*October 2024 – for immediate release*

**Renishaw launches five new materials for its RenAM 500 series of metal additive manufacturing systems**

To help broaden additive manufacturing (AM) adoption across various industrial applications, global engineering technologies company, [Renishaw](http://www.renishaw.com), has expanded the number of processable materials for its RenAM 500 series of metal AM systems. The new materials added include commercially pure copper, H13 tool steel, Hastelloy® X alloy, super-duplex stainless steel and AlSi7Mg aluminium alloy. These specialist materials provide manufacturers with the ability to create new parts for a wide range of applications.

Renishaw is releasing these five material data sheets for its laser powder bed fusion (LPBF) systems to support the ever-changing needs of its customers. The AM system manufacturer worked directly with customers to develop process parameters for new alloys to open up innovative applications.

Renishaw has also added new powder layer thicknesses to its current processable materials. These include 90 μm titanium grade 23, 70 μm stainless steel 316L and 120 μm Inconel 718 parameters that achieve exceptional material build rates.

For the first time, the material data sheets include results of Plastometrex’s proprietary PIP (Profilometry-based Indentation Plastometry) testing. By facilitating rapid, direct testing on different sections of AM parts, this method provides a more precise and efficient evaluation of a part's mechanical properties and complements Renishaw’s existing testing procedures.

"We are pleased to be adding to our portfolio of available materials, to support innovative applications and respond to the needs of our customers,” said Marc Gardon, EMEA Additive Manufacturing Applications Manager at Renishaw. “For instance, we have developed parameters for H13 tool steel, Hastelloy X alloy and super-duplex stainless steel to support customers in Spain and Portugal — SIMOLDES, ITP Aero and ADDIMEN — for applications in the tooling, aerospace and energy industries."

The new material range opens many exciting new AM applications for users of Renishaw’s RenAM 500 series. Pure copper, with its extremely high thermal and electrical conductivity, is well-suited to consumer electronics and heat exchanger components. Aluminium AlSi7Mg is a lightweight, high-strength alloy that enables many unique applications in the aerospace and automotive industries. H13 tool steel boasts excellent thermal fatigue properties and high heat resistance to provide exceptional high-temperature performance. Hastelloy X alloy and super-duplex stainless steel share excellent corrosion resistant and high-strength characteristics that are well suited to the oil and gas and chemical process industries.

All of the new materials are available for use on Renishaw’s [RenAM 500 Series](https://www.renishaw.com/en/renam-500-metal-additive-manufacturing-3d-printing-systems--37011) of metal AM systems.

For further information on Renishaw’s AM material offerings, their properties and the industries we operate in, visit [Metal 3D printing](https://www.renishaw.com/en/metal-3d-printing--32084) (renishaw.com).

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**Notes to editors**

**About Renishaw**

Renishaw is a world leading supplier of measuring systems and manufacturing systems. Its products give high accuracy and precision, gathering data to provide customers and end users with traceability and confidence in what they’re making. This technology also helps its customers to innovate their products and processes.

It is a global business, with over 5,000 employees located in the 36 countries where it has wholly owned subsidiary operations. The majority of R&D work takes place in the UK, with the largest manufacturing sites located in the UK, Ireland and India.

For the year ended June 2023 Renishaw recorded sales of £688.6 million of which 95% was due to exports. The company’s largest markets are China, USA, Japan and Germany.

Renishaw is guided by its purpose: Transforming Tomorrow Together. This means working with its customers to make the products, create the materials, and develop the therapies that are going to be needed for the future.

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