

**BOILER ENGINEERING SOLUTIONS**ENGINEERING  
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JULY 2003

The Aftermarket group of Keystone Energy (KE) provides solutions to meet your steam generating needs to enable your boiler operating success.

Our services include:

- Performance Studies
- Technology
- BMS/Combustion Control Systems
- Enhancements

**PERFORMANCE STUDIES**

KE Engineering Studies are conducted to analyze boiler performance and make recommendations based on regulatory or site changes for HRSG, waste heat, package units, and field erected units firing a wide variety of solid, liquid, and gaseous fuels. Performance tests and surveys may also be conducted to address specific customer concerns such as boiler circulation, steam purity, code material selection, combustion systems, and boiler efficiency.

**TECHNOLOGY**

KE’s state-of-the-art CAD software programs are used for flow modeling, furnace design, heat transfer, and a wide range of innovative engineering applications.

Our 3-D computational fluid dynamics (CFD) modeling enhances overall design of units, and is invaluable in analyzing retrofits such as low NOx burners and overfire air systems. 3D-computer modeling also allows KE to detect equipment interference and prevent costly field repairs.

**BMS/COMBUSTION CONTROL SYSTEMS**

KE can design and supply complete burner and combustion control systems for your existing boilers to meet new or pending emission legislation. You can rely on our retrofit experience to provide new and innovative designs in accordance with NFPA and local air emission standards to meet these and future burner and control requirements.

**ENHANCEMENTS**

Recent engineered solutions performed by KE include:

- Boiler and burner performance study including modifications to the superheaters, economizer, and ductwork for an upstate New York refuse-fired facility.
- Boiler structural upgrade to handle higher flue gas side pressures on refuse-fired boilers in the Mid-West and New England.
- Flue gas velocity and boiler water circulation study of new operating conditions on a coal-fired boiler in a Mid-West steel mill.
- Boiler performance study for new gas turbine exhaust conditions on a multi-pressure HRSG in Pakistan.

Let us help you find solutions to your boiler and steam generating needs.

*For more information on how Keystone Energy can help you, please contact us at...*

**24-Hour  
Availability**

