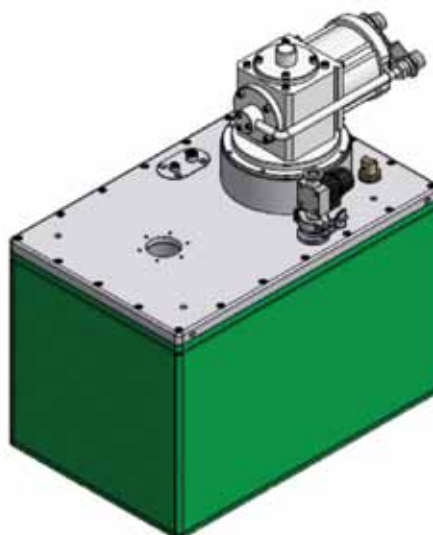


## CRYOGEN-FREE DESK-TOP EPR SYSTEMS

- Compact 3 T and 6 T cryogen-free magnets
- Magnetic field along or transverse to vertical bore
- EPR-grade homogeneity, EPR-grade drift
- Field sweepable while maintaining homogeneity
- Cryo-coolers with air-cooled compressors which run off single phase mains
- LabVIEW based temperature diagnostics



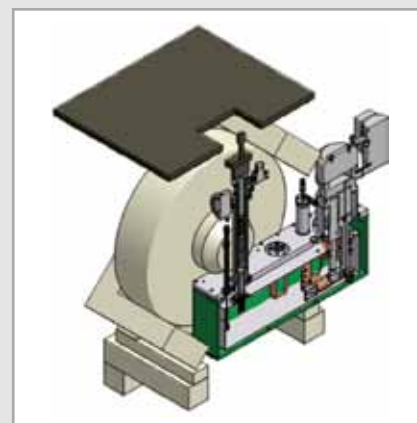
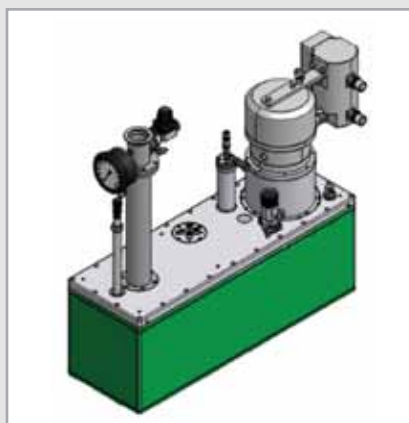
6 Tesla cryogen-free magnet



Probe head for W-band EPR (above) and associated resonator (below) with sample tube highlighted by arrow (courtesy Dr. A. Smirnov, North Carolina State University)

## CRYOGEN-FREE VARIABLE TEMPERATURE INSERTS

- For retrofitting to conventional low field EPR magnets
- Ergonomic design
- Elimination of liquid helium transfers
- Efficient thermal design
- Temperatures down to 2 K
- Custom sample probes available with RF and optical access



The VTI can be installed between pole pieces of standard EPR magnets and is compatible with standard EPR probes.

## CRYOGEN-FREE DESK-TOP EPR SYSTEMS

### Technical Specifications

Product	CF 3T split pair	CF 6T solenoid
Field strength	3 T	6 T
Homogeneity (*)	< 10 ppm	< 10 ppm
Shimming	As required	As required
Drift	0.1 ppm/hr	0.1 ppm/hr
Room Temperature bore	45 mm	45 mm
Field sweep (#)	-3 to +3 T	-6 to +6 T
Cryocooler	250 mW pulse tube	250 mW pulse tube
Compressor	Air cooled, single phase	Air cooled, single phase
Cooldown time	Overnight	Overnight

(\*) Homogeneity measured by plotting field over 1 cm long x 1 cm diameter cylinder

(#) Homogeneity of 10 ppm maintained over entire sweep range. Assumes a high resolution 20 bit magnet power supply (optional extra).

### Key Benefits of Cryogen-Free Technology

- No cryogenic experience required
- Turn-key operation
- Overnight cool-down
- Low cost of ownership
- Minimal maintenance
- Minimal quench hazards

Leaving you to focus on the science

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