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Flexible Silicone Rubber Heaters

TUTCO Farnam manufactures UL listed silicone rubber heaters that are highly customizable industrial heaters and are very flexible and durable. They offer amazing heat transfer properties, making an excellent choice for applications like process heating, condensation control, freeze protection, and composite bonding or curing. The etched foil heating elements used in TUTCO Farnam's Silicone heaters are designed to maintain uniform temperatures across the heater's surface. Silicone rubber heaters are very flexible and resistant to most chemicals. Flexible silicone heaters are especially suited for heating irregular shapes and curved surfaces.

In industrial environments, mechanical vibrations are common. Silicone Flexible heaters are designed and manufactured to withstand these challenges—they resist vibrations, mechanical shocks, and repeated movements without issue. Silicone, in particular, is highly durable. It can flex repeatedly without stretching or tearing, making it a reliable and a long-lasting solution for demanding applications.

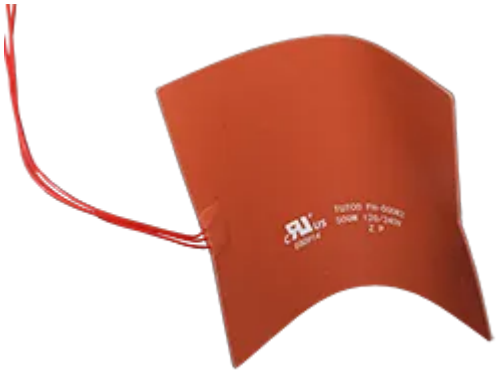
Etch-foiled silicone rubber heaters can be manufactured in variety of custom shapes and sizes, from as small as a 1” square to 18”x24”. Even larger silicone heating elements can be produced using wire-bound construction. Flexible silicone heaters are a superior product when weight, durability, precision heat and thermal control are required.

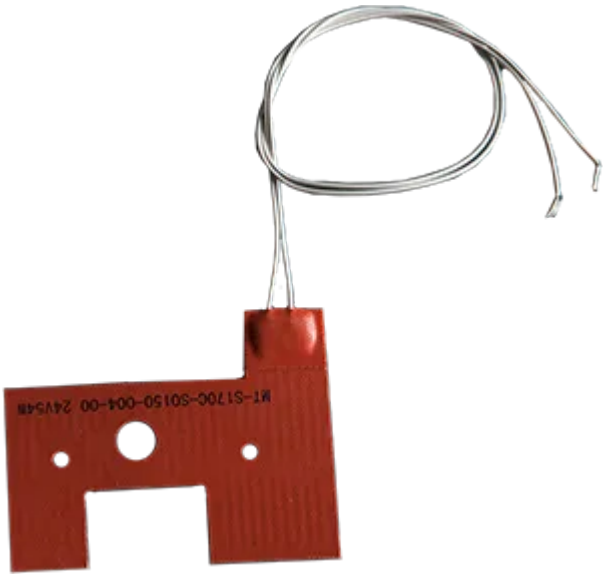
You can build a custom flexible heater with our Flex-Specs tool below or by clicking the red 'share details & quote' button at the top of this page. It's a continent way to view common silicone heater configurations. Call us at (828-684-3766) for more information or to start your custom flexible silicone heater design today.

Note: Silicone rubber heaters require a minimum order of 100 pieces.

Durability

TUTCO Farnam silicone rubber heaters are a good choice for many harsh conditions where vibration, chemical spills and moisture are likely to occur. The rugged silicone rubber body is an excellent electrical insulator as well as having a flammability rating of UL V-O. Structural stability is reinforced with a high-strength fiberglass mesh. Custom heaters designed without woven glass are typically manufactured for specialty applications such as submersion. Attachement options include straps, springs, ties, PSA (pressure sensitive adhesive) and vulcanization.





Power

From 12VDC to 600VAC we can design your heater to work with your power specs and deliver heat precisely where it is needed. Powerful watt densities up to 30 Watts per sq/inch offer a wide range of possibilities. Dual Voltages (3 and 4 lead wire versions) can be designed for multiple fixed heat settings or even a 120/240 dual use product. We have designed custom heaters for industry specific voltages such as those found in aerospace and ground transportation. If your supply voltage is 3-phase we can design for that too.

From First-Run to Large Orders

TUTCO Farnam flexible heaters are innovative engineered products. Not your typical off-the-shelf items. TUTCO Farnam can work with you to develop an initial low minimum first order run and ramp up to larger production quantities (1k pcs/month, 10k pcs/month or more), all within the same company. The same design engineer and the same UL. Along with many installation, connector and sensor options, Tutco-Farnam can also vulcanize your heater directly to a metal substrate. UL certification is available. Contact a TUTCO Farnam representative to help you design your next Silicone Rubber Heater.

Case Histories

Rugged silicone rubber heaters provide reliable service in many industrial, chemical and outdoor weather conditions. Read some recent examples.

- Evaporator Heater for Vending Enclosure
- Pneumatic Delivery Enclosure Heater
- Tire Refill Station Heater

Specifications

Watt Density ..... up to 30W/in2 (4.65W/cm2) for certain applications
Temperature Range ..... Up to 428F (Up to 220C)
Dielectric Strength ..... 1200 Vac
Thickness Range ..... from 0.030 in. (0.762mm) to 0.060 in. (1.524)
Size ..... up to 18 in. x 24 in. (457.2 mm x 609.6 mm)

Resources

BROCHURES

Sales Sheet

VIDEOS

Installing Flex Heater with PSA

Flex Spec Tool Demo

TUTCO | FLEX SPECS

Design & spec your flexible heater online in 5 easy steps. Save and revise your configurations and submit them for quoting. Check our Flex Specs Tool to view and configure your heater.