



FIRED HEATERS for the refining and petrochemical industries



TULSA HEATERS INC.

Since incorporation in 1985, **TULSA HEATERS INC.** (**THI**) has grown into a technically-sophisticated, financially-capable worldwide manufacturer of fired heaters and waste heat recovery products. As of 2011, **THI** has manufactured more than 700 new products, executed more than 900 revamps and retrofits and completed more than 300 engineering studies.

A worldwide network of representatives and suppliers enables *THI* to provide quality products and services in all of the major industrial markets both before and after the sale. Combining the technical and financial capabilities of a large company with the flexibility and responsiveness of a small company, *THI* manufactures cost-efficient, state-of-the-art products for all general service applications, regardless of product size and complexity.

Technology

THI has consistently placed a high priority on empowering its staff with leadingedge engineering and design tools. Consequently, *THI* has a family of proprietary process design programs, 3D finite element analysis structural design software, 2D and 3D CADD systems and an array of complementary programs and tools.

These tools collectively support the objective that every product—regardless of size or complexity—meets or exceeds our customer's expectations. With these historically-proven, time-efficient tools, every product offering is underwritten by a robust thermal model and the complementary combustion, draft and hydraulics models.

THI's engineering and design tools enable our staff to create, model and guarantee products for a broad range of services and sizes, in compliance with a customer's specifications and expectations, with minimal technical risk to **THI** and to the customer. Our typical product duty range of 4 to 400 MMBtu/h includes all industrial services (except services with catalyst-filled tubes) in a broad variety of product types, as summarized on the next page.

Quality

Since incorporation, *THI* has continuously maintained a meaningful Quality Management System (QMS) that includes engineering, design, purchasing and fabrication modules. The *THI* QMS has been certified to ISO 9001:2008. The goal of the *THI* QMS is "to be the preferred source of fired heaters and waste heat recovery units." Our QMS policy also states that this goal will be achieved through our commitment to offer quality products and customer service at competitive prices.

Products and Services

Heater Products, by coil type

- Horizontal Cabin Heaters
 Single or twin cell with single or double-fired radiant coils
- Horizontal Cylindrical Heaters
 Single cell with single-fired
 serpentine or helical radiant coils
- Horizontal Octagonal Heaters
 Single cell with single-fired
 serpentine or helical radiant coils
- Vertical Cylindrical Heaters
 Single or twin cell with singlefired serpentine or helical coils
- U-Tube/Wicket Box Heaters
 Single or multiple cell with single or double-fired coils

Vertical Box Heaters

Single or multiple cell with single or double-fired radiant coils



Horizontal Box Heaters

Single or multiple cell with single or double-fired radiant coils



Complementary Heater Subsystems

- Air Preheat Systems
 Forced, induced or balanced draft systems of any complexity
- Burner Management Systems
 For gas and/or oil fired heaters of any complexity
- Emissions Reduction Systems Multiple CO, NOx and/or SOx reduction technologies
- Local Process Piping
 Manifolds, local spools and transfer lines of any complexity
- Steam Systems
 Complete with pumps, drum, desuperheater and/or local piping
- Sootblowing Systems
 Complete with sootblowers, local piping and control panel
- Burner Fuel Piping
 For gas and/or oil fired heaters of any complexity

Waste Heat Recovery Products, by flue gas flow

- Horizontal Heat Recovery Units
 Single or multiple services with fixed or removable coils
- Vertical Heat Recovery Units
 Single or multiple services with fixed or removable coils

Complementary Waste Heat Recovery Subsystems

- Bypass Systems
 - Provide safety, duty control and noise abatement of any complexity
- Emissions Reduction Systems
 CO and/or NOx reduction
 technologies
- Local Process Piping
 Manifolds and/or local piping of any complexity
- Steam Systems

Complete with pumps, drum, desuperheater and/or local piping

 Supplemental Firing Systems
 Complete with burners, fuel gas train and control panel

Modules, Parts and Services

- Emergency Replacements
 Components, systems and entire products (regardless of OEM)
- > Field Services

Commissioning, troubleshooting, inspection and testing (regardless of OEM)

- Mechanical Engineering Services
 Coil stress and vibration models, failure analyses (all OEMs)
- Process Engineering Services
 Debottleneckings, emissions
 reductions, CFD/CF models (all OEMs)
- Retrofits and Upgrades
 In-kind replacements,
 debottleneckings and
 enhancements (all OEMs)
- Spare Parts

In-kind or engineered-by-**THI** spare and replacement parts (regardless of OEM)

Worldwide Fabricators

North America South America Europe Oceania Asia

Worldwide Representatives

North America South America Europe Oceania Asia Middle East

Customer Support

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