



INSERV

INTEGRATED SERVICE COMPANY LLC



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InServ Heater Services

Our Services

InServ Heater Services is a completely integrated and full service heater group. The ability to handle a project in-house from conception to installation is unique and unmatched in the industry. For instance, InServ Heater Services is the only heater group that has readily available InServ's manufacturing and field construction services (union & non-union). The strongest benefit of this integration of disciplines is it provides a collaboration of expertise to develop an optimal approach to fabrication and installation that minimizes delivery and turnaround time. Also through the ability to handle a project completely, it eliminates the risk of back charges typically experienced when required to work with a number of different companies for a given project. This "one stop shop" capability provides the opportunity and convenience for the client to issue only one purchase order.

We provide the following cost-effective solutions for your process heater projects

- Design & Supply of New Direct Fired Heaters
- Engineering Performance Studies
- Modifications of Existing Process Heaters
- Heater Parts & Piping Fabrication
- Process Heater Field Construction & Installation
- Dedicated Staff in Developing and Managing Turnkey Projects
- Emergency Response

The consistency we bring to our projects will provide increased effectiveness and overall cost savings for your project. We pledge to develop long-term client relationships that will ensure the success of our clients and ours go hand-in-hand.

New Equipment

InServ Heater Services can design, fabricate and install most combustion heat transfer equipment required for the refinery and petro-chemical industry. With our deepened design expertise and availability of InServ's manufacturing and field construction, smart design and fabrication techniques are applied to optimize the functionality of the unit and minimize field installation cost and schedule. In regards to minimizing field installation, InServ's fabrication facility is about eleven (11) miles from the port of Catoosa. This allows the ability to modulate the equipment components in larger sections. Through InServ's Construction Services (Union or Non-Union), modulization can be accomplished on or near the job site as well.



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The various units InServ Heater Services can provide are:

- Crude & Vacuum Heaters
- Reformers and/or Platforming Units (Low ΔP Reactor Charge)
- Visbreakers Heaters
- Column Reboilers
- Reactor Charge
- Hot Oil Heaters
- Steam Superheaters
- Regen Gas Heaters
- Hydrotreaters
- Hydrocrackers

- Various Types of Auxiliary Systems
 - Steam Generation System
 - Combustion Air Preheat System
 - Selective Catalytic Reduction System
 - Waste Heat Recovery

These services may require the following construction type

- Vertical Cylindrical Heaters
- Horizontal Cabin Heaters
- Vertical or Horizontal Box Heaters
- Helical Can Heaters
- Single or Double Fired Units
- Single or Multi Cell Wicket, Arbor or Harp Radiant Sections

Revamps

Each heater is unique and encompasses its own challenges when attempting to modify it to expand or enhance the unit's performance. With InServ Heater Services real-life/hands-on experience, we truly understand the challenges and potential benefits associated with revamping existing units. In addition, the collaboration of InServ's Construction Services (Union & Non-Union) and large vendor network, optimal planning and project development are executed to ensure the most cost productive approach and minimal shutdown time can be achieved. The ability to handle a project to the highest level from design to execution is unmatched in the industry.



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The following is a brief listing of the types projects:

- Convection Section Replacement
- Coil Replacement or Modification
- Ultra Low NOx Burner Installation
- New APH Installation Projects
- Existing APH Replacement or Revamp
- Custom Tube Support Design and Replacement
- Expansion and/or Performance Improvement
- Heater Skin Replacement
- Emergency Response

Field Studies

In addition to its unprecedented strength in project execution, fabrication and installation of new combustion heat transfer equipment or modifications to existing units, InServ Heater Services also provides full and comprehensive heater performance studies. These evaluations provide the units “real” operating characteristics of the unit and can be performed on any manufacturer’s equipment. Also, by maintaining close relationships with vendors, the latest and/or most improved technology and methodology is used. With this and gathering actual heater performance data, true engineered solutions can be reached.

The following is a list of the primary Onsite Study types that can be performed.

- Performance Improvement Study
- NOx Reduction Optimization Study
- Mechanical Integrity Study
- Plant Wide Efficiency Survey
- Plant Wide NOx Reduction Survey
- Specification Confirmation Survey

Emergency Response

Fired heaters can be considered the heart of a refinery or process plant. Therefore, if the unit is abruptly shutdown due to fire or internal explosion damage, every hour of operation lost is costly. These types of projects require orchestrating a number of different disciplines in a prompt manner and this can be difficult to coordinate. For instance, structural inspection, construction services, engineering and manufacturing are often necessary to adequately address this type of emergency project. InServ is



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the only company that encompasses these disciplines under one roof; including having shop space readily available.

There are various types of Emergency Response Services that InServ Heater Services can provide. Please see the following:

- Damage Inspection & Repair Scope Definition
 - All required disciplines will arrive on site no more than a day after notification.
- Fabricated Tube Support Design & Replacement
 - Capable of providing replacement tube supports in 2-3 days
- Expedited Material Replacement and Delivery
 - Massive vendor network insures the ability to locate stock material.
- Immediate Mobilization of Construction Services
 - Both Union and Non-Union Construction Services are available
- Complete Turnkey capability for damages exceeding the fired heater

Our Experience

InServ Heater Services provides a concept to the industry of complete vertical integration for an entire project or each individual service as the customer projects require. This complete vertical integration is unique and historic to the industry. The availability of design, fabrication and construction of process heaters under one roof. No one else does it like us. No one else combines the experience in these key areas along with the quality that heater projects must have to be successful. Today's process heater business requires that a team provide commitment and understanding of our client needs in order to translate that into the implementation of the project objectives. Our supervision is known throughout the process heater industry for their design expertise and when combined with our other integrated services, is setup to deliver projects on-time and within budget.