

# High Pressure Cell for Magnetometry

Manufactured by HMD



## Features

- Compatible with:
  - MPMS 3
  - VSM (DynaCool, PPMS & VersaLab)
  - MPMS (DC and RSO transports)
- No copper rings – ensures easy sample insertion and removal
- All BeCu design for more uniform magnetic background
- No hydraulic press necessary
- All necessary accessories conveniently packaged
- Suitable for low frequency AC magnetization

## Specifications

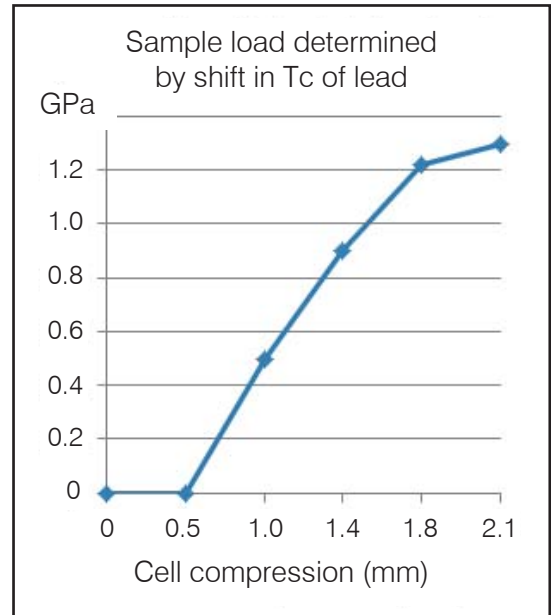
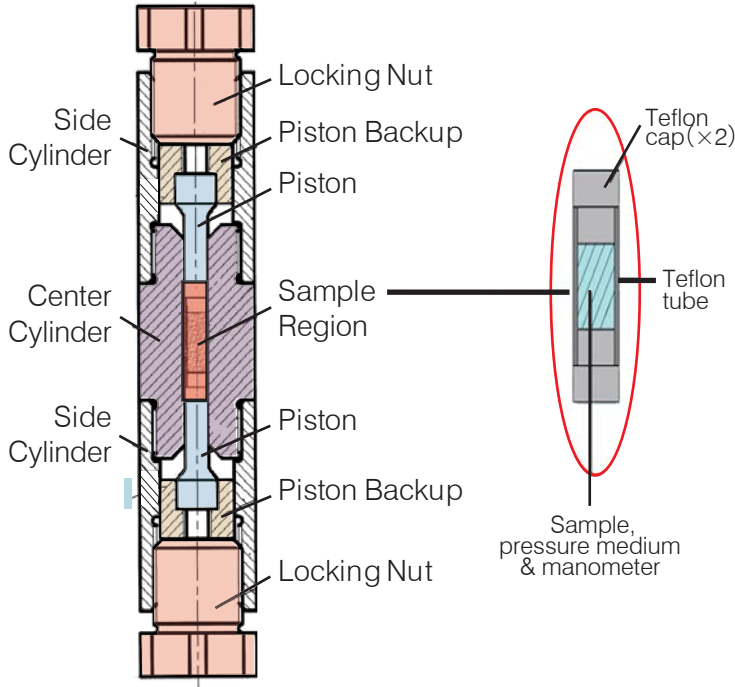
|                               |                              |
|-------------------------------|------------------------------|
| Maximum applied pressure      | 1.3GPa                       |
| Sample space diameter         | 1.7 or 2.2mm                 |
| Sample space length           | 7 mm max                     |
| Cell diameter                 | 8.5mm                        |
| Temperature range             | 1.9 to 400K                  |
| Field                         | 9 Tesla                      |
| Magnetic Background (typical) | $4 \times 10^{-7}$ emu/gauss |

*NOTE: Requires VSM and large bore coil set*

## High pressure cell attached to QD sample rods



# Cell Construction



## Example Data

Sample: ~6mg LiFeAs, Apiezon J grease  
 Measurement parameters: AC; 10Hz, 4 gauss AC field  
 Manometer: Sn ( $T_c \sim 3.7K$ )  
 Measured on standard MPMS

Sample: Pb manometer  
 Measurement parameters: 2 gauss DC field,  
 temperature sweep 0.05K/min, 30mm scan length,  
 5 second scans  
 Measured on MPMS3

