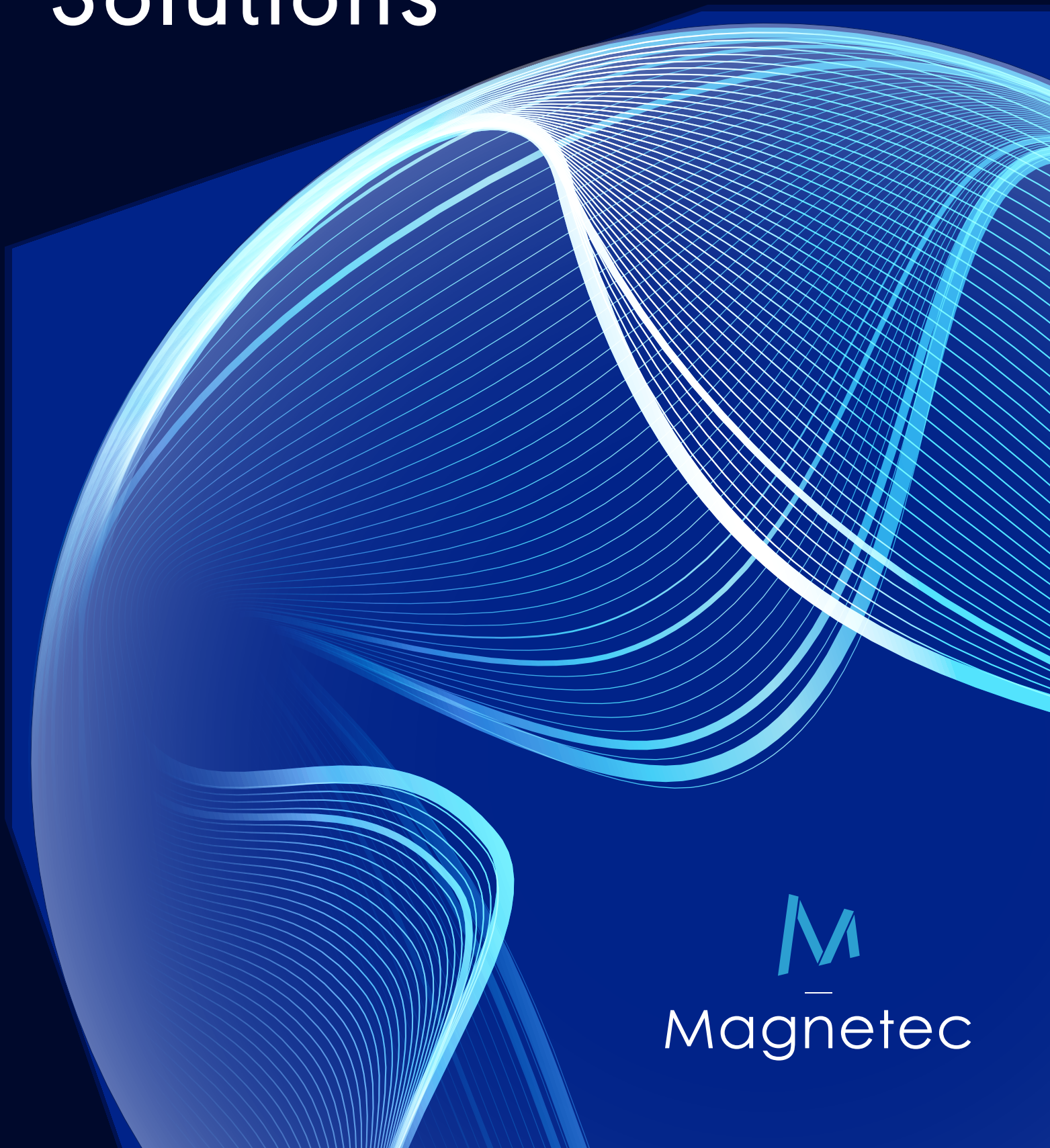
COMPANY PROFILE

Powering the World's
Electrification with Advanced

Nanocrystalline Solutions



Magnetec

Marc Nicolaudius

Managing Director MAGNETEC

Our passion for delivering value to our customers drives us to achieve excellence every day. We understand their requirements and offer the entire value chain – from nanocrystalline ribbon to the final product, including the necessary electronics and EMC compliance testing – all from a single source. By maintaining full control over the value chain, we ensure optimal solutions tailored to our customers' needs. Our goal is to be a reliable and innovative partner, providing expertise and cutting-edge technology to make our customers successful.

Your Partner for Inductive Components & Advanced Magnetic Solutions

Who We Are
More Than Just a Supplier

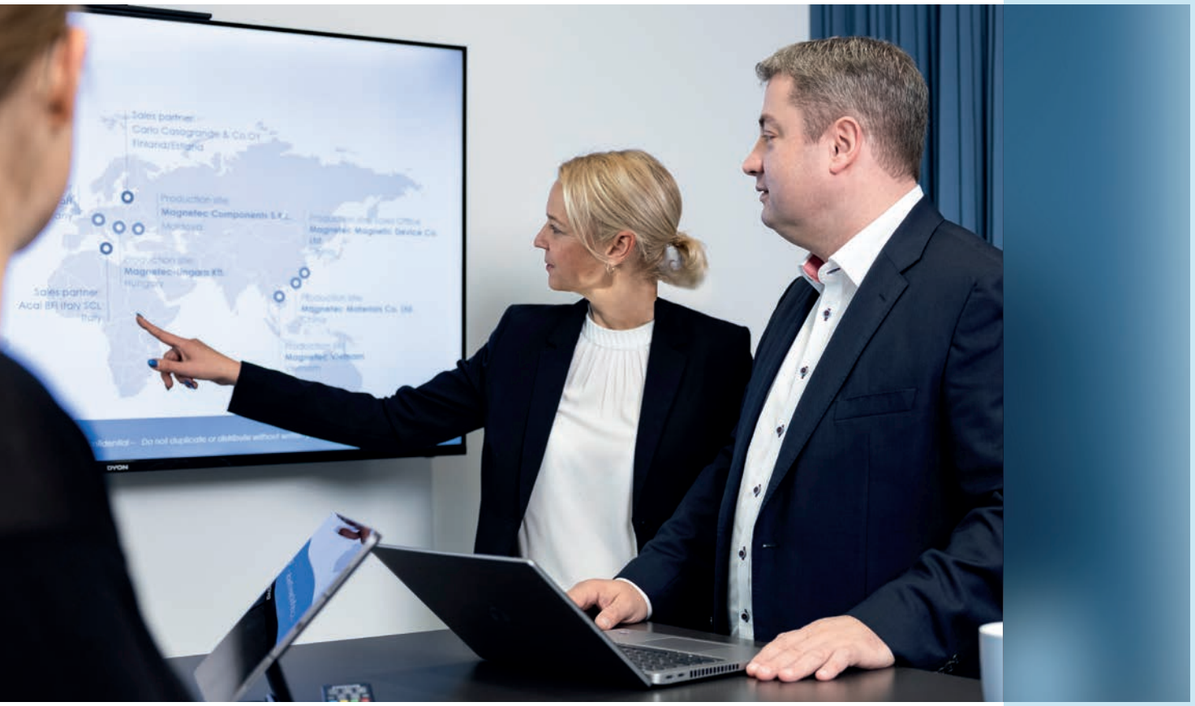
Founded in 1984, MAGNETEC GmbH has evolved into a global leader in EMC and sensing solutions, providing advanced nanocrystalline soft magnetic materials. Our solutions enable safer, more efficient, and sustainable energy applications across mobility, industry, and renewable energy sectors.

While many companies simply supply nanocrystalline materials, MAGNETEC goes further. We collaborate closely with our customers to deliver tailored, high-performance solutions that integrate seamlessly into their applications. Whether it's EMC optimization, energy efficiency enhancement, or precise sensing capabilities, MAGNETEC is your trusted innovation partner.

Mission

Innovating Magnetic Solutions, Empowering Our Customers

MAGNETEC exists to develop and deliver high-performance EMC and sensing solutions that enhance efficiency, reliability, and sustainability. By combining our deep expertise in nanocrystalline soft magnetic materials in close collaboration with our customers, we create innovative and tailored solutions that power the next generation of electrification technologies.



Vision

Shaping the Future of Global Electrification with Smart Nanocrystalline Solutions

MAGNETEC envisions a future where we are the global leader in EMC and sensing solutions, setting new industry standards with our advanced nanocrystalline soft magnetic materials. Our goal is to be the first choice for companies driving electrification-enabling safer, more efficient, and sustainable energy solutions across mobility, industry, and renewable energy sectors.

360° Competence
Excellence in Every Dimension

Versatility is key when balancing performance, efficiency, and long-term reliability. We engineer solutions that deliver high magnetic efficiency, low losses, and optimized cost-effectiveness throughout their lifecycle. With refined production processes and optimized material usage, we create technically superior and economically sound inductive components.

Accuracy, precision, and durability define our approach to quality. Every component is designed to ensure long-lasting performance, high stability, and optimal material properties, enabling reliable function even under demanding conditions. Our robust manufacturing processes and meticulous material selection result in solutions that meet the highest levels of technical excellence.

Leveraging our deep expertise, we tailor every component to meet unique customer requirements. Whether it's unique geometries, optimized magnetic properties, or specific design constraints, we work closely with our customers to provide the best-fitting inductive solutions – quickly and efficiently.

Uncompromising stability and performance define our products. Designed for long-term operational security and efficiency, our solutions provide consistent results without degradation in function. By leveraging advanced material science and controlled manufacturing techniques, we guarantee repeatability and precision in every component.

Excellence in collaboration drives us to build strong partnerships. Our team works closely with customers from the initial concept stage to full-scale production, ensuring that our solutions align perfectly with their technical requirements. With fast response times, expert guidance, and dedicated support, we don't just supply components – we create lasting value.

Seamless logistics and on-time delivery define our operational excellence. With a well-structured global network, efficient logistics, and lean production processes, we ensure supply chain reliability. Our end-to-end process optimization minimizes lead times while maintaining the highest product integrity, allowing customers to focus on their core applications without disruptions.

From Vision to Reality
A Journey of Growth and Innovation

1984

Foundation of MAGNETEC GmbH
Established in Germany, paving the way for innovation in soft magnetic materials.

1989

Expansion into Hungary
Our first international production facility in Hungary marked a major milestone, enhancing our manufacturing capabilities across Europe.

2009

Establishing a Presence in China
The launch of MAGNETEC China strengthened our footprint in the Asian market, allowing us to better serve regional customers with localized support and solutions.

2019

New Manufacturing Site in Moldova
With a production facility in Moldova, we expanded our global manufacturing network, optimizing efficiency and proximity to key markets.

2022

Launching Manufacturing Operations in Vietnam
The establishment of our Vietnam plant enabled us to enhance production capacity in Asia, supporting growing global demand.

2024

Setting Up MAGNETEC Corp. in the USA
To better serve our North American customers, we established a dedicated sales office in the United States, providing local expertise and direct support.

A Global Presence
Local Expertise

Our headquarters is the center of corporate operations, where R&D, engineering, and quality management come together to drive innovation and technological advancements. From here, we support customers with tailored solutions and ensure our products meet the highest standards for EMC and power applications.

Our production facility relies on modern manufacturing techniques and highly skilled specialists to produce nanocrystalline and soft magnetic components with precision and efficiency. Its strategic location enables fast and reliable delivery across Europe, ensuring seamless integration into our customers' supply chains.

Our worldwide production facilities are designed for high capacity and flexibility, allowing us to efficiently manage both large-scale manufacturing and custom-engineered solutions. With dedicated teams on-site, we ensure fast, reliable, and high-quality production, meeting the specific needs of our customers across various industries.

With strategically located manufacturing sites, we combine cutting-edge production technologies with deep market expertise to serve industries such as renewable energy, e-mobility, and industrial power electronics. These locations enable optimized supply chains and fast delivery, ensuring seamless integration into our customers' operations.

By leveraging global reach, advanced production methods, and a strong commitment to quality, we provide high-performance magnetic components that drive efficiency, innovation, and reliability worldwide.

MAGNETEC **Worldwide**

Powering the Future
Magnetic Solutions Across Industries

Automotive

Electrification demands efficient, compact, and reliable components. Nanoperm® cores play a vital role in motor bearing protection and DC-sensitive residual current detection for safe and efficient charging.

Chokes and inductors are essential in on-board chargers (OBCs), DC/DC converters, and power electronics for electric drivetrains, battery management systems, and auxiliary power supplies. They help reduce EMI, improve power efficiency, and enhance system reliability – critical factors in modern EV design.

With a broad portfolio of standard and custom magnetic components, we support automotive manufacturers in developing high-performance power electronics while ensuring compliance with strict EMC and safety standards. Our agile development process enables fast adaptation to evolving e-mobility technologies.

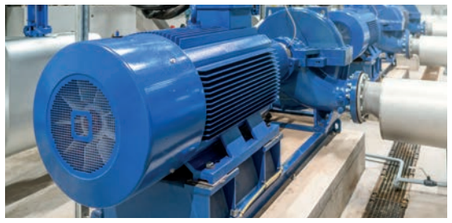
Industry

Reliable EMC solutions are essential in automation, robotics, power electronics, and motor drives to suppress electromagnetic interference (EMI) and ensure stable system performance.

CoolBlue® and NaLA® cores effectively reduce bearing currents in VFD-driven motors, preventing premature wear and unplanned downtime. Common mode chokes and custom inductors play a crucial role in industrial power supplies, control systems, and grid-connected converters, ensuring compliance with EMC regulations and improving system efficiency.

To address growing challenges in power electronics and grid stability, Active Filters help mitigate harmonic distortion and voltage fluctuations in industrial plants and renewable energy systems.

With nanocrystalline cores and tailored inductive components, we help manufacturers optimize power electronics, extend equipment lifespan, and enhance overall system reliability.



Energy

High-performance magnetic components are essential for renewable energy, power conversion, and smart grid applications.

In wind power, CoolBlue® cores protect generator bearings in onshore and offshore turbines, reducing electrical discharge damage and extending operational lifespan. High-power solar inverters benefit from nanocrystalline EMC filters, which minimize losses while enabling compact, high-efficiency designs.

For the smart grid, precision-engineered cores ensure accurate power measurement in smart meters and enhance EMI suppression in energy storage systems and grid-tied converters. As power networks evolve, optimized inductive components support stable and efficient energy distribution.

With a broad portfolio of standard and custom solutions, we help advance reliable and sustainable energy systems worldwide.

Safety

Reliable residual current protection is essential for household, industrial, and medical applications. With over 30 years of expertise, our customized nanocrystalline cores ensure precise fault detection in RCDs (Residual Current Devices) and GFCIs (Ground Fault Circuit Interrupters), enhancing safety in electrical systems.

Beyond standard solutions, we provide fine and heavy wire winding, module assembly, and tailored core designs, simplifying integration for manufacturers.

Safety remains a core principle in everything we develop. With a focus on efficiency, compliance, and reliability, our components support modern protection systems that meet the highest industry standards.

Nanoperm®
Ensuring Quality Through a Secure and Independent Supply Chain

Raw material

Smelter process

Coil winding process

Finished Nanoperm®

At MAGNETEC, full control over nanocrystalline tape production guarantees the highest quality, reliability, and long-term supply security. The Vietnam-based manufacturing facility oversees the entire process, from smelting and coil winding to the final production of Nanoperm®, the core material for all products. By keeping production in-house, consistency and performance are ensured at every stage.

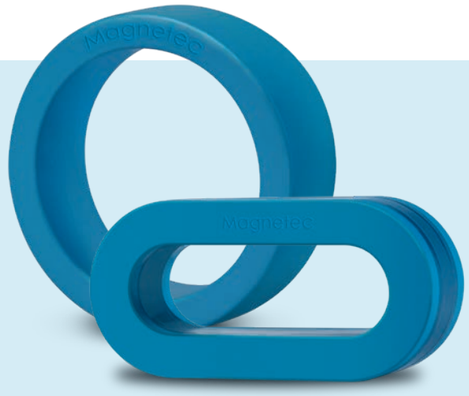
A diverse and secure supply chain strengthens supply stability and independence. To reduce supply risks and ensure long-term availability, raw materials are sourced outside of China. This approach enhances resilience against market fluctuations and ensures reliable procurement.

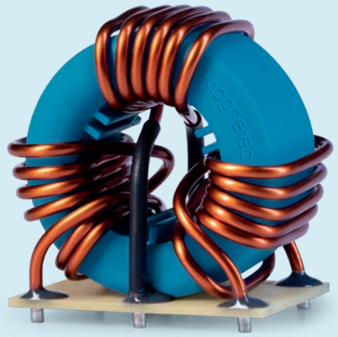
By managing material composition and processing internally, production remains precise and efficient, ensuring seamless integration into a wide range of applications. This precision in production translates directly into superior performance across EMC components, inductive components, and advanced sensor solutions. A fully controlled supply chain and dedicated manufacturing process provide long-term security, flexibility, and consistent high-quality solutions.

From Core Expertise to **Smart Solutions**

EMC Cores

Nanocrystalline EMC cores provide highly efficient suppression of conducted and radiated interference, ensuring compliance with EMC regulations. Used in power electronics, industrial automation, and renewable energy applications, they enhance system stability and reliability.



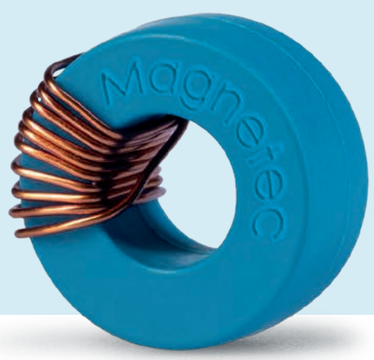


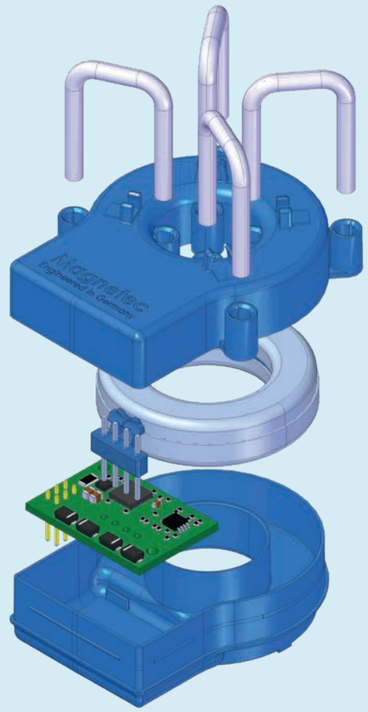
Inductive Components

Common mode chokes, differential mode chokes, and inductors based on Nanoperm® material offer high permeability, low losses, and excellent thermal stability. These components optimize efficiency in frequency converters, power supplies, and grid-connected systems while minimizing heat dissipation.

Current transformers

Nanocrystalline current transformers deliver precise current measurement with high linearity and temperature stability. Used in smart grids, industrial power distribution, and energy metering, they enable efficient monitoring, fault detection, and load balancing.





Residual current sensors

Residual current sensors ensure reliable detection of leakage currents in EV charging, photovoltaics, and industrial applications. Their high sensitivity and accuracy help meet strict safety standards, providing essential protection against electrical hazards.

Innovative Magnetic Solutions – Beyond Cores, Driving System Innovation

Innovation extends beyond material expertise to complete solutions that address real-world challenges in energy, mobility, and industrial power systems. By integrating advanced materials with electronics and system-level design, new possibilities emerge that improve efficiency, safety, and performance.

The development of the All-in-One EV Charging Cable illustrates how expertise in magnetics and power electronics enables compact, fully integrated designs that simplify infrastructure. Similarly, Active Filters show how combining magnetic components with smart electronics can actively improve power quality, reducing harmonics and energy losses.

These are just examples of how core competencies are applied to create solutions that push industries forward. Whether in electric mobility, renewable energy, or industrial automation, the focus remains on innovation that delivers tangible improvements beyond traditional magnetic components

Corporate **Responsibility**

Ethical business practices

Our company culture is built on a foundation of transparency, fairness, and integrity. These values shape every aspect of our operations, from supply chains to customer relationships. We are committed to responsible sourcing and uphold strict standards regarding the origin of materials, ensuring compliance with international regulations and ethical guidelines. Respect for human rights and fair labor conditions is deeply embedded in how we do business, ensuring that our partnerships and production processes align with the highest ethical standards.

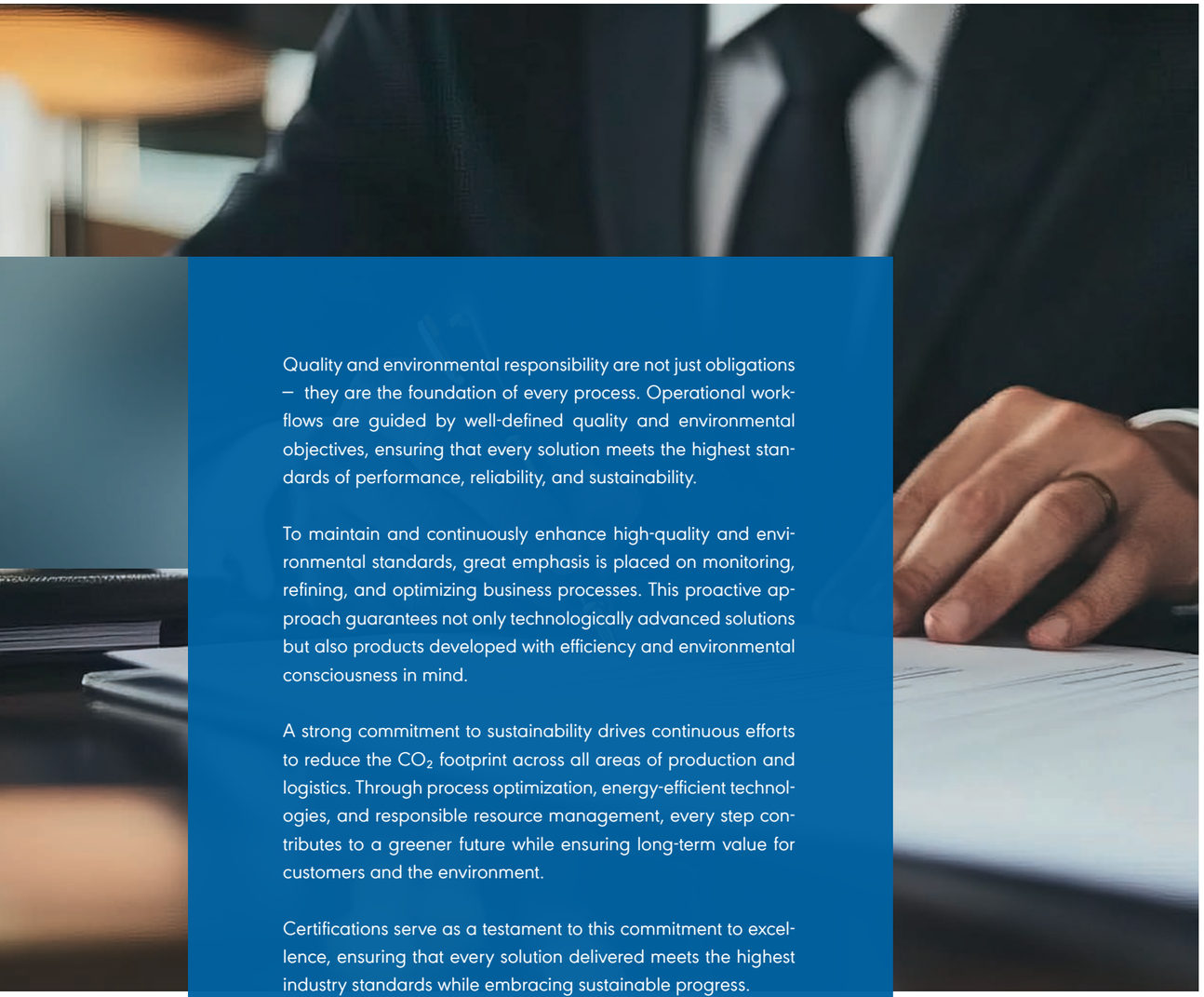
Environmental responsibility

Our commitment to a sustainable future drives us to continuously optimize our processes and technologies. We work to minimize our environmental footprint while enhancing energy efficiency. Compliance with environmental regulations is a given, but our responsibility goes further - we actively seek to reduce waste, improve resource efficiency, and integrate environmentally friendly materials into our production. Our products support cleaner energy solutions and contribute to reducing environmental impact across industries.

Sustainability

More than just a goal, sustainability is an ongoing process embedded in our corporate responsibility. Our leadership drives continuous improvement, setting ambitious environmental and ethical standards while ensuring that our business contributes positively to the industries we serve. By fostering innovation with a strong sense of responsibility, we create solutions that not only advance technology but also support a more sustainable and fair future.

Quality & Sustainability
A Commitment You Can Trust



Quality and environmental responsibility are not just obligations – they are the foundation of every process. Operational workflows are guided by well-defined quality and environmental objectives, ensuring that every solution meets the highest standards of performance, reliability, and sustainability.

To maintain and continuously enhance high-quality and environmental standards, great emphasis is placed on monitoring, refining, and optimizing business processes. This proactive approach guarantees not only technologically advanced solutions but also products developed with efficiency and environmental consciousness in mind.

A strong commitment to sustainability drives continuous efforts to reduce the CO_2 footprint across all areas of production and logistics. Through process optimization, energy-efficient technologies, and responsible resource management, every step contributes to a greener future while ensuring long-term value for customers and the environment.

Certifications serve as a testament to this commitment to excellence, ensuring that every solution delivered meets the highest industry standards while embracing sustainable progress.

IATF 16949

International Automotive Task Force 16949 is a globally recognized quality standard for the automotive industry. It defines quality management systems to minimize defects, improve efficiency, and enhance customer satisfaction.

ISO 9001

International Organization for Standardization 9001 is the world's most widely adopted quality management standard. It helps organizations optimize processes, increase efficiency, and consistently meet customer expectations.

ISO 14001

International Organization for Standardization 14001 is a leading environmental management standard. It supports organizations in reducing their environmental impact, ensuring regulatory compliance, and promoting sustainability.

TISAX

Trusted Information Security Assessment Exchange is a specialized security standard for the automotive industry. It ensures the secure handling and exchange of sensitive business and customer data.

RoHS

Restriction of Hazardous Substances limits the use of specific hazardous materials in electrical and electronic equipment. It aims to protect human health and the environment by reducing harmful substances in manufacturing processes.

REACH

Registration, Evaluation, Authorization, and Restriction of Chemicals is a European Union regulation ensuring the safe use of chemicals in industrial and consumer products. It protects human health and the environment by requiring companies to identify and manage risks linked to chemical substances.

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