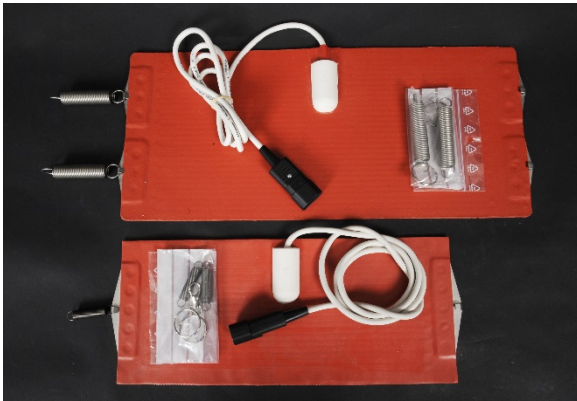


Guide mounting Electrical-Heating-Blanket's  
Date: 2021-11-25  
Author: Per

## Mounting of Electrical-Heating-Blanket's

This guide covers the 75 mm, 150 mm and 200 mm wide (EHB) Electrical-Heating-Blanket's 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

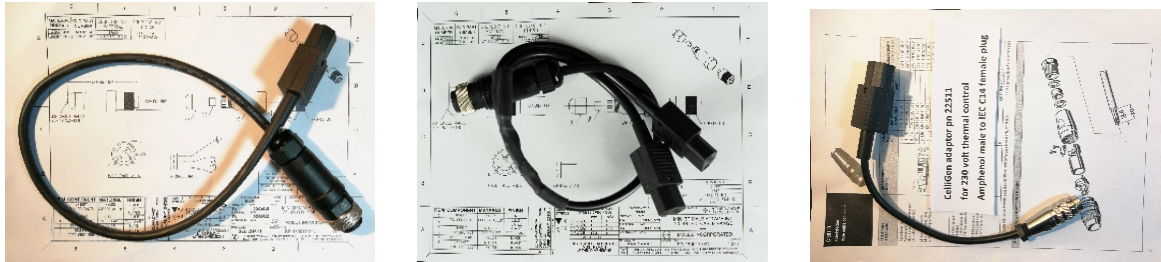


Different sizes, single spring, and dual springs. Shown Electrical-Heating-Blanket with different voltage and length to fit around SUBs, SUFs diameter range from 137 to 250 mm.



The EHBs are designed for PID control either by electro-mechanical relay or Solid-State-Relay 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. All EHB supplied with IEC C14 male plug for 230 VAC as well as 110 VAC connection. Short adaptor cables available from [www.cerCell.com](http://www.cerCell.com) for simple connection to the most popular Process-Control-Systems.



The design of the Electrical-Heating-Blanket's serves several objectives:

- Supply thermal energy to the media obtaining a selected temperature of max 40°C
- Reduce the amount of sun light which enters the SUB – which can be further improved further with a black plastic cover
- Further thermal insulation is highly recommended – simple insulation like dual bubble foil covering the entire SUB and EHB reducing vastly heat losses, improves control temp control accuracy, optimises an even temperature, etc

Three EHB width is available.

**MINI** - dimension 75 x 350 mm

Fits any round OD 137 and OD 150 mm vessel. This size blanket is rated at 75 watt.

**Minimum 1 liter media is required.**

- 110 VAC EHB for any PCS - equipped with IEC C14 male connector
- 230 VAC EHB for any PCS - equipped with IEC C14 male connector

**SMALL** - dimension 150 x 350 mm

Fits any round OD 137 and OD 150 mm vessel. This size blanket is rated at 100 watt.

**Minimum 2 liter media is required.**

- 110 VAC EHB for any PCS - equipped with IEC C14 male connector
- 230 VAC EHB for any PCS - equipped with IEC C14 male connector

**BIG** - dimension 200 x 450 mm

Fits any round OD 200 and OD 250 mm vessel. Like the larger CellVessel and BactoVessel. Power rated at 200 watt.

**Minimum 4 liter media is required. Be sure the blanket at any time is cooled by media behind the vessel wall.**

- 110 VAC EHB for any PCS - equipped with IEC C14 male connector
- 230 VAC EHB for any PCS - equipped with IEC C14 male connector



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



Photo top right: Spring kit big 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 in total 3 kilo / 30 Nm clamping force. Use extra springs or any metal, plastic ring to obtain the required clamping force.

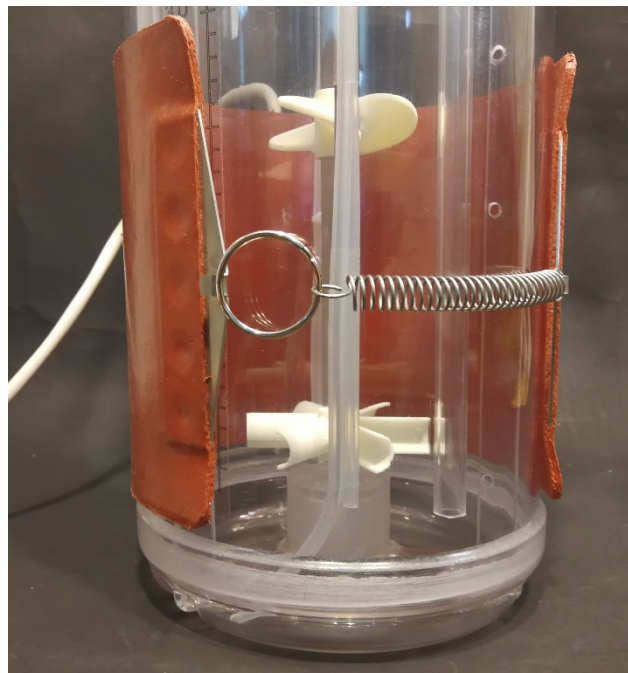


Photo right: Blanket SMALL mounted on OD 150 SUF using standard OD 10x30 mm spring combined with OD 26 mm steel ring to obtain the 30 Nm clamping force.



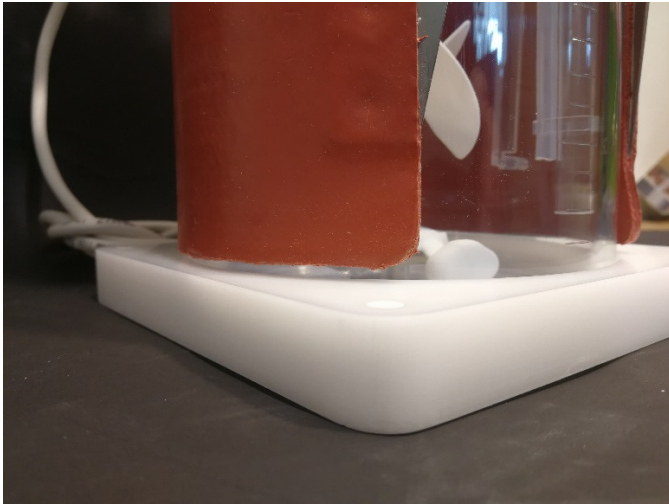


Photo top left: Ensure that the orange EHB is forced down to touch the SUB-Support-Square (SSS) foot here SSS being the lowest model (either 15 or 35 mm). The minimum volume broth is 1.8 liter when 150 mm wide EHB is used for the 3.2 liter SUB.

Photo top right: Point the white electrical wire connection upwards do ensure the EHB can be forced close to SUB-Support-Square.

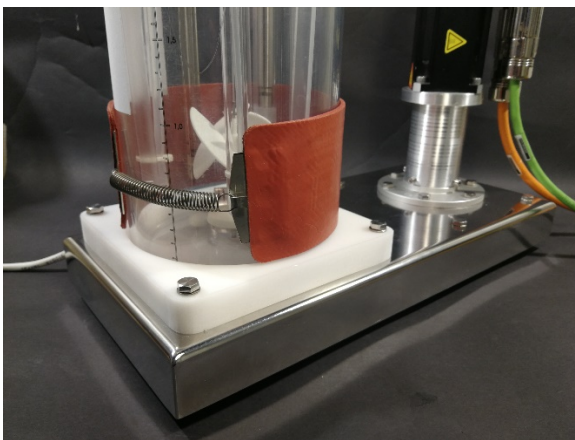


Photo left: EHB dimension 75 x 350 mm stretched around the OD137 mm SUB.

Photo right: EHB dimension 200 x 400 with dual spring hooks each side connected with dual 17 x 65 mm springs around a OD 250 mm tube.

Part number, voltage and sizes available on [www.cercell.com](http://www.cercell.com)

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