

# MICA STRIP HEATERS

■ MICA CORE AND INSULATORS PROVIDES ELECTRICAL INSULATION

■ HIGH TEMPERATURE RESISTANCE  
RIBBON WOUND FOR EVEN HEATING  
AND FAST HEAT UP



■ RUST-RESISTANT STEEL  
OR STAINLESS STEEL

## FEATURES

- STANDARD SHEATH TEMPERATURES UP TO 800°F.
- HIGH TEMPERATURES TO 1200° F. WITH STAINLESS CONSTRUCTION.
- HIGH TEMPERATURE MICA
- OPTIONAL BUTT CASE CONSTRUCTION
- HIGH QUALITY NICKEL CHROME RESISTANCE RIBBON
- STAINLESS STEEL POST TERMINALS
- MOUNTING SLOTS
- FLEXIBLE LEADS OPTIONAL
- EASILY MADE IN SPECIAL SHAPES AND FORMS
- METRIC SIZES

## APPLICATIONS

- PACKAGING EQUIPMENT
- OVENS
- HEATED PLATENS
- BLOW MOLDING MACHINES
- INCUBATORS
- HOT PLATES
- LABORATORY TEST EQUIPMENT

### EFFICIENT AND COST EFFECTIVE

Delta mica strip heaters provide rapid heat transfer to dies, tanks, sealing machines, hot plates or other equipment possessing flat surfaces. The construction of mica strip heaters is closely identical to the mica band heaters listed separately in this catalog.

### BUTT CASE CONSTRUCTION

Strip heaters when ordered for use in grooved platens, should be ordered with our butt-case construction. Butt-case provides the means to transfer heat efficiently through both surfaces of the heater.

### APPLICATION:

Wattage should be maintained below 35 W/sq. in. When surface mounted, mica strip heaters should not exceed 22 W/sq. in. Proper clamping and application of strip heaters will provide long life and efficiency, while offering the most cost effective heater available.

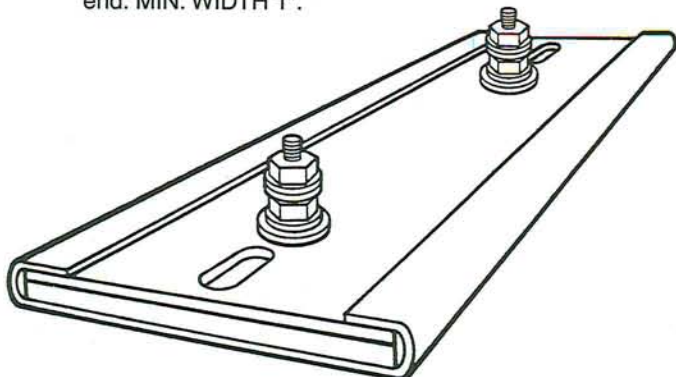
**DELTA**   
**MANUFACTURING**  
COMPANY INCORPORATED



## STANDARD TERMINATIONS

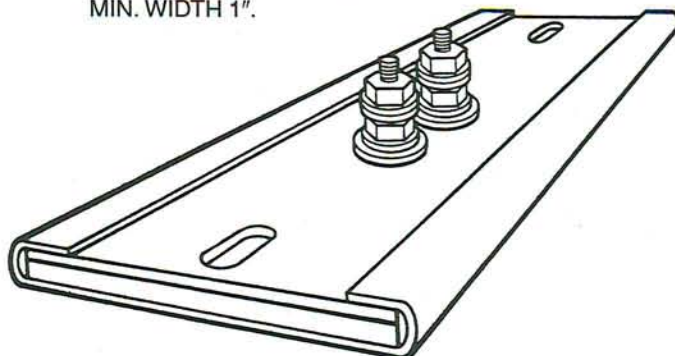
### T-1 POST TERMINALS

Opposite ends, with holes, \*1-1/2" cold section at each end. MIN. WIDTH 1".



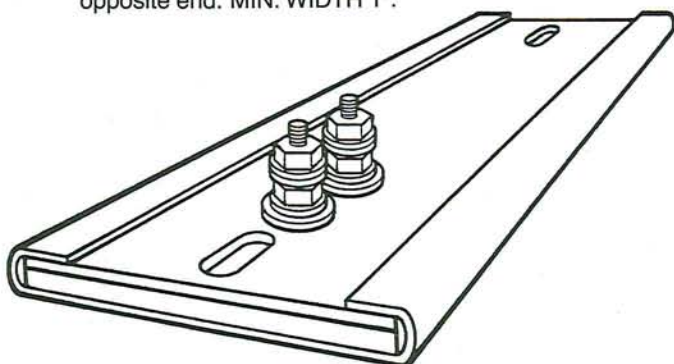
### T-4 POST TERMINALS

Located in the middle – tandem, centerline with length of heater, with holes, \* 1-1/4" cold section at each end. MIN. WIDTH 1".



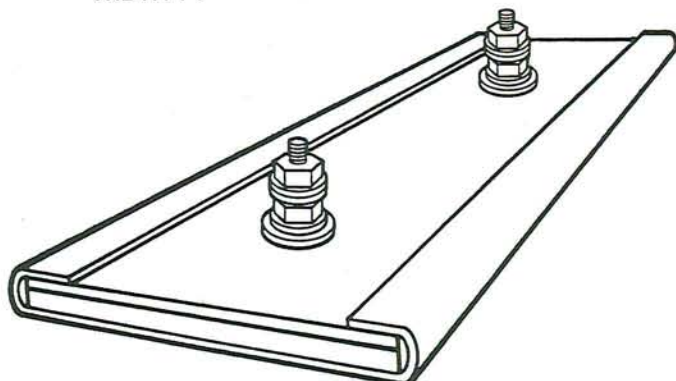
### T-2 POST TERMINALS

Tandem at one end of heater, centerline with length, with holes. \* 1-1/2" cold section at terminal end and 1" at opposite end. MIN. WIDTH 1".



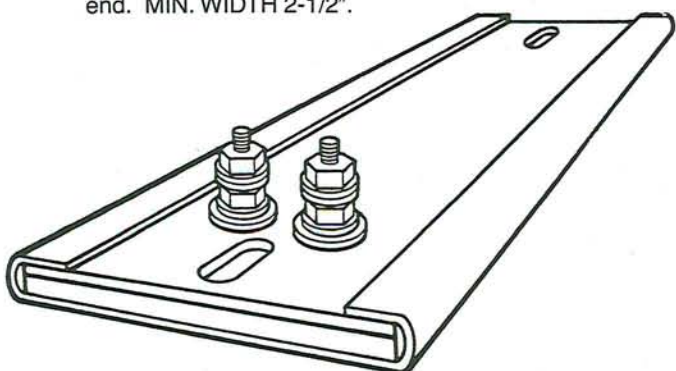
### T-5 POST TERMINALS

Opposite ends with 3/4" cold section each end. MIN. WIDTH 1".



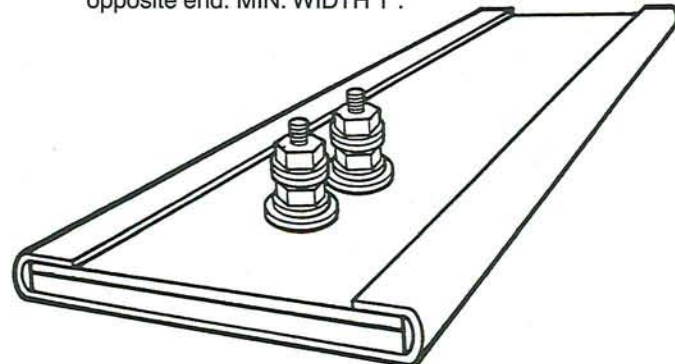
### T-3 POST TERMINALS

Parallel same end, along width of heater, with holes, \* 1-1/2" cold section at terminal end and 1" at opposite end. MIN. WIDTH 2-1/2".



### T-6 POST TERMINALS

Tandem at one end of heater, center line with length of heater with 3/4" cold section at terminal end and 3/8" at opposite end. MIN. WIDTH 1".



\*1/2" x 5/16" mounting holes are standard size.  
Standard hole center is 1/2" from end.

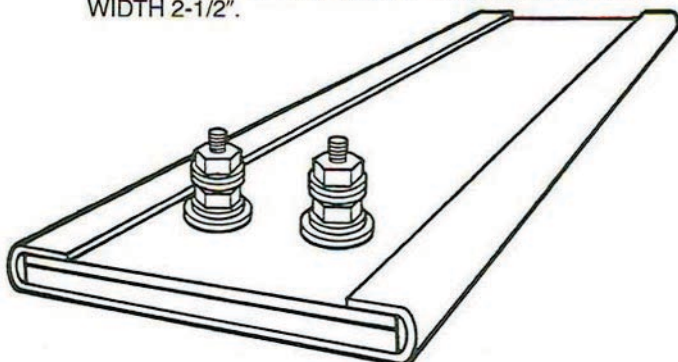


# MICA STRIP HEATERS

## STANDARD TERMINATIONS

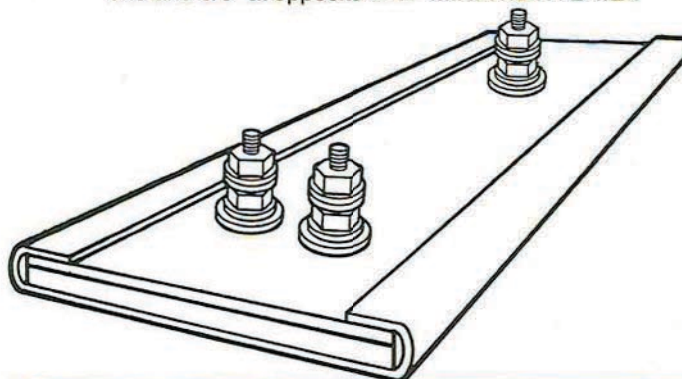
### T-7 POST TERMINALS

Parallel same end, along width of heater with 3/4" cold section at terminal end and 3/8" at opposite end. MIN. WIDTH 2-1/2".



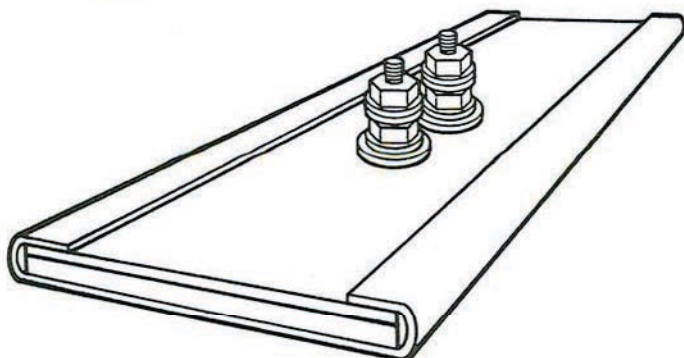
### T-10 3 POST TERMINALS

Third terminal can be added for dual voltage, grounding or 3 phase operation with 3/4" cold section at terminal end and 3/8" at opposite end. MIN. WIDTH 2-1/2".



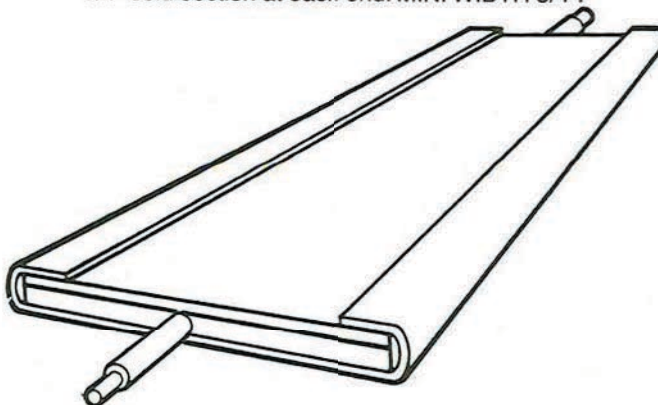
### T-8 POST TERMINALS

Located in the middle – tandem, center line with length of heater with 3/8" cold section at each end. MIN. WIDTH 1".



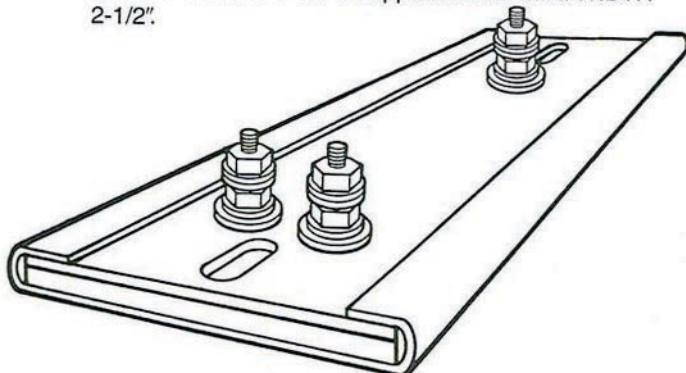
### L-1 FIBERGLASS LEADS

Exiting at each end of heater, 10" fiberglass leads with 3/4" cold section at each end. MIN. WIDTH 3/4".



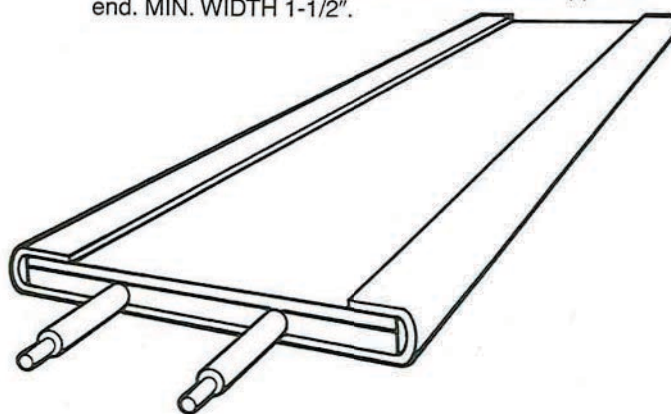
### T-9 3 POST TERMINALS

Third terminal can be added for dual voltage, grounding or 3 phase operation, with holes.\* 1-1/2" cold section at terminal end and 1-1/4" at opposite end. MIN. WIDTH 2-1/2".



### L-2 FIBERGLASS LEADS

Exiting at same end of heater, 10" fiberglass leads with 3/4" cold section at terminal end and 3/8" at opposite end. MIN. WIDTH 1-1/2".

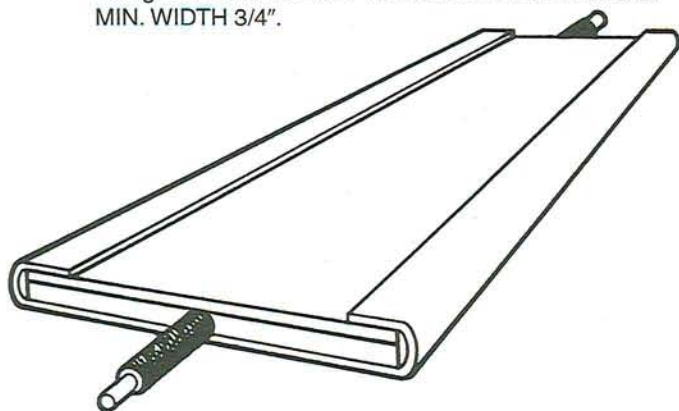




## STANDARD TERMINATIONS

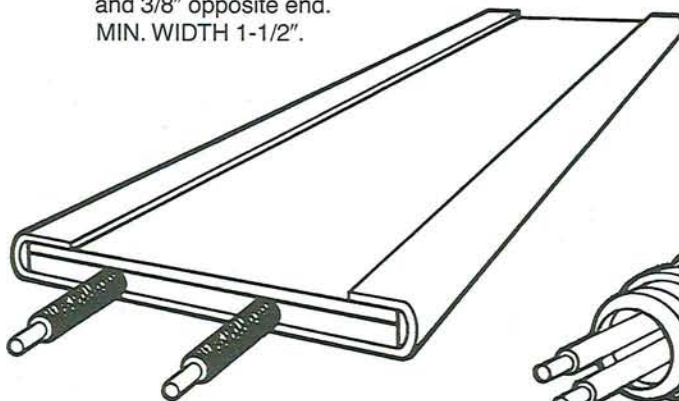
### A-1 METAL OVERBRAID

Exiting each end, 10" overbraid covering 12" fiberglass leads with 3/4" cold section at terminal end. MIN. WIDTH 3/4".



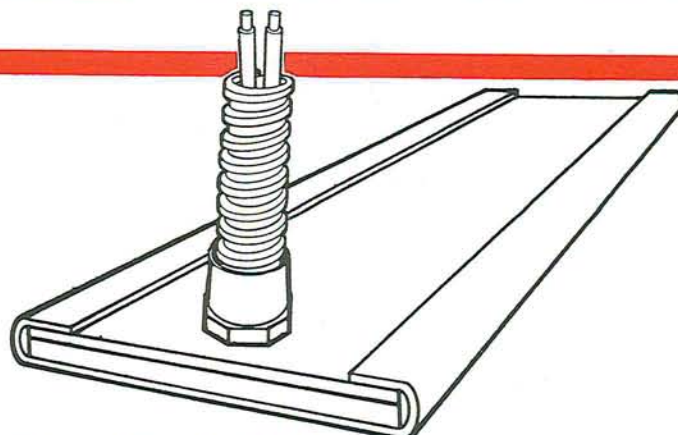
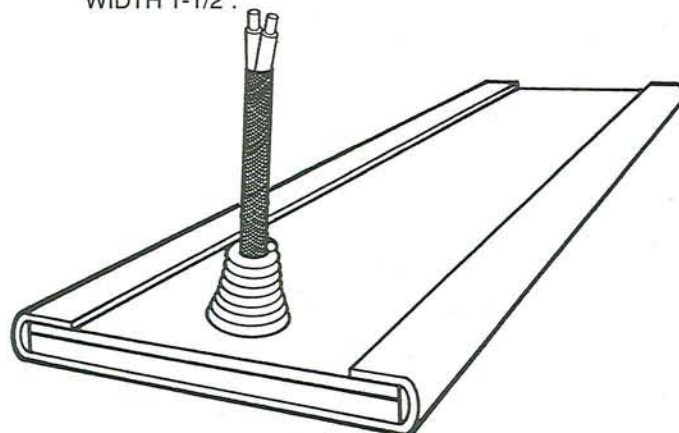
### A-2 METAL OVERBRAID

Exiting same end, 10" overbraid covering 12" fiberglass leads with 3/4" cold section at terminal end and 3/8" opposite end. MIN. WIDTH 1-1/2".



### C METAL OVERBRAID

Exiting from one end of heater surface through a strain relief with 10" overbraid covering 12" fiberglass leads with 3/4" cold section at terminal end and 3/8" opposite end. MIN. LENGTH 5-1/2". MIN. WIDTH 1-1/2".

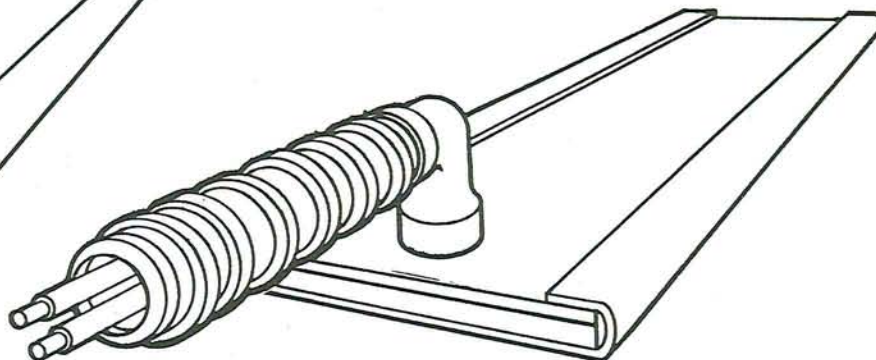


### M FLEXIBLE METAL HOSE

Specify stainless steel or galvanized conduit over lead wires exiting from one end of heater surface. 10" metal hose covering 12" fiberglass leads with 3/4" cold section at terminal end and 3/8" opposite end. MIN. LENGTH 5-1/2". MIN. WIDTH 1-1/2".

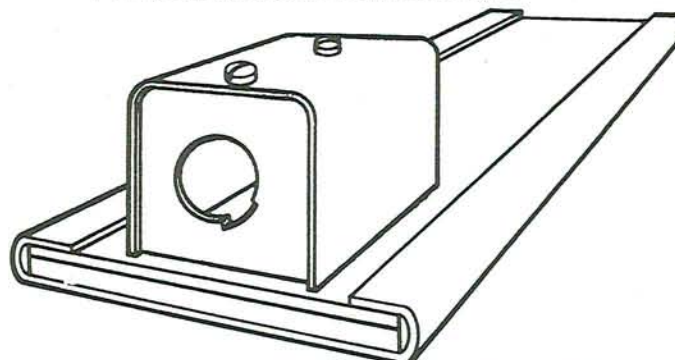
### MR RIGHT ANGLE FLEXIBLE METAL HOSE

Specify stainless steel or galvanized metal hose covering fiberglass leads exiting from one end of heater surface. Can be positioned in any direction with 3/4" cold section at terminal end and 3/8" opposite end. MIN. LENGTH 5-1/2". MIN. WIDTH 1-1/2".



### TB TERMINAL BOX PROTECTION

Designed in standard height of 1-3/4" high, with 5/8" conduit knockout for standard metal hose connections. Protects terminals from damage, spill leakage, grounding or short circuiting. Available on T-2, T-3, T-4, T-6, T-7 and T-8. MIN. LENGTH without mounting holes 4-1/2", with holes 6". MIN. WIDTH 1-1/2".

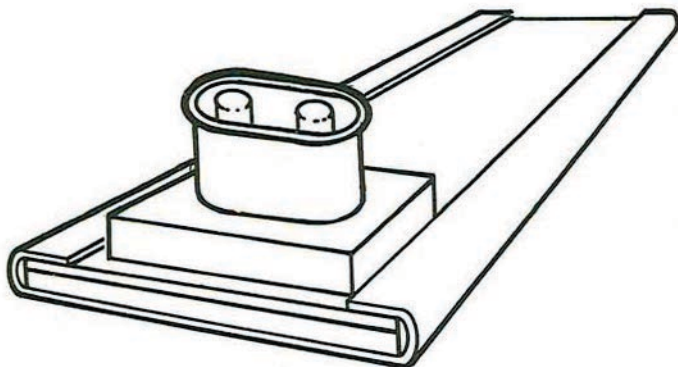




# MICA STRIP HEATERS

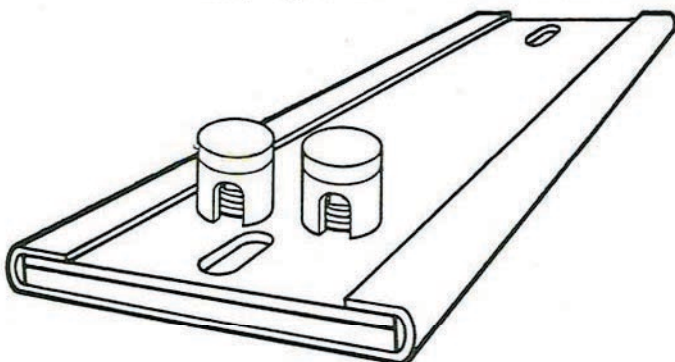
## EP - EURO PLUG

Quick disconnect high temperature cup assembly, provides a safe method of applying power to heater installations. MIN. WIDTH 1", MAX. AMPS 15 at 240 volts, MAX volts 240.



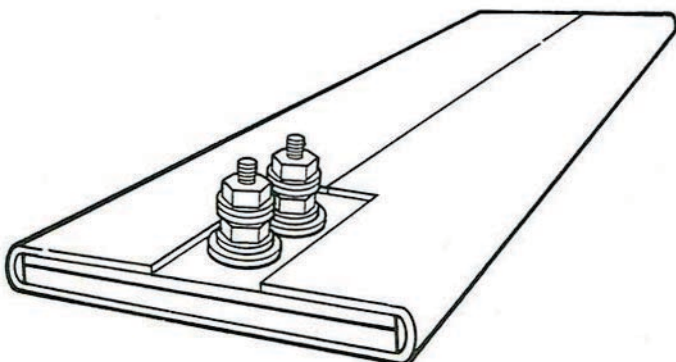
## CERAMIC TERMINAL COVERS

Protects against electrical shock. Can be used with insulated wire and rotated at any angle. Standard screw size 10/24.



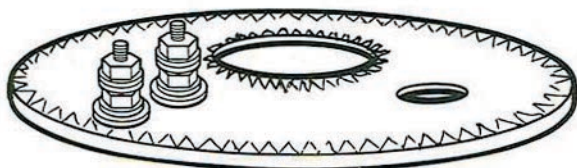
## BUTT CONSTRUCTION

**SPECIFY** butt case construction when needed to reduce air gaps between strip heater and surface to be heated.



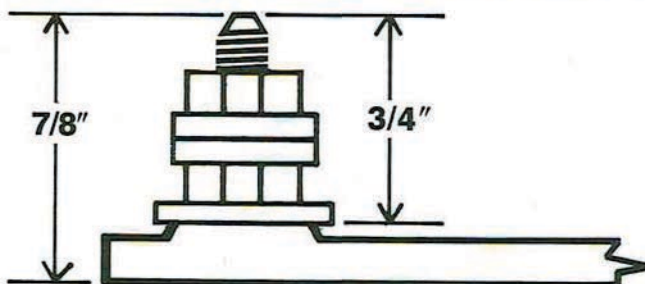
## MICA RING HEATERS

Either in 1-piece or 2-piece construction – **SPECIFY** inside and outside diameter. **FAX DRAWING** for specified location of terminals, thermocouple or mounting holes. MIN. ID 4.0"



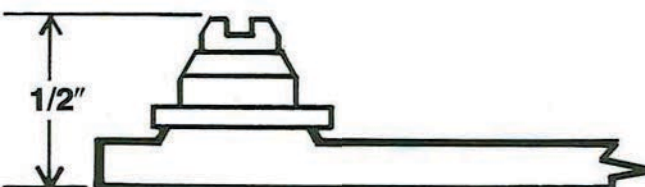
## STANDARD POST TERMINALS

Post terminals with 10-24 threads are standard with thread length of 7/16" and clearance height of 3/4" from bottom of the heater.



## BUTTON TERMINALS

Button terminals are available with 10-32 and 6-32 screw. **SPECIFY.**



## MICA STRIP SPECIFICATIONS

### WATT DENSITY

Depends on size and operating temperature, up to 35 w/sq. in.

### SHEATH MATERIAL

Standard electro-plated steel or stainless steel

### INSULATION MATERIAL

Mica

### RESISTANCE TOLERANCE

NEMA standard +10% -5%

### WATTAGE TOLERANCE

NEMA standard +5% -10%

### VOLTAGE DEVIATION

± 5 on design voltage

MAX. 480 VAC

### MAXIMUM SHEATH TEMPERATURES

Standard steel 800°F, stainless steel 1200°F

### LENGTH TOLERANCE

± 1/8"

### MINIMUM WIDTH

3/4"

### WIDTH TOLERANCE

1/32"

### THICKNESS, NOMINAL

3/16"

### MOUNTING AND SENSOR HOLES

Holes or slots may be specified in any location. Must have at least 1/2" between the edge of the hole and one side of the heater.

### STANDARD POST TERMINALS

10/24

### BUTTON TERMINALS

10/32 or 6/32

**DELTA**  
**MANUFACTURING**  
COMPANY INCORPORATED

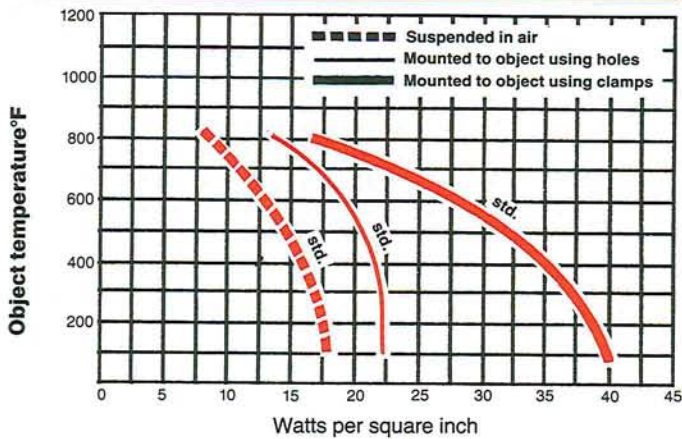


# MICA STRIP HEATERS

## OPERATING FACTORS

1. Delta mica insulated strip heaters installed with holes should be securely clamped 3-4" apart to maintain adequate contact with surface to be heated. When strip heaters are mounted less than 1½" apart, derate heaters by 5%.
2. When using strip heaters with mounting holes after heat-up time, check that the strip heater has not bowed away from the surface. Tighten the terminal end securely, but allow the opposite end to be slightly loose. This will allow linear expansion.
3. Heaters that are used in machined slots, should specify butt case construction to reduce air gaps between heater and surface to be heated.
4. Surface to be heated must be clean and smooth, void of oils, grease and dirt.
5. Delta strip heaters can be manufactured to your specifications in regard to holes, terminations, voltage/wattage ratings.

## CALCULATION OF WATTAGE



## TO ORDER MICA STRIP HEATERS SPECIFY:

1. Order by part number, if known
2. Quantity
3. Terminal type
4. Length and width dimensions. **FAX DRAWING** for specified location of thermocouple and mounting holes
5. Voltage, 480 MAX
6. Wattage, must not exceed maximum allowed watt density
7. Standard or stainless steel construction

## MICA STRIP HEATER STOCK LIST

LENGTH INCH	WIDTH INCH	WATTS	VOLTS		WATT DENSITY	PART NUMBER	STANDARD TERMINALS
			120 (1)	240 (2)			
4	1	50	*		18	MSD00A00	POST T1
	1	75	*		19	MSD00A00	A-1
5	1	200	*		37	MSE00A00	A-1
	1½	120			15	MSE00A50	POST T1
5	4	500		460	25	MSE00D00	M
6	1½	250	*		36	MSF00A50	POST T1
	3	500	*		36	MSF00C00	POST T1
6	4	600		460V	31	MDF00D00	M
6	5	700		460V	29	MSF00E00	M
6	6	800		460V	28	MSF00F00	M

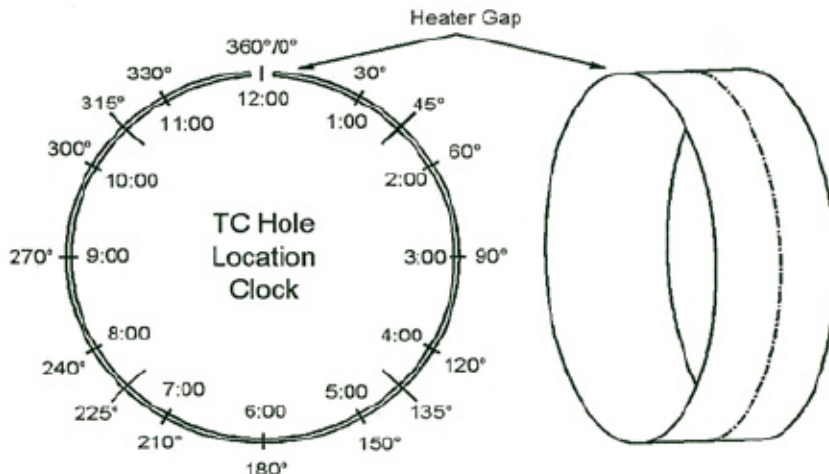
## MICA STRIP HEATER STOCK LIST

LENGTH INCH	WIDTH INCH	WATTS	VOLTS		WATT DENSITY	PART NUMBER	STANDARD TERMINALS
			120 (1)	240 (2)			
6½	3	500		*	26	MSF50C00	POST T1
7	2	250	*		26	MSG00B00	POST T1
	2½	300		*	18	MSG00B50	A-1
	9	1500		*	24	MSG00J00	POST T3
8	1	100	*		28	MSH00A00	POST T2
	1	150	*		30	MSH00A00	POST T5
	1	165	*		20	MSH00A00	POST T1
	1½	150	*		24	MSH00A50	POST T1
	1½	150	*		25	MSH00A50	POST T2
	1½	250	*		27	MSH00A50	POST T1
	2	250	*		21	MSH00B00	POST T1
	2½	325		*	19	MSH00B50	POST T1
	2½	400		*	27	MSH00B50	POST T1
	2½	500		*	28	MSH00B50	POST T8
	4	100	*		14	MSH00D00	POST T7
8½	6	1200		*	24	MSH25F00	POST T7
9	1½	225	*		31	MSJ00A50	POST T6
	1½	250	*		28	MSJ00A50	A-2
	2	300		*	24	MSJ00B00	POST T1
	4	350		*	28	MSJ00D00	M
	18	650		*	22	MSJ00T00	POST T3
10	1	200	*		22	MSK00A00	POST T2
	1½	225	*		26	MSK00A50	POST T1
	1½	250	*		20	MSK00A50	POST T2
	2	275		*	18	MSK00B00	A-1
	2	325		*	21	MSK00B00	POST T1
	2½	500		*	23	MSK00B50	POST T1
	11½	1250		*	11	MSK00L75	C
10½	6	900		*	14	MSK50F00	C
	11½	1250		*	10	MSK50L75	C
12	1½	200	*		16	MSM00A50	A-2
	1½	200	*		18	MSM00A50	POST T5
	1½	250	*		20	MSM00A50	POST T5
	1½	500	*		28	MSM00A50	POST T5
	2	350		*	20	MSM00B00	POST T5
	2½	450		*	16	MSM00B50	POST T3
	3	1000		*	30	MSM00C00	POST 7
	4	600		*	20	MSM00D00	POST T3
	11	2000		*	17	MSM00L00	POST T3
13½	16	5000		*	22	MSN50R00	POST T7
14	2½	625		*	20	MSP00B50	POST T3
15	1½	400		*	19	MSQ00A50	POST T2
16	1½	500		*	23	MSR00A50	POST T2
	2½	800		*	21	MSR00B50	POST T3
17	1½	500		*	21	MSS00A50	POST T1
18	1½	800		*	30	MST00A50	POST T5
	2½	675		*	15	MST00B50	POST T5
	6	550		*	23	MST00F00	POST T7
20	1	575		*	22	MSV00A00	POST T5
22¾	1½	1000		480V	32	MSBB75A50	POST T5
24	1½	500		*	15	MSBDA50	POST T5
28	1½	600		*	15	MSBHA50	POST T5
30	1	575		*	20	MSC0A00	POST T5
30¾	2	1000		*	17	MSC075B00SS	POST T7
32	1½	750		*	16	MSCBA50	POST T5
40	2	1240		*	16	MSD0B00SS	POST T7
78	3	4000		480V	16	MSGHC00	POST T7
93½	3½	1600		*	6	MSJC50C50	POST T7
97	3½	2250		*	9	MSJGC50	POST T7

The above list is of common sizes and ratings available.  
Not all items are stocked.

**DELTA**  
MANUFACTURING  
COMPANY INCORPORATED





DELTA MANUFACTURING CO  
MICA BAND Specification Data  
Sheet

Note: Drawing is for illustration purposes only

Customer Name

Contact

Phone #

Address

Fax #

E-Mail Address

Maximum Operating Temperature \_\_\_\_\_ F°

Heater Dimensions:

\_\_\_\_\_ I.D. (in) \_\_\_\_\_ Width (in)

\_\_\_\_\_ I.D. (mm) \_\_\_\_\_ Width (mm)

Rating:

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

☐ 1-Phase ☐ 3-Phase ☐ Special

Construction:

☐ 1-piece ☐ 2-piece ☐ Partial

☐ Expandable ☐ Hinged ☐ Internal

Clamping:

☐ Separate Strap ☐ Flange ☐ Built-in

☐ Low Profile Strap

Post Terminations:

☐ Standard T1 ☐ Tandem T2

☐ Parallel T3 ☐ Dual Voltage T10

☐ Button BT ☐ Ground

Lead Terminations: ☐ Fiberglass Length \_\_\_\_\_

☐ Overbraid/Conduit \_\_\_\_\_

At Gap: ☐ Metal Braid (A) ☐ Fiberglass (L)

Opposing into Gap: ☐ Fiberglass (K)

Single Exit: ☐ Metal Braid (C)

☐ Fiberglass (Y)

☐ Conduit (M) \_\_\_\_\_ Galvanized \_\_\_\_\_ S. Steel

☐ Right Angle Elbow (MR)

☐ 3-PH w/ Metal Braid

☐ 3-PH w/Conduit \_\_\_\_\_ Galvanized \_\_\_\_\_ S. Steel

☐ Ground Wire

Single Edge Exit: ☐ Metal Braid (B)

NOTE: All lead wire - maximum 10 amps

Other:

☐ Terminal Box - Standard 2-Terminal (TB)

☐ Terminal Box - 3-Terminal (TB 3)

☐ Ceramic Caps (CC)

☐ Euro Plug (EP) Standard

☐ Euro Plug w/box (EPB) \_\_\_\_\_ Horizontal \_\_\_\_\_ Vertical

ALL (EP) maximum 15 amps

☐ Quick Disconnect: (QD) \_\_\_\_\_ 2-Prong \_\_\_\_\_ 3-Prong

☐ Specify (QD) Plug Number \_\_\_\_\_

OPTIONS:

☐ Stainless Steel Sheath

☐ End Fold (Exceptions)

☐ Special Gap Width 1-pc Construction \_\_\_\_\_ (in)

☐ Special Gap Width 2-pc Each End \_\_\_\_\_ (in)

☐ Specify All Hole/Notch location(s) above dwg.

☐ Internal Thermocouple ☐ Type "J" ☐ Type "K"

☐ Thermocouple Bayonet Adaptor \_\_\_\_\_ length

☐ Customer's Part Number

☐ UL Recognized

☐ Other

(Specify) \_\_\_\_\_

If unsure of location(s) of holes/cutouts, FAX or e-mail drawings to: 918-224-6866 or [info@deltamfg.com](mailto:info@deltamfg.com) Or send sample to: 8717 W. 84<sup>th</sup> Street, Tulsa Ok . 74131

**DELTA**  
MANUFACTURING  
COMPANY INCORPORATED