

# CERAMIC RIBBON HEATERS

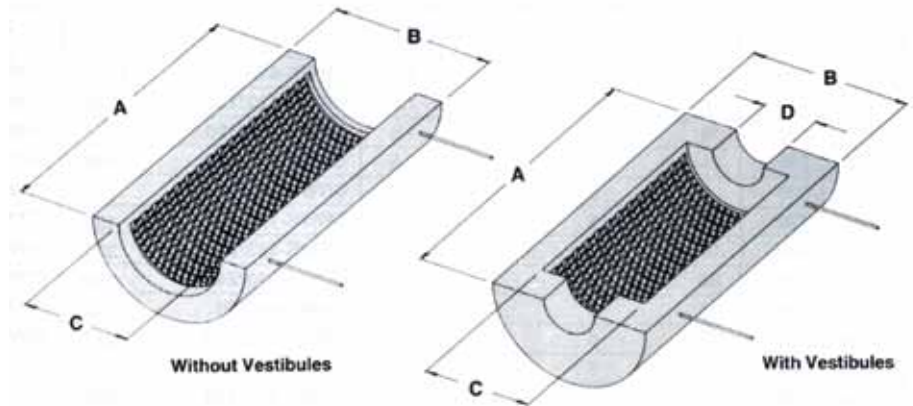
## Ultra-High Temperature, Helically Wound

### CRRS Series

- ✓ Helically Wound Ribbon Iron-Chrome-Aluminum
- ✓ Rated to 1800°F (900°C)
- ✓ Low Mass Vacuum Formed Ceramic Fiber
- ✓ Use Two Semi-Cylindrical Units to Form a Full Cylinder

### APPLICATIONS

- ✓ Pipe Heating
- ✓ Process Air Heating
- ✓ Calibration Ovens
- ✓ Strain Annealing Ovens
- ✓ Tube Furnace



With the CRRS and CRFP Series the helically wound iron-chrome-aluminum ribbon elements are mounted in ridges which permits heat dissipation in three directions, thereby transferring more radiant heat energy to work chamber and load. Using this design effectively triples the radiant heating surface. The unique design allows for two semi-cylindrical units to be combined to form a full cylinder heating element.

### SPECIFICATIONS

**Semi-Cylindrical Helically Wound Ribbon Models:**

**Wattage:** 800 to 9500 Watts

**Voltage:** 120 and 240 Vac single and dual circuits

### SEMI-CYLINDRICAL HELICALLY WOUND RIBBON MODELS

To Order							
Watts	Volts	Dimensions: cm (in)				Without Vestibules	With Vestibules
		A DIM*	B DIM	C DIM	D DIM	Model No.	Model No.
800	120	15 (6)	28 (11)	18 (7)	13 (5)	CRRS-67/120-A	CRRS-67/120C-A
1600	240	30 (12)	28 (11)	18 (7)	13 (5)	CRRS-127/240-A	CRRS-127/240C-A
2400	240	46 (18)	28 (11)	18 (7)	13 (5)	CRRS-187/240-A	CRRS-187/240C-A
3200	240	61 (24)	28 (11)	18 (7)	13 (5)	CRRS-247/240-A	CRRS-247/240C-A
900	120	15 (6)	30 (12)	20 (8)	15 (6)	CRRS-68/120-A	CRRS-68/120C-A
1800	240	30 (12)	30 (12)	20 (8)	15 (6)	CRRS-128/240-A	CRRS-128/240C-A
2700	240	46 (18)	30 (12)	20 (8)	15 (6)	CRRS-188/240-A	CRRS-188/240C-A
3600	240	61 (24)***	30 (12)	20 (8)	15 (6)	CRRS-248/240-A	CRRS-248/240C-A
2250	240	30 (12)	36 (14)	25 (10)	20 (8)	CRRS-1210/240-A	CRRS-1210/240C-A
3375	240	46 (18)	36 (14)	25 (10)	20 (8)	CRRS-1810/240-A	CRRS-1810/240C-A
4500	240	61 (24)***	36 (14)	25 (10)	20 (8)	CRRS-2410/240-A	CRRS-2410/240C-A
2700	240	30 (12)	41 (16)	30 (12)	25 (10)	CRRS-1212/240-A	CRRS-1212/240C-A
4050	240	46 (18)	41 (16)	30 (12)	25 (10)	CRRS-1812/240-A	CRRS-1812/240C-A
5400	240	61 (30)	12 (25)	12 (35)	25 (10)	CRRS-2412/240-A	CRRS-2412/240C-A
3400	240	30 (12)	48 (19)	38 (15)	33 (13)	CRRS-1215/240-A	CRRS-1215/240C-A
5100	240	46 (18)	48 (19)	38 (15)	33 (13)	CRRS-1815/240-A	CRRS-1815/240C-A
6800	240**	61 (24)***	48 (19)	38 (15)	33 (13)	CRRS-2415/240-A	CRRS-2415/240C-A
4100	240	30 (12)	56 (22)	46 (18)	41 (16)	CRRS-1218/240-A	CRRS-1218/240C-A
6150	240**	46 (18)	56 (22)	46 (18)	41 (16)	CRRS-1818/240-A	CRRS-1818/240C-A
8200	240**	61 (24)***	56 (22)	46 (18)	41 (16)	CRRS-2418/240-A	CRRS-2418/240C-A
4750	240	30 (12)	64 (25)	53 (21)	48 (19)	CRRS-1221/240-A	CRRS-1221/240C-A
7125	240**	46 (18)	64 (25)	53 (21)	48 (19)	CRRS-1821/240-A	CRRS-1821/240C-A
9500	240**	61 (24)***	64 (25)	53 (21)	48 (19)	CRRS-2421/240-A	CRRS-2421/240C-A

\* Add 3" for units with vestibules.

\*\* Dual 240 Vac circuits.

\*\*\* Using two 12" long heaters; the indicated wattage is the total of two 12" long heaters.

Ordering Example: CRRS-67/120C-A, 800 watt 120 Vac heater, 6" long with a 7" ID and 3" unheated vestibules.

# CERAMIC RIBBON HEATERS

## Flat Plate Ceramic Heating Elements

### CRFP Series

- ✓ Rated to 1800°F (900°C)
- ✓ Helically Wound Ribbon Iron-Chrome-Aluminum
- ✓ Low Mass Vacuum Formed Ceramic Fiber
- ✓ Optional Unheated Flanges
- ✓ Low Watt Density
- ✓ Fast Heat-Up and Cool Down

### APPLICATIONS FOR CRFP MODELS

- ✓ Heat Treating Furnaces
- ✓ Fluidized Bed Furnaces
- ✓ Process Air Heating
- ✓ Pipe Heating

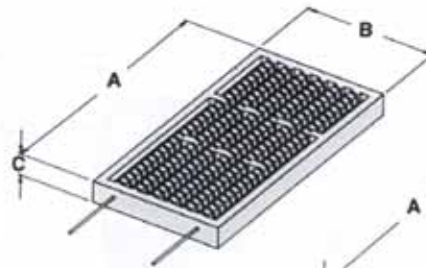
### SPECIFICATIONS

#### Flat Plate Models:

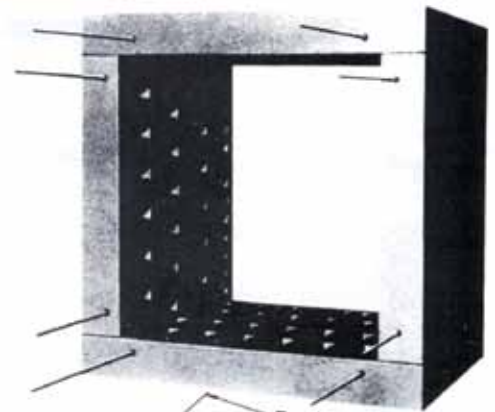
**Wattage:** 300 to 6200 Watts

**Voltage:** 60, 120, and 240 Vac Single and dual/circuits

Two flat plate fiber heaters matched with 2 flanged flat plate fiber heaters to form box with 4 heated sides. Many sizes of heaters available to form square or rectangular shaped chambers of various depths.



Flat plate without flanges. surface is fully heated.



Flat plate with unheated flanges. All flange plates have 51 mm (2") wide unheated flanges on each side of heated area.

### CRFP Series—Flat Plate Models

#### To Order

Watts	Volts	Dimensions: cm (in)				Without Flanges	With Flanges
		A DIM	B DIM	C DIM	D DIM	Model No.	Model No.
300	60	15 (6)	10 (4)	5 (2)	20 (8)	CRFP-64/60-A	CRFP-64/60-C-A
600	120	3 (12)	10 (4)	5 (2)	20 (8)	CRFP-124/120-A	CRFP-124/120-C-A
400	60	15 (6)	15 (6)	5 (2)	25 (10)	CRFP-66/60-A	CRFP-66/60-C-A
800	120	30 (12)	15 (6)	5 (2)	25 (10)	CRFP-126/120-A	CRFP-126/120-C-A
1250	120	46 (18)	15 (6)	5 (2)	25 (10)	CRFP-186/120-A	CRFP-186/120-C-A
1650	240	61 (24)	15 (6)	5 (2)	25 (10)	CRFP-246/240-A	CRFP-246/240-C-A
1100	120	30 (12)	20 (8)	5 (2)	30 (12)	CRFP-128/120-A	CRFP-128/120-C-A
1650	240	46 (18)	20 (8)	5 (2)	30 (12)	CRFP-188/240-A	CRFP-188/240-C-A
2200	240	61 (24)	20 (8)	5 (2)	30 (12)	CRFP-248/240-A	CRFP-248/240-C-A
1375	240	30 (12)	25 (10)	5 (2)	36 (14)	CRFP-1210/240-A	CRFP-1210/240-C-A
2050	240	46 (18)	25 (10)	5 (2)	36 (14)	CRFP-1810/240-A	CRFP-1810/240-C-A
2750	240	61 (24)	25 (10)	5 (2)	36 (14)	CRFP-2410/240-A	CRFP-2410/240-C-A
3400	240	76 (30)	25 (10)	5 (2)	36 (14)	CRFP-3010/240-A	CRFP-3010/240-C-A
1650	240	30 (12)	30 (12)	5 (2)	41 (16)	CRFP-1212/240-A	CRFP-1212/240-C-A
2460	240	46 (18)	30 (12)	5 (2)	41 (16)	CRFP-1812/240-A	CRFP-1812/240-C-A
3280	240	61 (24)	30 (12)	5 (2)	41 (16)	CRFP-2412/240-A	CRFP-2412/240-C-A
4100	240	76 (30)	30 (12)	5 (2)	41 (16)	CRFP-3012/240-A	CRFP-3012/240-C-A
3700	240	46 (18)	46 (18)	5 (2)	56 (22)	CRFP-1818/240-A	CRFP-1818/240-C-A
5000	240	61 (24)	46 (18)	5 (2)	56 (22)	CRFP-2418/240-A	CRFP-2418/240-C-A
6200	240*	76 (30)	46 (18)	5 (2)	56 (22)	CRFP-3018/240-A	CRFP-3018/240-C-A

\* Dual 240 Vac circuits.

Ordering Example: CRFP-1812/240-C-A, 2460 watt heater with vestibules powered by 240 Vac.