

# Elite Fire Tube ULTRA



Highly Efficient **Condensing Boiler & Combi Units**

## Features

### DURABLE HEATING - BOILER & COMBI UNITS

Boiler Firing Rates: 85,000, 110,000, 150,000, 199,000 Btuh

Combi Firing Rates: 110,000, 150,000, 199,000 Btuh

Vertical down fired Stainless Steel Heat Exchanger for exceptional efficiency, low pressure drop, and durable performance

### ABSOLUTE EFFICIENCY

Up to 96% AFUE while using an outdoor sensor (included)

10:1 turndown ratio limits short cycling and provides more efficient energy consumption

Built-in automatic bypass eliminates expensive primary / secondary piping

Equipped with a built-in highly efficient ECM Pump

### WHISPER QUIET OPERATION

Thanks to a pump and combustion fan with insulating panels

### EASY TO USE INTERFACE

LCD display with digits, symbols, and an intuitive menu to easily set the desired temperature, activate functions, and manage different heating zones

### COMBI BOILER: FULL COMFORT SETTING

Domestic hot water preheat function for instant hot water

### SMART CONNECTIVITY WITH HTP LINK

The Elite Ultra boiler is always at your fingertips with a WiFi gateway on board, allowing the boiler and its many system parameters to be monitored remotely

Set up real-time service notifications and maintenance alerts to ensure that the unit is regularly monitored, overdue for maintenance, or if professional assistance is recommended

### EASY TO SERVICE WITH QUICK SNAP COMPONENT AND SENSOR CONNECTIONS

### ASSE 1017 & 1070 CERTIFIED THERMOSTATIC MIXING VALVE INCLUDED WITH COMBI UNITS

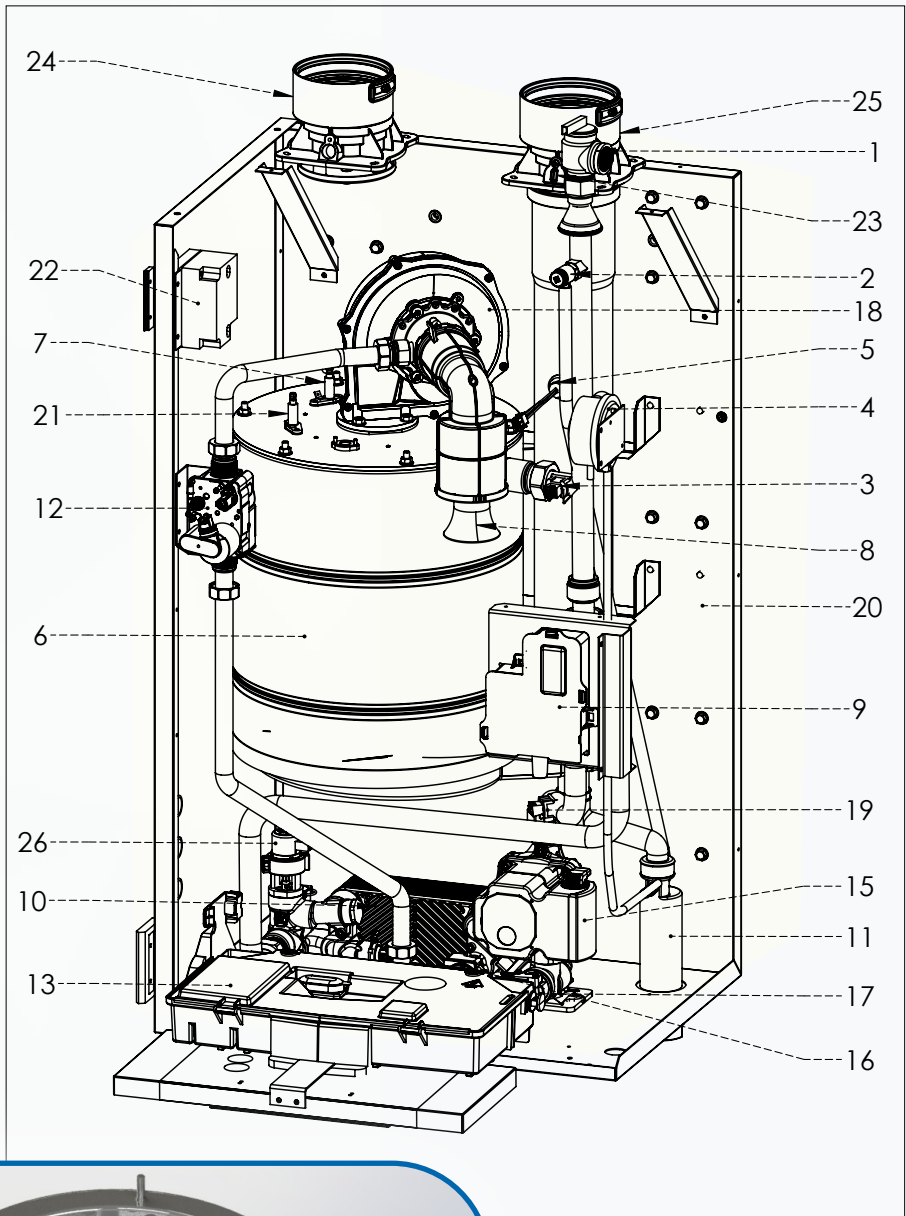
### FIFTEEN (15) YEAR LIMITED WARRANTY



A BRAND OF  **ARISTON**  
THERMO USA

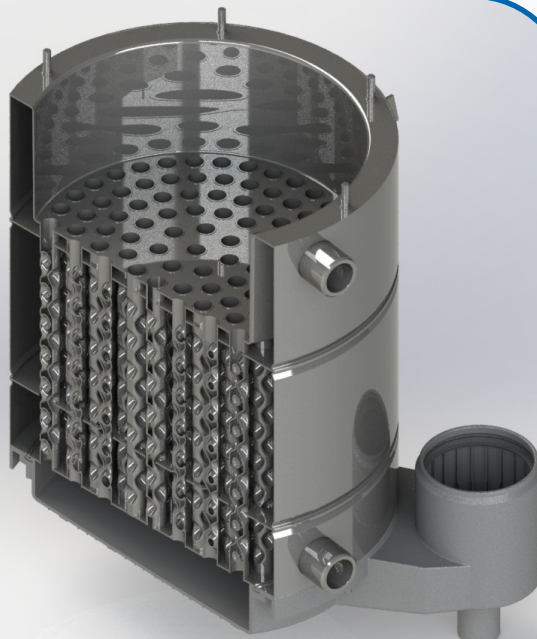
# A Look Inside the EFTU-85 - 199K BTU Combi/Boiler

1. Pressure relief valve
2. Air purge valve
3. Boiler outlet temperature sensor
4. Air pressure switch
5. Flue gas temperature sensor
6. Main heat exchanger
7. Flame detection electrode
8. Silencer
9. Junction box
10. DHW Heat Exchanger (Combi Models Only)
11. Condensate trap
12. Gas valve
13. Control panel
15. Circulation Pump
16. DHW Flow Sensor (Combi Models Only)
17. Water pressure switch
18. Modulating Fan
19. Boiler inlet temperature sensor
20. Frame
21. Ignition electrode
22. Spark generator
23. Combustion Analysis Test Point
24. Air intake connection
25. Exhaust vent connection
26. Diverter valve



## Vertical Fire Tube Heat Exchanger

- Features robust SA-240 S43932 Chromium stainless steel
- Down-Fired design resists combustion chamber fouling better than other heat exchanger types
- Resists scale build-up and magnetite formation, increasing heat exchanger life and reducing maintenance
- Innovative dimpled tubes extract more heat while remaining compact, without the need for inserts that degrade over time



## ELITE FIRE TUBE ULTRA



Low Pressure Drop



High Efficiency



Advanced Design

# Water Circuit Diagram

## Combi Models

## Boiler Models

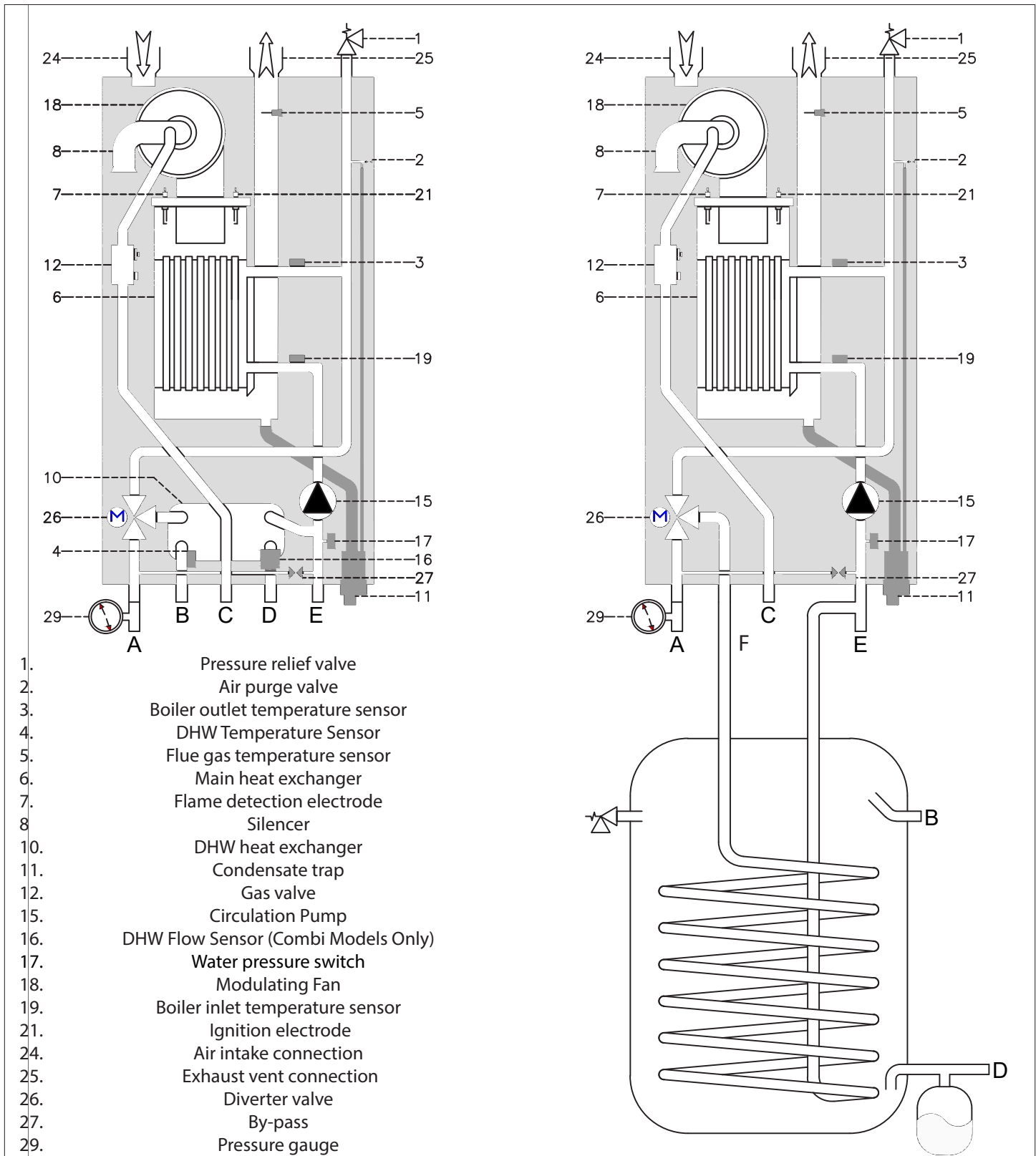


Figure 1 - Water Circuit Diagrams

# Specifications

Model		EFTU-85WBN	EFTU-110WBN	EFTU-150WBN	EFTU-199WBN	EFTU-110WCN	EFTU-150WCN	EFTU-199WCN
Type		Boiler	Boiler	Boiler	Boiler	Combi	Combi	Combi
Installation		Indoor, Wall Hung, Fully Condensing						
Minimum / Maximum Input (Btu/Hr) <sup>1</sup>		8,500 / 85,000	11,000 / 110,000	15,000 / 150,000	19,900 / 199,000	11,000 / 110,000	15,000 / 150,000	19,900 / 199,000
DOE AFUE <sup>2</sup> (%)		96	95	95	95	95	95	95
Heating Capacity <sup>1, 2</sup> (MBH)		79	101	138	184	101	138	184
Net AHRI Rating, Water (MBH) <sup>2</sup>		69	88	120	160	88	120	160
Hot Water Capacity	35°F Rise	N/A	N/A	N/A	N/A	5.8	7.9	10.5
	45°F Rise					4.5	6.1	8.2
	77°F Rise					2.6	3.6	4.8
Flue System		Category IV, Sealed Combustion Direct Vent, Power Vent						
Minimum - Maximum Exhaust Vent Run <sup>3</sup>		2" (6 - 100 feet), 3" (6 - 150 feet)			3" (6 - 150 feet)	2" (6 - 100 feet), 3" (6 - 150 feet)		3" (6 - 150 feet)
Minimum - Maximum Intake Air Pipe Run <sup>3</sup>		2" (0 - 100 feet), 3" (0 - 150 feet)			3" (0 - 150 feet)	2" (0 - 100 feet), 3" (0 - 150 feet)		3" (0 - 150 feet)
Approved Exhaust Vent Materials <sup>3</sup>		PVC, CPVC, PP, Stainless Steel						
Shipping Weight (lbs)		110	110	120	131	110	121	132
Gas Supply Pressure	NG	3.5" to 10.5" WC						
	LP	8" to 13" WC						
Power Supply		120V, 60 Hz, less than 12A						
General Operating Conditions		Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) Product Approvals and Requirements: ANSI Z21.13 / CSA 4.9						
Ignition System		Direct Electronic Spark Ignition / Flame Rectification						
Burner System		Premixed Fuel Modulation / Stainless Steel Burner						
Gas Valve System		Air Ratio Valve						
Dimensions (in Inches)	W	19.75						
	H	38.25						
	D	17		18.5		17	18.5	
Approx. Full Boiler Weight (lbs)		107	107	122	139.5	107	128.5	140.5
Boiler Water Content (Gallons)		1.4	1.4	2.0	2.8	1.5	2.1	2.8
Boiler Setpoint Temperature Range		68 – 122°F Low Temperature / 86 - 179°F High Temperature						
DHW Indirect Setpoint Temperature Range		104 – 149°F						
DHW Setpoint Range (Combi Models)		97 – 149°F						
Water Pressure (PSI)	Heat Exchanger MAWP	50						
	Pressure Relief Valve	30						
	DHW Max Pressure	N/A	N/A	N/A	N/A	150	150	150
Control Panel / Main Controller		AristonThermo LCD Display / AristonThermo GALEVO2 Control						
Connection Sizes	CH Supply / Return	1 1/4" Male NPT						
	DHW Inlet / Outlet	3/4" Male NPT						
	Gas Inlet	3/4" Male NPT						
Materials	Cabinet	Painted Steel						
	Heat Exchanger	SA-240-S43932 Stainless Steel Water Tube						
Safety Devices		Flame Rectifier Probe, Temperature Limit Control (190°F), Water Pressure Switch (Min. 8 PSI), Freeze Protection, Blocked Condensate Pressure Switch, Condensate Trap, Flue Temperature High Limit Sensor (210°F), Blocked Vent Pressure Switch						

**Table 1 - Technical Specifications**

**NOTES:**

<sup>1</sup> Listed Input and Output Ratings are at minimum vent lengths at an altitude of 0 - 2000 ft. Numbers will be lower with longer venting and/or altitudes greater than 2000 ft.

<sup>2</sup> Ratings based on standard test procedures prescribed by the US Department of Energy.

<sup>3</sup> The EFTU requires a special venting system. Use only the vent materials and methods detailed in these installation instructions.



**15 Year Limited Warranty**

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In accordance with our company policy of ongoing product improvement, HTP reserves the right to make changes without prior notice. • Preliminary product specifications