## A BriskHeat Innovative Technology



Advanced Composite Curing Solutions

# Briskheat





## **Composites Knowledge Base**

Carbon fiber, glass fiber, even exotics like ceramic matrix technology are beginning to dominate the outer edge of materials applications in everything from aerospace applications to sporting goods, automotive components, and electronics.

BriskHeat is a leader in supplying products and technologies which support both production curing processes, as well as specialized equipment for testing, maintenance, and repair of identified wear and damage in composite components.

We can bring the process to you, with portable heating systems and tools, custom heating blankets, and technical support to meet your exact product specifications.

#### Diverse Industry Support

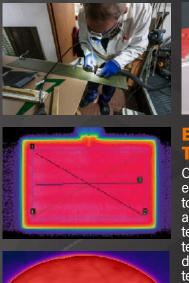
BriskHeat supports a broad range of highly sophiscated engineering, technological, and manufacturing environments.

- Aviation
- Energy
- Marine
- Military
- Racing
- Recreation

In many marketspaces we consult, develop custom solutions, go on site to assist with troubleshooting, and our technical staff actively works with our customers to address material and process issues.









#### Engineering and Technical Experti<mark>se</mark>

Our technology and equipment are designed to provide exacting data and performance. From temperature uniformity testing to infrared nondestructive component testing, BriskHeat offers unparalleled support and consulting for maintenance and repair, design and development, prototyping, and manufacturing quallity assurance.

144

187°F

72°F r

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## ACR<sup>®</sup> 3 Hot Bonder

#### Features & Benefits

#### The ACR<sup>®</sup> 3 Hot Bonder can be purchased as a kit, with or without composite curing blankets

- Single or dual zone .
- 8.4 in (213 mm) touch screen .
- USB port for data transfer (USB flash disk included)
- Input ground fault interrupter breaker . protected
- Audible and visual alarms for high and low temperature/vacuum limits
- Data logs digitally or through built-in printer: Prints and records realtime status of cure including program parameters
- **UL** Listed

#### Ordering Kits without Curing Blankets

Part No.	Number of Zones	Voltage Input	Power Plug NEMA Rating
ACR-3-S1	1	120 VAC	L5-30P
ACR-3-D1	2	120 VAC	L5-30P
ACR-3-S2	1	240 VAC	L6-30P
ACR-3-D2	2	240 VAC	L6-30P
ACR-3-S2-3	2	240 VAC	3P+E+N

#### **Blanket Sizes Included**

One 10 in x 10 in (254 x 254 mm) SR composite curing blanket per zone
One 12 in x 12 in (305 x 305 mm) SR composite curing blanket per zone

- One 16 in x 16 in (406 x 406 mm) SR composite curing blanket per zone

## ACR<sup>®</sup> Mini Pro Hot Bonder

#### **Features & Benefits**

#### **Perform Composite Repairs Anywhere**

- Small and lightweight: Compact size of 16.44 in L x 13.13 in W x 6.81 in D (41.75 cm L x 33.34 cm W x 17.30 cm D)
- Weighs less than 18 lbs (8 kg) •
- Easy-to-carry and set-up: Even up towers, • ladders, staircases, and on wings

#### Ordering Deluxe Kits with Curing Blankets

Part No.	Number of Zones	Voltage Input	
ACR-3-MINI	1	Universal	
Part No.	Description		

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ACR-MINI 240KIT	ACR-3-MINI with 240 V Heating Blankets
ACR-MINI 120KIT	ACR-3-MINI with 120 V Heating Blankets

#### Ordering Kits with Curing Blankets

Part No.	Number of Zones	Voltage Input	Power Plug NEMA Rating
ACR-3-S120KIT	1	120 VAC	L5-30P
ACR-3-S240KIT	1	240 VAC	L6-30P
ACR-3-D120KIT	2	120 VAC	L5-30P
ACR-3-D240KIT	2	240 VAC	L5-30P
ACR-3-S240-3KIT	1	240 VAC	3P+E+N
ACR-3-S240-3KIT	2	240 VAC	3P+E+N



Roller Case Design

Roller Case

Design

### **SR Composite Curing Blankets**

#### **Features & Benefits**

- Flexible up to 1/4 in (6 mm) radii and ideal for leading and trailing edges
- Quick and efficient, low stress producing heat up to 450°F (232°C)
- Use on horizontal and vertical surfaces and sharp radii surfaces without removing the damaged section
- Compatible with ACR<sup>®</sup> hot bonders and your current equipment

#### Rectangular

-		
Width in (mm)	Length in (mm)	Total Watts
6 (152)	6 (152)	180
6 (152)	12 (305)	360
6 (152)	24 (610)	720
8 (203)	8 (203)	320
10 (254)	10 (254)	500
12 (305)	12 (305)	720
12 (305)	24 (610)	1440
16 (406)	16 (406)	1280
18 (457)	18 (457)	1620
24 (610)	24 (610)	2880

Diameter in (mm)	Total Watts
6 (152)	140
8 (203)	250
10 (254)	395
12 (305)	565
14 (356)	770
16 (406)	1005

RoHS

#### Most durable and flexible heating blankets for quick and efficient cures on unique shaped surfaces.

Part Number Matrix

Product Series: Watt Density: \_\_\_\_

5-(5 watts/in<sup>2</sup>)

Voltage:\_\_\_\_\_\_ 120-(120VAC), 240 (240VAC)

Dimensions: Rectangular, 06X12-(6 in x 12 in) Round, 12D-(12 in diameter)

#### Power Plug:

Contact us about Boeing Approved heaters, custom options and plug choices

SR 5

120

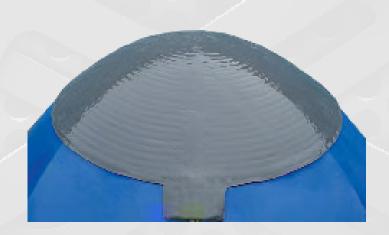
06X12 C

### **Radome Heaters**

#### **Features & Benefits**

- Ideal for wet layup and prepreg composite repairs of radomes
- · Perfect three-dimensional fit around your radome
- Excellent heat uniformity
- Easy-to-vacuum bag
- We can design a heater specifically for your application and aircraft. Other sizes, shapes, watt-densities, power plugs, built-in thermocouples, and other options available.

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Part No.	Aircraft	Number of Zones	Total Watts
BHC162012C	Boeing 707, 727, 737	2	Zone 1: 1750 Zone 2: 1795
BHC162013C	Boeing 747	1	Zone 1: 3380
BHC162007C	Boeing 757	2	Zone 1: 1515 Zone 2: 1515
BHC162009C	Boeing 767	2	Zone 1: 1630 Zone 2: 1744
BHC162011C	Boeing 777	N/A	N/A
BHC162014C	Airbus A300, A310, A330	2	Zone 1: 1513 Zone 2: 1638
BHC162010G	Airbus A318, A319, A320, A321	2	Zone 1: 1630 Zone 2: 1744



### FGH & SXH High-Temperature Composite Curing Blankets

#### **Features & Benefits**

- Designed for use with the newer high-temperature thermoplastic and polyimide composite materials
- Highly flexible up to a 1 in (25 mm) radius
- Compatible with ACR® Hot Bonders and your current equipment

#### FGH Series 800°F (427°C)

#### SXH Series 1100°F (593°C)

Width in (mm)	Length in (mm)	Total Watts	Width in (mm)	Length in (mm)	Total Watts
6 (152)	6 (152)	255	6 (152)	6 (152)	468
6 (152)	12 (305)	504	6 (152)	6 (152)	936
6 (152)	24 (610)	1008	6 (152)	6 (152)	1872
8 (203)	8 (203)	448	8 (203)	8 (203)	832
10 (254)	10 (254)	700	10 (254)	10 (254)	1300
12 (305)	12 (305)	1008	12 (305)	12 (305)	1872
12 (305)	24 (610)	2016	12 (305)	12 (305)	3744*
16 (406)	16 (406)	1792	16 (406)	16 (406)	3328
18 (457)	18 (457)	2268	18 (457)	18 (457)	4212*
24 (610)	24 (610)	4032*	1000		

\* Not available in 120 VAC due to high amperage requirements



#### FGH-(800°F), SXH-(1100°F) Dimensions:

**Part Number Matrix** 

06X12-(6 in x 12 in)

**Product Series:** 

Voltage: \_\_\_\_\_

1-(120 VAC), 2-(240 VAC)

#### Power Plug:

Contact your Representative for plug choices

## **SRV Composite Curing Blankets**

#### **Features & Benefits**

#### with Vacuum Seal

- Both a heater and a reusable vacuum bag
- Quick and efficient, low stress producing heat up to 450°F (232°C)
- Two-year warranty
- Compatible with ACR® Hot Bonders and your current equipment

#### **Rectangular**

Heated Area		Blanket Size	Total Watts		
	Width in (mm)	Length in (mm)	Width in (mm)	Length in (mm)	
	6 (152)	6 (152)	9 (229)	12 (305)	180
	6 (152)	12 (305)	9 (229)	18 (457)	360
	6 (152)	24 (610)	9 (229)	30 (762)	720
	8 (203)	8 (203)	11 (279)	14 (356)	320
	10 (254)	10 (254)	13 (330)	16 (406)	500
	12 (305)	12 (305)	15 (381)	18 (457)	720
	12 (305)	24 (610)	15 (381)	30 (762)	1440
	16 (406)	16 (406)	19 (483)	22 (559)	1280
	18 (457)	18 (457)	21 (533)	24 (610)	1620
	24 (610)	24 (610)	27 (686)	30 (762)	2880

#### Round

RoHS

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Heated Area	Blanket Size	Total Watts
Diameter in (mm)	Diameter in (mm)	
6 (152)	12 (305)	140
8 (203)	14 (356)	250
10 (254)	16 (406)	395
12 (305)	18 (457)	565
16 (406)	22 (559)	1005
20 (508)	26 (660)	1570
24 (610)	30 (762)	2270
	REACH	



FGH

06X12

1 C

Part Number Matrix	SRV 5	120	12X12	S	С
Product Series:					
Watt Density: 5-(5 watts/in <sup>2</sup> )					
Voltage: 120-(120 VAC), 240-(240 VAC)				-	
Heated Area Dimensions: Rectangular, 12 x 12-(12 in x 12	in)/Round, 12	2D-(12 ii	n diamete	r)	
Blanket Seal: S-(with Seal), Blank-(N Seal)					
Power Plug:				-	

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614.294.3376

Contact your Representative for plug choices

### **VT** Vacuum Curing/Debulking Table

#### **Features & Benefits**

- Heat and vacuum in one easy step for curing and debulking composite parts
- Simple on/off single temperature heating, or ramp/soak programming
- Save time and money
- Durable heating elements and integrated vacuum system
- Reusable vacuum bag with 800% elongation in standard retractable lid
- Cure temperatures up to 400°F (204°C)

#### **Specifications**

## Voltage Options (all 3-phase): 208, 240, 277, 380, 480 VAC Table Options:

- >> Without lid (requires manual bagging with film)
- >> Data-logger with multichannel monitoring system and communications port
- >> Top heating blanket (in addition to table heat)

Part No.	Table Sizes Overall Dimensions	Usable Dimensions	
VT4000	60 in x 66 in (1.5 m x 1.7 m)	52 in x 56 in (1.3 m x 1.4 m)	
VT8000	60 in x 132 in (1.5 m x 3.4 m)	52 in x 124 in (1.3 m x 3.1 m)	
VT10000	72 in x 144 in (1.8 m x 3.7 m)	66 in x 138 in (1.5 m x 3.5 m)	









### Aircraft Infrared Non-Destructive Testing (NDT) Kits

#### The Easy and Portable Way to Perform Moisture Intrusion Testing on Elevators and Other Aircraft Components

## As specified in Airbus NDT 55-20-07, 55-20-08, 55-20-11 Manuals

>> A300-600 Aircraft

- >> A310/A318/A319/A320/A321 Aircraft
- >> A330/A331/A340 Aircraft

#### **Kit Includes:**

- Heating blankets designed for your aircraft part
- Easy-to-use preprogrammed temperature controller. Fullcolor touchscreen. No programming necessary
- Accessories: Clamps, insulation material, power cords, and thermocouples

#### **Heating Blankets**

Part No.	Description
300BLANKETKIT	Airbus A300 Elevator Heating Blanket Kit (Kit A)
320BLANKETKIT	Airbus A320 Elevator Heating Blanket Kit (Kit A)
340BLANKETKIT	Airbus A340 Elevator Heating Blanket Kit (Kit A)



If your aircraft is not listed? We can design and build a kit to meet your specific needs.

#### **Temperature Controller**

Part No.	Description
NDTCONTROLLER	Temperature Controller (Kit B) in Airbus NDT Manual
	55-20-07, 55-20-08, 55-20-11

For assistance with Custom Kits contact us at: bhtsales1@briskheat.com

### **Hot Air Gun Curing System**

#### **Features & Benefits**

- Ideal for small spot cures such as click studs
- Includes hot air gun and temperature control
- Portable, lightweight, and self-contained
- 8-segment ramp/soak control
- High-limit temperature protection



### **Composite Curing Controller**

#### **Features & Benefits**

#### **Portable Tabletop**

- Provides basic temperature control for composite curing applications
- Portable, lightweight, and self-contained
- 8-segment ramp/soak control
- Universal voltage option and high-amperage capability up to 30 amps

#### **Temperature Controller Kit**

Part No.	Description
TT30D-S16	TT Tabletop Temperature Controller Kit, Universal Voltage

#### Tabletop Controller Kit includes:

>> One TT Tabletop controller unit

>> One 20 ft (6 m) Type-J Thermocouple (TTQSD-S16 includes two)

>> One 10 ft (3 m) heater output cord



#### **Hot Air Gun**

Part No.	Description
BRISKAIRSP-1	Hot Air Gun Curing System

#### Hot Air Gun Curing System includes:

>> One Hot Air Gun

>> One TTQSD-S16 Temperature Controller (with two sensor inputs)

- >> One 20 ft (6 m) Type-J Thermocouple >> One 10 ft (3 m) Hot Air Gun
- >> Heater Output Cord
- >> One Hot Air Gun Stand
- >> One Storage/Carrying Case

800.848.7673 6<u>14.294.3</u>376

#### **Applications**

- Aircraft panel repair
- Aircraft radome repair
- Composite Curing construction materials
- Composite panel manufacturing
- Composite part manufacturing
- Curing of adhesives for joining material layers
- Curing of silicone heaters
- Curing phenolic resins
- Debulking hybrid composite materials
- Fiberglass automobile repair
- Fiberglass marine repairs
- Material R&D
- Sporting goods manufacturing
- Wind turbine repair







#### **Repair Centers**

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#### **Global Offices**

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Costa Rica (Mfg Only)

Alajuela City San Antonio de Alajuela Province, Costa Rica

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Take a look inside... and see how we can help you protect you equipment, processes, and property.

#### **Ordering Details**

1. Contact your local distributor. Check BriskHeat.com to locate a local distributor.

2. Call **BriskHeat**° at **800.848.7673** or **614.294.3376**.

We have a staff of application specialists to solve your unique needs.

#### 3. Order online at BriskHeat.com 24/7.



#### We Can Help You, Any Time, Any Where.

BriskHeat Account Executives are a resource for corporate partners, local distributors, manufacturers' representatives, and end users. Our distributors and reps are located throughout North and South American, Asia, Europe, and Australia. Local support is available to provide the right solution to your heating needs.

Many distributors also stock equipment to meet the demands of local industries and provide quick shipping.

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