

More flexibility for continuous casting machines

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High-performance cylinder drive from Bosch Rexroth optimizes mold oscillation

Mold oscillation forms the basis for optimum steel surface quality and the productivity and cost-effectiveness of the entire continuous casting line. Continuous casting lines require not only precise oscillation but also a high level of flexibility in terms of stroke and frequency. Only state-of-the-art electro-hydraulics can provide the required precise movement of heavy masses with respect to all of the oscillation parameters. This is where Bosch Rexroth provides an all-in-one drive and control package made up of well-matched components that can be integrated into any control system: from oscillation cylinders right up to high-performance multi-axis control with software packages.

The electro-hydraulic high-performance linear drive from Bosch Rexroth makes it possible to control all oscillation parameters while casting. Thanks to this flexibility in terms of control, various curve shapes can be implemented in order to optimize the oscillation. Both the stroke amplitude and the oscillation frequency can be varied during the casting process along with the casting speed.

If no radial forces come into play, users can opt for Rexroth's cost-effective high-performance cylinders. The high-performance series of cylinders are of modular design. The modular system comprises of five force levels from 16 to 250 kN with two predefined styles of mounting, those being "trunnion" or "head flange". The equal effective areas of the cylinder ensure good controllability, even with highly dynamic applications up to a maximum frequency of 50 Hz.

The basic version of the high-performance cylinder is fitted with a connection block, associated valves, pressure accumulator, damper accumulator and measuring points. An integrated magnetostrictive position measurement system for position sensing is available as an option.

Bosch Rexroth at the Metec: Hall 5, Stand D30

Source: Bosch Rexroth