The RenAM 500Q is Renishaw’s first multi-laser additive manufacturing system offering. With four high power 500 W lasers, each able to access the whole powder bed surface simultaneously, the RenAM 500Q achieves build rates up to 4 x faster than single laser systems. Its compact galvanometer assembly has been designed and additively manufactured in-house, using AlSi10Mg material for high thermal conductivity, and includes conformal cooling fluid channels resulting in excellent thermal stability of the optical system.

Key features:

- Up to 150 cm³/hr deposition rate*
- 4 x 500 W lasers dynamically focussed with 80 µm diameter spot at the powder surface
- Closely packed laser positions within the optical system significantly reduce thermal errors and ensure that every laser can access the entire powder bed simultaneously
- Single additively manufactured galvo mounting built in AlSi10Mg with internal conformal cooling fluid channels ensures excellent thermal stability of the optical system
- Intelligent gas flow ensures the efficient removal of process emissions caused by faster build rates
- The pre-filter cyclone separator captures the larger process emissions for post processing, giving longer filter life
- Build envelope 250 mm × 250 mm × 350 mm
- Integrated sieving and powder recirculation
- Intelligent dual SafeChange™ filter system automatically changes to a clean filter when required
- New powder can be added without interrupting a build if required
- Suitable for reactive materials such as aluminium and titanium alloys

*Including wiper time, dependent on part geometry, material and parameter set used

For more information contact your local Renishaw office, visit www.renishaw.com/contact