

The image features a large, coiled orange silicone rubber flexible heater strip at the top. Below it, two circular heater components are shown. The one on the left is a blue circular heater with a red wire coil and a small orange component. The one on the right is a larger orange circular heater with a white wire coil. The background is dark, making the orange heaters stand out.

RAMA®FLEX

Silicone Rubber Flexible Heaters

Proheat

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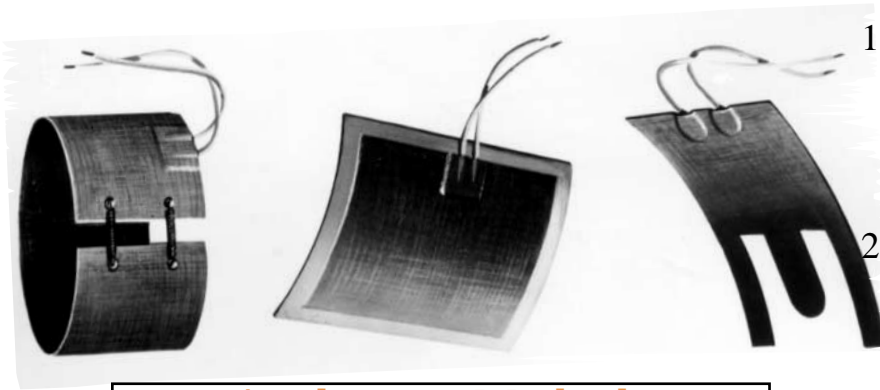
Free: 800.626.2142
Tel: 502.222.1402
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RAMA®FLEX SILICONE RUBBER FLEXIBLE HEATERS

Rama products are the strongest and most versatile industrial heaters on the market. We design and manufacture the RAMA®FLEX heater to provide moderate heat and even distribution on both irregular and smooth surfaces. The RAMA®FLEX heater is designed for use with industrial equipment in limited access spaces. We are extremely proud of our RAMA®FLEX heaters and welcome you to try one of the most durable, flexible heaters available.

Construction Features

In addition to rigid manufacturing specifications, RAMA®FLEX heaters are durable and reliable. Construction features are as follows:



1. The sheath or outer covering consists of a fiberglass-reinforced silicone rubber, which is resistant to damage by oils and most chemicals: it will not crack with age.
2. A resistance element is interwoven with a glass thread to provide additional strength against breaking. The resistance element is completely covered on both sides by the fiberglass-reinforced silicone rubber sheath.
3. The entire unit is fully vulcanized to provide a tough, tear-resistant blanket heater, with maximum dielectric strength.
4. We also can supply integral thermostats to meet various customer requirements.
5. Teflon-insulated or silicone leadwires are available. Leadwires can exit any edge or surface of the heater. For confirmation of MIL specs and UL recognized components consult factory.
6. 1/8" and 1/4" thick closed cell silicone sponge insulation available.

Application Methods

One of the most important attributes of the RAMA®FLEX heaters, is their easy installation ability. They can be attached to parts using a variety of methods including:

- Hooks and springs
- Lacing eyelets
- Pressure sensitive adhesives
- Vulcanized to customers part
- RTV Adhesives

Flex Specialties

- We manufacture large, high-amplod flex heaters with multiple internal circuits. Each circuit would have its own leads which are wired external to the heater.
- Dual voltage and three phase designs are available.
- Flexible heaters manufactured in a variety of shapes.



Specifications

SIZE: Width: 1/2" minimum to 42" maximum.
Length: 1-1/2" minimum to 115" maximum.
Note: Larger units can be furnished with splice.

THICKNESS: .050" standard, .030" minimum.
Heaters can be manufactured to customers specifications.

WEIGHT: 7 oz./sq. ft. standard, to as low as 2 oz./sq. ft. for extra thin construction.

TOLERANCES: Width or length
Up to 5.99" \pm .06"
6" to 19.99" \pm .12"
20" to 36" \pm .19"
Over 36" \pm .19" for each 36" of length
Thickness: \pm .005"
Resistance: + 10%, -5%
When ordering please specify critical tolerances.

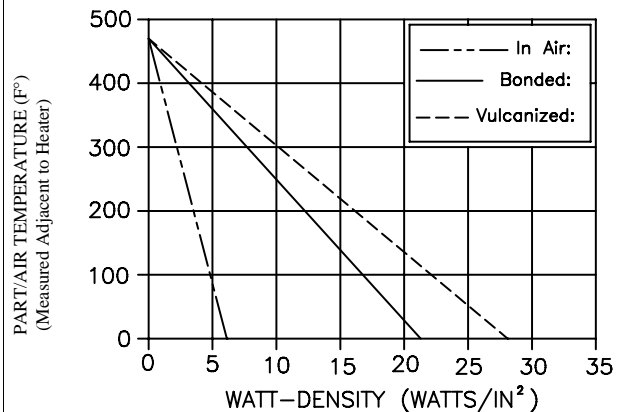
TEMPERATURES: -50°F minimum, 475°F maximum for continuous operation.
Higher temperatures may be used for short periods of operating time.

RESISTANCE: 56 ohms/square inch maximum; .08 ohms/square inch minimum.

AMPERAGE: Consult factory for engineering evaluation if amps will exceed 30.

Watt-density Recommendations

The graph below shows the recommended maximum watt-density of RAMA®FLEX heaters vs. part (or ambient air) temperature for various mounting methods. For applications where watt-density may be higher, consult factory.



HOW TO ORDER

Call our offices at 800-626-2142 to place your order; we have customer service representatives standing by ready to help you. When you call, be prepared to specify the following:

- Wattage or watt-density
- Voltage
- Operating temperature
- Method of mounting
- Width and length
- Special shape (specified by drawing)
- Leadwire length and desired exit location

In addition, please indicate the environment where the heater will be used, i.e., ambient air temperature, presence of moisture or other contaminant, and if thermostats are required.

Thank you for choosing RAMA as your industrial heating element supplier. Our pledge to you is complete customer satisfaction!

RAMA® FLEX DRUM HEATERS

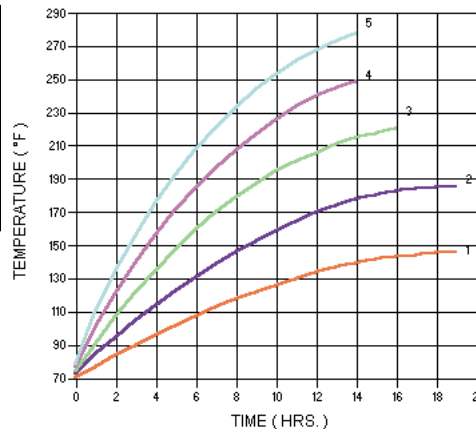
- Easy To Install:** Simply wrap around and fasten with spring.
- Just plug in:** Comes with 6 ft. cord. The 120 volt heater comes with plug set as standard.
- Safe:** Heater is shielded internally with grounded mesh wire for electrical protection.
- Rugged:** Made of high strength silicone rubber over woven fiberglass: resistant to moisture, shock, vibration and abrasion.

RAMA®FLEX drum heaters are 3" wide. One or more heaters can be applied to 5, 30 and 55 gallon drums, depending on heat-up time and temperature requirements. (See graph below for time-to-temperature graph when using one or more heaters).

Figure shows: 1 to 5 drum heaters used on standard fluid filled 55 gal. drum



Time vs. temperature heating times



Heating Applications

Oils
Greases
Fats
Paints
Plastics
Adhesives
Paraffins
Chemicals
Molasses
Chocolate
Honey

RAMA P/N	SIZE gallons	DIA inches	WATTS	LGTH inches**	VOLTS
FC1849/EDT	55	22.5"	1000	63"	120
FC1849/PIP					240
FG1849/EDT *					120
FG1849/PIP-1*					240
FB1849/EBT	30	18"	750	51.5"	120
FB1849/PGP	5	11.5"	400	31.0"	240
FB1849/DYZ					120

* with adjustable thermostat

**NOTE: Brackets are not included in length

Proheat is the source for all of your industrial heating element and hot runner system needs. Please ask for our product bulletins with your next order...

- ◆ RAMA®ROD cartridge heaters, with extensive stock for off-the-shelf deliveries
- ◆ RAMA COILED NOZZLE heaters, replacement stock and custom manufactured
- ◆ TUBULAR and IMMERSION heaters
- ◆ RAMA®BAND heaters stocked for delivery
- ◆ RAMA®STRIP heating elements
- ◆ HOT RUNNER SYSTEMS: engineered for the customer
- ◆ Complete R&D Facilities
- ◆ ASSEMBLY and MACHINING available
- ◆ SPECIAL PRODUCTS capabilities