

5 Tesla Self-Shielded Asymmetric Magnet System for Neutron Scattering

System includes:

- Vertical field, asymmetric split pair magnet with persistent mode switch and diode protection circuit
- Compact vapour shielded cryostat
- Variable temperature sample environment. Temp. range of 2K to 300 K. Compatible with insertion of a “dipper” type dilution refrigerator.
- Calibrated temperature sensors on VTI and sample holder
- 120 A/ 5 V 4-quadrant magnet power supply, including switch heater supply.
- Liquid helium level meter and probe
- 2-channel temperature controller
- Liquid helium transfer siphon
- LabView® based computer control system.
- Full system test.
- Installation at customers’ laboratory



Magnet specifications

Maximum Field at 4.2 K: 5 T at 93 A

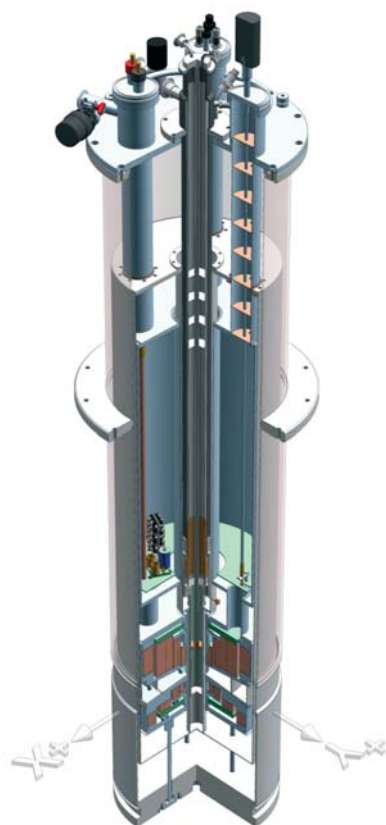
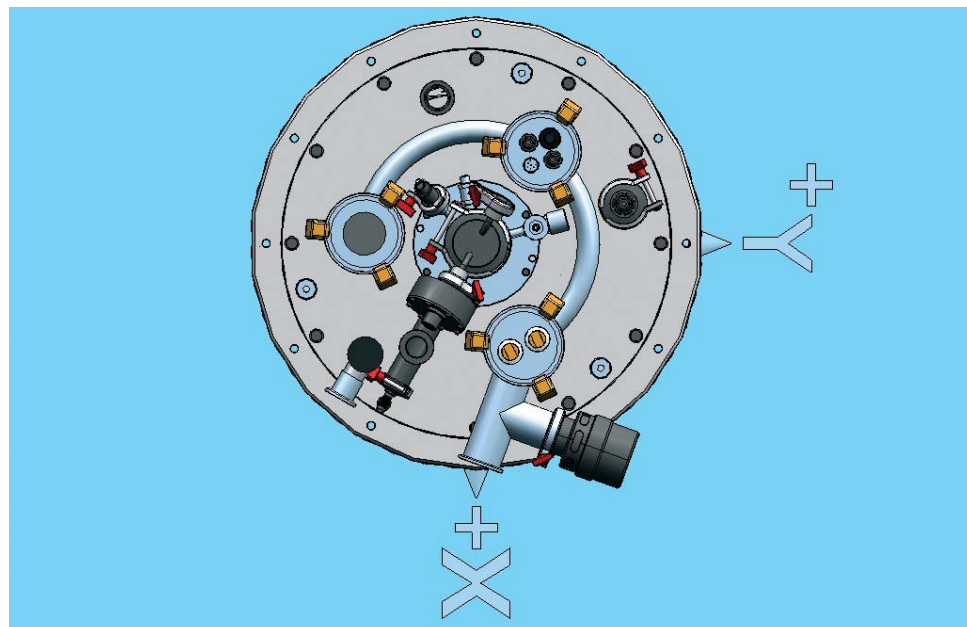
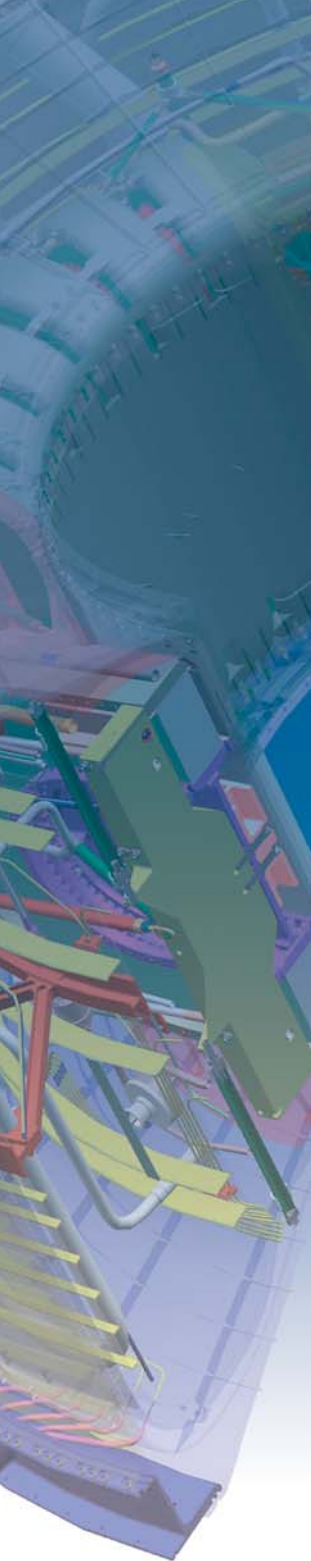
Neutron access: Conical angle of $\pm 5^\circ$ over 330° in - pane

Sample space within VTI 34 mm diameter

Magnetic field homogeneity: 1.5% over 20 mm by 10mm cylinder

Radial 5 gauss line at 5 T: 0.5 m from field centre

Asymmetric field distribution Zero field node lies outside of the neutron path



System specifications

Liquid helium hold time: (with sample at 2K and magnet in persistent mode)	>72 hr
Liquid helium refill volume:	50 litre
Sample Environment:	Static exchange gas
VTI temperature range:	<2K - 300K
System height:	2095 mm
Cryostat diameter:	400 mm

Contact us

You can contact Scientific Magnetics through our website www.scientificmagnetics.com We will be delighted to discuss your requirements for superconducting and cryogenics systems.

