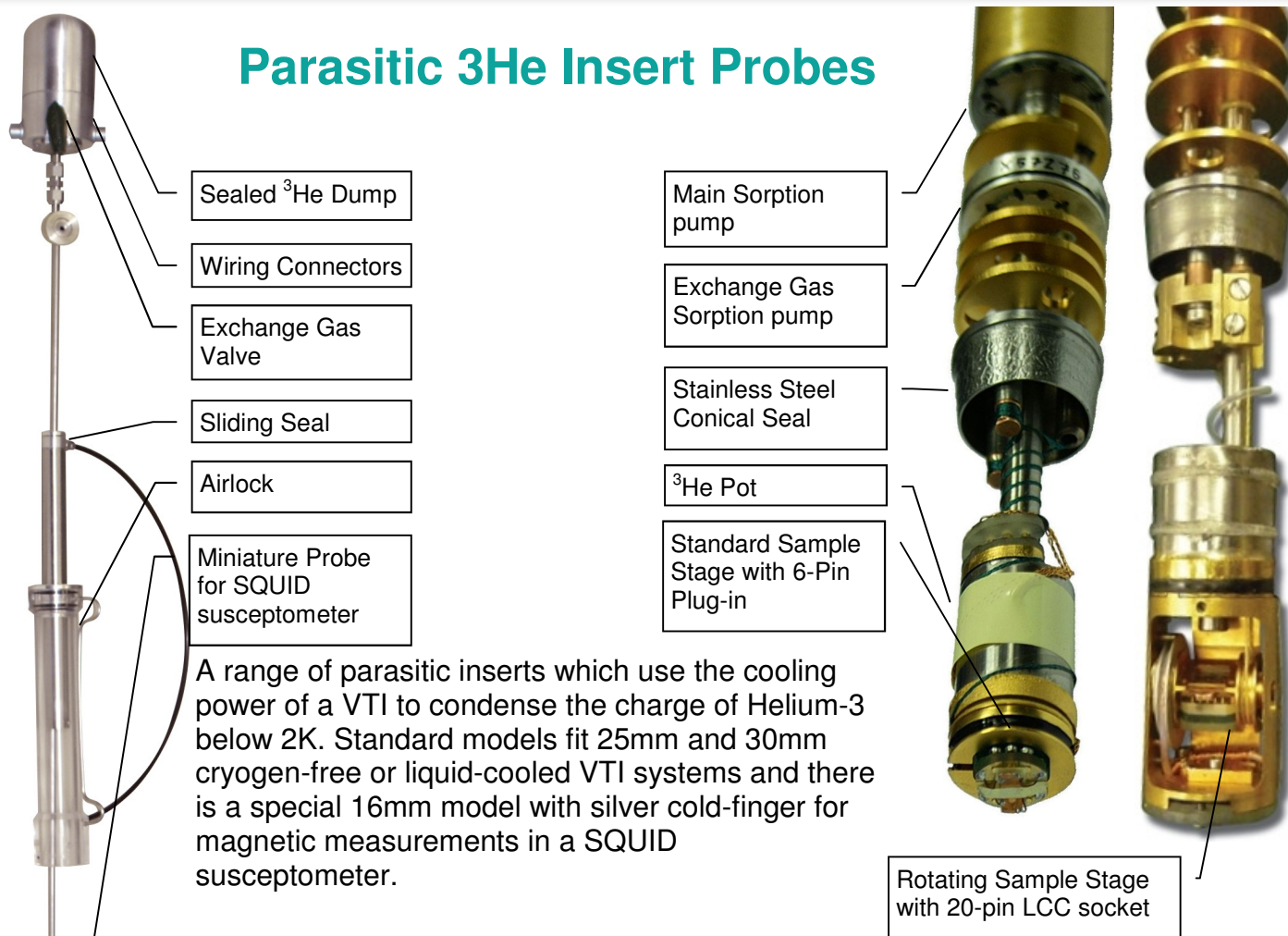


Parasitic 3He Insert Probes



A range of parasitic inserts which use the cooling power of a VTI to condense the charge of Helium-3 below 2K. Standard models fit 25mm and 30mm cryogen-free or liquid-cooled VTI systems and there is a special 16mm model with silver cold-finger for magnetic measurements in a SQUID susceptometer.

- Integrated miniature sorption pump to allow a small quantity of Helium-4 exchange gas into the inner vacuum can and so to directly condense Helium-3 into the pot.
- Sample temperature may be controlled in single shot mode between 290mK and 2.5K by controlling the main sorption pump temperature.
- Operates as a standard probe (with exchange gas in IVC) between 2K and 300K
- Calibrated Cernox or RuO sensor on sample stage
- Additional temperature sensors on 1K pot and sorption pumps.
- Labview software available for operation with Lakeshore 350 four-channel temperature controller
- Typical zero-load hold time up to 24 hours with a 1.5 litre charge of ³He gas.
- Cooling power up to 200μW with sample temperature below 500mK.

Model	Sample Mount Diameter	VTI Required	³ He Capacity
3He-16/23P	16mm	25mm	1.5 litres
3He-20/28P	20mm	30mm	2 litres
3He-SQUID	5mm	16mm / 8mm tail	0.9 litres