



# MODEL KC-1000 GWBLN TECHNICAL DATA

## AERCO LOW NOx KC-1000 Gas Fired Hot Water Boiler System

To minimize emissions while maximizing fuel efficiency, KC-1000 gas-fired boilers can be equipped, or retrofit, with a low NOx burner whose emissions will consistently measure <30 ppm of NOx corrected to 3% excess oxygen at all firing rates when operated with natural gas. Certified by the South Coast Air Quality Management District (SCAQMD) and the Texas Commission on Environmental Quality (TCEQ) in its class, the fully modulating burner also maintains AERCO equipment standards for energy efficiency, longevity, reliability and construction quality.

Designed for application in any closed loop hydronic system, the Low NOx KC-1000 gas-fired boiler precisely matches energy input to fluctuating system load, yielding seasonal efficiencies as high as 95%. Its efficiency actually increases as the load decreases due to its unique inverse efficiency curve. The boiler can be used singly or in modular arrangements for inherent standby with minimum space requirements. Venting flexibility permits installation without normal restrictions.

The advanced electronics of each boiler module offer selectable modes of operation. The options available include:

- Constant Temperature Internal Setpoint
- Indoor/Outdoor Reset
- 4-20mA Linear Signal Response
- AERCO Boiler Management System Integration
- AERCO Combination Domestic Water/Boiler Plant
- Building Automation System Network Interface

Regardless of the mode of operation, the load tracking capability of every unit delivers the ultimate in energy control through energy input modulation with an 11:1 ratio while meeting all load demands.

With condensing capability, the Low NOx KC-1000 Boiler is ideally suited for modern low temperature as well as conventional heating systems. Because of the compact design with sidewall or conventional venting, the unit is appropriate for either new construction or retrofit application with the same excellent results. Efficiency, reliability, and longevity make the Low NOx KC-1000 Boiler a true step forward in heating system design.



### LOW NOx KC-1000 FEATURES

- NOx Emission <30ppm
- Natural Gas, Propane or Dual Fuel
- 11:1 Turndown Ratio
- Sidewall or Conventional Vent Capabilities
- ASME 150 PSIG Working Pressure Certified
- UL, CUL Listed, FM Compliant, ASME Coded
- UL, CUL Listed for Alcove Installation on Combustible Flooring
- Quiet Operation throughout Firing Range
- Internal Low Water Cutoff and Dual Over Temperature Protection
- Compact Space Efficient Design
- Precise Temperature Control +/- 2°F
- Optional Sealed Combustion

### KC-1000 Specifications

BTU Input. . . . . 970,000 BTU/hr (Nat. Gas) †  
 1,000,000 BTU/hr (Propane) †  
 Net output @ full input . . .834,200-902,100 BTU/H (Nat. Gas)\*  
 860,000-930,000 BTU/H (Propane)  
 ASME Working Pressure . . . . .150 PSIG  
 Electrical Requirement . . . . .120/1/60 20Amp  
 Min. Gas Requirements @ Full Load . . . . .8.8" WC (Nat. Gas)  
 7.7" WC (Propane)  
 Max. Gas Requirements . . . . .14" WC  
 Vent Size . . . . .6" Diameter  
 Water Connections . . . . .4" Flanged 150lb. ANSI

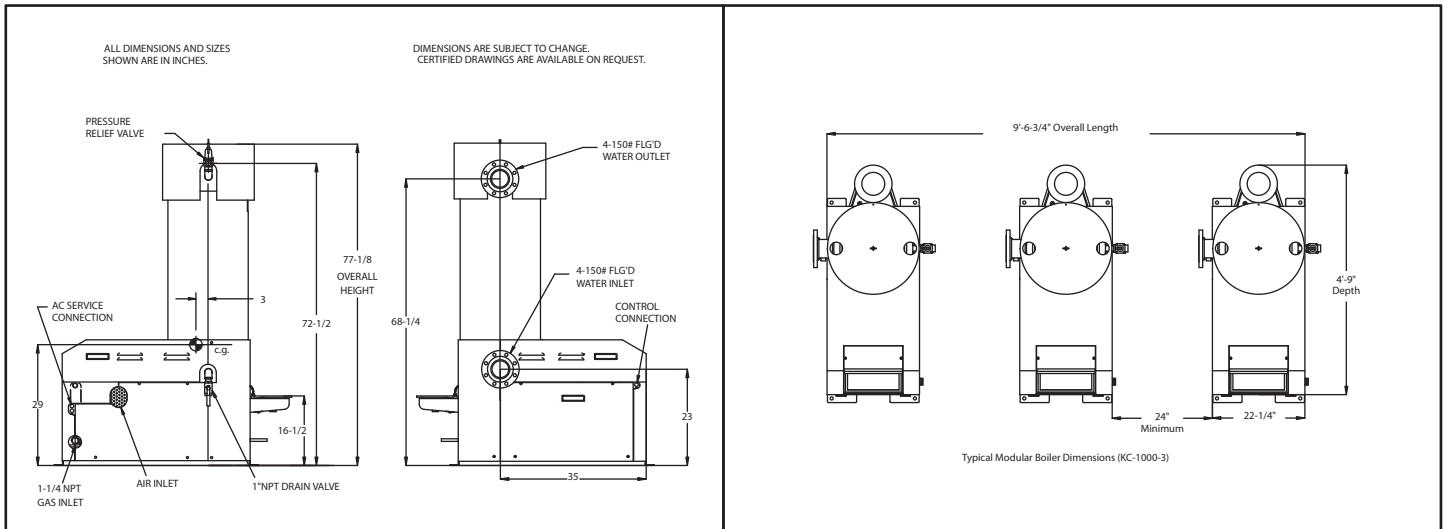
Gas Connection . . . . .1-1/4" NPT  
 Minimum Water Flow . . . . .25 GPM  
 Maximum Water Flow . . . . .150 GPM  
 Water Pressure Drop . . . . .0.23 Ft. 100 GPM  
 Water Volume . . . . .23 Gallons  
 Control Range . . . . .50°F to 220°F  
 NOx Emissions Certification . . . . .SCAQMD, TCEQ  
 Standard Listings & Approvals . . . . .UL, CUL, ASME  
 Optional Approval . . . . .IRI  
 Weight, Installed . . . . .1350 lbs.

\*Output is dependent upon return water temp. and firing rate – see efficiency curves on reverse.

†Up to 2000' Altitude



## Dimensions KC-1000 Boiler



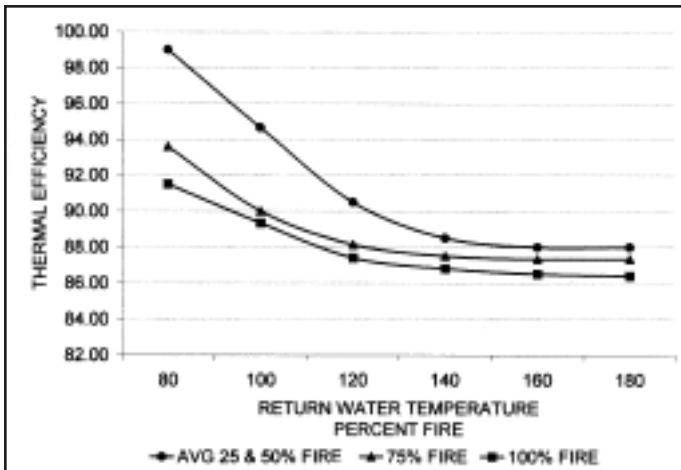
## Ratings and Dimensions

Modules	Model (a)	Mbh Input (b)	Mbh Output (b) (c) (d)	Width (1)	Depth	Height	Weight (wet)
One(1)	KC-1000	970mbh	834mbh-902mbh	1'10"	4'9"	6'8"	1200lbs.
Two(2)	KC-1000-2	1940mbh	1668mbh-1804mbh	5'10"	4'9"	6'8"	2400lbs.
Three(3)	KC-1000-3	2910mbh	2503mbh-2706mbh	9'8"	4'9"	6'8"	3600lbs.
Four(4)	KC-1000-4	3880mbh	3337mbh-3608mbh	13'6"	4'9"	6'8"	4800lbs.
Five(5)	KC-1000-5	4850mbh	4171mbh-4511mbh	17'4"	4'9"	6'8"	6000lbs.
Six(6)	KC-1000-6	5820mbh	5005mbh-5413mbh	21'2"	4'9"	6'8"	7200lbs.
Seven(7)	KC-1000-7	6790mbh	5839mbh-6315mbh	25'	4'9"	6'8"	8400lbs.
Eight(8)	KC-1000-8	7760mbh	6674mbh-7217mbh	28'10"	4'9"	6'8"	9600lbs.

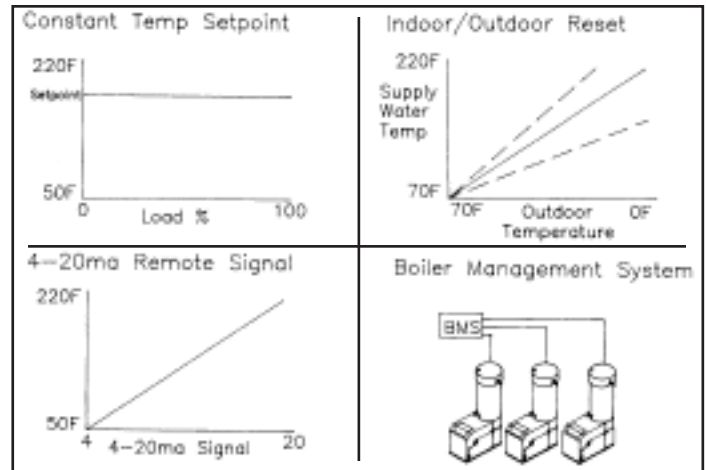
(a) Style to be determined by individual application requirement.  
 (b) Altitude below 2,000'. Apply Altitude Correction Factor above 2,000'.

(c) Output dependent upon application – see efficiency curves.  
 (d) Output shown for natural gas operation.

## Efficiency Curves



## Programmable Modes of Operation



Represented by:

HEAT EXCHANGES • WATER HEATERS • BOILERS  
 CONTROL VALVES • STEAM GENERATORS



HOT WATER SYSTEMS

Specifications subject to change.  
 Consult website or contact AERCO.  
 GFB-2 01/07 5M  
 New DOC 01/07

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