



Machining Solutions

Fintube Project

Amaco oil refinery, Whiting, Indiana

Fintubes are part of the Heat Recovery Steam Generator System (HRSG). Over time the main header develops thinning and cracking due to water chemistry and temperature cycling which eventually require the removal of the header.

The repair scheme consisted of the replacement of the header, which required the cutting of (70) 2" diameter Fintubes.

The project scope called for the tubes to be cut as parallel to each other as possible along the header. In addition, the fins needed to be removed 4" back from the face.

This project challenged Wachs to develop a unique machining system to meet the projects machining and turn around requirements.

WACHS SOLUTION

The E.H. Wachs Company developed the Boiler Head

"Fintube Machining System"

to accomplish the repair.

The system consisted of (5) machines:

- A track saw (Wachs Panel Pro) typically used for waterwall removal was used to cut the multiple Fintubes parallel.
- (4) LB Boiler Tube Machines each outfitted with custom designed 1", 2" and 3" tool head extensions, used progressively to machine the 4" length. The use of multiple machines eliminated the time consuming task of disassembling a machine for tool head change out.

Using the "Fintube Machining System" the site schedule was met. The tube cutting process was performed in 6 hours and the Fintube machining was completed in less then 48 hours.



Head replacement assembly



Fintube machining peel back



Fintube Machining Process



Check out Wachs complete line of Boiler Head tube cutting and beveling machines for the most extreme boiler environments.

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"LB" boiler beveler



"Panel Pro" track saw

