

Turnkey Supply of Hot Oil Heater

Furnace Improvements Services (FIS) was employed to perform an engineering study on a Hot Oil Heater (H-3) in Roxana, IL. FIS submitted the design and was awarded a contract for the turnkey supply of a new Hot Oil Heater for their BEU unit.

The BEU Heater (H-3) is a natural draft, vertical cylindrical heater with a radiant section, convection section, and stack. The heater is used to heat hot oil. The heater is designed for a total heat duty of 165 MMBtu/hr.

FIS executed the heater process, mechanical design, structural analysis, material procurement, and fabrication of this hot oil heater.



Furnace Improvements Services

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FIS-286

The client requested expedited delivery for this heater to meet their turnaround schedule.

- This heater was delivered to the site within **9 months** of receipt of order.
- The fabrication was done to such an extent that there were no structural welds at the site. All the connections were designed to be bolted connections.
- This is a 6-pass heater and radiant panels were designed for each pass to fit in each radiant panel.
- The outside diameter of the stack is 11' 3 5/8" and the height is 97' 2". This stack was shipped in two pieces which would be bolted at the site.

The total cost of the project for the design services, engineering services, procurement and fabrication was \$4,650,000. This heater was commissioned in March 2009.