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**Pioneering productivity in additive manufacturing**

**To improve additive manufacturing productivity and lower cost per part, Renishaw has launched its latest system, the RenAM 500Q. Featuring four 500 W lasers, the compact machine will greatly improve productivity in the most commonly used platform size, to bring the benefits of additive manufacturing to a wider range of industries.**

**By speeding up the process by up to four times, the RenAM 500Q broadens the market appeal of metal additive manufacturing into applications that were previously uneconomic, driving the technology into new industries. By positioning the machine competitively, Renishaw has ensured the productivity benefits will reduce cost per part, without compromising on the precision or quality of a standard single-laser system.**

**A critical technology at the heart of the RenAM 500Q is the optical system and control software. Laser beams enter the system via four channels, where they are dynamically focussed and directed into a single, thermally controlled galvanometer mounting. The galvo mounting houses four pairs of digitally controlled guided mirrors, which can guide lasers to cover the entire working area of the powder bed.**

**“Renishaw’s additive manufacturing machines and optical systems are designed, engineered and manufactured in-house, giving us exceptional control over system performance,” explained Robin Weston, Marketing Manager at Renishaw’s Additive Manufacturing Products Division. “Using innovative design of the optical system and by incorporating digital controls and dynamic focussing, all four lasers can address the powder bed simultaneously – improving the speed, productivity and capability of the machine.**

**“Additive manufacturing is a key enabler of the optical system,” continued Weston. “It allows tighter packaging of mirrors and the incorporation of internal conformal cooling channels to maintain precise thermal stability.”**

**Renishaw is an innovator and leader in creating stable process environments, well placed to manage the additional process emissions caused by multiple lasers. An inert gas recirculation system including a cyclone pre-filter and gas intercooler preserve filter life and provide consistent clean processing conditions throughout the duration of the build.**

**The new system develops the safety and usability features of the single-laser RenAM 500M, incorporating dual SafeChange filters with automated change over to minimise manual intervention. Studies have shown an additional benefit, that powder condition is maintained for maximum reuse, further reducing part costs.**

For more information on how the RenAM 500Q can help you realise additive manufacturing in your industry visit <http://www.renishaw.com/en/renam-500q--42781>.

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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)