

SureHeat Aerospace Applications High Heat, High Pressure Solutions

Custom Specialty Heaters Used in Critical Applications

As the aerospace industry has worked to increase fuel efficiency, reduce emissions and embrace renewable energy, the new technologies created are requiring higher temperatures and higher pressures. TUTCO SureHeat's specialty inline flanged air heaters are ideal for these critical applications. Whether used in research and development, quality testing of components or as a key component in OEM equipment, manufacturers are using our specialty flanged inline heaters to simulate the high heat and high-pressure compressed air that powers critical applications throughout the aircraft.

MRO Florida Advantage use TUTCO SureHeat specialty flanged inline heaters in the maintenance, repair and overhaul of aircrafts at their FAA repair station. The testing of pneumatic aerospace components is a critical application that requires a high heat, high pressure heat solution where the heaters are used in quality control testing of valves before the aircraft is approved to go back into service. Our SFI heaters are built to handle low flow and very high pressure, allowing us to provide custom solutions that are versatile and widely scalable to meet the critical needs of MRO facilities.

#### The TUTCO Advantage

TUTCO SureHeat Specialty Flanged Inline (SFI) heaters are designed specifically for air and inert gas applications and deliver superior performance. Whether used for a research test stand, factory production line, or key component in a product or thermal energy storage system, our Specialty Flanged Inline heater and controls are the right process heating solution for the job.

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#### Standard Design SFI Heaters

2022

11.1

Maximum Static Pressure 600psi (41.37bar)

Maximum Inlet Temperature 900°F (482°C)

Standard Outlet Temperatures 1652°F (900°C)

**Temperature Control** +/- 2°F (+/-1°C)

Ramp Time 50°C per second

#### **Custom SFI Heaters**

Maximum Static Pressure 3000 PSI (207 Bar)

Maximum Inlet Temperature 900°F (482°C)

Standard Outlet Temperatures 1922°F (1050°C)

**Temperature Control** +/- 2°F (+/-1°C)

Ramp Time 100°C per second

Maximum Power Rating 1 MW and higher



# Product Spotlight Polyimide Heaters

TUTCO-Farnam polyimide heaters, also known as Kapton heaters, are thin, flexible, quick and highly precise heaters. These extremely flexible heaters transfer heat quickly and efficiently and can be produced in a wide variety of custom shapes, sizes and resistances. Polyimide heaters are ideal for applications where space and weight are critical factors. They are used in medical, laboratory, aerospace, defense and outdoor electronics largely due to their excellent performance and dielectric strength. Our polyimide heaters are highly customizable with a variety of installation, termination and sensor options available. From small 100-piece orders to large productions, TUTCO-Farnam polyimide heaters have the flexibility and features to deliver consistent performance and are available with UL Certification.

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#### FEATURES

Watt Density - up to 20W/sq. in. (7.8W/cm2) for certain applications

**Temperature Range** -76F to 302F (-60C to 150C)

Dielectric Strength - 800 Vac

**Minimum Bend Radius** - 0.032 in. (0.8 mm)

**Overall Thickness** - 0.006 in. (0.15mm) except at lead exit

**Sizes** - up to 27.5 x 19.625 in. (700mm x 500mm)

SILICONE	V POLYIMIDE MICA	
Power		
Volts 60	Watts	
	1.00 wetta/sa.in.	
Shape		
O Rectangle	Upload Custom Drawing	
O Circle	Maximum file size is 20 MB. 1 file per request.	
O Donut		
O Cone	Select Image Please note that when sending custom request, you will only be able to send. Take prove request. If you need to send multiple custom files, please send each one in it's own quote request, or you can email us multiple files as attachments.	
O Star/Sphere		
O Trapezoid		
Custom		
Ctandard		

### Flex-Specs Tool

TUTCO-Farnam's convenient Flex-Spec tool allows you to easily design your Polyimide Heaters. Simply follow the step-by-step screen prompts to configure your heater and begin the quote process.

CLICK TO GET STARTED

## Feature Video What Makes a TUTCO Farnam Flow Torch™ Awesome



National Sales Manager, A.J. Nidek discusses the very unique family of Flow Torch<sup>™</sup> heaters and what makes these popular heaters so awesome. Available in 2", 4", 6" and 8" versions, the Flow Torch can deliver pressure up to 2,000 SCFM and temperatures up to 932°F (500°C). As you will see in the video, it is the core of the heater where mica supports (80% Nickel, 20% Chromium) resistance wire that allows the heater to ramp up and cool down quickly. The result is a highly efficient heat solution.

### CLICK TO WATCH VIDEO

