



C E R E S :
C E N T R E F O R
E N G I N E E R I N G A N D
R E S E A R C H

**Design, Assembly, Integration and
Testing for R&D and Space**



WELCOME

Welcome to CERES, the Centre for Engineering and REsearch. A unique facility created to provide access to high quality lab space, fully equipped to support engineering design, development, integration and testing.

The testing capabilities available are applicable to a wide range of industries including, aerospace, defence, pharmaceuticals, materials science, consumer products and many more. CERES can either, be used as a functional space by external organisations, or form part of AEON's Testing as a Service (TaaS) offering using AEON's expert in-house engineering team.

All our facilities are COVID secure, following the latest government guidelines.

To find out more please contact enquiries@aeon-eng.com

FACILITIES

Clean Room

- ISO Class 5 or ISO Class 7
- Internal Size: 3000mm(L) x 2070mm(W) x 2240mm(H)
- Separate gowning room
- Consumables and attire available

Tensile & Compression Testing

- Testing of materials and surface coatings to ISO and ECSS Standards
- Loads up to 10kN
- Load accuracy to +/- 0.1%
- Strain rates 1 to 1000mm/min
- Sampling rate of 2000 Hz, with data acquisition up to 1000 Hz

Large Thermal Vacuum Chamber

- Bakeout to ESA & NASA Standards
- Vacuum to 1×10^{-9} mBar
- Temperature range -40°C to 200°C
- Programmable Thermal and Pressure Cycling
- 1 x ISO-K 500 Port
- 8 x ISO-KF 50 Ports
- LV and Data passthroughs
- Composite Pirani and Cold-Cathode Guages for continuous pressure monitoring
- Regenerative TQCM
- Dry gas repressurisation
- Remote monitoring of all key parameters using our cloud dashboard



Small Vacuum Chamber

- Internal Size: 300mm x 300mm x 300mm
- Pressure down to 1×10^{-3} mBar
- Optics Testing up to 300mm Dia, under ambient and vacuum

Metrology and 3D Scanning

- Aberlink Axiom Too CMM with selection of probes (sub-micron accuracy)
- 3D scanning of medium-large structures (sub-millimeter accuracy)
- Reverse engineering and measurement service
- Full integration with CAD systems for generation of technical drawings

3D Printing

- Flashforge Creator Pro 3D Printer
- Print Area up to 227mm x 148mm x 150mm
- Materials available include: PLA, ABS and PETG

Storage & Logistics

- Secure access control to lab space for authorised personnel only
- Separate area for safe storage of parts
- Full insurance available

TQCM Rental and Purchase

- Our TQCM module and control unit area available for use within the large vacuum chamber or for rental
- Featuring dual thermally matched quartz crystals
- Realtime crystal monitoring and regeneration for continuous process monitoring

Dedicated Cleaning and Assembly Area

- Dedicated area for cleaning and assembly of both general purpose and sensitive equipment
- ESD Safe area
- Electronics and PCB Assembly
- Wiring & Harness Assembly for bespoke projects
- MLI Layup facilities

Spectroscopy and Optics

- Wide-band light sources (350nm - 3000nm)
- Low loss self-verifying monochromators
- Detectors (350nm - 3000nm)
- Assorted optomechanical hardware
- Configurable with vacuum chambers and cleanroom



Office Space

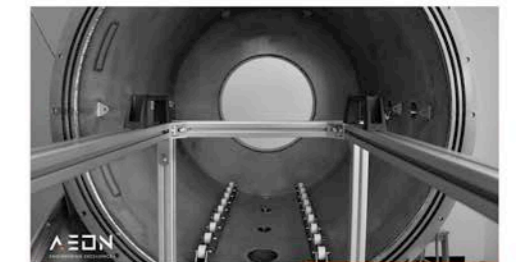
- Secure access to dedicated office space for use whilst on site
- Full coverage in both the office and lab to the wireless guest network. Wired network connection available on request

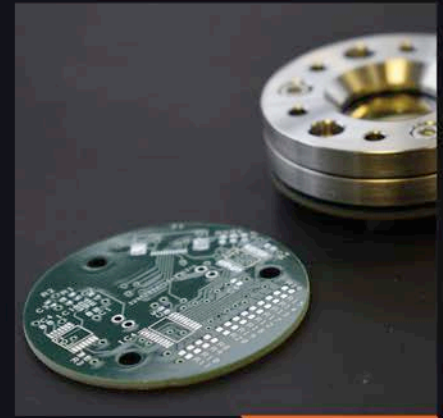
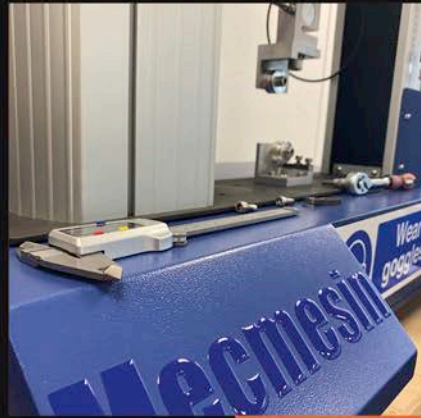
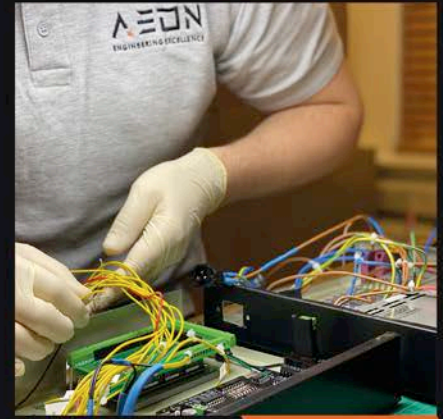
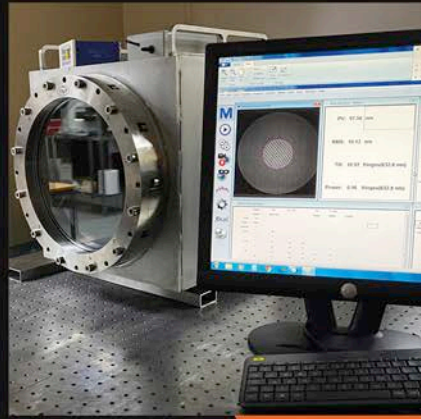
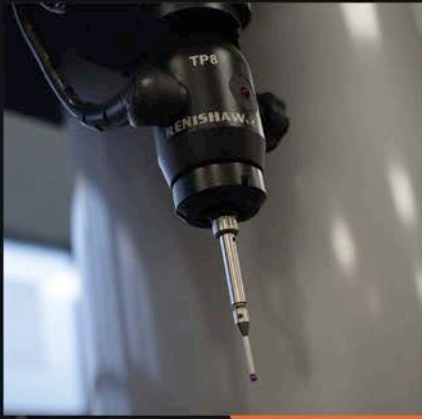
Observation Area

- All testing can be witnessed on site from a dedicated viewing area outside the lab
- Testing can be live streamed to remote locations if necessary

Lab space and facilities are available for exclusive use

- Fully trained engineers are available to perform or assist with performance and required testing
- Ample parking
- Located close to Stoke on Trent and Crewe stations, M6 and A50/M1





To find out more please contact:

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