

# Radial piston motors: MCR-A,-C,-D,-E,-F,-H,-R,-T,-W,-X

High torque, low speed, direct drives

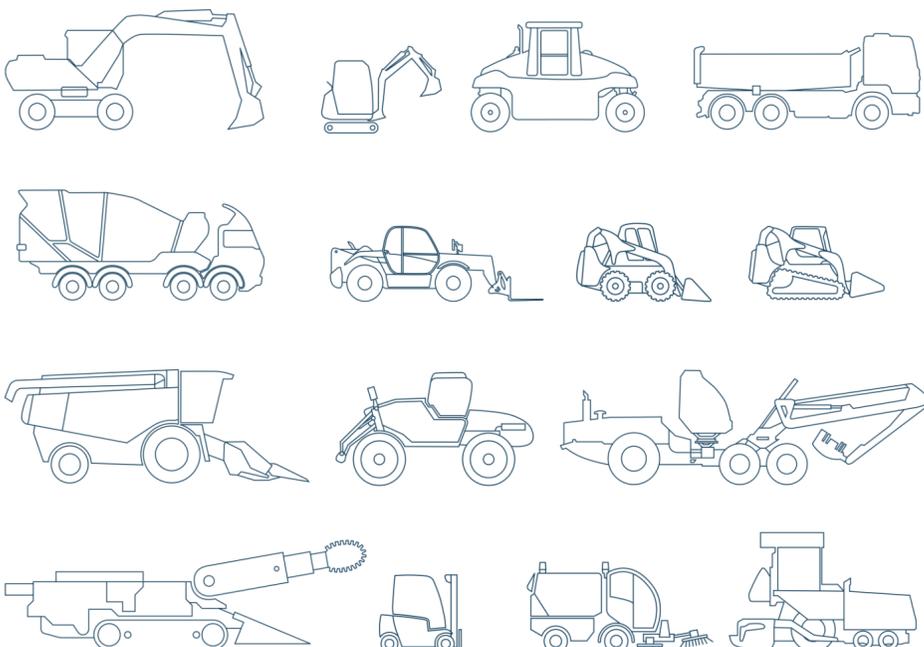


In a wide range of industries and applications, customers require optimal fuel efficiency, power density, maximum productivity and reliability. Rexroth radial piston motors (MCR) meet these requirements by providing high torque, even at low speeds, in a robust package which provides high power density with a highly versatile modular design. Six motor frame sizes are available, each with standard options as well as a range of application specific configurations including; wheel, chain, coupling, gear, track and drum drives. Industry standard and application specific variants can be easily integrated, simplifying the development process and minimizing time to market.

## CUSTOMER BENEFITS

- High volumetric and mechanical efficiency
- Increased starting efficiency and smooth rotation
- High temperature range capability
- Low operational sound levels
- Wide range of optional features

## APPLICATIONS



## FUNCTION AND BENEFITS

### High volumetric and mechanical efficiency

High levels of volumetric and mechanical efficiency are required in order to ensure that fuel economy is maximized and total costs of ownership are kept to a minimum. Rexroth radial piston motors have an optimized design of sealing and low friction properties within the flow passages and rotating elements of the motor, which result in exceptional levels of efficiency.

### Increased starting efficiency and smooth rotation

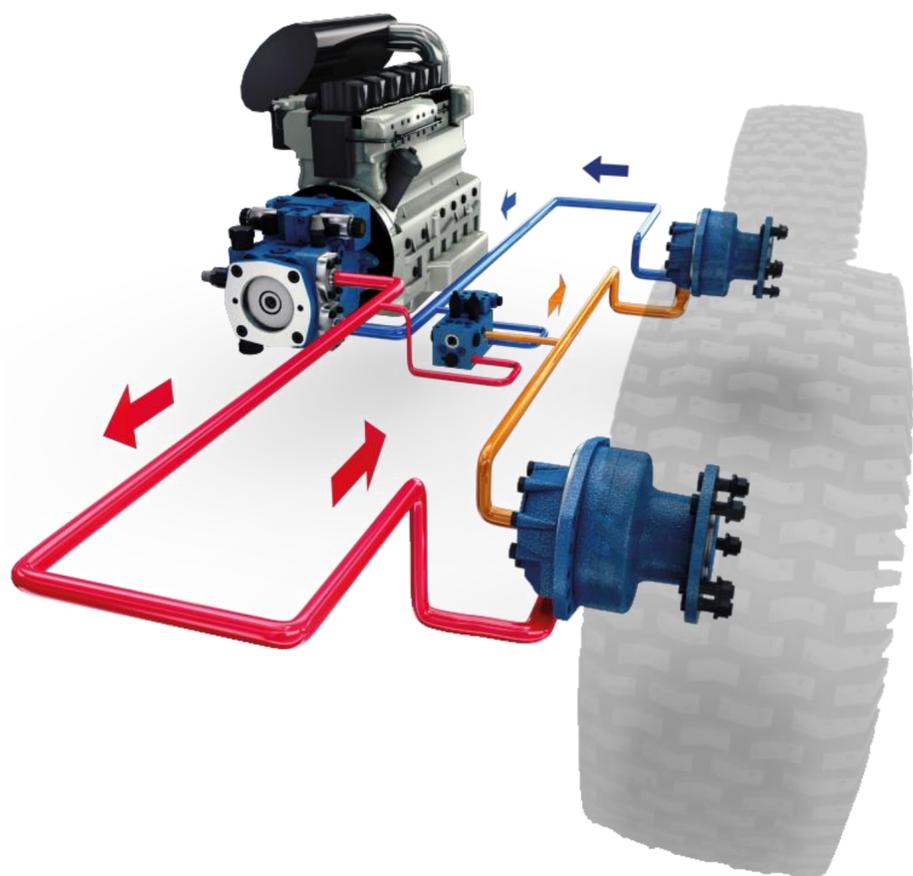
The direct drive characteristics of the Rexroth radial piston motors ensure very precise controllability, with smooth operation and high torque, even with shaft speeds as low as 0.5 rpm. The low speed capability is realized through an enhanced rotary group design, which has also been optimized for high temperature applications, and ensures maximum efficiency without compromising on durability. Increased starting efficiency delivers high torque at zero rpm, allowing downsizing of components. Hence reducing overall cost of ownership and increasing productivity.

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## TECHNICAL DATA

### Radial piston motors frame sizes 3 to 20

Frame sizes:	3, 5, 6, 10, 15, 20
Speed:	up to 875 rpm
Maximum pressure:	470 bar
Torque output:	up to 17,000 Nm
Optional features:	<ul style="list-style-type: none"><li>▪ Holding brake or dynamic brake</li><li>▪ High efficiency bi-directional two speed</li><li>▪ Integrated flushing valve</li><li>▪ Speed sensor</li></ul>
Data sheets:	<ul style="list-style-type: none"><li>▪ MCR-A: 15195</li><li>▪ MCR-C: 15197</li><li>▪ MCR-D: 15196</li><li>▪ MCR-E: 15196</li><li>▪ MCR-F: 15198</li><li>▪ MCR-H: 15199</li><li>▪ MCR-R: 15223</li><li>▪ MCR-T: 15221</li><li>▪ MCR-W: 15200</li><li>▪ MCR-X: 15214</li></ul>



The Rexroth radial piston motors are integrated within the Rexroth High Efficiency Traction system (HET).

### High temperature range capability

A patented breakthrough tribological development in rotary group design delivers an increase in starting efficiency with industry leading durability and resistance to high temperatures in the most demanding applications. This means, that system cooling requirements can be kept to a minimum, reducing the overall system costs. High levels of durability prevent unplanned maintenance and increase productivity of machines fitted with Rexroth radial piston motors.

### Low operational sound levels

In order to meet the increasing demand for lower noise of hydraulic components in mobile working machines, the design of the Rexroth radial piston motors has been noise-optimized.

When compared with other drive technologies, the motors produce significantly lower noise and vibration levels. This is due to the direct drive from the low speed high torque radial piston motor. The smooth interaction of the mechanical parts of the motor, along with the flow optimization through the motor case, contribute towards the low sound levels generated.

### Wide range of optional features

Bosch Rexroth has many years of experience in developing and producing high quality radial piston motors. This expertise has been incorporated into the development of the range of optional features, thus allowing the customer to easily tailor the product to meet their specific application requirements.

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