

THERMOCOUPLE & RTDs SENSORS

Specialist In: Custom Built Heaters & Heater Assembly Unit Along-With Temperature Controller As Per Customer's Specification.



AN ISO 9001:2015 COMPANY



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Company Profile

"SUBHOT" the brand name of **Three Decades Rich**, quality oriented and completely indigenously manufactured IEC standard product since 1990, we are catering successfully to domestic and international Industries. We design develop and supply industrial heaters, heating elements, thermocouples and other high temperature Material Management equipments as per the customer's requirement. We have in house Design, Development & research facilities, follows by stringent quality control measures right from beginning to delivery of the material. Customer satisfaction is our first priority.

We manufacture various types of Tubular Electrical Heaters and heating systems, along with control accessories Cartridge Heaters, Mica Band Heaters, Ceramic Band Heaters, Casted Heaters, Furnace Heaters, Nozzle Heaters, Coil heaters, which are used in Hazardous and Non Hazardous area. In Tubular Electrical heater Heating element is Mineral filled sheathed tubular type. Heating element Insulation material used is Mgo (Magnesium oxide) and heating element wire material is Nichrome. Heating elements are manufactured and tested as per IS-4159 BIS Standards. Electrical heaters are suitable for application for Water, Oil, Chemical, Air, Fuel gas, Natural gases etc and Design as per requirement of customer based on the technical input provided by them. Heating unit consist of Heater vessel, Heater bundle, Terminal box, and U-Shaped heating element fitted on Tube sheet .The selection of heating element for a particular assembly depends on the uses & customers requirement total rating, surface loading, diameter of heating element tube, Operating temperature, space limitation, Type of electrical connection and number of bank etc. The heating element can be permanently fixed on tube sheet OR Can be removable type. Various Sheath material and sizes are available based on design requirement. The heating unit can be supplies Complete with Heater Vessel, Inlet-Outlet Nozzle/Flange, Lug Support and external insulation.

Heater vessels are generally designed as per ASME SecVIII Div-1. For Hazardous area flameproof terminal box are used which are duly certified by CMRI Dhanabad for Gas group IIA, IIB or IIC.

We are also manufacturing the following product at our works:

- Immersion heating elements for Water, Oil and Chemical heating.
- Air Heating element
- Fuel gas and Process gas heater.
- Regeneration heaters.
- Large heating unit upto 520KW with terminal box and control panel.
- Heater for ESP and Ash handling system.
- Cartridge Heaters
- Mica Band Heaters
- Ceramic Band Heaters
- Casted Heaters
- Furnace Heaters



Size of heating tube: 8.2mm, 9.5mm, 11.0mm, 12.0mm, 12.5mm, and 16.0mm, 19.0 mm or as per customer requirement.

MOC of Heating Tube: Copper, Titanium, SS all grade, Incoloy 800, Inconel etc.

Sizing of Tube Sheet: As per design requirement.

Sizing of Heater Vessel: As per design requirement.

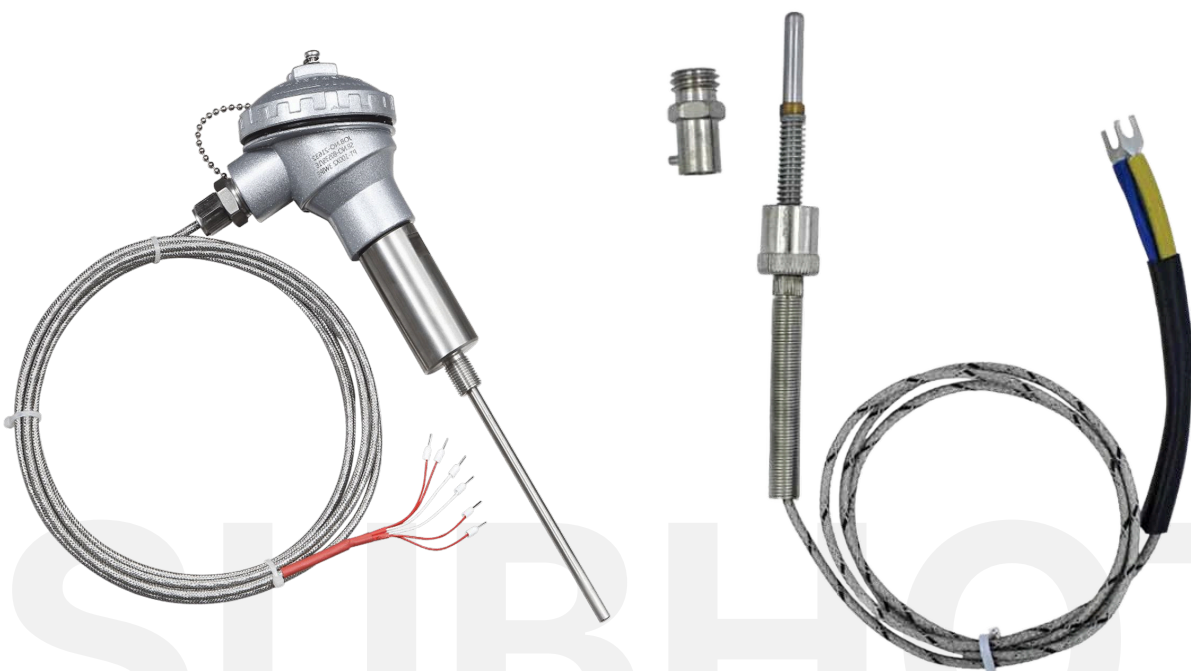
Thermocouple: J & K Type own make in SS all grade and Incoloy.

THERMOCOUPLES & RTDs

RTD Temperature Sensors And Thermocouples Are Two Of The Most Widely Used Temperature Measurement Instruments In Modern Industries. An RTD (Resistance Temperature Detector) Measures Temperature By Monitoring The Resistance Of A Platinum Element Such As PT100, PT200, PT500, Or PT1000. Known For Exceptional Accuracy, Stability, And Repeatability, RTDs Are Highly Reliable For Applications Requiring Precision Across Medium Temperature Ranges.

A Thermocouple Operates On The Principle Of Voltage Generated At The Junction Of Two Dissimilar Metals. Available In Multiple Types Such As J, K, R, S, N, T, And E, Thermocouples Are Designed For Very High-Temperature Environments, Rapid Response, And Rugged Operating Conditions.

At **SUBHOT ENTERPRISES PRIVATE LIMITED.**, We Design And Manufacture Both RTDs And Thermocouples Using High-Grade Stainless Steel, Inconel, Hastelloy, Silicon Carbide, And Ceramic Insulations. Our Products Are Engineered To Deliver Long Service Life, Accurate Measurement, And Consistent Performance In Demanding Industrial Conditions.



Bendable Probe Thermocouples

- 24 Ga. Fiberglass Leads With Stainless Steel Armor
- Available In Grounded & Ungrounded Construction
- Spade Lugs - 2 Or 3 Wire RTD With 20 Ga. Lead Wire
- 1/8" Diameter Probe With Custom Probe Length
- Polarized Plug Or Jack, Mini Plug Or Jack
- Additional Lead Lengths Available
- Custom Orders Welcome

Miniature Mineral Insulated Thermocouple For Hot Runner System

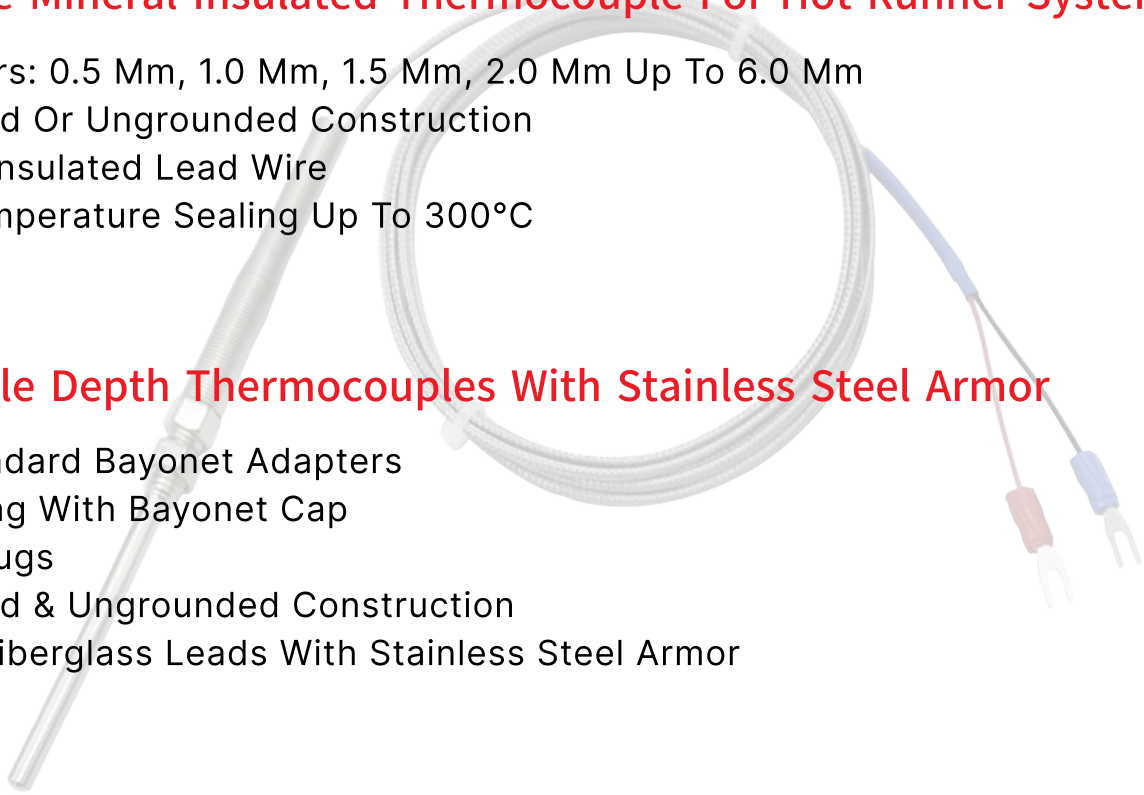
- Diameters: 0.5 Mm, 1.0 Mm, 1.5 Mm, 2.0 Mm Up To 6.0 Mm
- Grounded Or Ungrounded Construction
- Kapton Insulated Lead Wire
- High Temperature Sealing Up To 300°C

Adjustable Depth Thermocouples With Stainless Steel Armor

- Fits Standard Bayonet Adapters
- 12" Spring With Bayonet Cap
- Spade Lugs
- Grounded & Ungrounded Construction
- 24 Ga. Fiberglass Leads With Stainless Steel Armor

Adjustable Depth Thermocouples With Stainless Steel Overbraid (Metric)

- Fits Metric Bayonet Adapters
- Metric Bayonet Cap With Two Slots
- Spade Lugs
- Grounded & Ungrounded Construction
- 24 Ga. Fiberglass Leads With Stainless Steel Overbraid



Fixed Depth Thermocouples

- Fits Standard Bayonet Adapters
- Spade Lugs
- 24 Ga. Fiberglass Leads With Stainless Steel Armor
- Grounded & Ungrounded Construction

Washer Style Surface Thermocouples

- Grounded Construction
- 24 Ga. Fiberglass Leads With Stainless Steel Overbraid
- Spade Lugs

RTD Sensors

- Available In 2 Wire Or 3 Wire Configurations
- Flexible Probe With Stainless Steel Braid
- Spade Lugs
- Available In Various TC Styles
- Optional Brass Washer Mounting

Thermocouple & RTD Wires – Color Codes And Applications

Thermocouple And RTD Wires Are Essential For Accurate Temperature Measurement And Signal Transmission In Industrial Applications. Each Thermocouple Type (K, J, T, E, N, R, S, B) Follows Internationally Standardized Color Codes (IEC, ANSI/MC, BS, DIN, JIS) To Identify Polarity And Insulation Type, Ensuring Proper Installation And Error-Free Connections.

- **Thermocouple Wires** : Designed To Connect Thermocouples To Measuring Instruments, These Wires Use The Same Or Compensating Alloy Materials As The Thermocouple Itself. They Are Available In Original Grade And Extension Grade, Providing Reliable Signal Transmission Over Different Distances.

- **RTD (Resistance Temperature Detector) Wires** : Made From High-Purity Copper Or Nickel Conductors, RTD Wires Ensure Stable Resistance Characteristics And Excellent Accuracy In Temperature Measurement. They Are Typically Insulated With Materials Such As PVC, PTFE, Or Fiberglass, Suitable For Different Operating Environments.

International Colour Codes for Thermocouples
Original Grade and Extension Grade

Type	IEC 584-3*	American MC-96.1 / E 230	British (BS 1843)	German (DIN 43714)	Japanese (JIS 1610)
		Extension Grade			
K					
J					
T					
E					
N					
R					
S					
B					

TECHNICAL SPECIFICATION

Parameter	Thermocouple	RTD Sensor
Types/Elements	J, K, R, S, N, T, E	PT100, PT200, PT500, PT1000
Temperature Range	–200 °C to 1300 °C	–200 °C to 1200 °C
Accuracy	±2 °C typical (depends on type)	±0.1 °C (Class A) / ±0.3 °C (Class B)
Wire Configurations	2-wire, 3-wire, 4-wire	2-wire, 3-wire, 4-wire
Process Connection	Compression fitting, flange, thermowell mountable	Compression fitting, flange, thermowell mountable
Connection Head	Aluminum or Stainless Steel, IP65	Aluminum or Stainless Steel, IP65

APPLICATION**THERMOCOUPLE:**

- Industrial Process Control
- Heat Treatment And Furnaces
- Power Generation Plants
- Chemical And Petrochemical Industries
- Semiconductor Fabrication

RTD SENSOR:

- Laboratory And R&D Instrumentation
- Pharmaceutical And Biotech Equipment
- Food & Beverage Processing
- HVAC And Building Automation
- Industrial Monitoring Where High Accuracy Is Required

COMPONENTS

Component	Thermocouple	RTD Sensor
Measuring Element	Grounded, ungrounded, or exposed junction (Type J, K, R, S, N, T, E)	Platinum sensing element (PT100, PT200, PT500, PT1000)
Sheath	SS304/310/316, Inconel 600/625/800, SiC, Si ₃ N ₄ , Hastelloy	SS304/310/316, Inconel 600/625/800, SiC, Si ₃ N ₄ , Hastelloy
Insulation	MgO powder, PTFE, Fiberglass	MgO powder, PTFE, Fiberglass
Connection Head	IP65-rated aluminum/stainless steel with ceramic terminal block	IP65-rated aluminum/stainless steel with ceramic terminal block
Extension Cable	PTFE/PVC insulated, shielded or unshielded	PTFE/PVC insulated, shielded or unshielded

ADVANTAGES**Thermocouple**

- Wide Temperature Range – Measures Extreme Temperatures Up To 1300 °C.
- Durability – Withstands Shock, Vibration, And Harsh Environments.
- Versatility – Multiple Types Available For Different Industrial Needs.
- Cost-Effective – Economical For General Industrial Use.

RTD Sensor

- High Precision – Much More Accurate Than Thermocouples.
- Long-Term Stability – Minimal Drift Over Long Service Periods.
- Excellent Repeatability – Reliable Results Across Multiple Measurements.
- Process Integration – Compatible With Transmitters, PLCs, And Automation Systems.

ABOUT THE COMPANY

SUBHOT ENTERPRISES With The Honoring Three Decades Of Excellence In Industrial Heating Solutions.

SUBHOT ENTERPRISES Situated In The Ghaziabad Is A Revolutionary Leading Heater Manufacturing Company In The Field Of Industrial Heating Solutions, Celebrating Its 31st Years Since It Was Founded In 1993 And Its Main Office Is Also Located In Ghaziabad, The Company Has Been Leading The Way In Providing Excellent Products And Services. Subhot Enterprises Was Founded To Provide The Extensive Selection Of Industrial Heaters, Cartridge Heaters & Tubular Heaters, And Other Innovative Items. The Business Takes Pleasure In Providing Efficient And Prompt Delivery While Attending To The Various Needs Of Its Customers.

SUBHOT ENTERPRISES Is A Diverse Corporation That Engages In Manufacturing, Exporting, And Providing Services. The Company Has Gained Recognition And Praise In The Industry As A Result Of Its Dedication To Quality And Innovation.

The Foundation Of M/S Subhot Enterprises Was Laid By The Visionary Dr. Subhash Gupta (Chairman) In The Year 1993. Dr. Subhash Gupta Is Also Chairman Of The Red Cross Society And Associated With The Rotary & Other Different Social Organizations And In The Most Recent He Has Been Appointed As Member In The Labor Surveillance Committee By The Ministry Of Labor State Government.

SUBHOT ENTERPRISES Extends An Invitation To All Partners, Clients, And Stakeholders To Join In Commemorating This Incredible Achievement. The Business Thanks Everyone For Their Support Over The Years And Reiterates Its Dedication To Providing High-Quality Goods And Services.



POWERING INDUSTRIES WITH HEATING & SENSING INNOVATION

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