Efficient engineering accelerates commissioning
Statement by Dr. Steffen Haack, Senior Vice President Sales, Industry Sector Factory Automation of Bosch Rexroth AG

Reacting to market changes more quickly and launching new concepts on the market at the right time: Machine manufacturers in all industries are under high time pressure having to translate the currently high demand into turnover figures. In addition to reduced manufacturing and assembly times they are now focusing on streamlining the entire engineering process. The aim is to decrease both the total costs and the time to market. “Rexroth has recognized this demand and developed a whole range of intelligent solutions which accelerate the engineering”, says Dr. Steffen Haack, Senior Vice President Sales, Industry Sector Factory Automation of Bosch Rexroth AG.

“Added value analyses show that precisely in engineering processes machine manufacturers can unlock new savings potentials. This applies in particular to cross-technology automation solutions. So far machine manufacturers have often had to work with diverging tools, master diverging operating philosophies and have in-depth knowledge in all drive technologies. This involves an unnecessary commitment of resources and time. Rexroth therefore has developed, for example, a Motion Logic System, which has been set up for a mixed operation of electric and hydraulic axes. The software now also incorporates the hydraulic application know-how. The preconfigured functions will yet have to be parameterized – the user comfortably commissions the electric, hydraulic and hybrid drives using just one engineering tool. At the same time the open IndraMotion MLC system offers a high degree of freedom to implement one’s own know-how quickly.

Even with electromechanic axes commissioning so far has also required selecting the parameters of the engine and connected mechanics from documentations. Afterwards the data has to be entered manually. Such routine operations have been automated by Rexroth in the EasyHandling modular system to the greatest possible extent. The commissioning engineer only has to enter a handful of data such as the linear system’s serial number. The software accesses a database and inserts all mechanical parameters in an error-free operation. Commissioning is thus reduced by up to 90 percent to a few minutes.

Users often define specified Ethernet communications to be used by machine manufacturers. This increases the effort in logistics and storage of drive spare parts. In this respect considerable simplification is offered by Multi-Ethernet.
interfaces. Consequently, the commissioning engineer only has to select the appropriate control communication in the software. The motor-integrated IndraDrive Mi servo drive goes even further, adding a Multi-Encoder interface to the Multi-Ethernet interface. Thus, the drive can be used universally with uniform hardware, further enabling cabling cost savings of up to 85 percent.

Machine manufacturers can further optimize their engineering along the entire added value chain by means of intelligent solutions. This means that using existing resources more machines can be commissioned in the same time."

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