



**BL** Series



## PACKAGED BOILER MECHANICAL ROOMS



### Features:

- 500-6,000 MBH capacity in a single package
- Natural Gas or Propane as Fuel Source
- Multiple Boilers Can be Included in One Package for Extra Capacity or Redundancy
- High and Low Flow Models are Available Depending on the Temperature Rise Needed
- Factory Engineered and Installed Water Pumping Packages Reduce Field Installation Labor and Materials
- Double Wall Foam Insulated Cabinet Construction Creates Exterior Mechanical Room; Saving Valuable Interior Space
- Lighted Walk-In Controls and Service Vestibule Provides Year Round Service Access
- Access Doors with Stainless Steel Full Length Piano Hinges and Lockable Handles Offers Reliability and Security

Application Flexibility  
Minimizes Installation Time and Reduces Cost

◦ *Designed for  
Outdoor Application*

◦ *Sound Attenuating  
Construction*

◦ *Factory Assembled,  
Piped, and Wired*

◦ *Factory Installed  
Controls Options*

# BL Series Boilers

The BL Series has been engineered to save time and money at the job site with boilers, pumps, piping, and controls all in one quick and easy to install package. Valuable interior building space can be saved by moving a building's boilers and mechanical room to either the rooftop or an unused space around the exterior of the building.

## Superior Features

- Double wall, R-13 to R-19, foam insulated panel construction, with a thermal break, provides freeze protection and increases sound dampening.
- Access doors are provided to the unit controls, boilers, and pumps. Doors are constructed with stainless steel full length piano hinges, perimeter gaskets, and zinc cast lockable handles that operate from a single point outside the unit.
- Corrosion resistant polyurethane cabinet paint exceeds a 2500 hour salt spray test.
- BL Series packaged boiler mechanical rooms are completely factory assembled, piped, and wired, ready for field water piping connection and single point power connection.
- Boilers have an 88% thermal efficiency, NO<sub>x</sub> ratings of less than 9.9 ppm, and are UL/FM/CSD-1 Certified
- Natural gas or propane, water or glycol, and 20° F or 40° F temperature rise boilers are available for application flexibility.
- Boiler heating modulation, from 10 to 100%, is achieved using a VFD to control combustion air and an air-fuel ratio modulating gas valve for dependable, repeatable modulation.
- Boiler combustion blower comes equipped with a replaceable combustion air filter that is 99% efficient to one micron.
- Factory installed DDC controller maintains the leaving water temperature within 3° F of setpoint over the range of operating conditions.
- Labeled electrical components and color-coded wiring match unit specific color-coded wiring diagrams that are provided in point-to-point and ladder form and are laminated and permanently affixed inside the controls and service vestibule.

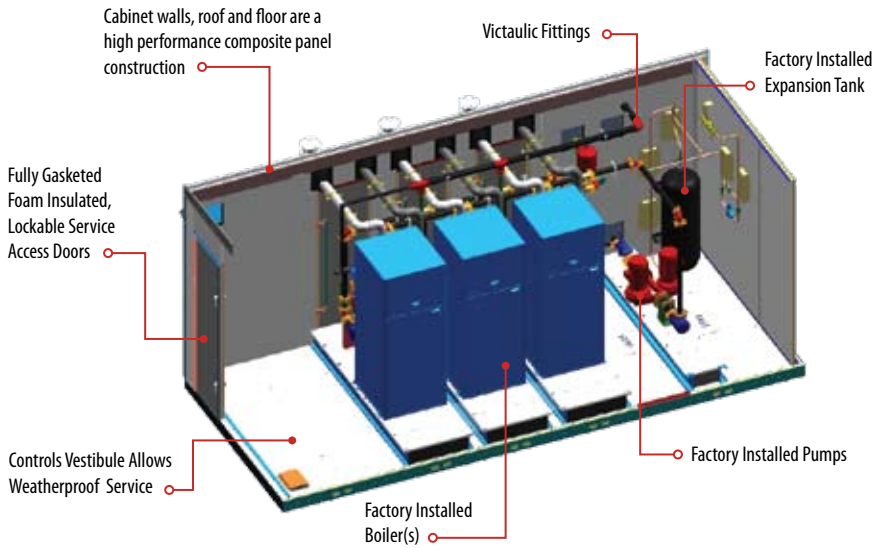
## Premier Options

- Boiler combination options are available to provide the unit with the needed amount of redundancy.
- Boiler building pump can include a redundant, or backup, single pump or use a dualArm pump for ease of service and maintenance.
- Unit DDC controller includes options for connection to BACnet, Modbus, N2, or Automated Logic protocol networks.
- IRI gas train, IRI gas train with proof of closure, and low water cutoff switch are available as additional boiler safety options.
- Factory installed thermometers and pressure gauges are available for ease of service and maintenance.
- Double pan viewing windows can be installed in all doors to allow outside of the unit viewing of operating equipment.
- Factory installed non-fused unit disconnect switch.
- Factory installed 115V convenience outlet for ease of unit servicing.
- Phase & brown out protection to protect the equipment from local power fluctuations.

| BL Model | Input Capacity | Output Capacity | Width                              | Height | Length*   |
|----------|----------------|-----------------|------------------------------------|--------|---|
| 050      | 500 MBH        | 450 MBH         | 100 - standard<br>or<br>135 - wide | 102    | <i>*Length varies depending on options selected</i> |
| 075      | 750 MBH        | 675 MBH         |                                    |        |   |
| 100      | 1,000 MBH      | 900 MBH         |                                    |        |   |
| 150      | 1,500 MBH      | 1,350 MBH       |                                    |        |   |
| 200      | 2,000 MBH      | 1,800 MBH       |                                    |        |   |
| 225      | 2,250 MBH      | 2,025 MBH       |                                    |        |   |
| 300      | 3,000 MBH      | 2,700 MBH       |                                    |        |   |
| 400      | 4,000 MBH      | 3,600 MBH       |                                    |        |   |
| 450      | 4,500 MBH      | 4,050 MBH       |                                    |        |   |
| 600      | 6,000 MBH      | 5,400 MBH       |                                    |        |   |

All dimensions are in inches

# Easy to Install, Service, and Maintain



## Factory Installed Boilers

The BL Series boiler's design includes the very best of existing copper tube and copper-finned boiler technology and incorporates features and benefits not found in other boilers. Designed to operate at 88% thermal efficiency with NO<sub>x</sub> ratings less than 9.9 ppm, the boiler's noiseless ceramic radiant burner runs at minimal excess air levels, creating highly efficient trouble free operation. An innovative gasketless carbon steel header provides for easy inspection, cleaning, and individual tube replacement. The combustion chamber is also completely enclosed in a stainless steel compartment and features collection/evaporation components to effectively handle cold-start condensate. Boiler heating modulation, from 10 to 100%, is achieved using a VFD to control combustion air and an air-fuel ratio modulating gas valve. The boiler's electrical spark-to-pilot ignition utilizes a UV scanner to prove pilot before main gas valves open, giving the boiler a much more reliable proof of pilot than hot surface ignition systems.

## Facts About AAOB Boilers

**Energy Efficient** . . . . . The BL Series features 88% thermal efficiency boilers with factory installed water pumping systems.

**Lower in First Cost** . . . . . BL Series packaged boiler mechanical rooms arrive at the job site factory engineered for quick and easy installation.

**Lower in Maintenance Cost** . . . . . The walk-in controls and service vestibule make equipment inspection and servicing easy at any time of the year.

**Requires Less Space** . . . . . With the BL Series, the complete boiler mechanical equipment room is within the unit. No valuable building square footage is wasted.

**Flexibility** . . . . . With many different features and options the BL Series can be tailored to meet the job requirements.

*For a complete hydronic building mechanical room the LL Series chiller is available with condensing unit, chiller, chiller pumping package, boilers, and boiler pumping package.*



Heat Exchanger



Ceramic Radiant Burner



Factory Installed Boiler



Factory Installed Boiler Building Pump



dualArm Pump

BL Series Boilers

# AAON Environmentally Friendly HVAC Product Family

**Customer Commitment** – AAON encourages environmentally responsible design by incorporating many energy saving features into our superior heating and cooling products. In addition to energy efficiency, AAON also offers environmentally friendly R-410A refrigerant capability in all our cooling and heat pump equipment. As countries throughout the world phase out CFC and HCFC refrigerants, R-410A is becoming the global standard and AAON is leading the way!



## Rooftop Units



## Condensing Units



## Air-Cooled or Evaporative-Cooled Chiller



## Boiler



## Outdoor Air Handling Units



## Indoor Air Handling Units



## Custom Indoor or Outdoor Air Handling Units



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