WITTENSTEIN at SPS 2024:

Smart solutions for cybertronic motion

*“Shaping the world of cybertronic motion” – this will be the WITTENSTEIN group’s motto when the new electromechanical linear actuators in the cyber® force line series and the new miniaturized Galaxie® actuator go on show at SPS 2024 from November 12 to 14, 2024 in Nuremberg (Hall 4, Stand 4-221). And the smart Health Index analysis tool is clear proof that innovative and precise motion demands expertise from the drive through the measuring and control equipment all the way to the software. This solution package combines the WITTENSTEIN group’s core competencies in the field of mechatronic and cybertronic drive technology.*

Electrically automated, designed, controlled, monitored and optimized with the help of software: motion in the digital age goes beyond pure kinematics. WITTENSTEIN is currently migrating more and more of its mechatronic products and systems into this world of mechatronic and cybertronic motion – by integrating electronics, sensors and firmware. Smart Services round off the portfolio that WITTENSTEIN will be showcasing at SPS 2024.

**Performance optimum: The new electromechanical linear actuators in the cyber® force line**

The new linear actuators in **WITTENSTEIN cyber motor**’s cyber*®* force line are the ideal starting point on the way to optimum drive solutions, for example in forming machine tools, plastics and rubber processing or the food and packaging industry. These modularly configurable spindle actuators are the outcome of the company’s many years of expertise in customized linear actuator development. They convince with efficiency, precision, an integration-friendly design, lower total costs of ownership and less expenditure on maintenance. WITTENSTEIN’s newest linear actuators will be making their debut at SPS 2024 in the 105 mm flange size and the four currently available stroke lengths (100 mm, 200 mm, 300 mm and 400 mm) as well as in different feature configurations – including variants optimized with regard to speed and force. By defining a new optimum for a range of processes and paving the ground for increased efficiency, the cyber*®* force line brings new momentum to the market for linear actuators.

**Condition monitoring, assured performance – with the smart Health Index analysis tool**

What is the real state of health of my gearboxes? Are its movements “as smooth as clockwork”, or is it starting to show signs of wear – leading to a higher risk of failure? WITTENSTEIN alpha’s Health Index is a Smart Service that delivers answers to questions like these. This smart analysis tool records and checks functionally and load-relevant data of drive trains in the application – enabling critical operating states and associated failure risks to be detected in good time and reducing the likelihood of uncontrolled outages. The Health Index instantly visualizes all interpretable findings using a digital traffic light: green = gearbox shows no anomalies, yellow = changes identified and servicing recommended, red = risk of unplanned outages, gearbox needs replacing. The analysis tool forms part of WITTENSTEIN alpha’s cynapse® Analyze portfolio of Smart Services and will in future be offered for all of the company’s gearboxes with cynapse® functionality, i.e. integrated sensors, logic and an IO-Link data interface.

**Miniaturized Galaxie® actuator: High-end performance configured from a modular system**

The new miniaturized Galaxie® actuator is perfect for surgical and high-precision robotics. It combines a frameless motor from the cyber® kit line small with a miniaturized Galaxie® gearbox in hollow shaft design. This all-in-one system is individually configurable depending on the desired task, and easy to integrate with respect to the motor sizing, brake, customer’s flange, power supply, cable connection method and feedback system. As a highly torsionally rigid and torque-dense, zero-backlash actuator, it impresses with best-in-class precision as well as a more compact design and larger hollow shaft than any other actuator of its kind in the market. What’s more, the miniaturized Galaxie® actuator’s exceptionally high emergency stop torque and the dual encoder system provide crucial safety reserves, for instance when deployed in surgical robots.

**Pictures (source: WITTENSTEIN SE):**

Ein Bild, das Screenshot, Maschine, Im Haus, Design enthält.

Automatisch generierte Beschreibung

**01-WITTENSTEIN-Health-Index:** The smart Health Index analysis tool from WITTENSTEIN alpha assures optimum performance by monitoring the condition of planetary gearboxes.

Texts and photographs in printable quality can be downloaded from

<https://www.wittenstein.de/en-en/company/press/>

**WITTENSTEIN – one with the future**

With around 2800 employees worldwide and sales of €498 million in 2023/24, WITTENSTEIN SE enjoys an impeccable reputation for innovation, precision and excellence in the field of cybertronic motion – not just in Germany but internationally. The group possesses exceptional expertise for the mastery and further development of all technologies relevant to mechatronic drives and comprises six innovative Strategic Business Divisions. We develop, produce and sell products such as high-precision servo drives and linear systems, servo systems and motors as well as cybertronic drive systems for many areas of application including machine and plant construction, aerospace or oil and gas exploration. Nanotechnology and software components round off the portfolio. With 25 sites in more than 45 countries, the WITTENSTEIN group (www.wittenstein.de) is represented in all major technology and sales markets.