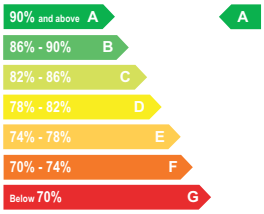
E-CONDENSE YEAR ROUND MAXIMUM CONDENSING WATER HEATER

Burning natural gas or liquid petroleum gas

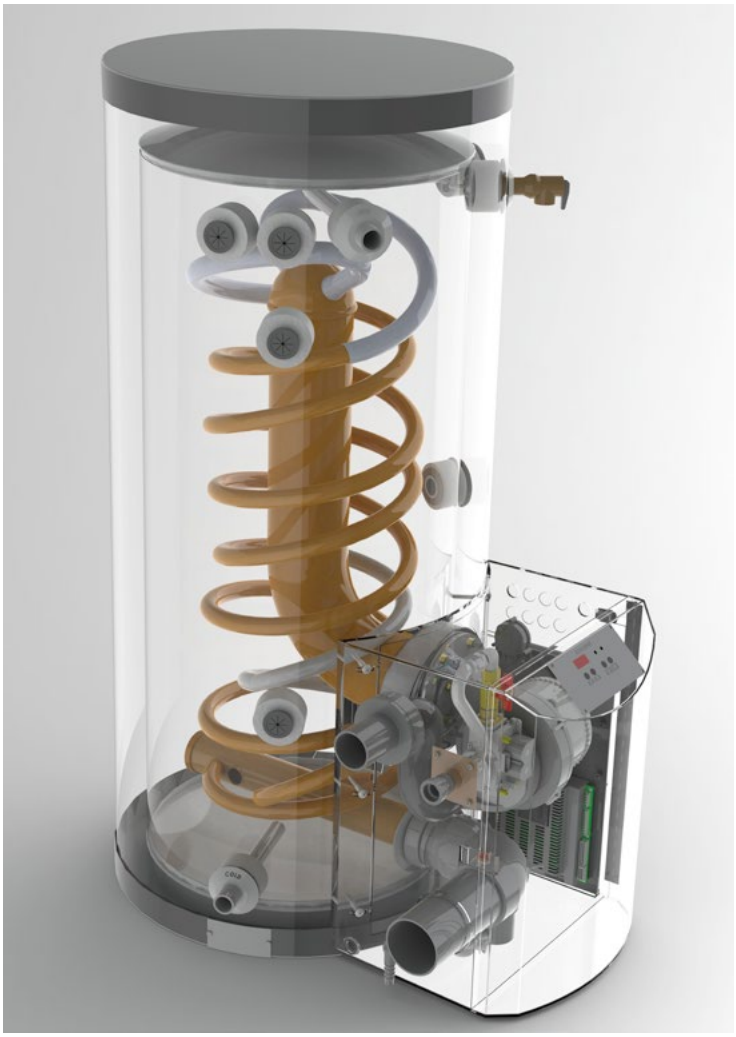
RANGE
17kW to 53kW

542 to 920 litres/hour
@ 60°C

SEDBUK EFFICIENCY RATING 2005
ENERGY RATING "A"



- 96.8% GCV efficiency throughout the year
- Modulating, down to 24% of burner output
- Pre-mix, low NOx (<40mg/kWHr) flame
- Reliable, quiet (<45dBA) operation



- 7BARS maximum working pressure
- 70°C maximum working temperature
- Natural gas or liquid petroleum gas
- Balanced or conventional flues up to 50metres length

ATLANTIC BOILERS
HIGH EFFICIENCY CONDENSING BOILER-PLANT

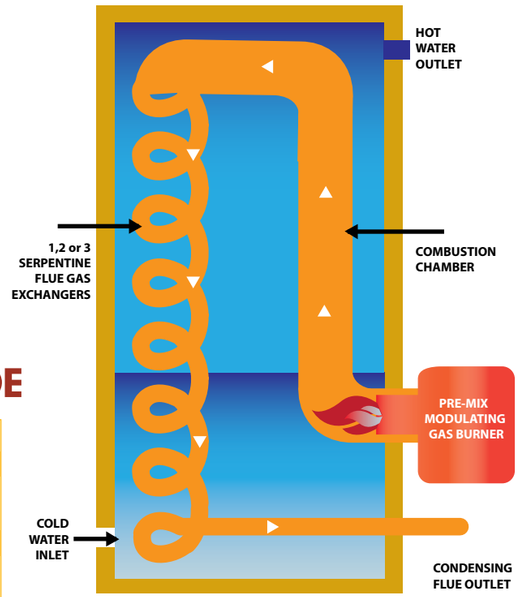
BELAC E1253/5544Rev.3 CE

ABOUT THE ATLANTIC E-CONDENSE WATER HEATER

The ATLANTIC E-Condense year-round maximum condensing water heater has an austenitic stainless steel water storage together with a two-stage heat exchanger, both stages made of a hard-wearing compound of copper and cupro-nickel.

The flue gases enter the vertical passageway of the combustion chamber, transferring dry heat to thewater storage. Then the gases pass down one, two or three serpentine exchangers further transferring heat to the water storage by condensed heat. This high efficiency system works in contraflow and year-round gives condensing heat and ultra-high efficiency using the cold water feed at the base of the water storage.

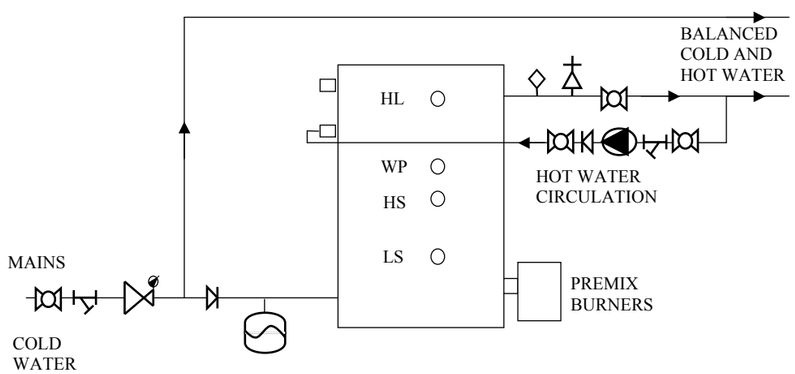
ECONDENSE condensing water heater plus extra in-built solar-heat coil



RULE-of-THUMB SELECTION GUIDE

Model	450-30	450-40	450-55	450-40S	450-55S
Deluxe hotel - en-suites	26	31	39	27	36
Tourist hotel - en-suites	34	41	52	36	46
Deluxe apartments – en-suites	28	36	48	34	46
Norm apartment – en-suites	39	49	65	47	63
Hospitals - beds	54	65	81	57	73
Aged persons – occupants	76	95	123	87	116
University residences occupants	54	69	92	65	8
Large kitchens Number of meals in 1 hour	291	349	437	305	392

E-Condense water heater and circuitry



HL HIGH TEMPERATURE LIMIT
HS HIGH TEMPERATURE CONTROL
LS LOW TEMPERATURE CONTROL
WP WATER PRESSURE

PERFORMANCE

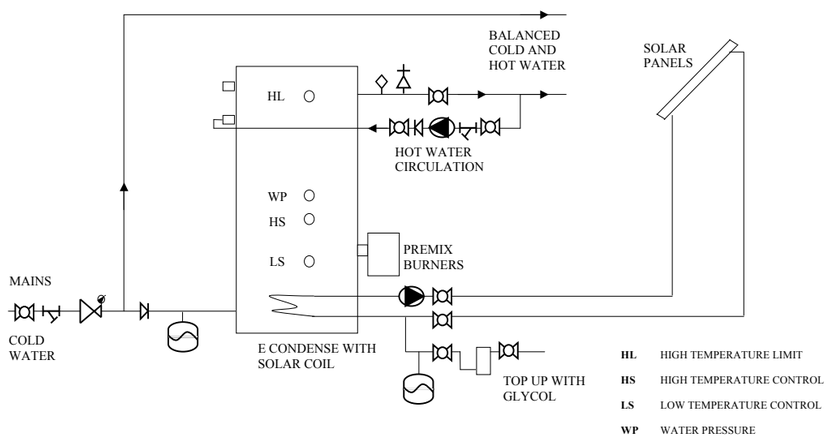
Model	450-30	450-40	450-55	450-40S	450-55S
Maximum heat input	31.5kW	41.0kW	53.0kW	41.0kW	53.0kW
Minimum heat input	7.4kW	9.6kW	12.5kW	9.6kW	12.5kW
Storage litres	429	429	426	426	423
Efficiency GCV	96.8%	96.8%	96.8%	96.8%	96.8%
Efficiency NCV	107%	107%	107%	107%	107%
Standing losses W	218	218	218	218	218
NOx - mg/kWHr	<40	<40	<40	<40	<40
Noise – dBA	<45	<45	<45	<45	<45
Hot water output 10°C to 60°C					
First hour - litres	935	1114	1346	1054	1287
First 10 mins – ltr	425	449	479	390	420
Following hour - ltr	542	705	920	705	920
Heat-up time – mins	47	36	28	36	28
Dry weight – kgs	184	184	184	188	188
Water contents - ltr	429	429	426	426	423
Water pressure - BARS	7	7	7	7	7
Minimum H20 pressure	1	1	1	1	1

DIMENSIONS

Model	450-30	450-40	450-55	450-40S	450-55S
Height mm	1880	1880	1880	1880	1880
Diameter mm	686	686	686	686	686
Depth mm	965	965	965	965	965

CONNECTIONS

Model	450-30	450-40	450-55	450-40S	450-55S
Fresh air inlet	80	80	80	80	80
Natural gas inlet	20	20	20	20	20
Flue gas outlet	80	80	80	80	80
Cold water feed	40	40	40	40	40
Hot water supply	40	40	40	40	40
Hot water spares	40	40	40	40	40
Hot water circulation	40	40	40	40	40
Condensate outlet	15	15	15	15	15



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One E-Condense with solar coil and legionella circuitry serves domestic hot water to a circulating system

SPECIFICATION

The E-Condense is a packaged natural gas or LPG-fired condensing water heater producing up to 1,346 litres per hour at 60°C.

The main component of the heater is a vertical buffer vessel of 430litres capacity

A pre-mix gas modulating burner is mounted horizontally at the base of the water heater.

From the burner, the vertical gas-fired combustion chamber is completely immersed in the water of the buffer vessel.

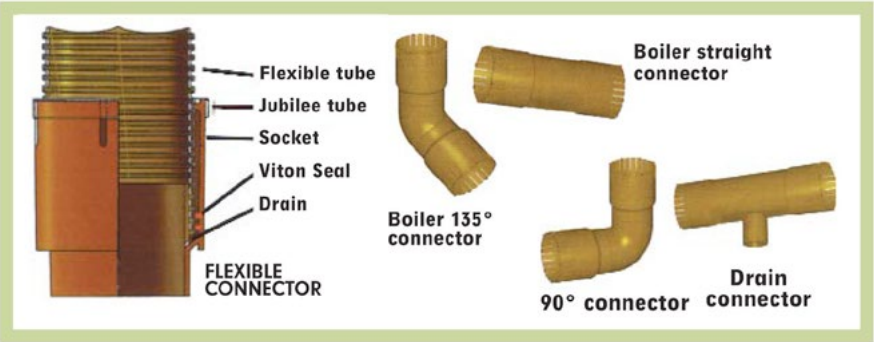
At the top outlet of the combustion chamber, the flue gas products enter one to three serpentine flue ways passing down from high level to low, in contraflow to the water in storage which rises as it is heated.

The E-condense is designed for long life and is highly resistant to corrosion. The buffer vessel is made from 316L austenitic stainless steel; the combustion chamber and the serpentine flue ways are a compound of copper and cupro-nickel.

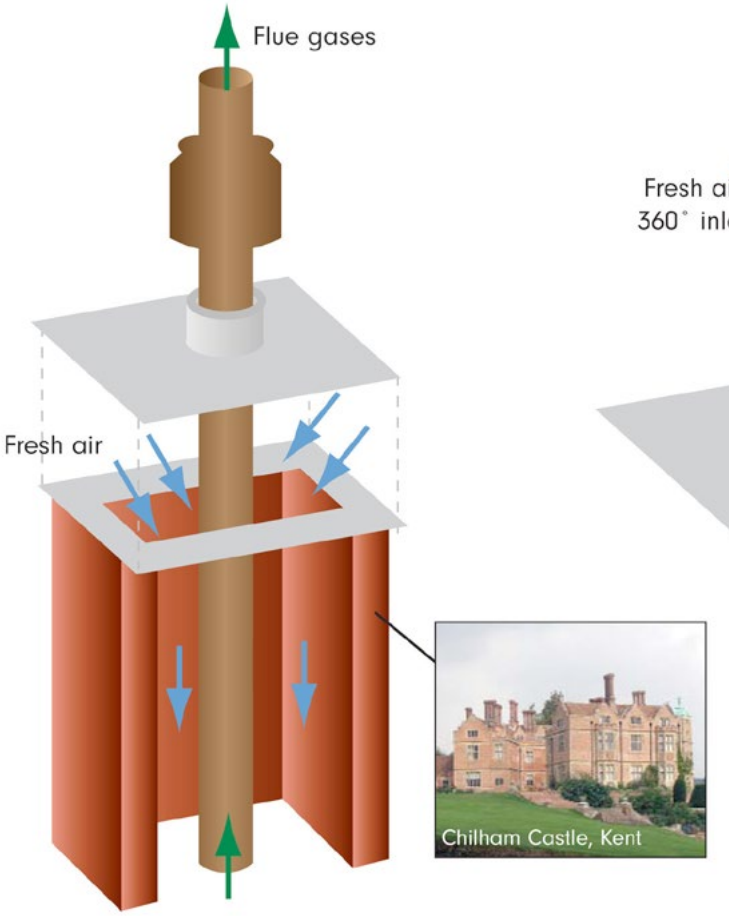
The pre-mix, modulating burner operates with natural gas or LPG, and is controlled by three sensors – at low level, high level and on high limit.

The ATLANTIC E-condense water heater can have either conventional or balanced flues. The boiler flue requirements are economic – as the flue gas exit temperatures are always low, the volume of gases are always greatly reduced throughout the year.

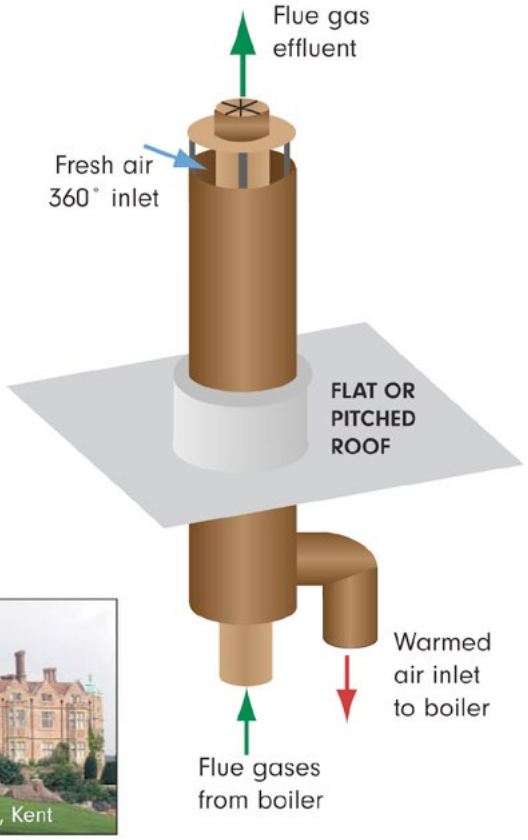
TECHNAFLON condensing flues are precision-made from polyvinylidene fluoride (PVDF) which is extremely corrosion-resistant, hard wearing and not affected by ultra-violet radiation. The flues are also installed without insulation.



Use of brick chimney stack to form vertical balanced flue



Single heater balanced flue for flat or pitched roof



ATLANTIC BOILERS:
PO BOX 11, ASHTON UNDER LYNE, OL6 7TR
Coupled with the supply, ATLANTIC BOILERS provides back-up commissioning, spares and servicing by way of a network of merchants throughout the UK

FOR TECHNICAL HELP/ADVICE Call 0161 621 5960 or email info@atlanticboilers.com

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