



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

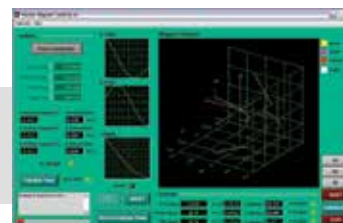
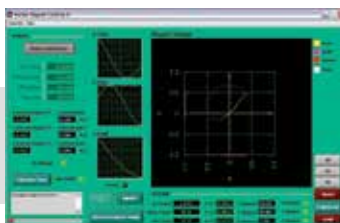


Cryogen-Free 6 T Split Pair Magnet

- 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

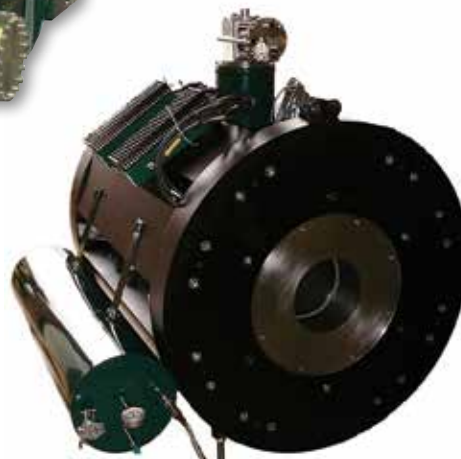
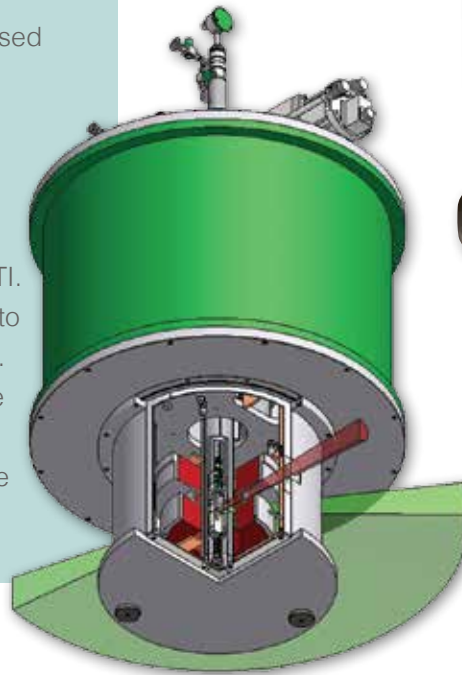
LabVIEW® software

- Polar or Cartesian control of field vector



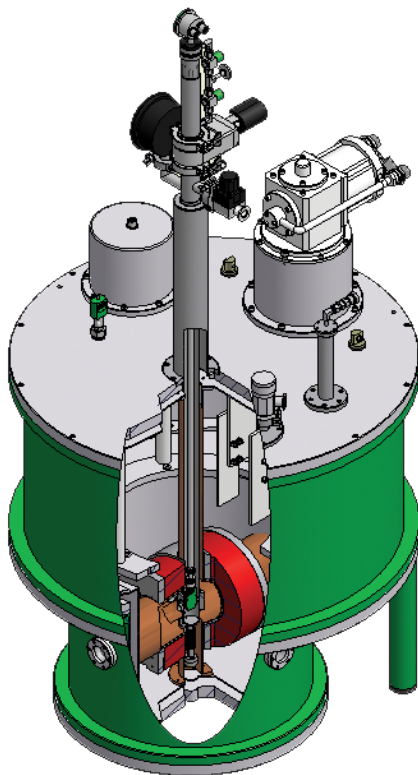
Cryogen Free Neutron Scattering & Beam-Line Magnet Systems

- Room-temperature bore or integrated cryogen-free 1.6 K-300 K VTI
- Symmetric superconducting split-pair magnets up to 10 T
- Asymmetric magnets for use in polarised neutron experiments up to 7 T
- Large apertures for incoming and scattered neutrons
- High purity thin Aluminium, Beryllium or Vanadium windows in cryostat outer, radiation shield, Magnet and VTI.
- Low vibration pulse tube allowing up to 30,000 hours of continuous operation.
- Easy to use: no cryogenic experience required
- Supplied with LabView® software suite as standard



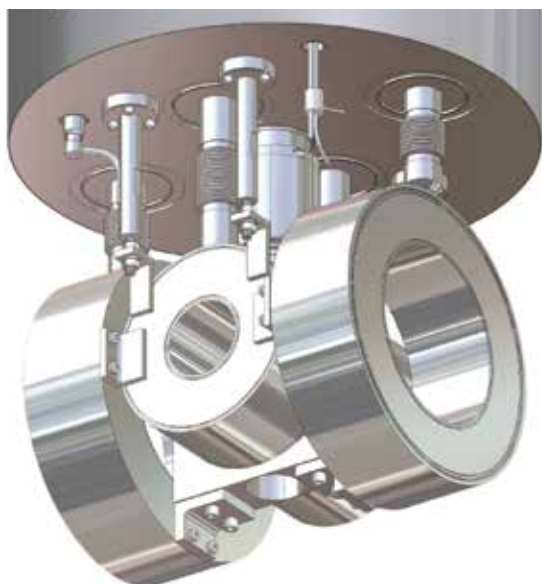
Split Pair Magnet System With Optical Access

- Split pair magnetic field to 14 Tesla
- Cryogen Free or Low boil-off Liquid helium cooling
- Integrated Variable temperatures from 1.8 K to 300 K with 25 mm sample space
- Rotating sample holders allowing horizontal or vertical movement of the sample
- 4 windows providing lines of sight to the sample parallel and perpendicular to the field
- Range of window materials to suit customer applications, including sapphire for infra-red and Beryllium for x-ray diffraction
- Range of applications including, Mossbauer spectroscopy, Raman Spectroscopy, Faraday effect measurements, magneto circular dichroism



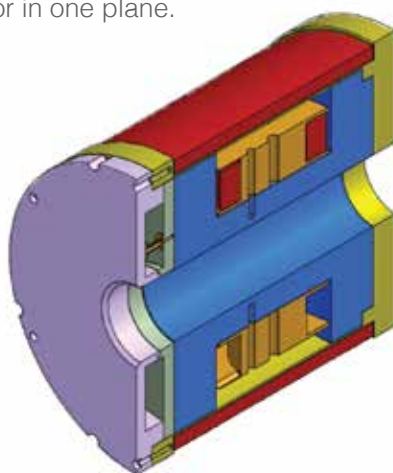
Cryogen Free Vector Field & Multi-Axis Magnet Systems

- Ability to steer the magnetic field to the required orientation
- Allows precise alignment of the field to an exact direction in a sample
- Suitable for experiments where samples cannot be moved easily
- Cryogen Free Magnetic field up to 14 Tesla for the main axis and up to 5 Tesla on orthogonal axes
- RT bore access or with an integrated cryogen free VTI
- Range of field homogeneity available to suit research requirements
- All coils can be fitted with a persistent mode switch or can operate in swept field
- All vectors controlled by customised electronics and open LabVIEW software



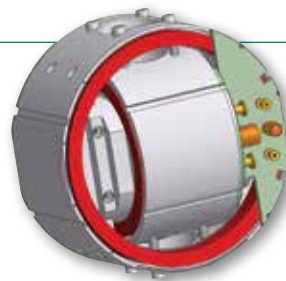
2D Vector Magnets

Two orthogonal split pair magnets allowing access to the field centre from two directions, with rotation of the field vector in one plane.



3D Vector Magnets

One solenoid and two split pairs or three split pairs allowing rotation of the field in any orientation and sample axes along the three axes.



Sample Specification

1T/1T/1T

We offer 1.5 Tesla field split pair superconducting magnets in the X and Y planes and a 1.5 Tesla solenoid in the Z direction. The vertical sample access is 56 mm for a vertical VTI which can be top-loaded into the Cryostat.

9T/5T/1T

5T and 1T split-pairs in the x- and y- directions and a 9 T solenoid in the z- direction. Access through the assembly is 46 mm