

Press Release

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Intelligent Hydraulic Axis Increases Sawing Performance Integrated Axis Controllers IAC-R from Rexroth



Electrohydraulic wood positioning axis with integrated axis controllers for sawing technology

With dynamic, precisely positioning and compact, integrated hydraulic axis controllers IAC-R for sawing technology, Rexroth opens up significant potential to improve the sawmill output with increased material throughput and higher accuracy. Compact drive units with integrated control electronics and position measuring systems control the dynamic cutting width adjustment on disk saws in a decentralized way or assume highly precise positioning tasks on sawing lines. The complete, ready-to-install axis communicates with all commercial field buses and combines the high power density and ruggedness of hydraulics with the efficiency of modern motion controls.

The electronics integrated in the IAC-R high-response control valves internally saves all axis-specific product parameters, which can be varied during operation, and works them off independently of the cycle time of the higher-level control. This increases the dynamics of the saw blade adjustment and simplifies the modularization of sawing lines. The reduced wiring effort for the compact axes in conjunction with programming and parameterization software, which can be intuitively operated, shorten commissioning times. Rexroth rated the complete drive unit for the harsh operating conditions in sawmills: Direct mounting of the IAC-R valve onto the cylinder results in a high load stiffness of the drive. The contact-free position measuring system integrated in the cylinder is prepared for

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the extreme operating conditions in the wood processing sector such as shock loads and severe contamination by wood dust. Even in the event of a supply voltage failure or a machine restart, the absolute position measuring system precisely signals the current position to the axis controller without requiring referencing.

In the case of a fault, the IAC-R issues a diagnosis message via the field bus to the higher-level control. This simplifies fast localization and elimination of the fault. Since saved axis parameters can simply be copied to replacement valves, the axes are fully reproducible and the machine availability is increased also when servicing is required. Moreover, if a fault occurs, a field bus signal causes the high-response control valve to move to a failsafe position, which guarantees a safe standstill of the axis and hence protection of the operator.

Bosch Rexroth AG is one of the world's leading specialists in the field of drive and control technologies. Under the brand name of Rexroth the company supplies more than 500,000 customers with tailored solutions for driving, controlling and moving machinery used in industrial and factory automation as well as in mobile applications. Bosch Rexroth is a partner for industrial applications and factory automation, mobile applications and using renewable energies. As The Drive & Control Company, Bosch Rexroth develops, produces and sells components and systems in more than 80 countries. In 2008 Bosch Rexroth AG, part of the Bosch Group, achieved sales of around 5.9 billion Euro with 35,300 employees.

For more information please visit: www.boschrexroth.com

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