*June 2023 – for immediate release*

**Domin chooses Renishaw AM system for ultra-efficient hydraulic valve production**

To help fluid power specialist Domin meet growing market demand for its high-performance energy efficient hydraulic valves, global engineering technologies company, Renishaw, has supplied its RenAM 500Q additive manufacturing (AM) system to Domin’s new Technology Centre near Bristol, UK. The hydraulic specialist will use the system to design and manufacture a competitive range of servo proportional hydraulic valves, aiming to save the industry one gigatonne of CO2 by 2030.

Metal AM allows Domin to design complex geometries with internal features, such as highly efficient, stiff structures, that would not be possible using conventional subtractive manufacturing methods. Now, Domin can produce single parts with a good strength-to-weight ratio, while also reducing waste. Domin has also combined AM with other innovations like high-speed motor control, modern electronics, big data and connected technology, to create a range of four servo proportional hydraulic valves.

Domin designed the new range of [high-performance hydraulic valves](https://domin.co/products/valves/) to satisfy the rigorous demands of fluid control systems in industries including automotive, aerospace and manufacturing. Domin will use Renishaw’s RenAM 500Q system to build the valves at its new Technology Centre in Pucklechurch, near Bristol, where it is consolidating its manufacturing from one Polish and two UK facilities.

“We designed these servo valves to achieve a better-performing, more sustainable product at a lower price point,” said Domin CEO, Marcus Pont. “The success of these valves in a broad range of applications means demand is outpacing what we can supply. Renishaw is the go-to choice for coupling productivity with quality, and we expect that the increased capacity the new AM system provides will allow us to maintain low production turnaround times and deliver consistently high quality to our growing customer base.”

“With four high-power 500W lasers able to access the whole powder bed surface simultaneously, the RenAM 500Q system achieves significantly higher build rates than previous systems, which vastly improves productivity and lowers cost per part,” said Bryan Austin, Director of AM Sales at Renishaw. “This productivity enabled Domin to take its range to market competitively. Their valves require high precision machining to achieve tight tolerances and accurate positioning, and use high-grade materials to ensure strong chip shear and durability. Domin wants to manufacture them at scale and our RenAM 500Q system makes meeting these requirements possible.”

Renishaw’s RenAM 500Q system also features an intelligent gas flow system that provides superior removal of process emissions from the laser path, resulting in a stable processing environment that has measurably driven up quality standards to levels not previously achieved with metal AM technologies.

“Most hydraulic systems today only operate at 23 per cent efficiency, resulting in the wastage of billions of kilowatt-hours every year,” said Pont. “Globally, hydraulics produces twice the CO2e emissions of the aerospace industry (1). Over its lifetime, each of these game-changing valves has the potential to save multiple tonnes of CO2e, and with them we can spearhead the advance of the fluid power industry towards a sustainable future.”

Austin concluded, “Domin is a great example of cutting-edge British engineering, and exactly the kind of innovator that's going to help ameliorate the climate crisis. These high-performance valves show how additive manufacturing is increasingly suitable for high-spec, high production applications where it was previously uneconomic.”

(1) Oak Ridge National Laboratory, *Estimating the Impact (Energy, Emissions and Economics) of the U.S. Fluid Power Industry,* December 2012.

For further information on the RenAM 500Q system, visit [www.renishaw.com/en/renam-500-metal-additive-manufacturing-3d-printing-systems--37011](http://www.renishaw.com/en/renam-500-metal-additive-manufacturing-3d-printing-systems--37011)

**-ENDS-**

**Notes to editors**

Renishaw is a world leading supplier of measuring systems and production 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 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 2022 Renishaw recorded sales of £671.1 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 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/)