# TEMPERATURE CONTROL



## 

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# WELCONE TO TOTAL TEMPERATURE CONTROL

The leader in total temperature control, Powerblanket® designs and manufactures high-technology smart controls and monitoring devices, heating blankets, and chilling products that solve a wide range of temperature problems. Industries such as oil and gas, construction, industrial, mining, and railroad rely on innovative Powerblanket technologies to control the temperature variable.

Choose Powerblanket for customized freeze protection; curing epoxy, composite materials, and concrete; process heating and cooling; and many other solutions. With Powerblanket, equipment lasts longer, projects stay on track, and fluids flow smoothly. Use Powerblanket year-round to prevent costly setbacks, increase productivity and achieve TOTAL TEMPERATURE CONTROL.

03 02 | POWERBLANKET.COM



ABOVE: Freeze protected Mud RIGHT: Dual voltage, freeze protected, truck mounted DEF tank



**RIGHT:** Railroad ground thawing blankets PAGE 3: Freeze protected oil tank



## **INDUSTRIES WE SERVE**

With Powerblanket, equipment lasts longer, projects stay on track, and fluids flow smoothly. Use Powerblanket technology year round to achieve total temperature control. Some of the various industries we serve include:

Oil/Gas

Railroad

Sprayfoam

Coatings

Chemical **Piping** 

Valves

Instrumentation •

Composites

Construction

Precast

Roofing Industrial

Manufacturing

Specialty Gases

Agriculture

Dairy Food Processing • Mining

Concrete

Public Works

Excavation

Water

Purification

Government &

DOD

Fertilizer

Brewing Fermentation

Welding

Diesel Exhaust

Fluid

Powerblanket® products are listed cETLus\*, they conform to ANSI/UL 499, and are certified to CAN/CSA C22.2 No. 130. Our hazardous location products meet the above standards as well as ISA12.12.01 and CSA C22.2 No. 213. Our hazardous location products are listed for use in Class I Division 2; Groups A, B, C, and D Hazardous Environments with a maximum Temperature Classification of T4. \*The Beacon Controller is not cETlus.



04 CUSTOM SOLUTIONS 05

## CUSTOM

Powerblanket engineers solve every kind of temperature problem from simple to very complex. Our expertise guarantees satisfied customers in a very short turnaround time.

### WE HAVE CREATED SOLUTIONS FOR

Frac tanks, Truck mounted propane tanks, 500 gallon gravity flow tanks, Pipes and manifolds, Valves and instrumentation, Hoppers, Wind blade epoxy curing . . . and many more















## **HIGHER HEAT**

#### **APPLICATIONS**

The Powerblanket 400 family of products offer consistent, regulated, safe, and evenly distributed heat for higher temperature applications. Powerblanket 400 comes in standard band heater sizes and is also the perfect solution in custom applications.

#### SAFE AND EFFICIENT

Powerblanket® 400 Band Heaters isolate the heat from the user and surroundings with an insulated exterior that is safe to touch. Traditional band heaters need between 600-1200 Watts to heat up products and materials. This is wastes electricity due to the large percentage of heat transferred directly into the air rather than to the product you are trying to heat. Because of the Powerblanket 400 Band Heater's insulation, it doesn't require as many watts to heat up products and materials and to maintain heat.

06 CUSTOM SOLUTIONS 07

I: Heated 5,000 gal pharmaceutical tanks 2: Freeze protected 500 gal reservoir steel tank 3: Custom PB400 pressure tank blanket 4: Heated 300 gal solvent steel tank on stand 5: Freeze protected frac tank









## TANK HEATERS

Powerblanket Tank Heaters maintain temperature, heat, provide freeze protection, or optimize flow for viscous and temperature sensitive materials.

### WHY CHOOSE POWERBLANKET TANK HEATERS?

- Maintain optimal temperatures for temperature sensitive materials
- Custom designed to fit any tank
- Provide ultimate freeze protection
- Available in 120, 208 or 240VAC
- Peace of mind that your valuable materials are protected

Diesel Exhaust Fluid (DEF)

## CUSTOM SOLUTIONS WHITES EQUIPMENT RENTAL



WASHINGTON, PA

#### WHITE'S EQUIPMENT RENTAL LLC FACED A

DILEMMA when the chilly Marcellus winters started causing problems with the Catch Tanks they use to capture fluids. Buck Binder, VP of Production and R&D lead, realized that the weather could cost the business thousands of dollars in rental fees, replacement costs, and even fines from the EPA, if the Catch Tanks were to freeze. He turned to Powerblanket for a custom solution. Powerblanket engineers designed a custom heating blanket that was fitted precisely to the Catch Tanks. By keeping the tanks warm during the cold weather, the risk that they would freeze was eliminated, and with that, so was the risk that they would cause a loss in revenue.

Powerblanket's custom heating solution provided White's Equipment with more than freeze protection. It provided both them and their clients with the benefits of sustainability, continuous production, and reduced or eliminated down time, not to mention peace of mind and the earned reputation of being a preferred energy services provider.



08 CUSTOM TANK CASE STUDY McADA 09

## CUSTOM TANK SOLUTIONS MCADA

TEXAS & COLORADO

IF YOU ARE IN THE OIL INDUSTRY. YOU KNOW THAT COLD WEATHER CAN AFFECT YOUR PRODUCTIVITY **AND PROFITS.** As a long-time leader in the industry, McAda Fluids Heating Services is an expert at heating the fluids needed for oil and gas well operations, including hydraulic fracturing, or "fracking." McAda offers the largest and most modern fleet of trucks, as well as the largest line of 35MM and 40MM BTU fluids heating units. The company provides the most efficient means for oil companies to heat fracking fluids. As a result, oil companies have taken notice; McAda works with many major and independent oil companies throughout North America.

Whether it's a "Heat on the Fly" job or a long-term, multi-well project, McAda is known for its reliability and problem-solving skills.

Even with a state of the art fleet, a solid knowledge of geology and



the logistics required at tight oil unconventional projects, winter weather posed a significant challenge to productivity and efficiency for the company's propane heating system.

McAda worked with Powerblanket® to create a line of customized propane tank heaters, specifically designed to fit the company's large, truck-mounted heating tanks. Using Powerblanket® heaters to target heat distribution on the tank, optimal tank pressure can be maintained consistently. "This was an ideal solution," said McAda.

tank pressure when the needle dropped below freezing." By using Powerblanket on its equipment, McAda was no longer forced to rely on tarps, space heaters, and other makeshift means to keep the propane fuel tank warm. "With the Powerblanket product, we can operate in the cold without any problems. It saves us time and headaches – and saves our clients a great deal of time and money." McAda

10 CUSTOM SOLUTIONS

#### **CUSTOM SOLUTIONS**

# VALVE & INSTRUMENTATION

#### HEATING

Weatherproof your business with Powerblanket pipe, valve, & instrumentation heaters.

These advanced heaters offer freeze protection for your entire pipe & manifold system. The simple design eliminates the need for expensive work crews to install or remove heat trace, insulation and cladding. Unlike heat trace, Powerblanket does not have inrush current issues.

## WHY CHOOSE POWERBLANKET PIPE AND VALVE HEATERS?

- Reduce downtime and increase profitability
- Eliminate need for alternative emergency services
- or steamers
- Protect instrumentation from freezing to ensure
- accurate data retrieval
- Sustain valve functionality
- Save on labor costs through easy installation and
- removal
- Custom designed to fit any application

RIGHT: CID2 freeze protected valve and actuator PAGE II: Heated Transmitter cover





**FAR LEFT:** Freeze Protected transmitter and valve **LEFT:** Freeze protected C1D2 valves **BELOW:** Dual voltage, truck mounted valve heaters





12 CUSTOM SOLUTIONS 13

# EPOXY & COMPOSITE CURING

The high watt density in Powerblanket Epoxy Curing Blankets enables you to cure and post cure epoxy resins at the high temperatures they require. This line of Powerblanket flat blankets has a higher watt density and hotter temperature than our concrete curing blankets, making them ideal for curing epoxy or other resins.

### WHY POWERBLANKET EPOXY CURING BLANKETS?

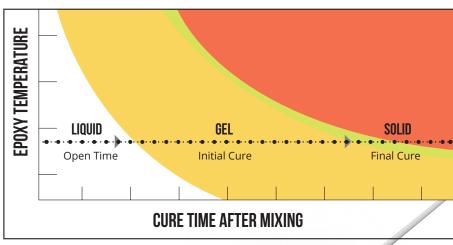
- High watt density cures epoxy effectively and economically
- Eliminates the need for costly curing ovens
- Allows for continuity and increased output
- Enables and enhances the durability and longevity of epoxy and other resins

Problems associated with improper temperature and/ or uneven temperature distribution for epoxy resins, include:

- Discoloration/Yellowing
- Color Variation
- Blushing
- Uneven Gloss
- Poor Inter-Coat Adhesion

When properly cured, epoxies become solid. With Powerblanket's patented heating technology, you don't have to worry about these common dilemmas any more. Powerblanket's barrel, drum, and bucket covers allow you to heat your epoxy storage to the ideal temperature in a very economical way.

#### **HOW EPOXY CURES**



As it cures, mixed epoxy changes from a liquid state, through a gel state, to a solid state.



14 EPOXY CURING CASE STUDY GOLD COAST YACHTS | 15

## SMOOTH SAILING GOLD COAST YACHTS

VIRGIN ISLANDS

ANY BUSINESS THAT DEALS WITH EPOXY CURING knows how time-consuming and expensive the process can be. In June of 2014, Gold Coast Yachts, manufacturer of high-end, carbon-fiber watercrafts, President, Richard A. Difede, grew increasingly concerned about the cost and time it took for their post-curing of large carbon-fiber joints on the yachts the company produced. The epoxy joints needed to cure at 145° F for an extended period of time, and the procedure Gold Coast used was time consuming and costly.

Gold Coast had to architect, build, and utilize large custom ovens for each section of yacht frame that needed high-temperature exposure. In other words, they were building a large shed around each and every frame. Workers used two-by-fours and sheet rock in order to create a sealed unit that could be pumped with heat. The process took a good deal of time and manpower, not to mention the extra costs for equipment.

Building the makeshift oven was only half the battle. Once the unit was completed, someone had to man the oven for the duration of the cure to regulate the temperature. They could not allow the temperature to fall below 145° F or climb too high above it, or the process would be compromised and take even longer to complete.

Even while pumping the constructed oven with ample heat, they were still having trouble penetrating through all the layers of carbon fiber. If the right amount of heat didn't penetrate through all layers, the cure wouldn't set completely. This long, costly, and inefficient process began to eat into the company's valuable time.

"When Richard contacted us, it was obvious that he needed something far less-expensive and time consuming than his present method," the Powerblanket sales rep said. "I discussed with him the details of our epoxy-curing blankets, and he was excited to try them out. What started with a two-foot-by-two-foot test blanket quickly snowballed into many more orders."

Difede and his team soon found that the Powerblanket curing solution worked exceptionally well and eliminated the need for the prebuilt ovens they had spent so much time building. With a thermostatic controller on each blanket, they could dial in the proper temperature and not worry about watching to make sure it stayed there. And with the Powerblanket patented technology, the right amount of heat distributed evenly through the entire application, increasing the speed of the cure by leaps and bounds.

After trying out the small demo blanket, Difede and his team purchased many more, and in multiple sizes. It wasn't long before they decided to take it one step further. After learning about Powerblanket custom heating solutions and the ability to manufacture custom blankets for just about any application, Difede purchased several custom-sized blankets for current and future projects.

"Powerblanket Extra Hot Curing Blankets have simplified the *post-curing process* for our composite parts. Quick and easy to use on a variety of different shaped parts, the Powerblanket heaters have significantly decreased our setup time and operating costs, saving several thousand dollars on our current carbon-fiber project. The Powerblanket team was responsive, and the blankets shipped quickly. I'm very glad we came across the amazing new technology." Richard A. Difede, President Gold Coast Yachts, Inc.

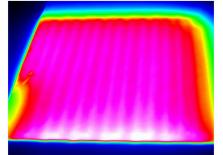


16 HEATING AND FREEZE PROTECTION

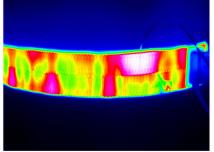
# PROTECTION

Powerblanket products can help you protect your critical assets against the threat of failure, downtime, and hazardous conditions.

- Save labor costs and downtime through easy installation, removal and reinstall
- Protect down to -40°F/-40°C
- Highly efficient and evenly-distributed heat
- Ability to meet CID2 hazardous location requirements
- Wind and water resistant
- · Ensure smooth operation
- Custom designed to fit your specific needs
- Certified to UL/CSA standards



Thermal imaging of Powerblanket's patented technology (measured within a range of 10 degrees.)



Uneven heating of conventional heating products.

## **INSULATED WEATHER RESISTANT** Retains Heat VINYL ENCLOSURE Can protect as low as -40°F /-40°C) (See Product Class for vinyl options) NYLON **STRAPS** AND METAL BUCKLE Easy installation and easy removal **EVEN HEATING** Patented heat spreading technology

19 18 | PRODUCT CLASS

## SELECT A PRODUCT CLASS TO FIT YOUR NEEDS

For a long time now, the Powerblanket product line has provided an economical solution to the many heating problems you and your business face. Our versatile blend of patented technologies provides portable and easy-to-use freeze protection, insulation, and heating. Now, in an effort to better serve the needs of an ever-growing customer base, Powerblanket offers three options in heating and freeze protection.



The Powerblanket product line is designed for any definitive heating job. Each product is built with a rugged vinyl shell that is safe to use in temperatures as low as -20°F (-29°C). You can be sure that Powerblanket products will keep your equipment warm when temperatures drop well below freezing.



The Powerblanket Lite line is designed for heating jobs on a smaller scale. These models feature a lower power density than Powerblanket or Powerblanket Xtreme products. Rest assured that these heaters are the real deal - they are more energy efficient and safer than other heating elements on the market. Keep your equipment and materials warm in bitter climates so that you don't lose any production time.

#### HAPPY CUSTOMERS

#### ★★★★★ Love this thing

#### By Shae on May 12, 2015

#### Verified Purchase

Love this thing!!! I use it to warm my soaping oils and it's marvelous. I have it wrapped around my buckets and at around \$100 it's way more cost effective than using the water heated tanks (which are like \$800). I will be buying more of these for my additional pails.



#### ★★★★★ Great When it's Cold Outside. By OtisPaul on March 11, 2016

#### Verified Purchase

We use propane cylinders for pest exterminating jobs and we learned the hard way, that when the temperature is low, the efficiency of the tanks decrease considerably. These keep the tanks warm maximizing propane output. Highly recommended.





The Powerblanket Xtreme line is designed for companies that work in more harsh climates. These heaters are built with a more durable and long lasting vinyl shell, making them safe to operate in temperatures as low as -40°F (-40°C). You can ensure these durable heating blankets will protect your equipment and help you maximize your yield through the cold weather.

20 DRUM AND BUCKET HEATERS READY TO SHIP 21

powerblanket

## DRUM & BUCKET

#### **HEATERS**

**DRUM HEATERS** are one of the most popular lines of Powerblanket products. The innovative design has changed the conventional method of heating materials. The design provides targeted and distributed heat to the surface of the drum, thus eliminating hot and cold spots.

**PRO SERIES:** Includes a thermostatic controller for optimal control which allows you to adjust temperatures from ambient up to 145°F / 63°C (± 5°F / 3°C).\*

**RR SERIES:** Utilizes the Rapid Ramp technology to quickly heat materials to a pre-set safe 100°F/38°C (± 10°F / 6°C).\*

#### POWERBLANKET DRUM HEATERS:

- Work on both steel and poly drums
- Provide an insulated, full-wrap design
- Deliver safe, distributed heat to temperature sensitive materials
- Preserve expensive materials without overheating or burning
- Prevent product waste by safely maintaining consistent temperatures

\*Product Temperatures may vary depending on boundary



#### READY TO SHIP

#### "SMART TECHNOLOGY"

- Three individual heat zones
- Heat when and where needed
- Automatically adjusts to varying fluid levels
- Highly efficient design to save energy and money



"Powerblanket barrel and bucket heaters are a drastic improvement over the original band heaters we used to offer. With Powerblanket products we no longer have to worry about overheating or unpredictable thermostats. Their GreenHeat Technology provides uniform heat throughout the entire barrel of product which is paramount to what we do. Powerblanket products are very durable, look great, and are the only heaters we will offer our customers."

-Mike Roberts, Manager Howard Marten Fluid Technologies

STANDARD SIZES include 55 gallon, 30 gallon,15 gallon drums and 5 gallon buckets. See Page 48 for specifications. Other models, sizes and custom drums available upon request.

22 TOTE AND DEF TOTE HEATERS READY TO SHIP 23

## TOTE & DEF TOTE

#### **HEATERS**

Powerblanket *Tote Heaters* maintain optimal heating conditions for temperature sensitive materials.

#### **HERE'S HOW**

- Distribute heat evenly around the tote
- Designed to be durable and weather resistant
- Provide easy access with a removable top
- Include an adjustable thermostatic controller
- Safely heat and protect a wide variety of chemicals and materials

Powerblanket DEF Tote Heaters are temperature specific for the Diesel Exhaust Fluid to protect from freezing and maintain optimal temperatures.

- Fully enclose and heat the tote and pump housing unit
- 330 gallon version features an easy to access flap to the pump
- Include internal thermostat to carefully regulate product temperature
- Customized DEF bulk storage tanks available upon request



"Upon the implementation of using ournew DEF system to stay compliant with EPA regulations, Powerblanket provided an effective and energy efficient freeze protection system with its DEF Tote Heater System. We installed the unit and forgot about it, knowing our product is being protected, which gives us peace of mind." — Jerri Brumfield STANDARD SIZES fit the IBC 275 gallon (1,040 liter), 330 gallon (1,249 liter), 350 gallon (1,325 liter) totes. See page 48 for specifications. Other models, sizes and custom totes available upon request. 330 GALLON TOTE HEATER

24 GAS CYLINDER HEATERS READY TO SHIP 25

**GAS CYLINDER** 

#### **HEATERS**

Powerblanket has the best gas cylinder heaters on the market. Our heating blankets will overcome the effects of cold weather and maintain pressure and efficiency on any gas cylinder.

### WHY CHOOSE POWERBLANKET?

- Increase performance and efficiency of gas cylinders
- Save money by optimizing gas and material usage
- Eliminate unnecessary cylinder refills in cold weather
- Insulated full-wrap design
- UL/CSA safety certifications

A large US railroad company that uses these heaters is able to keep snow off the tracks by applying the Powerblanket Gas Cylinder Warmers to their 1000 lb propane tanks which power their generators along the railway system. Before using the Powerblanket heaters, the cold temperatures kept the propane from vaporizing, which meant there was not enough pressure in the tank to run the generators.

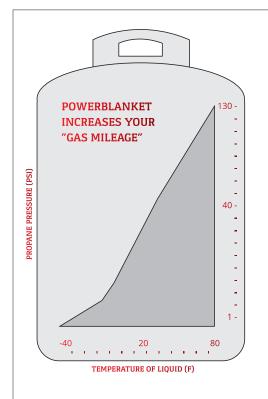






STANDARD SIZES include 20 lb, 30 lb, 40 lb, 100 lb, 420 lb, 500 gallon, and 1000 gallon tanks. See page 50 for specifications. For high volume or hazardous location applications, contact Powerblanket to quote a custom design.

420LB PROPANE / 14.5"D X 48"H GAS CYLINDER HEATER





26 PROPANE CASE STUDY EDURAPLAS | 27

# AGRICULTURAL SOLUTIONS ENDURAPLAS

USA

ENDURAPLAS IS A PLASTICS
MANUFACTURING COMPANY THAT
PRODUCES SOLUTIONS FOR THE
AGRICULTURAL INDUSTRY, From

large water tanks to fueling capsules, Enduraplas offers a wide range of liquid storage and transfer units, and all of it requires the use of a lot of propane, stored in propane tanks that need to maintain a specific pressure. Despite the technology they had behind their manufacturing process, their propane tanks were still losing pressure in cold weather, and they needed a solution.

Propane plays a vital role in Enduraplas' manufacturing process, making their large propane tanks an invaluable asset. In fact, Enduraplas uses enough propane that they need to pigtail two or more tanks together in order to make one large tank, eliminating the necessity to switch connections from an empty tank to a full one. However, this system caused a problem with maintaining the pressure in the tanks, especially when cold weather set in.

"We found that we were losing significant pressure in our tanks when the temperature dropped below freezing" said Enduraplas' manufacturing manager.

"The pressure in the tanks fell low enough that the pigtail application stopped working altogether."

Tank pressure can be drastically affected by cold temperatures, due to the nature of cold weather and molecular density, a simple matter of physics. When temperatures drop, so does the pressure a fluid or gas

can maintain, since the molecules move closer together. Keeping a tank at a temperature to maintain the proper pressure may seem next to impossible, especially since most propane is stored outside even during the winter months.

Thankfully, with the help of Powerblanket, it was not impossible. With Powerblanket's propane heating blankets, Enduraplas delivered an even and consistent distribution of heat to their propane tanks during the coldest of days. The tanks remained at

the ideal temperature for maintaining pressure regardless of big drops in temperature.

"Powerblanket's propane heaters worked so well that we actually only ended up having to wrap one tank per pigtail," their manager remembers. "The blankets maintained a high enough pressure that the propane transferred to the next tank without any problem."



28 | HOT BOXES READY TO SHIP | 29

## **HOT** BOXES

Powerblanket Hot Boxes efficiently heat temperature sensitive materials. Hot Boxes can heat paints, roofing materials, chemicals, epoxies, resins, equipment, and pallets of any material.

#### WHY CHOOSE POWERBLANKET?

- Preserve temperature sensitive materials
- Quickly and effortlessly install the compact portable design
- Localize heat and save money by not heating a warehouse or building
- Lower energy-related costs with the highly efficient design

## HOT BOX SUCCESS

## QUICK ROAD REPAIR

ALASKA

VERN FIEHLER, OF QUICK ROAD REPAIR IN ALASKA, SAVES MONEY by keeping his product from overheating, which is what happened with his previous method of heating. Vern was meeting with the field maintenance crew of the Juneau Alaska International Airport to demonstrate his product, Instant Road Repair (IRR). For his demonstration, he tried to bring the IRR up to a workable temperature by using a forced air ceramic heater. During his presentation the product was not performing well and to his surprise, he discovered that his product overheated 40°F / 22°C above the maximum recommended temperature. That not only cost him the entire pallet of material but he was also embarrassed. Since then, Vern uses the Powerblanket Hot Box.

\*Heat circulation results can vary. For more precise temperature control a

POWErblanker.

Print Mining.



- Great solution for palletized products: paint, caulk, resins and epoxies, etc.
- Two side access doors on opposite sides
- Certified to UL/CSA standards
- A durable, vinyl shell

#### POWERBLANKET HOTBOX

All the features of the Powerblanket Lite Hot Box, plus:

 Higher wattage (1200 Watts) for faster heating times & more extreme conditions

#### PREMIUM HOTBOX

The Premium Hot Box provides all the features of the Powerblanket model but also offers:

- A larger footprint (Fits 48" x 48" pallet)
- An internal steel frame
- The highest wattage (1440 Watts)
- A controller for precise temperature regulation

30 GROUND THAWING BLANKETS READY TO SHIP 31

## **GROUND THAWING**

#### **BLANKETS**

The high watt density in Powerblanket Ground Thawing Blankets helps tackle the difficulty of thawing ground in harsh climates.

#### WHY CHOOSE POWERBLANKET **GROUND THAWING BLANKETS?**

- High watt density thaws frozen ground
- Quickly remove frost prior to concrete pour
- Melt snow and ice from roofs, walkways, and construction areas
- Easily installed and removed
- Provides higher heat control when combined with a thermostatic controller
- Saves time, money, and labor

#### **TIME SAVED**

"Your blankets are absolutely excellent. Thanks to the Powerblankets® we were able to quickly thaw the ground and complete our job. In fact, we estimate a savings of 10 hours per site equaling a savings of \$5,000 already.

Calculating this to our thousands of sites, the savings is huge! We are excited about the time and money Powerblanket has saved us and look forward to future savings."

—Kim Herman OSP/COEI Operations Manager **Precision Utilities Group** 







#### **MONEY SAVED**

Walsh Construction saved more than \$5.43 for every \$1.00 spent on Powerblanket® heating blankets during a wintertime cold weather concrete job. They calculated this based on cost of labor and materials to build and move heated enclosures along two-and-one-half miles of a concrete canal wall built for the Illinois Waterway.



2x2', 3x4', 3x10', 3x25', 5x9'. See page 50 for specifications





## **CONCRETE CURING**

#### BLANKETS

Powerblanket Concrete Curing blankets provide a manageable way to cure concrete effectively and confidently in the cold weather months. Even in warm weather, Powerblanket Curing Blankets increase production by rapidly curing with consistent, even heat. Year round applications include: precast, concrete countertops, and decorative concrete.

#### WHY CHOOSE POWERBLANKET CONCRETE **CURING BLANKETS?**

- Cure concrete 2.8 times faster than conventional. insulated blankets
- Produce cold weather concreting strength of up to 3,925 psi in 72 hours
- Maintain moisture throughout hydrating process
- Easily installed and removed
- Prevent a freeze cycle
- Thaw ground and frost from job site prior to
- Reduce downtime & increase profitability
- Maintain ACI compliance for cold weather concreting

"We didn't have the time to wait out the winter for the temperatures to become more moderate. The Powerblanket heating blankets certainly played an important role in keeping us on schedule and not having to postpone the pour on an important Kansas City bridge."

—Dale Helming, Project Manager Massman Construction

**STANDARD SIZES** 10' x 20', 10' x 10', 5' x 20', 5' x 10', 3' x 20' 3'x 10', 3' x 4'. See page 50 for specifications.





Reilly Construction of Wrightstown, NI won a bid from the U. S. Department of the Interior, National Parks to replace the roof of The Great Hall Statue of Liberty National Monument. The Great Hall, which now houses the Ellis Island Immigration Museum, is considered one of the most symbolically important structures in American history. Reilly needed extra heat in the form of curing blankets to cure the masonry block work at the proper temperature (~50°F/~10°C) during December in New York and with the added chill of the water. Reilly used five Powerblanket MD0520 concrete curing blankets for the application and appreciated the increased temperature control.

READY TO SHIP | 33



34 | PIPE HEATERS BEE BLANKET | 35

## **PIPE**HEATERS

Weatherproof your business with Powerblanket pipe heaters.

These advanced heaters offer freeze protection for your entire pipe & manifold system. The simple design eliminates the need for expensive work crews to install or remove heat trace, insulation and cladding. Unlike heat trace, Powerblanket does not have inrush current issues.

#### WHY CHOOSE POWERBLANKET PIPE HEATERS?

- Reduce downtime and increase profitability
- Eliminate need for alternative emergency services or steamers
- Protect instrumentation from freezing to ensure accurate data retrieval
- Sustain valve functionality
- Save on labor costs through easy installation and removal
- Standard sizes plus custom designs to fit any application





See page 52 for specifications.



## **HONEY**PRODUCTS

Powerblanket honey products will ease all of the stress that comes with keeping your honey flowing.

### THE BEE BLANKET AND BEEBOX

The Powerblanket Bee Blanket heating solution will maintain the same temperature as a hive. With low-level internal thermostats, you can apply the Bee Blanket and leave it be. There's no need to worry about overheating your honey, because the Bee Blanket will never get too hot.

With this insulated vinyl heat blanket, you can heat your honey to the ideal temperature and maintain the viscosity required for bottling and managing honey stores.

### WHY CHOOSE THESE HONEY PRODUCTS?

- Cinch straps to secure tight fit
- Blanket temperature goes from ambient to 90°-110°F
- One heat zone
- Highly efficient design saves time and energy
- Water-resistant
- Works on both poly and steel buckets/pails
- Prevent overheating your honey and help minimize crystallization
- Keeps your honey at hive temperatures so you don't lose nutrients
- All models are certified by ETL to UL & CSA safety standards

See page 54 for specifications.





36 SUMMERSTEP READY TO SHIP 37

**SUMMERSTEP** 

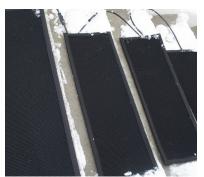
INDUSTRIAL SNOW MELTING MATS

SummerStep™ outdoor heated mats keep stairs, doorways, ramps, walkways and alleyways safe and secure from slip and fall accidents. SummerStep heated mats prevent hazards created by icy winter weather.

#### WHY CHOOSE SUMMERSTEP?

- Save time and money
- Keep walkways clear of ice and snow for your safety
- Environmentally safe, requires no chemicals
- Durable and long-lasting
- More convenient than shoveling snow
- Peace of mind warranty
- Reliable. Even in the worst conditions, SummerStep keeps the path clear
- Ready to ship sizes for doorways, stairs, and walkways
- The ONLY snow melting mat made in the USA

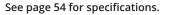
Removing ice and snow regularly to prevent slipping on ice can be a full-time job depending on the weather. To save time, energy, and your employees' health, use Summerstep heated safety mats to keep the walkways on your site clear and avoid snow shoveling.















38 HEATING AND FREEZE PROTECTION 39

# POWERBLANKET

Powerblanket has led the industry in heating solutions for a myriad of applications. Now, Powerblanket offers innovative cooling systems alongside the patented heat-transfer technology that has kept customers' assets safe for years. With the new Powerblanket ICE cooling blankets, you can efficiently regulate temperature-sensitive material under any condition. Powerblanket ICE works especially well for the fermentation, spray foam, motor, and biomedical industries, including tank cooling, drum cooling, and many other applications. Keeping your critical equipment and materials cool under hot temperatures has never been so easy.

#### | 210D NYLON

Conforms to any surface to ensure maximum thermal conductivity

#### MULTI-CHANNEL FLUID PATH

Maximum flow and minimal pressure drop

#### ELASTIC STRAP DESIGN

Easy installation — and removal



SOLUTIONS

GENERAL

FI FCTRIC

MEXICO PLANT



GE found Powerblanket through a third party distributor to seek a cooling solution for a plant in Mexico. They had 55 gallon drums of varnish, epoxy, and resins and were losing up to eight barrels (valued at \$5,000.00 each) each week. The ambient conditions of roughly 125°F caused the material in the drum to cure while still in the barrel. Powerblanket supplied six chillers and six circulation blankets to stage on production line to eliminate loss.

40 NORTH SLOPE CHILLERS READY TO SHIP 41

## **NORTH SLOPE**

#### CHILLERS.

North Slope<sup>™</sup> fluid chiller offers precise temperature control, down to 20°F. These small chillers are equipped with a continuous duty, non-ferrous pump and boasts the most advanced active refrigeration circuit available. The high quality compressor is the magic behind the chiller's efficiency and reliability. Liquid line sight glass allows for easy assessment of fluid levels.

#### WORKS WITH POWERBLANKET ICE CIRCULATION **BLANKET**

Draw heat away from the container and lower the temperature of the contents within. When you combine the North Slope small chiller with the Powerblanket ICE Circulation Blanket, you can maintain temperatures as low as 20°F/-7°C. This combination is ideal for process cooling applications while also being small and portable.

#### NORTH SLOPE CHILLERS STANDOUT FEATURES

- Rated at ambient temperatures from 35°F to 100°
- Hermetically sealed compressor & Non-ferrous pipingsystem
- Continuous duty, non-ferrous pump, 4 GPM at 50 PSI (other pumps available)
- Submersed copper coil evaporator
- Stainless steel tank with fully welded stainless steel couplers (12 gallon capacity)
- Environmentally acceptable R134a refrigerant
- Comes standard with a twist-lock plug
- Mounted on casters (feet option available)
- Cooling capacity up to 12,000 BTU's/h
- Powder-coated steel or stainless steel cabinet
- Available voltages: 120VAC & 240VAC









**STANDARD SIZES: 1/4 TON, 1/3 TON, 1/2** TON, 1 TON, 1-1/2 TON, 2 TON, 3 TON, 5 TON, 7-1/2 TON, 10 TON, 12 TON, 13 TON, 14 TON, 15 TON See page 58 for specifications.



42 COOLING BLANKETS AND CHILLERS READY TO SHIP | 43

## INDUSTRIAL COOLING **SYSTEMS**

Optimize performance when the heat is high with Powerblanket Ice.

#### WHY CHOOSE POWERBLANKET® ICE?

- Ready-to-ship industrial cooling / process cooling products are available for 15, 30, & 55-gallon drums, and for 5-gallon buckets
- Custom systems can be designed for a large variety of industrial cooling applications, and shipped within 3 weeks
- Blankets and jackets use Powerblanket's patented heatspreading technology in reverse to draw heat to the blanket and cool the contents of the container
- Blanket cover and insulation are the same as the robust system used in the Powerblanket heating products
- Powerblanket Ice industrial cooling systems are portable (120VAC required)
- Control the temperature of your equipment or bulk materials
- When materials are delivered too hot. waiting for the material to cool can mean lost hours/days
- Blankets and jackets can be left installed and running while bulk material containers are in use



#### ICE PACK COOLING PRODUCT

#### ICE PACK BLANKET

- Lower cost option
- Ice packs included (Replacements readily available)
- Portable
- Temperature can be controlled by ice pack count



#### STANDARD SIZES

include 5 gal. buckets, and 15, gal, 30 gal, and 55 gal. drums. See page 50 for specifications.

#### **COOLER PRODUCT**

#### COOLER+CIRCULATION JACKET

- 32°F min temp Lower temps with use of salt or other freeze point modifiers
- 40 lbs of ice can maintain 55F for 9-10 hrs in 100+ degree F ambient temperatures
- Use with or without controller (Controls circulation only)







- Industrial cooling 20°F min temp
- Precise temp control
- Can run 2, 55-gallon drum blankets
- Perfect for process cooling and other industrial cooling applications

#### CIRCULATION JACKET STANDARD SIZES

include 5 gal. buckets, and 15 gal, gal, 30 gal, and 55 gal. drums. See page 56 for specifications.



44 | TEMPERATURE CONTROLLERS | 45

# TEMPERATURE CONTROLLERS

Custom Control. Whether you are heating or cooling, some applications require a high level of precision and control. Powerblanket options that enhance our heating and cooling products to achieve the exact performance you need. It's time for real-time total temperature control.

## PLC PROGAMMABLE LOGIC CONTROLLERS

Custom Control. Whether you are heating or cooling, some applications require a high level of precision and control. Powerblanket has the expertise to design and build PLC (programmable logic controller) based control systems to complement and enhance our heating and cooling products to achieve the exact performance you need.

Powerblanket custom control systems are scalable, so there is no upper limit to the number of temperatures or other parameters monitored and used for control. Any heating or cooling blanket can be switched based on various temperatures (i.e. pipe surfaces, tank contents, blanket surfaces). Powerblanket can help you define and execute the control algorithm that will make your system run at peak performance.

#### POWERBLANKET CUSTOM CONTROLS STANDOUT FEATURES:

- Systems can be setup for remote monitoring and control
- Receive alerts when parameters drift outside of parameters you set
- Log data for record keeping or analysis: temperature, relay state (i.e. blanket on or off), current, voltage, pressure, etc.
- Alarms can be triggered and alerts sent when user defined conditions are met (power failure, temperature outside of specified limits, etc.)
- Ability to ramp up to a temperature at a specified rate or dwell at a specified temperature and then switch off after a dwell period



46 | TEMPERATURE CONTROLLERS BEACON | 47

### BEACON SMART TEMPERATURE CONTROLLER

beacon

In today's connected world the "Internet of Things" (IoT) allows you to see who is at your front door from your desk at work, turn your lights on and off from your smartphone or get an alert when your garage door is left open, among many other things.

Now the IoT revolution has arrived at Powerblanket. Powerblanket

has teamed with Beacon Controls to develop a connected temperature controller. This new, smart controller allows you to monitor and control Powerblanket products (or any other device that would benefit from temperature control) from your smartphone or computer. More importantly it allows you to receive text, email or push notifications when the temperature goes outside limits that you specify, so you can set the temperature and walk away with complete peace of mind.

## BENEFITS OF BEACON SMART CONTROLLER:

- Compatibility with a wide variety of heating or cooling devices
- Change settings locally or connect remotely through Wi-Fi or Cellular networks, so you can keep your operation running smoothly wherever you are.
- Alerts based on temperature, electrical current, and voltage give you complete peace of mind
- Create multiple users with varying levels of access and control for added security.
- 120/208/240V AC options, switch up to 24 amps

#### **SMART CONTROLLER COMPARISONS**

			JOHNSON CONTROLS	
	Beacon TC	A419	A421	Ranco ETC
HARDWARE				
Heating and cooling modes	•	•	•	•
Adjustable control temperature and range	•	•	•	•
Option for Fahrenheit or Celsius tem- perature units	•	•	•	•
120/208/240 VAC	•	•	•	•
Max switched load	24A@120VAC, 24A@240VAC	15A@120VAC, 10A@208/240VAC	15A@120VAC, 10A@208/240VAC	15A@120VAC, 8A@208/240VAC
Adjustable short cycle delay for refrigera- tion applications	•	•	•	
NEMA 4x watertight and corrosion resistant enclosure	•	•	•	
Backlit LCD display	•		•	
Temperature offset (setback) by external device	•	•	•	
Ambient temperature probe for additional control	•			

#### REMOTE MONITORING AND CONTROL

View current state remotely through mobile app or web portal

Adjust settings remotely through mobile app or web portal

Receive alerts and notifications based on user defined thresholds

Advanced scheduling and programming functionality

Display location of each device on a map in mobile app or web portal

#### **LOG AND ACCESS DATA**

Export data to spreadsheet

Control and ambient temperatures

Electrical current and voltage

Duty cycle, energy usage, and operating cost

#### **SECURITY FEATURES**

PIN numbers

Assign multiple users with varying permission levels

Uniquely identify who changed settings

•

Lock local access without opening enclosure or switching jumpers

Secure local access with user specific

#### TECHNICAL SPECIFICATIONS

TEGINICAL SPECIFICATIONS									
SETPOINT RANGE	-40 to 212°F (-40 to 100°C)								
DIFFERENTIAL RANGE	1 to 30°F (1 to 30°C)								
INPUT VOLTAGE	110 to 250 VAC, 60 Hz								
OUTPUT RELAY CONTACTS ELECTRICAL RATINGS	24 A maximum								
SENSOR TYPE									
CONTROL	Waterproof DS18B20, 9.8 foot (3 m) lead length								
AMBIENT	Waterproof DS18B20, 9.8 foot (3 m) lead length								
ENCLOSURE	NEMA 4X - Watertight								

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Product Category	Model #	Temperature Control	Approximate Product Temp*	Container Volume	Container Dimensions	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/ Mass
BUCKET	BH05RR	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	5 Gal / 19 L	11.8"D x 15.6"H/ 30 cm D x 40 cm H	15 AMP Plug	120V	120W	1.00A	4 lbs / 2 kg
HEATERS	BH05PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	5 Gal / 19 L	11.8″D x 15.6″H/ 30 cm D x 40 cm H	15 AMP Plug	120V	160W	1.33A	6 lbs / 3 kg
	BH15RR	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	15 Gal / 57 L	14.5"D x 26.3"H/ 37 cm D x 67 cm H	15 AMP Plug	120V	320W	2.67A	7 lbs / 3 kg
	BH15PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	15 Gal / 57 L	14.5"D x 26.3"H/ 37 cm D x 67 cm H	15 AMP Plug	120V	400W	3.33A	9 lbs / 4 kg
	BH30RR	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	30 Gal / 114 L	20"D x 29.5"H/ 51 cm D x 75 cm H	15 AMP Plug	120V	560W	4.67A	9 lbs / 4 kg
DRUM HEATERS	BH30PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	30 Gal / 114 L	20"D x 29.5"H/ 51 cm D x 75 cm H	15 AMP Plug	120V	720W	6.00A	11 lbs / 5 kg
HEATERS	BH55RR-80	Internal Preset	80° F (± 10° F) / 27° C (± 5° C)	55 Gal / 208 L	23.3"D x 34.9"H/ 59 cm D x 89 cm H	15 AMP Plug	120V	800W	6.67A	11 lbs / 5 kg
	BH55RR-100	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	55 Gal / 208 L	23.3"D x 34.9"H/ 59 cm D x 89 cm H	15 AMP Plug	120V	800W	6.67A	11 lbs / 5 kg
	BH55RR-120	Internal Preset	120° F (± 10° F) / 49° C (± 5° C)	55 Gal / 208 L	23.3"D x 34.9"H/ 59 cm D x 89 cm H	15 AMP Plug	120V	800W	6.67A	11 lbs / 5 kg
	BH55PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	55 Gal / 208 L	23.3"D x 34.9"H/ 59 cm D x 89 cm H	15 AMP Plug	120V	800W	6.67A	13 lbs / 6 kg
	HB48-1200	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	N/A	48″L x 36″W x 48″H	15 AMP Plug	120V	1200W	10.00A	50 lbs / 22.5 kg
HOT BOXES	HB54-1200	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	N/A	48″L x 40″W x 48″H	15 AMP Plug	120V	1200W	10.00A	50 lbs / 22.5 kg
	HB64PRO-1440	Programmable Digital Controller	100° F (± 10° F) / 38° C (± 5° C)	N/A	48″L x 48″W x 48″H	15 AMP Plug	120V	1440W	12.00A	75 lbs / 34 kg
Product Category	Model #	Temperature Control	Approximate Product Temp*	Container Volume	Container Dimensions	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/ Mass
	TH250	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	250 Gallon / 950 L	48″L x 42″W x 35″H	15 AMP Plug	120V	1033W	8.60A	39 lbs / 18 kg
	TH250-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	250 Gallon / 950 L	48″L x 42″W x 35″H	15 AMP Plug	240V	1650W	6.80A	39 lbs / 18 kg
IBC TOTE	TH275	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	275 Gallon / 1040 L	48″L x 40″W x 46″H	15 AMP Plug	120V	1440W	12.00A	41 lbs / 19 kg
HEATERS	TH275-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	275 Gallon / 1000 L	48″L x 40″W x 46″H	15 AMP Plug	240V	2400W	10.00A	41 lbs / 19 kg
	TH330	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	330 Gallon / 1250 L	48″L x 40″W x 53″H	15 AMP Plug	120V	1440W	12.00A	45 lbs / 20 kg
	TH330-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	330 Gallon / 1250 L	48″L x 40″W x 53″H	15 AMP Plug	240V	2400W	10.00A	45 lbs / 20 kg
	TH350	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	350 Gallon / 1325 L	48″L x 42″W x 47″H	15 AMP Plug	120V	1440W	12.00A	47 lbs / 21 kg
	TH350-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	350 Gallon / 1325 L	48″L x 42″W x 47″H	15 AMP Plug	240V	2400W	10.00A	47 lbs / 21 kg
	TH450	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	450 Gallon / 1325 L	48″L x 42″W x 59″H	15 AMP Plug	120V	1440W	12.00A	50 lbs / 23 kg
	TH450-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	450 Gallon / 1325 L	48″L x 42″W x 59″H	15 AMP Plug	240V	2400W	10.00A	50 lbs / 23 kg
	TH550	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	550 Gallon / 1325 L	48″L x 42″W x 71″H	15 AMP Plug	120V	1440W	12.00A	53 lbs / 24 kg
	TH550-240V	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	550 Gallon / 1325 L	48″L x 42″W x 71″H	15 AMP Plug	240V	2400W	10.00A	53 lbs / 24 kg
DEF TOTE	TH275D	Internal Preset	70° F (± 10° F) / 21° C (± 5° C)	275 Gallon / 1000 L	48″L x 40″W x 46″H	15 AMP Plug	120V	1440W	12.00A	100 lbs / 45 kg
HEATERS	TH330D	Internal Preset	70° F (± 10° F) / 21° C (± 5° C)	330 Gallon / 1250 L	48″L x 40″W x 53″H	15 AMP Plug	120V	1440W	12.00A	105 lbs / 48 kg



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Product Category	Model #	Temperature Control	Heated Dimensions	Finished Dimensions	Heated Area	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/ Mass
	EH0509	Internal Preset	5' x 9' / 1.52m x 2.7m	6' x 10' / 1.83m x 3.0m	45 sq ft / 4.2 sq m	20 AMP Plug	120V	1650W	13.8A	25 lbs / 11 kg
GROUND THAWING	EH0325	Internal Preset	3'x 25'/ 0.91m x 7.6m	4' x 26' / 1.22m x 7.9m	75 sq ft / 7.0 sq m	30 AMP Plug, L5-30P	120V	2750W	22.9A	38 lbs / 17 kg
BLANKETS	EH0310	Internal Preset	3'x 10'/0.91m x 3.0m	4' x 11' / 1.22m x 3.4m	30 sq ft / 2.8 sq m	15 AMP Plug	120V	1100W	9.17A	15 lbs / 7 kg
	EH0304	Internal Preset	3'x 4'/ 0.91m x 1.22m	4' x 5' / 1.22m x 1.52m	12 sq ft / 1.11 sq m	15 AMP Plug	120V	400W	3.33A	6 lbs / 3 kg
	EH0202	Internal Preset	1.85' x 1.85' /0.57m x 0.57m	2' x 2' /0.61m x 0.61m	3.4 sq ft / 0.32 sq m	15 AMP Plug	120V	95W	0.79A	3 lbs / 1.5 kg
	MD1020	Internal Preset	10' x 20' / 3.0m x 6.1m	12' x 22' / 3.7m x 6.7m	200 sq ft / 18.6 sq m	30 AMP Plug, L5-30P	120V	2400W	20A	100 lbs / 45 kg
CONCRETE	MD1010	Internal Preset	10' x 10' / 3.0m x 3.0m	12' x 12' / 3.6m x 3.6m	100 sq ft / 9.3 sq m	15 AMP Plug	120V	1440W	12A	50 lbs / 23 kg
CURING	MD0520	Internal Preset	5'x 20' / 1.52m x 6.1m	6' x 21' / 1.83m x 6.4m	100 sq ft / 9.3 sq m	15 AMP Plug	120V	1440W	12A	50 lbs / 23 kg
BLANKETS	MD0510	Internal Preset	5'x 10' / 1.52m x 3.0m	6' x 11' / 1.83m x 3.4m	50 sq ft / 4.6 sq m	15 AMP Plug	120V	720W	6A	25 lbs / 11 kg
	MD0320	Internal Preset	3'x 20' / 0.91m x 6.1m	4' x 21' / 1.22m x 6.4m	60 sq ft / 5.6 sq m	15 AMP Plug	120V	960W	8A	30 lbs / 14 kg
	MD0310	Internal Preset	3'x 10' / 0.91m x 3.0m	4' x 11' / 1.22m x 3.4m	30 sq ft / 2.8 sq m	15 AMP Plug	120V	480W	4A	15 lbs / 7 kg
	MD0304	Internal Preset	3'x 4'/0.91m x 1.22m	4' x 5' / 1.22m x 1.52m	12 sq ft / 1.11 sq m	15 AMP Plug	120V	240W	2A	6 lbs / 3 kg
Product Category	Model #	Temperature Control	Approximate Product Temp*	Container Volume	Container Dimensions	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/ Mass
FOAM BOX	FBW600	Internal Preset	110° F (± 10° F) / 43° C (± 5° C)	600 board foot box	Single Cylinder	15 AMP Plug	120V	280W	2.33A	8 lbs / 4 kg
HEATERS	FBW200	Internal Preset	110° F (± 10° F) / 43° C (± 5° C)	200 board foot box	Disposable Box	15 AMP Plug	120V	280W	2.33A	8 lbs / 4 kg
	FCW600	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	600 board foot cylinder	12" D x 15" H / 30cm x 38cm	15 AMP Plug	120V	95W	0.79A	4 lbs / 2 kg
FOAM	FCW17	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	17 Gallon Cylinder	15" D x 27" H / 38cm x 69cm	15 AMP Plug	120V	400W	3.33A	6 lbs / 3 kg
CYLINDER	FCW60	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	60 Gallon Cylinder	24" D x 34" H / 61cm x 86cm	15 AMP Plug	120V	550W	4.58A	8 lbs / 4 kg
HEATERS	FCW27	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	27 Gallon Cylinder	15" D x 44" H / 38cm x 112cm	15 AMP Plug	120V	720W	6.00A	12 lbs / 5.5 kg
	FCW15H	N/A	N/A	Insulated Hood 17/27 gal. cylinder	Insulated Hood 17/27 gal. cylinder	N/A	N/A	N/A	N/A	2 lbs / 1 kg
	GCW20	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	20 lb Tank	12.2" D x 18" H / 31cm x 46cm	15 AMP Plug	120V	120W	1.00A	4 lbs / 2 kg
	GCW30	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	30 lb Tank	12.2" D x 24" H / 31cm x 61cm	15 AMP Plug	120V	160W	1.33A	6 lbs / 3 kg
GAS CYLINDER	GCW40	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	40 lb Tank	12.2" D x 29" H / 31cm x 74cm	15 AMP Plug	120V	280W	2.33A	8 lbs / 4 kg
HEATERS	GCW100	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	100 lb Tank	15.1" D x 48" H / 38cm x 122cm	15 AMP Plug	120V	560W	4.67A	12 lbs / 5.5 kg
	GCW420	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	420 lb Tank	30" D x 52" H / 76cm x 132cm	15 AMP Plug	120V	960W	8.00A	18 lbs / 8 kg
	GCW500	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	500 Gallon Tank	Various Tanks	2 - 15 AMP Plugs	120V	1600W	13.33A	40 lbs / 18 kg
	GCW1K	Internal Preset	90° F (± 10° F) / 32°C (±5° C)	1000 Gallon tank	41" D x 192" L / 104cm x 488cm	2 - 15 AMP Plugs	120V	2880W	24.00A	50 lbs / 23 kg



**SPECIFICATIONS** 



Product Category	Model #	Temperature Control	Maximum Product Temp*	Nominal Pipe Diameter	Blanket Length	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approx	imate Weight/ Mass	
	PH040505	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	4-5" / 10-13 cm	5′ / 1.52 m	15 AMP Plug	120V	320W	2.67A		5 lbs / 3 kg	
	PH040510	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	4-5" / 10-13 cm	10′/3.0 m	15 AMP Plug	120V	720W	6.00A	1	0 lbs / 4 kg	
	PH040520	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	4-5" / 10-13 cm	20′/ 6.1 m	15 AMP Plug	120V	1440W	12.00A	1	8 lbs / 8 kg	
	PH060605	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	6" / 15 cm	5′ / 1.52 m	15 AMP Plug	120V	560W	4.67A		7 lbs / 3 kg	
	PH060610	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	6" / 15 cm	10′/3.0 m	15 AMP Plug	120V	1100W	9.17A	1	1 lbs / 5 kg	
PIPE HEATERS	PH060620	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	6" / 15 cm	20′/ 6.1 m	20 AMP Plug	120V	1800W	15.00A	2	0 lbs / 9 kg	
M	PH080805	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	8" / 20 cm	5′ / 1.52 m	15 AMP Plug	120V	720W	6.00A	8	3 lbs / 4 kg	
	PH080810	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	8" / 20 cm	10′/3.0 m	15 AMP Plug	120V	1440W	12.00A	1	4 lbs / 6 kg	
	PH080820	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	8" / 20 cm	20′/ 6.1 m	30 AMP Plug, L5-30P	120V	2880W	24.00A	20	5 lbs / 12 kg	
	PH101005	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	10" / 25cm	5′ / 1.52 m	15 AMP Plug	120V	800W	6.67A	9	9 lbs / 4 kg	
	PH101010	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	10" / 25cm	10′/3.0 m	20 AMP Plug	120V	1800W	15.00A	1	6 lbs / 7 kg	
	PH121205	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	12″ / 30 cm	5′ / 1.52 m	15 AMP Plug	120V	960W	8.00A	1	1 lbs / 5 kg	
	PH121210	Internal Preset	90° F (± 10° F) / 32°C (± 5° C)	12″ / 30 cm	10′/3.0 m	20 AMP Plug	120V	1800W	15.00A	1	9 lbs / 9 kg	
Product Category	Model #	Temperature Control	Max Product Temp* (With Max # of Blankets)	Max # of Blankets used Per Container	Container Volume Size	Container Dimensions	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/ Mass	
	PBL05	Internal Preset	145° ± (10° F)/63°C (± 5° C)	1	5 Gallon / 19 Liter Bucket	11.8″D x 15.6″H	15 AMP Plug	120V	120W	1A	2 lbs / 1 kg	
	PBL15	Internal Preset	145° ± (10° F)/63°C (± 5° C)	2	15 Gallon / 57 Liter Bucket	14.4"D x 26.3"H	15 AMP Plug	120V	180W	1.5A	3 lbs / 1.5 kg	
PB LITE	PBL30	Internal Preset	145° ± (10° F)/63°C (± 5° C)	2	30 Gallon / 114 Liter Drum	12.5"Dx24"H / 32cmx61cm	15 AMP Plug	120V	280W	2.33A	4 lbs / 2 kg	
BARREL HEATERS	PBL55	Internal Preset	145° ± (10° F)/63°C (± 5° C)	3	55 Gallon / 208 Liter Drum	23.3"D x 34.9"H	15 AMP Plug	120V	240W	2A	2A 3 lbs / 1.5 kg	
	PBL55F	Internal Preset	145° ± (10° F)/63°C (± 5° C)	1	55 Gallon / 208 Liter Drum	23.3"D x 34.9"H	15 AMP Plug	120V	400W	3.33A	10 lbs / 5 kg	
PB LITE GAS	PBL20	Internal Preset	90° ± (10° F) / 32°C (± 5° C)	1	Gas Cylinder Heaters (Propane)	12.5″Dx18″H / 32cmx46cm	15 AMP Plug	120V	120W	1A	2 lbs / 1 kg	
CYLINDER HEATERS	PBL100	Internal Preset	90° ± (10° F) / 32°C (± 5° C)	2	Gas Cylinder Heaters (Propane)	14.5"Dx48"H / 37cmx122cm	15 AMP Plug	120V	280W	2.33A	4 lbs / 2 kg	
(PROPANE)	PBL420	Internal Preset	90° ± (10° F) / 32°C (± 5° C)	2	Gas Cylinder Heaters (Propane)	30"Dx52"H / 76cmx132cm	15 AMP Plug	120V	400W	3.33A	7 lbs / 3 kg	
PB LITE HOT BOX	PBLHB48-800	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	N/A	N/A	48"L x 36"W x 48"H	15 AMP Plug	120V	800W	6.67A	40 lbs / 18 kg	
HEATERS	PBLHB54-800	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	N/A	N/A	48"L x 40"W x 48"H	15 AMP Plug	120V	800W	6.67A	43 lbs / 19.5 kg	
PB LITE PAIL	PBL1G	Internal Preset	70° F (± 10° F) / 21° C (± 5° C)	1	1 Gallon / 4 Liter Pail	6.5"D x 7.5"H	15 AMP Plug	120V	45W	0.38A	1 lbs / 0.5 kg	
HEATERS	PBL2G	Internal Preset	70° F (± 10° F) / 21° C (± 5° C)	1	2 Gallon / 8 Liter Pail	9.2"D x 9.5" H	15 AMP Plug	120V	45W	0.38A	1 lbs / 0.5 kg	
PB LITE EQUIPMENT HEATERS	PBLCAUW	Internal Preset	70° F (±10° F) / 21° C (±5° C)	N/A	Equipment Heater	Fits 5 10.1 oz caulk containers	15 AMP Plug	120V	45W	0.38A	2 lbs / 1 kg	
			GI/UL/CSA (cETLus). Most products AC and Class I Division 2 Groups A		7-	Powerblanket	reserves the right				s without notification boundary conditions	

54 | SPECIFICATIONS



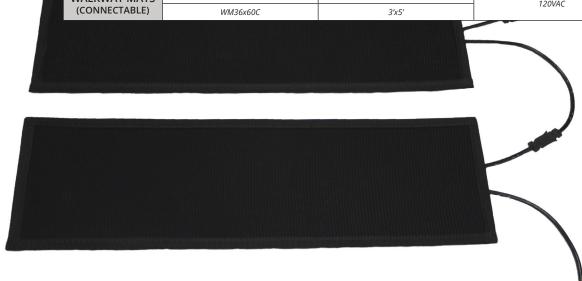


Product Category	Model #	Temperature Control	Appox Product Temperature	Container Volume	Container Dimensions	Plug Type	AC Voltage	Nominal Power	Nominal Amperage	Approximate Weight/Mass
	BB05	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	5 Gallon / 19 L	11.8"D x 15.6"H	15 AMP Plug	120V	120W	1A	4 lbs / 2 kg
BEE	BB05-240V	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	5 Gallon / 19 L	11.8″D x 15.6″H	15 AMP Plug	240V	120W	0.5A	4 lbs / 2 kg
	BB05PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	5 Gallon / 19 L	11.8"D x 15.6"H	15 AMP Plug	120V	120W	1A	4 lbs / 2 kg
	BB55	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	55 Gallon / 208 L	23.3″D x 34.9″H	15 AMP Plug	120V	800W	6.67A	11 lbs / 5 kg
BLANKETS	BB55-240V	Internal Preset	100° F (± 10° F) / 38° C (± 5° C)	55 Gallon / 208 L	23.3″D x 34.9″H	15 AMP Plug	240v	800W	3.33A	11 lbs / 5 kg
	BB55PRO	Programmable Digital Controller	up to 145° F (± 5° F) / 63° C (± 3° C)	55 Gallon / 208 L	23.3″D x 34.9″H	15 AMP Plug	120V	800W	6.67A	11 lbs / 5 kg
	BBHB48-800	Internal Preset	100° F (+- 10° F) / 38° C (+- 5° C)	Covers 48″x36″ pallet, 48″ tall	48"L x 36"W x 48"H	15 AMP Plug	120V	800W	6.67A	40 lbs / 18 kg



## **SUMMERST**=P

Product Category	Model #	Size	Voltage	Nominal Power	Nominal Amperage
DOOR MATS	DM24x36	2' x 3'	120VAC	180W	1.5A
DOOK MATS	DM36x48	3' x 4'	120VAC	390W	3.3A
DOOR MATS	DM24x36C	2' x 3'	120VAC	180W	1.5A
(CONNECTABLE)	DM36x48C	3' x 4'	120VAC	390W	3.3A
STAIR MATS	SM11x36	11″x3′	120VAC	70W	0.6A
STAIR WATS	SM11x48	11"x4'	120VAC	98W	0.8A
	WM24x60	2'x5'		310W	2.6A
WALKWAY MATS	WM36x60	3'x5'	120VAC	500W	4.2A
	WM36x120	3′x10′		1030W	8.6A
WALKWAY MATS	WM24x60C	2'x5'	120VAC	300W	2.6A
(CONNECTABLE)	WM36x60C	3′x5′	IZUVAC	500W	4.2A



56 POWERBLANKET ICE SPECIFICATIONS 57



Product Category	Model #	Container Volume	Container Dimensions	Number of Ice Packs	Ice Pack Dimensions	Approx. Blanke	et Weight/ Mass	
	PBICE05IP	5 Gallon / 19 L	11.8″D x 15.6″H	8	12oz, 6"x 6"x 1"	9.5 lbs / 4 kg		
ICE PACK PRODUCT	PBICE15IP	15 Gallon / 57 L	14.5″D x 26.3″H	12	12oz, 6" x 6" x 1"	13.5 lb	os / 6 kg	
(Blanket & Ice Packs)	PBICE30IP	30 Gallon / 114 L	20″D x 29.5″H	18 12oz, 6"x 6"x 1"		21.5 lbs	/ 9.75lbs	
. delis,	PBICE55IP	55 Gallon / 208 L	23.3″D x 34.9″H	24	24 12oz, 6"x 6"x 1" 28 lbs / 12		12.75kg	
Product Category	Model #	Cooler Size	Container Volume	Container Dimensions		Pump specs	Approx. Blanket Weight/ Mass	
	PBICE05IC	70 qt Igloo	5 Gallon / 19 L	11	11.8″D x 15.6″H		1.5 lbs	
ICE CHEST PRODUCT	PBICE15IC	(20.5′′′′L x 18.5′′′′ L x 24′′′′H, 18lbs / 8kg),	15 Gallon / 57 L	14	14.5″D x 26.3″H		2.2 lbs	
(Jacket & Ice Chest)	PBICE30IC	Other options available	30 Gallon / 114 L	21	20″D x 29.5″H		2.7 lbs	
	PBICE55IC		55 Gallon / 208 L	23	23.3″D x 34.9″H		3.0 lbs	
Product Category	Model #	Container Volume	Container Dimensions		Max PSI	Approx. Blanke	et Weight/ Mass	
	PBICE05	5 Gallon / 19 L	11.8″D x 15.6″H		6	1.5	ī lbs	
CHILLER PRODUCT	PBICE15	15 Gallon / 57 L	14.5″D x 26.3″H		6	2.2	? lbs	
(Jacket only)	PBICE30	30 Gallon / 114 L	20"D x 29.5"H		6	2.7	7 lbs	
	PBICE55	55 Gallon / 208 L	23.3″D x 34.9″H		6	3.0 lbs		

#### CHILLER INFO UPON REQUEST

Other options available. Chillers can be tuned to ambient temperatures outside of factory standard (35°F-100°F). Please call for more detail.

Powerblanket reserves the right to improve products and change specifications without notification



58 NORTH SLOPE CHILLER SPECIFICATIONS 59

Product	Model	Voltage	Ambient Temp	Weight	Pump	Inlet/ Outlet	Nominal Amperage	Dimensions	Capacity (BTU/hr)*	Fluid Temp. Range (°F)	Refrigerant	Evaporator	Reservoir	Reservoir Capacity	Fluid
FROST	1/4 TON	110/1/60Hz	35°F - 100°F	Approx 64 lbs	3.5 GPM MAX	1/2" NPT	6.5A	22"Lx11"Wx21.5"H	3,000	45°F - 85°F	r410a	Submersed Copper Coil	Plastic	1.5 GALLON	Water or Water/Glycol
Slope Chillers	1 TON	220/1/60Hz	35°F - 100°F	Approx 174 lbs	3.5 GPM MAX	1/2" NPT	8A	26"Lx18.5"Wx35"H	12,000	45°F - 85°F	Inge (P)           °F - 85°F         r410a         Submerse Copper C	Submersed Copper Coil	Plastic	4 GALLON	Water or Water/Glycol
FROST by North	1/3 TON	120/1/60 Hz 230/1/60 Hz	35°F - 100°F	Approx 135 lbs	4 GPM @ 50 PSI	1/2" NPT	11A@110/1	21"Lx15"Wx28"H	4,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	3.5 GALLON	Water or Water/Glycol
	1/2 TON	120/1/60 Hz 230/1/60 Hz	35°F - 100°F	Approx 150 lbs	4 GPM @ 50 PSI	1/2" NPT	14.7A@110/1	21"Lx15"Wx28"H	6,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	3.5 GALLON	Water or Water/Glycol
	1 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 250 lbs	4 GPM @ 50 PSI	1/2" NPT	14A@230/1	24"Lx30"Wx30"H	12,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water or Water/Glycol
	1-1/2 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 235 lbs	4 GPM @ 50 PSI	1/2" NPT	20.7A @230/1	24"Lx30"Wx30"H	18,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water or Water/Glycol
	2 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 380 lbs	4 GPM @ 50 PSI	3/4" NPT	22A @230/1	28"Lx38"Wx36"H	24,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water or Water/Glycol
by North	3 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 750 lbs	18 GPM @ 38 PSI	1-1/4" NPT	9A @ 460/3	42"Lx28"Wx66"H	41,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	28 GALLON	Water or Water/Glycol
	5 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 760 lbs	18 GPM @ 38 PSI	1-1/4" NPT	11A @ 460/3	42"Lx28"Wx66"H	61,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	28 GALLON	Water or Water/Glycol
	7-1/2 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 890 lbs	38 GPM @ 38PSI	1-1/4" NPT	17A @ 460/3	59"Lx36"Wx66"H	98,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	50 GALLON	Water or Water/Glycol
	10 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 895 lbs	38 GPM @ 38PSI	1-1/4" NPT	23A @ 460/3	59"Lx36"Wx66"H	132,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	50 GALLON	Water or Water/Glycol
	12 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 1200 lbs	38 GPM @ 38PSI	1-1/4" NPT	28A @ 460/3	74"Lx50"Wx76"H	160,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	48 - 120 GALLON	Water or Water/Glycol
	15 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 1250 lbs	38 GPM @ 38PSI	1-1/4" NPT	31A @ 460/3	74"Lx50"Wx76"H	192,000	42°F - 80°F	r134a	Submersed Copper Coil	STAINLESS STEEL	48 - 120 GALLON	Water or Water/Glycol
	1/3 TON	120/1/60 Hz 230/1/60 Hz	35°F - 100°F	Approx 135 lbs	4 GPM @ 50 PSI	1/2" NPT	11A@110/1	21"Lx15"Wx28"H	4,000	10°F - 60°F	r134a	Submersed Copper Coil	STAINLESS STEEL	3.5 GALLON	Water/Glycol only
	1/2 TON	120/1/60 Hz 230/1/60 Hz	35°F - 100°F	Approx 150 lbs	4 GPM @ 50 PSI	1/2" NPT	14.7A@110/1	21"Lx15"Wx28"H	6,000	10°F - 60°F	r134a	Submersed Copper Coil	STAINLESS STEEL	3.5 GALLON	Water/Glycol only
by North Slope Chillers  FREEZE by North Slope Chillers	1 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 250lbs	4 GPM @ 50 PSI	1/2" NPT	14A@230/1	24"Lx30"Wx30"H	12,000	10°F - 60°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water/Glycol only
	1-1/2 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 235 lbs	4 GPM @ 50 PSI	1/2" NPT	20.7A @230/1	24"Lx30"Wx30"H	18,000	10°F - 60°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water/Glycol only
	2 TON	230/1/60Hz 460/3/60Hz	35°F - 100°F	Approx 380 lbs	4 GPM @ 50 PSI	3/4" NPT	22A @230/1	28"Lx38"Wx36"H	24,000	10°F - 60°F	r134a	Submersed Copper Coil	STAINLESS STEEL	12 GALLON	Water/Glycol only
	10 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 750 lbs	18 GPM @ 38 PSI	1-1/4" NPT	9A @ 460/3	42"Lx28"Wx66"H	41,000	10°F - 60°F	r404a	Submersed Copper Coil	STAINLESS STEEL	28 GALLON	Water/Glycol only
by North	11 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 760 lbs	18 GPM @ 38 PSI	1-1/4" NPT	11A @ 460/3	42"Lx28"Wx66"H	61,000	10°F - 60°F	r404a	Submersed Copper Coil	STAINLESS STEEL	28 GALLON	Water/Glycol only
	12 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 890 lbs	38 GPM @ 38PSI	1-1/4" NPT	17A @ 460/3	59"Lx36"Wx66"H	98,000	10°F - 60°F	r404a	Submersed Copper Coil	STAINLESS STEEL	50 GALLON	Water/Glycol only
	13 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 895 lbs	38 GPM @ 38PSI	1-1/4" NPT	23A @ 460/3	59"Lx36"Wx66"H	132,000	10°F - 60°F	r404a	Submersed Copper Coil	STAINLESS STEEL	50 GALLON	Water/Glycol only
	14 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 1200 lbs	38 GPM @ 38PSI	1-1/4" NPT	28A @ 460/3	74"Lx50"Wx76"H	160,000	10°F - 60°F	r410a	Submersed Copper Coil	STAINLESS STEEL	48-120 GALLON	Water/Glycol only
	15 TON	230/1/60Hz 230/3/60Hz 460/3/60Hz	35°F - 100°F	Approx 1250 lbs	38 GPM @ 38PSI	1-1/4" NPT	31A @ 460/3	74"Lx50"Wx76"H	192,000	10°F - 60°F	r410a	Submersed Copper Coil	STAINLESS STEEL	48-120 GALLON	Water/Glycol only

\*The capacity rating is when the chiller is operating in 90F ambient conditions with a fluid temp of 45F. Capacity will decrease as ambient goes above 90F and/or fluid temp goes below 45F



















































































































































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