

“Guide mounting electrical heating blanket”

Date: 2017-06-25

Author: Per

Mounting of 150 & 200 mm wide electrical heating blankets Check out part number, voltage and size on website

Products explained in this guide is:

“Re-Usable thermal electrical accessories for SUB and SUF”

<http://cercell.com/commerce/standard-accessory-products/thermal-control/>

This guide covers the 150 mm wide electrical heating blankets, heaters jackets as supplied by CerCell. Same principles apply for all:

- Mount blanket as low as possible, close to MST or SUB-Support-Square (SSS) foot
- Stretch the spring to correct length / torque for a tight fit around the SUB/SUF
- Don't apply any electrical heating without media is covering the heating blanket
- Don't apply any electrical heating without the thermos couple is inserted into the thermo well



Photo left: Shown electrical heating blanket with single spring pn 22270.

Photo right: two different sizes, single spring pn 22270 – dual springs pn 22470.

Designed for PID control either relay or proportional control for max 60° liquid temperature. **NOT to be used on empty vessel!** Overheating will occur which will destroy the SUB or SUF.

Supplied with 1,5 meter long silicone 2 line wire (no ground) with connector according to part number. IEC C14 male plug for 230 VAC or NEMA 5-15P male plug for 110 VAC connection.

The design of the heating blanket serves several objectives:

- Supply energy to the media obtaining a selected temperature of max 40°C
- Reduce the amount of light which enters the SUB – which can be improved further with black plastic cover
- Some thermal insulation – which can be improved further with a blanket

SMALL blanket

Red silicone jacket with dimension 150 x 350 mm and single steel hugs. Fits any round OD 130 and OD 137 and OD 150 mm SUB CellVessel and SUF BactoVessel. This size jacket is rated at 100 watt:

- 48 VDC for BlackBox PCS - equipped with male M12 4 leg connector
- 110 VAC for any PCS - equipped with US NEMA 5-15P male connector
- 230 VAC for any PCS - equipped with IEC C14 male connector

BIG blanket

Red silicone jacket dimension 150 x 450 mm with dual steel hugs for dual springs. Fits any round OD 200 and OD 250 mm vessel. Like the larger CellVessel SUB and BactoVessel SUF. This blanket, jacket size is rated at 200 watt:

- 110 VAC for any PCS - equipped with US NEMA 5-15P male connector
- 230 VAC for any PCS - equipped with IEC C14 male connector



Photo left: Spring kit small (pn 22270) dimension OD 10 x 30 mm including some 26 mm steel ring.



Photo right: Spring kit big (pn 22470) dimension OD 17 x 65 mm including some 26 mm steel ring.

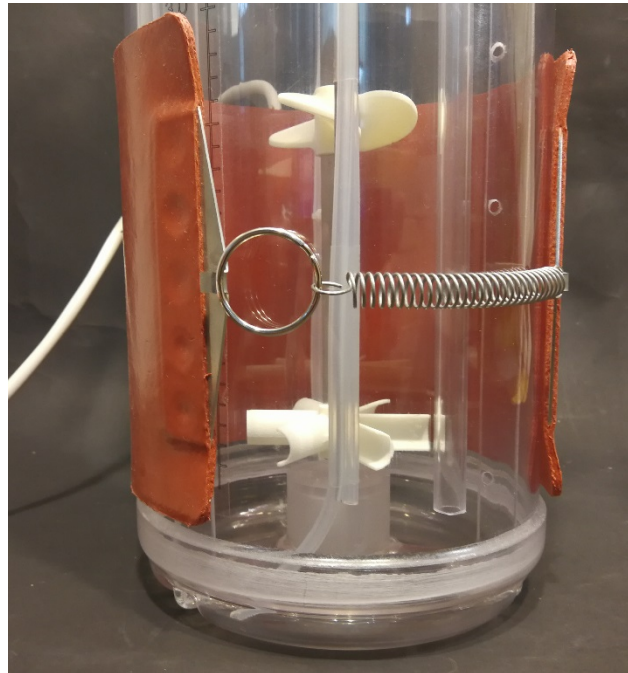


Photo left: Stretching the small springs to 50 – 60 % longer than standard and seek to obtain the 3 kilo / 30 Nm clamping force. Use extra springs or any metal, plastic ring to obtain the required clamping force.

Photo right: Blanket pn 22270 mounted on OD 150 SUF using standard OD 10x30 mm spring combined with OD 26 mm steel ring to obtain the 30 Nm clamping force.

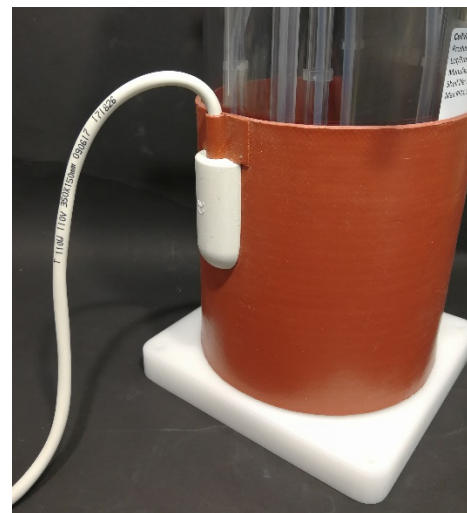
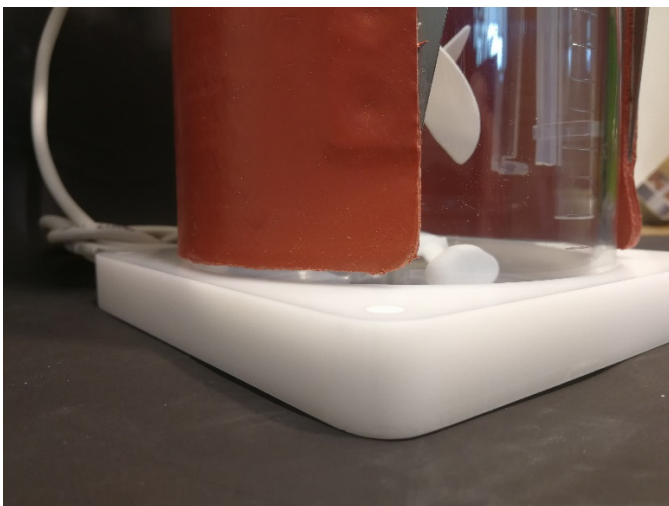


Photo left: Insure that the blanket is forced down to touch the SUB-Support-Square (SSS) foot. Here part number 2259-137-15 being the lowest model. The minimum volume broth is 1,8 liter when 150 mm wide blanket is used.

Photo right: electrical wire connection pointing upwards do insure the blanket can be forced close to SUB-Support-Square.

END