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**Renishaw showcases RUP1 ultrasonic probe at IMTS**

At the International Manufacturing Technology Show (IMTS) 2022, global engineering company [Renishaw](https://www.renishaw.com/en/renishaw-enhancing-efficiency-in-manufacturing-and-healthcare--1030?utm_source=Stone+Junction&utm_medium=HN&utm_campaign=REC633) will showcase its market-leading range of products for CMMs. The RUP1 ultrasonic thickness measurement probe increases the multi-sensor capability of Renishaw’s REVO® 5-axis system, which now offers six different probe sensor families, each specifically designed to increase the advantages of 5-axis motion and infinite positioning.

All REVO system probes can be changed automatically and include tactile scanning, touch-trigger, surface finish, ultrasonic, non-contact structured light and vision probes. They are used within a common co-ordinate reference frame, providing the choice of an optimum tool to measure multiple features, all on a single CMM platform.

Dave Joynson, Renishaw’s Product Manager for the RUP1 probe, describes the benefits of using an ultrasonic probe on a REVO system: “Unlike many other ultrasonic systems, the RUP1 ultrasonic probe does not require the use of water tanks or coupling gel to enable a good transmission of the signal. Instead, it uses an innovative elastomer tip ball to provide excellent coupling between the probe and the material. As a result, the RUP1 probe removes the need for skilled operators to interpret oscilloscope screens, and it releases shop floor real estate as immersion tanks and deep bore CMMs are not required.”

The use of ultrasonics for single-sided measurement of part thickness delivers clear advantages over traditional tactile probing techniques for parts where access to internal features is challenging. For example, aircraft landing gear parts, aerospace and power generation drive shafts, and hollow aerospace blades are all parts where the RUP1 probe will be of significant benefit.

Only when used as part of a 5-axis controlled system with the infinite positioning capability of the REVO head does the automated use of an ultrasonic probe on a CMM become feasible. The RUP1 ultrasonic probe is fully integrated into MODUS™ metrology software (version 1.12) and UCCsuite (version 5.8). It includes features such as geometry and material calibration, tip ball size monitoring and compensation, automatic calculation of REVO head positions based on the back-wall angle for non-parallel surfaces, and tip life monitoring. A standalone signal viewer is also available, which provides experts with a graphical view of the measurements.

“Attending IMTS enables visitors to realize our vision in action – how we enable the factory of the future today,” explained Denis Zayia, President at Renishaw Inc. “Our innovative manufacturing technologies and expertise deliver on manufacturing precision, productivity, and practicality. Renishaw is about to celebrate a significant milestone of supporting our customers for 50 years. As a world-class manufacturer ourselves, we have faced the same manufacturing challenges as many of our customers. In those 50 years, we have been able to overcome those challenges by implementing innovative strategies and products developed in-house. Our consultative approach with customers allows us to share those experiences and offer them new perspectives.”

From September 12th – 17th, visitors will be able to see the RUP1 system demonstrated on Renishaw’s stand 135509 in the Quality Assurance hall at IMTS 2022.

For further information on the RUP1 ultrasonic probe, visit [www.renishaw.com/rup](http://www.renishaw.com/rup).

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**Notes to editors**

**About Renishaw:**

UK-based Renishaw is a world leading engineering technologies company, supplying products used for applications as diverse as jet engine and wind turbine manufacture, through to dentistry and brain surgery. It has over 4,500 employees located in the 36 countries where it has wholly owned subsidiary operations.

For the year ended June 2021 Renishaw recorded sales of £565.6 million of which 95% was due to exports. The Company’s largest markets are China, the USA, Japan and Germany.

Throughout its history Renishaw has made a significant commitment to research and development, with historically between 13 and 18% of annual sales invested in R&D and engineering. The majority of this R&D and manufacturing of the Company’s products is carried out in the UK.

The Company’s success has been recognized with numerous international awards, including eighteen Queen’s Awards recognising achievements in technology, export and innovation.

Further information at [www.renishaw.com](http://www.renishaw.com/)