

PRESS INFORMATION

Energy-efficient and Safe: New Hägglunds Drive for Rubber Machines

Manuela Kessler | 27.06.2022 | Mellansel / Sweden | PI 035/2022

Significantly reduced CO2 emissions thanks to demand-based power output



Pre-assembled and tested Hägglunds drive unit for rubber mixing mills of all standard sizes. (Image source: Bosch Rexroth AG)

Bosch Rexroth will be unveiling a new Hägglunds drive unit specially developed for rubber machines at the 2022 International Rubber Conference in Nuremberg. It is designed to significantly reduce energy consumption and hence also reduce CO2 emissions as part of daily operations. Similarly to an electromechanical drive, the pre-assembled and tested drive unit can be connected to the shaft in any installation position. Six sizes cover all standard mill sizes.

The new drive unit provides the necessary torques for producing rubber compounds based on demand and restricts the electrical installed power to the required level. The developers combined a servo motor with a hydrostatic transmission. Together with a radial piston motor, the adjustable axial piston pump acts as an automatic, continuously adjustable transmission. Based on demand, the frequency converter can reduce the servo motor's speed down to zero. As such, the drive can make a significant contribution to helping users improve their energy management in accordance with DIN 50001 and hence reduce CO2 emissions.

Bosch Rexroth pre-assembles the drive unit in six sizes, tests it and delivers it as a plug-and-play solution. The commissioning process corresponds to that of an electromechanical drive. The unit can be easily connected to the shaft in any installation position. The dual-channel safety circuit meets and even surpasses the requirements of DIN 1417 and sets new standards in terms of cut-off response. The rollers are stopped with a braking angle of just six degrees without suffering any wear.

The drive unit is maintenance-free and self-monitoring. It autonomously maintains the optimum operating points for mixing. The drive is very quiet during the mixing process. The average noise emissions are well below 80 dB(A).

Basic Information Hägglunds:

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Hägglunds stands for groundbreaking direct hydraulic drive technology and unwavering customer focus. Engineered and manufactured in Mellansel, Sweden, Hägglunds hydraulic motors and compact direct drive systems provide superior torque performance, flexibility and reliability to customers worldwide.

Hägglunds is a brand of Bosch Rexroth, a leading global supplier of drive and control technologies. To learn more about Hägglunds solutions, visit www.hagglunds.com

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 31,000 associates generated sales revenue of around 6.2 billion euros in 2021.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,600 associates worldwide (as of December 31, 2021). The company generated sales of 78.7 billion euros in 2021. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 76,100 associates in research and development, of which more than 38,000 are software engineers.

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