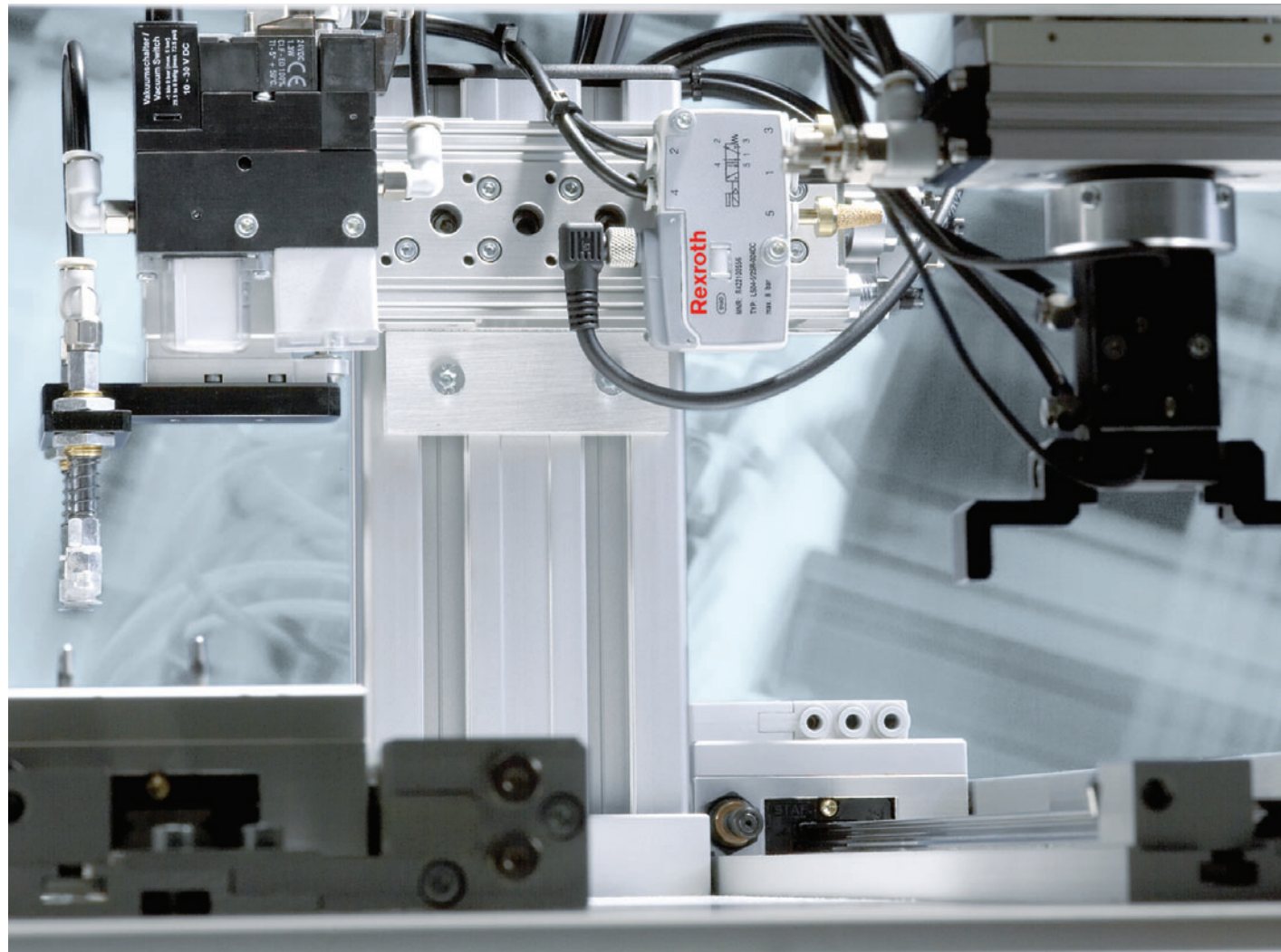


Flexible automation solutions for assembly and handling



Our solutions are as diverse as your tasks

To make sure you get the best results, we focus first and foremost on efficiency and economy: Whether your requirement is for precise positioning with minimum cycle times, fast changeover for small-size batches, or flexible adaptation to changes in production – you can rely on Rexroth automation solutions to deliver the ideal interaction between all drive and control technologies.



Rexroth automation solutions increase the productivity of your assembly and handling systems while reducing your engineering effort by up to 80%. All mechanical and electrical interfaces are perfectly matched and accelerate assembly and start-up.

- ▶ Rexroth linear motion systems with electric or pneumatic drives have the same dimensions – giving you more options for the performance of your tasks.
- ▶ Our finely scalable PLC controls and motion logic systems are equipped with internationally standardized communication interfaces. They integrate seamlessly into automation topologies of all kinds.
- ▶ Many motion functions are already predefined and need only to be configured. No complex programming is required. This accelerates start-up and fine-tuning processes.



Components for integrated system solutions

- | | |
|---------------------------------|--|
| ▶ PLC controls | ▶ material and information flow technology |
| ▶ motion logic systems | ▶ manual production systems |
| ▶ electric drive technology | ▶ tightening systems |
| ▶ gripper and vacuum technology | ▶ basic mechanical elements |
| ▶ linear motion technology | ▶ pneumatic systems |

Components and system solutions for all assembly and handling tasks

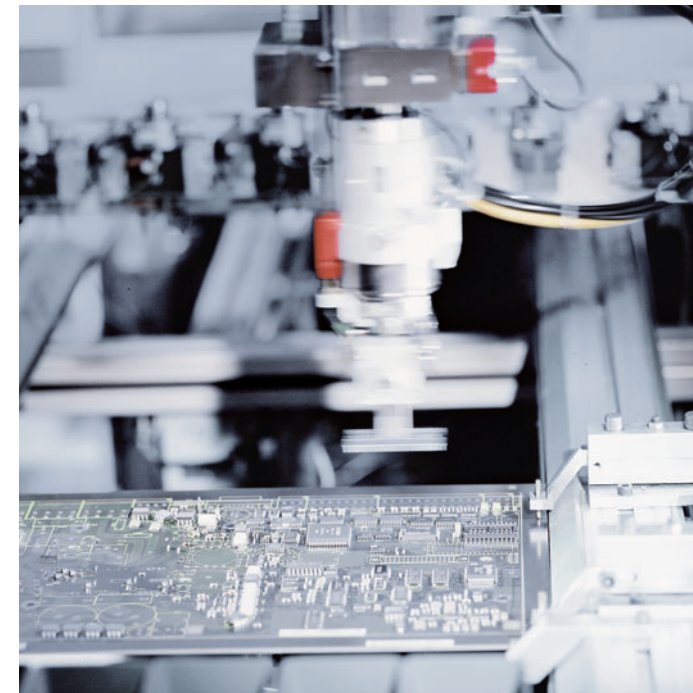
Handling

You aim to achieve the highest levels of productivity, availability and operational safety for your application – and Rexroth's modular solutions for efficient and safe handling do just that. All components, such as electric drives and linear motion systems, for example, are perfectly matched with one another and always provide precise positioning with high dynamics. The innovative motion logic systems minimize cycle times and accelerate your processes. Many functions are already predefined, thus reducing the programming effort.



Transfer and transport

Use our extensive product portfolio to put together a perfectly configured system that will get your material and information flowing smoothly. Predefined function modules simplify project engineering, parameter input, and start-up. That saves you time and money every step of the way. Regardless of whether they are horizontal or vertical, Rexroth solutions for transfer and transport always operate with the highest precision. They can be designed to handle a broad range of workpiece weights and sizes and will easily adapt to new needs. During operation, intelligent identification systems safely collect all the quality-related data and document them in detail.



Assembly

All of our modular assembly solutions are designed with a view to enhancing productivity and meeting your individual requirements. Rexroth systems can be freely configured according to your needs. With extremely short cycle times and unique repeatability, they lay the perfect foundation for smooth production. Each detail is optimized for maximum efficiency – including our extremely ergonomic manual production systems. The same holds true for our intelligent tightening controls whose integrated logic ensures secure connections and documented quality.

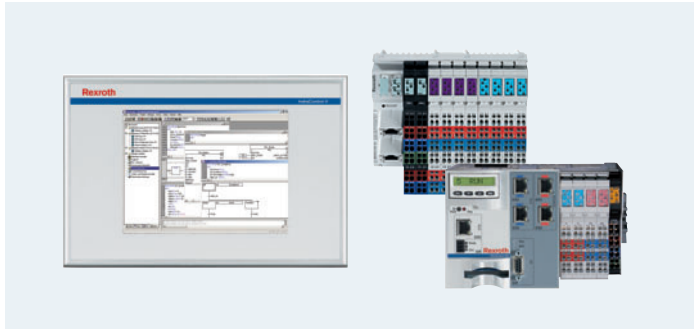
Warehousing and storage

Our smart controls, reliable drives, high-precision linear motion systems, and modern identification concepts provide you with flexible warehousing and storage options. Manual production systems with application-optimized material supply scenarios and customizable racking systems make sure that material doesn't have to travel far and is always at hand when needed. Automated material flow within warehouse applications enables you to reduce inventory levels and hence costs. In all applications, the focus is on achieving maximum transparency for your processes.



Components, modules and systems for economical automation

With our standardized, scalable hardware and software, you significantly reduce the effort required to design your machine or system. No matter what you need – controls, electric drives, linear motion technology, assembly technology, or pneumatics: Simply combine components and modules from across all the various technologies to achieve your assembly and handling goals in the most efficient way possible. Predefined software functions minimize the time needed for programming and start-up, and the user-friendly intuitive interfaces make life easier for your line operators.



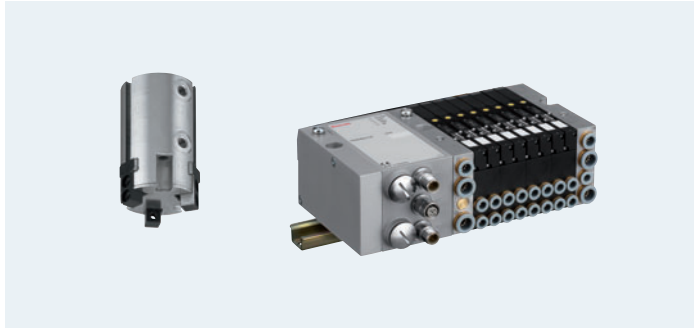
Intelligent control technology
Rexroth's motion logic systems provide you with versatile controls that can be configured at will for partially or fully automated production. The open architecture and modular hardware and software allow the systems to be precisely adapted to your requirements.



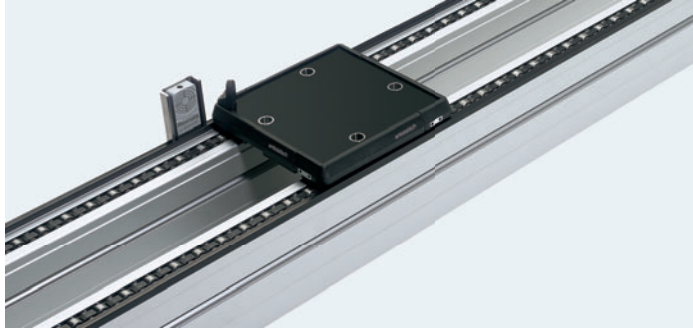
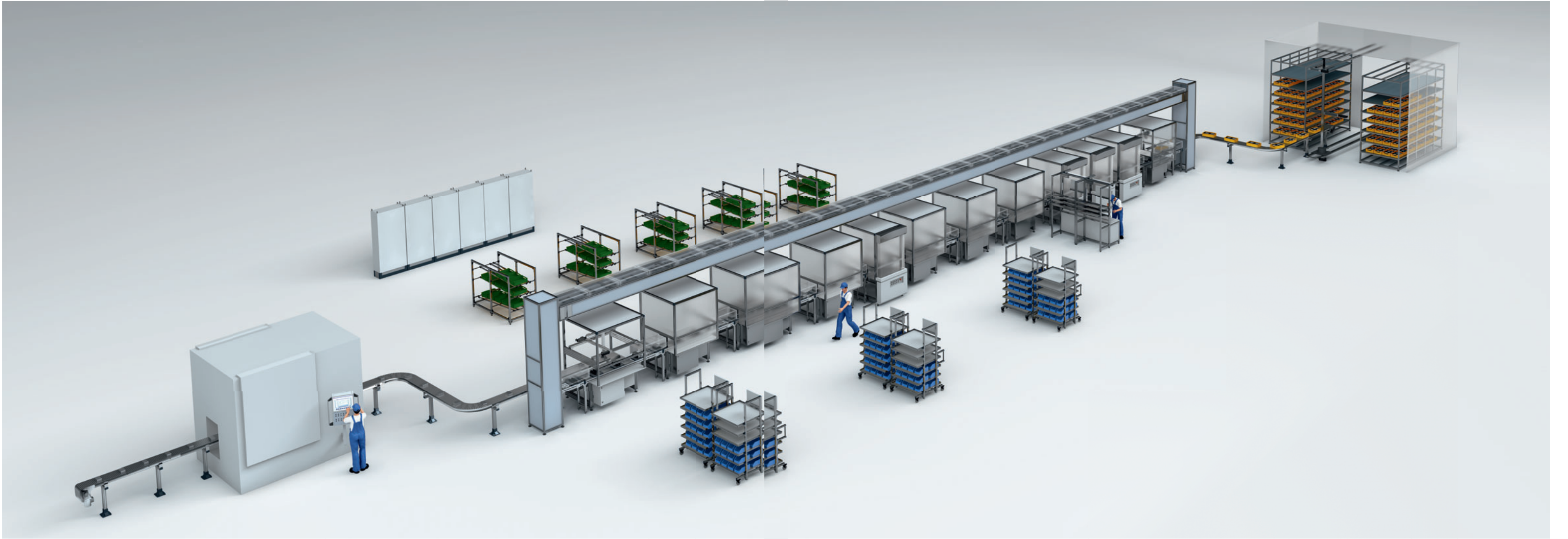
Electric drive technology
Electric drive systems from Rexroth cover the complete power spectrum from 0.1 to 630 kW. Regardless of whether they are centrally located in a control cabinet or distributed around the machine, they meet all requirements for flexibility and make their mark through features such as scalable motion logic functions, certified safety technology and multiple-Ethernet communication.



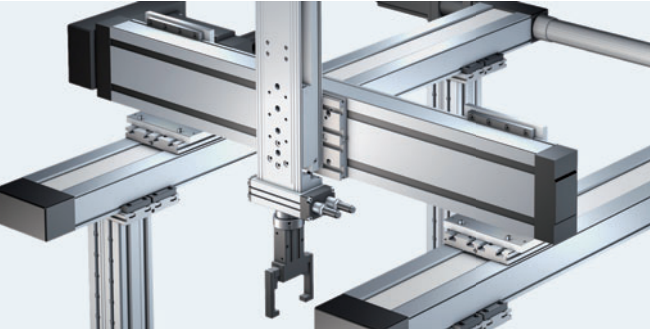
Electric and pneumatic linear modules
Providing maximum power and flexibility through ultra-compact design, the electric linear modules with ball screw or toothed belt drive combine low overall height with high travel speed, precision and smooth operation. Accurate positioning of heavy loads is achieved by space-saving, rodless pneumatic cylinders with their unique stability and mechanical strength.



Versatile pneumatic grippers and valve systems
With its wide range of grippers, Rexroth has the optimal solution for every need. The modular valve systems are highly functional and adapt flexibly to each new application. All components are characterized by their extraordinary precision and reliability in continuous operation.



Transfer systems with integrated identification systems
Rexroth dual belt and accumulation roller systems can handle weights from a few grams up to 300 kg. Identification systems recognize and store object-related data, thus assuring optimally managed production and conveying processes.



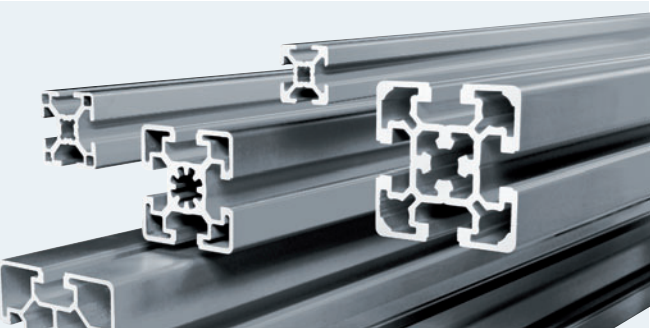
Precision multi-axis systems
One, two or three-axis solutions for speeds of up to 1.0 m/s and acceleration up to 15 m/s² provide the highest possible efficiency and productivity. With a positioning accuracy of up to 0.01 mm and a repeatability of up to 0.005 mm per axis, multi-axis systems from Rexroth deliver unmatched precision.



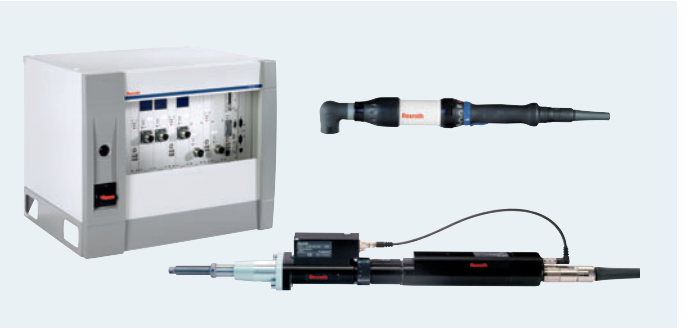
Manual production systems
Rexroth's manual production systems were developed strictly according to the principles of lean production. They enable simple and quick planning and realization of efficient production systems.



Powerful chain conveyor systems
Chain conveyor systems from Rexroth achieve a tensile force of up to 1,250 N and can be very easily adapted to specific tasks. Furthermore, they are among the most economical solutions on the market in terms of purchase price and operating costs.

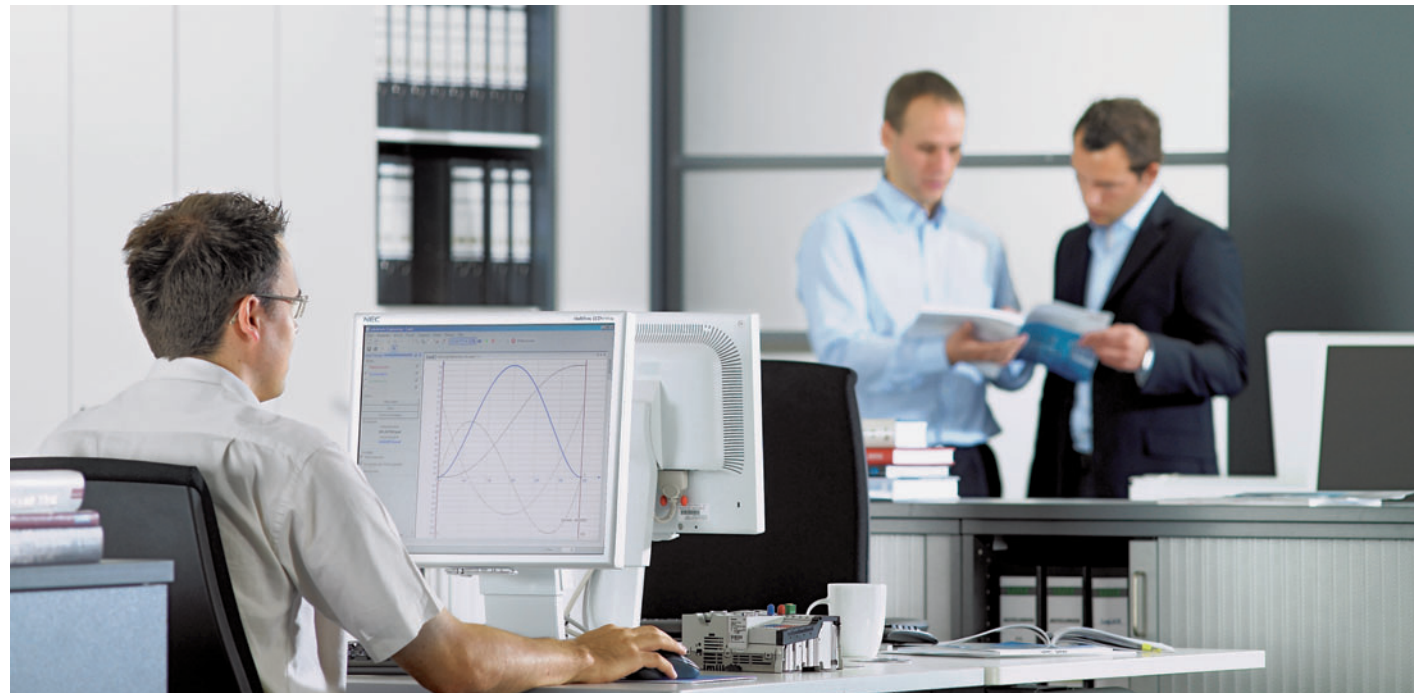


Basic mechanical elements
With well over 100 different strut profiles, Rexroth offers you the world's most comprehensive framing system for basic constructions such as racks, enclosures, workbenches or protective barriers. Lightweight, well designed aluminum components reduce the planning and assembly cost and effort and can be easily re-used or re-configured.



Innovative tightening systems
Compact, precise and reliable – the innovative tightening control systems with integrated logics, high-performance tightening spindles and ergonomic handheld nutrunners fulfill every task with top quality results.

Lean engineering for faster results



All of the Rexroth technologies and engineering tools offered interact perfectly through standardized interfaces. This reduces the effort for project engineering, installation and start-up by up to 80%.

- ▶ User-friendly design and project planning tools help you to configure the linear motion technology and to plan the complete structural framing and conveyor system.
- ▶ Electric and pneumatic linear modules have the same dimensions and are therefore interchangeable. You can thus easily adapt the drive technology to new tasks without having to change the overall system design.
- ▶ All processes – from start-up, parameter-input, and programming, all the way through to diagnosis – can be performed using the comprehensive and ergonomically designed software environment. The integrated framework offers maximum transparency for all processes; it is easy to use and requires only minimal training.
- ▶ The start-up procedure for servo axes, comprising Rexroth servo drives and linear modules, can be accomplished up to 90% faster by using an intuitive software assistant. It only takes a few minutes to enter the specific data required to make a complete electrical axis ready for operation.

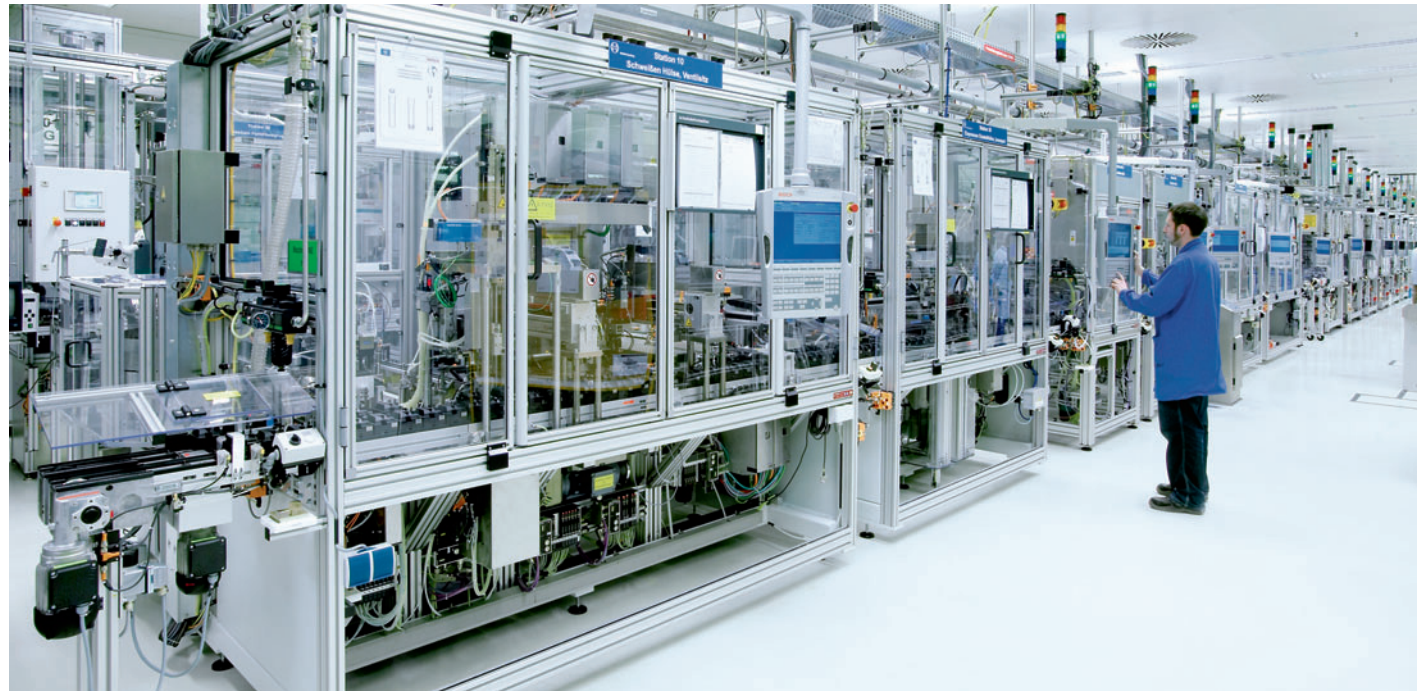
Open standards for use worldwide



Rexroth system solutions can be used anywhere in the world. They operate via the internationally standardized sercos automation bus, and their unique flexibility offers the highest level of protection for your investment.

- ▶ The drives and controls have a standardized multiple-Ethernet interface and support the widest range of protocols for real-time communication, for example sercos, PROFINET IO, EtherNet/IP and EtherCat. The interface is easily configured using the dedicated software. Communication through conventional interfaces such as PROFIBUS is, of course, also supported.
- ▶ The programming underlying our PLC control units complies with the international standard IEC 61131-3. A wide range of predefined and rapidly configurable function blocks eliminates the need for time-consuming programming.
- ▶ Complete programs and program segments can be easily copied and pasted by mouse-click. This allows users to build up their own function libraries, which saves time and effort when it comes to programming new tasks.
- ▶ Through standardized interfaces and frequencies, Rexroth identification systems using RFID technology and centralized or decentralized data storage can be linked up easily to the PLC and motion logic system.

Economical modularization with Rexroth components



Made-to-measure assembly and handling:

Rexroth hardware and software components are designed for perfect interoperability, making it easy for you to create automation topologies that exactly match your requirements. This helps you to achieve more efficient motion sequences and shorter cycle times, thus increasing your productivity still further. The uniqueness of our solutions is that the modular automation building systems include not only the mechanics but all the drive and control technologies as well.

Another plus:

You can very easily combine several different modules using the positive locking Easy-2-Combine connection interfaces. This saves you both time and money. Easy-2-Combine eliminates up to 70% of the previously required connection elements. Once you have it installed, you can adapt your modular Rexroth system quickly and flexibly to meet any changing requirements.

Increase productivity, ensure safety and save energy



Safety on Board

The highest degree of safety is ensured for all levels of automation by certified Rexroth „Safety On Board“ technology. This is integrated into the drive and reacts extremely quickly in the event of a malfunction. If manual intervention is required on the machine, it is sufficient to temporarily shift the axis concerned into the safe mode while the overall system remains switched on and productive. After completion of the maintenance work, the axis can be easily switched back to production mode without the need to restart the entire system.

With Rexroth, safety never means having to sacrifice productivity. The Safety On Board technology is designed into the system solution from the outset and is a key factor for achieving the highest possible level of machine availability.



4EE – Energy Efficiency

All Rexroth automation systems are designed with multiple technologies from the outset. This increases the energy efficiency of the overall system and provides for higher productivity and lower operating costs – a clear competitive advantage for machine manufacturers, system integrators and users.

The name Rexroth 4EE refers to the four levers we use to maximize the energy efficiency of all the drive and control technologies:

- ▶ fundamental system design
- ▶ energy recovery
- ▶ demand-based energy supply
- ▶ use of energy-efficient individual components

Our global partnership knows no boundaries and customer service is always nearby

In today's globalized environment, production operations are networked worldwide. This is also true for Rexroth. With a presence in more than 80 countries, we are there wherever you need us.

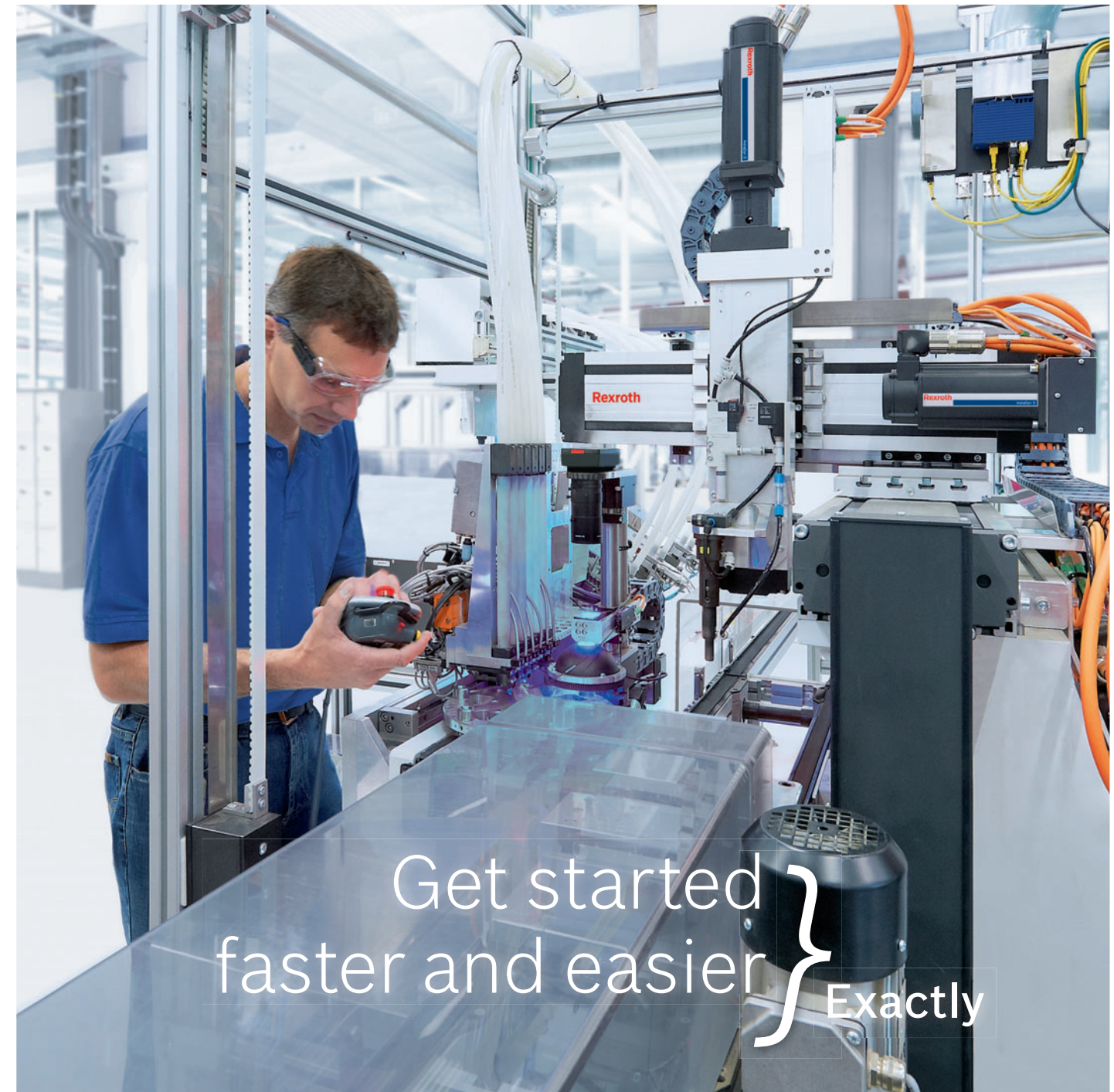


Rexroth brings together all the resources of a global partner for you. In Europe, America and Asia, you have access to our local specialists for assembly and handling technologies who have experience in the special requirements of each region.

For transnational projects, where coordination is especially important, we provide ongoing support of the highest quality. Additionally, we can offer you the advantages of local value creation through our international production facilities.

Even after your plant is up and running, we remain at your side. Our extensive customer service network ensures a fast response, wherever you are. Through innovative services such as condition monitoring, we help machine manufacturers and users to further increase the availability of their automated systems. Take advantage of a global partnership with Rexroth over the entire life cycle.

- ✓ 80% less engineering effort
- ✓ 90% faster start-up
- ✓ Shorter cycle times
- ✓ Lower operating costs
- ✓ Increased flexibility



Get started
faster and easier } Exactly

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