

*AERCO's
Modulex
Line of Boilers*



*The Leader in
High Efficiency Innovation*

AERCO
Heat You Can Bank On

AERCO MODULEX BOILERS



MLX-1060



MLX-909



MLX-757



MLX-606



MLX-454



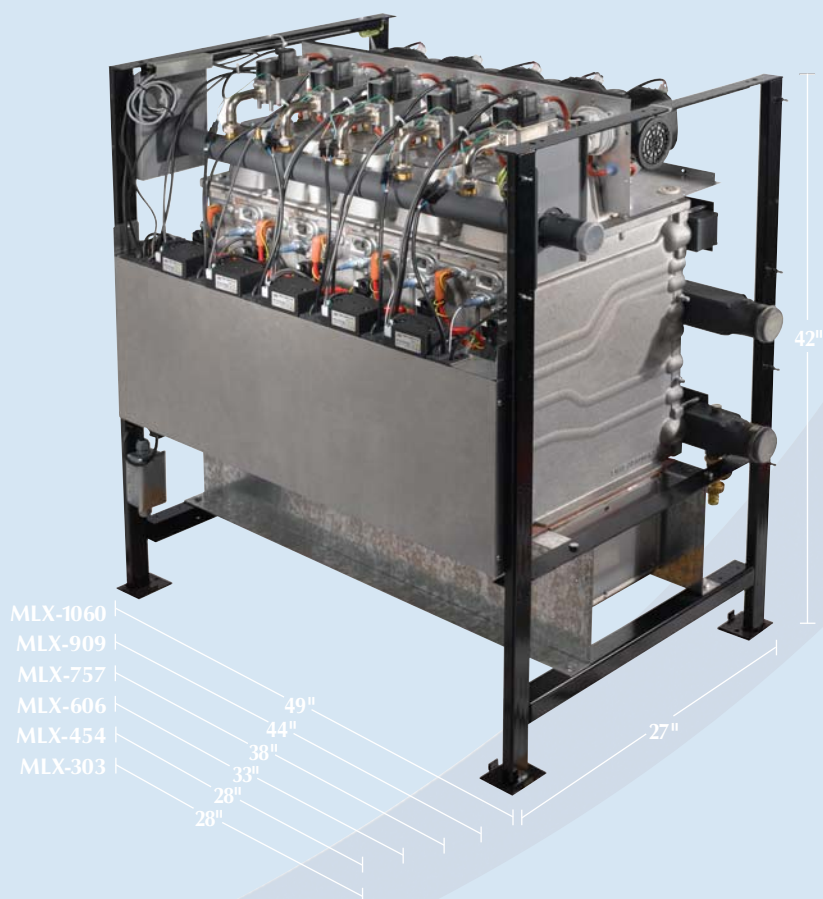
MLX-303

A Breakthrough in High Efficiency Design

AERCO Modulex boilers deliver important new benefits to facility managers and building owners. This new line of condensing and fully modulating boilers brings unprecedented operating reliability and energy efficiency to hydronic heating projects that require a capacity of 300,000 to 1 million BTU/hr. Quiet and compact, these boilers are inexpensive to install, they reduce long-term fuel costs, and offer greater peace of mind.

A unique, multiple thermal module design differentiates AERCO Modulex boilers from others in this class. This truly innovative approach provides a level of built-in redundancy never before available in a single boiler. As with all AERCO gas-fired products, the units deliver superior turndown for a range of noncycling operation and seasonal efficiency that is without equal in the market.

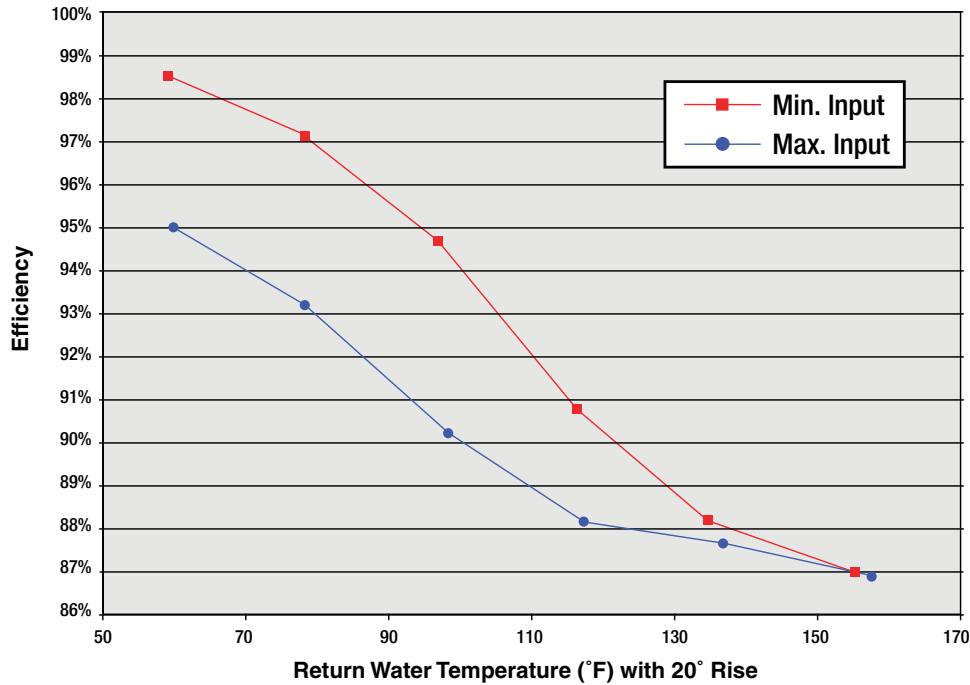
- **Unmatched Turndown – 6:1 to 23:1**
- **Whisper-Quiet Operation – <50 dBA**
- **Low NOx Emissions – <14 ppm**
- **Superior Reliability via Built-In Redundancy**
- **Compact Footprint**
- **Flexible Piping & Venting Connections**
- **Direct or Conventional Vent with PVC**
- **Optional Sealed Combustion**
- **Supports Low Gas Pressure Applications**
- **Natural Gas or Propane Operation**



UNMATCHED EFFICIENCY MAXIMIZES FUEL SAVINGS

AERCO is currently developing comprehensive efficiency curves for the complete line of Modulex boilers using a new, rigorous testing protocol which will be witnessed and reviewed by an independent organization. To measure performance under real-world operating conditions, the test encompasses several fire rates within each unit's full operating range using a variety of return water temperatures and system designs. Until comprehensive, independently confirmed curves are available, the figure below provides boundary data points for MLX-454 efficiency.

Thermal Efficiency of MLX-454



AERCO's superior turndown capability is unmatched in the market. It is the secret to noncycling unit operation for exceptional seasonal efficiency and long component life. In fact, AERCO Modulex units only start to cycle off when loads fall below 45,500 BTU/hr. input.

	MIN. INPUT	MAX. INPUT	THERMAL MODULES	TOTAL TURNDOWN
MLX-303	45,500	303,000	2	6:1
MLX-454	45,500	454,000	3	10:1
MLX-606	45,500	606,000	4	13:1
MLX-757	45,500	757,000	5	16:1
MLX-909	45,500	909,000	6	20:1
MLX-1060	45,500	1,060,000	7	23:1

For even greater fuel savings, an integrated control strategy fully leverages the inverse efficiency profile of the multiple independent thermal modules. In short, as firing rates drop, thermal transfer across each separate heat exchanger will increase. By simultaneously operating multiple thermal modules, each at its lowest firing rate, AERCO Modulex boilers strive to maximize operating efficiency at every load.

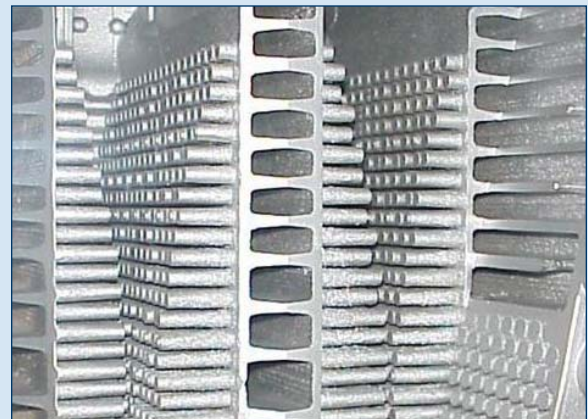
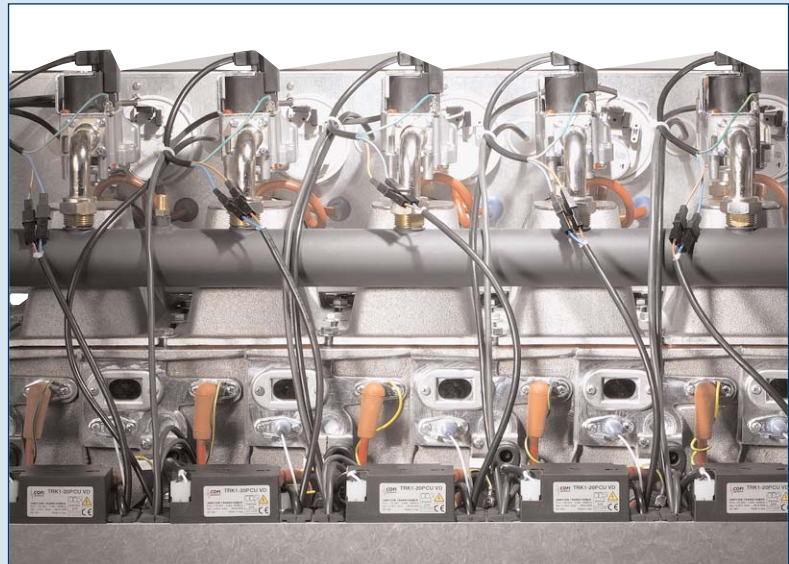
BUILT-IN REDUNDANCY INCREASES OPERATING RELIABILITY

Depending on unit size, each AERCO Modulex boiler contains between two and seven independent thermal modules housed within a common enclosure. This multiple thermal module design delivers the advantages of a multiple-boiler plant in a single package.

The independent modules work together to meet overall demand. And if one module is not working properly, the remaining module(s) – hence, the boiler – will continue to operate. This built-in redundancy adds a measure of operating reliability and customer peace of mind that simply isn't available with other boilers in this size range.

Each stand-alone, 151,500 BTU/hr. thermal module features:

- **Dedicated controller with built-in combustion safeguard**
- **54-Watt variable-speed fan**
- **Modulating gas valve**
- **Electronic ignition with flame detector**
- **Low NO_x, pre-mix burner**
- **Outlet temperature sensor**
- **Overtemperature limiting thermostat**
- **Cast aluminum heat exchanger**
- **Combustion observation port**



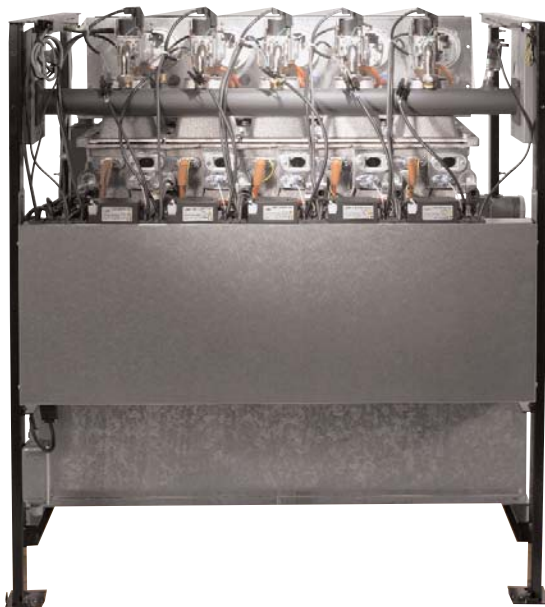
AERCO Modulex heat exchangers are constructed of aluminum to deliver the corrosion resistance of stainless steel—with an even higher heat transfer coefficient—in a one-piece, fully cast design.

Each unit is also equipped with a Boiler Communications Module that supports integration with Building Automation Systems. For added reliability, it will take over control of the boiler should the unit's master controller fail.

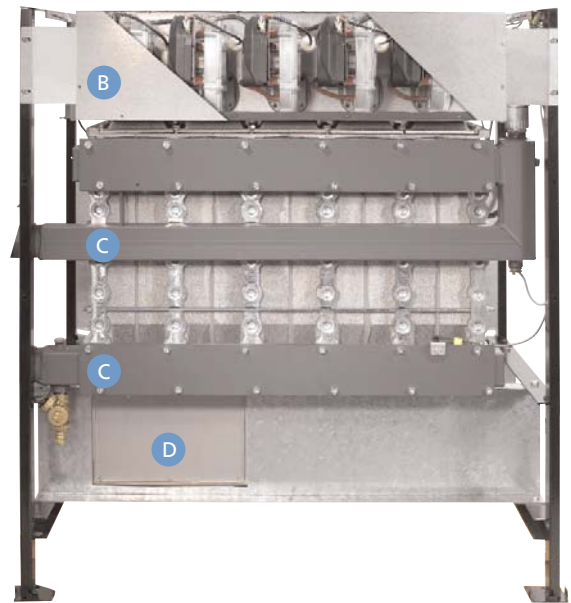
FLEXIBLE DESIGN SIMPLIFIES INSTALLATION

At <50 dBa, AERCO Modulex boilers are whisper-quiet and can be installed in noise-sensitive environments such as schools, nursing homes, hospitals, etc. All units fit through a standard doorway and support a variety of piping and venting configurations for maximum installation flexibility. Units are approved for installation on combustible flooring with zero side clearance.

To reduce cost and complexity, AERCO Modulex boilers support sealed and conventional combustion, and are CSA-listed for use with small-diameter PVC combustion air and exhaust venting through ceiling or sidewall.



MLX-757 Front View



MLX-757 Rear View

- A** Gas connection from left or right
- B** Combustion air connection from left, right, or rear
- C** Water connections from left or right
- D** Exhaust gas connection from left, right, or rear

ENVIRONMENTALLY RESPONSIBLE DESIGN

AERCO Modulex boilers address the stringent environmental requirements associated with many of today's installations. To satisfy low NO_x specifications, the units are SCAQMD- and TCEQ-certified to deliver <14 ppm of NO_x corrected to 3% excess oxygen **at all firing rates**.

EASY TO USE AND MAINTAIN

Ease of use is critical in many building installations, so AERCO Modulex boilers have been designed with simplicity in mind. The user-friendly control panel is located on the front of each unit and no special operator training or certification is required. Maintaining and servicing the boiler is just as easy. The unit enclosure features:

- **Easy snap-off panels that don't require tools for removal**
- **Individual combustion view ports for each thermal module**
- **Convenient top-lift access to fireside of cast for inspection and cleaning**
- **Access to key components from the front/top of each waist-high unit**

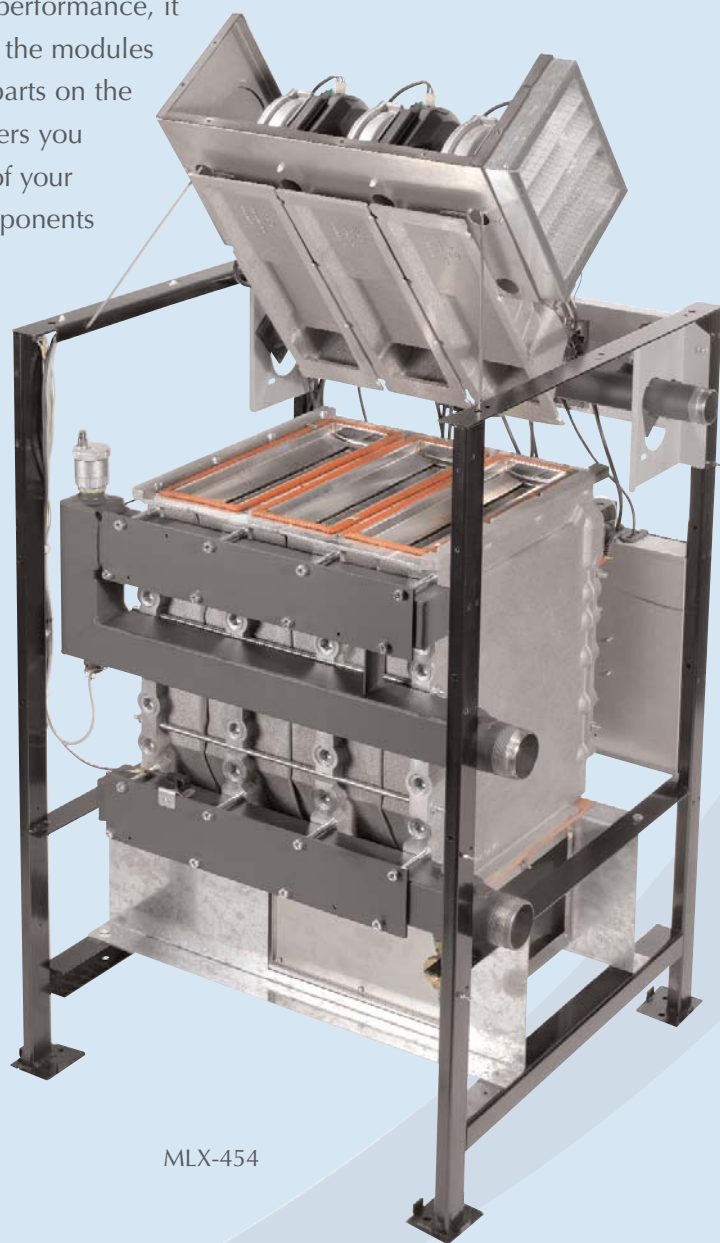
AERCO's multiple-module design not only improves performance, it also reduces your investment in spare parts. Since all the modules are identical, you need only one set of replacement parts on the shelves – no matter how many AERCO Modulex boilers you have installed. And regardless of the overall capacity of your boiler plant, the investment for these small-sized components is minimal.



Digital controller display



Burner lifts out easily for fireside inspection



MLX-454



SALES REPRESENTATIVES THROUGHOUT THE WORLD

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

AERCO INTERNATIONAL, INC. • NORTHVALE, NJ 07647
201-768-2400 • FAX 201-768-7789 • 1-800-526-0288
www.aerco.com • email: info@erco.com