



# ASPIRE POLYMER AND MOULD SOLUTION

## MANUFACTURER OF INDUSTRIAL HEATER & THERMOCOUPLE



Since its inception in the year 2008, Aspire Incorporation, company is involved in manufacturing, supplying, distributing and wholesaling a wide variety of products.

These products include Blower Heating

Cooling Jacket Heaters, Low And High Density Cartridge Heaters, Tubular Heaters for Manifolds, Mica Nozzle Heaters, Tubular Immersion Heaters, Air Heaters and many more.

These products offer high durability and wide application in many industrial sectors. All the products offered by us can also be availed in a variety of customized versions manufactured as per the specifications provided by the clients.

Our huge infrastructure and advanced machinery facilitate us to bring forth a range of products which provide wide usage at user end. We also induce regular changes in the products to keep them upgraded as per the changing industry requirements. These changes keep the product line appealing for the clients and also prevents the products from getting obsolete. We have a very strict quality policy which enable us to carry out the production of highly qualitative products in a stipulated time frame. In addition to this we also acknowledge a team of professionals who study clients requirements and come up with products that are in accordance to these requirements. Regular training is imparted to these professionals so as to keep them updated as per the ever changing need





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## Manufacturing Facilities

Below is description regarding our manufacturing unit:

- We have a sophisticated manufacturing unit, where advanced technology is used to manufacture the range of Industrial Heaters, Thermocouples and Home Appliances.
- Our manufacturing unit is equipped with imported machines, which are operated by the qualified professionals of our organization. We further include CAD/CAM for designing the unique heaters.
- In our organization, we have developed automatic filling system for making filaments of tubular heaters, swaging machines, milling roller for 8mm & 9.5 mm, hydraulic presses, power presses, automatic stamping machines and automatic coiling machines. As to maintain the pace with the current technological advancements, these machines are upgraded from time-to-time.
- Aspire Incorporation have a very finely managed manufacturing facility with imported and in-house made machines to serve the purpose.
- For Mica and Ceramic band heaters we have got Hand Presses, Power Presses, Pneumatic Spot Welding machine, Experienced staff with an experience ranging from 2-40 years.
- We have got Lathe, Surface Grinder, Drill machines for tooling purposes.
- We have got Swaging Machine, Filling Machine, Wire winding machines etc.
- For Quality check we got maeeger tester, High Voltage tester, finger test, Leakage tester etc which ensures our products to of best quality.

## Industries we serve

- Plastic
- Plastic auxiliaries
- Automotive Industry
- Cement Industries
- Chemical Industries
- Corrugation Box Industries
- General
- Glass Industries
- Hot Runner Mould Industries
- Hotel Industries
- Laundry Industries
- Medical & Scientific
- Packaging Industries
- Paper Industries
- Pet Industries
- Petrochemical
- Pipes & Profiles
- PPR-Industries
- Printing
- Refrigeration Industries
- Rubber Industries
- Shoe Industry
- Woven Sack Industries
- Zip Industries
- Plastic Blow Moulding Machines
- Plastic Extrusion Machines
- Plastic Rubber Industries
- Plastic Packaging Industries
- Plastic Hot Runner Moulds
- Plastic Wires & Cable Industries
- Plastic Pet Industries
- Plastic Thermoforming
- Plastic Auxiliaries
- Plastic Extrusion Dies & Moulds
- Power plants
- Injection moulding
- Zinc Casting
- Aluminium casting
- Iron forging
- Domestic Appliances
- High Temperature Furnaces



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## MICA BAND HEATERS

Aspire Incorporation Mica band heater design is the result of many years of research, development and testing for a reliable mica insulated band heater that can perform at higher operating temperatures in application up to 350° C essential to process high temperatures resins, providing long, efficient service necessary for today's high productivity of plastic extrudes, injection and blow moulding machines.

Mica band is proven heater design for good life efficiency and dependability. It assures maintaining the lowest winding temperatures possible, keeping low-mass heating element assembly for fast heat-up and quick thermal response to controls. It incorporates the Low Thermal Expansion Built-In Strap, a unique feature developed by Aspire Incorporation.

### Standard Features

Widely used to heat the molds, dies, nozzles and especially to heat the cylinders (barrels) on all types of plastic processing machinery.

Most economical.

Superior heat transfer & uniformity.

Excellent dielectric strength.

Constant and long lasting efficiency.

Easy to install.

Available with thermocouple & cutout holes.

Flexible in one or two pieces.

Available in common square, rectangular and hex -shape

Various constructions & termination.

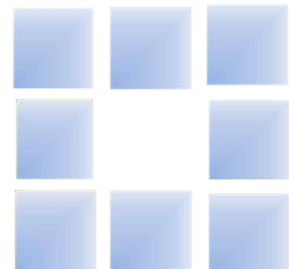
Designed to your specifications.

Long life.

Asbestos (Optional)



Aspire Incorporation meets the challenges with BAND HEATERS designed with materials from brass and stainless steels sheaths in mica band to accommodate high wattage requirements.





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## CERAMIC BAND HEATERS

### OVERVIEW

Durable ceramic heaters provide excellent energy efficiency with their built-in ceramic fibre jackets. Unlike mica band heaters, ceramic heaters transfer heat through conduction and radiation and do not require tightening around the cylinder.

Flexible, these heaters come in a wide variety of terminal styles, and with different clamping mechanisms, holes and cut-outs.

### KEY FEATURES

- Nickel-chrome wire in a outer wall composed of interlocking ceramic tiles.
- Inside medium-high temperature heaters up to 1200°F
- Outside shell temperature: 350° - 450°F
- Built-in ceramic fibre insulating mat.
- Stainless steel jacket.
- Minimum diameter: 2"
- Minimum width: 1"
- Thickness with ¼" insulation: 5/8"
- Regular gap: 3/8"
- Maximum watt density: 45 w/in
- Broad range of terminal types and thicknesses of ceramic fibre insulation mats.

### BENEFITS

- Energy efficient
- Energy saver
- Highly flexible
- Durable
- Maintains heat
- Provides uniform heat distribution

### APPLICATIONS

- Injection molding
- Blow-molding
- Plastic extrusion
- Container, pipe, or tank heating





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## COIL HEATERS

### DESCRIPTION

Coil heaters are an advance concept of thermal engineering which has a construction similar to high watt density cartridge heaters. These heaters are also known as high performance tubular heaters or cable heaters. The basic construction of these heaters consist of compacted MgO, high temperature resistance wire and Chrome Nickel Steel tube. These heaters can be constructed with or without built in thermocouples. They are usually installed where space available for heating is limited and are widely used on hot runner nozzles, and manifolds, die cast nozzles, packaging machines etc.

### Standard Cross Sections Available

Round	: $\phi$ 3.3mm	$\phi$ 3.8mm
Square	: 3.3mm x 3.3mm	
Flat	: 1.8 x 3.2	2.5 x 4.3      4 x 6.4

### COIL HEATER - APPLICATIONS

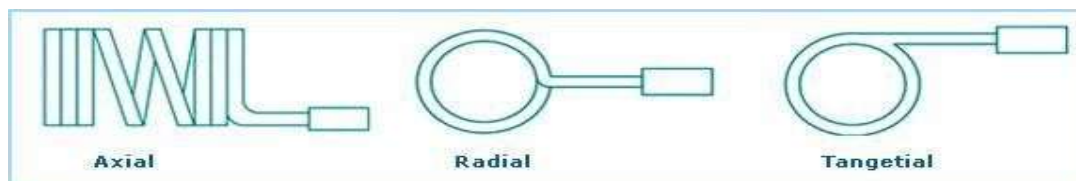
- ▶ Hot Runner & Bushings
- ▶ Pipe Forming
- ▶ Tube Extrusion

### COIL HEATER - FEATURES

- ▶ Standard sizes available with various cross section
- ▶ Various Watt Density option available
- ▶ Designed for even heat profile
- ▶ Precision fit on Hot Runner Nozzles
- ▶ Highly Non-corrosive



### TYPES OF TERMINATION EXITS





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## COIL HEATER - TECHNICAL DATA

<b>Sheath material</b>	Chrome Nickel Steel
<b>Insulation material</b>	High purity MgO
<b>Heating element</b>	NiCr 80:20
<b>Thermocouple</b>	'J' type (Fe K) 'K' type (Cr Al) grounded or ungrounded
<b>Connection Wires</b>	Stranded Nickel wires with PTFE coating
<b>Voltage Range</b>	24 to 250 volts
<b>Power Rating</b>	Depending on application
<b>Power Tolerance</b>	± 10%
<b>H. V Testing</b>	800 V (Bent heater)500 V between T/C and heating element
<b>Insulation Resistance</b>	> 5 MΩ
<b>Current Leakage</b>	< 0.5 mA
<b>Sheath Temperature</b>	750°C
<b>Adapter Temperature</b>	150°C max
<b>Length Tolerance</b>	Heated length ± 2%

## TECHNICAL DATA FOR READY STOCK COIL HEATER

Watts	Heated Length	Cold Length	Volts	'J' type T/C	W/Cm <sup>2</sup>
250	280 mm	50	230	Yes	6.6
330	400 mm	50	230	Yes	6
400	510 mm	50	230	Yes	5.75
470	600 mm	50	230	Yes	5.75
550	720 mm	50	230	Yes	5.6
650	840 mm	50	230	Yes	5.7
750	1020 mm	50	230	Yes	5.4
850	1150 mm	50	230	Yes	5.4
1000	1400 mm	50	230	Yes	5.25
1100	1650 mm	50	230	Yes	4.9
1200	1800 mm	50	230	Yes	4.9



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## Low and High Density Cartridge heaters



## Tubular Immersion heaters



**Air Heaters**



**Strip heaters**



## Infrared heaters



## Thermocouples



## Porcelain Heaters



## Cast-in Heaters



## Nozzle Heaters

