



Estd. 1969  
Mumbai, INDIA

# PRATIK HEAT PRODUCTS

MANUFACTURERS & EXPORTERS OF QUALITY INDUSTRIAL HEATING ELEMENTS



The first choice, to last...™

HEATERS FOR HOT RUNNER SYSTEMS | CARTRIDGE HEATERS | BAND HEATERS | ENERGY SAVING JACKETS | THERMOCOUPLES



## *Golden Years of Quality, Innovation & Trust*

Pratik Heat Products Pvt Ltd (PHP), a 2nd Generation & India's leading manufacturer and Exporter of Industrial Heating Elements, caters primarily to the Plastic processing industries and other verticals. Co-founded in 1969, with a vision to provide quality heating elements under the dynamic and able leadership of technocrat Late Mr. Rameshchandra Shah and Mr. Rajnikant Shah, the company has since then scaled new heights making inroads not just in India but across the globe.

With more than 50 years of consistent innovation PHP has earned its leadership through Quality, trust and customer satisfaction, today proudly exports across the globe to more than 26 countries including U.S.A., U.K., Canada, Germany, Australia, Europe, Taiwan, Middle East, African Continent, South East Asia to Various OEM's & end users as well.

### **Make in India**

PHP has been proudly carrying the flag of 'Make in India' for the last 50 years, & has played a Pioneering role in consistently developing import substitutes with indigenous technology manufacturing Coil Heaters for Hot Runner Moulds, Flexible Tubular Heaters, High Watt Density Cartridge Heaters & Energy Efficient Band Heaters.

### **Assuring highest quality adhering to international standards**

For team PHP, quality is not an act but a way of life. The company is able to leverage on process automation to deliver Quality products, maintaining overall consistency across the range by following internationally recognized quality control and work in process inspection methods. Over the years, the company has achieved CE Certification which further reiterates the company's commitment to follow highest-quality standards, assuring its customers about excellent deliverables successfully delivering product innovation and customised solutions.

Pratik Heat Products Pvt Ltd (PHP) has three state-of-the-art manufacturing units located in India with well-trained dedicated workforce, having several years of collective and professional experience. The units are powered with latest technology adhering to the most energy efficient manufacturing practices.

### **The first choice, to last...™**

#### *Our Global Reach*



# High Watt Density Cartridge Heaters



## FEATURES

- Available with in built Thermocouple
- Highly Non-corrosive
- Even heat profile & Max temp up to 750°C
- Available with various Lead Exits & Cable Protection options
- Sealed Bottom with Conical End disk to avoid contamination and for easy replacements

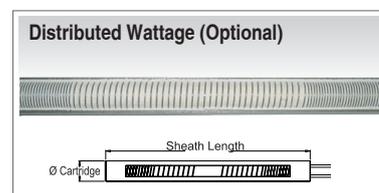
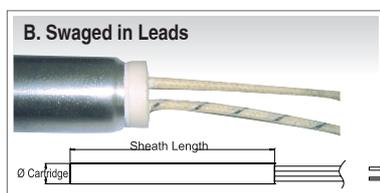
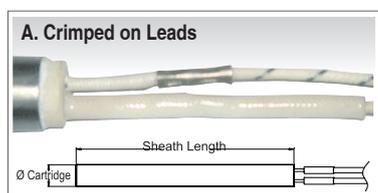
## TECHNICAL DATA

- Sheath material: SS
- Surface Loading: upto 150 watts / in<sup>2</sup>
- Voltage Range: 12 to 440 volts
- Leakage Current: < 0.5 mA
- Available Diameters: Min Dia: 1/4" & 6 mm, Max Dia: 1" & 20 mm
- Available Lengths: Min length: 1½" & 40 mm, Max length: 40" & 1000 mm
- Tolerance on length is 3mm upto 150mm above 150mm +/- 2%
- Tolerance on wattage +/-10%
- J type built in thermocouple available only at disc end and with PTFE leads

## LEAD ORIENTATION

A) Crimped on leads: PTFE/Fibreglass Flexible lead crimped on solid pin emerging from the heater.

B) Swaged in Leads: Flexible Fibre Glass or PTFE leads emerging from within the heater.



## DIMENSIONAL DATA

Nominal Diameter	1/4"	3/8"	1/2"	5/8"	3/4"	6.5 mm	8 mm	10 mm	12.5 mm	16 mm	20 mm
Minimum Diameter	.246"	.372"	.496"	.621"	.746"	6.42 mm	7.92 mm	9.92 mm	12.42 mm	15.92 mm	19.92 mm
Maximum Diameter	.249"	.374"	.499"	.624"	.749"	6.48 mm	7.98 mm	9.98 mm	12.48 mm	15.98 mm	19.98 mm
Minimum Length	1½"	1½"	2"	2"	3"	40 mm	40 mm	40 mm	50 mm	50 mm	75 mm
Maximum Length	8"	10"	18"	24"	24"	200 mm	200 mm	250 mm	450 mm	600 mm	600 mm
Lead wires in mm <sup>2</sup>	.5	.75	1	1.5	2.5	.5	.75	.75	1	1.5	2.5
Maximum Amperes	4	6	8	12	18	4	6	6	8	12	18

For options other than mentioned above, please consult.

## HIGH WATT DENSITY CARTRIDGE HEATERS FOR LOW VOLTAGE

These highly compacted heating elements have been developed primarily for heating of small parts. The sheath which is Chrome Nickel Steel serves as a return conductor therefore these cartridge heaters are used at low voltage up to 42 V max.

## TECHNICAL DATA (LOW VOLTAGE CARTRIDGE HEATERS)

- Maximum sheath temperature 500°C (approx)
- Connection cable: Fibre glass / Teflon / or bolt connection of M3 x 0.50 mm



# Coil Heaters

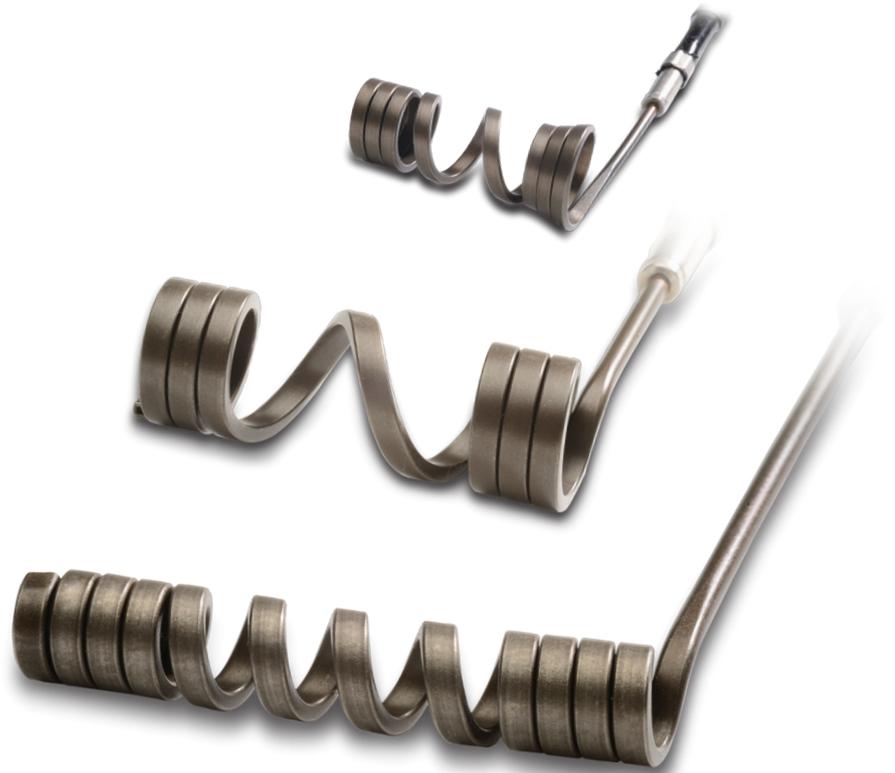
## FEATURES

- Sheath material: SS
- Standard sizes available with various cross section
- Various Watt Density options available
- Designed for even heat profile
- Precision fit on Hot Runner Nozzles
- Highly Non-corrosive

## TECHNICAL DATA

- Sheath Temperature: 750°C Max
- Voltage Range: 24 to 250 volts
- Standard Wattage: 250W, 330W, 400W, 470W, 550W, 650W, 750W, 850W, 1000W, 1100W
- Connection Wires: 1000 mm Stranded Nickel wires with PTFE coating
- Available Cross Sections (in mm):
  - ⊕ Round: 2.9, 3.3, 3.8
  - ⊠ Square: 3 x 3, 3.3 x 3.3
  - ▭ Flat: 1.8 x 3.2, 2.2 x 4.3, 2.5 x 4.0, 4.0 x 6.4

Tolerance on all dimensions  $\pm 0.1$ mm

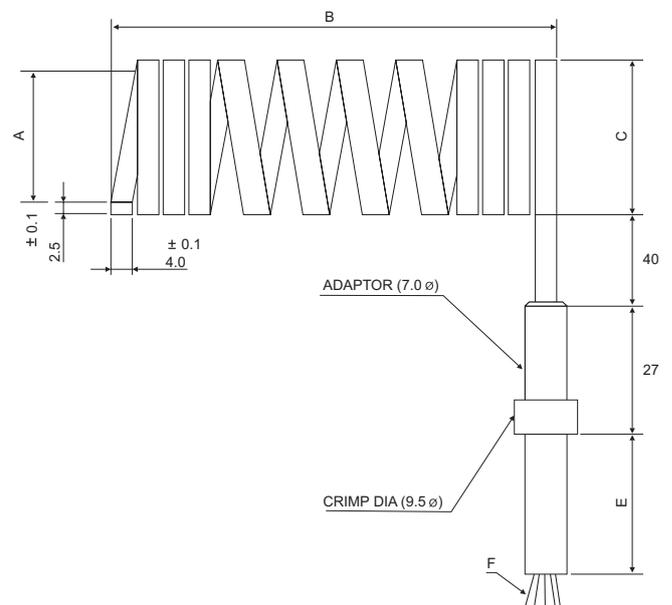


## READY STOCK COIL HEATERS WITH J TYPE THERMOCOUPLE (UNGROUND)

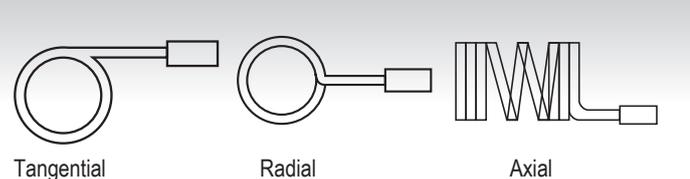
Available Ex Stock. Dispatched within 48 hours (for standard lengths only).

**Caution:** Once a heater is bent or coiled it is not advised to de-coil or re-bend the same.

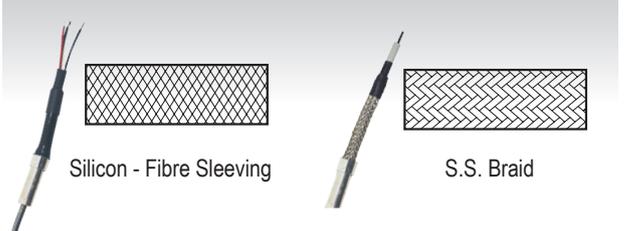
DIMENSIONAL DATA	SPECS	TOLERANCE
ID	A	- 0.4 - 0.2
LENGTH	B	$\pm 1$ mm
OD	C	
COLD LENGTH	D	$\pm 5$ mm
CABLE LENGTH	E	$\pm 25$ mm
WATTS	W	$\pm 10$ %
VOLTS	v	
2 POWER CABLE		
2 THERMOCOUPLE	F	
1 GROUND (EARTHING)		



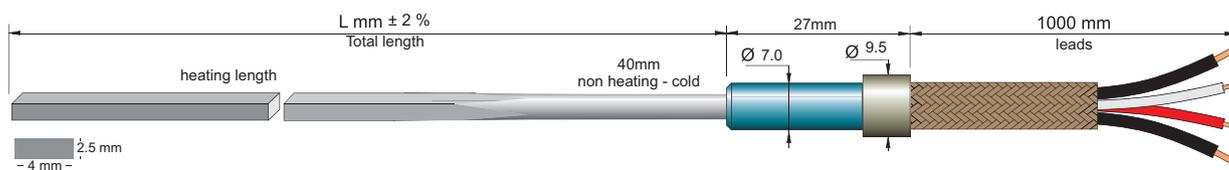
## EXIT OPTIONS



## CABLE OPTIONS

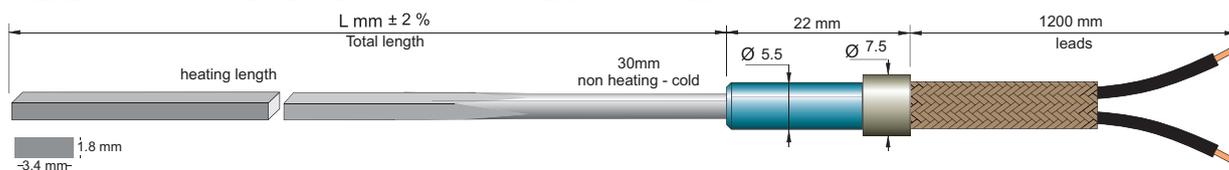


## READY STOCK COIL HEATERS WITH J TYPE THERMOCOUPLE

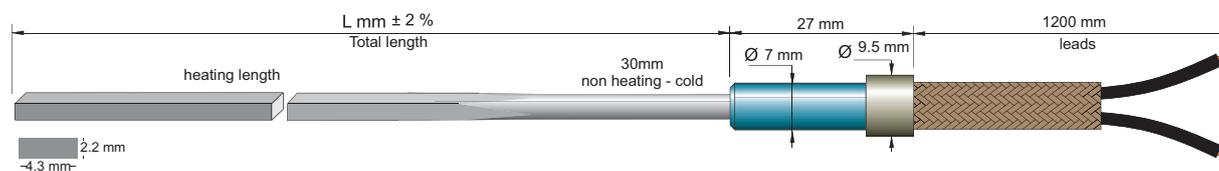


PART NUMBER	WATTS	HEATING LENGTH (MM)	COLD LENGTH (MM)	VOLTS
CT 025 032 0250	250	280	40	230
CT 025 044 0330	330	400	40	230
CT 025 055 0400	400	510	40	230
CT 025 064 0470	470	600	40	230
CT 025 076 0550	550	720	40	230
CT 025 088 0650	650	840	40	230
CT 025 106 0750	750	1020	40	230
CT 025 119 0850	850	1150	40	230
CT 025 144 1000	1000	1400	40	230
CT 025 169 1100	1100	1650	40	230
CT 025 184 1200	1200	1800	40	230

## READY STOCK COIL HEATERS WITHOUT THERMOCOUPLE

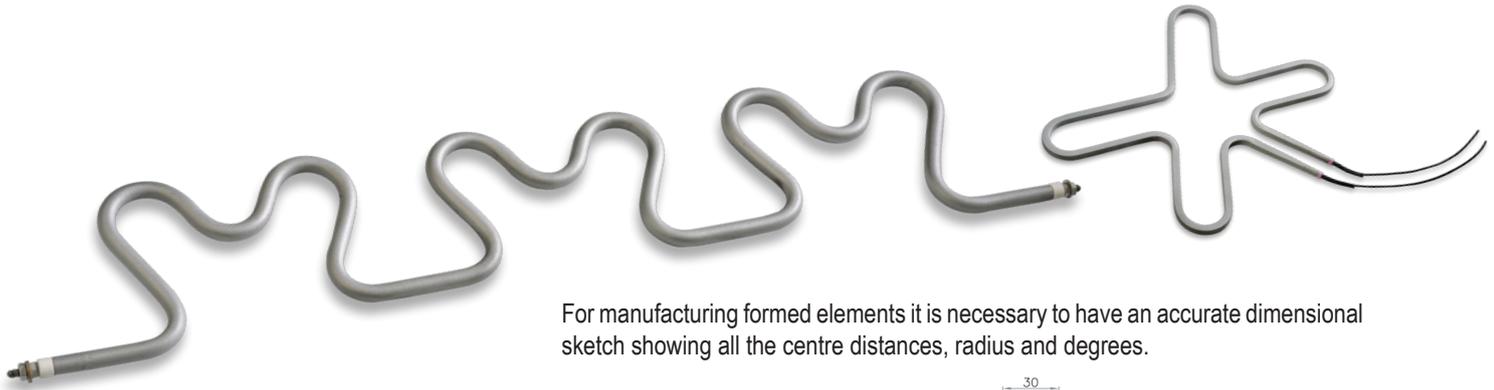


PART NUMBER	SIZE (MM)	WATTS	HEATED LENGTH (MM)	COLD LENGTH (MM)	VOLTS
CH 018 033 0225	1.8 x 3.4	225	300	30	230
CH 018 037 0250	1.8 x 3.4	250	340	30	230
CH 018 043 0300	1.8 x 3.4	300	400	30	230
CH 018 050 0360	1.8 x 3.4	360	465	30	230
CH 018 059 0425	1.8 x 3.4	425	560	30	230
CH 018 069 0460	1.8 x 3.4	460	660	30	230
CH 018 079 0520	1.8 x 3.4	520	755	30	230



PART NUMBER	SIZE (MM)	WATTS	HEATED LENGTH (MM)	COLD LENGTH (MM)	VOLTS
CH 022 027 0250	2.2 x 4.3	250	240	30	230
CH 022 047 0350	2.2 x 4.3	350	440	30	230
CH 022 059 0400	2.2 x 4.3	400	555	30	230
CH 022 069 0470	2.2 x 4.3	470	660	30	230
CH 022 075 0560	2.2 x 4.3	560	715	30	230
CH 022 085 0600	2.2 x 4.3	600	820	30	230
CH 022 103 0680	2.2 x 4.3	680	1000	30	230
CH 022 138 0750	2.2 x 4.3	750	1350	30	230
CH 022 143 1000	2.2 x 4.3	1000	1400	30	230
CH 022 183 1200	2.2 x 4.3	1200	1800	30	230

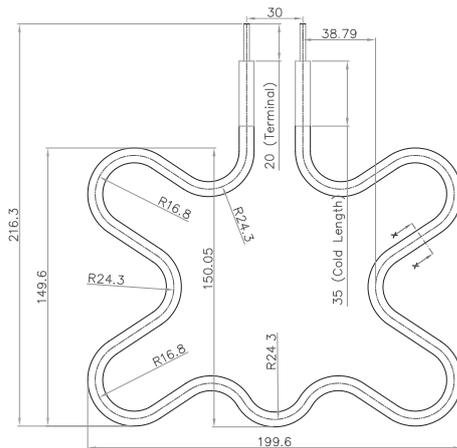
# Preformed Tubular Heaters for HR Manifolds



For manufacturing formed elements it is necessary to have an accurate dimensional sketch showing all the centre distances, radius and degrees.

## FEATURES

- Available in Chrome Nickel Steel
- Sealed Edges to prevent from Moisture
- Superior Grade Magnesium Oxide Insulation
- Swaged for Good Electrical Insulation & Heat Transfer
- Available in Dia 8.5 mm, 8 mm, 6.5 mm & square section 6 mm x 6 mm
- Standard Length: 300 mm upto 1550 mm



- Heater dia=8.0 mm
- Heater Hot Length=830 mm
- Total Heater Length=900 mm
- Wattage=High Wattage
- Voltage=230V

# Flexible Tubular Heaters for HR Manifolds

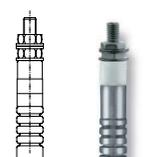
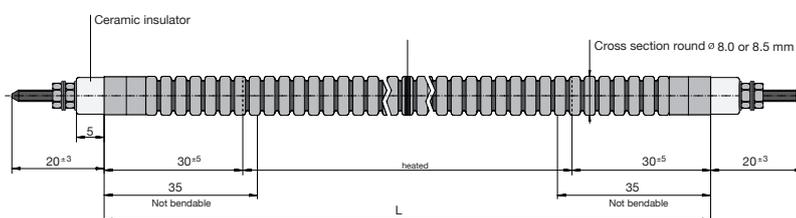


## FEATURES

- Available Dia 8.00 & 8.50 mm
- Standard Length available 400 mm upto 1550 mm (Tolerance  $\pm 1.5\%$ )
- Effortless forming for Easy installation
- Maximum sheath contact (upto 75%)
- Rapid heat transfer and distribution
- Minimal temp. variance between heater sheath & manifold
- Reduced energy costs
- Smaller bending radius (12 mm)
- Groove Dimensions -  
For 8 mm: 7.80 (W) ( $\pm 0.05$ ) mm x 8.00 (H) ( $\pm 0.10$ ) mm,  
For 8.5 mm: 8.30 (W) ( $\pm 0.05$ ) mm x 8.50 (H) ( $\pm 0.10$ ) mm

## STOCK SIZES - FOR DIA 8.0MM & 8.50MM

LENGTH (MM)	WATTS
400	800
450	900
500	1000
550	1150
600	1250
650	1400
700	1500
750	1600
800	1750
850	1850
900	1950
950	2100
1000	2200
1050	2300
1100	2450
1150	2550
1200	2650
1250	2800
1300	2900
1350	3000
1400	3150
1450	3250
1500	3350



Standard: threaded pins M2.5  
Option: M4 with set of nuts and washers

# High Performance Heaters for Machine Nozzles

## FEATURES

- Standard sizes available with various cross section
- Robust Design
- Available in custom sizes
- Various Watt Density option available
- Designed for even heat profile
- Precision fit on Machine Nozzles
- Highly Non-corrosive
- Good for processing engineering plastics
- High Return on Investment



## TECHNICAL DATA

- Sheath material: SS
- Voltage Range: 24V - 250V
- Sheath Temperature: upto 400°C
- Good for processing engineering plastics
- Available Diameters: 25 mm to 38 mm
- Available Width : 25 mm to 75 mm with & without in-built thermocouple 'J' type

## SPECIAL 'PHP' FEATURES

- Quick ramp up of temperature due to higher watt density
- Negligible effect of material spillage
- Efficient even heat transfer with inner Brass Collet
- Accurate Temperature Control at the nozzle tip
- Higher operating temperature (400°C max) compared to conventional Mica Band Heaters (250°C max)

# Micro Tubular Coil Heaters

## FEATURES

- Sheath material: SS
- Two standard tube diameters, 1.50 mm and 1.80mm (0.059" & 0.07")
- Faster Heat Transfer with flat cross section tube (1.30mm x 2.30mm)
- Staggered cold leads
- Robust Construction

## TECHNICAL DATA

- Sheath Temperature: 750°C Max
- Lead Wires: 1800 mm Cable Teflon insulated



### Micro Tubular Nozzle Heater

- Available Diameters:  
19.05 mm x 30.50 mm, 268W 240V  
19.05 mm x 30.50 mm, 149W 240V



# Ceramic Band Heaters



## FEATURES

- AL Steel / SS Sheathing
- Designed with Uniform heat profile for Higher Temperature up to 500°C.
- Improved Heating Efficiency upto 55 Watts / sq inch
- Efficient Heat Transfer even on irregular surfaces in comparison to Mica Band
- Robust Terminal Junction with Specially Designed Protection Cap.
- Non-Corrosive Sheathing withstanding high temperature upto 700°C.
- Choice of Terminations & Clamping
- Engineered for Longer life with Superior quality steatite insulators & Resistance wire for Max. Amp capacity.
- Serrated Edges for Easy installation and removal.

## TECHNICAL DATA

- Surface Loading: 35-55W / Sqin, Voltage Range: 110V - 440V
- Min Diameters: Eco Heat : 60mm, Energy saver : 75 mm
- Min Width: Eco Heat : 35mm, Energy saver : 75mm

## Two Models To Choose From

Style  
1

### Eco-Heat

- Built in Thermal Insulation
- Barrel Nut Clamping 180 Deg opp Terminal.
- Choice of Two Piece Construction
- Choice of SS Sheathing.

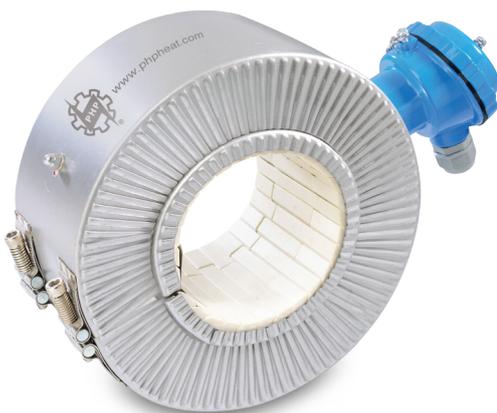


Style  
2

### Energy Saver

- Conserves Energy up-to 30%\*
- Built in Twin Thermal Insulation
- Reduces initial preheating time & Maintains uniform temperature for a longer duration
- Minimizes Heat Dissipation & Lowers external sheath temperature upto 70%
- Reduces energy consumption by delaying ON/OFF cycle time thereby reduces energy bills.
- Provides better working atmosphere.
- Faster Returns on Investments (ROI) in comparison to ordinary Band Heaters.

\*Energy Conservation is subject to Heater model / applications / Process & local conditions at site.



# Mica Heaters (Band | Nozzle)

## FEATURES

- AL Steel / SS Sheathing
- Engineered for Uniform Temperature & Maximum Amperage carrying capacity
- Robust Terminal Junction with specially designed Chrome Nickel Steel protection cap to protect exposed terminals
- Special High Grade Mica insulation for Superior Thermal Conductivity
- Available in Various Lead Terminations & Clampings
- Conserves Energy with improved Heating Efficiency Up to 30 Watts per square inch
- Designed for Temperatures up to 300°C
- Glass Fibre insulated Metal Braided Terminal Cable
- Barrel Nut type clamping with Terminal Protection Box
- Expandable to fit around the Barral O.D. Easy installation & removal

## TECHNICAL DATA

- Surface Loading: Upto 30W / in<sup>2</sup>
- Voltage Range: 110V - 440V Single Phase & Two Phase
- Min. Inside Diameter: 25 mm
- Min. Width: 25 mm without mounting / thermocouple holes  
35mm with mounting / thermocouple holes



## Models To Choose From

Style  
1

### Eco-Heat

- Choice of Aluminized Steel Sheathing / SS
- Choice of Screw Post terminal with Ceramic or Steel protection cap



Style  
2

### Power Saver

- Option of SS / Brass Inner Sleeve
- Energy saving insulated SS cover
- Also available in Two Piece Construction

Style  
3

### Mica Nozzle Heater with Steel Protection Cap



Style  
4

### Mica Nozzle Heater with Side Exit Terminal



# Energy Saving Insulated Jackets

## FEATURES

- Conserves Energy upto 30%\* & Lowers Energy Bills.
- Reduces Heat Loss upto 80%\* on Barrels & Extruders.
- Lowers Ambient Temperatures.
- Non - Flammable Reusable Covers.
- Multilayer Design to withstand High Temperatures.
- Low Thermal Conductivity.
- Corrosion Resistant & 100% Asbestos Free.
- Custom made for Easy Maintenance & Installation
- High Returns Low Investment.



## DESIGN COMPONENTS

High Temperature Coated Outer Layer

Robust High Temperature Velcro Straps

Heavy Duty Locking Clip



(inside) High Temperature Fiberglass cloth

(inside) High Density Insulation

## HIGH RETURNS LOW INVESTMENT

ROI is 8 to 15 months for Injection Moulding (\*Subject to Machine Tonnage & Insulation)

ROI 6 to 24 months for Blown Film Extruders (\*Subject to Die Size & Insulation)

Also available with Aerogel Insulation



# Manifold Thermocouples

Type  
1

## PIN TYPE MANIFOLD THERMOCOUPLE

- Measurement range : 0 to 400°C
- Classification tolerance : Class 2
- TC with bend protection spring, lead length 2000mm and measuring point ungrounded
- Sensor Dimension :  $\varnothing 4 \times 12\text{mm}$  bore hole M4
- Type : J-Type, Fe-CuNi, IEC60584
- Lead Type : GLS

Type  
2

## RING /WASHER TYPE MANIFOLD THERMOCOUPLE

- Measurement range : 0 to 260°C
- Classification tolerance : Class 1
- TC with bend protection spring, lead length 1000mm and measuring point ungrounded
- Sensor Dimension : Hole Dia ID 5.1mm, OD 12.7mm, Thickness 5mm
- Type : J-Type, Fe-CuNi, IEC60584
- Lead Type : GLS



# Mineral Insulated Thermocouples

## FEATURES

- Measurement range : -40°C to +750°C
- Classification tolerance : Class 1 or 2
- All TC with bend protection spring, lead length 2000mm and measuring point ungrounded
- Dia available 1mm & 1.5mm
- Length : 90mm, 150mm, 250mm
- Type : J-Type, Fe-CuNi, IEC60584
- Lead Type : GLS





## *Our Global Reach*

Canada, USA, Colombia, United Kingdom, Finland, Spain, Germany, Greece, Turkey, Israel,  
UAE, Oman, Russia, Nigeria, Kenya, Tanzania, Uganda, Ethiopia, Sri Lanka,  
South Korea, Taiwan, Vietnam, Phillipines, Singapore, Thailand, Malaysia, Australia



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MANUFACTURERS & EXPORTERS OF QUALITY INDUSTRIAL HEATING ELEMENTS

*Golden Years of Quality, Innovation & Trust*

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