

MAX. TEM: 1400°F / 760°C

POWER: 6kW - 36kW

MAX AIR PRESSURE: 60 PSI

MAX SCFM: 68 SCFM

[GET A QUOTE](#)

[DETERMINE YOUR HEATER](#)

Max Air Heaters

Temperatures up to 1400°F / 760°C

6kW - 36kW

Built-in Type K thermocouples

Built-in Flow Loss Protection

Compact stainless steel heater

Applications: aerospace, automotive, electronics, plastics, medical, food & beverage, printing, OEM systems





Electric inline heating solutions for air and inert gases

The **TUTCO SureHeat Max** is a high-performance inline process air heater engineered for demanding industrial applications where precise temperature control, rapid heat-up, and long service life are essential. Part of TUTCO SureHeat's Closed-Loop Process Heater line, the Max is designed to work seamlessly with compressed or regenerative blowers, delivering consistent, high-temperature air to keep your processes running efficiently.

Built with our **Serpentine™ coil design**, the Max provides superior heat transfer, faster ramp-up, and extended element life, outperforming conventional inline heaters. Each unit includes two built-in type K thermocouples (inlet and outlet) for accurate temperature measurement and is fully compatible with TUTCO SureHeat Control Panels, ensuring precise voltage control, overshoot protection, and consistent operation. Available in 1- or 3-phase configurations, the Max is engineered to meet the diverse demands of OEM equipment and custom industrial processes.

Electric air heaters work by transferring electrical energy into a passing air stream. The resulting air temperature is determined by both the heater power and airflow rate. To help you select the optimal Max heater for your process, use the calculation tool on this page to determine the correct specifications for your application.

Discover which Max heater is ideal for your application

Use the table below to determine the optimal Max heater for your application, or contact TUTCO SureHeat to discuss specific process requirements and receive expert support.

Features & Benefits

- **High Temperature Capability** – Reaches up to 1400°F (760°C) for demanding process heat applications.
- **Patented SERPENTINE™ Coil Design** – Maximizes heat transfer, improves ramp-up times, and extends element life.
- **Dual Built-In Type K Thermocouples (Inlet and Outlet)** – Provides accurate, real-time temperature monitoring.
- **Control Panel Integration** – Compatible with TUTCO SureHeat standard or custom panels for precise voltage control, overshoot protection, and safe operation.
- **Flexible Power Options** – Available in 1- or 3-phase configurations with multiple voltage options.
- **Durable Stainless Steel Construction** – Engineered for long-term reliability in industrial environments.
- **Compact Inline Design** - Easy integration into OEM systems or retrofitted into existing production lines.

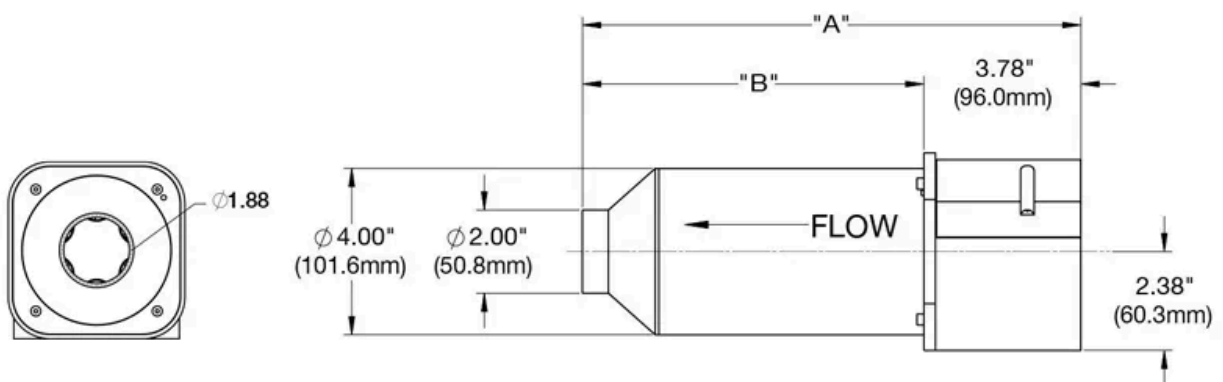
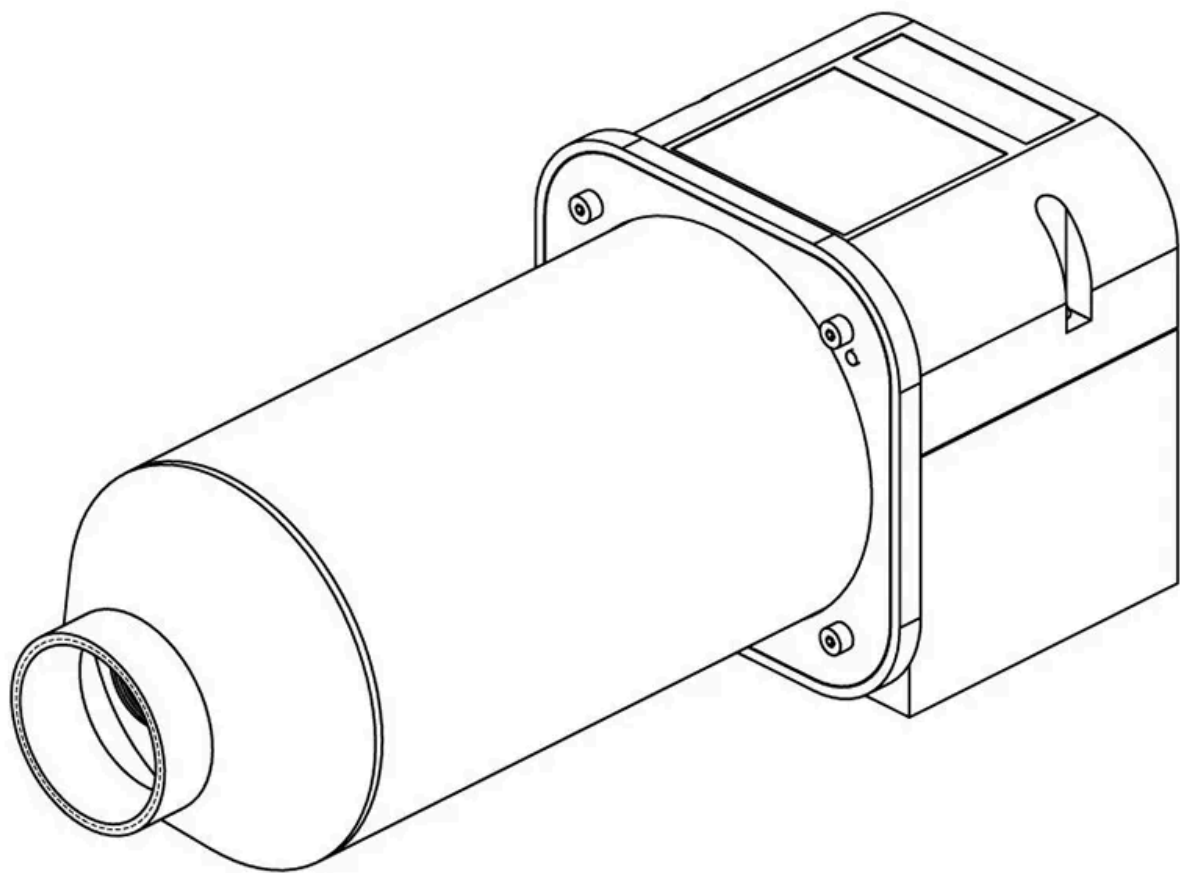
Specifications

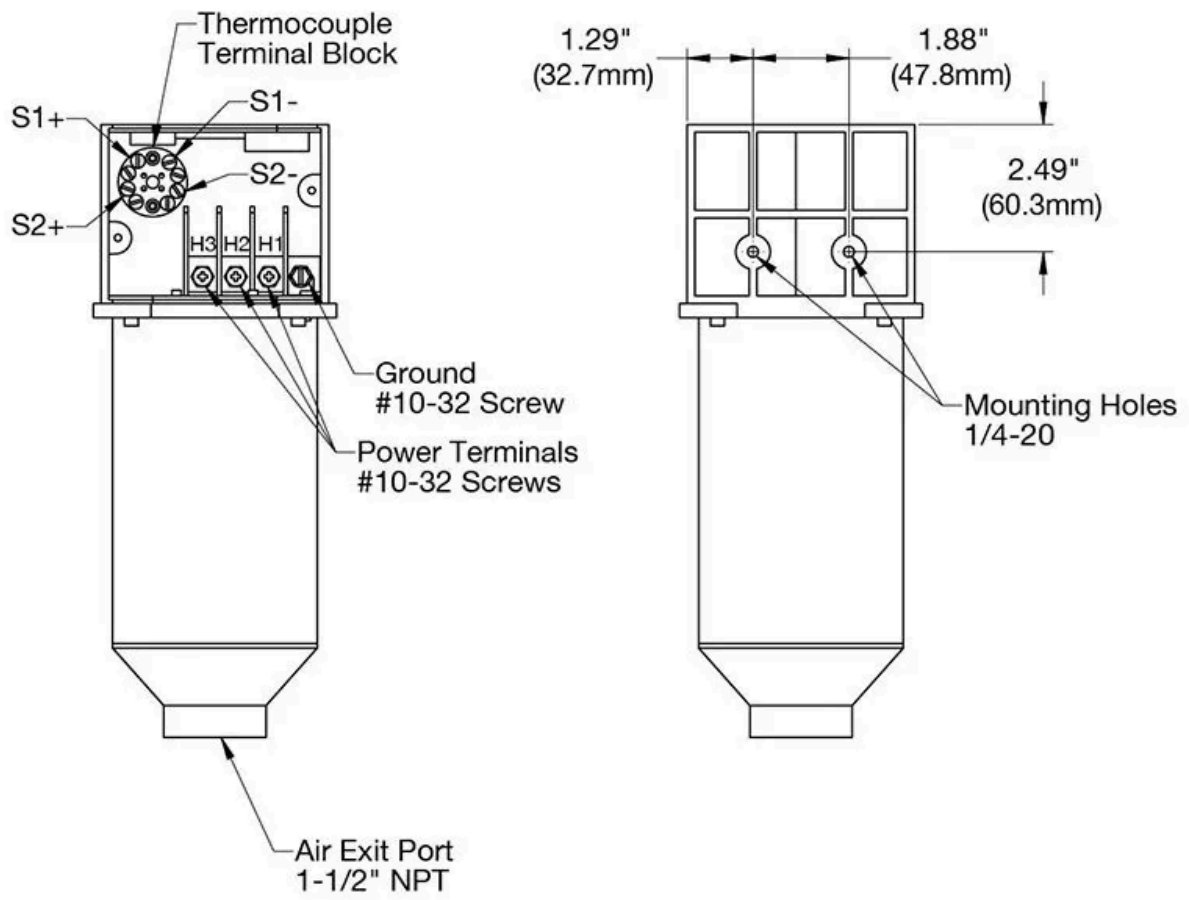
- **Maximum Air Temperature:** Up to 1400°F (760°C)
- **Max Volts:** 240V/1 to 480V/3
- **Max Amps:** 7.2 to 45.6
- **Max Air Pressure:** 60 psi
- **Max Inlet Temperature:** 200° F (93°C)
- **Power Ratings:** 6kW to 36kW
- **Airflow Compatibility:** Designed for low to high volume airflow with minimal pressure drop
- **Construction:** Stainless steel body with NPT threaded connections
- **Control:** Compatible with TUTCO SureHeat Control Panels; built-in type K thermocouples
- **Mounting Options:** Inline threaded
- **Phase & Voltage Options:** 1- or 3-phase configurations; multiple voltage options available
- **Certifications:** UL Recognized, CE, RoHS

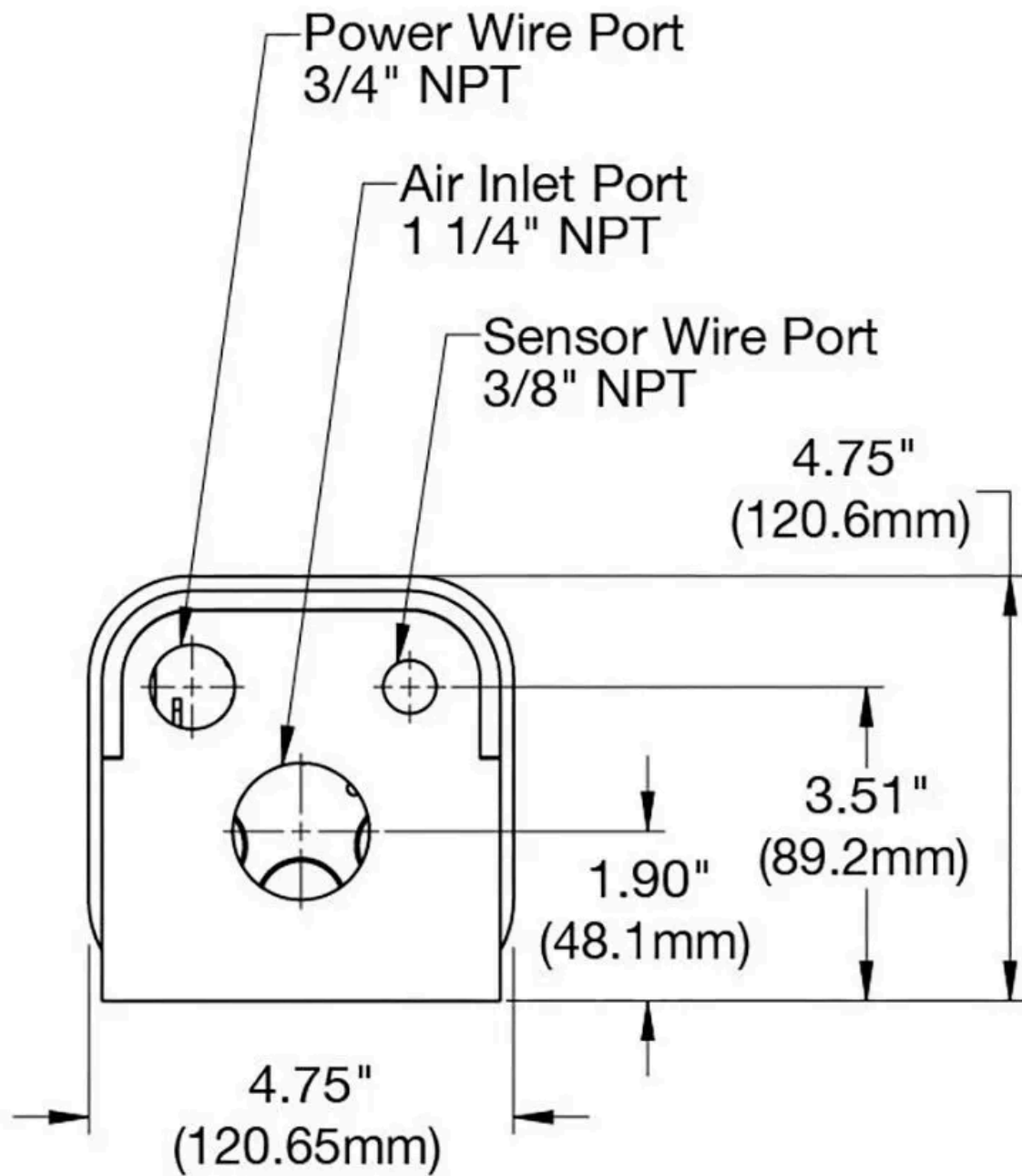
Industries & Applications

The SureHeat Max excels in industries that require high-temperature process heat with precision and reliability:

- **Aerospace & Defense** – Ideal for composite curing, component testing, thermal simulations, and de-icing systems, delivering consistent high temperatures that meet strict industry standards.
- **Automotive & Transportation** – Supports processes such as welding, adhesive curing, drying, heat treating, and forming, helping manufacturers maintain quality and efficiency on high-volume production lines.
- **Electronics & Semiconductor** – Provides precise solder reflow, wafer processing, high-temperature drying, and component sealing, ensuring uniform results for sensitive, high-value components.
- **Food & Beverage** – Excellent for drying, sterilization, baking, shrink-wrapping, and coating, offering controlled, clean heat for safe and efficient food processing.
- **Medical & Pharmaceutical** – Perfect for sterilization, packaging, lab testing, and precision drying, helping facilities maintain regulatory compliance and process reliability.
- **Plastics & Packaging** – Optimized for forming, sealing, heat shrinking, and film processing, delivering uniform heat for consistent material performance.
- **Printing & Converting** – Supports ink drying, laminating, coating, embossing, and other finishing processes, ensuring high-quality output and minimal defects.
- **General Industrial Manufacturing** – Handles hot air knives, drying tunnels, and custom OEM machinery, providing the high heat and durability needed for challenging industrial environments.







A Line of Industrial Control Solutions from the Heating Experts

TUTCO's depth of expertise uniquely qualifies us to manufacture control panels for the heaters we produce, as reflected in our unwavering commitment to quality. Our engineers have leveraged the latest technology in heater controls and safety features to create a line of totally customizable controllers well-suited for industrial facilities and OEMs. Our controllers utilize power controllers, temperature controllers, and thermocouples to continuously monitor and maintain consistent output voltages to the heater.

Regardless of fluctuations in the process or changes in airflow, the temperature is continually monitored to meet process requirements and safeguard the heater. Each controller features LAN connectivity via an RJ45 port, which allows the controller to communicate and retrieve data from a remote HMI or another external device, such as a data logger or webpage.



Closed-Loop (Feedback) Control

Closed-loop heater control systems use a power controller, temperature controller, and thermocouple to monitor and maintain a constant output temperature, regardless of changes in airflow. The typical temperature controller provides a convenient display of the air temperature (not the element temperature).

Temperature Controller

- Use only digital temperature controllers with Type K thermocouple inputs.
- The temperature control output must match the input of the power controller (e.g., 4–20 mA or 0–10 VDC).

- A standard PID-type control with a wide proportional band works best to minimize temperature overshoot.
- PID parameters may be auto-tuned, but only at temperatures below the maximum rating of the heater. Monitor the heater temperature rise and turn power off immediately if it exceeds the heater's specification during the auto-tune cycle.

Power Controller

SCR (Silicon Controlled Rectifier) power controllers provide the smoothest power regulation for electric air heaters. Power controllers, such as SSR (Solid State Relays) or other fast-switching controllers are also used with our heaters. Contact TUTCO SureHeat for details.

[Learn More About Controllers](#)

Resources



MANUALS

Quickstart Guide
Operating Manual



BROCHURES

Max Data Sheet



VIDEOS

Air Heaters
Jet and Max Heaters
Max and Threaded Inline
Instaling a Max Heater

Why choose TUTCO SureHeat

Industry Expertise: With decades of experience in industrial heating solutions, TUTCO SureHeat is a trusted name in the industry.

Reliable Performance: Our heaters are designed for consistent, repeatable results, ensuring quality and efficiency in your processes.

Comprehensive Support: We offer technical support, custom solutions, and integration assistance to meet your specific needs.

Global Reach: Our products are used worldwide, providing proven solutions in various industries.

The TUTCO SureHeat Max sets the benchmark for inline process heating by combining rugged construction, advanced coil design, and precise closed-loop control. Where other heaters struggle with overshoot, inconsistent performance, or premature failure, the Max delivers reliable high-temperature air with efficiency and accuracy you can trust. Backed by decades of heating expertise and proven in industries worldwide, the Max is the dependable solution for manufacturers who need fast ramp-up, long service life, and consistent process quality.

Frequently Asked Questions

HOW DOES THE MAX ENSURE PRECISE CONTROL AND SAFE OPERATION?

Each unit includes two built-in Type K thermocouples for inlet and outlet temperature monitoring. When paired with a TUTCO SureHeat Control Panel, the Max provides closed-loop operation with precise voltage regulation, overshoot protection, and stable temperature control under varying airflow conditions.

CAN THE MAX BE INTEGRATED INTO EXISTING SYSTEMS?	—
Yes. Its compact inline, stainless-steel design with NPT threaded connections makes it easy to install in OEM systems or retrofit into existing production lines. It's also compatible with both compressed air and regenerative blower systems.	
HOW DOES THE SERPENTINE™ COIL DESIGN IMPROVE PERFORMANCE?	—
TUTCO's patented SERPENTINE™ coil design enhances heat transfer efficiency, allows faster ramp-up times, and extends the life of the heating element—offering better performance and durability compared to conventional coil heaters.	
WHAT APPLICATIONS IS THE TUTCO SUREHEAT MAX BEST SUITED FOR?	—
The Max is designed for demanding industrial environments that require precise, high-temperature air heating. It excels in applications such as drying, curing, forming, heat treating, sterilization, and component testing across industries including aerospace, automotive, electronics, food processing, and plastics manufacturing.	

Part numbers: F074725, F078597, F074727, F074732, F074736, F074731, F074723, F074728, F074729, F074733, F074724, F078599, F074726, F078598, F0784735