EMERGENCY PROCEDURES

Read and understand these procedures prior to using this heater. Disconnect power to the heater in the event of an emergency.

Electric Shock:

- Do not touch the injured person while they are still in contact with the electrical current.
- Call your local emergency service if the injured person experiences: severe burns, confusion, difficulty breathing, heart rhythm problems, cardiac arrest, muscle pain and contractions, seizures or a loss of consciousness.

Minor Burns:

- Hold the burned area under cool running water for 10-15 minutes.
- Remove rings or other tight items from burned area.

Major Burns:

- Call your local emergency service.
- Protect the person from further harm.
- Remove rings or other tight items from burned area.
- Monitor breathing and perform CPR if necessary.

Fire:

- Call your local emergency service.
- If it is safe to do so, use a fire extinguisher to fight the fire, otherwise evacuate to a safe distance and wait for help to arrive.
- This heater is built from material that will not support a flame but could ignite nearby combustible material.

TROUBLESHOOTING GUIDE

Please read this guide prior to contacting BriskHeat®. This guide is designed to answer the most commonly asked questions. If you are unable to identify the problem or need additional assistance, please contact your local distributor/ representative or the BriskHeat factory at: **1-800-848-7673**,**614-294-3376**, or **bhtsales1@briskheat.com**.

PROBLEM	SOLUTION(S)
Heater does not turn on.	Verify heater is connected to proper voltage. Verify controller is not in the “off” position.
Circuit breaker or GFCI is tripping.	Varify circuit breaker is rated for the current requirements marked on the heater’s label. Inspect heater for damage (see inspection procedure). Inspect wiring terminations (qualified person only).

ProTherm INDUSTRIES

English

XtremeFLEX®

Heating Tapes & Cords
Instruction Manual

You must read and understand this manual before installing, operating, or servicing this product. Failure to understand these instructions could result in an accident causing serious injury or death.

Keep these instructions for future reference.

TABLE OF CONTENTS

INTRODUCTION

Thank you for purchasing a XtremeFLEX® Heater. Your heater is designed to provide a long and efficient service life with function, reliability, and safety in mind. For additional information concerning this, or other products, please contact your local distributor or contact us toll at 615-834-4044.

APPLICATIONS

Intended Applications:

- General purpose heating for flat or curved surfaces

Prohibited Applications:

- Submerged in liquid
- Permanent installations
- Space heating

APPROVALS

CE

2014 / 35 / EU (Low Voltage Directive)
IEC 60519-1:2015, 60519-2:2006
2011 / 65 / EU (RoHS 2 directive)

BS0, BS0-G, RKF, RKP, BIHE, BWHE

c UL us

BS0, BS0-G

OPERATING INSTRUCTIONS

1. The heater must not be operated without a temperature controlling device.
2. During operation check the heater often to ensure proper temperature / heat output.
3. Unplug when not in use.

This heater is not equipped with a high temperature safety device and under certain conditions may be able to exceed its maximum rated temperature. Continuous supervision is required when approaching the temperature limit of this device. Do not use a heater that has exceeded its maximum exposure temperature rating.

MAINTENANCE INSTRUCTIONS

Anyone who reads and understands these instructions is qualified to maintain this heater.

Maintenance:

- All maintenance should be performed after the heater has cooled to room temperature and with the electricity disconnected.
- This product should be inspected prior to being installed and at least every 3 months during use.
- Dirt, oil, grease or other foreign matter can be removed with a damp rag and mild household cleaners.
- Do not attempt to repair a damaged heater.

Inspection:

- Inspection should be performed after the heater has cooled to room temperature and with the electricity disconnected.
- The heating element should be free of any cuts, cracks, or punctures.
- The power leads should not have any visible breaks in their insulation.
- The heater should be free of any build-up of dirt, oil, grease, or other foreign matter.

Storage:

- This product should be stored at room temperature in an environment with less than 80% relative humidity.

Disposal:

- This product does not contain any hazardous substances and may be discarded with domestic waste.

SPECIFICATIONS

Cloth Tape Models	Max Power Density	Minimum Bend Radius	Maximum Exposure Temperature	Max Humidity	Ingress Protection	Grounded Heating Element	Moisture and Chemical Resistant	Built-in Temperature Control
BIH *	Standard: 8.6 W/in² (1.3 W/cm²) Wide: 5.1 W/in² (0.8 W/cm²)	1/4'' (6 mm)	Reusable 572°F(300°C) Single Install 932°F(500°C)	95%	IP5X			
BIH-G *	9.6 W/in² (1.5 W/cm²)	1/4'' (6 mm)	482°F (250°C)	95%	IP5X	✓		
BIHE *	Standard: 8.6 W/in² (1.3 W/cm²)	1/4'' (6 mm)	Reusable 842°F(450°) Single Install 1400°F(760°C)	95%	IP5X	✓		
BWH *	Standard: 13.1 W/in² (2.0 W/cm²) Wide: 7.7 W/in² (11.2 W/cm²)	1/4'' (6 mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			
BWH-D *	13.1 W/in² (2.0 W/cm²)	1/4'' (6 mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			
BWHE *	Standard: 13.1 W/in² (2.0 W/cm²) Wide: 7.7 W/in² (1.2 W/cm²)	1/4'' (6 mm)	Reusable 842°F(450°) Single Install 1400°F(760°C)	95%	IP5X	✓		
B00 *	8.6 W/in² (1.3 W/cm²)	1/8'' (3 mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			
BW0 *	13.1 W/in² (2.0 W/cm²)	1/8'' (3 mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			
IFG *	6.0 W/in² (0.9 W/cm²)	1/8'' (3 mm)	900°F (482°C)	95%	IP5X			

Silicon Tape Models	Max Power Density	Minimum Bend Radius	Maximum Exposure Temperature	Max Humidity	Ingress Protection	Grounded Heating Element	Moisture and Chemical Resistant	Built-in Temperature Control
BS0	4.3 W/in² (0.7 W/cm²)	1/4'' (6 mm)	450°F (232°C)	95%	IP54		✓	
BS0-G	4.3 W/in² (0.7 W/cm²)	1/4'' (6 mm)	450°F (232°C)	95%	IP54	✓	✓	
ISR	3.0 W/in² (0.5 W/cm²)	1/4'' (6 mm)	450°F (232°C)	95%	IP54		✓	
RKF	1.0 W/in² (0.2 W/cm²)	1/4'' (6 mm)	450°F (232°C)	95%	IP54		✓	
RKP	1.0 W/in² (0.2 W/cm²)	1/4'' (6 mm)	450°F (232°C)	95%	IP54		✓	✓

Cloth Cord Models	Max Power Density	Minimum Bend Radius	Maximum Exposure Temperature	Max Humidity	Ingress Protection	Grounded Heating Element	Moisture and Chemical Resistant	Built-in Temperature Control
HTC*	21 W/ft (69 W/m)	1/8" (3mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			
HWC*	60 W/ft (197 W/m)	1/8" (3mm)	Reusable 572°F(300°) Single Install 932°F(500°C)	95%	IP5X			

* Models intended for indoor or laboratory use only. Not for outdoor use.

IMPORTANT SAFETY INSTRUCTIONS

SAFETY ALERT SYMBOL

The symbol above is used to call your attention to instructions concerning your personal safety. It points out important safety precautions. It means **"ATTENTION! Become Alert! Your Personal Safety is involved!"** Read the message that follows and be alert to the possibility of personal injury or death.

DANGER

Immediate hazards which **WILL** result in severe personal injury or death.

WARNING

Hazards or unsafe practices that **COULD** result in severe personal injury or death.

CAUTION

Hazards or unsafe practices that **COULD** result in minor personal injury or property damage.

DANGER

A person who has not read and understood all operating Instructions is not qualified to operate this product.

DANGER

- Do not immerse or spray any component of the system with liquid.
- Keep volatile or combustible material away from control and heating system when in use.
- Keep sharp metal objects away from control and heating system.
- Use control and heating system only in approved location.
- Do not modify this product. Modification will void warranty.

Failure to observe these warnings may result in electric shock, risk of fire, and personal injury.

WARNING

End User Must Comply to the Following:

- Only qualified personnel are allowed to connect the electrical wiring.
- All electrical wiring must follow local electrical codes.
- The person who performs the final installation / wiring must be qualified for this work.
- The end-user is responsible for providing a suitable disconnecting device.
- The end-user is responsible for providing suitable electrical protection device. It is highly recommended that a ground fault circuit breaker be used.

Failure to observe these warnings may result in personal injury or damage to the heater.

CAUTION

- Inspect all components before use (see page 9).
- Never handle the heater while it is in operation; always disconnect the heater from the power source and allow to cool prior to handling.
- Designed for use of metal surfaces. Do not use on plastic surfaces.
- Do not wrap the heater over itself.
- If spillage of foreign matter onto heater occurs, disconnect from power source and clean after heater is allowed to cool.
- Never operate a heater without an appropriate heat sink (device being heated is considered a heat sink).
- Do not operate heater above rated temperature value.
- Fasten heater to device using approved methods only.
- Do not use control and heating system if any component is damaged.
- Do not repair damaged or faulty control and heating systems.
- Do not crush or apply severe physical stress on any component of system, including cord assembly.
- Unplug control and heating system when not in use.

Failure to observe these warnings may result in personal injury or damage to the heater.

INSTALLATION INSTRUCTIONS

> ⚠ Failure to follow these instructions could result in property damage, personal injury, or death.

Requirements:

- Electrical terminations must be completed by qualified persons.
- No special tools or protective equipment is needed to handle this product (specific applications or surfaces may require protective equipment).
- Installation temperature range: -60°F to 131°F (-51°C to 55°C).
- Clearance of 3" (7.5cm) required around vessel during installation.
- Voltage and frequency must be within +/- 10% of the value specified on the product label.
- If the heater is not grounded then it must be mounted to a grounded surface or a conducting grounded screen must be placed between the heater and the surface.

Surface Preparation:

Always install your heater on a clean even surface for optimum performance and extended service life. Debris and residue on the surface can not only damage your heater but may also reduce the effectiveness of the heater by reducing the heat transfer between the surface and the heater.

- Remove or avoid contact with sharp edges including rough corners, weld spatter, exposed bolts, etc.
- Remove or avoid contact with rust, stickers, or other coverings.
- Remove oil, moisture, gel and other liquids.

Installation:

Step 1

Remove heater from box. Make visual inspection of heater. Do not use if torn or damaged.

Step 2

Installing your heating tape: The flexible heating tape can be installed on both a flat and/or curved surface. For a flat surface, lay the heating tape onto the surface to be heated. For a curved surface, wrap the heating tape onto the surface to be heated (A). The length of one entire side of the heating tape must be in full contact with the surface.

A.) Proper Installation

Ensure the heating tape is not kinked, twisted, or any portion of the tape hanging free from the surface (B). **Do not overlap heating tape on itself (C).**

Attach the heating tape to the surface by using aluminum tape, fiberglass tape, or a mechanical clamping devices which will not cause damage to the heating tape.

B.) Incorrect Installation:
Heating tape hanging free from the surface

C.) Incorrect Installation:
Heating tape overlapped on itself

Step 3

Connecting your heating tape to a power supply:

WARNING: Your heater is designed to operate at a specific voltage. Refer to the label on the heater for proper operating voltage and wattage information. Failure to operate the heater at the specified rating could result in overheating of the heating blanket, the surface being heated or personal injury. Also note that too low of a supply of voltage will result in under heating.

All electrical connections must be made by qualified personnel and in accordance with all applicable codes and regulations.

1. The heater must not be operated without a temperature controlling device.

   RKP series heating tapes are manufactured with a built-in temperature with a built-in temperature controlling device. This temperature controlling device is designed to operate the heater at a pre-set temperature.

   Models RKP1A, RKP2A: 70°F(21°C)

   Models RKP1B, RKP2B: 120°F(49°C)

2. Ensure the heater is protected by a properly sized circuit breaker or fuse.

3. Use of a ground fault circuit interrupter is highly recommended and maybe required.

4A. **If heating tape came with a plug**:
Plug power cord into appropriate controller or power supply.

4B. **If heating tape did not come with a plug:**
Two wires (same color) should be connected to the power source (or temperature control device) directly, through a junction box, or to a connector that is mated to a receptacle connected to the power source. BriskHeat XtremeFLEX® Heating Tapes are non-polarized, allowing either wire to be connected to the neutral or hot. If BIH-G or BS0-G series , the third wire, designated by the color green (or a green stripe), should be connected to ground.