

# HEATED BLANKET GENERAL INSTALLATION INSTRUCTIONS

**WARNINGS AND SAFETY** -Before and after every use, inspect your Powerblanket® product for rips, tears or holes of any kind, and inspect the power supply cord for damage. Do not return to service or apply power to any damaged Powerblanket® product. - When in use, a Powerblanket product might be placed over warning labels or instructions on other products. You should be familiar with the content and location of such warning labels or instructions before covering them with the Powerblanket product.

The warnings and instructions provided in this guide relate only to the Powerblanket product and should not be used as a substitute for any warnings or instructions on other products used with the blanket. Powerblanket makes no representations as to suitability for use with specific products. For questions regarding whether other products may be used safely with a Powerblanket product, please refer to the warnings and instructions provided with the covered product, and/or contact the product manufacturer. –

Always use a Ground Fault Protection Device when using Powerblanket products. -Never connect to a higher voltage power supply than what is listed on the cord tag. -Never use ungrounded, worn, or damaged extension cords. -Do not submerge Powerblanket products in liquids. They are liquid resistant, but not liquid proof. -Never pull, drag, or lift the product by the power cord. -Never connect to power when the product is folded up. -When using a product that has an arrow and the word "TOP" by the cord, install this side of the blanket at the top of the vessel. Installing in any other configuration will decrease the results. -Powerblanket products are designed to operate in most environmental conditions without additional insulation. Do not cover the product. -Do not place heavy objects on the product and never walk on it.

The heating blankets have a "warm" and a "cold" face/side. The easiest way to identify which side of the blankets face the tank when it is all wrapped up is to find the side with NO STRAPS on it. The strapping system for these blankets is all positioned on the cold, outward pointing faces of the blankets when wrapped on the tank. The blankets will be designed so that there will be 2 blankets per 'ring'. Each blanket will have its own power cord, and all cords will be located together vertically.

In the case of a vertical tank with multiple layers or 'rings', in addition to the horizontally mounted straps, each ring will have vertically mounted straps to aid in supporting the blankets above/below it and resist sagging.

Pick which side of the tank from which you would like the electrical cords to exit. Also keep in mind any cutouts that be present to accommodate valves, nozzles, or other.

Measure each blanket to confirm width and length. When 2 blankets are connected to form a single ring, their total length will most likely be slightly more than the circumference of the tank. The blankets should be strapped so that the edges are close to each but do not overlap. This small opening along the bottom will allow moisture to drain out the bottom. Note, the cord edges of the blankets are away from each other and both cords point in the same direction.

Once you are sure of the dimensions of the blankets and their accumulated height on the tank, mark on the tank (with a large sharpie or other) where the top insulated blanket will be.

Be prepared to have 4 people/technicians on hand to assist in the installation of these blankets.

Start with the top insulated ring. Connect both halves of the ring and raise it as a single unit into position around the tank and bring it up to where the tank is marked. It will have straps that not only connect the 2 blankets together but will have long straps that will act as a cross-over set of suspenders over the top of the tank to hold the top ring in place. Secure the cross-over straps. The top ring will have straps hanging vertically in preparation of connecting to the ring below it.

Repeat the process with the next ring down (whether insulated only or heat) except there will be no cross over straps. Line up the vertical straps and secure as needed.

Repeat any subsequent ring aligning blankets as warranted and work your way down.

If you measured the blankets and the tank correctly, the bottom ring should come to the bottom of the tank and all/any cutouts should line up correctly. If you end up being a little short that is OK. If you end up with the bottom ring bunched up, it means that something was not measured correctly. Depending on how much it is bunched, it may be OK. If necessary, make alignment adjustments as necessary.

Depending on the local power distribution system and current capacity, the power cords can be run individually to a power source or into a common junction box that has the power/current capacity.

### **General notes on maintenance:**

**FOLDING INSTRUCTIONS** -When folding the blanket avoid creasing and crumpling. Fold lines should have an arch to prevent damage to the product

**TROUBLESHOOTING GUIDE** Note: Test only when the product is disconnected from the power source. - Check the product supply and extension cords to ensure that they are working properly. -Check the product for any damage. (For example, puncture holes, rips, cuts, tears, nails, staples, form spikes, or melted/deformed spots.) -Check the electrical resistance characteristics of the product using an ohmmeter. To do an ohmmeter test, follow these four steps.

1. Disconnect the plug of the product from the power supply.
2. Inspect the plug and cord for signs of damage. Do not use the product if it has a damaged plug or cord. If the plug and cord are not damaged, please continue with the troubleshooting.
3. Connect the ohmmeter to the blades of the plug on the blanket (see below). Compare the meter reading with that shown on the cord tag of the product. The reading should be within +/- 10% of the value on the cord tag. If it is lower by 10%, there may be excessive moisture within the blanket, or the heater may have been damaged. If it is higher by 10%, the product may have been damaged
4. There should be high electrical resistance from the ground post to either of the blades on the plug of your blanket. Connect the ohmmeter from the ground post to one of the blades (see below). Note the reading. Then, connect the ohmmeter from the ground post to the other blade on the plug. Both of these readings should be greater than 75,000 ohms (75 kΩ). The higher the better. A low reading indicates that the product was damaged.