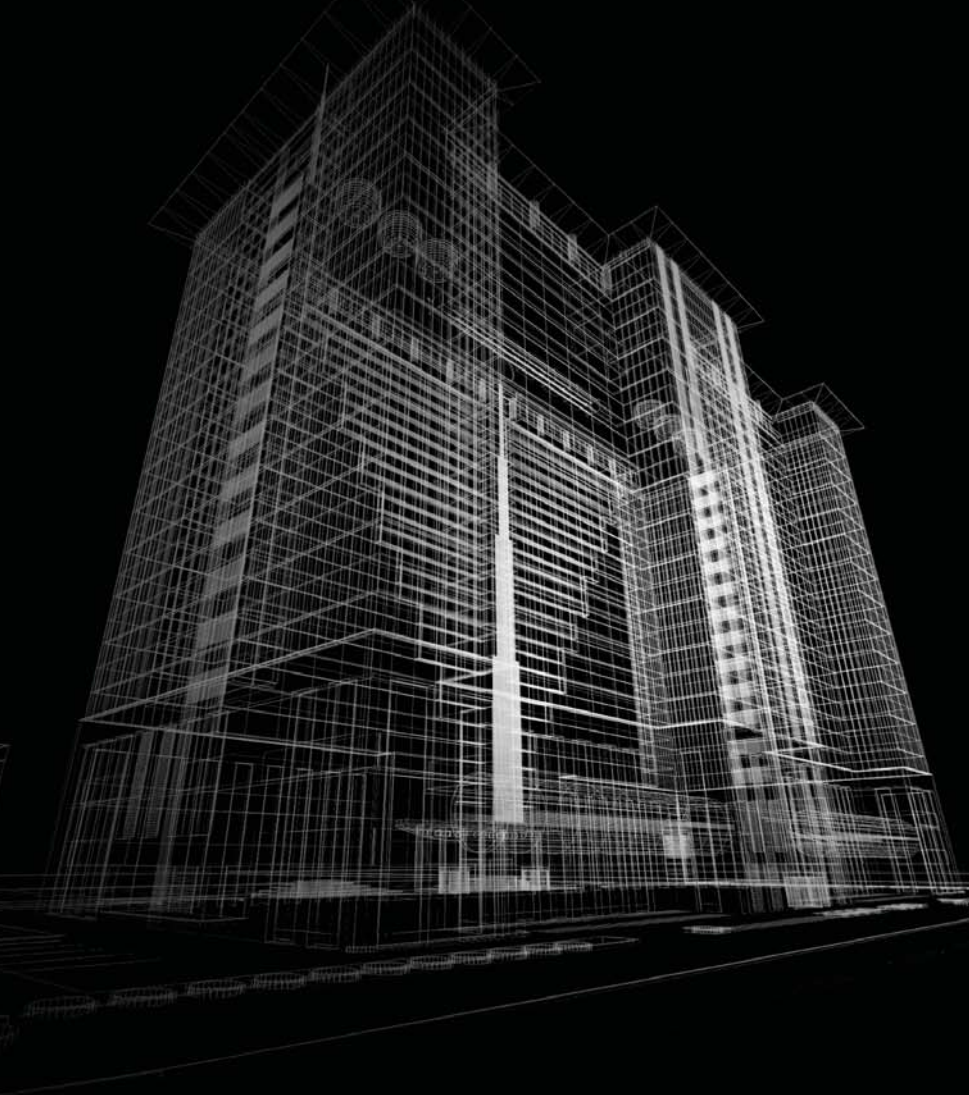


FUTERA^{III} **MODULATION**

Domestic Hot Water Heaters and Boilers





Full Modulation, High Efficiency Hot Water Supply and Hydronic Heating Boilers

The gas-fired Futera III brings the field-proven performance of Futera Series boilers and water heaters to even higher levels of efficiency and reliability. Featuring full modulation with 4:1 turndown, the Futera III supplies the precise amount of heat necessary to maintain desired building temperature by matching heating demand without over-firing and wasting energy.

These dependable, easy-to-service boilers feature rugged construction and sleek, stainless steel jacket design. Models range from 500 – 1999 MBH. If you're looking to maximize efficiency, reliability and flexibility in domestic hot water and hydronic heating applications, the Futera III is your heating solution.

If you're looking to maximize operating efficiency, reliability, and flexibility in domestic hot water and hydronic heating applications, the Fusion Series is your heating solution.

Standard Features

- 500 – 1999 MBH
- Finned Copper Tube Heat Exchanger, ASME 160 psi Max WP, 4-Pass Design
- Stainless Steel Jacket Panels
- Bronze Headers – Water Heaters
- Cast Iron Headers – Boilers
- Variable Speed Blower
- Digital Text Annunciator
- Mounted & Wired Flow Switch
- Flame Safeguard Control
- Quick-Release Service Latches
- Small Vent Sizes
- Seismic Restraint Base Assembly
- Heatnet Integrated Boiler Management System
- Modbus Protocol for BMS Communications



Dependable, Efficient Performance

- High Efficiency, up to 88%
- Full Modulation with Smooth, 4:1 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

Optional Features

- Cupro-Nickel Finned Tubes
- Freeze Protection Package
- BACnet or LonWorks Interface Module
- Honeywell Keyboard Display Module S7800
- Outdoor Sensor with Housing
- Outdoor Installation





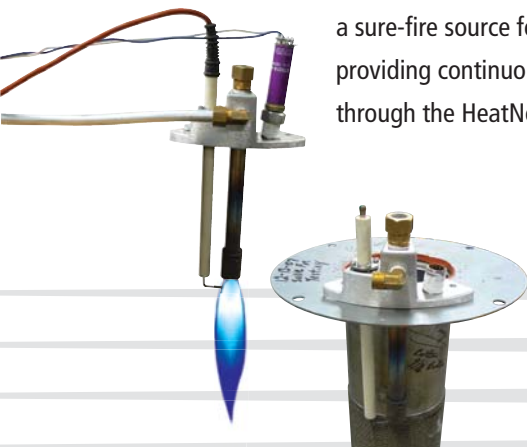
Smart Service Design

Large capacity in a small footprint offers greater flexibility and ease of installation in a space-saving design that leaves more elbowroom in the mechanical room. The rugged framework base is designed to fit through a standard doorway. A variety of venting options provides added installation flexibility. Quick-release latches allow for easy access to all components to make short work of service and maintenance.

The Turbo Pilot®: Reliability At Its Best

Futera's independent "Turbo-Pilot" system with UV detection is far more durable and reliable than any competitive ignition system available today.

At 8,000 btu's the "Turbo-Pilot" provides a sure-fire source for burner ignition while providing continuous performance feedback through the HeatNet control platform.



Proven Pilot Ignition System

The Futera III modulation series uses a proven pilot with interrupted spark ignition and UV flame detection. The UV detector and igniter assembly provide highly reliable ignition and easy service. This important design feature provides long-life reliability. An observation port allows easy inspection of the flame at the top of the boiler.

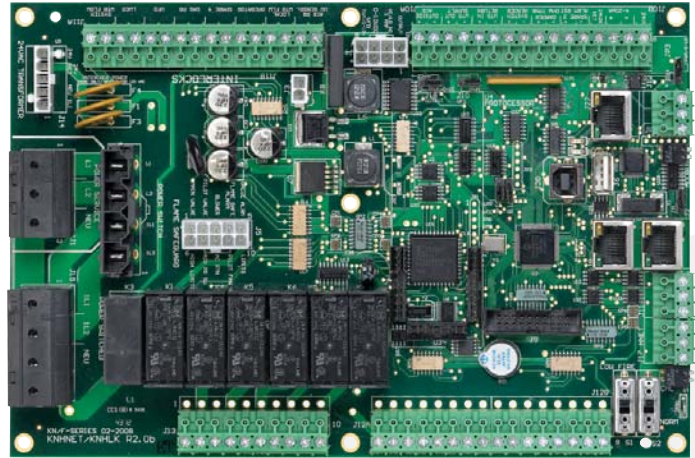
Reliable Heat Exchanger

Quality components include a rugged, 4-pass design, heat exchanger that prevents rust and corrosion for the life of the heater. The unit is also equipped with heavy-duty drain valves. Finned tubes are industrial grade copper with fins and tubewalls formed as one, providing better heat transfer. Each tube is rolled into either all-bronze headers – standard on all Futera water heaters or cast iron headers – standard on all FIII boilers. The tubes are individually field replaceable. The gasketless heat exchanger is superior in design, durability and serviceability – each is hydrostatically tested, approved and stamped for 160 psi ASME operation.



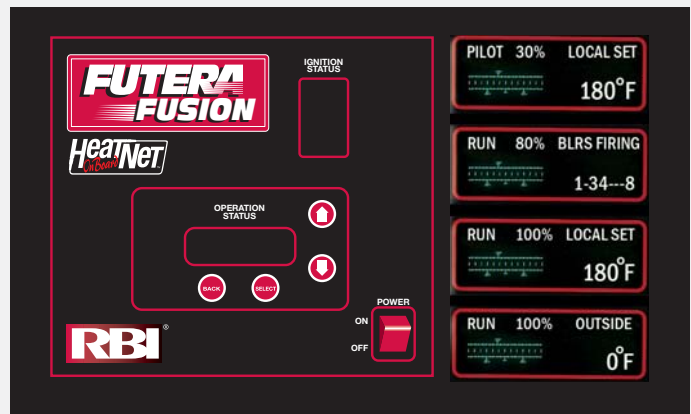


HeatNet controls are built into each Futera III boiler to enhance efficiency and provide constant communication with the Building Management System (BMS). 'On board' in every Futera III boiler, HeatNet eliminates the need for bulky, wall-mounted control panels. HeatNet maximizes operating efficiency and turndown rates to create substantial energy savings for Futera III boiler plants. The control provides flexible operation in a variety of set-up configurations – as a stand-alone boiler, a boiler in a Master/Member network using HeatNet protocol, or as a member in a system for up to 16 boilers.



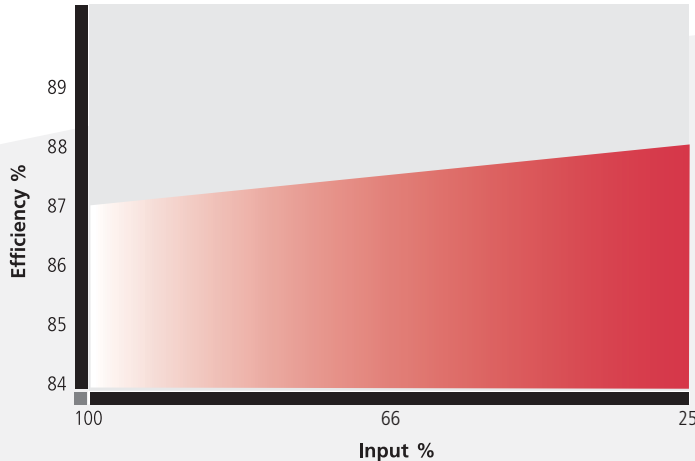
HeatNet provides a higher level of control precision, repeatability and feedback with digital communications control, featuring four (4) temperature sensor inputs: outside air, supply (outlet) temperature, return (inlet) temperature and header temperature. HeatNet is fully compatible with Modbus Building Management System (BMS) protocol.

An optional 'ProtoCessor' board can also be installed for compatibility with BACnet and LonWorks BMS protocols with no redesign of the HeatNet control.



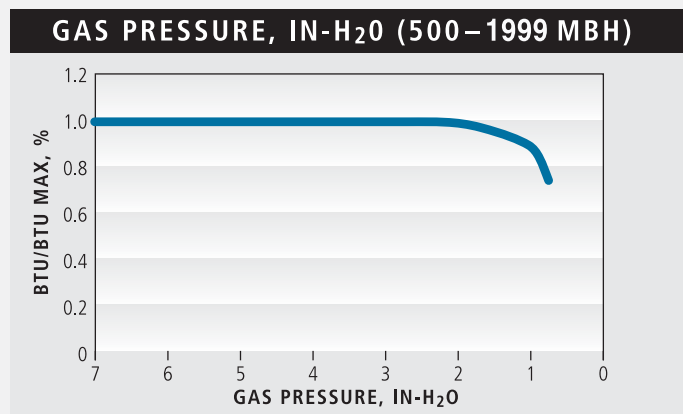
Space-saving Footprint

The compact footprint of Futera III boilers allows for multiple boiler installation while still conserving valuable boiler room space and maintaining ease of access for service and maintenance.



Symmetric Air/Fuel Coupling

The boiler will operate without producing dangerous emissions with the flue or air inlet significantly blocked. The Futera III will react to a change in air or fuel flow, from any cause, by reducing its input while maintaining high combustion quality. This feature, while providing a high degree of safety, reduces sensitivity to flue installation and allows use in areas of variable air inlet pressures with no degradation in performance.



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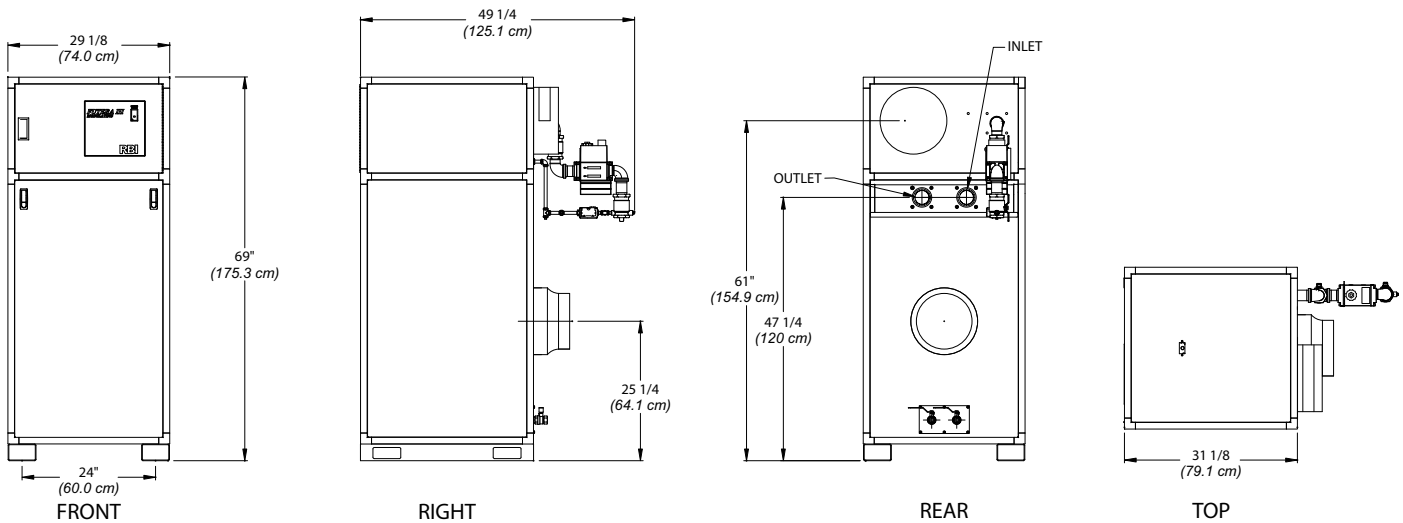
The Futera III provides high tolerance for real world conditions as it maintains 100% full input down to 2"wc.

Advanced gas train design monitors and regulates gas input based on combustion air pressure, which in turn provides highly repeatable air/fuel ratio throughout the operating range.



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

Futera III 2000



Futera III Series — Dimensions and Ratings

Model	Input		Output		Unit Depth		Unit Width		Unit Height		Flue Vent		Air Intake In.	Connections		Shipping Weight	
	MBH	kW	MBH	kW	In.	mm	In.	mm	In.	mm	(Cat II) Negative	(Cat IV) Positive (Up to 60')		Gas In.	Water In.	lbs.	kgs.
MB/MW 500	500	147	435	127	43-1/2	1,104	25-1/8	638	48-1/2	1,231	6"	5"	8	1	2	545	247
MB/MW 750	750	220	653	191	43-1/2	1,104	25-1/8	638	55	1,397	6"	5"	8	1	2	590	268
MB/MW 1000	1,000	293	870	255	43-1/2	1,104	25-1/8	638	61-1/2	1,562	7"	6"	8	1-1/4	2	670	304
MB/MW 1250	1,250	366	1,088	319	49-1/4	1,247	29-1/8	739	55-1/2	1,409	8"	6"	10	1-1/4	2-1/2	815	370
MB/MW 1500	1,500	440	1,305	382	49-1/4	1,247	29-1/8	739	60	1,524	8"	8"	10	1-1/4	2-1/2	855	388
MB/MW 1750	1,750	513	1,523	446	49-1/4	1,247	29-1/8	739	64-1/2	1,638	10"	10"	12	1-1/2	2-1/2	880	400
MB/MW 2000	1,999	586	1,739	510	49-1/4	1,247	29-1/8	739	69	1,752	10"	10"	12	1-1/2	2-1/2	930	422

Futera III Series — Hourly Recovery Capacity ΔT (GPH & LPH)

Model	40°F	22°C	60°F	33°C	80°F	44°C	100°F	56°C	120°F	67°C	140°F	78°C
MB/MW 500	1,306	4,942	870	3,295	653	2,471	522	1,977	435	1,647	373	1,412
MB/MW 750	1,958	7,413	1,306	4,942	9,790	3,706	783	2,965	653	2,471	560	2,118
MB/MW 1000	2,611	9,884	1,741	6,589	1,306	4,942	1,044	3,954	870	3,295	746	2,824
MB/MW 1250	3,264	12,355	2,176	8,237	1,632	6,177	1,306	4,942	1,088	4,118	933	3,530
MB/MW 1500	3,917	14,826	2,611	9,884	1,958	7,413	1,567	5,930	1,306	4,942	1,119	4,236
MB/MW 1750	4,569	17,297	3,046	11,531	2,285	8,648	1,828	6,919	1,523	5,766	1,306	4,942
MB/MW 2000	5,219	19,758	3,480	13,172	2,610	9,879	2,088	7,903	1,740	6,586	1,491	5,645

Futera III Series — Temperature Rise/Pressure Drop

Model	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
	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa
MB/MW 500	43.5	0.55	2.7	1.6	34.8	0.36	2.2	1.1	-	-	-	-	-	-	-	-
MB/MW 750	65.3	1.63	4.1	4.8	52.2	1.08	3.3	3.2	43.5	0.77	2.7	2.3	37.3	0.58	2.4	1.7
MB/MW 1000	87.0	3.59	5.5	10.6	69.6	2.37	4.4	7.0	58.0	1.69	3.7	5.0	49.7	1.27	3.1	3.8
MB/MW 1250	108.8	2.21	6.9	6.5	87.0	1.46	5.5	4.3	72.5	1.04	4.6	3.1	62.1	0.78	3.9	2.3
MB/MW 1500	130.5	3.73	8.2	11.0	104.4	2.46	6.6	7.3	87.0	1.76	5.5	5.2	74.6	1.32	4.7	3.9
MB/MW 1750	-	-	-	-	121.8	3.84	7.7	11.3	101.5	2.74	6.4	8.1	87.0	2.06	5.5	6.1
MB/MW 2000	-	-	-	-	139.2	5.63	8.8	16.6	116.0	4.01	7.3	11.8	99.4	3.02	6.3	8.9



260 North Elm Street, Westfield, MA 01085

Tel. (413) 568-9571 Fax (413) 568-9613

7555 Tranmere Drive, Mississauga, Ontario L5S 1L4

Tel. (905) 670-5888 Fax (905) 670-5782

www.rbiwaterheaters.com



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