

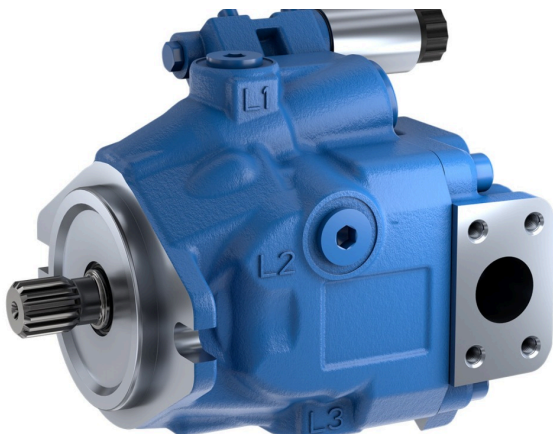
PRESS INFORMATION

Quieter, more efficient, more versatile

Manuela Kessler | 26.09.2023 | Lohr am Main / Germany | PI 008/23

Bosch Rexroth expands its eOC platform by adding the new A10VO Series 60 medium pressure axial piston pump

- 50 percent less pressure pulsation reduces noise emissions
- Higher power density reduces the required installation space in the machine
- Re-engineered rotary group improves efficiency



The new A10VO Series 60 medium pressure axial piston pump expands Bosch Rexroth's eOC platform for higher mobile machine productivity with lower energy consumption. (Image source: Bosch Rexroth AG)

The electronic closed loop control of hydraulic pumps in open circuits with Rexroth eOC – electronic Open Circuit – opens up new possibilities for the implement hydraulics of mobile machines. With the new A10VO/60 axial piston pump, Bosch Rexroth is now expanding its range of eOC-capable pumps to cover medium pressure applications with nominal pressures of up to 280 bar (320 bar maximum pressure).

Bosch Rexroth's eOC architecture shifts the complexity of a hydromechanical pump control to the BODAS eOC Pump Control software. In order to allow this interaction, the axial piston pump is equipped with sensors for the swivel angle and pressure. This means that the control is no longer limited to mechanically fixed control variables such as torque, pressure or flow rate as it was in the past. Instead, the control strategy can switch to the optimum control variable depending on the work situation. This makes machines even more versatile and flexible. At the same time, it increases productivity and reduces energy consumption.

Improvements in pulsation, size and efficiency

The A10VO/60 is the first axial piston variable pump from Bosch Rexroth that can be equipped with an integrated pre-compression volume as standard. This option reduces pressure pulsation by up to 50 percent and thus the noise level in the operator's cab. This improvement in operating comfort can be achieved without additional, cost-intensive noise reduction measures such as engine compartment insulation, system damping or cabin insulation.

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Bosch Rexroth has increased the power density of the new unit by up to 49 percent. An increase in pressure to 280 bar combined with an optimized pump design results in an installation length that is up to 10 percent shorter. The required installation space is therefore significantly less than with other comparable medium-pressure pumps.

The reworked rotary group allows very high efficiency levels in both the partial and full load range. Bosch Rexroth has completely re-engineered the proven A10 rotary groups and increased their efficiency for this purpose. This provides more hydraulic power while maintaining diesel engine performance and reducing the operating costs.

Cost savings thanks to reduced pump variance and servicing

With its reduced variance, the eOC version of the new pump offers further opportunities for cost savings because the otherwise different controller types and mechanical settings are transferred to the software. The reduced pump variance allows OEMs to reduce their stock levels and means less work when it comes to managing spare parts and aftermarket components. If servicing is required or feature updates are available, the software can be managed via the BODAS Service interface.

In addition to the eOC version, Bosch Rexroth now offers the A10VO Series 60 in a version with classic pressure-flow control (DRS).

Bosch Rexroth at Agritechnica: Hall 16, Booth A08.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries more than 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life

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worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is “Invented for life.” The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch’s global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company’s future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

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