

Mounting of Sterile Filter Heater's

This guide covers the electrical heating pockets – **Sterile-Filter-Heater's**. Encapsulating the sterile exhaust filter of a SUB or SUF reduce or at the best eliminating vapour condensation. Avoiding exhaust gas blockage of the sterile filter allowing free gas exit and constant atmospheric pressure in the SUB or SUF.



Selection of Sterile-Filter-Heaters presently in the CerCell portfolio.

All **Sterile-Filter-Heater's (SFH)** are based on the same concept. No thermocouple required, 30-40°C temperature difference to environment. The CE, UL marked Power Supply support 90-264 VAC supply voltage. Supplied with EU, UK, US plug to be added to the Power Supply as to needs on site. MTBF (Mean-Time-Between-Failure) is impressive 50,000 hours. Supplied with 1.5 meter long silicone 2 line wire (no ground).

The design of the electrical heating pockets serves several objectives:

- Simple and cost-efficient solution for a variety of voltage and wall plug type
- Simple installation, no connection to Process-Control-System, no control
- Supply of thermal energy to the otherwise cold sterile filter
- By increasing sterile filter temperature, the vapour originating from gas sparging, and elevated broth temperature, as well as foam may pass the exhaust / off-gas sterile filter as a non-condensing vapour and into the laboratory atmosphere

All Sterile-Filter-Heaters as supplied by CerCell apply same principles:

- Keep in stock with a piece of cardboard inside the pocket when not in use avoiding the inner walls glue, stick to each other
- Keep the electrical wires straight with no knuckles
- Keep free of liquid contact
- Do NOT add any weight to electrical wires
- Add mechanical support to the sterile filter as the SFH add extra weight
- Always ensure that the silicone hose between the SUB and the sterile filter or gas cooler are kept straight up. Thus, help condensating liquid return to the SUB

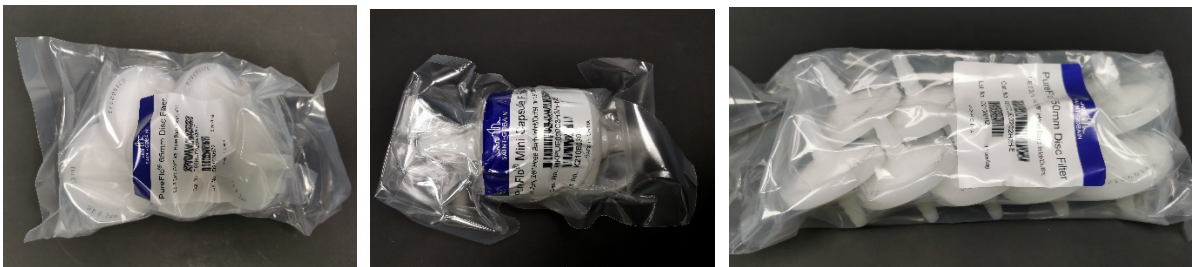


Photo show the 3 sterile filter sizes commonly integrated with CerCell portfolio.
Photo from left to right: 65 mm diameter – cylindrical – 50 mm diameter.



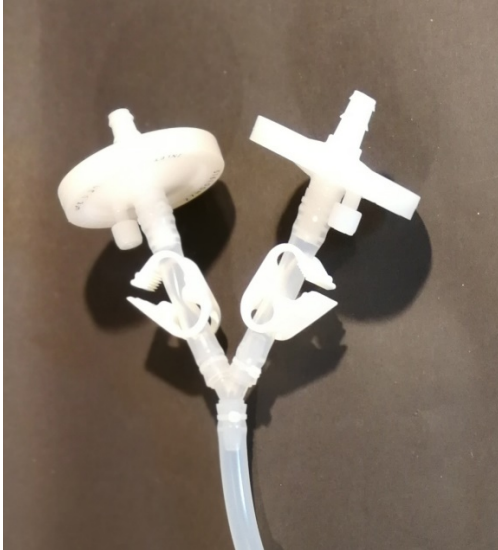
Photo from left to right: SFH for 65 mm – SFH for cylinder filter – SFH for 50 mm diameter.



Examples of installation

We strongly recommend:

- Consider including dual sterile filters in parallel each with a hose clamp allowing one second sterile filter being keep as a spare in case of blockage of the primary filter
- Consider including a gas cooler whenever there is a risk of huge amount of foam
- Consider including a foam trap whenever there is a risk of huge amount of foam



END