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*February 2018 Enquiries: Chris Pockett, Head of Communications (+44 1453 524133)*

**Renishaw showcases intelligent machining processes at MACH 2018**

At MACH 2018, global engineering technologies company, Renishaw, is exhibiting its precision measurement and additive manufacturing solutions. From the 9th-13th April, the company will demonstrate its offering as a manufacturing partner, showcasing how its measurement technologies can be integrated into a manufacturing process to achieve intelligent machining. The company will exhibit new products alongside its existing range.

The company will exhibit its extensive metrology products on Stand H19-430. Renishaw will also exhibit on a separate, dedicated additive manufacturing stand in the 3D printing and additive manufacturing zone, on stand H20-150.

One key highlight on the main stand, is a high-productivity machining cell concept, boasting integrated process control. By monitoring key process inputs, analysing data and continuous improvement, manufacturers can increase accuracy and productivity. Measurement is essential before, during and after machining to control all sources of variation.

Other highlights include the company’s latest scanning system for CNC machine tools, intelligent process control software for the Equator™ gauge and apps to simplify machine tool probing. The company will also present a non-contact tool setter for machining centres, a multi-probe optical interface system, a new surface finish probe and enhanced software for Renishaw's XM-60 multi-axis calibration system.

Following its launch at EMO Hannover 2017, Renishaw will highlight its improved surface finish probe for use on the REVO® 5-axis measurement system on co-ordinate measuring machines (CMMs). The SFP2 probe is interchangeable with other REVO probe options and offers the ability to fully integrate surface measurement and dimensional inspection on a single CMM. This is a significant improvement from traditional methods, which require separate processes.

New Intelligent Process Control (IPC) software for Renishaw’s Equator™ flexible gauge, will be demonstrated on the stand. The software allows the automation of tool offset updates in CNC manufacturing processes. Monitoring and adjustment can be automated using the software, to keep part dimensions within process control limits.

The software improves machining capability by reducing setting and adjustment time and enabling integration with automation systems. Any drift is corrected in real-time.

Visitors to Renishaw’s main MACH stand will be introduced to the latest development in Renishaw’s SPRINT™ product family for on-machine scanning – the new SPRINT system with SupaScan. The technology can be integrated into machine tool applications to perform advanced scanning with a reduced cycle time of up to 70 per cent compared to a standard high-speed touch-trigger cycle. The SPRINT system with SupaScan, widens the appeal of scanning technology by allowing exceptionally fast workpiece set-up and highly-accurate measurement, even at rapid feedrates.

Enabled by ever more capable machine controllers, Renishaw has developed a suite of on-machine apps. Machine tool probe routines can be created, executed and reviewed quickly and easily to minimise cycle times and improve productivity. The company will exhibit the Set and Inspect app for probe calibration, part setting, tool setting and inspection. Alongside this, Renishaw will also showcase Reporter, an app which presents feedback on measurement status.

Alongside on-machine apps, Renishaw has developed a range of smartphone apps to benefit machine tool probes and tool setters, including the GoProbe app. Another product, the Trigger Logic app, simplifies the customisation of probe settings for a specific application, by presenting illustrations and videos to clearly explain the configuration process.

To build on the success of its NC4 non-contact tool setting system, Renishaw will demonstrate the capabilities of its enhanced solution for machining centres. The NC4 non-contact tool setter, combined with the NCi-6 interface, provides an efficient, high-precision system to determine tool geometry, check tool condition and track thermal changes on both 3 and 5-axis machining centres.

Renishaw’s latest multi-probe optical interface system will be presented on the stand. The system uses a spindle-mounted OMM-2C receiver to allow up to three machine tool probes to be installed with optical signal transmission. System design ensures robust operation, whatever the environment – air blast technology ensures the receiver window is not interrupted by debris and modulated optical transmission technology resists light interference.

Also on the stand will be the latest CARTO software version, which enables users of the XM-60 calibration system to capture real-time data, without defining position or target numbers. The software displays straightness, pitch, yaw and roll errors against linear position. There are three options for triggering — manual, automatic or continuous.

“Industry 4.0 depends on connected systems, able to communicate, interpret and respond to information in real time,” explained Paul Maxted, Director of Industrial Metrology Applications at Renishaw. “Measurement data is essential to gather information to be used in intelligent decision making to prevent process variation.

“Real-time status updates from all systems are currently limited to a very small percentage of manufacturers,” continued Maxted. “Renishaw is the ideal partner for manufacturers moving towards more intelligent production. By working with Renishaw, manufacturers can streamline processes and improve productivity and efficiency.”

From its dedicated additive manufacturing stand in Hall 20, Renishaw will exhibit its software and systems for the production of metal parts. This includes the RenAM 500M, alongside demonstrations of QuantAM, the company’s build preparation software. At the show, Renishaw will highlight the productivity benefits of its four-laser system, which offers increased productivity in the most commonly used machine platform size.

“Renishaw is pioneering productivity in additive manufacturing,” explained Marc Saunders, Director of Global Solutions Centres at Renishaw. “By improving productivity and reducing cost per part, Renishaw is moving additive manufacturing to the mainstream. MACH is the ideal place to showcase the latest developments in additive and how the technology can be successfully integrated into manufacturing operations.”

MACH is the UK’s leading trade show for the manufacturing technologies industry. Chris Pockett, Head of Communications at Renishaw, is Chair of the MTA’s Exhibition Committee which has oversight of the organisation of MACH exhibitions.

For more information on Renishaw visit [www.renishaw.com](http://www.renishaw.com).

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Notes to editors

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 4,000 employees located in the 35 countries where it has wholly owned subsidiary operations.

For the year ended June 2017 Renishaw recorded sales of £536.8 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 14 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 recognised 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)