Press Release

February 22, 2017

WITTENSTEIN at Hannover Messe 2017:

Nanoprecise measurement systems for high performance engineering

WITTENSTEIN SE, widely recognized as an innovation leader in the field of mechatronic drive technology, is expanding its brand essence with a further competency: nanoprecise measurement systems. Munich-based attocube systems AG – for several years now a wholly owned subsidiary of the WITTENSTEIN Group – will take advantage of the upcoming Hannover Messe 2017 to unveil the industrial grade IDS3010 measuring sensor with sub-nanometer resolution under the motto "The revolution for high performance engineering: Measurement becomes nanoprecise". WITTENSTEIN alpha GmbH's SIZING ASSISTANT will be also be in the spotlight at the flagship trade show: this web based application helps users select the optimum gearhead in a matter of seconds.

More innovations in drive and servo drive technologies as well as linear actuators will round off the WITTENSTEIN SE exhibit at this year's Hannover Messe.

Groundbreaking innovation for the engineering industry IDS3010: Industrial displacement sensor with sub-nanometer resolution

The ultra-compact and highly dynamic IDS3010 is a contactless inteferometric measuring sensor for the engineering industry. It easily surpasses the performance of other presently available sensor technologies in terms of precision, speed and industrial fitness. With a data acquisition bandwidth of 10 MHz, the IDS3010 simultaneously tracks targets in up to 3 axes at velocities of 2 m/s. The sensor provides 10^{-12} m position resolution and reaches working distances of up to 5 meters. Together with the 0.0 ppm to 3 m measurement uncertainty, which has been officially confirmed by the German

High-tech products made by WITTENSTEIN fly into space and win Formula One races. Intelligent drive systems – from the world's smallest high-performance servo drive to the latest state of the art in medical technology – are developed, produced and marketed by a team of around 2000 employees. With a blend of dedication and enthusiasm, we set benchmarks – every day –worldwide.

IDS3010: Ultra-precise, machine integrable measuring sensor

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National Metrology Institute (PTB), this enables accuracies previously unheard of in industrial position sensing. Among other things, this innovative sensor can be used to calibrate machine tools and coordinate measuring machines, detect the vibration amplitudes of production machinery, carry out highly precise in-line process controls and adjustments, measure the concentricity of motor shafts, crankshafts and camshafts or implement ultra-precise pick-and-place robotic applications, for example in the semiconductor industry. Since the sensor heads are absolutely non-invasive, the sensor is also compatible with extreme conditions such as ultra high vacuum, very high or low temperature or radioactive environments. Apart from engineering, the principal target markets are micromanufacturing and semiconductors. Various demonstration models will make the fascination of nanoprecise measurement technology come alive for visitors to the exhibition stand.

Sizing tools as further proof of WITTENSTEIN alpha's sizing expertise

When it comes to drive technology, size really does matter – and WITTENSTEIN alpha has an excellent portfolio of sizing tools for this purpose.

The **SIZING ASSISTANT**, currently available in 11 different languages, promises "the optimum gearhead in a matter of seconds". This web based application provides a fast way to configure motor gearhead combinations and design machine axes, so that both the time and the computational work which are necessary to achieve the perfect gearhead solution are reduced to a minimum. A few clicks are all it takes to give users a clear overview not only of the smallest, most powerful and most energy efficient gearhead that can be realized but also of possible alternatives. Once the product has been selected, they can download the data sheet and the CAD data directly in various formats, e.g. STEP or IGES, or request an offer online.

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The **cymex® 5** sizing software enables entire drive trains to be designed without technology or media gaps. The newest **Release 2.3** makes it the first sizing tool of its kind to be shipped with a comprehensive database of couplings. Drive trains can now be considered holistically – from the application and its motion profile through the ideal coupling to the gearhead and motor – designed without any risk and seamlessly documented. The integration of WITTENSTEIN's broad portfolio of metal bellows and elastomer couplings as well as torque limiters directly in the design process greatly simplifies the designer's work, and it also saves time and eliminates risks.

More new developments in mechatronic drive technology

Release 2.3 of cymex® 5 additionally incorporates the new DP+ gearhead series for highly dynamic delta robotics applications, the facelifted V-Drive worm gearhead generation including V-Drive Basic – the newest family member – and the premo servo actuator platform. They will all be on show at the WITTENSTEIN booth (Hall 15, Stand F10) at this year's Hannover Messe side by side with Galaxie, the high performance drive system, the cyber dynamic line portfolio of linear actuators with integrated screw and iTAS, the modular servo drive system for automated guided vehicle systems.

- **Photo:**
  The industrial grade IDS3010 measuring sensor with sub-nanometer resolution from attocube systems AG, a company of the WITTENSTEIN Group.

Texts and photographs in printable quality can be downloaded from presse.wittenstein.de.

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Invitation to the WITTENSTEIN SE press briefing at Hannover Messe 2017

The IDS3010 interferometric measuring sensor will be unveiled to the trade press at the WITTENSTEIN SE press briefing.

When? **Tuesday, April 25, 2017 from 3 to 3.30 p.m.**

Where? WITTENSTEIN SE, Hall 15, Stand F10

Subject: The revolution for high performance engineering: Measurement becomes nanoprecise

Speakers: Dr. Dirk Haft, Management Board, WITTENSTEIN SE
Dr. Martin Zech, Management Board,
attocube systems AG

WITTENSTEIN SE – one with the future

With around 2000 employees worldwide and sales of €302 million in 2015/16, WITTENSTEIN SE enjoys an impeccable reputation for innovation, precision and excellence in the field of mechatronic drive technology – not just in Germany but internationally. The group comprises eight pacesetting Business Units with separate subsidiaries for servo gearheads, servo actuator systems, medical technology, miniature servo units, innovative gearing technology, rotary and linear actuator systems, nano technology and electronic and software components for drive technologies. Through its 60 or so subsidiaries and agents in approximately 40 countries, WITTENSTEIN SE (www.wittenstein.de) is additionally represented in all the world's major technology and sales markets.

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