CRYOGENIC
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ULTRA HIGH VACUUM (UHV) CRYOSTATS

UHV 2-Axis Split Pair Magnet

- 9 T along main axis
- 4 T along secondary axis
- 8 T/min ramp rate on main coil
- 4 way UHV access to sample
- Vacuum sample change
- Electrically isolated sample mount Cryocoolers for magnet and DR

17 T UHV Magnet

- Highest magnetic field currently operating on any X-Ray beam line
- Ramp rate 2 T/min over +17 T to 17 T and multiple cycles
- Vacuum bore
- Low-loss Helium Cryostat

Cryogen-Free 6 T Split Pair Magnet

- Separate UHV sample space
- External magnet alignment
- Adjustable magnetic tie rods
- Internal iron pole piece
- Bakeable to 100˚C
- Cryogen-free VTI for temperatures down to 1.6 K
- He-3 insert for temperatures down to 300 mK

LabVIEW® software

- Polar or Cartesian control of field vector

Cryogenic Limited
Units 30 Acton Park Industrial Estate, Acton, London W3 7QE, United Kingdom
Tel: +44 (0)20 8743 6049 **Fax:** +44 (0)20 8749 5315 **Email:** sales@cryogenic.co.uk

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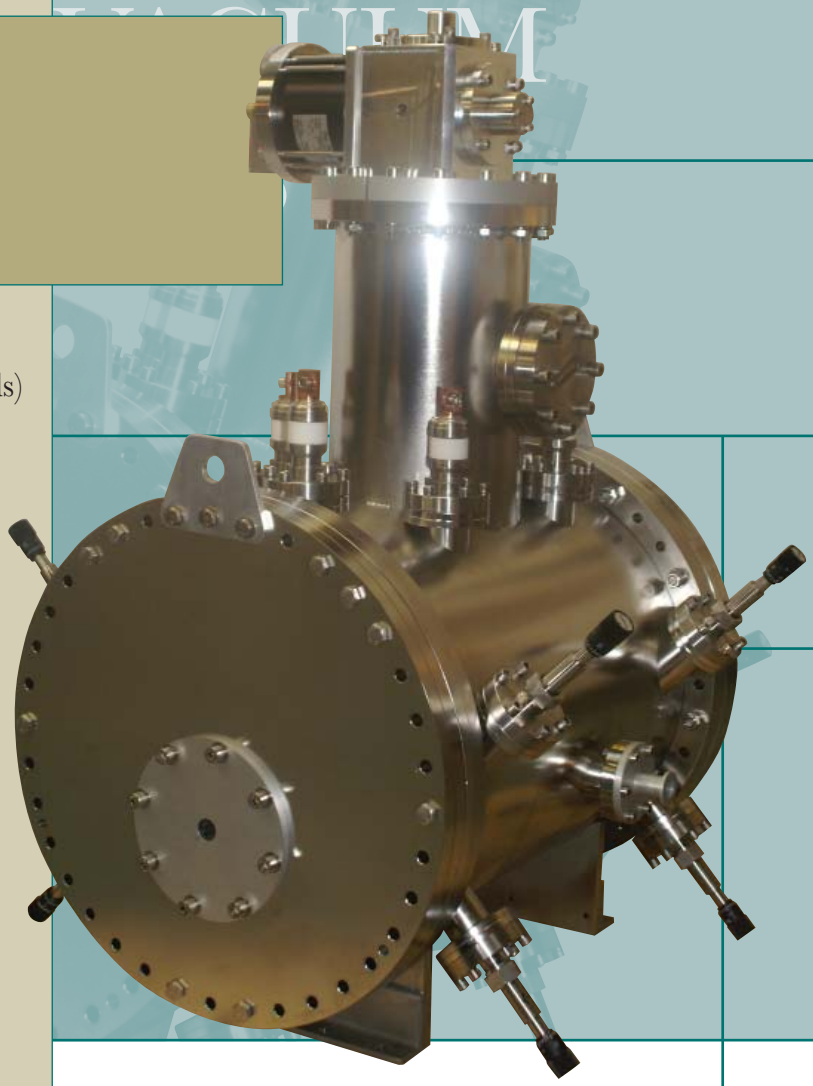

- Special UHV cryostats with a variety of magnetic fields to 20 Tesla (solenoids) or 15T (split pairs).
- Cryogen Free Cooling of magnet and sample space
- Separate UHV sample space to reduce contamination
- Bakeable to 100°C
- Superconducting Magnet operates at 4K
- Cryogen free VTI cold finger for temperatures down to 1.6 K
- He^{3} insert for temperatures down to 300 mK
- Operation below 10^{-10} Torr at 4K
- High pumping speed
- Low out-gassing materials

Applications for UHV systems include beam-line experiments, scanning probe microscopy, X-ray photoelectron spectroscopy (XPS), Thin films, ion trapping and ion mass spectrometry.