

Sécheron Hasler GROUP

CORPORATE
BROCHURE

May 2022



*HASLER*rail

Sécheron Hasler GROUP

STATEMENT FROM THE GENERAL MANAGEMENT

Dear Customers and Business Partners,

The Sécheron Hasler Group has a clear mission: to design and deliver the best in class solutions and services to our customers for the highest safety, protection and reliability of rolling stock and traction power substations, as well as in industrial segments requiring high power electric equipment.

Based on technological leadership and the best and most complete range of products in our market segments, we want to support our customers in finding solutions that are superior in terms of functionality and efficiency and build with them long-term relationships.

You will find an overview of our Group, business approach, products and services on the following pages.

Both my colleagues and I look forward to a successful collaboration by expanding our partnership in the long-term perspective.

Kind regards,

Martin Balters

Our **strategic priorities** are centered around the following **key cornerstones**:



Focus on product development and technological innovation



Local market presence and customer care



Strong system competence allowing us to design customized solutions



Highest quality and efficiency in the supply chain



Martin Balters
Chief Executive Officer
Sécheron Hasler Group



Jo Murer
Vice President
Sécheron SA



Frédéric Trefois
Managing Director
Sécheron SA



Diego Politano
Managing Director
HaslerRail AG

The Sécheron Hasler Group is a leading supplier of electrical and electronic safety-related components and solutions as well as traction power systems for the global railway industry. Its products and solutions are also applied in different industrial segments, for renewable energy systems and new DC grids.

All key capabilities for our businesses in domains such as electrics, electronics, software, hardware, material sciences and key production processes are in-house allowing us to have a full understanding about relevant technologies and to optimize system solutions globally.

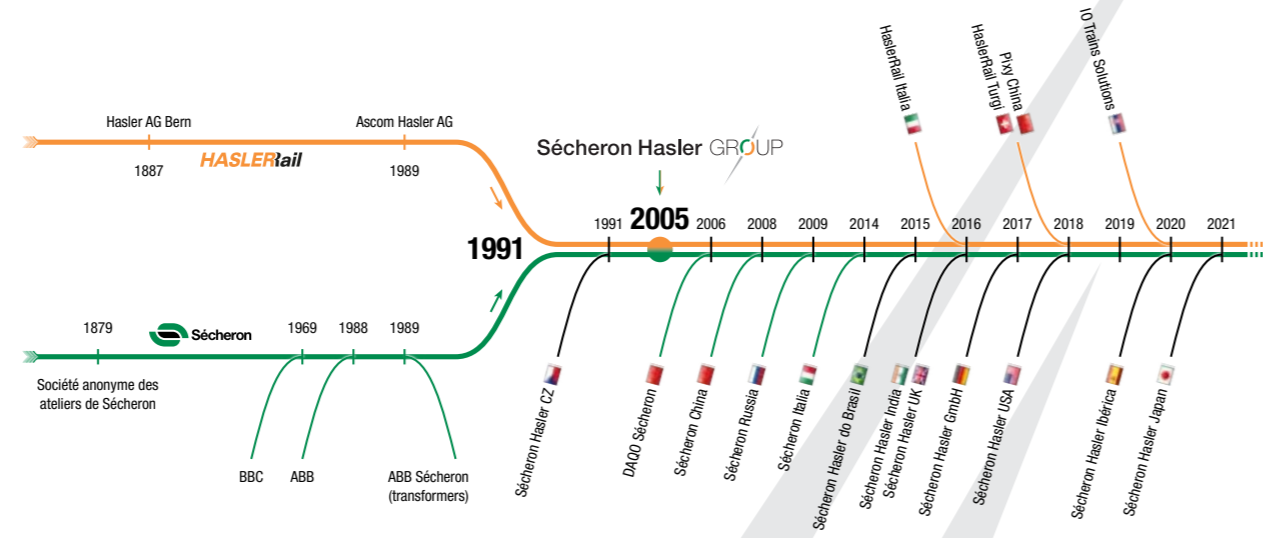
We are a privately owned company controlled by Swiss entrepreneurs who want to **develop the Group** with a long-term perspective and a focus on innovation, quality and customer service.

The **foundations** for our future development are the following **core values**:

- ✓ Hands-on, entrepreneurial and result oriented
- ✓ Commitment to excellence and quality
- ✓ Empowerment of the individual for personal growth
- ✓ High integrity, responsibility and respect for the individual
- ✓ Sustainable development

AT A GLANCE

The **history** of our two founding companies, Sécheron SA and HaslerRail AG, reaches 140 years and is very rich of successes and innovations. Both companies have been pioneers in the railway industry all along the past century. Our century-long international presence has strengthened our capabilities to customize our products and solutions for local needs and standards worldwide.



2021 KEY FIGURES

1187
FULL TIME
EMPLOYEES

SALES
254 M CHF
235 M €*
282 M US\$*

* Exchange rates:
1 € = 1.0840 CHF
1 US\$ = 0.9037 CHF

CUSTOMER CARE

The Sécheron Hasler Group is an organization with a strong customer focus. Our structure, processes and supporting tools have been designed in order to serve our customers quickly and efficiently around the globe.

Starting with the evaluation of our customers' needs, we provide support throughout a project and during the full service life of the equipment.

In order to be close to our customers we have built a worldwide network of sales offices and agencies in about 40 countries. Qualified and trained technical staff on site is ready to assist our customers quickly and efficiently.

Field experience of over 50 years coupled with profound technical expertise, allows our sales and customer application engineers to understand our customer's critical technical requirements and issues in depth. Based on such experience they specify the right solutions whether they are based on our standard portfolio or indeed designed in a customized way.

HUMAN RESOURCES

Our highly qualified and motivated employees are our greatest asset and therefore, our first priority is to offer them a stimulating and creative work environment. Our organization has a flat hierarchy and strong direct communication channels between different departments and management levels that enable us to make quick decisions.

Also, we give our employees full responsibility for their wide-ranging workload and offer them the opportunity to develop new ideas and better ways to solve issues and increase the company's operational performance.

In our employees, we look for an entrepreneurial spirit and a positive attitude towards taking on new initiatives.

We have ambitious growth targets and through an international, challenging and rewarding work environment in attractive locations we are able to offer our staff the opportunity to personally evolve alongside the company.

GROUP SCOPE ELECTRICAL SAFETY SOLUTIONS



We design and manufacture standard and customized components as well as complex subsystems integrating our own and third-party components in compact high-voltage enclosures that are convenient to supply and easy to install.

Our components and solutions protect electrical equipment in rail vehicles and DC traction power substations, as well as in energy-intensive industries and renewable energy production.

We bring broad, deep knowledge of power transmission and the protection and monitoring of high-voltage electrical circuits. We deliver solutions with unparalleled track records and help to create value for our customers.

PRODUCTS & SOLUTIONS

- ✔ DC circuit breakers
- ✔ AC circuit breakers
- ✔ AC & DC high-voltage integrated systems
- ✔ Contactors
- ✔ Disconnectors for rolling stock and for fixed installation
- ✔ Earthing switches
- ✔ Traction measurement systems
 - AC & DC voltage & current sensors
- ✔ Current collectors
- ✔ Master controllers
- ✔ Wheel flange lubricators
- ✔ Engineering services



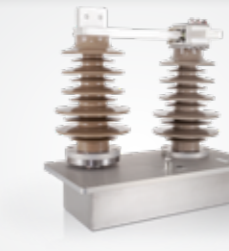
UR10
DC high-speed circuit breaker



MACS
AC circuit breaker



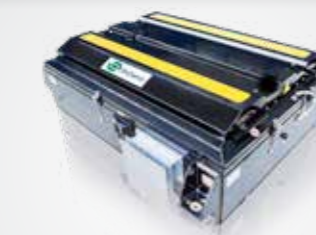
BMS
AC/DC contactor



RS
AC/DC disconnector



TMS
AC voltage & current measurement



MODBOX®
High voltage integrated system

ELECTRICAL SAFETY SOLUTIONS

GROUP SCOPE TRACTION POWER SYSTEMS



As the world's leading supplier of electrical equipment for DC traction substations, our large installed base spans the globe and includes equipment like innovative power conversion systems, DC switchgears, distribution panels, electrical protection and supervision systems.

We possess broad, deep knowledge of the technologies used in railway components and have extensive in-house engineering capabilities, with a wide range of standard products and customized solutions to meet our customers' needs.

Our expertise, systems and products are also addressing other industrial DC applications requirements, such as hydrogen production, bus charging, data centers or smart grids.

All of our products are backed by value-added services throughout the project and equipment lifecycles.

PRODUCTS & SOLUTIONS

- EFFICIENT | Power conversion**
 - Transformers
 - REV | Reversible controlled converters
 - REC-D | Diode rectifiers
 - REC-T | Thyristor controlled rectifiers
 - INV-I | IGBT inverters
 - INV-T | Thyristor inverters
 - Automatic assured receptivity units
 - ESS | Energy storage systems
- ESTRA | DC switchgear & distribution board**
 - MBS | High-speed circuit breaker panels
 - PADS | Disconnect switch panels
 - PALB | Load break switch panels
 - VGUARD | Voltage limiting devices
 - MIU | Current measurement
 - VM | Voltage measurement
 - VP | Voltage presence detection
- Electrical houses (E-House)**
- Engineering services**
 - Network expertise
 - On-site support
- STELLA | Protection & supervision**
 - SEPCOS | Control & protection relays
 - KEOPS | Control command & local SCADA
 - SCMS | Stray current monitoring systems



EFFICIENT-INV
Modular & powerful inverters



EFFICIENT-REV
Reversible controlled converters



ESTRA-MBS
High-speed circuit breaker panels



ESTRA-VGUARD
Voltage limiting devices



STELLA-SEPCOS
Control & protection relays



STELLA-SCMS
Stray current monitoring systems

TRACTION POWER SYSTEMS

GROUP SCOPE ON-BOARD ELECTRONICS

HaslerRail is the market-leader and innovative supplier of safety-relevant on-board electronics, sensor, software and data management products and solutions for the railway industries.

We are the global partner with worldwide local support and qualified technical teams and we aim to give our clients the best possible services during project execution and operation.

Our European, North American and Chinese supply chains are fully compliant with local and international standards.

We develop high-quality devices and dedicated software for train monitoring and diagnostics as well as video systems, which enable the operator to optimize the safety of vehicles and transport capacities on an ongoing basis.

Today, more than 40 000 Pixy displays are in round-the-clock use worldwide where the demand for mobile visualization and harsh industrial environments meet.

Our Swiss Engineering label stands for technical innovation, reliability and durability. Developed on the basis of DIN EN 50155 railway applications, all of our devices work smoothly even in extreme temperature ranges and meet the standard requirements of EMC, shock and vibration tests.



PRODUCTS & SOLUTIONS

- // Data recording
 - TELOC 3000
 - TELOC 4000
- // Safety functions (SABO B + C)
- // Rail data management solutions
 - EVA PLUS
 - Energy portal
- // Odometry
 - CORRAIL
 - Pulse generator
- // Cold Movement Detection (CMD)
- // Energy metering
 - REM 101
 - REM 102
- // Mobile gateway - GOCU (Communication module)
- // Badge reader
- // Video recording (TELOC + camera)
- // Visualization solutions & speed Indicators
 - Speedo
 - PIXY 1000
 - INC 100
 - INC 90
 - SIP 30
 - PAD 1000
 - PAD service tool 2.0.0
 - Video solution
- // Vehicle Control Units (VCU) (RaPLC)
- // Remote I/O units (TCN RiCO)
- // Gateways
 - WTB - MVB gateways
 - WTB - ETH gateways
 - WTB - CAN gateways
- // Protection (RTP)
- // Sensors
 - Outdoor DC sensor - Jedy
 - Outdoor AC sensor - Polifemo
 - Indoor DC voltage & current sensor - iTEMS

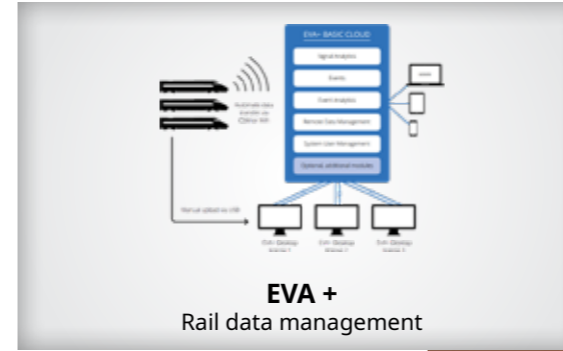
ON-BOARD ELECTRONICS



TELOC 4000
Event recorder



REM 102
Energy meter



EVA +
Rail data management



INC 100
PIXY display



CORRAIL 1000
Speed sensor



IGW 450
Train communication WTB-MVB gateway

APPLICATIONS

RAIL TRANSPORTATION / ROLLING STOCK

// AC VEHICLES, DC VEHICLES & AC/DC MULTISYSTEM VEHICLES

Sécheron offers a broad range of standard and custom solutions for AC and DC rail vehicles as well as for AC/DC multisystem rail vehicles. Our product scope meets a variety of needs, including electrical safety, traction control, energy measurement, noise and wear reduction. All of our products are factory tested and supported by superior service for optimal reliability and performance.

RAIL TRANSPORTATION / ELECTRIFICATION

Wherever DC substations are found, Sécheron DC electrification equipment helps deliver power and provide protection for people and property in the railway industry. Whether you need an individual component or complete DC substation, you can count on Sécheron for reliability and performance endorsed by extensive factory testing.

RENEWABLE ENERGIES & ENERGY STORAGE

Renewable energy production and energy storage equipment has specific requirements when it comes to electrical protection, control, and safety. Sécheron provides a broad range of components and solutions for wind and photovoltaic power plants and for fuel-cell and battery storage systems.

DC POWER CONVERSION

Through its unique DC expertise, Sécheron has developed competencies beyond its core activity in rail. Meeting high-demanding applications such as hydrogen production from renewable energies, bus charging and data centers, Sécheron offers field-proven solutions thanks to its unparalleled DC power conversion knowledge.

ENERGY INTENSIVE INDUSTRIES

// ELECTRIC MINING HAUL TRUCKS

Sécheron offers electrical safety and drive control solutions for electric mining haul trucks with trolley assist to ensure high uptime and flexibility during operation.

// ROLLING MILLS

Sécheron provides electrical components and solutions for the DC machine drives found in mining and metals equipment like hoists, grinding mills, and rolling mills. Our solutions ensure safety, high uptime, and flexibility during operation and maintenance.

// POWER GENERATION

Sécheron offers specific solutions to meet the needs of large hydropower, thermal power, and nuclear power plants. Our DC circuit breakers and switches bring protection, flexibility, and reliability to the synchronous generators used in large power plants.

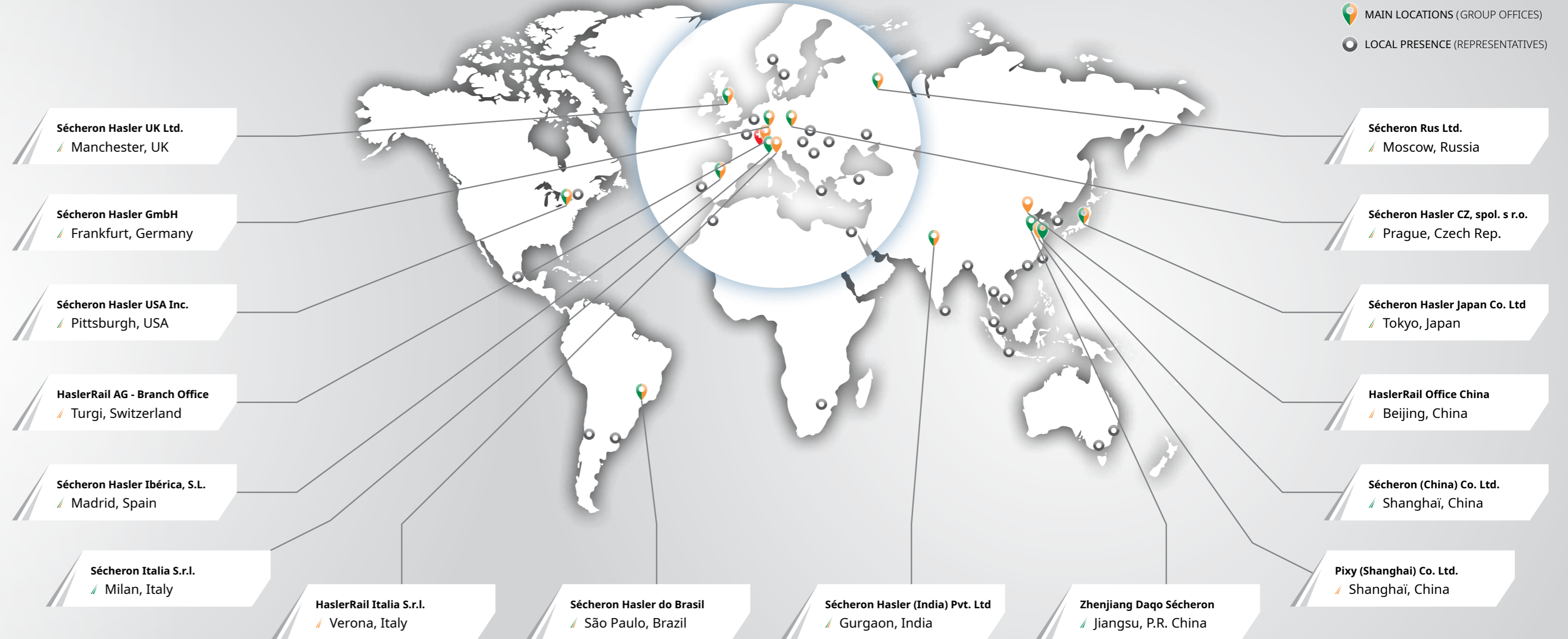
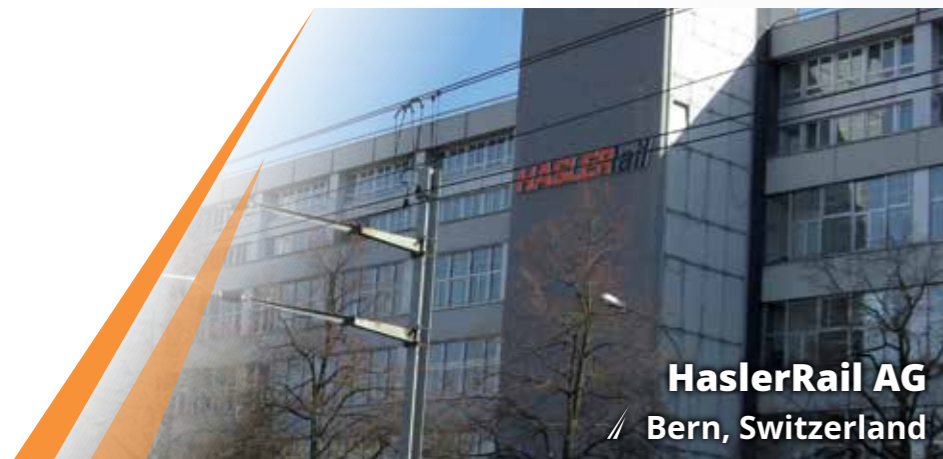
// MARINE

Sécheron brings in-depth knowledge of marine propulsion and auxiliary power systems, providing products and solutions to increase the protection, flexibility, and reliability of high-voltage circuits so that vessels can continue their missions even in the event of an electrical fault.



WORLDWIDE PRESENCE

SWISS HEADQUARTERS



LOCAL CAPABILITIES

MARKETING & SALES

Our local sales team are close to our customers to identify their needs and propose them the most valuable solutions contributing to the success of their projects. Will an off-the-shelf solution not meet your requirements, we can come up with a tailor-made response.

ENGINEERING & SUPPORT

Our engineers and technicians provide our customers with a strong support and dedicated services throughout all equipment purchase and installation phases. It also includes local engineering for customized solutions.

LOCAL PRODUCTIONS

To meet specific market requirements, and wherever possible, our local organization provides solutions and equipment with local content integration.

MAINTENANCE & AFTER-SALES SERVICES

Our qualified local service point supports our customers through the delivery of original spare parts, as well as the execution of preventive maintenance and repair of our equipment during its entire life time.



TECHNOLOGY AND R&D

Our development teams, consisting of over 100 engineers of more than 10 nationalities, bring together a wealth of knowledge in high-voltage, material sciences, mechanics, software and electronics. They use state of the art development and simulation tools and collaborate closely with highly recognized engineering schools, universities and external specialists for other technologies. As a result of significant investments made in R&D and the close cooperation between our main operational units, our group regularly develops and markets new products & solutions that drive the market technology. Evidence of our capacity to innovate is the number of registered patents and models we have produced.

Through high levels of communication with our customers during the entire product development process, we ensure that their needs are fully addressed when the product is ready to be released on the market. We focus on the development of standardized products and processes, building product platforms, which are also the basis for customized solutions. As well as the development of new products, we are working increasingly with our clients to develop systems and solutions, which feature integrated functionalities suiting their every need.

The worldwide certification and homologation of our products and their testing under strict conditions, guarantee quality and reliability.

SUPPLY CHAIN & PRODUCTION

Our integrated ERP and Supply Chain Management system allows us to synchronize our different supply chains worldwide. Our entire production is focused on reaching high levels of efficiency through :

- Automatic product configuration allowing us to build our products based on a limited number of standardized sub-assemblies.
- A limitation of our supplier base to create efficient partnerships for optimizing quality, lead time, innovation and cost.
- Optimized production lines to minimize the labor costs of our products and assigning production of labor-intensive work to lower cost locations.
- Automation of processes such as machining and testing. Based on detailed forecasting tools, a Kanban-system and standardized internal assembly as well as testing processes, we are able to meet short delivery times even for large volumes and to deal daily with hundreds of products in countries as different as China, Germany, Japan, Russia, South Korea or the US.

HEALTH & SAFETY AND ENVIRONMENT (HSE)

The Group has set up an efficient system to manage Health & Safety and Environment (HSE) issues, in order to guarantee the company's employees, as well as all external third parties involved at any stage in our business, the control of its impact on the environment and a protection against professional accidents and diseases.

The HSE system is applicable to all activities including R&D, supply chain, production, maintenance, packing, shipping, after-sales service, and so on.

The HSE system is based on standards ISO 14001:2015 & ISO 45001:2018, as well as on legal basis and regulations in force. A budget, as well as human and material resources, are allocated for proper operation of integrated HSE Management System.

QUALITY

Quality is a key aspect of the Group's brands. One of our essential missions is to contribute to the efficiency, productivity and safety of worldwide rail transport, by designing, manufacturing, and delivering fully tested and highly reliable products and solutions to our customers.

Our approach of quality is based on the following main principles:

- The customer is at the heart of our activity, and our success on the market depends on our capacity and efficiency to anticipate and address their needs.
- Quality management & strict application of working procedures are integrated into our products and processes at all stages of development and production.
- Each single product leaving our factories is tested, and matches or exceeds the quality level expected by our customers, while respecting the environment.
- Our objective is to always increase the added value of our products and solutions that rely on strong and continuous efforts in technological innovations.
- We value and encourage initiatives and the sense of responsibility of our collaborators, which expertise level is constantly maintained and raised through continuous training.

Sécheron and HaslerRail are certified according to ISO/TS 22163, ISO 9001:2015 standards.

Sécheron Hasler GROUP

Smart. Safe. Swiss.



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