POWER: 6,000 to 35,000 W	MAX INLET TEMP: 392°F
MAX EXHAUST TEMP: 900°F	PRESSURE: 150 PSIG

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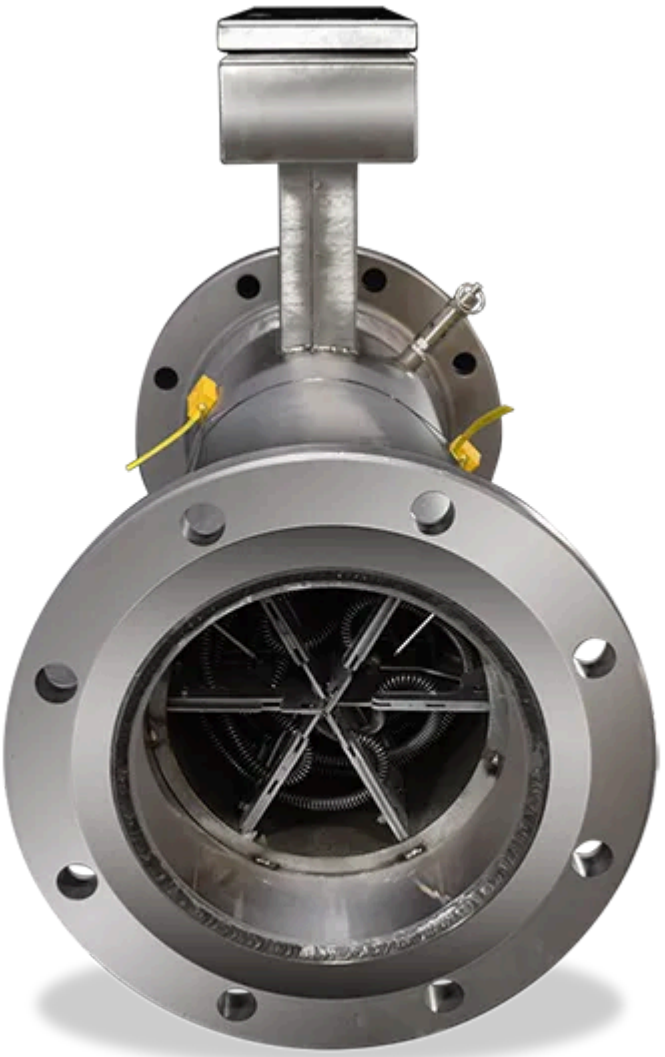
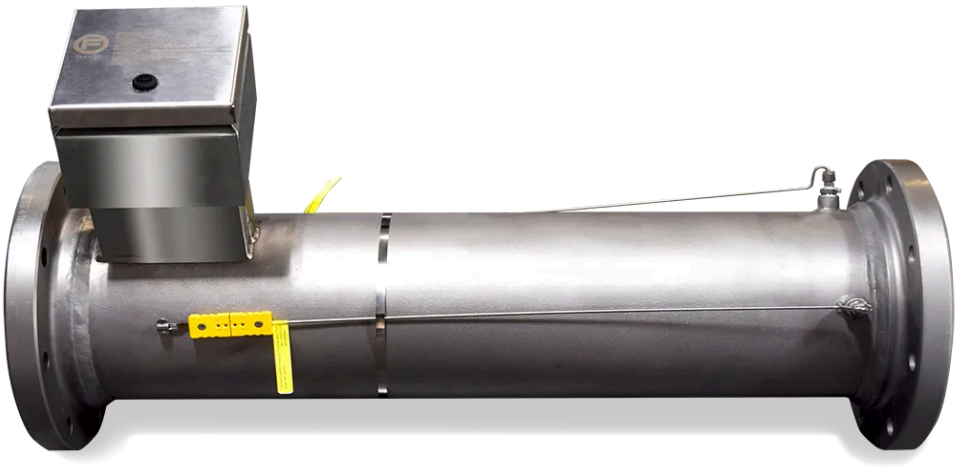
Pressure Torch™

The **Pressure Torch™ family of heaters** from TUTCO Farnam is engineered to fill a critical gap in process air heating—delivering more capability than low-pressure heaters without the complexity or excess of extreme high-pressure systems. Designed for **medium-pressure applications** up to 150 PSI, the Pressure Torch™ provides reliable, efficient air heating with exhaust temperatures up to **900°F (482°C)**.

Evolved from the proven Flow Torch™ platform, the Pressure Torch™ houses a low-mass open-coil heating element inside a pressure-rated stainless-steel vessel. This design maintains fast thermal response and low pressure drop while supporting higher pressures and airflow rates. Available in **4-inch, 6-inch, and 8-inch diameters**, the Pressure Torch™ family offers power ratings from **10 kW to 75 kW** and airflow capacity up to **2,000 SCFM**, making it a versatile solution for demanding industrial processes.





Pressure Torch™ 400

MAX WATT: 35,000W	**MAX INLET:** 392°F
MAX EXHAUST: 900°F	**MIN SCFM:** 19
MAX SCFM: 500	**PSIG:** 150

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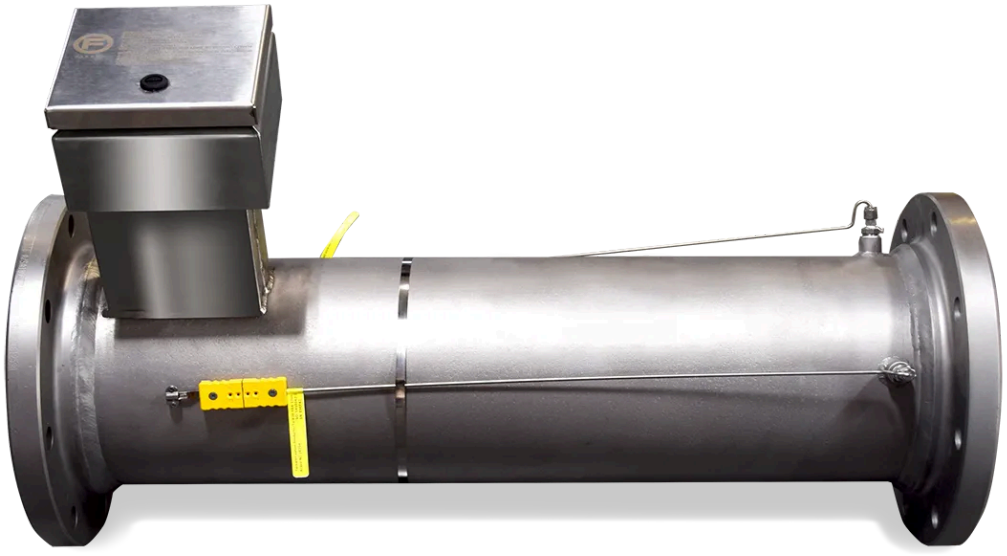

Pressure Torch™ 600

MAX WATT: 60,000W	**MAX INLET:** 392°F
MAX EXHAUST: 900°F	**MIN SCFM:** 38
MAX SCFM: 1100	**PSIG:** 150

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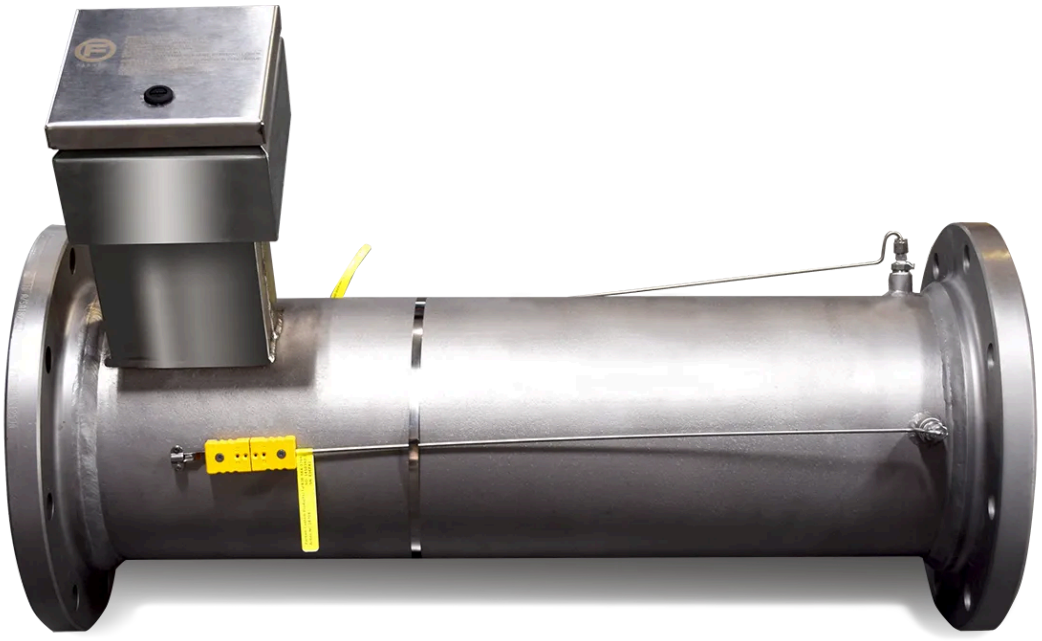

Pressure Torch™ 800

MAX WATT: 75,000W	**MAX INLET:** 392°F
MAX EXHAUST: 900°F	**MIN SCFM:** 76
MAX SCFM: 2000	**PSIG:** 150

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Specifications

- Pressure rating: Up to 150 PSI
- Maximum outlet temperature: 900°F (482°C)
- Heater diameters: 4", 6", and 8"
- Power range: 10 kW to 75 kW
- Airflow capacity: Up to 2,000 SCFM
- Heating element: Low-mass open coil
- Mounting: Flanged connections
- Instrumentation: Process thermocouple and safety high-limit thermocouple
- Controls: Custom control packages available and recommended

Pressure drop charts and complete systems—including regenerative blowers—are available for proper system sizing.

Applications

Industrial Process Air Heating

The Pressure Torch™ is an industrial process air heater designed for medium-pressure systems that require consistent airflow and stable temperature control. Capable of operating up to 150 PSI, it integrates easily with

blowers and closed-loop air systems while maintaining a low pressure drop. This makes it ideal for manufacturing processes that depend on reliable, repeatable heated air.

Drying and Curing Systems
In industrial drying and curing applications, uniform heated airflow is essential to product quality and throughput. The Pressure Torch™ delivers high-volume heated air with fast thermal response, allowing operators to quickly adjust temperatures as materials or line speeds change. Its efficient design supports consistent drying, curing, and moisture removal across a wide range of industrial processes.

Environmental and Test Chambers
The Pressure Torch™ is commonly used as a process air heater for environmental test chambers and thermal testing systems. Medium-pressure capability allows it to perform efficiently in sealed or controlled environments, while the low-mass heating element ensures precise temperature control and rapid stabilization during testing cycles.

Material Processing and Conditioning
Many material processing and conditioning applications require controlled heated air to prepare materials for forming, bonding, or finishing. The Pressure Torch™ provides predictable airflow and temperature uniformity, supporting repeatable process conditions and improved product consistency.

Manufacturing Air Handling Systems
As an industrial air heating solution, the Pressure Torch™ can be integrated directly into manufacturing air-handling systems. Flanged connections simplify installation in new or existing ductwork, while the heater's durable construction supports continuous operation in demanding industrial environments.

Pilot Plants and R&D Systems
Research and development facilities rely on flexible, responsive heating solutions. The Pressure Torch™ offers multiple sizes and power ratings, making it well suited for pilot plants, laboratories, and R&D systems where process parameters frequently change. Fast heat-up and cool-down allow engineers to collect accurate data and shorten testing cycles.

Skid-Mounted and Packaged Process Systems
The Pressure Torch™ is ideal for skid-mounted and packaged process systems where space, reliability, and ease of integration are critical. Its pressure-rated design, flange mounting, and compatibility with custom control panels make it a strong choice for turnkey industrial equipment.

Advantages Over Conventional Heaters

Designed for Medium-Pressure Operation
Unlike standard duct heaters that are limited to low-pressure operation, the Pressure Torch™ is purpose-built for medium-pressure air heating up to 150 PSI. This eliminates the need for oversized housings or external pressure vessels commonly required when adapting conventional heaters.

Faster Heat-Up and Cool-Down
The low-mass open-coil heating element allows the Pressure Torch™ to respond quickly to temperature changes. Compared to conventional high-mass heaters, this results in tighter temperature control, reduced overshoot, and improved efficiency in processes with frequent cycling.

Low Pressure Drop for Improved System Efficiency
Conventional air heaters often restrict airflow, increasing blower load and energy consumption. The Pressure Torch™ is engineered to minimize obstruction to airflow, delivering lower pressure drop and improved overall system performance—especially in high-flow applications.

Energy-Efficient Operation
By combining fast thermal response with low airflow resistance, the Pressure Torch™ improves energy efficiency in industrial air heating systems. Less power is wasted overcoming pressure losses, and precise temperature control reduces unnecessary heating.

Rugged Construction and Long Service Life
The Pressure Torch™ features a stainless-steel pressure-rated housing designed for industrial environments. This robust construction delivers longer service life and reduced maintenance compared to conventional heaters not designed for pressurized air systems.

Simple Installation and Integration
Flanged connections allow the Pressure Torch™ to be installed directly into ducting or process piping. This simplifies system design, reduces installation time, and makes the heater well suited for both new equipment and retrofit applications.

Enhanced Safety and Control
Dual thermocouples—one for process monitoring and one for high-limit safety—provide an added layer of protection compared to many conventional heaters. When paired with TUTCO Farnam control panels, the Pressure Torch™ delivers precise temperature regulation and reliable, safe operation.

Why Choose the Pressure Torch?

TUTCO Farnam's Pressure Torch™ family offers a balanced approach to process air heating—combining efficiency, durability, and flexibility in a medium-pressure solution. Backed by decades of application expertise, each heater is supported by engineering assistance to ensure proper sizing, integration, and control.

If your application requires more pressure and airflow than traditional process heaters—but not the extremes of ultra-high-pressure systems—the Pressure Torch™ delivers the right performance, reliability, and value.

Complete Your Thermal System
Add a control panel for precise control and safety.

Control Panels

Closed-loop heater control systems use a power controller, temperature controller, and thermocouples to monitor and provide constant output temperature.

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