

OVEN RELOCATION

Oven Relocation and Combustion Relocation Solve Customer's Problems



Oven being moved across the shop floor.



Aligning the oven over the new foundation.

Problem: A heat treat oven had not been used for production for years due to the lack of low temperature control which was required for proper operation. Over the years many of its parts were removed and used on a similar oven. The oven was physically located in the ideal position for a future heat treat furnace.

Solution: There were multiple parts of this project that needed to be completed prior to deciding if it would make sense to proceed with relocating the oven. The following estimates were required to determine if the project could be justified: 1) costs to upgrade the combustion controls; 2) costs to remove two ovens which had been taken out of service but not physically removed, to allow space for the move; 3) costs for a new foundation and moving the oven.

Once the cost estimates were completed, the costs to move the oven were compared to installing a new oven. Although a new oven had some benefits, the project costs for moving and upgrading the oven had the overall advantage. An additional benefit was that the combustion system, once proved, could be used on similar ovens within the plant.

PTS provided the cost estimates for this \$1.4M project. The project was approved by the client and PTS managed the entire project. Many of the original mechanical components required repair and/or replacement.

The original drawings were updated and revised and new parts were fabricated. All electrical components were completely replaced including the electrical panels, enclosures and the motor control center. The combustion controls and burner components were also replaced. Flame safety components were replaced to ensure the oven would comply with current safety guidelines.

After the upgrade was complete, the oven successfully passed the client's temperature survey and was put into service. The project's final costs were under the budgeted amount and the oven is currently being used for production of aircraft forgings.

"An additional benefit was that once the combustion upgrade controls were proven, that same system could be used on similar ovens in the facility."