AERCO Low NOx Benchmark Gas Fired Hot Water Boiler System

The AERCO Benchmark 1.5 Low NOx (BMK 1.5LN) Water Boiler is designed for condensing application in any closed loop hydronic system. It delivers 20:1 burner turndown to match energy input directly to fluctuating system loads to yield the highest possible seasonal efficiencies. As illustrated below, the unit's operating efficiency actually increases as the load decreases.

To minimize emissions, the BMK 1.5LN is fitted with a low NOx burner whose emissions will consistently measure <30 ppm of NOx corrected to 3% excess oxygen at all firing rates. Certified by SCAQMD, the fully modulating burner also maintains AERCO standards for energy efficiency, longevity, reliability, and construction quality.

The BMK 1.5LN can be used singly or in modular arrangements and offers selectable modes of operation. In addition to controlling the boiler according to a constant setpoint, indoor/outdoor reset schedule or 4-20mA signal, one or more can be integrated via Modbus communications protocol to AERCO's multiple boiler management system (BMS) or a facility-wide Energy Management or Building Automation System.

BMK 1.5LN Features

- Natural Gas
- NOx Emissions <30ppm at All Firing Rates
- AL29-4C Vent Materials Required per UL1738
- Internal Low Water Cutoff (Manual Reset)
- Precise Temperature Control ±2°F
- Ventless Supply Gas Regulator
- 20:1 Turndown Ratio
- Direct Vent or Conventional Capabilities
- Quiet Operation Throughout Firing Range
- Compact Footprint (79"H x 28"W x 36"D)
- Sealed Combustion Capable
- UL, CUL, for Alcove Installation on Combustible Flooring
**BMK 1.5LN Boiler Specifications**

- **BTU Input**: 1,500,000 BTU/H*
- **Min. Output @ Full Input**: 1,290,000 BTU/H**
- **ASME Working Pressure**: 160 PSIG
- **Electrical Options**: 120/1/60 20 Amp (13 Amp FLA)

**Gas Requirements**
- **4.0" W.C. Minimum @ Full Load**
- **Vent Size**: 6" Diameter
- **Water Connections**: 3" Flanged 150lb. ANSI
- **Gas Connection**: 1.50" NPT

**Min./Max. Water Flow**: 0 GPM/225 GPM****

**Water Pressure Drop**: 4.0 PSIG @ 130 GPM

**Control Range**: 50°F to 190°F

**Ambient Temperature**: 0°F to 130°F

**NOx Emissions Certification**: SCAQMD

**Standard Listings & Approvals**: UL, CUL, CSD-1, ASME

**Gas Train Options**: FM Compliant or Factory Installed IRI

* Up to 2000' Altitude

**25 GPM water flow required for ±2°F temperature control.**

Boiler can operate safely with zero water flow.

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**AERCO**

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Specifications subject to change.
Consult website or AERCO.
New Doc 6/06