voestalpine VAE GmbH fulfills the following functions for its subsidiaries:

» The provision of information and motivation concerning actual HSEE-topics and developments

» Advice regarding technical questions

» Coordination, especially in connection with projects involving various locations or inter-group activities

» The design of due-diligence audits in the case of acquisitions or enlargements of existing locations

» Controls with the help of the supervisory board

» In those areas deemed as being of relevance, in line with group risk management, the subsidiaries are allotted obligatory, minimum requirements concerning employee and operational environmental protection, which may also exceed the respective national stipulations. The subsidiaries then have to provide periodic progress reports at supervisory board meetings.

Furthermore, useful synergy effects result from these control and advisory functions, which allow the appropriate use and promotion of an exchange of experience between locations with the intention that sustainable ideas and exemplary solutions be communicated within the VAE Group on an inter-company and cross-border basis.
HSEE and customer

It is important to us that our products are safe and environmentally friendly both in operation and in handling. For this reason our offer includes for example:

» Energy-saving, noise-reducing and durable designs (geometries, material selection including environmentally friendly coatings and bearer systems, etc.)
» Environmentally-friendly drive systems (avoidance of soil contamination)
» Energy-saving monitoring systems (less maintaining, increasing of service life and noise reduction)
» Services for turnout maintenance (increasing of turnout lifetime and noise reduction)
» Possibilities of turnout recycling

Our assembly and maintenance instructions should also ensure that the occupational safety of the staff is guaranteed on site.

HSEE within voestalpine VAE

In addition to instructions on environmental and occupational safety (e.g. basic instructions for employees behaviour on the track, etc.) we offer information on various aspects of HSEE. These trainings / seminars include health trainings, for example on sitting properly or back exercises.

HSEE and affiliated companies

Our affiliates are provided with guidelines. In addition to information, these guidelines also include mandatory specifications and recommendations. The master document is the VAE HSEE Guidebook. The continuous improvement of the affiliates is a concern for us and is regularly reviewed by reporting obligations of the affiliates in the supervisory advisory board meetings.

voestalpine VAE HSEE Guidebook, Example
The management of voestalpine VAE GmbH (VAE) makes the reliability, availability, maintainability and safety (RAMS) of their products and systems a permanently upheld basic principle of the steady growth of the voestalpine VAE group, and classifies this principle as part of the management policy. The objective of the voestalpine VAE RAMS management is the minimisation of the risk potentials for humans and the environment and maximisation of reliability and safety of our products considering economic targets and outline conditions.

This principle is implemented by voestalpine VAE in their corporate policy and their targets, among other things described in the management manual. voestalpine VAE commit to comprehensive quality, HSE and RAMS management and orientate their research and development activity (R&D) by the long-term maintenance of the technology leadership of point switch systems as well as their components, with a simultaneous increase in the customer benefit. For that, voestalpine VAE have established a RAMS management accompanying development and projects. This RAMS management serves the fulfilment of legal and contractual obligations as well as the achievement of the defined corporate targets. The accompanying handling of the RAMS management with its activities for development and customer projects is directed towards the verification that the requirements to the safety management organisation and to the performance of products and systems in respect of RAMS are fulfilled.
Organisation Chart of voestalpine VAE
All research and development activities of the voestalpine VAE group are coordinated by the technical director of the voestalpine VAE corporation. This ensures that the knowledge and the resources within the group are optimally used. In the different traffic sectors (Heavy Haul, High speed, Mixed Traffic, metro, Suburban Traffic, Tramway) we prepare solutions together with our customers, where the best conditions for a competent, fast and efficient realisation are given. New developments are systematically prepared for carefully planned prototype installations from the design phase to the test phase. Documented studies of technical feasibility during the design and manufacturing phases as well as verification and validation are part of the decisive quality assuring actions.

voestalpine VAE is a worldwide leader in acknowledged patents in turnouts, turnout components, electronic safety and monitoring systems as well as hydraulic drives.

Flash butt welding of turnout components is a very central process in some of our production plants. High trained metallurgical and welding engineers develop suitable welding parameters to get optimised heat control for various materials. Due to the use of computer-controlled welding machines which record all welding parameters a high grade of traceability is ensured. Periodical procedure approvals, 100% non-destructive testing and maintenance guarantee the consistent welding process. Continuous improvement of the procedures has lead already to some patents, for example the flash butt welded connection of austenitic manganese steel to rail steel. This particular voestalpine VAE patent is used worldwide now. For non-destructive testing of the finished welds modern technologies under supervision of level 3 personnel is used. Destructive material testing and metallogographical analyses for procedure approvals are carried out using adjusted and calibrated equipment in either one of our own or officially accredited laboratories.
The process approach when developing, implementing and improving the effectiveness of our quality management system shall help to enhance customer satisfaction by meeting customer requirements.

In case of an audit we gladly allow our customers to have a look at our quality procedures and quality records.

Dipl.-Ing. Erik Stocker  
Quality Manager, Welding and Metallurgical Engineer  
voestalpine VAE GmbH  
Alpinestraße 1, A-8740 Zeltweg, Austria  
T. +43/50304/28-343  
F. +43/50304/68-343  
erik.stocker@voestalpine.com

Dipl.-Ing. Peter Eichberger  
RAMS und Safety  
voestalpine VAE GmbH  
Alpinestraße 1, A-8740 Zeltweg, Austria  
T. +43/50304/28-537  
F. +43/50304/68-537  
peter.eichberger@voestalpine.com

Ing. Kurt Gressenberger  
Quality Manager, Material and Welding Technology  
voestalpine VAE GmbH  
Alpinestraße 1, A-8740 Zeltweg, Austria  
T. +43/50304/28-406  
F. +43/50304/68-406  
kurt.gressenberger@voestalpine.com