



Drum Heater Freezer Test White Paper

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patented technology

The Ultimate Custom Heating Solution

Do you dread what might happen to your business

when the weather gets cold? Is your productivity up to the whims of Mother Nature? It's time to take control with Powerblanket® heaters. We have heaters to fit every need, and one of our most versatile is the drum heater.

Often, we're asked, "How quickly will your blankets heat my product?" This is a valid question, and the answer is: it depends. There are a lot of factors that affect heat up times, such as ambient temperature, exposure to wind, starting temperature of contents, and the surface where the product is sitting.

We set up this test to bring light to this question and to demonstrate the difference our drum heaters can make for you and your company.



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Purpose:

In order to explore the benefits that Powerblanket® heaters have on the contents of steel drums, one was equipped with a barrel heater and placed into a freezer for a period of 60 hours.

Setup:

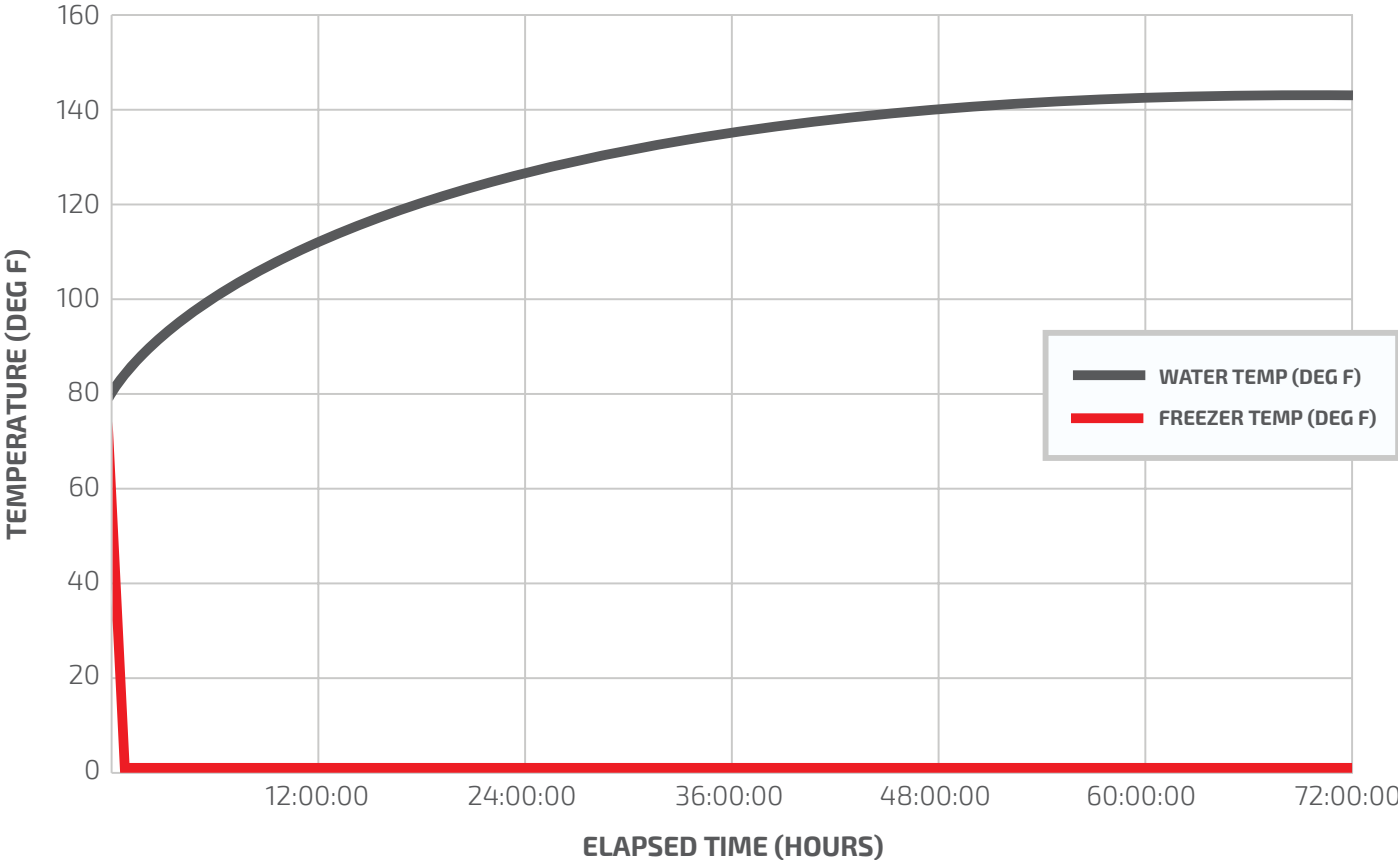
Researchers filled a 55-gallon steel drum with tap water, equipped it with a Powerblanket BH55-PRO barrel heater, and placed the drum into a freezer. Before entering the freezer, the ambient temperature of the water inside the drum was 75 degrees Fahrenheit. The barrel heater was then turned on and the freezer was set to 0 degrees.

Water temperature was sampled every 15 seconds from three different thermocouples along a centerline of the barrel. These were located at about 4, 16, and 26 inches from the water's surface. The freezer temperature was sampled every 15 seconds as well.

For the results, the water temperature measurements were averaged and those numbers are charted on the graph below. The freezer reached an average steady temperature of 1 degree Fahrenheit after about one hour.

Results:

Over the 60 hours that the experiment went on, the temperature of the water in the barrel rose from 75 degrees Fahrenheit to a maximum temperature of 146 degrees Fahrenheit.



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Implications and Conclusion:

Even when placed into an environment of 0 degrees Fahrenheit, the BH55-PRO barrel heater is capable of heating a 55 gallon steel drum of water to a temperature of 146 degrees Fahrenheit. With a Powerblanket® heater that is able to raise and maintain the temperature of the contents of a drum, your business will stay productive through the cold weather of the winter months.

Powerblanket heaters can help your business improve production and avoid losing profits on downtime due to cold weather. Don't let the elements get the best of you.

Contact Powerblanket to get started on a heating solution for your business.

CONTACT US

Our **Custom Heaters**
are perfect for any industry