

# Direct-fired Furnaces

## ONQUEST

**OnQuest** is an industry leader in process design and applied combustion technology for clients in the energy and petrochemical industry. The company designs and delivers a full range of direct-fired furnaces and related combustion technologies including burner management systems, waste heat recovery systems, NOx reduction technologies, and thermal oxidizers. We are experts in furnace revamps and retrofits, and we support process facilities with a range of custom spare parts. OnQuest also specializes in turnkey design, engineering, procurement, and construction for small scale liquefied natural gas (LNG) plants, hydrocarbon reforming (hydrogen, ammonia and methanol), and renewable energy production facilities such as biofuel and waste-to-energy plants.

To learn more about OnQuest, please visit [www.prim.com](http://www.prim.com).



## SERVICES

### Design & Supply of Direct-Fired Heater

- » Crude Heaters
- » Vacuum Heaters
- » Coker Heaters
- » CCR Heaters
- » Hydrocracker Heaters
- » Steam Super Heaters
- » Charge Heaters
- » Hot Oil Heaters

### Revamp Services Direct-Fired Heaters & Syngas Reformers

- » Capacity Improvement
- » Energy Optimization
- » Emission Control
- » Emergency Rebuilds
- » Studies
- » Spare Parts

### EPC Supply of Small Scale Process Plants

- » LNG
- » Hydrogen
- » Waste-to-Energy

### Syngas Reformers Design & Supply

- » Hydrogen
- » Methanol
- » Ammonia

### Direct-Fired Heater Training

- » Heater Design
- » Operation
- » Maintenance

### Design and Supply of WHRUs for Gas Turbine Applications

### Design and Supply of SCRs for NOx Control



**Local Representative:**  
Apogee Engineering

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[sales@apogee-engineering.com](mailto:sales@apogee-engineering.com)

# Steam Reformers

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## NEW STEAM REFORMERS FOR SYNGAS & HYDROGEN PRODUCTION

### Retrofit of Existing Reformers

Regardless of the licensor technology, OnQuest has the capability to retrofit existing Reformer Furnaces for:

- » Capacity Expansion
- » Efficiency Improvement
- » Increased Reliability
- » Emissions Reduction
- » Plant Relocations
- » Refurbishment

### Emission Control (Burners/SCRs)

Retrofitting an existing reformer with LoNOx Burners or an SCR System requires careful evaluation of numerous factors including:

- » Box Geometry
- » Operating Parameters
- » Flue Gas / Convection Section Configuration
- » Layout and Location of Existing Equipment
- » Temperature Windows for SCR Installation





# Furnace Spare Parts

## ONQUEST

Established in 2002, OnQuest, Inc. is an industry leader in process design and applied combustion technology for clients in the energy industry. We specialize in design and engineering for mid-sized liquefied natural gas (LNG) plants, hydrocarbon reforming—including hydrogen, ammonia, methanol—and renewable energy production facilities such as biofuel and waste-to-energy plants. OnQuest designs and delivers a full range of direct-fired heaters and related combustion technologies, including burner management systems, waste-heat recovery systems, NOx reduction technologies and thermal oxidizers, and we are experts in furnace revamps and retrofits. We also support process facilities with a range of custom spare parts.

Based in Los Angeles, California, we have offices in Calgary, Alberta, and Houston, Texas, and have sales representatives worldwide. OnQuest is a subsidiary of Primoris Services Corporation (NASDAQ: PRIM), one of the nation's largest specialty civil construction companies.



## SPECIALIZED FURNACE SPARE PARTS

Need rapid response on parts and fittings for a tight turnaround? Facing an unplanned shutdown due to a mechanical failure or weather damage? You can count on OnQuest. We provide a complete catalog of high quality spare parts for furnace repairs - including replacement parts that help improve efficiency and overall operating performance as part of a comprehensive revamp or rehabilitation.

We offer:

- » A complete range of specialized furnace spare parts, including fabricating to meet your specifications
- » Rapid, high-quality service, with a dedicated customer representative assigned to your spare parts project
- » Detailed knowledge of technical design for retrofits and revamps
- » Expertise in optimizing furnace and process operations for improved performance

We place and fill orders accurately and quickly. Due to our longstanding relationships with suppliers in the industry, we can meet extremely tight deadlines, delivering parts anywhere in the world for installation during turnarounds or for emergency repairs. We can also source parts to meet specific requirements, using similar or upgraded materials as in your existing heaters.

On receiving your requisition, our engineers immediately review specifications, select the appropriate source, and/or provide informed recommendations on ways to expedite fabrication. We help optimize the installation of new parts and your process operation's performance. And our dedicated spare parts team follows your order every step of the way.

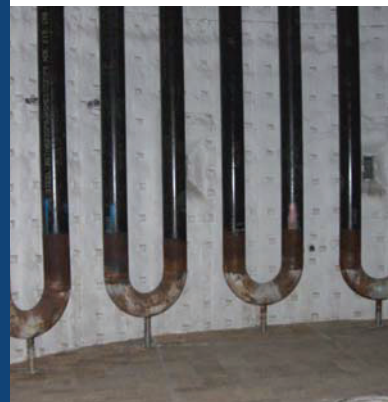


# Furnace Revamps

## ONQUEST

OnQuest has performed furnace designs for the largest oil and petrochemical companies in the world, and we have some of the finest thermal transfer and combustion engineers in the world working on our clients' process designs. Our engineers have particular expertise in furnace retrofits, revamps, and rehabilitation projects, including during tight turnarounds and/or after an unexpected thermal excursion or weather event.

We are deeply familiar with API 530 and API 560 vertical cylindrical, cabin, radiant and convection process furnaces. Our engineers have experience across all refining and petrochemical process applications, including distillation and fractionation columns; hydrotreating, ethylene, and fluidized catalytic cracking; hydrogen reforming, including for ammonia production; coking; continuous catalytic regeneration; and waste-heat recovery.



## MANAGE EMERGENCIES AND REVAMPS

We furnish low-NOx and/or ultra-low-NOx burners to optimize efficiency and reduce emissions. We provide new burner management systems to improve safety and efficiency, and can repair, refurbish or completely replace your existing BMS or safety controls.

OnQuest provides full and partial assemblies of heater coils, including hairpin and candy-cane type coils. We also offer a complete array of related parts for furnace assemblies, including:

- » Radiant & Convection Castings
- » Dampers (Guillotine, Louver, Stack)
- » Tube Couplings & Fittings
- » Tubes (Bare & Finned)
- » Tube Seals, Sheets & Supports
- » Tube-Skin Thermocouples
- » Pipe Fittings, Flanges & Gaskets
- » Observation Doors

### Contact Information:

To order spare parts or learn more about our capabilities, call Danny Hayes, Director of Revamp Services, at (918) 314-7033.

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