

An Introduction To Flexible Heater

Flexible heater is rugged, long lasting, non-toxic, and resistant to chemicals and moisture.

It is widely used in petroleum industry, chemical industry, food service industry, manufacturing & processing industry, and etc.



Flexible heaters is very flexible and can put heat where controlled heating is required. Due to its structure and special design, drum heater can offer a very high watt density and provide uniform heat to the heated surface.



Flexible heaters are often used to heat materials contained in steel drums, ploy drums or gas cylinders. By maintaining the materials at an optimal temperature, flexible heaters can reduce the viscosity of fluids and facilitate pumping and transfer operation of them.



We designs, manufactures and provides many kinds of flexible heaters, such as silicone drum heater, mica drum heater,insulated drum heater, base drum heater, drum heater blanket, drum heater hot box, tote heater and etc.



Flexible heater come with adjustable quick release buckles/or Velcro®straps to ensure proper fit of larger and smaller 55 gallon drums/barrels (plastic drum and steel drum of 200 liter with diameter of from 570mm to 590mm)



Our flexible heater are more efficient and consume considerably less energy than conventional silicone drum heaters and band heaters. The third party test results show that we flexible heater will be significantly more effective than band heaters when heating and insulating drums, buckets, pails, gas cylinders, and IBC container heaters.

The heater blanket is the faster, easier, and more affordable method for heating and maintaining the temperature of your industrial materials.



The digital thermostat with timer ensures consistent heating which will prevent under & overheating your material, a thermal protector is built in blanket for protecting the blanket in case thermostat fails.

We flexible heater is very efficient in energy savings when compared to a traditional silicone drum heater and band heater, since it insulates the entire drum and ensures minimal heat loss. The materials used in our drum heater are fire-retarding, both the heating wire and outer fabric is water-proof.

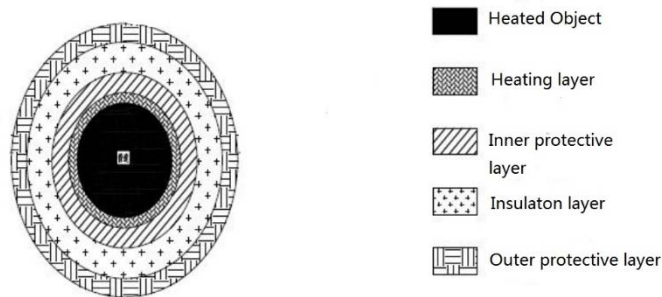


We flexible heater is a very efficient heating system for containers. It is ideal for reducing the viscosity of many materials such as fats, oil and other food stuffs. It enable the decanting of the material in the container to smaller containers or process lines.

Unlike other expensive conventional oven, the flexible heater allows the containers to be heated at the place where it works. If the container need to be moved to other positions, the drum heater can still maintain the temperature for long time because of the very good thermal insulation.



The Special construction of flexible heater



1) Heating layer

- Temperature range: -40 C ~ +1000C
- Heating Material: Nickel Alloy
- Insulation Material: High temperature Resistance E-Glass Fiber Cloth
- Testing Voltage: 100~500V
- Diameter of heating wire: less than 1mm
- Watts: highly customized

2) Inner protective layer

- Function: To fix the heating layer and provide insulation
- Working temperature: 0 C ~ +1000C
- Thickness: 0.5mm
- Feature: High dielectric strength, Very flexible, anti-corrosive, anti-aging
- Material: High temperature resistance Teflon Cloth

3) Insulation Layer

- Thickness: 3mm ~ 30mm
- Width: 1050 ~ 3000mm
- Density: 110 ~ 180kg/m²
- Heat resistance temperature: 1000 C
- heat conductivity: 0.042W/m•K
- moisture rate: less than 2%
- Material: Fiberglass needled mat (Or aerogel)

4) Outer protective layer

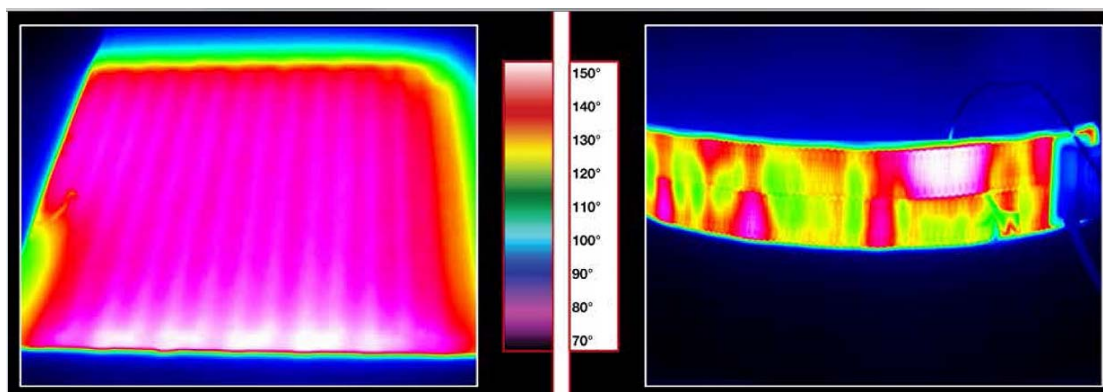
- Thickness: 0.05 ~ 0.6mm
- Long time heat resistance: -70 ~ +280 C
- Short time heat resistance: +320C
- Skin friction resistance: 0.05 ~ 0.1
- Dielectric constant: 1.5
- Features: Highly insulated, Resistant to strong acid, alkali and organic solvent.
- Material: High temperature resistance Teflon layer

Product Highlights & Advantages

- Durable and long lasting
- Large uniform heater coverage and high wattages
- Grounded heating element
- Built-in Control
- Hazardous-Area Drum Heater Option
- Wide Range of Applications
- Variety of Standard sizes and configure to order options for special vessel Heaters
- Easy and quick installation
- Resistant to di-electric fatigue
- Rust proof
- Provide uniform heat to temperature-sensitive material



Comparison between our flexible heater VS Conventional drum heater



Our Flexible heater

Conventional silicone drum heater

The above thermal image shows superior our special technology VS. conventional heat. For our drum heater 95% of the temperature data points measured with in a range of 137 degree to 147 degree, only 10 degree difference. The heat is more uniform and much better for the heating process.

Applications of our Flexible heater

We offers highly customized solutions based around inventive graphite heat distribution products, providing a valuable tool for industries needing products to remain at optimal temperature. Some of the various industries we sever are the following :

1. Oil/Gas
2. Railroad
3. Sprayfoam
4. Coating
5. Chemical
6. Piping
7. Valves
8. Instrumentation
9. Food processing
10. Composities
11. Construction
12. Precast
13. Roofing
14. Industrial
15. Manufacturing
16. Specialty cases
17. Agriculture
18. Dairy
19. Mining
20. Concrete
21. Public Works
22. Excavation
23. Water Purification
24. Government&DOD
25. Fertilizer

And more....

Our engineers solve every kind of heating problem from simple to very complex. Our expertise guarantees satisfied customers in a very short turnaround time, often in less than 10 days from design to delivery. We design and manufactures custom products to meet the requirements of hazardous areas.





Technical Data for our Drum heater

Working Voltage: 100~600V

Withstand Voltage: 2000V

Working temperature: 160 Degree Celsius

MAX working temperature: 200 Degree Celsius

Watts Density: 1500W/m²~3000W/m²

Thickness of heating cloth: 11mm~20mm

Outer surface temperature: Less than 50 Degree Celsius for safe contact

Dimensions:

- 1850mm*860mm for standard 55 gallon Drum(200L) or customized
- 4950mm*1050mm for Standard IBC/Tote Insulated Blanket Heater(1000L) or customized

Technical Data for our Flexible Insulation Heater

Working Voltage: 100~600V

Withstand Voltage: 2000V

Working temperature: 450 Degree Celsius

MAX working temperature: 500 Degree Celsius

Watts Density: 10000W/m²~15000/m²

Thickness of heating cloth: 25mm~60mm

Outer surface temperature: Less than 50 Degree Celsius for safe contact

Dimensions: Highly customized and highly flexible