



## PROJECT SHEET

---

### PARSONS ELECTRIC, INC.

116 TRADE STREET  
LEXINGTON, KENTUCKY 40511  
859-233-9823

### AICHI FORGE USA, INC.

NEW 3000 TON PRESS LINE  
GEORGETOWN, KENTUCKY

#### **PROJECT DESCRIPTION:**

Aichi Forge manufactures engineered hot impression die forging products for the automotive industry. Their processes include custom impression die forging and powdered metal sinter forging.

The project includes adding a new forging production line consisting of a 1200 KW induction furnace, 1500 KVA transformer, 1200 KW power supply, 3000 ton forging press, trim press, (3) robots, and other support equipment. Parsons provided design/build services, preparing all construction drawings and installation of the electrical systems.

Parsons scope of work included:

- 15 KV fusible switch added onto existing medium voltage switchgear lineup.
- 100A, 13.8KV feeder to a 1500 KVA induction heater transformer.
- 1500/1995 AA/FFA KVA, 13.8 KV ~ 480V  $\Delta$  / 480Y/277V substation style transformer to feed induction heater.
- (2) 1000 amp, 480 volt, 3 phase, 3-wire feeders from the 1500 KVA transformer to the induction heater power supply.
- 400 amp, 480 volt, 3 phase feeder to the 3000T press.
- 600 amp, 480 volt, 3 phase plug-in type bus duct and its associated feeder.
- Branch circuits to (3) robots.
- (2) Ground detectors on the overcurrent devices feeding the induction heater power supply.
- (2) 100 Amp, 480 volt, 3 phase branch circuits to the trim presses.
- Numerous underground empty conduits for control wiring between the various pieces of production line equipment.

All of the feeders and branch circuits were installed in either a cable tray distribution system or underfloor trench system. The new line was installed in the existing production area while other lines were in production. Parsons worked closely with Aichi Forge and their equipment vendors to provide an engineered power installation for the new production line.