



Scalable OEM Drive and Motor Solutions

Developing joint business strategies and industrial solutions with
Original Equipment Manufacturers (OEM) to deliver unique customer value

Control Techniques™
Leroy-Somer™


EMERSON™
Industrial Automation

Meeting business challenges through shared experience

As part of Emerson Industrial Automation, Control Techniques and Leroy-Somer understand that today Original Equipment Manufacturers (OEMs) face tough and diverse challenges. Typically these can include:

- Larger, more complex projects
- Shorter schedules
- Tighter budgets
- Shortage of experienced and skilled personnel
- Provision of equipment in multiple global markets (often at different stages of development)
- Dealing with new and difficult application environments
- Meeting higher throughput or productivity rates
- Increased demand driven by a growing population

These are all areas that we can help with.

To fully understand our customers' unique pains and priorities we connect with them at a deep level in many areas of their business. By incorporating our own industry-focused expertise and resources, together we can develop appropriate solutions to meet these challenges, sharing a vision and working towards common goals.

Our proven development process is used to define and refine proposals, ensuring all aspects from product/solution development, testing and delivery through to life cycle management and operations, perform as promised.





By doing this time and time again, we meet our joint business goals, building trust and long lasting partnerships that benefit both parties and ultimately deliver value to our customers and an enhanced experience to users of our technology.

Typical examples of successful OEM partnerships include:

- Regional manufacturing and local distribution for leading elevator manufacturer
- Permanent magnet alternator solution for leading transport refrigeration manufacturer to achieve emissions legislation
- Integrated permanent magnet motor and drive solution for leading air compressor manufacturer to achieve market leading efficiencies
- Unique water-cooled design for leading vacuum pump manufacturer
- Development of customized torque servo motor for prominent digital print manufacturer
- Customized drive and software package with coordinated multi-axis motion for high speed textile machine producers



One size does not fit all

Flexible product and service solutions to meet the contrasting needs of OEMs

With **many years of experience** working closely with **local and global OEMs**, we strongly believe in the **value of partnerships**. We have mutually developed automation products and solutions for a wide range of manufacturing and process applications across many industries, including:

- Compressors & vacuum pumps
- Robotics
- Elevator solutions
- Industrial refrigeration (fans, pumps and compressors)
- Material handling & conveyor control systems
- Tower cranes
- Test stands
- Printing machines
- Packaging equipment
- Textile machines
- HVAC systems
- Electric vehicles

Each OEM has individual industry needs and market pressures, often localized, that impact their business. This necessitates the development of specialist equipment designs.

Typical reasons for technological advances include:

- Looking for **new technologies to differentiate their offer in the market**, such as:
 - ⇒ Support for developing new equipment to **increase throughput**
 - ⇒ **Customized products or software solutions** to optimize existing or new machine designs
 - ⇒ Enhanced **energy saving** requirements
 - ⇒ **Compact solutions** to reduce machine size
- Meeting new and compulsory **government regulations**
- **Regional manufacturing** capabilities to meet OEMs global growth strategies and short lead times
- Market and **user need analysis** have highlighted new customer pain points that need addressing
- Local service



Based on many successful partnerships and product developments, we see the diversity of OEM requirements as an opportunity to demonstrate our capabilities in **working towards common goals** while building **successful joint enterprise**. As an organization we offer:

- A deep focus and **knowledge of many specific key industries** relating to process and manufacturing sectors, which are extensively served by OEMs
- An excellent global infrastructure which provides:
 - ⇨ **Multiple manufacturing sites and E&D facilities** in all world regions
 - ⇨ **Local technical and sales support** through our **global Automation Center network**
 - ⇨ **Regional distribution hubs** geared up to serve local markets
- Highly **flexible and comprehensive product ranges**, with hundreds of options and opportunities for customization
- **Technical & engineering expertise**
- Well-formed, resourced and **proven new product development process**

Backed by **dedicated OEM account managers**, supported by our entire organization, we believe this provides compelling evidence that as a partner we can help you to develop **product and service solutions, that add value to your business**. This includes enhancing profitability, stream-lining your processes and supporting you to meet and exceed your commercial goals.

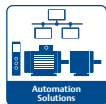


Globally organized expertise, development and support for our mutual benefit

We have operated globally for many years, providing unparalleled specialist drives and motors technology, expertise and customer care in a wide range of industries. Our high quality products with renowned reliability, automation knowledge and technical support have helped our customers meet and exceed their own requirements. Our business comprehensively delivers:



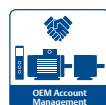
Matched drives and motors technology – enhancing performance and optimizing energy efficiency, offering industry-specific solutions for all customer requirements with best-in-class reliability.



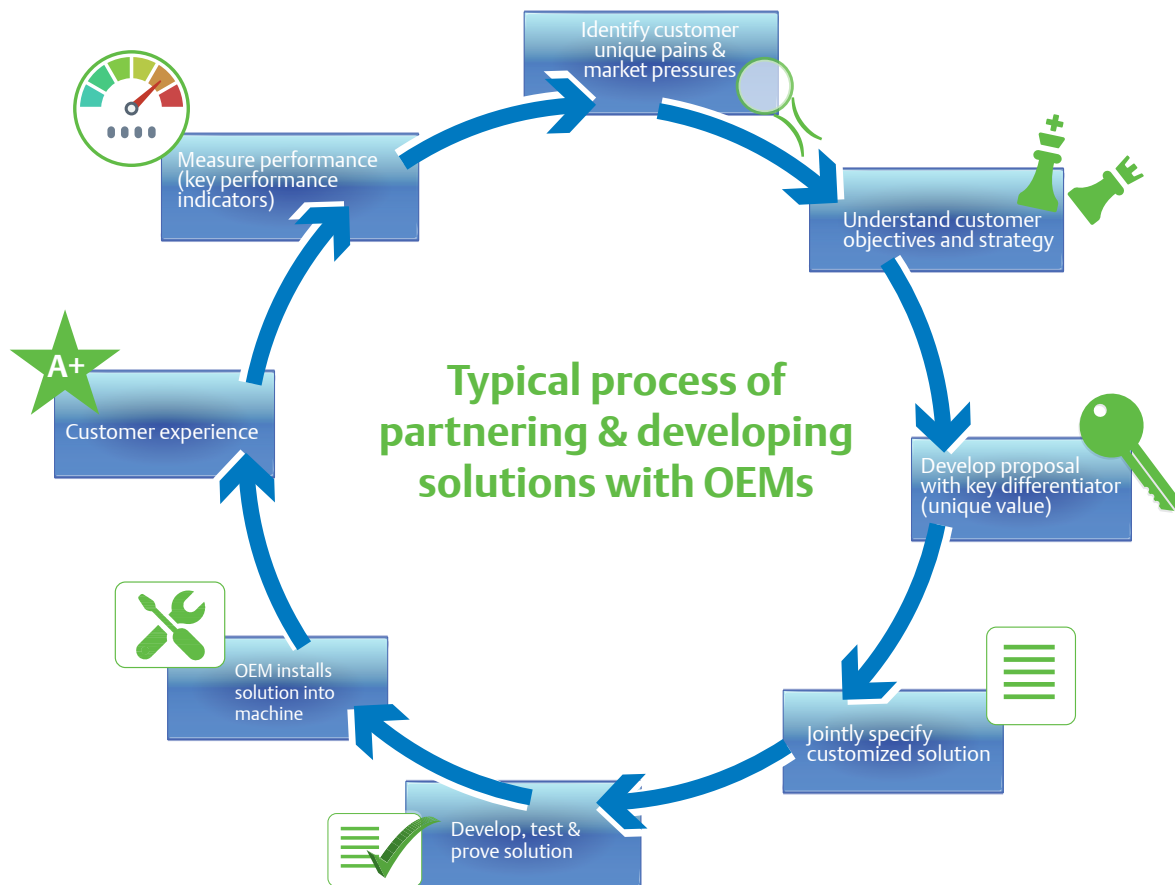
Scalable automation solutions – industry-focussed small machine automation projects up to complete automation and electrical turnkey solutions.



Local customized services – from audit & consultation, commissioning & start-up to maintenance and training, ensuring total support throughout the lifetime of your application to guarantee peak performance.



OEM account management – jointly developed customized solutions and strategic operations to meet the specific market requirements of our OEM customers.



A process that works for OEM customers and us

Our vision is to:

- Deliver unique customer-specific value that can be sustained and leveraged, resulting in profitable organic and new growth for both organizations

Our strategy is to:

- Accelerate our customers' growth and profitability by utilizing our motor & drive solutions and technology
- Align with the globalization of our customers
- Work with new OEMs and grow with them across a wide range of focussed industries, taking into account current megatrends

The scope is to work closely with OEMs, who are:

- Willing to work with us as partners, or to jointly develop products and solutions in key industries
- Looking for cutting-edge variable speed technologies to differentiate their offer in the market

Identifying business pressures and jointly developing solutions

Led by our highly experienced and dedicated OEM account managers, we use a collaborative methodology in engaging with customers to gain a deep understanding of the challenges they face. We often undertake our own market research to gain further strategic insight into industries.

Our process includes:

- Understanding OEM market pressures, such as:
 - ⇒ New government regulations
 - ⇒ Old products in need of replacement
 - ⇒ Competition
- Understanding customer objectives & strategies to address these pressures
- Understanding the challenges in achieving these strategies (e.g. SWOT analysis)

And then we can start to:

- Develop and quantify a unique solution
- Propose & share a joint vision with our customer
- Confirm and refine the vision and its value
- Develop a consensus within the customer's organization
- Secure a commitment
- Deliver the expected solution

Scalable and customized OEM solutions to meet market or budgetary needs

Each business case has a unique set of challenges and strategic goals and we can provide customized OEM technology solutions for all. These can range from:

- Simple rebranding of core products
 - Mechanical adaptation of products for easy integration with OEM machines
 - Minor software modifications or parameter sets
 - Specified fitting of option modules or connectors
- to:
- Fully developing new, highly innovative and customized product designs, such as unique drives, motors or exclusive cabinet layouts

We have all the expertise and resources in-house to design and develop new customer-specified product lines, or are flexible to partner with OEM design teams. Also, we are able to develop customized software for your equipment requirements, along with software tools to help with set-up and optimization.

Scaling solutions according to budget

Customer budget pressures, especially in developing countries, or just difficult market conditions, often outweigh the benefits of cutting edge product features. There is a fine balance between business goals versus budget, time and space constraints. We provide solutions that match the differing size, scope, product feature and business development needs of our customers. By catering to your needs and scaling solutions to fit, we maximize the opportunity to become trusted partners, proving we understand what it takes to help you grow and what it means to stretch a budget.

High quality solutions guaranteed

No matter what the budget, we always supply high quality products and services, providing a solution that helps grow your business either by gaining market share or simply expanding in growing markets. This can be done by modifying existing product platforms to get the job done at a fraction of the time and cost. We can create mid-tier offerings aimed at developing countries which provide more options and sales opportunities for you.



OEM account management - partnering to develop the right solution

As a trusted advisor, innovation meetings with OEM partners are common to jointly formulate user needs, product specifications and subsequent business plans for next generation machines. This fully synergized approach enables quick reaction to changing market needs with constant project review and status updates during the product development process. OEM account managers act as the voice of the customer within our organization, providing feedback and support to help produce accurate forecasts to ensure our operation and business systems are geared up for our clients' logistical needs.

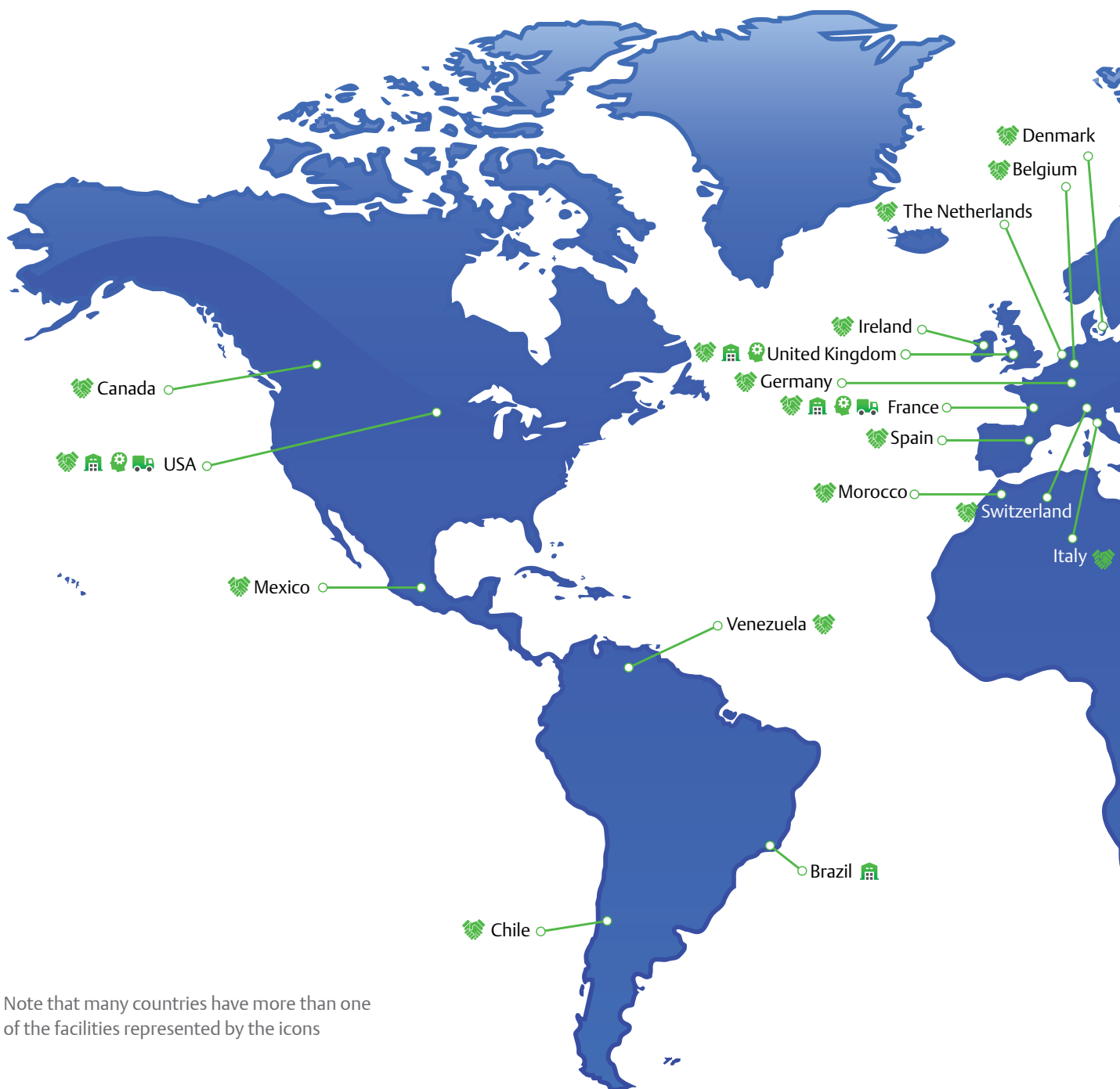


Enhancing user experience using human centered design principles

When we design any product we always set out to be perceptive to needs of our products' users. Demographic shifts in all economies point towards fewer experienced people in the work force. We can help customers meet this challenge and differentiate ourselves in the marketplace by improving user experience through approaches like Human Centered Design.

Customers expect products to be easy to use. Technology has become as much about the experience of using a product as it is about what that product can do. By designing our products with the user experience in mind, we can reduce the need for training, get workers up to speed and productive much faster and address the challenges of a changing workforce. An intuitive and seamless user experience is now one of the hallmarks of our technology and we can share this with our customers and our customers' customers in joint developments.

Global facilities and resources



An enhanced global presence that benefits all our customers

Through our integrated organization, we have an extensive global presence that provides comprehensive local support and services. This includes:

 5,500 employees



40+ Automation Centers

Providing excellent customer support for any product, automation solutions or service requirements



23 Manufacturing sites

Producing a comprehensive range of high quality products, optimized for industry-specific customer requirements



8 Engineering and Design facilities

Develops market leading products and feature-sets using the latest design technology



3 Regional despatch hubs

For quick delivery of product

Our extensive sales and service networks in Europe, Asia Pacific and the Americas are backed-up by hundreds of carefully selected distributors and service partners, often in remote locations, all over the world.



Global Engineering & Design network design and build anywhere

Our worldwide E&D teams have around 400 product development engineers spread across Europe, Asia Pacific and the Americas. They are focused on developing product platforms and new technology that can be quickly adapted to specific OEM requirements. Keys to our success are:

- Coordinated parallel development can occur simultaneously by multiple global teams to speed up projects and gain local market insight
- Controlled access to valuable intellectual property (IP)
- IP is protected by patents (currently 200 active)

Close collaboration allows functions and frame sizes to be quickly developed, with each local team benefitting from progress by others.

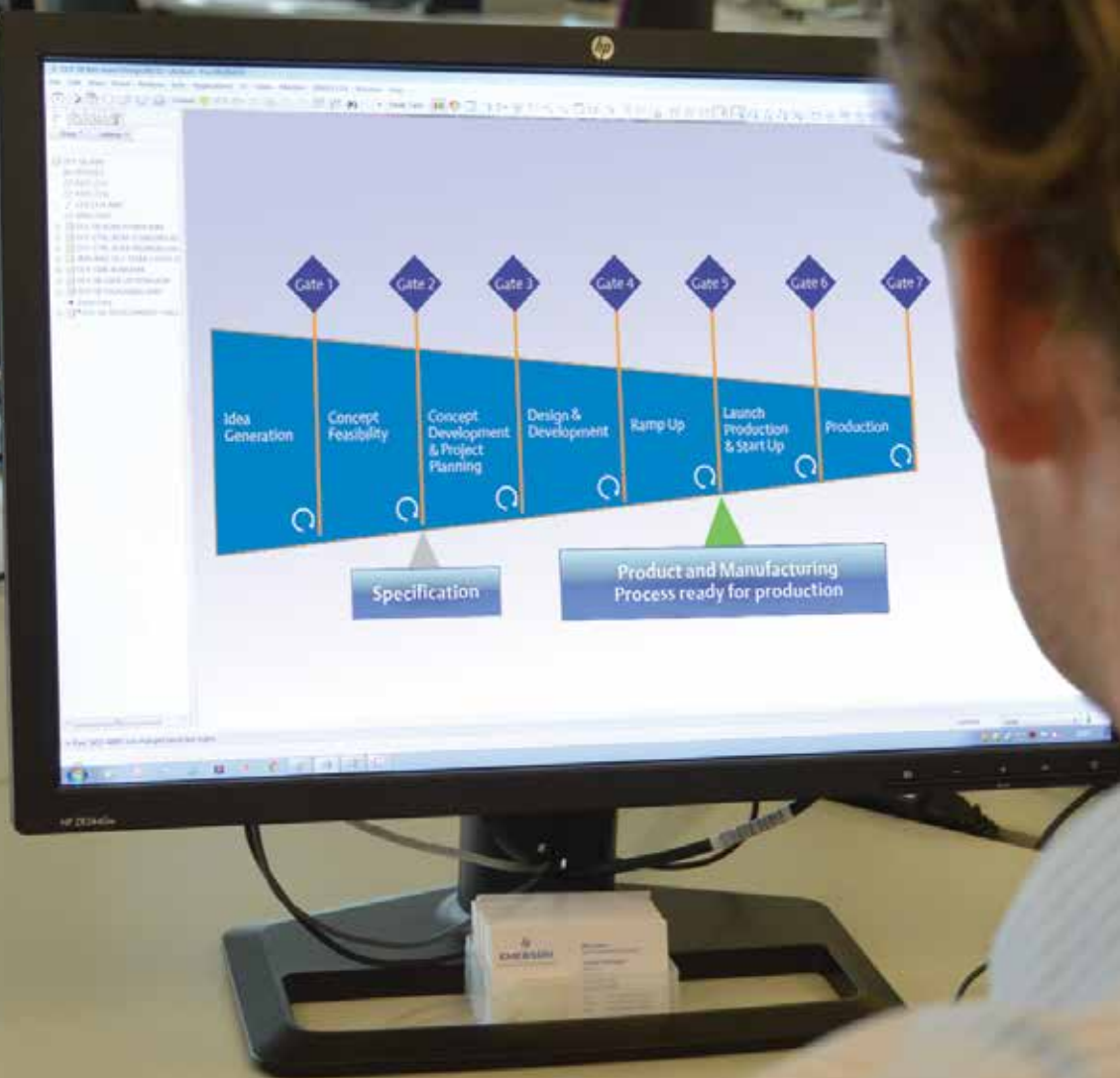
New Product Development (NPD) perfectly executed

Our New Product Development (NPD) process is proven, ensuring the development of new products to specified standards. We use best industry practices, optimizing the efforts of our highly skilled workforce to ensure projects start-up on schedule and finish within budget while providing solutions that meet your expectations.

From idea submission to full production, stringent milestones are defined with required deliverables before progressing to the next phase. Synchronized departmental leaders work together to ensure smooth project development, backed by operations to deliver exactly what was promised.

Ultimately, our NPD process aims to bring value to our customers by:

- Satisfying user needs (through market research and customer feedback)
- Ensuring all product specifications are fully met
- Designing intuitive products to enhance user experience
- Achieving world class quality & reliability
- Mitigating project risk & measuring success throughout development
- Reducing complexity & minimizing re-work
- On time stage deliveries and product introduction
- Delivering cost/price/value
- Offering customized solutions aligned to the specific needs of customers



Building quality and robustness throughout product development

Highly advanced virtual technology used throughout development enables us to simulate testing, accelerating refinements and robustness in design prior to committing to hardware. This speeds up development, allowing us to:

- Successfully embark on rigorous conformance testing early
- Share detailed engineering data and design models with global E&D teams who are working on other elements on large scale projects
- Quickly and accurately develop manufacturing test & process guidelines and customized user documentation
- Manufacture products in multiple sites if required prior to high volume assembly

Ultimately these technologies and processes minimize risk in projects and bring new products to market quickly.

Lean design and strategic procurement to provide quality core technology and value

We use a lean design philosophy to minimize complexity and enhance quality when developing new platforms for standard and derivative products. Field-proven common components and subassemblies are re-used to meet quality requirements.

Our Strategic Procurement team develop external supply chains, integrating with local markets or leveraging with preferred suppliers to ensure quality and best cost position. Multiple suppliers of key components are selected to safeguard production continuity, with the flexibility to minimize lead-times and react to our customers' changing demands.

We can also incorporate customer-preferred components into designs, with thorough in-house testing facilities available. When external testing and certification is required, we have well-established relationships and processes in place with standards organizations to ensure quick accreditation.

Total customer satisfaction through operational excellence and comprehensive support

High quality manufacturing

We ensure that new products are designed for manufacturability and develop plans, specifications, metrics and processes to deliver quality and value at an optimum speed.

Our organization's Quality Management Systems (QMS) and associated processes are certified to ISO 9001:2008, providing clear evidence of the global alignment and ability of our activities to meet customer requirements and their expectations. Key benefits include:

- Increasing our productivity
- Maximizing the quality of our products and services
- Saving time and money
- Improving accountability of the management of our QMS
- Increasing our employees' understanding of their roles in the success of their work and the company's competitiveness
- Creating greater motivation and dedication
- Providing consistency in pursuing, measuring and improving our targets

Global operations to meet regional market needs

Our global operations in terms of multiple manufacturing and distribution sites are used to producing and shipping products regionally and consistently, with short lead times to ensure continuity of customer production. We work closely with OEMs for accurate sales forecasts to expand and reduce capacity as required and meet customer schedules.

We are able to provide specific shipping arrangements to meet your business needs, such as:

- Consolidated shipments, sometimes on a global scale
- Agreed lead times
- Stock replenishment rates/consignment stock inventories for just-in-time deliveries
- Use of specialized or branded shipping containers
- Specified carriage vendors

We are responsive to our customers and aim to be operationally excellent across the entire business to promote customer loyalty and future joint activities.



Comprehensive services to help meet OEM business goals

Our customers can rely on us to help with more than optimizing their equipment and processes in new and more challenging applications. We provide local customer care for the entire lifecycle of solutions, giving access to our global experts to support them in many areas of their business at a time when there is a shortage of available and experienced workers. On a case-by-case basis, we can offer the following services if required:

- Life cycle management
- Global aftersales support in all world areas
- Dedicated technical support
- Direct access to propriety on-line knowledge base and issue tracking system
- Dedicated customer service & order entry
- Maintenance support
- Marketing support or brand leverage, such as rebranding of products, packaging and Marcomms materials or use of our in-house templates to reduce time to market

- Flexible financing of projects such as limited start-up funding or rebate programs based on target sales
- Global pricing for multi-regional operations
- Comprehensive training, ranging from scheduled programs at local training centers to fully customized courses for your specific products or applications at your facility
- Provision of spares, with OEM branding if required
- Emergency local or remote services

Such collaboration helps strengthen our partnership, while looking for further joint opportunities in future projects and new markets as a result. Contact your local Automation Center to discuss your specific business case with our OEM Account Managers to see how we can work together to meet current and future business goals.

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