



SENSEWELL
INSTRUMENTS PVT. LTD.

HEATERS



TUBULAR HEATERS

Applications

- G Plastic processing and furnace packing machinery
- G Ovens and Furnace
- G Water and Oil heating application
- G Vending Machine
- G Kitchen equipments
- G Medical Equipments

Types

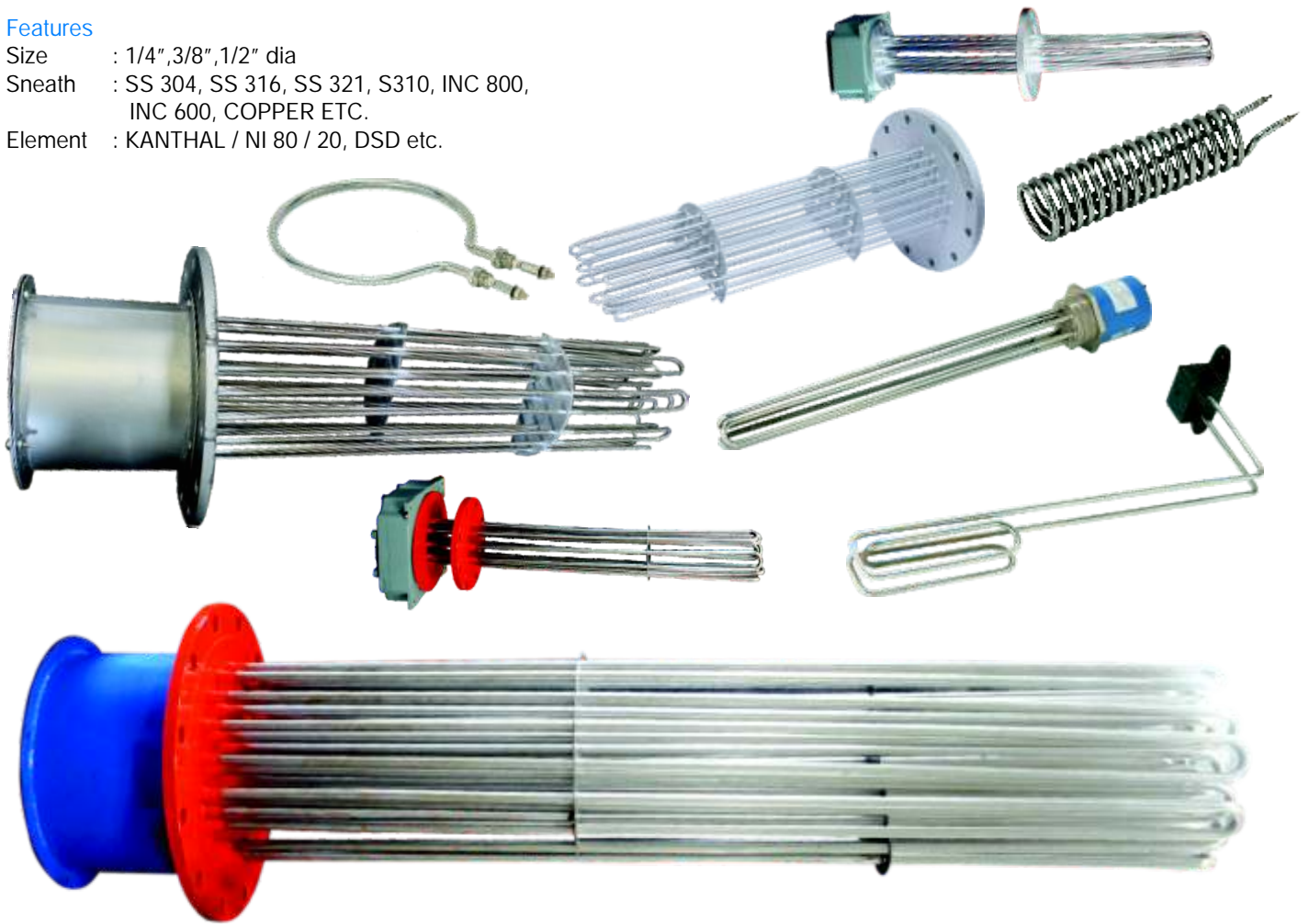
- G Straight and formed heaters
(as per customer req.)
- G Finned typed tubular heaters
- G Tubular Heaters with bulk Head fittings
- G Flameproof heaters
- G Corrugation heaters
- G Duct heaters

WATER & OIL IMMERSION HEATERS

For water immersion 60 W / inch
max. surface temp. 400°C

Features

- Size : 1/4", 3/8", 1/2" dia
- Sheath : SS 304, SS 316, SS 321, S310, INC 800,
INC 600, COPPER ETC.
- Element : KANTHAL / NI 80 / 20, DSD etc.



AIR HEATER (WITH OR WITHOUT FINNS)

40 W / inch
max. surface temp. 650°C

Sheathed in SS 304 / 316 / Incoloy / Chrome steel tube.
Consist of MgO compacted heating element. Made as
per requirement Size and Shape.

HOT RUNNER HEATERS / MICRO TUBULAR COILED HEATERS

Features

- G Higher Watt density
- G Built in type J or K thermocouple
- G Max operation Temp 800°C
- G Even Temp profile
- G Max. heat transfer due to more contact area
- G Max. total length upto 3000 mm

Specification

- Standard size for coil heaters
- Round : 3,4,4.5,5 mm dia
- Square : 3x3, 3.2x3.2
- Flat : 2.2x4.3, 2.5x4.3, 2.5x4.5, 3x4.5, 3x5.2

Applications

- G Moulds & Dies
- G Nozzle heating
- G Medical equipments
- G Hot runner bushing



CARTRIDGE HEATERS (HIGH & MEDIUM WATT DENSITY)

Features

- G Nickle Chrome Resistance wire
- G Max 4 watt / Cm² - for low density
- G Max 50 watt / Cm² - for high density
- G Max. operation temp 800°C
- G For low density 250°C for brass & 400°C for SS

Specification

- Dia : 4,6,8,10,12,16,19,20,22,25 mm
(also inch size)
- Length : 40 - 500 mm
- Voltage : 240 / 110 / 50 V or custom specification
- Sheath : SS 304, Brass

Applications

- G Plastic Processing machinery
- G Moulds & Dies & Packaging m/c
- G Food processing machinery
- G Medical Equipments



CAST IN HEATERS

Features

- G Efficient heat transfers
- G Uniform surface temperature
- G Exceptionally long life
- G Surface Temp. 300°C
- G 50W / sq. inch

Types

- G Air / Water coiled type
- G Cast in plate & round heater
- G L & U shaped cast in heater
- G Customized designed cast in heater

Applications

- G Packaging Machinery
- G Injection & Blow Moulding
- G Extruders
- G Thermoforming equipments
- G Medical equipments



MICA INSULATED BAND HEATERS

Features

- G Nickel Chrome Ribbon
- G Available with inbuilt insulation pad to reduce power consumption
- G Max 3.6 watt / Cm²
- G Max operation Temp 250°C
- G Low cost

Specification

- Dia : 2" or 50 mm & up
- Width : 1" or 25 mm & up
- Voltage : upto 480 V (Single / three phase)
- Terminals : Junction Box fitted with braided cable & post terminal
- Sneath : SS 304
- Thickness : 6 mm
- Insulation : Mica

Applications

- G Plastic processing machinery
- G Injection & Blow Moulding
- G Extruders
- G Hot runner bushing



CERAMIC BEND HEATERS

Applications

- G Plastic processing machinery
- G Injection & Blow Moulding
- G Extruders

Features :

- G Nickel Chrome resistance wire
- G Ceramic fibre insulation
- G Reduce power consumption by 20 to 30%
- G Available with heating and cooling combination
- G Max 7 watt / Cm² (50 W / SQ inch)
- G Max operation Temp 700°C

Types

- Dia : 2 1/2" or 65 mm & up
- Width : 1 1/2" or 38 mm & up
- Voltage : upto 480 V (Single / three phase)
- Terminals : Junction Box fitted with braided cable & post terminal
- Sneath : SS 304
- Thickness : 12 mm



CERAMIC BOBBIN CARTRIDGE HEATERS

Nickle Chrome / Kanthal resistance wire
Available in Dia. 26 mm to 55 mm & upto 3000 mm

Specification

- G For Oil - 1.4 to 4.0 W / Cm²
- G For Water - 1.4 to 8.0 W / Cm²
- G For Metals - 2.0 to 5.0 W / Cm²
- G For Air - 1.6 to 3.2 W / Cm²

Applications

- G Heating liquids & Gases
- G Dryers and Ovens
- G Printing & Packaging Industries



HEAT TRACERS

Product Description :

Sensewell Tracers are made with superior quality imported grade Teflon (PTFE) insulated and braided with S.S. fine gauge multiwires. It is moisture proof & chemical proof and can be widely used for temperature maintenance applications on edible oils, chemicals, furnaces Oils, LDO, Bitumen pipelines, storage tanks of Boilers, Furnaces, D.G. Sets, etc. suitable to maintain a maximum temperature of 260°C.

Technical & Other Details :

Withstands temperature ranging -60°C to +260°C. Totally moisture & chemical proof to use under any outdoor condition. Designed to meet Indian & International standards and to use under explosive areas, such as petroleum products to conform to the International standard of BS-6351. Designed life of over 20 years continuous usage. Available in 23, 33, 45 watts/meter in 230 volts standard & upto 150 mt. single length

A very economical and reliable alternative to conventional tracers. Its flexible nature helps in easy installation on any surface and available in wide range.

Sensewell Heat Tracers are tested by CMRS, Dhanbad and approved by Chief Controller, Department of Explosives, Nagpur.

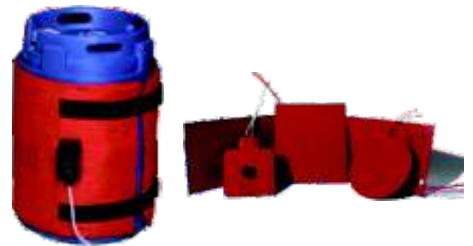
Applicable Industries :

Iron Steel, Glass Furnace, Edible Oils, Refineries, Biscuit, Bitumen, Wax, Petroleum Jelly Industries etc.



DRUM HEATERS

We have all kinds of heaters for various drum and pail of different sizes from 5 kg to 200 kg., Built-in adjustable thermostat allows user maintain the desired temperature. As they conduct heat through the drum wall to the material inside the drum or pail, drum heaters can operate at higher temperatures and work faster on metal drums because of better thermal conductivity. We also have gentle drum heaters for plastic and fiber drums. Silicone Drum Heater.



INFRA RED HEATERS (SHORTWAVE & MEDIUM WAVE)

Tungsten filament consists in quartz tube sealed with inert gas having terminal leads at both ends it can be housed in metal box with the reflector as per requirement

Features :

Max Watt density : 100W/Linear inch
 Max Surface temp : 1500°C
 Wave length : 1: 16 microns



CERAMIC SEALED INFRARED HEATERS

Special ceramic body, medium wave length radiation, emitting external surface. Can be made in curved or flat shape as per the following sizes : 245x60-1 KW, 122x60 - 500 W, 122x122 - 1 KW available with built in thermocouple and reflectors with fixing clips for easy installation.



Features :

Max Watt density : 44W/sq. inch
 Max Surface temp : 800°C
 Wave length : 3 to 4 microns

Application :

Paint backing, Rubber coating, Ink drying
 Powder coating industries, Paper, Tiles industries
 Screen printing, Lamination & Thermoforming etc.

TECHNICAL DETAILS AND FORMULA

Watt Density Calculations

Band Heaters:

$$\text{Watt / cm}^2 = \frac{\text{Wattage}}{(3.142 \times \text{Diameter} \times \text{Wigth}) - (\text{Cold Area})}$$

Cartridge and Tubular Heaters

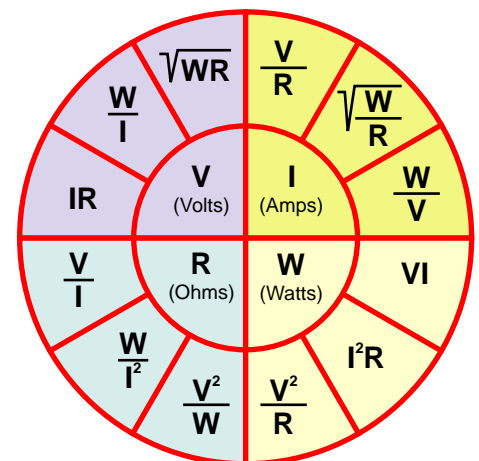
$$\text{Watt / cm}^2 = \frac{\text{Wattage}}{3.142 \times \text{Diameter} \times \text{Heated Length}}$$

Strip Heaters:

$$\text{Watt / cm}^2 = \frac{\text{Wattage}}{\text{Heated Length} \times \text{Width}}$$

Note: Diameter, Length, Width in cms.

Ohm's Law



OTHER PRODUCTS

G Industrial Oven & Furnace
 G Hot Air Blower

G Hot Plates
 G Heating Mantle

G Water & Oil Bath
 G Heating Control Panel

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