STEAM PLANT DIVISIONS

TOTAL TURNKEY SOLUTIONS.
FIELD SERVICE & REPAIR DIVISION

Our Field Service & Repair division is ready to handle any steam plant challenge, any time, anywhere in the world. At IB&M we employ highly specialized steam plant experts who are skilled in all aspects of boiler service, including boiler delivery and installations, removal and disposal, code repairs, process piping, structural steel installations, and refractory installation / repair.

Boiler repair is one of the primary specialties of Industrial Boiler & Mechanical. Our shop and field staff have a combined history of literally hundreds of years of service and experience, and can meet the needs and requirements of the most complex boiler systems. Easy access to critical parts allows our boiler repair field crews to swiftly remedy issues from minor refractory repairs to emergency generator tube bank replacements.

IB&M offers expert on-site service and repair of steam plant equipment including:

- Front & rear door refractory repair
- Annual open clean & close services
- Equipment upgrades & retrofits
- Total steam plant installations
- Steam distribution headers
- Steam trap installation / replacement
- Internal tube cleaning / boroscope inspection
- Generator bank replacement
- Backup fuel systems
- Refractory repair

Rely on IB&M's field service experts for your steam plant.

ASME PRESSURE VESSEL REPAIRS
BOILER INSTALLATIONS
BOILER ECONOMIZERS
BOILER RECONDITIONING
FEEDWATER SYSTEMS
PROCESS & AIR HEATERS
PROPANE SYSTEMS
REVERSE OSMOSIS SYSTEMS
STEAM DRUM REPLACEMENT
TUBE REPAIR & REPLACEMENT
WASTE HEAT RECOVERY SYSTEMS
WATER SOFTENING & FILTRATION SYSTEMS
IB&M has an in-house boiler control panel building shop and testing center dedicated to steam boiler controls and boiler instrumentation systems. This testing center allows IB&M to create custom instrument panels and provide online troubleshooting of boiler control systems. This division also provides custom design/build PLC control systems for boilers and system processes as well as complete plant startup and troubleshooting. With remote access to our customers’ boiler control systems using new technologies, IB&M can often analyze customer issues and create solutions without an on-site visit.

Our Controls & Instrumentation division offers complete service by seasoned industry experts:

- System assessment
- Custom programming
- FAT testing
- Gas testing & calibration
- Equipment installation
- Commissioning
- Monitoring
- Maintenance
- Upgrades
IB&M’s Combustion Service division is the heart and soul of keeping boiler plants running at the most critical times. Our staff of boiler/burner technicians have received training from most of the industry leading boiler and burner manufacturers, and bring a combined experience of well over 200 years.

Regular service and tune-ups by IB&M’s skilled professionals can help save your business money, meet and exceed code standards and possibly fend off major repairs.

Well-versed and experienced in all areas of combustion maintenance, our qualified service technicians are available 24 hours a day, seven days a week, and can readily pinpoint common combustion start-up problems for:

- Boiler burners
- Hot oil heaters
- Furnaces
- Incinerators
- Vaporizers
- Industrial coaters
- Industrial ovens

Minimize downtime and extend the life of your boiler.
IB&M’s Stack Testing division offers Continuous Emissions Monitoring Systems (CEMS) and on-site compliance testing to help clients that operate coal-fired, gas-fired and oil-fired equipment meet regulatory EPA emissions guidelines. Routinely performing mandated compliance tests not only ensures proper emissions output, but also can help identify performance issues like leaks, thermal efficiency losses and burner or fuel systems in need of tuning or upgrades.

Our state-of-the-art mobile testing laboratory features the latest in CEMS instrumentation and DAHS testing equipment to sample and accurately measure regulated hazardous and criteria pollutants including:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- Sulfur dioxide (SO₂)
- Nitrogen oxide (NO)
- Nitrogen dioxide (NO₂)
- Oxygen (O₂)
- Volatile organic compounds (VOC)
- Particulate matter
- Opacity testing
- Acid gases

Our engineers can provide on-site calibration and tuning during testing as needed, and will submit comprehensive documentation for your records when completed.
Rental boilers ready any time, anywhere in the world.

IB&M’s Rental Boiler division provides installation expertise for watertube and firetube rental boilers 7 days a week, 24 hours a day. Our rental boilers are in-stock and ready for overnight shipping anywhere in the United States or internationally for emergency or temporary use. We are highly experienced in industrial, institutional, commercial, and utility industries, and can supply you with a suitable boiler for virtually any situation – including complete installation. IB&M can have your rental boilers operational within 24 hours to keep plant production running.

Industrial Boiler & Mechanical was one of the first to offer the Boiler In A Box. These boiler systems are mounted in 20’ or 40’ shipping containers and are fully operational portable boiler rooms. Quick connection ready, they come complete with electrical panels, feedwater systems, and stub stacks.

Auxiliary Equipment Including:
- Blowdown Separators
- Boiler Controls
- Boiler Economizers
- Burners
- DA Systems
- Exhaust Stacks
- Feedwater Systems
- Forced Draft Fans
- Gas & Oil Trains
- Main Steam Header Valves
- Steam Pressure Regulators
- Steam to Water Heat Exchangers
- Waste Heat Recovery Systems
- Water Softener Systems
SKID MOUNTED FIRETUBE BOILERS
These boilers require less space and can be set in place next to an existing boiler. We have units up to 1000 HP that fire natural gas and number 2 fuel oil. Low NOx available with most units.

VERTICAL SKID MOUNTED BOILERS
Perfect for limited space and applications requiring less steam. Sizes range from 10 - 60 HP with design pressures up to 200 psi, and fire on natural gas, propane and number 2 fuel oil.

ENCLOSED TRAILER MOUNTED FIRETUBE BOILERS
Designed for "plug and play," installation is both quick and inexpensive to reduce downtime. These units come with all necessary equipment and range in size up to 600 HP.

TRAILER MOUNTED FIRETUBE BOILERS
Some units come completely outfitted as a mobile boiler room and can include auxiliary equipment as needed. These boilers can fire natural gas, propane and number 2 fuel oil.

TRAILER MOUNTED WATERTUBE BOILERS
IB&M offers rental watertube boilers capable of providing up to 80,000 lbs/hr of steam and operating pressures of up to 350 psi. They are service-ready and fire natural gas or number 2 fuel oil.

ELECTRIC BOILERS
Electric boilers offer a simple design and are self-contained, mounted in a steel frame for easy transport. IB&M can provide a rental boiler sized to meet your specific application requirements.
IB&M’s Power & Utility division is a specialty group who provides the service, repair and installation of large field erect power boilers.

This division also leads our steam plant conversion projects, helping customers change from coal fired boilers to wood fired or natural gas. We can provide new fuel handling systems or redesign what you currently have.

This group has provided specialized pressure vessel repairs, super heater repairs, generator bank repairs and replacements around the nation. Our Power & Utility division is led by experienced project engineers, field superintendents and working foremen who provide the skill, experience and leadership to make sure your project is completed on time and with the highest level of quality – critical on both emergency repairs and planned outage work.

IB&M’s Power & Utility division caters to the following industries:

- Power and utility facilities
- Large powerhouse steam plants
- Refinery plants
- Petrochemical plants
- Pulp & paper industry

PLANNED OUTAGE WORK
EQUIPMENT SERVICE & REPAIR
BOILER CASING & INSULATION
POWER BOILER INSTALLATION
PLANT CONVERSIONS
AIR PRE-HEATER REPAIR
PRESSURE VESSEL REPAIR
SUPER HEATER REPAIR
GENERATOR BANK REPAIR
DRUM REPLACEMENT
WATER WALL REPLACEMENT
IB&M’s Valve & Pump Repair division provides repair and rebuilds of industrial valves and process/feedwater pumps used throughout the industrial and utility industries. We subject all equipment to an extensive process of repair and testing at our Chattanooga, TN facility and maintain a fully-stocked inventory of hundreds of valve types including steam valves, blowdown valves, relief valves, diverter valves, stop check valves and more.

**Comprehensive Valve Repair**
We specialize in large valve work, with valves ranging in size from 4-16". Our valve repair services include machining stems and pistons, lapping, tension and pressure testing to factory specifications. We also calibrate and test automatic control and feedwater valves.

**Feedwater Pump Repair**
Our factory trained field service technicians diagnose pump problems on site including failures, leaks, pressure drops, noises in motors and bearings, and delivery pressure deficiencies to the boiler. We check all parts and tolerances at our in-house service center, repair or replace components like suction lines, wear rings, bearing fits and seals, and balance and pressure test. We reinstall equipment on-site and align pumps with system motors, making sure bypass line piping is sized correctly for supply tank delivery when water is not in use.
IB&M’s Process Piping & Millwright division provides single source design, installation and fabrication literally from the ground up.

**Millwright and Mechanical Services**
As a full service industrial contractor, our millwright capabilities enable us to handle all aspects of concrete and foundation work, structural steel fabrication, heavy equipment rigging, setup, alignment and more. If you’re looking to expand operations, relocate or retrofit steam plant equipment, trust the ‘and mechanical’ experts at IB&M.

**Process Piping**
We also handle all your process piping needs as well and can create a custom solution built to handle an array of fluids under varied pressure, flow rate and temperature conditions including steam, oil, gas, water, condensate return, starch lines, compressed air, chemicals and heat transfer fluids.

We provide diameters ranging from 1/2” to 30” and commonly work with:

- Carbon steel
- 304 stainless steel
- 316 stainless steel
- Food grade piping
- Inconels
- Galvanized
- Ductile iron
- Copper
- PVC

**TOTAL TURNKEY SOLUTIONS.** (423) 629-1117
Our Engineering & Design division is made up of a group of skilled engineers, draftsmen, estimators and quality control personnel. This group has a diverse background with many years of experience in the design of steam plant construction, operation, complex repairs and modifications. Our steam plant engineers will evaluate your energy, space, and budget requirements, and recommend a cost-effective solution tailored specifically for your facility.

Our engineering and design services include:

- Steam plant system evaluations and payback analyses
- Steam plant and process design
- Operator state variance programs
- Conversions from coal to natural gas
- Vaporized propane plant design
- Energy saving surveys
- Minimum thickness calculations
- Capital project budget projections
- Mechanical and electrical Cad services
- Pressure vessel design & alterations

The Aftermarket Parts division is comprised of a team committed to competitive pricing and prompt, on-time delivery. We maintain a full inventory of most common repair parts for boilers, burners, valves, pumps, regulators, insulation, gaskets, refractory and boiler room equipment. IB&M has partnerships with leading suppliers throughout the country, which means we can even provide overnight delivery of non-stock items like burner housings, forced draft blowers, special refractory shapes, pumps and motors.