

## Press Release

### Intelligent hydraulics fit for Industry 4.0

Motion Controls for hydraulics meet requirements of Industry 4.0

Aug 19, 2016



Motion Controls for hydraulics from Rexroth

**Everyone is talking about Industry 4.0 as vision of the future. From a pure automation point of view, it is not about an imminent revolution, but about an evolutionary development, which is ready for networking already today. In current Motion Controls and Motion Logic Systems for hydraulics, Rexroth already integrated numerous functions in software, which used to be controlled purely hydromechanically in the past. The specialties of fluid power technology are automatically compensated for. The decentralized controls perform their duties on their own and communicate with higher-level controls and master systems via open communication interfaces.**

Motion Controls for hydraulics from Rexroth are provided with decentralized intelligence and communicate with higher-level systems via open interfaces. They automatically adapt themselves to changing requirements such as velocity, changes in force, autonomously control movements in real time and fit seamlessly into machine concepts in a modular way. For this, Rexroth offers a wide spectrum of Motion Control and Motion Logic systems that are matched specifically to hydraulics: From the cabinet-free single-axis controller, IAC Multi-Ethernet valves and the pump control system SYDFED, the cabinet-mounted HMC (Hydraulic Motion Control) with programming

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according to IEC61131 through to IndraMotion MLC for up to 32 hydraulic axes. We can offer a solution for any requirement. Finely scalable in terms of function and performance, these solutions cover all demands. The Multi Ethernet interface supports all common Ethernet protocols like Sercos, EtherCAT, Ethernet IP, PROFINET RT, Powerlink and Varan.

A further commonality is the best-in-class hydraulic controllers that are matched to the special characteristics of fluid power technology. They automatically take account of specialties such as valve characteristics and simplify parameterizing through their transparent structure in the operating software IndraWorks. The user is supported by a parameterization wizard, which prompts the user to enter all the required system data and makes parameterization suggestions for the control. The control is relieved, since the hydraulic control loop is closed centrally in the IAC Multi-Ethernet valve or in a decentralized form in the HMC. In this way, it is possible to operate multiaxis systems in real time independently of the PLC cycle time, among others. IAC Multi-Ethernet valves, the pump control system SYDFED, HMC and also IndraMotion MLC use the same engineering platform IndraWorks.

Consequently, hydraulic, electric and hybrid axes can be commissioned using the identical software tool. From engineering and commissioning through to diagnostics, IndraWorks shortens the time from the idea to the finished solution. This consistent engineering environment for all IndraMotion systems simplifies handling of the PLC and Motion in all drive technologies.

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more than 31.100 associates generated sales revenue of approximately 5.4 billion euros in 2015.

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