AFTERMARKET SERVICES

Operating and maintaining process heating equipment is a serious undertaking. Safety, reliability, periodic maintenance, and ever-changing codes, standards, and process needs challenge even the most experienced facility managers.







The good news is that **Sigma Thermal** offers complete support for all of your operations and maintenance needs. Whether it is service, technical support, training, parts, upgrades, or retrofits, you can rest easy knowing that you are being supported by the best in the business.







Retrofits

Sigma Thermal regularly assists customers in assessing retrofitting needs, recommending solutions, and implementing updates.

Retrofitting equipment can be a challenging and frustrating process. Whether a damaged system needs repair, equipment is ready for an upgrade, or an existing heating system needs capability modifications, we have the

expertise and resources to help tackle those challenges.

While we work on an endless variety of retrofit and upgrade projects, some common projects are listed here. Contact Sigma Thermal to learn more about how our retrofit services can ensure your success.

Common Retrofit Projects

- Automation Upgrades & Improvements
- Bath Heater Firetube Replacement
- Heater Modifications Alternative Fuels
- Heater Lid Replacements & Modifications
- Heater Capacity Increases and Reductions
- Skidded Equipment and Pipe Assemblies
- Biomass Hydraulic System Modifications
- Biomass Conveying Equipment
- Custom Thermal System Solutions

- Burner & Fuel Train Packages
- Upgrades to Low Emissions Burners
- Economizers and Combustion Air Pre-heaters
- Temperature Control Loops for Thermal Fluid Heating Systems
- Press VOC Abatement
- Heater Coil Replacements









Parts

Having a single source of supply for all your heating system components will save you significant time and money.

Proper maintenance of machinery is important in the longevity of an application. Sigma Thermal supplies replacement parts and components for new and existing process heating systems, including those built by other manufacturers – even those that are no longer in business. Most importantly, Sigma Thermal has the technical expertise to make sure you have the right parts. There are a wide variety of parts from various manufacturers in any heating system, and Sigma Thermal simplifies the process by providing a single point

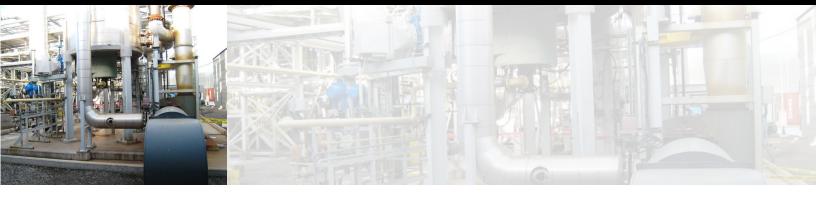
of contact throughout your experience. Our experts can identify which parts are critical to your operation. We have longstanding relationships with hundreds of component manufacturers to ensure you get the most competitive pricing and the best lead times available.

Our parts group is dedicated to supporting you throughout the lifetime of your system. Learn how you can save 5% on parts ordered with Sigma through our Total Customer Care Program.

What Sigma Provides

- Technical and Engineering Support
- Updated Industry Components
- Tracking List (discontinued, modified, or crossover items)
- Reference Drawing/Process Diagram
- Parts List
- Equipment Manual
- Domestic and International Shipping Capabilities







Services

Ask about our no-cost Total **Customer Care Program**

Sigma Thermal specializes in the service and optimization of industrial heating systems. Our services help to ensure that your plant operates at its maximum potential by reducing downtime, improving efficiency, and identifying potential problems in a pro-active manner. Not only are our Service Technicians trained on all manners of industrial heating systems, we have

engineering support staff ready and available to ensure you receive the best possible service and analysis. Services that Sigma Thermal offers include planned annual maintenance, emergency service, system analysis, on-site inspections, recommendations for equipment, and complete customer support plans.

System Analysis

Sigma Thermal engineers and technicians can help you identify problems and create solutions. As heat energy experts, we can optimize new heating systems, or provide efficiency audits for existing systems.

- √ Waste heat energy potential
- ✓ Infrared casing, duct, and stack scans
- √ Ultrasonic thickness testing
- √ Electrical systems inspection
- √ Boiler MACT compliance assessment
- √ Fluid analysis for thermal oil systems.
- √ Full-service report with trackable performance data

Service Inspections

Keep your equipment running with regular maintenance and service. The Sigma Thermal service department can assist you with:

- √ Comprehensive system inspection to identify areas of concern
- √ Verification of safety and limit devices for proper operation
- √ Burner tuning for optimum efficiency and lowest potential emissions
- √ Control loop optimization for improved process temperature control
- √ Onsite training for operators and maintenance personnel
- √ Critical spare parts inventory survey

Equipment Audits

If the audit results in recommendations for heat recovery equipment, replacement parts, or other upgrades, Sigma Thermal can provide the equipment, parts, or retrofits.

- √ Spare parts / reliability assurance components
- √ Combustion air pre-heater or other waste heat recovery system
- ✓ Automation and controls upgrades
- ✓ New heaters
- √ Boiler MACT compliance upgrades
- √ System expansion planning support

