BKBD

ULTRATEC HIGH EFFICIENCY SERIES

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*** Ultra high efficiency** *** 5 year Warranty** *** Four pass design**

*** All stainless steel construction** *** Fully condensing at full output**

www.bkbdboilers.co.uk

The Complete Package Solution

The Ultratec boiler range offers maximum efficiencies and reliability whilst being incredibly simple to maintain. The package includes a high-efficiency fully modulating burner with a microprocessor touchscreen control system that gives the user a vast range of options.

The boiler range includes 9 different models with outputs ranging from 0.5 to 6 MMBTU/hr (147 - 1758kW) that can be fired on Gas, Oil or Dual fuel. The Ultratec is manufactured from 316L Stainless Steel, and is covered by a 5 Year Guarantee on parts.

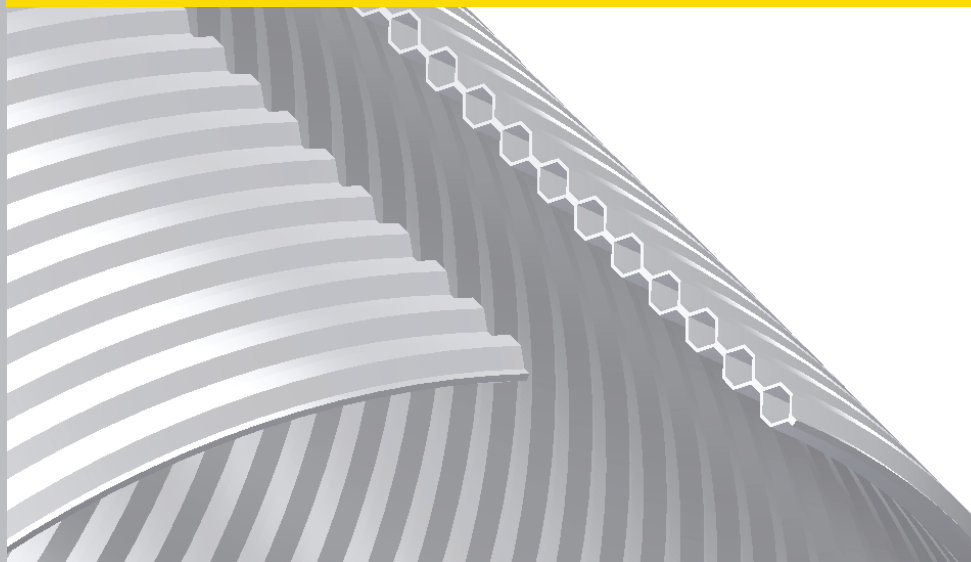
- Tremendous performance and output for its foot print
- Useful heat efficiency of 97% plus
- Patent Numbers GB2552523 & US10760820
- Fully condensing
- Constructed from Stainless steel
- Low NOx @ 3% O2
- Low emission fully modulating burner
- Turndown of 5:1 +
- 4 Pass, wetback, parallel flow design
- Parallel Flow
- Unique tube profile design

- Micro Processor Touch screen control system
- Multiple fuel options
- Minimal maintenance

Unique tube profile design ensures maximum heat transfer

A generous heat transfer surface area for the specified heat input allows for maximum heat transfer through the heat exchanger whilst maintaining low Nox emissions throughout the firing range.

The heat exchanger has been designed to use a parallel flow 4 pass unique tube profile design. This ensures the highest possible heat transfer, whilst guaranteeing corrosion resistance, longevity and absolute minimal service costs.



Gas Or Oil Fired

The Ultratec boiler range has the option to fire on gas, oil or dual fuel applications. The heat exchanger is manufactured from 316L Stainless Steel. The stainless steel offers a high corrosive resistance to the acidic nature of the condensate produced by exhaust gases when firing oil. Using this material enables us to offer a 5 year guarantee.

Modulation

As standard, the Ultratec boiler range is offered complete with a high efficiency fully modulating burner. A turndown of 5:1 + and guaranteed O2 emissions of 3% throughout the range ensures that the burner/ boiler combination is operating at the highest efficiencies possible, providing maximum fuel savings.

On-Off Operation

For the smaller Ultratec boilers up to 1 MMBtu/hr (302kW) we offer an option for an On-Off operating burner. Whilst offering a cost- effective solution for smaller applications, these burners offer the same guarantee on performance of 3% O2. Because they are supplied as a monoblock unit, installation and wiring is simple.

	Imperial	Metric	0.5		0.75		1		2		3	
Boiler Output	MMBTU/hr	kW	0.50	146.54	0.75	219.81	1.00	293.08	2.00	586.17	3.00	879.25
Useful Heat Efficiency @ 80/60°C	%		97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00
Standing losses	%		0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Input (Max)	MMBTU/hr	kW	0.52	151.07	0.77	226.61	1.03	302.15	2.06	604.30	3.09	906.44
Input (Min)	MMBTU/hr	kW	0.10	30.21	0.15	45.32	0.21	60.43	0.41	120.86	0.62	181.29
Flue temperature @ 69°C	°F	°C	180.00	82.20	180.00	82.20	180.00	82.20	180.00	82.20	180.00	82.20
Water Flow Temperature	°F	°C	176.00	80.00	176.00	80.00	176.00	80.00	176.00	80.00	176.00	80.00
Furnace Diameter	"	mm	19.69	500.13	19.69	500.13	19.69	500.13	22.64	575.06	24.61	625.09
Furnace Length	"	mm	24.43	620.52	36.65	930.78	48.86	1241.04	76.18	1934.97	94.49	2400.05
Volume Air into boiler	Cuft/hr	m^3/hr	5750.00	162.82	8625.00	244.23	11500.00	325.64	23000.00	651.29	34500.00	976.93
Volume gas into boiler	Cuft/hr	m^3/hr	515.46	14.60	773.20	21.89	1030.93	29.19	2061.86	58.39	3092.78	87.58
Water flow	US Gal/hr	m^3/hr	3240.00	12.26	4860.00	18.40	6480.00	24.53	12960.00	49.06	19440.00	73.59
Boiler water pressure loss	PSI	mbar	0.29	20.21	0.29	20.21	0.29	20.21	0.29	20.21	0.29	20.21
Weight (wet)	lbs	Kg	537.9	244	701.07	318	885.81	401.8	1155.2	524	1421.98	645
Box dimensions	Height "	mm	47.36	1203.10	50.25	1276.38	52.49	1333.46	56.51	1435.57	60.29	1531.49
	Width "	mm	27.44	697.00	28.77	729.40	29.64	753.0	36.19	919.4	39.79	1010.4
	Length "	mm	43.22	1098.00	52.95	1345.00	58.66	1490.00	82.67	2100.00	97.24	2470.00

	Imperial	Metric	4		5		6	
Boiler Output	MMBTU/hr	kW	4.00	1172.33	5.00	1465.42	6.00	1758
Useful heat Efficiency @ 80/60°C	%		97.00	97.00	97.00	97.00	97.00	97.00
Standing Losses	%		0.06	0.06	0.06	0.06	0.06	0.06
Input (Max)	MMBTU/hr	kW	4.12	1208.59	5.15	1510.74	6.18	2108.61
Input (Min)	MMBTU/hr	kW	0.82	241.72	1.03	302.15	1.23	421.72
Flue temperature @ 69°C*	°F	°C	180.00	82.20	180.00	82.20	180.00	82.20
Water Flow Temperature	°F	°C	176.00	80.00	176.00	80.00	176.00	80.00
Furnace Diameter	"	mm	25.59	649.99	27.56	700.02	31.50	800.10
Furnace Length	"	mm	108.27	2750.06	119.09	3024.89	128.35	3260.09
Volume Air into boiler	Cuft/hr	m^3/hr	46000.00	1302.57	57500.00	1628.22	68937.90	1952.36
Volume gas into boiler	Cuft/hr	m^3/hr	4123.71	116.77	5154.64	145.96	6180.00	175.02
Water flow	US Gal/hr	m^3/hr	25920.00	98.12	32400.00	122.65	38880.00	147.18
Boiler water pressure loss	PSI	mbar	0.29	20.21	0.29	20.21	0.29	20.21
Weight (wet)	lbs	Kg	1675.51	760	2363.3	1072	2724.9	1236
Box dimensions	Height "	mm	61.49	1561.91	66.34	1685.14	69.35	1761.67
	Width "	mm	40.86	1038.00	46.70	1186.40	49.72	1263.00
	Length "	mm	120.86	3070.00	143.42	3643.00	151.81	3856.00

For more information please see the individual datasheet for the size of boiler you require

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Installation

The Ultratec boiler range has been designed to have a minimal footprint to ensure ease of install into most plant rooms. The smaller boilers up to 1 MMB-TU/hr have been specifically designed to easily pass through a standard doorway. All installs will be carried out by a team of trained professionals.

Flue System

Ultratec boilers must be connected to a flue system suitable for use with condensing boilers. The flue should be mounted and angled towards the boiler to ensure that any condensate drains back into the boiler and through the designated drainage ports. When firing on Oil, it is important that a suitable flue material is used to offer resistance against the highly corrosive condensate.

The boilers are designed to be used on a single flue system or a common header for multiple boiler applications.

Flue systems must be designed to ensure balanced conditions at the flue connection on the boiler. A variation of +/- 0.5mbar can have a negative effect on the burner performance, in these instances a draught control system should be used.

System Water

Ultratec boilers must be installed onto a sealed and pressurised system with a minimum static head of 1 bar. The design of the Ultratec boiler ensures turbulent water flow internally to the boiler. This acts as a self- cleaning device of any scale build up on the water side. However it would be advised that System water be dosed with a good quality treatment to prevent scale build up within the boiler, if the system requires plate heat exchangers these must be fitted. Flow detection must also be installed to ensure the flow of water at all times when the burner is firing.

Want to learn more?

Fully operational demonstrations available on request.

Contact us at:

sales@bkbdboilers.co.uk

01959 578 369

BKBD Ltd.
Unit 12 Concorde Business Centre,
Main Road,
Biggin Hill,
Kent,
TN16 3YN.

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