

Model HE-3-TLSL

Wet Helium-3 Cryostat

Overview

The Model HE-3-TLSL cryostat is a top-loading system with sample in (He-3) liquid for fast sample exchange. The design allows the sample to be removed from and introduced directly into the He-3 pot while the cryostat is cold. The system also includes a sample probe and a load-lock with gate valve, plus an external gas handling system for safe insertion and removal of the sample in and out of the He-3 chamber.

This He-3 insert includes the following components:

- Charcoal sorption pump with heater and thermometer
- 1 K pot with thermometer
- He-3 pot (sample chamber)
- Load-lock
- Sample probe with thermal anchor stage, thermometer, and heater
- IVC can
- External gas handling system with stored He-3 gas
- External sorption cryo-pump
- Operation test



Model HE-3-TLSL Helium-3 Cryostat with Gas Handling System

Features / Benefits

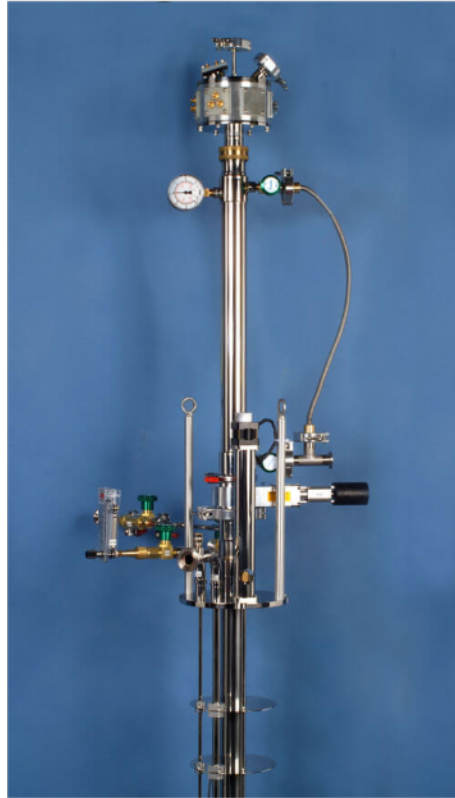
Fast sample loading	<ul style="list-style-type: none">• The sample can be loaded or removed when the cryostat is cold
High cooling power with sample in (He-3) liquid	<ul style="list-style-type: none">• 400 mK with 400 microwatt cooling power
Wiring (option)	<ul style="list-style-type: none">• Customized wiring, coaxial cables, and fiber optics
Magnetic field (option)	<ul style="list-style-type: none">• Solenoid or vector magnet
Rotating sample holder (option)	<ul style="list-style-type: none">• Rotating range: 0 ~ 90 degrees

Design Specifications

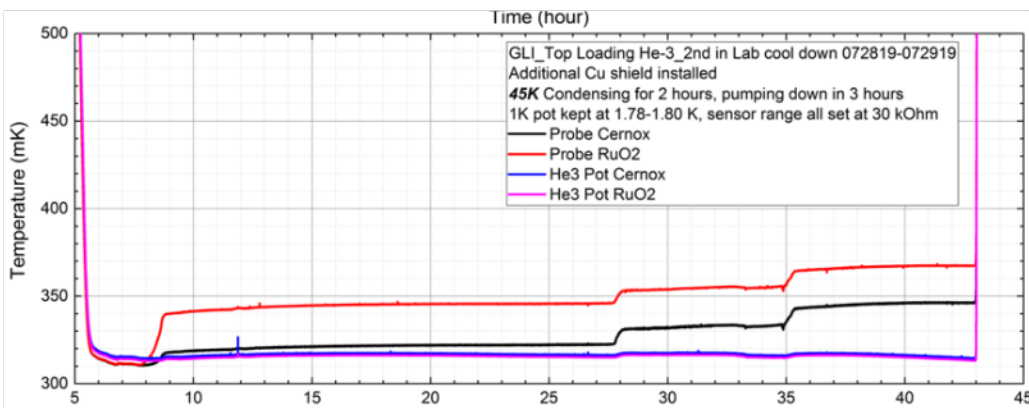
Base Temperature	320 mK
Hold Time at Base Temperature with 20 STP liter He-3 gas	25 hours
Operating Temperature Range	0.3 K - 80 K (300 K optional)
Sample Space	0.5" - 1.46"



Model HE-3-TLSL Helium-3 Cryostat with Gas Handling System



Top View of Model HE-3-TLSL Helium-3 Cryostat



© Copyright 2022 FormFactor, Inc. All rights reserved.
FormFactor and the FormFactor logo are trademarks of
FormFactor, Inc. All other trademarks are the property of
their respective owners.

All information is subject to change without notice.

Corporate Headquarters
7005 Southfront Road
Livermore, CA 94551
Phone: 925-290-4000
www.formfactor.com

HE-3-TLSL-DS-0922