More Mobile With Our Systems. Mobile Hydraulics From Rexroth
Whatever You Do With Your Mobile Machines: We Will Make You Even More Mobile!

Whatever it is that has to be hydraulically, mechanically, and electronically driven and controlled in your mobile machines—Rexroth can provide you with all components, modules and systems for all conceivable requirements, all from a single vendor. So if it is an individual solution you’re after, one that makes your applications more flexible and mobile, just have a talk with us. We offer you the world’s broadest product line with extensive manufacturing, application, and development know-how. We are the world’s market leader in mobile hydraulics and are a partner with vast experience.
We will Mobilize and Optimize the Efficiency of Your Machines

Thanks to our many years of experience and broad spectrum of products and applications, we know about the different requirements for modern machines. We know what it really takes in order to mobilize the decisive reserves of your equipment—regardless of what kind of equipment it is.
At Mobile Hydraulics, Seven Segments Become one System

The Seven Mobile Hydraulics Segments

Axial Piston Units
External Gear Units
Radial Piston Motors
Mobile Controls
Gears
Mobile Electronics
Mobile Service

Perfectly functioning individual components are good—perfectly functioning systems are even better. Rexroth enables customers to obtain all of their hydraulics solutions from a single source, with the peace of mind that comes from knowing they are buying components that are among the best in their class. For now as ever, six product segments and one service segment at the technology area Mobile Hydraulics stand for their respective core competencies—which can then be bundled across technology boundaries as necessary. Nearly 7,300 employees worldwide take care of your wishes when it comes to mobile machines—where else can you find so much concentrated know-how?

Tailor-Made Systems
Rexroth customers always get systems for their mobile machines that have been tailored to get the most of their respective applications. So it is only logical that we focus on systems when developing our products. Whenever technically possible, all Rexroth mobile components are standardized and compatible.

Axial Piston Units
The products of the Axial Piston Units Segment are distinguished by their high power density and compactness. The demand for higher speeds and higher torques with optimum efficiency is, besides economy and reliability, an additional reason for using axial piston pumps and motors. Our broad, comprehensive palette of products enables us to offer you the ideal axial piston unit for every type of drive situation.

External Gear Units
The products of the External Gear Units Segment set new standards in terms of quality, performance, and versatility. They offer an affordable and efficient solution for a wide range of hydraulics requirements. The reliable, modular design in conjunction with highest quality ensures your success.

Radial Piston Motors
The products of the Radial Piston Motor Segment ensure high torque at low- and medium-range speeds. This makes it possible to realize extremely compact direct drive solutions. Rexroth radial piston motors offer solutions that are affordable and nevertheless incorporate high-quality engineering, making them an ideal match for Rexroth’s axial piston pumps.

Mobile Controls
Mobile controls by Rexroth help you to control your machine in just the way you need to for your special tasks. Regardless of whether agile speed, compactness and light weight, sensitive precision, or reliable maneuverability is required. Furthermore, they form the ideal interface to other Rexroth components.

Gears
The products of the Gear Technology Segment offer you maximum freedom for finding an individual solution to your drive problem. The high power density makes Rexroth transmissions the first choice: compact, highly efficient, for maximum torques. They combine well with Rexroth axial piston motors and are available as complete drive units, consisting of a mechanical planetary gear and hydraulic motor.

Mobile Electronics
If it is optimum interplay between hydraulics and electronics that you are after, contact the Mobile Electronics Segment. Its products are based on renowned Bosch Car Electronics’ decades of experience. Besides the programmable control units, sensors and input devices are available for perfect control functions. The strength of the Rexroth software is flexibility for adaptation to your special requirements.

Mobile Service
Rexroth ensures competent and reliable service with a separate Service Segment—worldwide in more than 80 countries. With a broad range of services running the gamut from machine startups to training your employees. That is our way of consciously reducing machine downtime and boosting your satisfaction.
We Use Our Collective Know-How to Make You More Productive

Our engineers always find a way to open up new advantages with innovative solutions. To this end we operate industry-specific application centers and research facilities, oriented toward your present and future demands, in a very wide range of fields. With application-oriented know-how, the latest simulation programs, and high-performance experimental stations, jointly and in close coordination with you, we are realizing the individual components and systems of tomorrow, which will mean a decisive advantage for you.

A Focus on Applications
At our application centers, you will receive advice in the area of drive and control technology throughout the process chain. We will stand by your side during design, development, and construction, from selection of the components, to simulation of complete systems—including testing and system optimization in series production. In this way, we develop ready-to-run system solutions in close cooperation with you. With components that are perfectly coordinated with one another and minimum interfacing.

The Secret of Our Success: Fixed Contact Persons
Rexroth is offering you in the technology area Mobile Hydraulics extensive support from planning to series production. You will be assigned a permanent contact person who provides you comprehensive support on site and understands the requirements of your day-to-day business and advises you objectively, comprehensively, and energetically on technical details. In doing so, the focus is primarily on your needs. System development and optimization are carried out in close coordination with you.

Electronics on Board
Mobile hydraulics is no exception when it comes to the trend toward integration of electronics, either—which makes it possible to work “smarter” in various applications. In cooperation with leading machinery manufacturers, we develop integrated system solutions that prove themselves in hard practical use.
Rexroth Quality is Your Quality, Too

Quality Starts in Your Head
What good are the best quality assurance methods without quality consciousness on the part of individual employees? This is why all processes are thoroughly reviewed at neuralgic points in development using fixed standards—especially when work results are handed over or imported.

Proper Performance is Important for the Environment, Too
At Rexroth, we try to boost performance and thus make the best use of our natural resources. The way we see it, thriftiness for reasons of ecological responsibility and improving the efficiency of your machines go hand in hand. We achieve this through drive optimization, weight reduction, efficiency boosting, noise reduction, and recyclability after use. It goes without saying that we consistently use environmentally compatible primary products and materials.

Quality From Start to Finish
Top-level production engineering and especially high manufacturing processes are prerequisite for us when it comes to the quality of Rexroth products. We depend on the latest engineering, tools, and processing centers, from design to implementation.

We Leave Nothing to Chance
Experience has shown that it is not enough to just test new products in the lab or with simulations. That is why we don’t only conduct runs at our testing center. In close coordination with you, we also test our products in practical, continuous use.

Solutions With Creativity and Competence
You’ll have to look far and wide in the field of mobile hydraulics to find as much experience and competence as in our design departments. Across the wide spectrum of highly varied, application-specific requirements, our designers are specially trained to find the optimum solution for your requests—with technological know-how and creativity. Of course, attention is paid to production engineering aspects as well as ease of service and environmental responsibility.

Down through the decades, we have become a market leader not only when it comes to technology, but in terms of quality as well. Our customers trust in our uniformly stringent and multiply certified international quality standards. Consistent compliance with directives and standards is our utmost goal in this connection. For us, however, quality also means avoiding unnecessary detours and bringing projects to completion faster. That is why our process network is simultaneously also a safety net with seamless control at all interfaces, so that your product turns out exactly like you had planned.
The Focus is on Your Applications

Rexroth offers complete, individual hydraulics solution for a very wide range of applications. The focus is always on the overall solution, not the individual product. After all, the requirements in handling technology vary substantially from those in agriculture or forestry. But even within the framework of any other industry, the same principle applies: Every application is different. When it comes right down to, every machine is different. Because we are always conscious of this, we give priority to the unique nature of each system. Let us demonstrate using some selected sample applications.

Construction machinery is a major area of emphasis for our applications. What counts here are high-performance drive and control systems characterized by dependability, economy, robustness and ease of operation. When it comes to propel drives, the emphasis is primarily on hydrostatic drives and planetary gears. In the field of implement hydraulics, today, increasing use is being made of load sensing and LUDV systems with electro-proportional control as well as classic open center controls. Rexroth has mastered the whole spectrum for this area: from drive to brakes and from control valve to steering.

Agricultural and forestry machines are frequently not only expected to handle goods at a high rate of speed, but also to maintain continuously high profitability while doing so. These machines are virtually predestined for the use of electro-hydraulic load-sensing systems, which, last but not least, ensure efficiency and availability of the machines. High-performance drive and control systems by Rexroth guarantee higher efficiency under these hard conditions of use.

The requirements in the field of materials handling technology demand individual solutions with maximum precision and operational reliability. With cranes and stackers, for example, the emphasis is usually on a high rate of turnover and ease of operation. Because precise movement of heavy loads is an important focal point here, systems for propel drive and implement hydraulics have found wide application in this area. In this connection, we offer specially matched hydraulic pumps and motors, transmissions, valves, compact units, and steering and control devices, which we combine to make high-performance systems.

In the commercial vehicles sector, modern drive and control technology has to meet high expectations with regard to flexibility and versatility. Rexroth offers drive and control systems optimally matched to the requirements posed by machines of various sizes and types. Rexroth offers a uniquely varied range of products, from realization of simple sequences of movement using fixed pumps in an open circuit to infinitely adjustable, reversible propel drives with electronic vehicle management.

Rexroth is winning over customers with modern and innovative drive solutions in the wind power sector, too. Watching the turning rotor blades of such machines is an impressive display of the dynamics of wind power. Rexroth generator gearboxes translate the rotor speed to the generator speed required in order to generate power. Azimuth gears turn the gondola into the wind, and pitch gears are used to regulate output by adjusting rotor blade pitch depending on the wind speed.
Do You Refuse to Settle for Less Than the Best?

It takes outstanding products to produce optimally matched system solutions. Rexroth offers those products in every conceivable version: excellent components, each and every one among the best in its class. That means top quality, from material to design. Using the latest materials and manufacturing techniques ensures that all operate reliably, are compact and light, designed for easy servicing, and above all cost efficient. Last, but not least, system capability also plays a decisive role in modern control and drive engineering. Thus we offer a complete line of mobile hydraulic drive and control products that leaves nothing more to be desired.

Key Products

The MCR radial piston motors are slow-running hydraulic motors that operate on the multistroke principle. The area ratio between the cylinder diameter and the curve profile has been optimized within the central drive. This results in optimal force ratios between the pistons and the curved path and, simultaneously, longer useful life. The drives provide for a compact drive with high power density.

Axial Piston Units

We offer axial piston units as the main components of a hydrostatic transmission with a displacement of 5 cm³ to 1000 cm³. The vast array of pump and motor combinations and steering and control devices enables us to always configure the optimum drive for each application.

Performance Profile:
- High performance density
- Wide range of speeds
- For propel drive and implement hydraulics
- For open and closed circuits
- Fixed and variable units
- Bent axis and swashplate designs
- Maximum pressure up to 450 bar

Fixed Displacement Pumps
Variable Displacement Pumps
Fixed Displacement Motors

External Gear Units

External gear units are one of the classics in mobile hydraulics. We can provide them as pumps and motors at your option. We offer individual pumps, multiple pumps, and silence versions in six different lines for virtually unlimited possibilities. Moreover, these pumps are used in compact units and electro-hydraulic pumps.

Performance Profile:
- Startup with low absorption volume
- Optimal efficiency
- Heavy duty
- Variants with various flanges, shafts, and valve functions
- Displacement volume range 1 to 56 cm³
- Max. nominal pressure 250 bar
- Multiple pump technology available
- Low air-borne noise emissions

External Gear Pumps
External Gear Motors
Silence Versions
Electro-Hydraulic Pumps
Compact Units

Radial Piston Motors

The MCR radial piston motors are slow-running hydraulic motors that operate on the multistroke principle. The area ratio between the cylinder diameter and the curve profile has been optimized within the central drive. This results in optimal force ratios between the pistons and the curved path and, simultaneously, longer useful life. The drives provide for a compact drive with high power density.

Performance Profile:
- Long useful life
- Optionally available with parking brake
- Variable flow
- Drive via shaft or flange
- Open or closed circuit
- Flow range 160 cm³ to 3,000 cm³
- Nominal pressure 250 bar, max. pressure 450 bar
- Minimum speed 5 min⁻¹

Fixed Displacement Pumps
Variable Displacement Pumps
Fixed Displacement Motors

Radial Piston Motors

Performance Profile:
- High performance density
- Wide range of speeds
- For propel drive and implement hydraulics
- For open and closed circuits
- Fixed and variable units
- Bent axis and swashplate designs
- Maximum pressure up to 450 bar

External Gear Motors
Silence Versions
Electro-Hydraulic Pumps
Compact Units

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Do You Refuse to Settle for Less Than the Best?
Rexroth Components—Always One of the Best in Their Class

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<th>Mobile Controls</th>
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<tr>
<td>Mobile controls serve as control and safety systems for propel drives and implement hydraulics. Our product line encompasses all of the hydraulic functional elements needed for this, such as directional control, pressure, flow, and shut-off functions in various versions. It is rounded out by electronic sensors, control systems, and operating elements. In this connection, as well, the emphasis is on customer-specific solutions and Rexroth’s high standard of quality.</td>
<td>Rexroth planetary gears are extremely compact in design and are thus especially well suited for installation with little spaces, for example, in mobile equipment. They are two-, three-, or multi-stage depending on the transmission ratio required. The spectrum also includes combinations with spur gear stages or bevel gear stages.</td>
<td>Mobile electronics offers components designed and tested especially for use under the harsh environmental conditions in mobile machines. Besides amplifiers and programmable control units, sensors, input devices, and control panels are available for setting up complete control systems. Startups and service are accomplished using convenient tools, such as handheld computers, Windows programs, and measurement adaptors. Ambitious programmers are disposing of BODAS as a graphical programming system. A library with well-test software modules supports fast, secure programming for various applications.</td>
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| **Performance Profile:**  
  - Open center, load sensing, LUDV controls  
  - Analog or digital interface via CAN bus  
  - High or medium pressure  
  - Monobloc or disk type design  
  - Also with built-in electronics  
  - Steering in all variants  
  - Power brakes (various types)  
  - Safety valves of all kinds  
  - Built-in electronics  
  - Complete systems (electro-hydraulic stroke control, central hydraulics) | **Performance Profile:**  
  - Extremely compact design  
  - Maximum gearing quality  
  - Maximum production quality  
  - Application-specific modifications possible  
  - High power density | **Performance Profile:**  
  - Robust controls  
  - CAN bus interfaces  
  - Sensors suitable for mobile use  
  - Graphical programming system  
  - Well-tested application software |
| Control Blocks  
  Mobile Valves  
  Pilot Control Devices  
  Brakes  
  Steering Systems | Travel Drives  
  Swing Drives  
  Winch Drives  
  Generator Gearboxes  
  Azimuth Gears  
  Pitch Gears  
  Standard Planetary Gears | Control Units and Amplifiers  
  Sensors, Input Devices and Operating Elements  
  Parameterization Tools and Programming Systems  
  Application Software and System Solutions |
Reducing Downtime and Boosting Satisfaction.
Service for Mobile Hydraulics

Commissioning and Equipment Acceptance
Our customer service department is ready to support you at every turn, whether you are accepting new projects, starting up machine models that have already been introduced, or taking and evaluating special measurements of your machine or plant.

Troubleshooting and Consulting
Our experienced and qualified service teams will consult with you whenever malfunctions occur and assist you in troubleshooting. Moreover, we provide assistance and give recommendations on optimal installation, making proper internal hydraulic connections, and signaling.

Original Spare Parts
We stock only genuine manufacturer’s spare parts that meet the same stringent production and quality standards applied to our original products. Spare part stocks are subjected to continuous quality testing.

Repairs and Remanufacturing
You can always count on our repair service to get the job done right and on time. Our certification according to DIN ISO 9001, QS 9000 and VDA 6.1 is proof of that. Last, but not least, our remanufacturing specialists will refurbish your machine or equipment to reflect the state of the art.

Modernization and Modification
New statutory regulations, a new product that you want to launch on the market or an increase in capacity: with our know-how when it comes to modernization and modification, we will help you to setup your equipment optimally.

Documentation and Training
We offer you continuously updated documentation and information on paper and via electronic media. This includes not only product and application brochures, but also repair manuals, replacement parts lists, and operating manuals. In addition, we hold seminars, courses, and technical congresses. We provide instruction and qualification systems to support you in training and continuing education of your employees.

Mobile Hydraulics Service is your competent partner for all drive and control solutions, and that in more than 80 countries worldwide. That way, we ensure that your machines are ready to run, around the globe. You can rely on our unique consulting competency and comprehensive services. From consulting to training, from product selection to startup, from quality optimization to documentation. Best of all: we have the experts and service know-how that it takes to cover all product sectors, whether gears or axial piston machines. Our goal is to help you work better. To this end, we offer competent and reliable mobile service with the kind of quality you have come to expect from Rexroth.
What Do You Actually Get from the Drive & Control Company?

Rexroth offers you a unique, complete and cross-technology range of services from a single source—with a strong global presence, innovative products, a comprehensive portfolio of technology and a high level of system expertise. Thus, you profit from high-quality individual technologies with a broad spectrum of components, modules and services (best in class). We bundle the technologies for you into service packages with best-in-class components, global service, cross-technology industry expertise, and the targeted selection of the ideal technology for our customers (best as company). The best is: You receive customer-specific systems and complete solutions from a single source, based on holistic consultation and project planning knowledge (best in systems)—whether you are active in industrial and factory automation or implement mobile solutions.

**Industrial Hydraulics**
Rexroth is the technology and market leader in industrial hydraulics with an extensive range of products and in-depth application knowledge. Here, you receive the world’s most extensive range of standard products, application-related systems and high-quality custom solutions in hydraulics. Complete systems are planned and handed over in a turnkey condition by globally operating teams. Rexroth is the ideal development partner for you for highly efficient machines and production facilities—from the first contract to commissioning and throughout the entire service life of the system.

**Electric Drives and Controls**
In electric drives and controls, Rexroth offers industry-specific systems for the efficient automation of production processes. With a comprehensive, perfectly matched modular system of highly dynamic drives, open control systems and intelligent software packages, we offer you comprehensive and scalable system solutions. Universally applicable frequency converters, modular bolting and insertion systems, as well as complete system solutions for resistance welding round out the extensive portfolio of products.

**Linear Motion and Assembly Technologies**
Reliable guiding and precise positioning—this is the comprehensive expertise of Rexroth in linear motion and assembly technologies. For example, rail guides, ball screw drives, linear modules and other components act as an interface between stationary and moving machine parts. In addition, we offer aluminium profile systems, complete assembly workstations and transfer systems as well as SCARA robots for creating production plants. All components, modules and systems are absolute top of the line worldwide with regard to their variety and functionality.

**Pneumatics**
In pneumatics, Rexroth provides motion with air. With pneumatic, electronic and electro-pneumatic components and systems for the automation of machines and production facilities, we offer a broad range of standard products and application-specific solutions. Moreover, we develop and produce components and systems for control and handling of marine vessels. A special feature of our range of products is found in transport and conveyor systems.

**Service Automation**
Rexroth unites the customer service and training activities of the technology areas Industrial Hydraulics, Electric Drives and Controls, Linear Motion and Assembly Technologies as well as Pneumatics under a single roof. Thus, all services required for the entire product range of industrial and factory automation worldwide are bundled in a single organization. Our globally active teams and experts are there for you in more than 80 countries.

**Mobile Hydraulics**
Rexroth develops and produces mobile hydraulic systems for the largest machine manufacturers in the world. You profit from the expertise and experience of the world leader for all drive and control solutions for every aspect of mobile machines. With a portfolio of products containing hydraulic drives and controls, planetary transmission, our own electronics expertise and global mobile service unique to the market, we increase the success of our customers. Rexroth has bundled comprehensive system knowledge into application centers for a wide variety of industries for you.