

HELIUM-3 WITH INTEGRAL LHe-4 RESERVOIR

The model 'He3-SV4' has a liquid helium reservoir built-in. This reservoir supplies the LHe-4 for the POT and for condensing He-3 gas. Ideal for applications where there is no access to the main LHe bath.

A liquid helium-4 reservoir is built-in! This insert has the standard He-3 pot, 1 K POT, and charcoal sorb and a He-4 reservoir that is filled externally using a vacuum insulated liquid helium transfer line.

A fill adapter automatically separates warm He-4 gas to allow refilling at any time without moving the transfer line position. This allows the transfer line to conveniently remain in place switched on or off as needed. (Note: If a transfer line is needed, ask about our LHe transfer lines with in-line flow valve.) The He-3 gas storage is also built-in - no gas handling needed.

IDEAL FOR USE IN UHV CHAMBERS, VACUUM OR ROOM TEMPERATURE SUPERCONDUCTING MAGNET BORES OR WHEREVER THE BUILT-IN SUPPLY OF LHe IS NEEDED.

Helium-3	Sample in Vacuum
Base Temperature	300 mK
Hold Time at Base Temperature	24 Hours
Temperature Range	0.30 K to 80 K (300 K optional)
Thermometers	Cernox - Charcoal & POT RuO2 (1K) - sample Si diode or platinum RTD - to monitor sample cooldown
Helium-3 Regeneration Time	30 min typ.
Sample Mount Diameter	1.25 inch 31.7 mm
Sample Environment	Vacuum (std) with Liquid/vapor Top Load Port 0.21 in dia. clear [5.3 mm] (Port epoxy sealed with NPT fitting)
Experimental Access Vacuum Seal	Quick connect IVC with tapered grease seal
POT digital level monitor	Yes, optional
Res, digital level monitor	Yes, included
Wire Anchors	Kapton flex circuits + 4K extendable copper post
Charcoal Cooling Method	Dynamic flow
Experimental Wiring	5 twisted pairs (10) wires for Customer use (manganin)
Materials of Construction	Non magnetic [All main temperature sensors compatible with use in high magnetic fields]

