

ASAHI BLUEGRASS FORGE CORPORATION



PROJECT SHEET

PARSONS ELECTRIC, INC.

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ASAHI BLUEGRASS FORGE CORPORATION (ABF)

New Forging Facility
Richmond, Kentucky
59,853sf

PROJECT DESCRIPTION:

ABF manufactures press forgings for the automotive industry, producing parts such as gears, bearings, and joints, as well as transmission parts.

Part of their process involves a hot forging operation, which utilizes large induction heaters. This type of equipment can sometimes cause a harmonic rich environment in the facility's power distribution system. This, together with a low power factor caused by the large hydraulic presses, led to an additional charge on the facility's monthly electric bill.

Parsons, in concert with ASC, designed and installed a power factor correction and harmonic mitigation filter system to raise the power factor to acceptable levels and reduce the harmonic content from the hot forging operation.

The system included a harmonic filter installed in series with each induction heater. Each filter contained an engineered combination of resistors, capacitors, and inductors. Input and output feeders, which had to be installed around existing equipment, were provided for each filter. Parsons worked with ABF to install these filters without loss of production time.

Each feeder consisted of multiple runs of multi-conductor tray cable installed in a cable tray system. (3) 1200 amp and (1) 1600 amp feeders were installed.

As a result of the installation of these filters, the power factor was raised above the utility company's minimum level and the harmonic levels dropped significantly.