

NEW DIE HEATER INSTALLATION



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Die Heater No. 13

Problem: A large manufacturer's existing die heating furnaces have size and heating capacity limitations waiting for dies to be properly heated to meet temperature requirements necessary to produce quality forgings. These delays caused production delays.

Solution: A \$5.28 million investment was made for the purchase and installation of a new die heating furnace to increase the production capacity in the facility and to support new business requirements of larger forgings.

Scope: Project Technologies & Services (PTS) was contracted to:

- Provide Project Management Services
- Develop and drive the project schedule
- Maintain the project budget
- Create specifications for the relocation of the existing #9 Die Heater and 500 Ton Press.
- Create specifications for foundation engineering and utility installation for the new die heater
- Screening and providing subcontractors
- Managing the construction for the foundation and utility installation
- Ensuring the safety of the employees and subcontractors

PTS executed the relocation of the #9 die heater, 500 Ton Press and the installation of new foundations as well as utilities. The die heater installation was to be a turn-key installation by the furnace manufacturer. Immediately, it was evident the new furnace was not operating to standard per the contractual obligations. Again, the client was routinely experiencing production delays due to limited die heating capacity.

PTS utilized best practices in project management to ensure that the furnace installation met our client's expectations. PTS implemented the following: an installation schedule was developed to track and manage progress, PTS implemented weekly meetings and project reports to enhance communication between the vendor, subcontractors and stakeholders, PTS engaged subject matter experts to routinely review the installation throughout the build to minimize delays due to deficiencies and to ensure code compliance, PTS conducted a thorough review of the vendor's contract and incorporated milestones into the project schedule and technical requirements into the project turnover acceptance documentation. Vendor progress, delays and deficiencies were well documented throughout the installation phase.

Also, the new die heater is located adjacent to the main entry way of the large aerospace press room. PTS conducted daily safety briefings to ensure that all subcontractors were aware of the large mobile equipment traffic and overhead crane traffic in the area. Shipments of large furnace components were coordinated with the client to eliminate production delays. Electrical tie-in required a high-voltage outage and plant shut down; these shutdowns were scheduled around the customer's production needs. PTS engineers were onsite, throughout the entire project, to provide construction management and ensure the safety of the employees and contractors.

Near the end of the project, the client discovered that the new furnace was a first of its kind and the first furnace built by the vendor in North America. PTS led extensive onsite modifications which were executed successfully to ensure the furnace met NFPA 70, NFPA 86 and vendor specifications. The vendor incurred additional costs due to design changes required to make the furnace compliant with US regulations.

Due to PTS' diligence in documenting required changes, the project was completed below budget. As a result, the client has a large die heating furnace which meets the current and future requirements to support their forging operations.