



HelioxVT ™

Why choose HelioxVT?

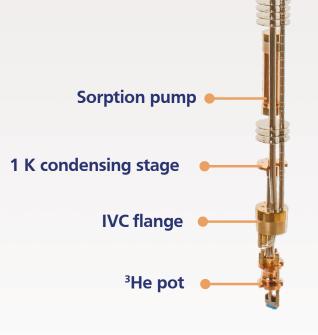
The **Heliox**VT range of single shot ³He systems allows users to access temperatures below 300 mK for extended periods.

A fully configured **Mercury**iTC provides total control of the **Heliox**VT, automating cool down from room to base temperature and simplifying integration into your measurement setup via a range of standard communication interfaces.

For more specific experimental requirements, we can offer tailored ³He systems designed to meet your needs.

Precise control of magnetic field and temperature

The **HelioxVT** is designed to operate safely in integrated into cryo-magnet systems – allowing access to the lowest temperatures and the highest fields.



Features

- Achieves less than 300 mK for more than 40 hrs and achieves 50 μW of cooling power at 350 mK for over 6 hrs

- Fast turn around time for sample exchange
- HelioxVT uses a cold gas environment with a 50 mm access, therefore no liquid helium

- The sample temperature range of a new or existing VTI can be extended below below 300mK to be conservative and consistent.

- No liquid helium in the sample plane making the **Heliox**VT ideal for neutron or X-ray scattering experiments.

- Compatible with 50 mm diameter VTIs

- 1 K pot free design – no additional room temperature pumps make this a simple, self-contained solution.

Magnetic Field Configuration

Magnetic field requirement	Configuration	Benefits
Up to 14 T	HelioxVT with TeslatronPT Cyrofree superconducting magnet system	 No requirements for liquid cryogens (or accompanying infrastructure) Complete turn-key solution for material characterisation

Key Specifications

Base temperature	≤ 300 mK for 40 hrs with no applied heat load
Cooling power	< 350 mK for 6 hrs with 50µW applied
Temperature range	300 mK to 300 K
Temperature stability	± 3 mK below 1.2K ; ± 0.1 K above 1.2 K
HelioxVT Sample space	43 mm diameter

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