# FUTER XLF

High Efficiency Water Heaters and Boilers

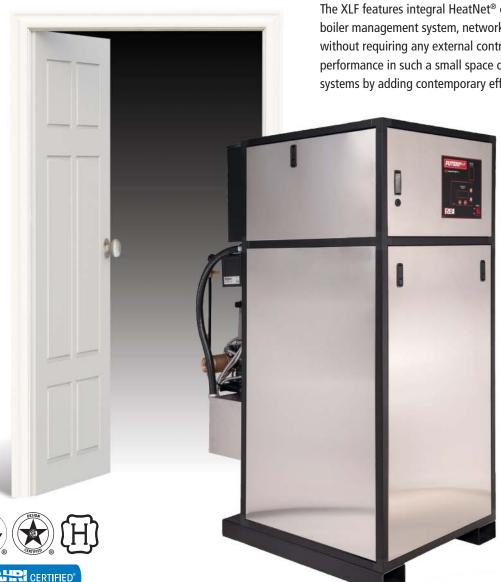


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## **Efficient Power, Sized to Your Vision**

The Futera XLF is designed with 5-to-1 turndown, up to 88% efficiency, and backed by RBI reliability and ease of service. Those are just a few of the ways we are helping you solve today's commercial design challenges. And having double the power in the same compact dimensions — width, depth, and height — doesn't hurt either.



The XLF features integral HeatNet® control that can act as a boiler management system, networking up to sixteen units without requiring any external control panel. Such advanced performance in such a small space can benefit older boiler systems by adding contemporary efficiency for either heating systems or domestic hot

water. For new construction, XLF makes possible a modular configuration that is unmatched for output relative to size. It can even be networked with other boiler types, including condensing units: adding XLF to a condensing installation can reduce the number of condensing units required to meet load during peak heating months, when condensing units' efficiency drops. This application, called base loading or front-end loading, can significantly reduce first costs without compromising fuel efficiency.

## **Smart Controls, Simplified Diagnostics**

The Futera XLF comes standard with HeatNet on board, ready on installation for a variety of configurations: standalone, part of a Master/Member network using HeatNet protocol, member in a system for up to 16 boilers, or linked to a BMS. HeatNet maximizes turndown rates to maintain peak efficiency utilizing four temperature sensor inputs: outside air, supply (outlet) temperature, return (inlet) temperature, and header temperature. It eliminates wall-mounted control panels and offers an easy-to-read display and intuitive control menus.





Easy access to control and diagnostic components speeds installation and service



XLF simplifies service with a special manometer diagnostic port that allows technicians to take multiple pressure readings from a single connection: pilot gas, pilot air and Ps signal

Four-button touchpad with plain-English display and intuitive menus simplifies programming and diagnostics



## The Turbo Pilot®, Rugged & Reliable

Another investment in the reliable performance that's built into the XLF is its patent-pending Turbo Pilot system. Far more durable than any Hot Surface Ignition and more robust than a simple direct spark system, the Turbo Pilot gives burner ignition a sure, powerful source. UV detection keeps system diagnostics informed about performance; a technician can also use the observation port to confirm spark/flame without removing the pilot or burner assembly. And if maintenance does need to be performed, a few seconds is all that's needed to pull, clean, or adjust the pilot.



### Big-Time Components, Small Diameter Vent

Like all RBI products, the Futera XLF is built with the highest-grade components and materials. The heat exchanger's solid bronze headers prevent rust and corrosion for the life of the unit. XLF's symmetric air/fuel coupling provides a high degree of safety while ensuring consistent combustion quality regardless of changes to fuel or air flow. In addition to its compact dimensions enabling 2.5 to 5 million Btuhs to be installed in a small space, its small vent diameter is easy to work with and reduces vent material costs. Removal of top and front panels is simple, streamlining installation and service.

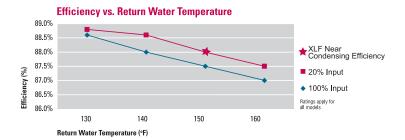
Whether to add efficient low-demand output to a larger existing system, or to build a highly space- and energy-efficient heat and hot water system from the ground up, the RBI Futera XLF gives you the power to develop a solution that fits any design.

#### **STANDARD FEATURES**

- 2,500 5,000 MBH
- Finned copper tube heat exchanger, ASME 160 psi max WP, 4-pass design
- Stainless steel jacket panels
- Cast iron headers (boilers)
- Bronze headers (water heaters)
- Variable speed blower
- Digital text annunciator
- Mounted & wired flow switch
- Mounted & wired low water cutoff
- Quick-release service latches
- Multiple venting options
  - Category II or IV
  - Allows differential pressure zones for intake air and exhaust
  - Sealed combustion
  - Direct vent
  - Common venting of multiple boilers
- Seismic restraint base assembly
- HeatNet integrated boiler management system
- Modbus protocol for BMS communications
- Turbo Pilot (patent-pending design)
- Honeywell RM7800 Series flame safeguard

#### **OPTIONAL FEATURES**

- Cupro-Nickel Finned Tubes
- Freeze protection package
- BACnet or LonWorks interface module
- Honeywell keyboard display module \$7800
- Outdoor sensor with housing



#### **DEPENDABLE, EFFICIENT PERFORMANCE**

- High efficiency, up to 88%
- Full modulation with smooth, 5:1 turndown
- Sealed combustion/direct vent
- Symmetrically air/fuel coupled
- Commercial-quality combustion controls
- Linked operating control system for multiple unit applications
- Gasketless heat exchanger assembly
- Low NOx

# A Small Step that Makes Big Plans Possible

The demands of the market change—more energy efficiency, less mechanical room space—and your plans need to change with them. Making a sizable difference in this evolving market is difficult. But the latest innovation from RBI will bring your project's design challenges down to size.

We take pride in engineering a higher degree of performance from our boilers and water heaters.

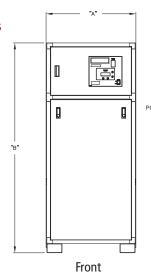
But what architects, engineers, installers, and building owners take from it is something else entirely: a better way to get their job done.

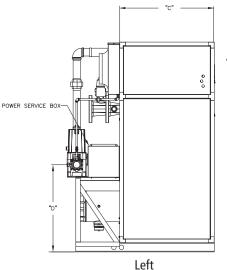
With the Futera XLF, a new level of performance will help change the way mechanical room space is planned for—and how domestic hot water and hydronic heat load is accounted for.

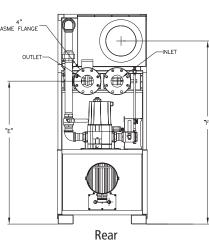
#### **FUTERA XLF**

#### **Dimensions & Ratings**

**NOTE**: Dimensions are approximate and should not be used to "rough-in" equipment.







<u>Models</u>

MB = Boiler

MW = Water Heater

Futera XLF Series — Dimensions												
	A B		3	С		D		E		F		
Size	ln.	cm	ln.	cm	ln.	cm	ln.	cm	ln.	cm	ln.	cm
2500	29-1/8	74.0	55-1/2	141.0	31-1/8	79.1	40-1/4	102.2	33-5/16	84.8	46-1/2	118.1
3000	29-1/8	74.0	60	152.4	31-1/8	79.1	44-3/4	113.7	37-13/16	96.0	51	129.5
3500	29-1/8	74.0	64-1/2	163.8	31-1/8	79.1	25-9/16	64.9	42-5/16	107.5	55-1/2	141.0
4000	29-1/8	74.0	69	175.3	31-1/8	79.1	28-5/8	72.7	46-13/16	118.9	60	152.4
5000	29-1/8	74.0	78	198.1	31-1/8	79.1	28-5/8	72.7	55-13/16	141.8	69	175.3

Futera XLF Series — Ratings*and Dimensions											
	Input		Boiler Output				Conne	ctions	Shipping Weight		
Size	МВН	kW	MBH	kW	Flue Vent	Air Intake	Gas	Water	lbs.	kgs.	
2500	2500	733	2148	629	8"	8"	1-1/2"	4"	1300	590	
3000	3000	879	2568	752	8"	8"	1-1/2"	4"	1400	635	
3500	3500	1026	3000	879	10"	10"	2"	4"	1510	685	
4000	4000	1172	3432	1006	10"	10"	2"	4"	1570	712	
5000	5000	1465	4255	1247	12"	12"	2"	4"	2000	908	

<sup>\*</sup>Ratings reflect boilers only. For boiler efficiency information please visit www.ahridirectory.org.

Futera XLF Series Boilers — Temperature Rise/Pressure Drop																
	20°F		11.1°C		25°F		13.9°C		30°F		16.7°C		35°F		19.4°C	
	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop
Size	GPM	Ft	∆L/s	kPa	GPM	Ft	$\Delta$ L/s	kPa	GPM	Ft	∆L/s	kPa	GPM	Ft	∆L/s	kPa
2500	217.5	10.05	13.7	29.6	174.0	6.45	11.0	19.0	145.0	3.71	9.1	10.9	124.3	2.79	7.8	8.2
3000	261.0	15.20	16.5	44.8	208.8	9.73	13.2	28.7	174.0	6.75	11.0	19.9	149.1	4.65	9.4	13.7
3500	304.5**	20.26	19.2	59.7	243.6	13.40	15.4	39.5	203.0	9.56	12.8	28.2	174.0	7.19	11.0	21.2
4000	-	-	-	-	278.4**	17.30	17.6	51.0	232.0	12.00	14.6	35.4	198.9	10.48	12.5	30.9
5000***	-	-	-	-	-	-	-	-	290.0**	21.20	18.3	62.5	248.6**	19.7	15.7	58.0

<sup>\*\*</sup>Flow exceeds recommended maximum; use a greater temperature rise or consult manufacturer. Cupronickel heat exchanger should be considered.

<sup>\*\*\*</sup>Cupronickel heat exchanger standard on 5000 model only.

	Futera XLF Series Water Heaters — Hourly Recovery Capacity ∆T (GPH & LPH)													
Size	40°F	22°C	60°F	33°C	80°F	44°C	100°F	56°C	120°F	67°C	140°F	78°C		
2500	6445	24397	4297	16265	3223	12199	2578	9759	2148	8132	1841	6971		
3000	7707	29175	5138	19450	3854	14587	3083	11670	2569	9725	2202	8336		
3500	9002	34077	6001	22718	4501	17038	3601	13631	3001	11359	2572	9736		
4000	10300	38990	6867	25993	5150	19495	4120	15596	3443	12997	2943	11140		
5000	12770	48340	8513	32227	6385	24170	5180	19336	4253	16113	3649	13811		



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In the interest of product improvement, RBI reserves the right to make changes without notice.

