FTIIC-15

FUTERA II

DOMESTIC HOT WATER HEATERS AND BOILERS



RBI®

RELIABLE. BOLD. INNOVATIVE.

FUTERA II

Low NOx, High Efficiency, Hot Water Supply and Hydronic Heating Boilers

Futera II hot water supply boilers provide dependable performance with 85% near condensing efficiency, with industry-leading NOx levels of less than 10 ppm.

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





All Futera II units come standard with ZM coated steel corrosion resistant jackets.

Compact, low maintenance design and venting flexibility permit easy installation and service, making the Futera II the perfect choice for virtually any hot water supply application.

Features and Benefits

- Flame Safeguard Control
- Up to 85% Efficient
- Bronze Headers – Water Heaters
- Cast Iron Headers – Boilers
- Finned Copper Tube Heat Exchanger – Four-Pass
- Gasketless Heat Exchanger Assembly
- Stainless Steel Combustion Chamber
- 2-Stage Digital Operator
- Special Alloy Burner
- Less Than 10 ppm NOx
- Compact, Low Maintenance Design
- Venting Flexibility
- CSA Design Certified & Listed (Formally) AGA/CGA
- Proven Pilot (UV Flame Detection)
- Factory Installed ASME Relief Valve
- Outlet Thermometer
- High Limit Control with Manual Reset
- Factory Mounted and Wired Flow Switch
- Low Air Pressure Switch
- Easy Access To All Components
- 5-Year Heat Exchanger Warranty on Water Heaters
- 10-Year Heat Exchanger Warranty on Boilers
- Heat Exchanger Drain
- National Board Certified
- Pump Delay Relay
- CSD-1 and FM Compliant Gas Train

Optional Equipment

- Cupro-Nickel Finned Tubes
- Outdoor Installation
- Thru-Wall Venting
- Direct Venting
- Stainless Steel Jacket
- Barometric Damper
- On-Off Firing
- Freeze Protection Package

RBI Temperature Controller



SP Setpoint or Target Temperature:

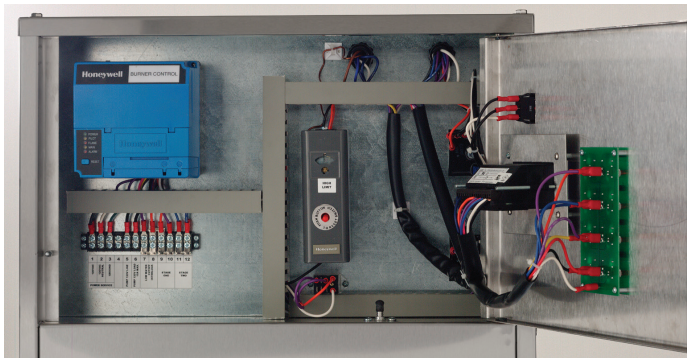
The Setpoint is the inlet water temperature that the operating control will try to match by staging the boiler between 'Off', 'Stage 1' and 'Stage 2.'

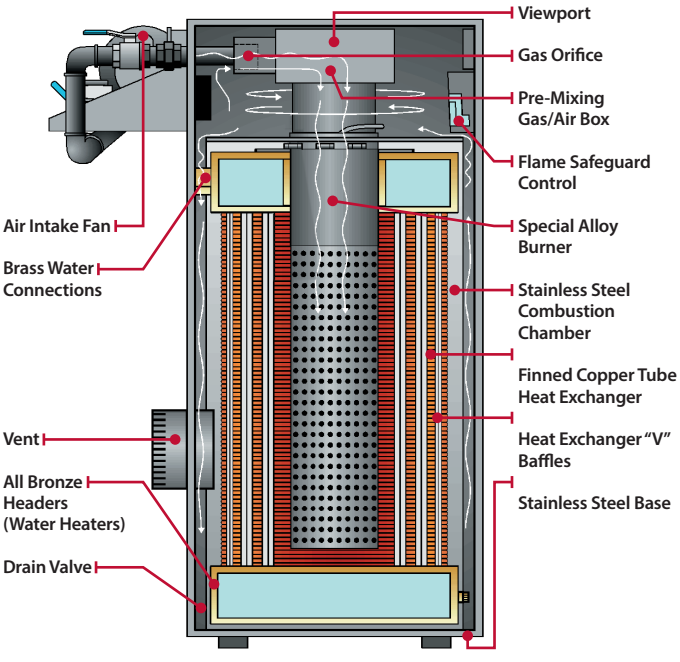
D1 Boiler Differential:
The boiler differential is centered around the setpoint so that when the sensor reads 1/2 of D1 below the setpoint, Stage 1 will be energized. When the sensor reads a temperature 1/2 of D1 above the setpoint, stage will turn off.

D2 Interstage Differential:
The Interstage Differential is the difference in temperature between Stage 1 being called on, and Stage 2 being called on.

Smart Service Design

A Honeywell RM Series Flame Safeguard, limit controls and terminal strips are neatly arranged and easily accessible in the front-facing panel.





Advanced Diagnostic System

The Futera II features an easy-to-read LCD display that provides clear indication of inlet water temperature or setpoint in Fahrenheit or Celsius. The display also provides information for setting temperature control parameters. Advanced troubleshooting and self-diagnostic control provides a step-by-step cycle of operation. Each step is automatically tested and indicated, allowing for simplified and less costly troubleshooting.

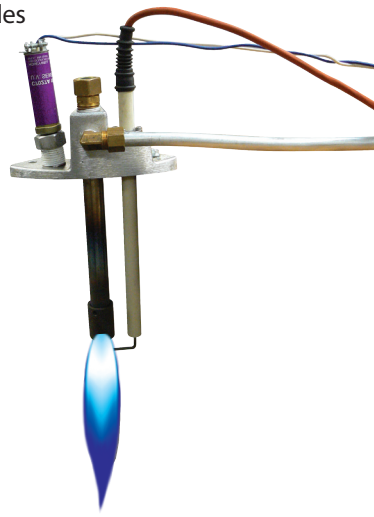
Proven Pilot Ignition System

The Futera II 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.

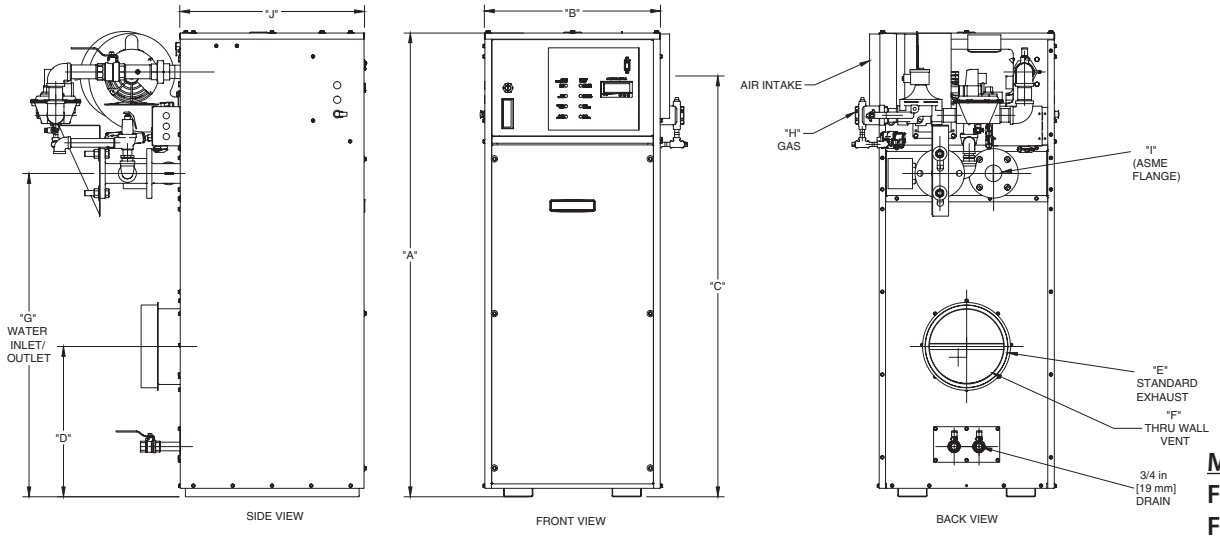
The Turbo Pilot®: Reliability At Its Best

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.







Models
FB=Boiler
FW=Water Heater

Futera II — Dimensions

	A		B		C		D		E		F		G		H	I	J	
Size	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	In.	In.	mm
500	43-1/32	*1,093*	21-9/32	*540*	37-13/16	*960*	11-21/32	*296*	8	*203*	6	*152*	26-3/32	*663*	1	2	22-5/16	*567*
750	49-17/32	*1,258*	21-9/32	*540*	44-9/32	*1,125*	14-21/32	*377*	10	*254*	8	*203*	32-9/16	*827*	1	2	22-5/16	*567*
1000	56-1/32	*1,423*	21-9/32	*540*	50-27/32	*1,291*	18-5/32	*461*	10	*254*	9	*229*	39-1/16	*992*	1-1/4	2	22-5/16	*567*
1250	50-11/16	*1,287*	25-3/16	*640*	44-13/32	*1,128*	16-27/32	*428*	12	*305*	10	*254*	31-13/16	*808*	1-1/4	2-1/2	27-9/32	*693*
1500	55-3/16	*1,402*	25-3/16	*640*	48-25/32	*1,239*	18-29/32	*480*	12	*305*	10	*254*	36-5/16	*922*	1-1/4	2-1/2	27-9/32	*693*
1750	59-11/16	*1,516*	25-3/16	*640*	53-29/32	*1,369*	20-29/32	*531*	14	*356*	12	*305*	40-13/16	*1,037*	1-1/2	2-1/2	27-9/32	*693*
1950	64-3/16	*1,631*	25-3/16	*640*	58-17/32	*1,487*	23-21/32	*601*	14	*356*	12	*305*	45-5/16	*1,151*	1-1/2	2-1/2	27-9/32	*693*

Futera II — Ratings*

	Input		Boiler Output		AMP	Shipping Weight	
Size	MBH	kW	MBH	kW	Draw	lbs.	kgs.
500	500	*147*	425	*125*	5.9	535	*243*
750	750	*220*	638	*187*	5.9	578	*262*
1000	1,000	*293*	850	*249*	5.9	690	*313*
1250	1,250	*366*	1,062	*311*	8.7	775	*352*
1500	1,500	*440*	1,275	*374*	8.7	835	*379*
1750	1,750	*513*	1,488	*436*	10.7	900	*408*
1950	1,950	*571*	1,658	*486*	10.7	960	*435*

Note: Certified South Coast Air Quality Management District (SCAQMD) Protocol Rule 1146.2; Ventura County APCD Rule 74.11.1
* Ratings reflect boilers only. For boiler efficiency information please visit www.ahridirectory.org

Futera II 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	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa
500	42.5	.53	*2.7*	*1.5*	34.0	0.35	*2.1*	*1.0*	–	–	–	–	–	–	–	–
750	63.8	1.57	*4.0*	*4.6*	51.0	1.04	*3.2*	*3.1*	42.5	0.70	*2.7*	*2.2*	36.4	0.60	*2.3*	*1.6*
1000	85.0	3.44	*5.4*	*10.1*	68.0	2.27	*4.3*	*6.7*	56.7	1.60	*3.6*	*4.8*	48.6	1.20	*3.1*	*3.6*
1250	106.3	2.11	*6.7*	*6.2*	85.0	1.40	*5.4*	*4.1*	70.8	1.00	*4.5*	*2.9*	60.7	0.70	*3.8*	*2.2*
1500	127.5	3.57	*8.1*	*10.5*	102.0	2.36	*6.4*	*7.0*	85.0	1.70	*5.4*	*5.0*	72.9	1.30	*4.6*	*3.7*
1750	–	–	–	–	119.0	3.67	*7.5*	*10.8*	99.2	2.60	*6.3*	*7.7*	85.0	2.00	*5.4*	*5.8*
1950	–	–	–	–	132.6	5.14	*8.4*	*15.1*	110.5	3.70	*7.0*	*10.8*	94.7	2.80	*6.0*	*8.1*

Futera II Water Heaters — Hourly Recovery Capacity ΔT (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
500	1,224	*4,629*	816	*3,086*	612	*2,314*	490	*1,851*	408	*1,543*	350	*1,322*
750	1,877	*7,096*	1,252	*4,731*	939	*3,548*	751	*2,838*	626	*2,365*	536	*2,027*
1000	2,500	*9,450*	1,667	*6,300*	1,250	*4,725*	1,000	*3,780*	833	*3,150*	714	*2,700*
1250	3,121	*11,798*	2,081	*7,866*	1,561	*5,899*	1,248	*4,719*	1,040	*3,933*	892	*3,371*
1500	3,741	*14,141*	2,494	*9,427*	1,870	*7,070*	1,496	*5,656*	1,247	*4,714*	1,069	*4,040*
1750	4,359	*16,478*	2,906	*10,985*	2,180	*8,239*	1,744	*6,591*	1,453	*5,493*	1,245	*4,708*
1950	4,976	*18,809*	3,317	*12,539*	2,488	*9,405*	1,990	*7,524*	1,659	*6,270*	1,422	*5,374*

** For water heater efficiency information please visit www.ahridirectory.org.
Boilers & Water Heaters not available for sale in Canada due to NRCan regulations.

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RELIABLE. BOLD. INNOVATIVE.
260 North Elm Street, Westfield, MA 01085
Tel. 833-265-5371
7555 Tranmere Drive, Mississauga, Ontario L5S 1L4
Tel. (905) 670-5888
www.rbiwaterheaters.com
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