The Drive & Control Company



## prive & Control file

Viewpoint

## Self-contained servo axis opens up a new world for machine concepts

Higher productivity with faster product changeover and increased energy efficiency

The demands users place on plastics processing machines has become increasingly more difficult. High competitive pressure and the greater innovation pace of the market force manufacturers of plastics machines to shorten their time to market and turn new concepts swiftly into reality. Manufacturers increasingly rely on systems partnerships with Bosch Rexroth because it offers them decisive opportunities to simplify the entire engineering process and manage it in a more target-oriented manner. A triad of simulation, competent advice in the field of automation and ready-to-install system solutions offers the greatest potential. Machine builders increasingly rely on the use of advanced simulation technology to optimize their concepts as early as the conceptual stage. Simulation programs specifically developed by Rexroth are based on operating data of tens of thousands of applications with electromechanical and electrohydraulic drive solutions. They provide machine manufacturers with realistic and detailed information on dynamics and energy consumption.



The self-contained electrohydraulic servo axis is equipped with its own minimal oil circuit, and therefore eliminates the need to connect with a separate hydraulic power unit, including piping to the tank.

Thanks to a profound applicationrelated advisory service, resource efficiency can be optimized along the entire process chain beyond structural and system analyses. Rexroth stands for technological neutrality and the free combinability of hydraulic and electric drive solutions.

This freedom meets exact market requirements for higher energy efficiency and, at the same time, increased productivity. At present, drive concepts are the center of attention, with which machine manufacturers can freely combine electromechanical, hydraulic or electrohydraulic drives for hybrid machine concepts with each other and with minimal design adjustments. This is simplified by new developments such as the self-contained servo axes from Rexroth. These servo axes largely eliminate the separation between



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electromechanical, hydraulic and electrohydraulic drives in design, installation and commissioning. In the electrohydraulic variant, the selfcontained servo axes are equipped with their own minimal oil circuit. They therefore need no connection to a separate hydraulic power unit, including piping to the tank.

Manufacturers merely have to commission the compact,

self-contained servo axes electrically. The small and medium power range is covered by electromechanical lifting cylinders with precision ball screw assemblies and planetary screw assemblies, as well as powerful servo-motors. Self-contained servo axes open up a new world for machine concepts. Rexroth can therefore offer significant saving potentials through system partnerships across technologies.



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