Closed Cycle Cryostat

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Closed Cycle Cryostat

- **Compact and Powerfull Design:**
  Our coldhead allows easier installation in systems – particularly where space is at a premium

- **Efficient and Powerfull System:**
  Capable of reaching 15 K with 3-phase electrical power requirement

Gifford McMahon closed cycle refrigerator (CCR) has long been regarded as one of the most versatile, compact and cost-effective solutions available

Comprising two stage 15 K coldheads coupled with the helium compressor, Cryocoolers all offer fastcooldown times, making them the perfect choice for integration into a wide range of applications.

Applications:

- Low & High Temperature Superconductor Studies
- Magnetic Properties
- Quantum Hall Effect Experiments
- Quantum Dot Experiments
- Mossbauer Effect
- Materials Research
- MEMS Characterization
- SEM
- Diamond Anvil Cell
- Spectroscopy
- Narrow Gap
- FTIR & Raman
- Matrix Isolation
- X-Ray Diffraction
- Astronomy CCD Noise Reduction
- Detector Cooling Chemistry
- Biological Sample Cooling

Full option system features items:

- Helium Closed Cycle 2 Stage Refrigerator
- Cernox Cryogenic Temperature Sensors (Calibrated from 4K to 325K)
- Cryogenic Temperature Controller Monitor
- Flexible Vacuum Chamber
- Rotary Vane Vacuum Pump

Specification:

Temperature Range: ..... 15K to 325K
Cooldown Time: ..... 60 min
Helium In/Out Peressure: ..... 13/21 bar
Maintenance Time: ..... 8.000 hours
Power Supply: 380V 3-phase
Refrigeration Capacity (1th Stage): ..... 70W @ 77K (50Hz)
Refrigeration Capacity (2th Stage): ..... 5W @ 20K (50Hz)

Options:

- Low Vibration Support Stand
- Alignable Optical Head
- Optical Viewport Up to 60 mm Diameter (quartz, pyrex , …)
- 24-pin Electrical Feedthrough
- Admission Valve
- Heater on 2th Stage
- ISO KF/CF Flanges
- Helium Buffer Tank**

**Buffer Tank or Long Gas Line

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Ability:

ZSP Company provides custom 15K to 325K closed cycle cryostats with interfaces. We provide GM closed cycle coolers.

We also supply open cycle flow cryostats that use liquid helium or LN2 as the cooling source.

ZSP can work with the researcher to arrive at the best cryocooler solution for the researchers particular requirements and interface needs.

We supply complete systems with application specific and/or custom vacuum enclosures, radiation shields, sample holders, windows, temperature sensors, heaters, extra experimental wire leads and feedthroughs , temperature controllers, vacuum pump systems, sample manipulation attachments, low vibration CCR interfaces and many other additional options.

** Interface customization is our specialty - send us your sketch **

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