

THE CRYOGENIC EXTENSIVE PRODUCT RANGE...

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ULTRA LOW TEMPERATURE CRYOGEN FREE MAGNET SYSTEMS

Cryogen Free Magnets To 18Tesla With Cryogen Free Dilution Refrigerators For Temperatures Down To 10mK

All options are entirely closed-cycle and do not require any cryogenic liquids for operation.



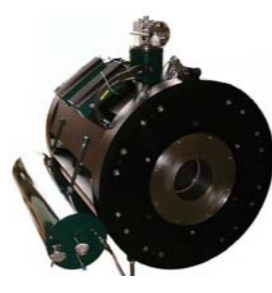
11 Tesla optical system with VTI



7 Tesla split pair with integrated VTI for Neutron Scattering



Rotating sample probe



6.5 Tesla iron shielded magnet for Nuclear beam experiments



AC Susceptibility Probe

Specific Heat Probe



6.5 Tesla 300mm bore magnet with iron shielding



4 Tesla split pair system with 4 way optical access



5 Tesla high homogeneity Cryogen Free superconducting magnet system



12 Tesla magnet with top loading variable temperature cryostat



6.5 Tesla split pair with optical access



12 Tesla system with rotating stand



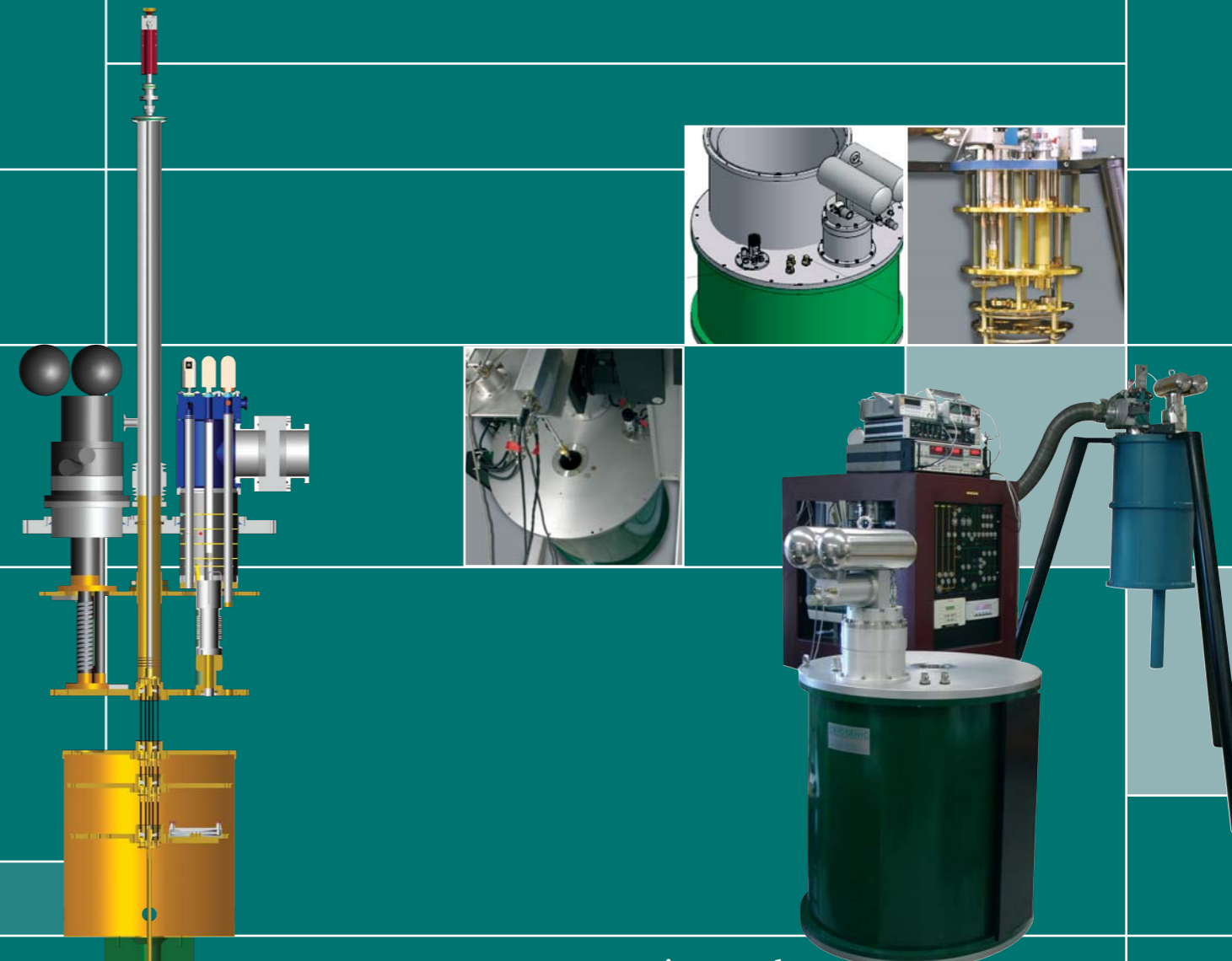
16 Tesla cryogen free measurement system



14 Tesla Cryogen Free magnet system with integrated VTI



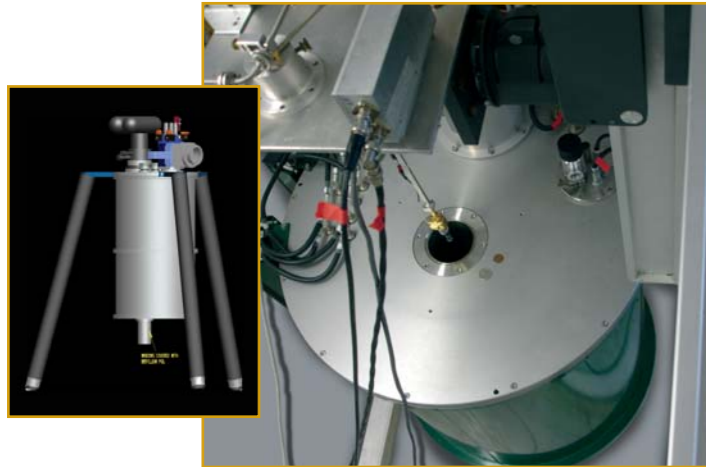
14 Tesla measurement system



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Option 1

Cryogen Free RT Bore Magnet With RT Tail DR



- DR and superconducting magnet cooled by separate pulse tube coolers
- Modular system, as it easy to interchange DR with other inserts
- Use with top-loading probe or bottom-loading DR
- Fields up to 16T
- Suitable for use with our range of ESR magnet systems

Typical dimensions:

- 89mm RT magnet bore, 50mm sample space in DR
- Suitable for use with Leiden DR type CF200, CF450, CF650 or CF1000 DR



Option 2

Cryogen Free System In Shared Vacuum Space

- DR and high-field magnet in shared cryostat
- Separate pulse-tube coolers for magnet and DR
- DR tail is inserted in 4K magnet bore
- Compact geometry allows use of higher fields (to 18T) or large vector magnets (up to 9T/3T/3T)
- Use with top-loading probe for easy sample change

Typical dimensions:

- 50mm 4K magnet bore, 30mm sample space in DR.
- Suitable for use with Leiden DR type CF200, CF450, CF650 or CF1000 DR



Option 3

Magnet Attached To DR Still Shield

- Magnet attached to DR still shield
- Ideal for smaller magnets (up to 9T) or small vector magnets (up to 7T/1T)
- Single pulse tube cryocooler for cooling both the magnet and DR
- Magnet operation at 700mK
- Use with top-loading probe

Typical dimensions:

- 64mm, 700mK magnet bore, 50mm sample space in DR
- Suitable for use with Leiden DR type CF200, CF450, CF650 or CF1000 DR



Option 4

Cryogen Free Magnet & Integrated Variable Temperature Sample Space With DR Insert

- Adapted MCK model DR inserted into 50mm 1.6K-300K DR
- VTI cooling power used for condensing stage of DR
- Versatile solution as CFM-IVTI system can also be used with other inserts and measurement probes including He3, heated probes rotator, VSM etc.
- Bottom loading DR with options of sample in liquid or sample in vacuum
- Suitable for use with CFM-IVTI systems up to 16T and neutron-scattering split-pair systems

Typical dimensions:

- 50mm VTI, 24mm DR sample space
- Suitable for Leiden MCK type DR

